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Value-Based Management: Performance Indicators of Value Creation

Alternative Measures to Assess Shareholder Returns

Supervisor
Ch. Prof. Daria Arkhipova

Graduand
Lisa Burcovich
Matriculation Number 862281

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TABLE OF CONTENTS

List of Figures and Tables

Figures

Tables

Glossary

ABC: Activity-Based Costing.

BCG: Boston Consulting Group.

CapEx: Capital Expenditures.

CAPM: Capital Asset Pricing Model.

CE: Capital Employed (or Invested Capital).

CF: Cash Flow.

CFROI: Cash Flow Return on Investment.

CSR: Corporate Social Responsibility.

CSV: Created Shareholder Value.

CVA: Cash Value Added.

DCF: Discounted Cash Flow.

EBIT: Earnings Before Interest and Taxes.

EBITDA: Earnings Before Interests, Taxes, Depreciation and Amortization.

ED: Economic Depreciation.

EPS: Earnings Per Shares.

ER: Excess Return.

EVA: Economic Value Added.

FASB: Financial Accounting Standards Board.

FCF: Free Cash Flow.

FMV: Firm Market Value.

FV: Future Value.

FY: Fiscal Year.

GAAP: Generally Accepted Accounting Principles.

GCF: Gross Cash Flows.

GI: Gross Cash Investment.

GK: Gross Capital.

IRR: Internal Rate of Return.

K_E: Cost of Equity.

LBO: Leveraged Buyouts.

Market Cap: Market Capitalization.

MV: Market Value.

MVA: Market Value Added.

NDA: Non-Depreciating Assets.

NOPAT: Net Operating Profit After Tax.

NPV: Net Present Value.

NWC: Net Working Capital.

OCF: Operating Cash Flow (or Cash Flow from Operations).

PP&E: Property, Plant and Equipment.

PV: Present Value.

RI: Residual Income.

ROA: Return on Assets.

ROE: Return on Equity.

ROI: Return on Investment.

ROIC: Return on Invested Capital.

RONA: Return on Net Assets.

SEC: Securities and Exchange Commission.

Share $P_{Beginning}$: Share Price at the beginning of the reference period.

Share P_{End}: Share Price at the end of the reference period.

SV: Shareholder Value.

SVA: Shareholder Value Added.

tot. DIV: Total Dividends distributed (any form).

TSR: Total Shareholder Return.

VBM: Value-Based Management.

WACC: Weighted Average Cost of Capital.

WCR: Working Capital Requirement.

WWW: World Wide Web.

Abstract

How much is a company worth? Before buying a firm's shares, investors want to know if they are making a good investment choice. They want to understand the true value of the company. At the same time, current corporate owners want to gain from their investment because they take a risk by committing their money to the firm. In order to pursue this goal and satisfy the stockholders' needs, the company's management must use corporate fundings to undertake strategic investments that will generate future positive cash in-flows and design corporate strategies able to maximise value creation in the long term. Over the years, scholars developed many financial indicators to help managers, but which is the one that precisely computes the shareholder value created? This thesis analyses the most significant evolutions in business management, which led to the development of the Value-Based Management approach. Moreover, it tries to answer this question through theoretical and empirical research analyses by comparing alternative performance metrics.

Introduction

Managers always sought a system capable of understanding how to improve the performance of the company they manage. On the other side, outside investors want a method for calculating the firm's actual value before committing their money by buying shares.

Over the years, many answers have been given to this dilemma, but none is entirely satisfying. For decades accounting measures have been employed by senior managers to monitor the company, business units and other executives' performances, becoming in this way the *traditional* financial metrics. However, things significantly changed throughout time: markets, technologies, businesses, and corporate management experienced incredible evolutions and advancements. The accounting standard became outdated, and evidence showed that these traditional metrics created misleading interpretations of enterprises' performances due to their inclination to simplify the reality of businesses excessively. That is to say, accounting-based indicators try to explain something that is constantly growing and increasing in complexity without evolving accordingly.

For all these reasons, new management theories arose as well as the necessity of new financial indicators able to, on the one hand, monitor the performance of the company and employees and, on the other hand, evaluate new possible investments and projects. Companies began to stress the idea that the paramount enterprise goal should be the creation of value. The concept of value became very popular and at the core of the new theories of the 20th century. However, it is difficult to define what "value" means and for whom it should be created. Someone supports the idea that corporations should deliver the wealth generated exclusively to the owners of the company, the shareholders. Instead, some other people argue that businesses have a fundamental social role. They sustain that firms must support society by caring about the needs of all people influenced by the company's activities, i.e. the stakeholders.

This complexity in comprehending what value is and for whom it should be created is reflected in the fact that investors, managers, consultants, and financial and economic scholars have not found yet a single, unambiguous, and utterly satisfying indicator of wealth creation. Recently, researchers and practitioners in the management field started to underline the importance of adopting non-financial metrics besides performance measures. Nevertheless, managers at all corporate levels need metrics to set the business strategies and make strategic decisions.

The first chapter presents the historical evolution that led to the formulation of a managerial approach that has at its core the creation of value for the shareholders: Value-Based Management (VBM). This thesis also covers the most significant features of this particular approach. The second chapter analyses the concept of "value" and precisely how value can generate wealth for the company's owners. Then, it briefly examines the traditional metrics employed by managers to calculate wealth creation and their main flaws that led managers to seek new and more helpful indicators for evaluating the business and investment opportunities. Nowadays, one of the most popular measures of value creation, as opposed to the traditional accounting measures, is the so-called Economic Value Added (EVA) ratio. EVA became diffused among managers, mainly because VBM adopted it as its primary reference metric. However, this measure has its pros and con, and this dissertation aims to understand whether there are other financial measures better suited to help executives managing their companies. After the presentation of EVA, the third chapter discuss on a theoretical level several alternative financial indicators. Finally, in the last chapter, these measures are analysed empirically by calculating them for a sample of companies belonging to the same sector. The goal is to understand if one indicator is a better solution than EVA or if a combination of different metrics is the only way to assess how much a company is worth and how much value creates for its shareholders.

CHAPTER 1

VALUE-BASED MANAGEMENT (VBM)

> *"Value-based management is a managerial approach in which the primary purpose is long-term shareholder wealth maximisation. The objective of a firm, its systems, strategy, processes, analytical techniques, performance measurements and culture have as their guiding objective shareholder wealth maximisation".*
>
> (Arnold, 2000).

Value-Based Management (VBM) is an organisational approach that implicitly began to take shape during the 19th century when corporate reality started to be more challenging and less predictable. The VBM philosophy became popular at the end of the 20th century, right after the diffusion of the Residual Income (RI) metric as opposed to ROI (Return on Investment) – the most popular financial ratio used at the time – and the spread of the idea that an organisation should not more be focused only on constantly creating increasing profits.

According to the definition of VBM given by Arnold (2000), Value-Based Management is a future-oriented managerial process with the fundamental goal of maximising value creation. The objective of enhancing shareholders' wealth over time is achieved through some value-based performance metrics which enable decision-makers to make better strategic choices.

In order to exactly comprehend what "Value-Based Management" means, it is essential first to understand the worldwide transformation that took place in the economic, financial, and cultural scenarios.

1.1 Historical evolution of financial markets and corporate organisation: Value-Based Management roots

The 19th century was a flourishing period for corporations thanks to economic development due to the industrial revolution. In particular, communication routes and means of transport improved significantly, allowing companies to expand their business and operations to dislocated facilities. The increasing automatisation and mechanisation of production processes allowed corporations to achieve economies of scale and formulate new methods focused on monitoring and enhancing the company's productivity and efficiency. Business people were interested in fully exploiting the available resources by balancing investments in the labour force and innovative equipment. In this century, the idea of value creation was not yet present as such, but it was so far an implicit concept. It was the beginning of a more complex reality for firms. In particular, organisations needed to involve more and more people in the company's life throughout the entire supply chain. Entrepreneurs started to experience the actual pros and cons associated with decentralisation: on the one hand, the several opportunities to grow, to enhance the company's size, or the potentialities to expand into new markets; on the other hand, the delegation of power which could create management control issues and harden the coordination of all business activities.

The complexity of the environment where companies worked, both internal and external, is a crucial element to consider when one analyses the history of VBM because, as shown in figure 1, there is a direct correlation between these two elements. In the 1800s, everything was more accessible for firms since companies were smaller and simpler to manage and control. Connections were closer because firms knew who their customers were and, vice versa, clients knew how firms worked. Furthermore, companies used to produce what people needed at the time. Over the years, the world became more and more interconnected, distances augmented, and companies had to face continuously new challenges, products became more technologically advanced, and selling became complicated. Value-Based Management is a managerial philosophy that arose exactly to help

managers cope with the ever-enhancing dynamism of the world and, particularly, of markets.

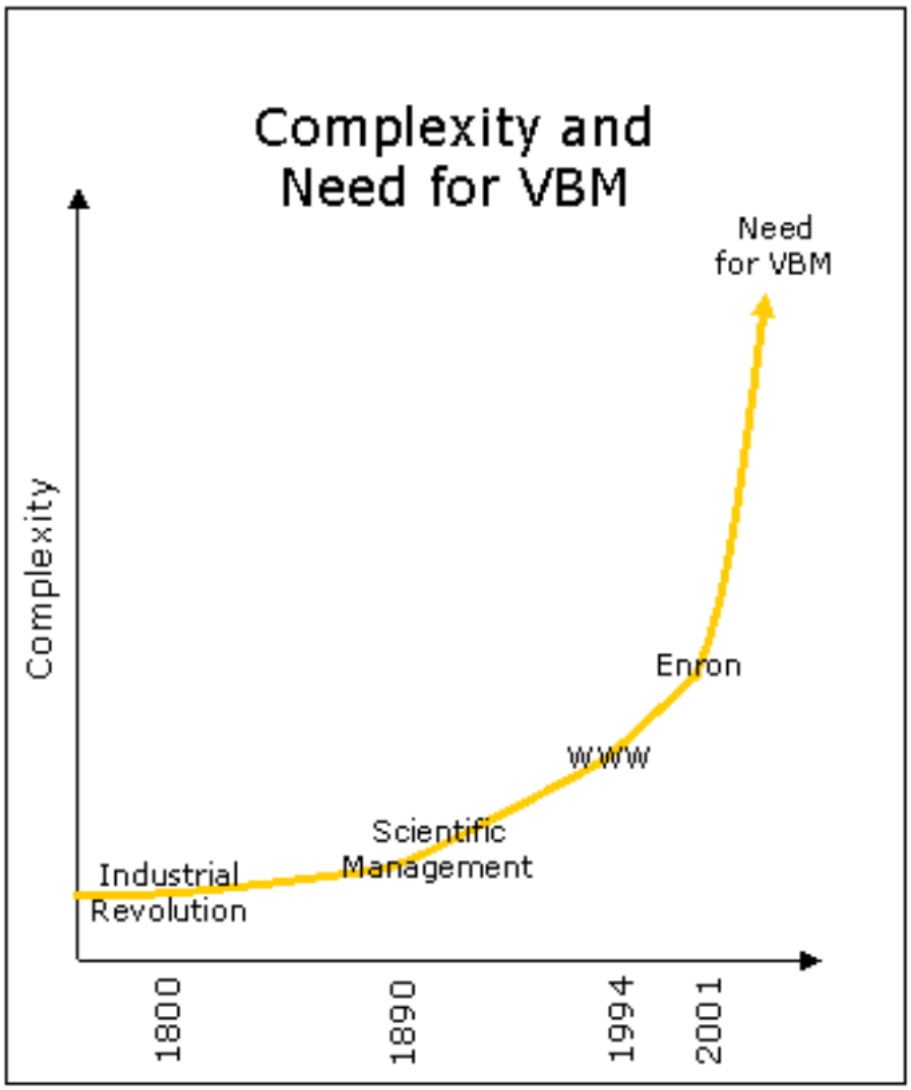

Figure 1 – Complexity and need for VBM
https://www.valuebasedmanagement.net/faq_history_value_based_management.html

Especially in the United States, between the 1880s and 1890s, "scientific management" was widespread among manufacturing industries. Scientific management is also known as "Taylorism" because Frederick Winslow Taylor was the first to theorise it, and in 1911, he published his book *The Principles of*

Scientific Management. According to Taylor, a company should achieve its maximum efficiency and enhance labour productivity through employee training, work standardisation, and job specialisation.

At the beginning of the 1900s, Neoclassic Economics spread and prioritised corporate profit over everything else (Steffan, 2014). Neoclassic economists introduced the new concept that prices should be determined according to the customer's perception of the *value* of goods or services rather than the cost of their production, as the previous school of thought asserted it, the so-called Classic Economics.

The 20th century was a time of momentous events and changes. The first half of the century was marked by the two World Wars and the worst recession ever after WWII. Anyhow, as history teaches us, after an economic crisis there is always a thriving period of growth. In the second half of this century, a booming economy and a considerable increase in competition within commercial markets happened. Moreover, according to S. David Young and S. F. O'Byrne (2000), in their book *EVA and Value-Based Management*, profound changes occurred in the 1970s and early 80s, caused by the boom of investments in pension funds in the 1960s. Companies found themselves in a new state of affairs where the rivalry in capital markets was as fierce as the market of products and services, if not more intense (Young and O'Byrne, 2000).

Before the enhancement of capital market pressure, the capital was considered steady. Markets were highly regulated with strict exchange controls, many limits in capital flows, and information technologies were not yet evolved as they are today (Young and O'Byrne, 2000). Furthermore, capital markets were highly segmented, and investors were easily identifiable into different groups. Each segment presented particular features, such as shared needs and similar reactions to market events. At the time, the low liquidity of securities markets was favourable for corporate managers, who were rarely fired. Therefore, managers were not greatly concerned about achieving high business performances. In those years, personal connections were crucial to corporate success. It was needed

neither for particular skilled senior managers nor for complicated business strategies, but rather, ties to the financial or political elite of the day were paramount (Young and O'Byrne, 2000).

Since the 19th century, companies have started expanding their businesses and splitting different activities into more than one dislocated facility. At the beginning of the 20th century, entrepreneurs' most diffused organisational structure was the divisional one, also known as the "M-form" or multi-divisional structure (Seal, 2010). In these years, the most adopted managerial accounting practice was the cost accounting systems, which matched with other tools such as budget, focused on financial control and cost determination (Ittner and Larcker, 2001). The early 1900s also witnessed the diffusion of ROI (Return on Investment) as the most important financial ratio. ROI is a performance measure, which can be written in percentage or absolute values, expressed as the ratio between the net profit (or accounting profit) of an investment and its cost. Not only this index enables managers to compute the efficiency of an investment, but it also helps to compare and decide between different available investment opportunities. This ratio became routinised and institutionalised along with the divisional organisational structure. Both the multi-divisional structure and the use of ROI to measure corporate performance were adopted by pioneer firms for two main reasons: in order to grow and expand their business, and to enhance the quality of control for corporation became too big and so challenging to manage (Seal, 2010).

In the 1960s, the foremost goal of companies to create profit, argued by Neoclassic Economics, was replaced by the idea that the firm's main target should be its growth and especially its expansion in size (Steffan, 2014). In particular, between the 1960s and 1970s, companies felt the urge to grow and expand, a goal frequently achieved through acquisitions (Seal, 2010). In these years, the antitrust policy in force was strongly opposed to acquisitions or mergers of companies belonging to the same market sector (Shleifer and Vishny, 1990). Therefore, particularly in the US, firms tended to avoid these anti-trust issues by

simply purchasing companies belonging to unrelated industries or making the acquisition look like a joint venture (Seal, 2010). For all these reasons, in their article, Shleifer and Vishny (1990) defined this trend of the 1960s as the third takeover wave of the 20th century. This wave is the third one because before other two takeover waves occurred: one in the first years of this very same century, and the other shortly afterwards in the 1920s. Within the same century, there will also be a fourth merger wave in the 1980s, discussed later (Shleifer and Vishny, 1990).

By the mid-1960s, the managerial accounting approach changed, focusing more on gathering information to implement better strategies and control procedures effectively. Strategic planning and operational control were distinct from management control. Much attention was given to the process of acquiring and employ resources, and management control was entrusted with ensuring that the use of the resources was efficient, effective, and aligned with the corporate purpose. Accounting information was still fundamental, while managerial accounting had limited responsibilities and narrower scopes (Ittner and Larcker, 2001).

By the 1970s, the first contingency theories arose, and the so-called shareholders' wealth culture grew in importance. Contingent theories claim that some "contingent" factors exist both internally and externally, influencing the company's entire organisational structure. These peculiar circumstances, such as the environment, the technology, the mission, the competitive strategy, the business unit division, the industry features, the knowledge, and other observable factors, are different for every company. So, a universally accepted accounting or control system cannot exist. Instead, companies must modify and adjust their organisation, structure, and strategies according to these factors (Ittner and Larcker, 2001).

Furthermore, in 1970 Milton Friedman published an article, "A Friedman doctrine – The Social Responsibility of Business is to Increase its Profits", in The New York Times. In that article, Friedman recalls the neoclassic idea that corporations

should focus their attention on creating profits, and he emphasises the concept that managers must answer to the owners of the company, the shareholders.

> *"In either case, the key point is that, in his capacity as a corporate executive, the manager is the agent of the individuals who own the corporation or establish the eleemosynary institution, and his primary responsibility is to them."*
>
> (Friedman, 1970)

Friedman, in his article, underlined the concept that senior corporate executives, or managers in general, are paid to create value. However, that value belongs to someone else, that is, to the firm's owners (Young and O'Byrne, 2000). From 1980 onwards, the main objective of a company was neither mere profit nor expansion, but the concept of value creation that began to spread (Steffan, 2014). Milton Friedman is one of the first significant exponents of the so-called Shareholders Theory, also known as Stockholders Theory, which is opposed to Corporate Social Responsibility (CSR) and the Stakeholders Theory. The popular financial website Investopedia defines CSR as a "self-regulating business model that helps a company be socially accountable". In other words, this model is based on the idea that companies have a specific responsibility towards societies (Latapí Agudelo, Jóhannsdóttir and Davídsdóttir, 2019). In his article Friedman strongly criticises CSR defining it as immoral because "a corporate executive is an employee of the owners of the business" (Friedman, 1970). Therefore, CSR equals stealing from stockholders because, in this case, their resources are employed by managers to solve problems other than those business-related (Friedman, 1970; Freeman & Dmytriyev, 2017). According to Friedman, the only responsibility of managers is to run the company's business in compliance with the shareholders' or general owners' wishes (Friedman, 1970). Corporate Social Responsibility is a concept that evolved in the 20th century. The debate around social responsibilities of the private sector appeared for the first time in literature in the 1930s, but CSR

became a clear concept only between the 1950s and 1960s, even though this term considerably grew in popularity in the 1970s (Latapí Agudelo, Jóhannsdóttir and Davídsdóttir, 2019). Corporate Social Responsibility is a theory both similar and different from the Stakeholders Theory (Freeman and Dmytriyev, 2017), the latter emerging mainly in the mid-1980s with its principal exponent Edward Freeman.

The last 20 years of the 20th century and the beginning of the 21st century was a period of transformation that brought significant changes for the economic and financial sphere and a substantial shift in the managerial accounting approaches and the mindset of people. According to Young and O'Byrne (2000), the emphasis put on creating value for shareholders was a consequence of some important events and developments that occurred in the last two decades of the 1990s. In their book, the authors identified seven different significant improvements (Young and O'Byrne, 2000) that are herewith summarised in the following four macro-items:

1- Globalisation;
2- Technological evolution;
3- A generational change; and
4- Capital markets deregulation.

The globalisation phenomenon changed entirely many existing dynamics, and it is a consequence, among others, of the advances in technologies and decentralisation. These factors were very often combined with the delocalisation of whole corporations or some divisions. Competition in all sectors was increasingly intense, and the delocalisation of business activities was a way to achieve costs abatement, primarily when implemented in developing countries, and mainly to reduce personnel expenses. Commercial markets became increasingly globally competitive, which led companies to seek to attract foreign investors. Moreover, the technological progress and the diffusion of accessible computers and the internet allowed companies and brokers to exploit trading systems more technologically advanced (Young and O'Byrne, 2000). Information was more accessible than before, and news spread much faster, consequently reducing transaction costs.

As well as markets developed and technologies advanced, people started to change their habits and preferences, especially their attitude toward savings. Those who lived in the first half of the 20th century grew up during the Great Depression or were children of the World Wars. Most of them experienced what poverty meant, and the mindset of this historical timeframe was to save as much as possible to face difficult periods. Even when things got better and economies started to grow, individuals tended to keep their money in their pockets or secure it in bank accounts. At the same time, the word of financial investments and stocks was considered different and accessible only by wealthy people or gamblers (Young and O'Byrne, 2000) or professional institutions, like banks.

However, generational change brought some fundamental changes in the way people thought. The idea of investing became attractive to youngsters as they found themselves with a surplus of income available. Moreover, the interest toward capital markets was encouraged on the one hand by new studies showing that putting money in the stock market was, in the long run, certainly more convenient than keeping money in bank accounts or investing in government bonds and, on the other hand, by the fact that stock markets appeared to be consistently bullish. All of this ended with millions of people belonging to families that had never been involved in the stock market before started to purchase companies' shares. When countries such as UK and France understood this new trend of investing, governments started to promote it by launching privatisation campaigns. All of this happened because it was convenient to finance a part of public corporations through the help of a large cross-section of the population (Young and O'Byrne, 2000).

Furthermore, people in the 1980s had financial stakes in firms because they invested more and more in stocks, thus becoming shareholders. They were also interested in alternative institutional investments, such as pension funds, unit trust, and mutual funds. The dynamics and the mentality within companies changed as well. Money given by citizens to these funds were managed by professionals so that the performance of companies began to be under observation of many expert eyes and not by entrepreneurs only. Corporate managers stopped favouring work positions, and personal connections with elites

were no longer determinant. Managers began to be judged by their skills, expertise, and attitude. Capitals were not anymore considered static, but something that could and should move. Organisations had to face intense competition in capital markets, and they had to cope with it and the fierce rivalry within commercial markets. Due to this environment, company managers were required to deliver an ever-increasing performance (Young and O'Byrne, 2000).

Finally, capital markets regulation underwent a radical modification. All over the world, there was a climate of deregulation of capital markets, along with a significant reduction in controls on capital flows and the application in currency markets of free-floating exchange rates. In the 1980s, this trend of deregulation was driven by America, which already had to cope with deregulated commercial markets first, but Europe was not so far behind. Until such time, most European countries adopted a protectionist policy to favour domestic companies against the big foreign competitors, especially those from the United States and Japan. However, globalisation altered the global balances created until then. Companies were ever more interconnected and globally integrated, markets constantly growing and tending to liberalisation with free trades. European corporations were subjected to a degree of competition never seen before, and customers had many more choices than before. Therefore, Europe has no choice but to open the markets to foreign enterprises and investors and cope with deregulated commercial. Nevertheless, trade liberation was followed by gradual deregulation of capital markets with reduced capital flows and securities controls. Exchange markets became increasingly liquid, information technology was advancing, and the role of institutional investors was growing (Young and O'Byrne, 2000).

As previously mentioned, in the 1960s, there was a takeover wave characterised by conglomerate mergers. However, the reasons that led companies to set up these large corporations made up of many different businesses with little, if any, in common were not the best ones. In fact, firms wanted to grow, but the stringent antitrust policies enforced made it very challenging to do it properly. For companies unable to expand in the same market where they belonged, the only alternative was diversification. However, later studies have shown that conglomerates typically fail. As a matter of fact, conglomerates did not deliver

superior efficiency but rather often ended up destroying value. The failure of this strategy based on growth resulted in the third takeover wave. In the 1980s, particularly in the United States under the presidency of Ronald Reagan, whose administration was far more tolerant of mergers and acquisitions between firms within the same industry, conglomerates began to be parcelled out, and companies went back to focusing on their original core businesses. In this fourth merger wave, there were typically two types of deals: the first regarding large companies purchasing other big firms belonging to the same market sector, where the first one had the majority of its assets; the second type of agreement were bust-up and often hostile takeovers aiming at selling divisions or assets to different specialised buyers. Moreover, managers realised that they could gain from parcelling out conglomerates or the divestments of their assets to the point that Leveraged Buyouts (LBO) and corporate raiders became very popular and large scale divestments as well (Shleifer and Vishny, 1990).

Furthermore, by the 1980s, the managerial approach adopted by firms changed as well. It became focused on quality and, in particular, the central managerial goal began to be the achievement of the maximum waste reduction throughout the whole organisation, instead of concentrating only on control and planning as they did before. At this very time, new techniques were introduced within accounting, including the ABC (Activity-Based Costing), strategic cost management, quality measurement, and process value analysis (Ittner and Larcker, 2001).

As it is possible to notice, the last couple of decades of the 20th century were rather rough years, filled with considerable changes, particularly for businesses. Significantly, the 1980s were quite a turning point in many ways. In 1984, Professor Edward Freeman wrote:

> *"[O]ur current theories are inconsistent with both the quantity and kinds of change that are occurring in the business environment of the 1980's… A new conceptual framework is needed."*

(Freeman, 1984)

In particular, according to Edward Freeman, the solution, the new framework, was given by the so-called Stakeholders Theory. According to the Stakeholders Theory, strategy and ethics are strongly related concepts because one implies the other. The idea that ethics should not be distant from the corporate strategy was already developed with the Corporate Social Responsibility framework, even though the stakeholder approach had many differences within CSR. Furthermore, another theory was emphasised: the Shareholders Theory, already famous since 1970 thanks to Milton Friedman, was highlighted by Alfred Rappaport. Specifically, in 1984 Professor E. Freeman published his book *Strategic Management: A Stakeholder Approach* (1984) that popularised the Stakeholders Theory. First of all, Freeman defined the term *stakeholders* as "any group or individual who is affected by or can affect the achievement of an organisation's objectives" (Freeman, 1984). At the time, the concept of "stakeholders" was not new, as it arose for the first time in the 1960s within the work of the Stanford Research Institute (now named SRI International). According to this institute, knowing the needs and the interests of those in some way connected to the business, like employees, customers, society, shareholders, and suppliers, was necessary for pursuing success in the long run (Freeman and Mcvea, 2001).

Freeman's theory is similar to the CSR model because they both claim that businesses are responsible for society. Indeed, corporations cannot be separated from the society to which they belong. However, CSR focuses its attention on society at large, while all other responsibilities linked to business come second. The Stakeholder Theory instead considers all the stakeholders at the same level. Therefore, society is only one corporate constituency among many, and managers should find a solution such that all the stakeholders' interests flow in one direction (Freeman and Dmytriyev, 2017).

Only two years after the publication of Freeman's book, Alfred Rappaport issued his book *Creating Shareholder Value: The New Standard for Business Performance,* whereby the Shareholder Theory increased in importance in the 1980s. Rappaport

highlighted the concept introduced by Friedman that corporations are tools, mere instruments, that the owners exploit to increase their wealth. He underlined the paramount importance of shareholders' wealth over the responsibility towards society or towards other stakeholders.

The distinction between Shareholders and Stakeholders theories is very significant because the first one is at the core of the Value-Based Management approach. With his book about the creation of shareholders' wealth, Rappaport inspired what would later be called VBM. Young and O'Byrne, in their book, claim that companies should be seen as "engines for the creation of value" and, according to them, "shareholders always come first" (Young and O'Byrne, 2000).

In the last decade of the 20th century, conglomerates and multi-divisional organisational structures were criticised and were replaced with the *network*. The network structure is a more flexible organisational structure, still decentralised, but with a less hierarchical framework. In particular, the network structure places the firm's core activities at the centre, and all the others must turn around them. In order to support their core businesses, companies focused their attention on vertical integration, de-merging all the firms previously acquired to form a conglomerated belonging to unrelated businesses. In addition, the type of control commonly applied was no more the strict financial one with a ratio system. The ROI ratio has been progressively replaced by another index: the residual income (RI). To be precise, RI appeared for the first time in the 1960s, but it remained within academic texts until the 1980s because it did not have the same immediate success as ROI among corporate managers, and it never gained the same level of acceptance (Seal, 2010). Briefly, residual income, as well as ROI, is a valuable tool that helps managers to evaluate investments and eventually choose the best option among alternative possibilities. RI is expressed in absolute terms, but it makes a step further because it also takes into consideration the *expected* return that investors assume to obtain from their capital. In other words, the residual income is the extraordinary profit achievable above the normal return of a business or of an investment (Simons, 2014).

As mentioned above, throughout the 20th century, the main objective of corporations evolved and changed, their indicators of success changed as well. In particular, organisations used to focus on sales growth or revenue growth, but residual income brought to light the fact that growth is not necessarily a synonym of profitability (Ameels, Bruggeman and Scheipers, 2003). Also, it allowed companies to realise that making profits does not mean that the organisation as a whole is profitable. Residual Income became more popular between the 1980s and the 1990s, not only because ROI was criticised, but also thanks to the development and growth in popularity of other indexes based on RI, among which stands out the so-called Economic Value Added (EVA)[1]. EVA is the indicator at the core of Value-Based Management (Seal, 2010), created specifically for value creation maximisation. The scope of Stern Stewart & Co. was to develop a metric easy to be understood and to be used, but it is also versatile so that corporate executives could apply it to any company at all levels.

In the 1990s, the Value-Based Management approach surfaced as the answer for all those companies calling for industry focus and to put core competencies at the centre of the organisations' goals, after the very disappointing experience during the period of conglomerates. Companies were looking for vertical integration and new innovative techniques in order to make the best decisions. In addition, firms started to diversify their business, developing the need for diversity in reporting to analyse and represent their situation more realistically and appropriately. Value-added Management aspired to be the solution for firms to satisfy these needs. One innovative idea of the time, emphasised by VBM, was utilising non-financial indicators to support the accounting and financial metrics (Seal, 2010).

As a matter of fact, in the 1990s the managerial accounting expanded. In the mid-1980s, the focus on control, planning, and waste minimisation was broadened to include the concept of value creation as the primary goal for companies within strategic planning. Therefore, control and planning were no longer focused on maximising waste reduction, but all these three elements were widened to

[1] EVA, Economic Value Added, is a registered trademark developed in 1983 by the American consulting firm Stern Stewart & Co. (became Stern Value Management, SVM, since 2013)

encompass value creation. The phase of identification of the so-called value drivers became necessary, just as the following steps of measurement, comparison, and management of these indicators. The main drivers of value creation aim at keeping under observation the degree of organisational innovation, customer value, and shareholder returns of a firm. Moreover, modern managerial techniques arose, for example, different accounting systems focused on gathering information relative to past, current, and future uncertainties; new economic value indicators to estimate the shareholder returns; the formulation of the balanced scorecard in order to identify both leading and lagging economic indexes of business success (Ittner and Larcker, 2001).

1994 is known as the "Year of the Web", considering that the internet became increasingly available to people and the acronym WWW, which stands for "World Wide Web", grew in popularity. The CERN is the organisation that mainly helped develop the Web and organised the first International WWW Conference. Moreover, 1994 was when, for the first time, the term "Value-Based Management" appeared in a book, *The Value Imperative: Managing for Superior Shareholder Returns* written by Jim McTaggart, co-authored by P. Kontes and M. Mankins. They suggested and explained in which way managers should systematically, on a day-to-day basis, manage the creation of shareholder value.

However, initially, managers did not understand that the traditional indicators, such as earnings measures, have nothing to do with the concept of value creation. Executives were still very much committed to accounting metrics, and these rules influenced them to the point that they were ignoring essential elements when making decisions. For example, they were not considering notions such as risk or inflation or opportunity cost. For this reason, Stern Stewart & Co, in a publication, defined the change that happened within the management world as a transition from "managing for earnings" to "managing for value" (Ameels, Bruggeman and Scheipers, 2003). In 1996, Copeland, Koller e Murrin described VBM writing:

> *"VBM is very different from 1960s-style planning systems. It is not a staff-driven exercise. It focuses on better decision making at all levels in an organisation. It recognises that top-down command-and-control*

> *structures cannot work well, especially in large multi-business corporations. Instead, it calls on managers to use value-based performance metrics for making better decisions. It entails managing the balance sheet as well as the income statement, and balancing long- and short-term perspectives".*
>
> (Copeland, Koller e Murrin, 1996)

Over the years, it is possible to notice that the environment changed several times and is continuously evolving so that corporate managers have to pay attention to countless opportunities and threats (Young and O'Byrne, 2000). Rapid technological development, globalisation of markets, and the need to react quickly to the environmental challenges to remain competitive within the market led to strategic planning cycles to gradually become a constant and continuous process (Steffan, 2014).

At the beginning of the 21st century, the Stakeholders Theory became increasingly popular, and business ethics were included in corporate planning. As written by Freeman and Mcvea (2001) in the paper "A Stakeholder Approach to Strategic Management", the process of developing a strategy, according to corporate planning literature, has two basic steps. The first is the *prediction* phase: corporate managers have to deeply analyse and examine the business environment to recognise the current trends and, more importantly, to understand how the future might be. The second step consists of firm *adaptation* to these identified coming trends to maintain or enhance the company's competitiveness in the future. Analysing who the stakeholders are and how they behave is included in step one because these constituencies are part of the environmental examination (Freeman and Mcvea, 2001).

Furthermore, it gradually became recognised that the Stakeholder and Shareholder theories were not so far apart and irreconcilable as they have some similarities. The most significant affinity is that both theories claim that value creation should be the fundamental goal for every company. In order to reach this

goal, resources should be exploited more efficiently to ensure that the capital invested in the business is worthwhile. In other words, the cost of capital should be less than the economic return gained through the use of these resources. However, the moment of allocation of this created value is a critical point because, according to Freeman's theory, shareholders do not necessarily need to benefit first; instead, there is no reason to exclude a stakeholder with reasonable claims from the wealth distribution (Ameels, Bruggeman and Scheipers, 2003).

Regardless, the manager's role was increasingly crucial to the company's success, but also more and more challenging and complicated. Corporate executives had to pursue many different objectives without ever forgetting that their final goal was always value creation, even when these aims diverged and were incompatible with each other (Young and O'Byrne, 2000). For this reason, in the early 2000s, managers and firms sought a comprehensive accounting method to pursue the highest number of goals possible. They wanted to find an inclusive system for the whole company without necessarily implementing more than one performance metric for different business units or differentiated accounting approaches according to the various goals. Value-Based Management was argued to be the answer to this request of managers (Ameels, Bruggeman and Scheipers, 2003).

Moreover, 2001 witnessed two major crises: one financial, the dot-com bubble, and one in accounting, the Enron scandal. Quoting Investopedia, "it was the commercialisation of the Internet that led to the greatest expansion of capital growth the country ever saw". In the 1990s, thousands of investors and venture capitalists saw Internet start-ups as gold mines, and they abandoned prudent and cautious investment approaches to put their money in any firm with a name ending with ".com" (the so-called "dot-com" companies) for fear of being left out of future earnings given the considerable speed at which internet use increased. However, on the one hand, investors, believing they could gain easy money, were fostering speculation and the overconfidence of the market. On the other hand, internet companies fed these frenzy traders by going public through IPOs. This mechanism lasted for about five years until some major high-tech firms decided to sell their shares, unleashing panic among investors. Finally, between 2001 and

2002, the bubble burst, many dot-com firms went bankrupt (the biggest was WorldCom Inc), and countless investors suffered heavy losses.

At the same time, a huge corporate scandal hit the corporate and accounting world with the most prominent bankruptcy never seen before: the Enron case. Enron Corporation was a leading company in the energy market, formed in 1985, which experienced massive growth in the 1990s thanks to deregulation of the energy sector and the particular market environment created in those years with the diffusion of the internet. Enron was considered the "Wall Street Darling", and investors did not find the sudden increase in share prices suspicious. However, as it is said, "all that glitters ain't gold", as the company for quite some time put in place shady schemes in order to hide its financial distress through off-the-books accounting and counterfeit holdings. By the end of 2000, the firm reached $591 million in losses and a debt amounting to $690 million. Enron's bankruptcy occurred overnight the following year. What was shocking was the involvement in the scandal of the Arthur Andersen LLP, which at the time was one of the "Big 8" worldwide accounting corporations. This accounting firm released the accountant's clean opinion for years, and then it was found guilty of colluding with Enron and of justice obstruction, given that some of Arthur Andersen's employees shredded important official financial papers to hide them from the SEC when things fell apart.

The 21st century did not get off to a good start as well. Other big corporate bankruptcies and scandals followed these two significant crises: the Lehman Brothers and the Washington Mutual in 2008 and the WorldCom Inc in 2002, respectively the three largest bankruptcies in the US by assets (Statista). Furthermore, it is impossible not to mention the Global Financial Crisis of 2007-2008. These events created important precedents, which profoundly marked the economic and financial landscape all over the world. The Dot-com Bubble pointed out that the "Get Big Fast" logic was not a recommendable and sustainable managerial strategy, and evidence showed that undertaking more prudent business models is more successful in the long run. The idea that managers must maintain a long-term vision has been consolidated because short-term profits are not enough. Corporations enhanced corporate governance and handed out more

carefully managers' remunerations. Regulators enhanced the legal controls and legislations for what concern mainly capital markets, but also for accounting standards. After the Enron scandal, new compliance rules were issued, legislators improved the level of accuracy and transparency required for the financial reporting, particularly for what concerns public firms. The FASB (Financial Accounting Standards Board)[2] tightened the code of ethical conduct, increased the independence required for boards of directors and enhanced controls and surveillance on audit companies. In addition, more attention was given to shareholders' wealth by managers and more protection by legislators, and companies started to give more consideration to stakeholders, ethical conduct, and corporate social responsibility. Many executives lost faith in accounting measures and began to emphasise the importance of using non-financial metrics to evaluate the company's performance.

All of this results in today complex environment, which is very challenging for firms, both from an internal and an external point of view. This complexity led to a renewed interest in the Value-Based Management approach, which ensures value creation for shareholders through an increased commitment of upper managers and executives, linking a part of their salaries to the company's performance. Furthermore, VBM emphasises non-financial measures and the instillations of a mindset based on the idea that every decision taken by anyone in the organisation can contribute to creating corporate value (Young and O'Byrne, 2000).

Nowadays, VBM is not very widespread among firms, especially among European ones, because, as argued by P. Mella and M. Pellicelli (2008) in their paper "The Origin of Value-Based Management: Five Interpretative Models of an Unavoidable

[2]The Financial Accounting Standards Board (FASB) is an independent, private, not-for-profit organization. It was founded in the 1973 in Norwalk, Connecticut. The FASB establishes both financial accounting and financial reporting standards, which are available for both private and public corporations and not-for-profit organizations. In particular, the U.S. SEC (Securities and Exchange Commission) recognises the FASB as the appointed setter of accounting standards for public firms.

Evolution", this approach is more successful within large corporations. Big-size companies typically have well-structured managerial control systems, and they are relatively independent of a financial point of view. However, these features are not present in the vast majority of European firms (Mella and Pellicelli, 2008). Regardless, according to the publication "EVA & Strategy", written by the Stern Stewart and Co. firm (2020), Value-Based Management is mainly spread in the USA, but it is catching on also in other countries, including Japan and Germany (Stern Stewart & Co., 2000).

1.2 The Value-Based Management framework

It is clear now that the Value-Based Management approach is a managerial method that arose to help managers to deal with the increasingly competitive markets and complexity of businesses. Not only has globalisation brought thousands of opportunities to companies and investors, but it also brought countless challenges (Stern Stewart & Co., 2000). In particular, the economic environment is constantly changing, and it is increasingly difficult for corporations to change themselves and adapt their business (Ameels, Bruggeman and Scheipers, 2003). Moreover, markets are more sophisticated, and investors have many different needs, which means they are harder to please (Stern Stewart & Co., 2000). Anyhow, managers are still facing the demanding task of finding the optimal resources allocation, and, even though management has new accounting methods and control tools, thanks to the evolution of the managerial approaches, still the resources are scarce, and the world is becoming more complicated every day (Ameels, Bruggeman and Scheipers, 2003). Now more than ever, for managers, executives, or directors, the chances of destroying the shareholders' value are higher than creating it, and more remarkable are the consequences (Stern Stewart & Co., 2000).

One might ask why and how VBM can be the right tool to help managers run the company. To answer these questions, here below are analysed the basic features of this managerial approach, starting with its core concepts presented in literature by different scholars and consulting institutes.

1.2.1 VBM definitions

> *"Value-based Management is a management philosophy which uses analytical tools and processes to focus an organisation on the single objective of creating shareholder value."*
>
> (Condon and Goldstein, 1998)

With this first definition of the VBM approach, given by Condon and Goldstein (1998), it is possible to immediately understand the most critical characteristic: the ultimate goal is to create value for the company's shareholders.

Ronte (1998) adds some other significant details:

> *"Value-based Management is a framework for measuring and, more importantly, managing businesses to create superior long-term value for shareholders that satisfies both the capital and product markets."*
>
> (Ronte, 1998)

First of all, the value belonging to the stockholders should be created keeping a long-term perspective. An organisation cannot focus only on gathering short-term profits, but it must be future-oriented. In addition, Ronte (1998) underlies how much is relevant for corporations to be competitive not only within commercial markets but also in the capital ones. By now, capital markets are fundamental, and they influence every kind of business. Finally, this definition introduces the fact that Value-Based Management gives managers indications on how to measure the success of a business and how to manage the internal organisation of a firm.

Another definition recites:

> *"Value-based Management is a different way of focusing an organisation's strategic and financial management processes. In order to maximise value, the whole organisation must be involved."*
>
> (Anonymous, 1998)

This idea sheds light on another essential element of the VBM approach: it must encompass the whole organisation. It means that Value-Based Management cannot be successful if only a few processes or some strategies are managed according to its principles, or only the senior managers are committed to the approach. Everybody must be aware that the company adopted the VBM philosophy, and everyone must understand its guiding principles. For instance, all employees should know how they could influence the creation of value for the shareholder because every decision has to be taken to enhance the stockholder's wealth in the long run.

This concept that the whole company must be involved in the implementation of the VBM approach is underlined by the two following assertions of the Institute of Management Accountants (1997) and the audit company KPMG (1999):

> *"An approach to management whereby the company's overall aspirations, analytical techniques and management processes are aligned to help the company maximise its value by focusing management decision making on the key drivers of shareholder value."*
>
> (Institute of management accountants, 1997)

> "*Value Based Management is a management approach which puts shareholder value creation at the centre of the company philosophy. The maximisation of shareholder value directs company strategy, structure and processes, it governs executive remuneration and dictates what measures are used to monitor performance."*
>
> (KPMG Consulting, 1999)

Both these statements explain why Value-Based Management is not just a helpful method to make some investment decisions or merely a tool to measure the success of a business, but, instead, it is a *managerial approach*. It is described as an "approach" because it appears *"*in the heart of all business decisions*"* (Ameels, Bruggeman and Scheipers, 2003). It is not a simple organisational structure, but it changes the corporate culture because it encourages a specific mindset that puts shareholder wealth at the core. In addition, it is "managerial" because it helps managers with the business organisation at all levels. It is established within the key processes and the core business activities, influences the decision of the set of strategies and the organisational structure, defines how the control system would work, and determines the remuneration scheme of executives. According to Ameels et al. (2003), VBM usefully finds a way to integrate the different resources available to the company and address value creation tasks (Ameels, Bruggeman and Scheipers, 2003).

Furthermore, two other aspects stand out from the previous statements. Firstly, the Institute of management accountants (1997) introduces the concept of value drivers and the idea that all decision-makers within the corporation should make final choices according to those elements that are determinant in creating shareholders' wealth. Then, KPMG (1999) adds that VBM helps managers understand which benchmarks better oversee corporate performance.

Simms (2001) explains Value-Based Management by giving an insight into what "value creation" means. He wrote:

> *"Value-based Management is essentially a management approach whereby companies' driving philosophy is to maximise shareholder value by producing returns in excess of the cost of capital."*
>
> (Simms, 2001)

In the Value-Based Management framework, the essential idea behind creating wealth for shareholders is that the return from the capital has to be higher than the cost of such capital. In other words, any amount of money should be committed to undertake investment or a project, or to follow a business decision, only if the chosen allocation of cash is expected to harvest a return in the future. The result is that the company will produce more money that can be re-invested in the business itself (Young and O'Byrne, 2000). Great attention should be placed on the word *expected* because although the VBM approach is based on methods and models that forecast future returns of investments, it is not an exact science. Investing entails bearing a risk, which is typically proportional to the expected return. Therefore, if two equal investments are compared, the one encompassing a higher return is also the riskiest for the investors.

Lastly, Christopher and Ryals (1999) briefly illustrate how real value can be created:

> *"Value-based Management is a new way for managing, focused on the creation of real value not paper profits. Real value is created when a company makes returns that fully compensate investors for the total costs involved in the investment, plus a premium that more than compensates for the additional risk incurred."*
>
> (Christopher and Ryals, 1999)

Value is created when an investment produces higher returns than the costs incurred, not just equal to them. Worth mentioning, the VBM approach underlies that exist two approaches for firms to raise capital: one is through debt and one through equity. Therefore, companies must consider not only the cost of debt but also the so-called cost of equity. The former is the most evident form of cost, which correspond to the *interests* that the firm has to pay to the lender, while the latter, the cost of equity, is the rate of return expected from the stockholders for investing in the company by purchasing its shares (Young and O'Byrne, 2000).

1.2.2 Main features of VBM

As seen at the beginning, Value-Based Management took shape mainly at the end of the 20th century because of the increased competitiveness within markets, the general enhancement of the riskiness and uncertainties in conducting a business, and the greater complexity of the financial world. Managers were looking for a strategy as inclusive as possible, a method that could pursue not only one goal at the time (Ameels, Bruggeman and Scheipers, 2003). Value-Based Management is the result of the union of different disciplines. It takes inspiration from branches of finance, economics, management, accounting, strategy planning, human resource management and organisational behaviour (Mills et al., 2003 and Pellicelli, 2003). It exploits practical financial concepts and methods to measure the creation of value. VBM can also support the idea that management should keep in mind the perspective of the company's investors when there are important decisions to make. It embraces accounting standards and principles and then modifies how to use them according to its guidelines. In addition, this approach adopts the concepts behind competitive positioning and, specifically, it supports the strategy of entering and invest in market niches, where firms can exploit their strengths. Lastly, the influences of human resource management and

organisational behaviour can be noticed in the stress put on the idea that the company culture should change according to the VBM principles, on the importance given to the fact that everybody must be on board with the value-perspective, and on the remuneration policy, which is designed to incentivise the employees' actions to enhance the value creation (Pellicelli, 2003).

Value-Based Management is an approach rich in elements that affect corporations both vertically and horizontally. On the one hand, as shown in Figure 2, VBM impacts the core structure of firms at many levels, starting with the corporate mission because, as already mentioned, it is a business philosophy that puts value creation at the core. The mission is achieved through strategies, which are effective and concrete courses of action undertaken by senior managers. However, a good strategy setting is not enough in order to fulfil the company's mission. Fundamentally, corporate governance is consistent with the mission and the strategies adopted. Corporate management should determine the various tasks and regulate and control all the activities according to the principles of Value-Based Management.

Furthermore, strong communication is a crucial element to guarantee the successful implementation of this approach. Senior managers must believe in VBM's principles otherwise the effort made to implement it loses its meaning. If communication among employees is effective, there could also be a radical change in the corporate culture and organisation design. In conclusion, everything must be set and managed in order to maximise the shareholders' wealth.

On the other hand, around the core functions revolve a set of other players and various types of assets, exemplified outside the pyramidal structure (figure 2).

Figure 2 – Value-Based Management

https://www.valuebasedmanagement.net/images/vbm_big.pdf

According to the VBM principles, "shareholders *always* come first" (Young and O'Byrne, 2000, p. 14), but it is undeniable that all other stakeholders are very important for the company's success. After all, "shareholders are *residual* claimants on the company. They get paid last" (Young and O'Byrne, 2000, p.18). Customers, suppliers, employees, governments, communities, and other constituencies, have significant importance because they are all involved in the process of value creation. Therefore, these constituencies cannot be ignored. The acknowledgement that stakeholders are an essential element for value creation is why the VBM approach also encompasses non-financial indicators to measure the company's performance.

At the beginning of the 21st century, Stakeholder and Shareholder theories began to converge and often coexist within companies, even though one always prevailed over the other. To better understand the concept behind this idea, one can consider the specific case of value-maximising companies (applying the VBM principles). Resources are, by nature, scarce: the more efficiently and effectively

resources are managed, the more the value is maximised and the more the interests of shareholders, stakeholders, and society at large, are served. In addition, the more effectively companies employed their resources, the more productive they would be. In turn, society will benefit more and more from productivity, the economy will grow, and people's living standards will enhance (Stern Stewart & Co., 2000). Hence, Value-Based Management also includes stakeholders' interests, but it always puts shareholders' pursuits at the top of the agenda.

What is peculiar about the Shareholder perspective is that the relationship between the firm and its stakeholders should be limited nearly exclusively to contracts. Instead, supporters of the Stakeholder Theory claim that this relationship should go beyond contracts, even to the point of giving decision-making power in corporate activities to stakeholders (Young and O'Byrne, 2000).

Within the management control system framework, VBM refers to the so-called Agency Theory, a principle that envisions a company as a set of contracts and divides the ownership from control (Ameels, Bruggeman and Scheipers, 2003). In a broad sense, Agency Theory explains the relationship between an agent and its principal, where the latter hires the former to carry out a job (a service). The most famous relationship of this kind is the one between the shareholders (the principals) on the one hand and the managers (the agents) on the other hand. However, as Ameels et al. (2003) recall, when there is a separation between ownership and the control of the company, or every time there is a principal-agent relationship, one crucial issue arises: the two parties involved must be on the same page and converge their interests otherwise the success of the firm is at stake. This issue can result in two significant problems: on one side, individuals have different desired and personal objectives which can differ and conflict, the so-called *agency problem*; on the other side, the *problem of risk sharing*, that is, the risk aversion may differ from person to person. The value perspective aims at resolving, or at least reducing, these problems (Ameels, Bruggeman and Scheipers, 2003) by instilling a shared mindset that gives the same objective to all employees and, specifically, through the use of a compensation system expressly designed to reward those who create corporate value.

Value-Based Management encompasses quantitative and qualitative aspects; it is not a mere methodology (Koller, 1994). As stated by Koller (1994) and supported by the consulting company Stern Stewart & Co (2000), Value-Based Management is not only a simple measurement innovation, as some academics, journalists and analysts affirm, but it is much more. VBM pays attention to the processes, the planning phase, and management's portfolio (Stern Stewart & Co., 2000). If VBM is implemented correctly, all decision-makers can make value-creating choices with the correct information to weigh different alternatives. In addition, it also gives the right incentives to find the investment that better enhance the stockholders' wealth. Incentives are created by tailoring executives' remuneration packages to strengthen value creation, including and making much of the strategy review moments between executives and their supervisors (Koller, 1994). The VBM framework not only recalls concepts belonging to the Agency Theory, as above mentioned, but also linkages with Contingency theories and economic-based organisational design, which claim that managerial accounting and control ought to be considered as independent, with distinct internal organisations composed of performance metrics, compensation model, accounting information systems, specific design, and more. All these elements should be decided and managed according to the external environment and the internal organisation, including the firm's plans and goals (Ittner and Larcker, 2001). These concepts are assimilated and broadened by VBM with non-financial measures and the feedback loop. "Strategic feedback loop" refers to the continuous process that evaluates the performance and the information supplied by the systems implemented as input, either to adjust the current tasks, strategies, structures for the future or to set new ones (Ittner and Larcker 2001 and Weissenrieder 2005).

It is clear by now that there is no one absolute way to implement a value-based approach because every business must tailor it according to its peculiarities. Notwithstanding that it varies from company to company, Christopher D. Ittner and David F. Larcke (2001) identify six key steps that firms carry out to implement a VBM framework. These steps already imply that the ultimate corporate goal is

to create superior value for the firm's shareholders in the long term (Ittner and Larcker, 2001).

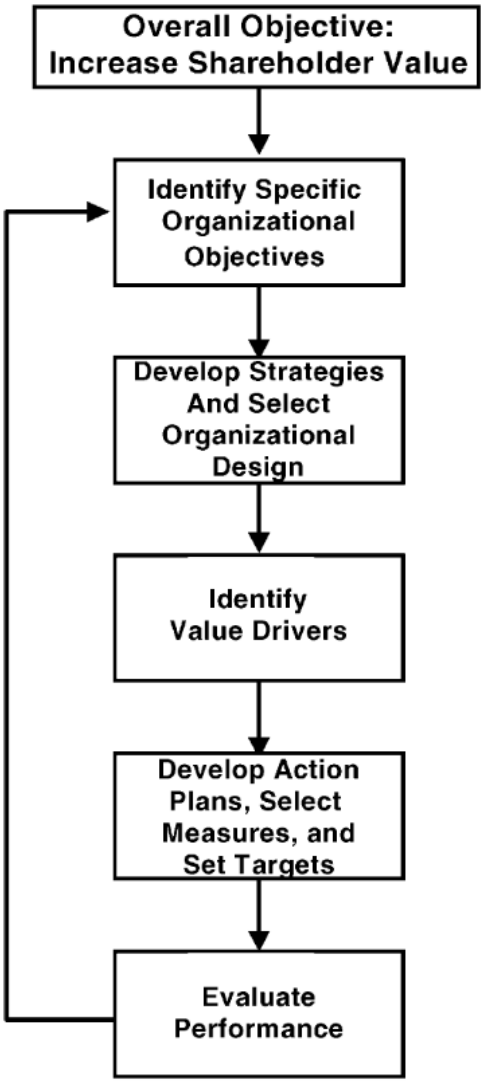

Figure 3 – Value-Based Management accounting framework

https://www.sciencedirect.com/science/article/pii/S016541010100026X#FIG1

The six steps (Figure 3) are the following (Ittner and Larcker, 2001):

Step 1. Determine internal goals to improve the value creation for stockholders.

Step 2. Elaborate strategies as well as chose the organisational structure coherent with the objectives identified in the previous step.

Step 3. According to the chosen design and strategies, one should define and select the so-called *value drivers*, which are particularly critical performance indicators.

Step 4. Given the specific value drivers, identify clear targets, establish plans of action, and decide the proper measures to monitor the business performance.

Step 5. Weight the success of the implemented action plans, assessing whether organisational and managerial performance is satisfactory.

Step 6. Evaluate the current business situation considering the results of the current strategic choices and change what is necessary, starting the critical review from step 1.

This scheme simplifies a concept that is very difficult to be employed in the reality of things. However, what is vital to consider is that interdependencies, sudden environmental changes and concurrent decisions tend to complicate the practical application of the VBM framework (Ittner and Larcker, 2001).

CHAPTER 2

VALUE CREATION

Historically, the main objective of corporations was the maximisation of profit, as argued by supporters of Neoclassical Economics. Throughout time, the so-called market value became more popular than profit, considering that, beyond income, it also includes fundamental factors, such as risk or time. Hence, the theory of value-oriented management arose, and enterprises' main goal became to deliver value to the company's owners. The idea of maximising profits did not disappear but simply changed: it moved from optimising *accounting* profit to improving *economic* profit (Berzakova, Bartosova and Kicova, 2015).

By now, it is clear that Value-Based Management places value creation as the ultimate corporate purpose. However, this is only the starting point. A fundamental phase consists in measuring how much value the management can create. After, it is essential to quantify the level of advancement in order to assess whether the current strategies and action plans are successful. Finally, once the management has decided which metrics are better suited to measure the value of the specific business of the firm, then it is possible to tie the remuneration plan of executives to those indicators (Young and O'Byrne, 2000).

2.1 Shareholder value

First of all, what is meant by the term "value"?

Value denotes the worth of something, measured in material, monetary or assessed terms. In finance, value is used to estimate how much an asset, a firm, or a performance is worth. People generally want to know how much something is worth for many reasons, including finding investment opportunities and monitoring the business success.

Back to the distinction between shareholders and stakeholders, already discussed in chapter one, value can be of two kinds (Berzakova, Bartosova and Kicova, 2015):

- *Stakeholder* value. It considers the stakes of many different subjects, all of which want the company to succeed in the long term. However, stakeholders often have different interests, values, and goals that cannot be satisfied simultaneously.
- *Shareholder* value. The value from the point of view of the corporate's owners, which is linked to the concepts of capital investment growth (i.e., the goal of enhancing the worth of the amount invested in the company), ownership, opportunity cost, and corporate performance.

For what concern Value-Based Management, these two values are both critical, but with different prominence. Although the former matters because it describes the set of relationships that should be harmonised for the company's long-term success, the latter is the one that carries more weight (Berzakova, Bartosova and Kicova, 2015).

Furthermore, the concept of value can have several definitions. For example, one primary distinction to consider is the following, between Book Value and Market Value:

- Book Value: the worth of an item resulting from the Financial Statements. It represents the residual amount computed within

accounting that would be left if a company pays all its financial obligations and sells its assets.

- Market Value: corresponds to the price that a buyer would willingly pay to purchase something from a seller within a commercial deal on the open market. Specifically for companies, the Market Value typically represents the total value of the firm's stocks traded on the market, according to participants of that market.

In addition, there are also other interpretations of the concept of value. Within the Value-Based Management framework, worth mentioning is the concept of Value Added, which quantifies a specific difference: the superior benefits or the improved features offered by the firm's product compared to those of the competitors (Berzakova, Bartosova and Kicova, 2015).

Although the concept of value was already taught in business schools, managers were, and often still are, attached to the traditional performance metrics. However, traditional accounting measures may present some adversities. In an article, the firm Stern Stewart & Co. (2000) identifies five main risks that managers could bump into when using traditional indicators, which are, for instance, profit margins and income, Earnings Per Shares (EPS), unit cost, Return on Assets (ROA), Return on Equity (ROE). Firstly, the risk of *overinvestment*, caused by the fact that traditional metrics overlook the cost of capital, that is, the expected returns for the owners, but consider acceptable a whichever investment project with a return higher than zero. The issue with this method is that not all investments with expected future gains will improve corporate value too. On the contrary, some could be detrimental to value creation (Stern Stewart & Co., 2000).

Secondly, the possibility of *overproducing* should be mentioned as a risk that arises due to the accounting effect of inventory. Producing despite the demand gives the impression of reducing costs but, at the same time, creates unnecessary stored materials and stiffens the production cycle (Stern Stewart & Co., 2000).

Thirdly, the so-called issue of "*feed the dogs, starve the stars*" should be explored. Businesses that effectively increase corporate values are considered "stars", while "dogs" are their opposite, businesses that appear valuable but are actually fool's gold. Sometimes management might miss catching the "stars" because they are too focused on percentages, margins and yields that drow attention on returns only. By doing so, executives may pursue "dog" investments believing that they will improve corporate growth while they might essentially be reducing value (Stern Stewart & Co., 2000).

Fourthly, the risk of the so-called *service economy*. The traditional financial measures are not in step with the times because they try to simplify the business reality relying on traditional business models, ignoring the considerable changes in modern markets. Nowadays, business models are increasingly service-oriented, which means that they need low capital allocations, emphasise sustainable and profitable growth, and favour long-term investments (Stern Stewart & Co., 2000).

Lastly, there is the threat of making *poor decisions*. Traditional accounting metrics often ignore the effective composition of capital, leaving out the cost of equity. Moreover, business decisions linked to managers' remuneration make room for behavioural biases, which fall within the already mentioned agency problem (Stern Stewart & Co., 2000).

Regardless, accounting measures remain fundamental from a legal perspective since the accounting office must follow the accounting standards to comply with both civil and fiscal laws. However, other indicators are better suited to comprehend and run the business (Weissenrieder, 2005). Therefore, it can be concluded that book values, also called accounting values, are not very reliable for measuring actual corporate performance these days.

As claimed by Christopher and Ryals (1999), in their definition of VBM, managers should be "focused on the creation of real value not paper profits" (Christopher and Ryals, 1999). Although many environmental changes did happen, the "short-term performance obsession" (Rappaport, 2005) did not disappear for several

reasons. This matter was tackled by Alfred Rappaport (2005) in his paper precisely titled "The economics of short-term performance obsession". One explanation of managers' propensity to achieve immediate results is represented by the attitude of professional investors. Notwithstanding that these specialists recognise that some more sophisticated approaches (e.g., the Discounted Cash Flow (DCF) analysis) are more reliable and appropriate for assets valuations, they prefer to save time and money by focusing on short-term performances, recorded by executives in official reports. The focus on short-term profits is even more stressed in young companies that do not have a solid financial and operating history behind them. In their case, the performance recorded in the short run is very significant because it gives an idea about the firm's future growth, and there are not many other available indicators. Another reason is that stock prices are very responsive to changes in earnings and, in general, to near-term performance trends. Therefore, senior executives and CEOs have special consideration for these indicators because their reputation depends on them (Rappaport, 2005). Lastly, another reason long-term performance measures are less favoured is the shortening of the average holding period of stocks. Today, stocks in professionally managed funds last on average less than a year, while in the 1960s, the average was around seven-year (Rappaport, 2005. Rappaport, 2006).

One might ask how a company can instil a long-term perspective and create value for its shareholders rather than just focus on earnings. The answer cannot be univocal and straightforward, but in this context it might be useful to present one among the possible solutions to this question.

Alfred Rappaport (2006) published an article, "Ten Ways to Create Shareholder Value," where he gives one answer to the abovementioned question. More accurately, he theorised ten guiding principles for firms to follow. However, applying all his ten principles does not guarantee that the company will undoubtedly enhance its long-term value-creation, but implementing all of them simultaneously could be of help for the company (Rappaport, 2006). In this context, Rappaport's tenets have been divided into three groups, as follows:

- The first four principles underline that managers should make choices focusing on maximising value creation rather than short-term gains.

> *"Principle 1: Do not manage earnings or provide earnings guidance."*
>
> (Rappaport, 2006, p. 3)

As already pointed out, this principle highlights the unreliability of earnings in measuring value. Indeed, the company's net income represents neither the value created by the management nor its variation over time. In addition, near-term earnings could lead the company to either overinvest or underinvest. Overinvest by accepting several projects requiring an investment lower than the capital cost do not necessarily create value. Underinvest by missing investment that could create or enhance corporate value because it does not produce immediate returns. Furthermore, the attempt to stress accounting rules to make the information of the reports make a good impression can result in bad operating decisions, which might destroy value (Rappaport, 2006).

> *"Principle 2: Make strategic decisions that maximise expected value, even at the expense of lowering near- term earnings."*
>
> (Rappaport, 2006, p. 3)

Rappaport supports the idea that every manager's choices should be based on the expected enhancement of corporate value thanks to the future cash inflows rather than the estimated impact of earnings on Financial Statements. Moreover, the expected value computation should be applied to more than one scenario to identify which project or strategic decision is best. Evaluate only one strategy is not enough (Rappaport, 2006).

> *"Principle 3: Make acquisitions that maximise expected value, even at the expense of lowering near-term earnings."*
>
> (Rappaport, 2006, p. 5)

The concepts shown with the second principle are worth more for mergers and acquisitions (M&A) because these extraordinary strategic operations can create great value as fast as they destroy it. Rappaport illustrates that the Earnings Per Shares (EPS) ratio alone is not sufficiently good to evaluate M&A because it might give misleading information. The executives' role is to understand the present value of the future cash flows generated by the merger or acquisition and the specific possible synergies and risks of every operation (Rappaport, 2006).

> *"Principle 4: Carry only assets that maximise value."*
>
> (Rappaport, 2006, p. 5)

Finally, value-oriented managers should monitor the value of the company's assets for two main reasons: firstly, to not forego the chance to sell a detachable asset when the opportunity arises, i.e., when there is a buyer ready to pay a considerable premium for it. Secondly, sometimes outsourcing is more convenient and cheaper than perform certain activities in-house. One significant advantage of outsourcing is that firms have the opportunity to focus on those activities that mainly add value and generate competitive advantages (Rappaport, 2006).

- The fifth principle can be paired with the last two as they all refer to the relationship between management and owners of the company.

> *"Principle 5: Return cash to shareholders when there are no credible value-creating opportunities to invest in the business."*
>
> (Rappaport, 2006, p. 6)

When there is a surplus of cash and not many plausible investment chances, an intelligent choice for managers is to distribute dividends to shareholders or return money to them through stock buybacks. This activity allows the owners to reinvest that money somewhere else and decrease executives' risk of making hazardous investments (Rappaport, 2006).

> *"Principle 9: Require senior executives to bear the risks of ownership just as shareholders do."*
>
> (Rappaport, 2006, p. 8)

Another fundamental step is to link senior managers' remuneration to the company's performance so that the long-term interests of both constituencies are aligned. This alignment is typically achieved by converting a part of the salary into shares ("stock ownership"). Thus, the better the company performs, the more top executives will benefit. In the 1990s, the most popular method implemented was the stock option, but over time became noticeable that this system was not satisfactory enough since managers were still far from bearing the same risk as owners. Rappaport claims that companies, instead, should find the right balance between incentives based on equity, which gives managers ownership stakes, on the one hand, and liquidity limitations and lack of diversification on the other hand. In other words, senior executives become overly risk-averse whether they own too much equity or not at all. In the first case, they do not want to jeopardize stocks' value, while in the second scenario, they are afraid of failure and the possible consequent termination. One possible solution applied by some firms is

to issue performance shares, which entail managers to remain within the company and to accomplish specific planned performance objectives (Rappaport, 2006).

> *"Principle 10: Provide investors with value-relevant information."*
>
> (Rappaport, 2006, p. 10)

Communication between shareholders and the management is paramount. Publishing corporate performance statements has the power of removing, or at least reducing, the short-term performance obsession and give more certainties to stockholders so that, potentially, the cost of capital decreases since owners feel less risk. To some extent, improve corporate reports is a way of creating value (Rappaport, 2006).

- The remaining principles, from the sixth to the eighth, concern the remuneration and reward system.

> *"Principle 6: Reward CEOs and other senior executives for delivering superior long-term returns."*
>
> (Rappaport, 2006, p. 6)

> *"Principle 7: Reward operating-unit executives for adding superior multiyear value."*
>
> (Rappaport, 2006, p. 7)

> *"Principle 8: Reward middle managers and frontline employees for delivering superior performance on the key value drivers that they influence directly."*
>
> (Rappaport, 2006, p. 8)

These three principles affect the salaries of top, middle, and lower managers. As already disclosed with the ninth principle, it is essential to tie CEOs and top executives' compensation to corporate performance to align their interests so managers can understand which risks shareholders bear and are incentivized to create long-term value (Rappaport, 2006).

Moving on to discuss middle managers, companies must be careful in evaluating business units' performances. What happens is that really good or very bad performances might be hidden by the results of the other units, resulting in unfair situations. For instance, in the case of outstanding results, those managers doing extraordinarily well are penalized and non-properly rewarded, or, in the other case, executives take undeserved credits or get away with their bad administration (Rappaport, 2006).

Finally, for middle and, in particular, lower managers and all the other employees, the company should identify the key indicators of value that affect long-term wealth creation. These employees must have a direct influence over the chosen indicators with their activities. Moreover, these value indexes should be easy to understand and quantify and simple to communicate. In this way, people are rewarded for their successes and incentivized to seek long-term value-enhancing actions (Rappaport, 2006).

2.2 Old fashioned financial indicators

To understand whether a company is creating value or destroying it, exist several different indicators. Some metrics are better suited to estimate the value of an investment, while others are more appropriate for corporate and performance evaluations.

In order to enhance shareholders' wealth, two principles must be kept in mind. The first one, the more general one, regards the corporate structure, the firm's management, and the decision-making process, which all must be aligned to improve the shareholder value in the long run. Every choice related to the firm, in every field, must provide that the future returns will be above the costs of capital, considering the whole lifecycle of a business decision. In other words, managers should maintain a multi-period perspective, considering their actions' positive and negative effects, short and long term wise. The second principle is more specific and refers to investments. The type of investment that the company wants to undertake is irrelevant, whether buying or selling an asset or real estate or purchasing stocks, bonds, or other financial securities. What matters is that the discounted future cash flows generated by the investment are more than the costs incurred (Krol, 2007).

To pursue both these principles and so to create value, different metrics can come in handy. In particular, the second principle needs indicators suited not only to estimate the future returns of an investment but also to compare available alternative projects. Instead, the first principle requires broader corporate performance measures, as stated by R. Simons in his book *Performance Measurement and Control Systems for Implementing Strategy*. According to Simons (2014), "The success of any corporate strategy is reflected in **corporate performance**" (Simons, 2014, p.189). However, there are several different markets in the world, which in turn have many various constituents who pursue different value types. These constituencies can be divided into three major groups that transact with companies through three identifiable markets: the customer,

the factor, and the financial markets. The first two markets include both financial and non-financial measures to evaluate the satisfaction, respectively, of the clients and the suppliers of the firm. The third one measures the value created from the perspective of owners and creditors. In other words, from the point of view of the provider of corporate capital, whether equity or debt. Executives must keep a close eye on this latter market because it gives them the ability to understand if the business meets the current owners' expectations and potential new stockholders (Simons, 2014).

From the point of view of financial markets, it usually is simpler to compute the performance of publicly traded firms listed on the market because the value can be assessed by measuring the continuous changes in stock prices. Since there is a market, share price information is unambiguous and that the data are clear and objective. Instead, for what concern private companies, estimating how much value is created for shareholders is more challenging because there is not a market for its shares; therefore, alternative valuation methods are needed. In this case, the change in the price of stocks is computed indirectly. For instance, a method consists in assessing how much someone would pay to purchase a company's share at that very moment and then compare the results obtained at different times (Ameels, Bruggeman and Scheipers, 2003. Simons, 2014). Typically, this method is applied when there are similar firms with similar businesses but with stocks issued on the market, so it is possible to compare them easily. However, given the complexity of finding companies that are indeed similar in practice, firms often prefer to count on accounting values. Book value, though, must be adjusted in order to avoid misleading interpretations. As already stated, these values simplify the enterprise's reality very much, and shortcomings can result in biased evaluations of corporate worth (Ameels, Bruggeman and Scheipers, 2003). Therefore, on the one hand, it is clear why managers of privately held firms need to monitor some financial measures. That is, in order to oversee the corporate performance trends. On the other hand, even though markets supply precise stock-market data for public companies, executives of listed firms commonly keep track of few financial measures

To summarize, executives use different value indicators for various purposes. T. Koller (1994) wrote: "The value of a company is determined by its discounted future cash flows. Value is created only when companies invest capital at returns that exceed the cost of that capital" (Koller, 1994). In order to compute the discounted future cash flows of a project, a specific method comes to help, the so-called Discounted Cash Flows (DCF) model. Sometimes this model is supported by a specific ratio, the Internal Rate of Return (IRR). However, to measure the value of the entire corporation, the DCF model and the IRR are not the best solutions. Managers need indicators able to monitor the performance, but that can also shape the corporate remuneration policy of employees and executives themselves. To determine the corporate performance and the amount of value created for the shareholders, traditionally, firms' executives use to monitor the following metrics: profit, Return of Investment (ROI), Residual Income (RI) and Market Value (MV) (Simons, 2014). However, according to some supporters of the Value-Based Management theory, these indicators are outdated because they rely too much on accounting values. In their opinion, a better metric is the so-called Economic Value Added (EVA) because it is one indicator that can serve many purposes simultaneously. They argue that EVA is suited not only to monitor the improvements in value generation of the whole firm and the advancements in strategies, but also to reward managers at all levels for making value-enhancing decisions and to help change the corporate culture instilling a value-oriented mindset. S. David Young and S. F. O'Byrne (2000) agree: they argue that EVA is a performance measure able to help strategy implementation and make work many different corporate functions, such as allocation of capitals, budgeting, internal and external communication, performance evaluation, and executives' remuneration. Economic Value Added can become a helpful tool that can assist the management in adopting a comprehensive Value-Based Management system (Young and O'Byrne, 2000).

The third-millennium advocates of VBM sustain that EVA is not good enough alone, but other metrics should support it. For instance, the DCF model is well-accepted by VBM as an internal valuation method. Firms should choose various performance indicators, besides EVA, to assess if the implemented strategy was

successful or to state if any ulterior improvements are needed. After all, the Economic Value Added measure is not a value creator itself, but it is simply a tool, with pros and cons like any other metric (Vasilescu and Popa, 2011). In order to understand both the origins and the advantages and disadvantages of EVA, it is helpful to have a quick look at the above-cited measures, traditionally used by executives before the spread of VBM:

- Valuation metrics:
  - Discounted Cash Flow (DCF)
  - Internal Rate of Return (IRR)
- Performance indicators:
  - Economic Profit
  - Return On Investment (ROI)
  - Residual Income (RI)
  - Market Value (MV)

2.2.1 Discounted Cash Flow (DCF)

DCF is a valuation approach that considers three fundamental aspects of future cash flows: the magnitude, the timing, and the degree of uncertainty. Firstly, the term *magnitude* refers to the total number of cash flows. In other words, with any other thing being equal, the greater the cash inflows, the better, and the greater the cash outflows, the worst. Secondly, the *timing*, when the cash flow occurs. Knowing at which moment a cost or a profit arises is a crucial element to consider because, as economists teach us, a dollar today is worth more than a dollar tomorrow. Finally, there is always a risk with future cash flows because they are expected, something planned to happen, but not something sure. This is why it is fundamental to consider the *degree of uncertainty* of a future cash flow. The higher

the risk of investing today, the higher the return one will gain in the future. Typically, all else being equal, the farther in time one expects to receive a cash inflow, the greater is the risk assumed by the investor, and thus the greater is the degree of uncertainty (Young and O'Byrne, 2000). In order to group all these elements, the DCF model uses a straightforward formula that "translates future sums of money into equivalent current sums" (Goulder and Stavins, 2002, p. 673) through "discounting" (Goulder and Stavins, 2002). The term "discounting" refers to the mechanisms employed to determine the value of a specific operation composed of four main elements: investment, cash flows, economic life, and capital costs (Weissenrieder, 2005).

The formula at issue is the one that calculates the Present Value (PV) of a project, and it is calculated as follows:

$$PV = \frac{CF_1}{(1+r)^1} + \frac{CF_2}{(1+r)^2} + \cdots + \frac{CF_n}{(1+r)^n}$$

$$PV = \sum_{t=1}^{t=n} \frac{CF_t}{(1+r)^t}$$

CF_t is an expected future cash flow in period t of an investment (or an asset) with an economic life equal to n and a discount rate r. The rate r represents the level of detected riskiness of the investment, the degree of uncertainty associated with the expected cash flows. Therefore, the first step is to estimate the future cash flows of the investment under observation.

Second, the calculation of the discount rate, which can be defined as the cost of capital for the investor, i.e., the minimum return that the investor wants to receive because he believes that that return is equal to the one he would gain through another investment with the same risk (Young and O'Byrne, 2000). Firms have two types of investors to satisfy when making an investment decision because

managers can gather capital through equity and debt. Consequently, the discount rate must comprehend the expected rate of return of the debt providers and the one demanded by the shareholders. For this reason, typically, when a manager is evaluating an investment decision, he uses *r* within the formula, that is, the rate of return associated with such investment. While, when there are assets' valuations or projects' assessments, the rate used is the so-called Weighted Average Cost of Capital (WACC), a ratio that considers the firm's capital structure and its cost (Simons, 2014).

The capital structure is fundamental because it implies the cost for a firm of doing business, which the management should minimize. The cost of capital is defined as the rate of return of an investment that a provider of capital would expect to obtain if the same amount of money was allocated in other investments with equal risks. A company must pay for the investor's risk of losing money. In other words, the cost of capital represents the opportunity cost of capital providers. It is based on future expectations rather than historical returns trends (Young and O'Byrne, 2000).

The formula of the Weighted Average Cost of Capital is the following (Young and O'Byrne, 2000):

$$WACC = K_E * \frac{E}{E+D} + K_D * \frac{D}{E+D}(1-T)$$

Where K_E is the cost of equity, that is, the return required by the shareholders (i.e., the providers of equity). K_D is the cost of debt, the return demanded by the providers of debt. *E* represents the market value of the company's equity, while *D* is the market value of the debt, which means that "*E+D*" is the total value of the firm's capital. Finally, *T* stands for the tax rate, which reduces the cost of debt because the interest expenses that must be paid to the lenders are subtracted from the taxable amount. For this reason, debt has one advantage compared to equity: it is cheaper because interest expenses are deductible and reduce the amount of

taxes to be paid by the firm. This phenomenon, known as “tax shield”, can be fundamental in choosing between equity or debt financing. Moreover, equity is generally riskier than debt; therefore, the cost of equity is higher because it entails a risk premium for the shareholders that have their money at stake (Young and O’Byrne, 2000). Without going further into details, debt also has many disadvantages, so that the best solution ever is a combination of the two types of capital.

While the cost of debt is easily identifiable because established by contracts, the cost of equity cannot be observed. Managers need to figure out which could be the possible rate of return of stockholders by examining the behaviour of capital markets. Exist a popular model that can help executives determine the cost of equity: the Capital Asset Pricing Model (CAPM) (Young and O’Byrne, 2000).

Once decided whether to use the discount rate of the investment itself or the WACC for corporate projects, it is possible to calculate the PV of all cash flows. Computing the Present Value is very important because it enables the investor to understand the appropriate price for the investments. For example, if a project has a PV equal to € 10,000, it would be not advisable to pay today for this investment an amount equal to or even higher than € 10,000.

To simplify this process of evaluation, very often, managers use to compute the Net Present Value (NPV) of an investment plan, rather than the PV, because it provides a more immediate picture of the suitability of the project. Net Present Value (NPV) is the present value of the expected future cash flows of a project, less the initial cost of the investment. If the result is equal to zero or negative means that the investment is likely to destroy value. If NPV is positive, the project is expected to create value (Young and O’Byrne, 2000). The Net Present Value formula is efficient also for comparing different projects because the higher is the NPV, the better. Therefore, if there are several investment alternatives, a manager should choose the one with the greatest NPV.

2.2.2 Internal Rate of Return (IRR)

Within the DCF framework, an alternative approach is represented by the Internal Rate of Return (IRR). IRR is not in absolute terms, as the Net Present Value, but is expressed as a percentage. The formula utilized to compute this ratio is the NPV one, but with two necessary modifications. First, IRR is the unknown variable, and it is the rate of return instead of *r* or WACC. Second, the whole formula, so the Net Present Value, is set equal to zero. Therefore, the formula is the following:

$$NPV = 0 = \sum_{t=1}^{t=n} \frac{CF_t}{(1 + IRR)^t} - I_0$$

I_0 represents the total amount of the initial investment.

One might observe that with this formula the technique to calculate IRR is not very straightforward. One possible approach to compute it is the "trial and error" method, a problem-solving approach that seeks the solution through various wise, and not casual, attempts. Nowadays, it is possible to compute IRR very straightforwardly and quickly by employing computers with specific software.

Worth mentioning, IRR gives the same solution as NPV. Therefore, a project would similarly be approved or declined, regardless of the method chosen (Young and O'Byrne, 2000). However, NPV is expressed in absolute terms, while IRR is a rate. Being a percentage explains why the Internal Rate of Return is an excellent tool to assess the suitability of a specific project. However, it is not suited to compare different investment alternatives and identify the one that mainly enhances the shareholders' wealth (Mäkeläinen, 1998). If the IRR of a project is less than the cost of capital, then this proposal should be immediately rejected (Young and O'Byrne, 2000). When this index is used in this way, it becomes a *hurdle rate*. In other words, it is utilized as a communication tool for senior managers to provide executives with a guideline for making investments. Once managers are informed

about the minimum IRR accepted, they are aware that any project with a lower rate of return will be *a priori* rejected (Simons, 2014).

2.2.3 Economic Profit

Although it cannot be defined as a traditional indicator, Economic Profit is not a newborn metric, and it is an essential concept because it lays the foundations of the value-based indicator, analysed later.

First, taking a small step backwards, the term "profit" is defined as the difference between the revenues on the one hand and the costs on the other hand. Revenues are easy to identify because they equal the price multiplied for the quantity of products or services sold. Revenues are a matter of fact; they are the total amount customers pay in a given period. The other side of the coin is the cost, which is more difficult to be determined. In particular, costs can be either *accounting* costs or *economic* costs. The formers are captured by the Financial Statements, specifically in the Income Statement, and they are explicit because they are part of the financial transparency required by law. The others, instead, are not mandatory to be disclosed, and they are the sum of the explicit costs (i.e., the accounting costs), plus the so-called implicit costs. The term "Implicit costs" refers to the amount that has to be sacrificed to make a specific choice or investment rather than another one. They are also called opportunity costs because they represent the alternative possibilities that the company or a manager is missing by employing resources in one way instead of another. Implicit costs are difficult to be observed and computed, and they are ignored by accountants because considered irrelevant fictitious items. To summarize (Berzakova, Bartosova and Kicova, 2015):

$$Economic\ Costs\ = Explicit\ Costs + Implicit\ Costs$$

Therefore, the economic profit is calculated, subtracting not the accounting costs but the economic ones. That is (Berzakova, Bartosova and Kicova, 2015):

$$Economic\ Profit\ = Revenues -\ Economic\ Costs$$

$$Economic\ Profit\ = Revenues -\ Explicit\ Costs - Implicit\ Costs$$

Anyhow, the concept of Economic Profit is not new, but it was defined for the very first time in 1890 as "the total net gains less the interest on the capital invested at the current rate" (Mäkeläinen, 1998, p.8) by Alfred Marshall (Mäkeläinen, 1998).

According to Koller (1994), Economic Profit is a valuable tool to measure short-term financial performance. Even though value should be assessed in terms of future cash flows in the long run, firms also need to set short-term targets and measure near-term performance for different reasons. For instance, to define employees' remunerations or to evaluate the advancements of particular projects or plans. Therefore, Economic Profit is a measure that can be applied for establishing targets in terms of value in the short period, and its formula can be adapted to this goal in the following way (Koller, 1994):

$$Economic\ Profit\ = Invested\ Capital * (ROIC - WACC)$$

In this formula, "Invested Capital" is the sum of the equity and the debt values, that is, the total amount of capital collected by the firm's management. "ROIC" means Return on Invested Capital, and it is an indicator that shows if the company

is using well the capital to create profits. If the ROIC is lower than the WACC, the Economic Profit is negative, and thus the company is destroying value. Otherwise, if the ROIC exceeds the WACC, then the firm is considered a value-creator. In this way, one can determine the difference between the firm's earnings in a certain period and the minimum return that the investors want to receive. If a company can improve its Economic Profit throughout time, it will also enhance corporate wealth creation (Koller, 1994).

2.2.4 Return on Investment (ROI)

As well as the Economic Profit, the ROI ratio is not a recent concept; indeed, it was developed at the beginning of the 1900s by the DuPont Company (Brewer, Chandra and Hock, 1999). Hence, ROI is a ratio expressed as a percentage, and it can be used to compare alternative investments, projects, and assets and monitor the performance of a company or a business unit. The formula of this indicator, for what a whatever investment, is:

$$ROI = \frac{Current\ Value\ of\ Investment - Cost\ of\ Investment}{Cost\ of\ Investment}$$

The ROI ratio does not take into consideration the opportunity costs and the timing of the cash flows. For this reason, it is possible to rewrite this formula in the following way (Simons, 2014):

$$ROI = \frac{Accounting\ Profit}{Capital\ Invested}$$

To summarize, the Return on Investment is measured for a specific time as the ratio between a profit, divided by the cost incurred by the firm to produce that specific income (Simons, 2014).

This ratio is well-known among managers because it is elementary to calculate and understand. In order to increase this indicator, executives have two solutions: first, improve the asset turnover, that is, the revenues produced by an asset. The greater the sales generated by capital investment, the higher the income and, therefore, the higher the ROI index. Second, increase the profit margin gained for each product sold, whether goods or services (Brewer, Chandra and Hock, 1999).

2.2.5 Residual Income (RI)

Another indicator of value creation that goes beyond the concept of ROI is the Residual Income (RI) index (Simons, 2014). RI appeared around the 1910s and 1920s in accounting literature to improve the Economic Profit idea. However, it became part of management accounting writings only in the 1960s (Mäkeläinen, 1998).

This indicator measures the profit that an investor estimates to gain from the invested capital, either in the form of additional capital available to be re-invested in the business or in the form of distributed dividends. Differently from the ROI ratio, RI is expressed in absolute terms. Residual Income is computed as:

$$RI = Accounting\ Profit - Charge\ for\ Invested\ Capital$$

In other words, RI subtracts to the accounting profit the costs incurred for investing capital in the business and therefore generate that profit. The "Charge for Invested Capital" is computed at current market rates.

The following is a way to breakdown the formula (Simons, 2014):

$$RI = Accounting\ Profit - \left(\begin{matrix}Value\ of\ Investment \\ in\ Assets\end{matrix} * \begin{matrix}Expected\ Rate\ of\ Return \\ on\ those\ Assets\end{matrix}\right)$$

Therefore, the expenses incurred for utilizing the capital that has generated a profit can be calculated by multiplying how much are worth the assets used to produce an income and the current expected market rate of return of those assets (Simons, 2014).

However, there is more than one way to compute the RI metric because it can be used for different purposes. When a firm exploits the concept of Residual Income to carry out equity evaluations, that is, to examine the corporate performance, often managers try to connect RI with the concept of Economic Profit. In this way, instead of considering the accounting profit, the profit is contemplated without the opportunity costs. That is:

$$RI = Net\ Income - Charge\ for\ the\ Cost\ of\ Capital$$

$$RI = Net\ Income - (Value\ of\ Equity\ Capital * Cost\ of\ Equity)$$

Moreover, RI can be operated to evaluate the performance of a business unit, a division, a department, a team, an asset, or an investment. In these cases, the previous formula can be written as follows:

$$RI = Operating\ \ Income - (Minimum\ Required\ Return * Operating\ Assets)$$

2.2.6 Market Value (MV)

The last performance metric analysed is the Market Value (MV), also known as Market Capitalization (Market Cap). This popular indicator represents the company from the point of view of the financial markets. It is computed considering the market price of the shares publicly traded on the open market. The Market Value is calculated as (Simons, 2014):

$$MV(= Market\ Cap) = Number\ of\ Outstanding\ Shares * Price\ per\ Share$$

This index is more immediate for publicly traded firms because the stock prices are available daily (Simons, 2014). Regarding privately held companies, their Market Value index estimation is more complex and articulated because it requires more valuations and could be more inaccurate. Moreover, even in real estate and business evaluations, estimating the value of these illiquid assets is tough, so that companies often turn to experts in the field.

Market Capitalization gives an idea to firms about which is the perception of investors. Considering that markets are dynamic and investors change their opinions very frequently, MV can fluctuate considerably over time. In addition, it is subjected to several other factors, for example, the level of debt financing, the feature of the sector where the firm operates and its profitability, or the specific environment of the market.

CHAPTER 3

EVA AND ALTERNATIVE VALUE INDICATORS

At the end of Chapter 2, traditional valuation and performance metrics were presented. These measures give evidence about the current situation of the company and other information about management skills. However, they also have numerous flaws that will be enumerated and analysed in this context, as they represent the driving motive behind the widespread use of the EVA metric as an innovative value indicator.

Starting with the DCF model and the IRR, managers and firms still use these two valuation measures to evaluate alternative projects or investments opportunities. NPV calculation, included in the DCF method, is still very popular, while IRR is used at least as a *hurdle rate*. Although they are instrumental approaches and, in particular, the DCF one can help employees focus on the long-term value creation, they are not appropriate for performance and corporate evaluations. Notably, the DCF method has two considerable limitations. The first pitfall is the computing difficulty of the expected free cash flows for the whole company. To help with this issue, the Free Cash Flow (FCF) model comes to the rescue. S. David Young and S. F. O'Byrne (2000) defined a "free cash flow" as the amount remaining in the firm thanks to the operating activities carried out after having subtracted the expected investments (Young and O'Byrne, 2000). This model, however, is quite elaborate, and it requires someone very well-informed about all the operations, strategies, and prospects of the firm to estimate cash flows happening in the distant future. Gathering all these data and making projections of the future firm's FCF is expensive, time-consuming, speculative, and not widely practised by investment professionals (Rappaport, 2005). The second pitfall of the DCF model is that it cannot be used to design the compensation plan for managers because it is built on future projections and forecasts. Instead, remuneration should be based on results and comprehend valuations on the current performance (Koller, 1994).

Anyhow, companies frequently rely on the DCF model, but they necessarily require other financial indicators. Managers need performance measures to design compensation systems, to control the progress in developing action plans and perspective targets, to encourage employees to achieve the chosen goals, and to improve the long-term performance (Koller, 1994). Furthermore, executives need indicators to evaluate and monitor more specific performances, such as business units' ones or the results achieved by a team of employees, and metrics capable of measuring how the whole company is performing. This second case is relevant primarily to CEOs and top managers responsible for the sustainability and the success of the business and for supervising the advancements in realizing the long-term corporate strategy. These are some of the reasons that resulted in the diffusion of the Value-Based Management approach and in the application of management-led performance measurements instead of accounting-driven indicators (Koller, 1994). This shift was also triggered by the fact that traditional metrics have limitations in quantifying the actual performance of managers and the improvements in creating value for the shareholders.

Continuing with the analysis of the shortcomings of traditional financial measures, Economic Profit is a short-term performance measure, which means that it can only help evaluate the current performance over a few months or at last over one year (Koller, 1994). Although this metric is linked to wealth creation and enhancing it can improve the firm's value, one must tie it to long-term assessments so that one-year targets are aligned with three-years, five-years, ten-years and long-term aspirational goals. In addition, a negative feature of Economic Profit is that it includes the opportunity cost, which is very hard to calculate with precision because there could be thousands of non-pursued activities.

Regarding ROI, the main issue with this ratio is that it gives information about only the single item analysed without looking at the whole picture. For instance, ROI can be employed to evaluate investment decisions for a business unit. In this case, the ROI index might endorse the project because it improves the division's performance even though it destroys value. Therefore, the project is attractive at

the divisional level, but it is not appropriate for the whole company (Brewer, Chandra and Hock, 1999). The ROI ratio does not include the risk factor as well as it does not contemplate any rate of return, which generally managers try to maximize to boost shareholders' value (Vasilescu and Popa, 2011). Another problem concerns the compensation system, which, if based on ROI, may be unfair. This unfairness is caused by the fact that managers would be penalized with a lower remuneration if they make investment decisions that reduce the level of ROI even if they enhance shareholders' wealth. Vice versa, executives might consciously undertake value-destroying projects because they improve ROI, which means they will receive a bonus for enhancing this metric even if they made a wrong strategic choice. In other words, ROI creates a dysfunctional decision-making process (Brewer, Chandra and Hock, 1999).

From a certain point of view, Residual Income tackles this issue of goal incongruence between the company and managers (especially business-unit executives). RI is not a relative measure (i.e., not a percentage), but it is an absolute figure, and it includes the cost of capital, both of equity and debt. However, this indicator is criticised for being too attached to accounting figures when computing the profit and the capital employed. The problem with being accounting-related is that sometimes book values are manipulated. Moreover, even if it can align the firm's interests with those of the managers and divisional executives, it does not consider the size of the business unit and the size of their investments. Larger units typically result in a higher level of RI than smaller ones, but it is not possible to assess whether this outcome is the result of the superior skills of the manager or simply due to the unit's size.

The last measure is the Market Value. As already disclosed, Market Capitalization is a very immediate and straightforward indicator to estimate for public companies. Therefore, the first big problem already arises when it comes to computing it for private firms. In addition, even for enterprises with publicly traded stocks, there are several challenges with the computation of the MV ratio.

First of all, MV does not consider the selling cycle, which means that seasonal businesses will record remarkable increases in some periods of the year and significant drops in others. It might be helpful to study these trends for analysing the sales cycles, but these periodical changes can compromise the evaluation of the corporate performance.

Moreover, another issue associated with the Market Value is linked to this last matter presented. This indicator can suddenly rise or drop according to the demand for a good or service. If the supply remains stable but the demand increases, MV will reach temporary high values and vice versa. In conclusion, executives using Market Capitalization must keep in mind that this indicator fluctuates a lot, so they must be careful when interpreting it.

Furthermore, Market Value relies on historical data because, otherwise, it would be impossible to state whether the result achieved is good or bad. However, this means that, on the one hand, it is not possible to apply it with start-ups or young companies. On the other hand, the interpretation of MV is influenced by external factors that are not under management control. It is possible to overcome this issue by comparing the MV of the firm with the one of a similar company listed on the market. However, this solution is “easier to say than to do”, considering that inevitably do not exist businesses completely alike. Finally, it is worth mentioning that Market Capitalization does not represent the effective price a buyer would pay for the whole company in an M&A transaction because stocks typically are subjected to under-or-over valuation by markets.

To sum up, all these indicators are not entirely satisfying. On one side, ROI and RI rely on accounting measures for evaluating income instead of depending on economic measures, which implies they ignore the opportunity cost of capital. On the other side, Economic Profit is not a long-term indicator, while Market Value has a fluctuating trend because it heavily depends on market investors' perceptions. Therefore, the adjustments made by scholars to these metrics to find a more appropriate performance index resulted in the Economic Value Added (EVA) ratio (Simons, 2014). EVA appears to be the perfect solution to solve many

issues because it is an excellent performance measure both internally, for the company's management, and externally, for professional analysts (Sharma and Kumar, 2010). Anyhow, as previously stated, the Economic Value Added measure indicator does not create value just because managers decided to use it, but it is simply an instrument (Vasilescu and Popa, 2011).

Here below, the main features of EVA, how to calculate it, and its advantages will be analysed before describing its disadvantages and limitations. Subsequently are analysed the main modifications of EVA that managers could adopt in practice. The alternative indicators to EVA that analyse in the following chapters are:

a) MVA: Market Value Added.
b) RONA: Return on Net Assets.
c) CVA: Cash Value Added.
d) SVA: Shareholder Value Added.
e) TSR: Total Shareholder Return.
f) ER: Excess Return.

Choosing the right financial indicator is an essential phase not only for firms embracing the Value-Based Management philosophy, but also for any enterprise willing to achieve long-term success, improve its business and satisfy all its stakeholders, but, above all, corporate owners (Berzakova, Bartosova and Kicova, 2015).

3.1 EVA – Economic Value Added

Economic Value Added, EVA, is a financial performance indicator of economic profit, expressed in monetary terms (Crowther, Davies and Cooper, 1998; Brewer, Chandra and Hock, 1999), which measures the company profitability after subtracting the cost of capital (Sharma and Kumar, 2010). Managers compute EVA for two primary purposes: first, to evaluate the performance regularly, and second, for assessments (Crowther, Davies and Cooper, 1998). In the first case, it can be stated that EVA reveals the residual profitability of the firm. The profitability is called "residual" because it includes all the direct and indirect costs of borrowing capital, whether or not it is equity or debt capital (Vasilescu and Popa, 2011).

> *"EVA is an estimate of true economic profit or the amount by which earnings exceed or fall short of the required minimum rate of return that shareholder and lenders could get by investing in other securities of comparable risk."*
>
> (Sharma and Kumar, 2010, p. 201)

EVA is calculated by subtracting from the Net Operating Profit After Tax (NOPAT) the Capital Charge, which can be breakdown into Invested Capital multiplied for the Weighted Average Cost of Capital:

$$EVA = NOPAT - Capital\ Charge$$

$$EVA = NOPAT - (Invested\ Capital\ * WACC)$$

The term “NOPAT” indicates the operating income generated by the firm minus the taxes incurred. The first step to compute it is to subtract the operating expenses from the net sales to find the operating profit (i.e., the EBIT, Earnings Before Interest and Taxes). Then, the second step is to deduct the taxes from the EBIT:

$$Operating\ Profit\ (EBIT) = Net\ Sales - Operating\ Expenses$$

$$NOPAT = Operating\ Profit\ (EBIT) - Taxes$$

This element, Net Operating Profit After Taxes (NOPAT), eliminates the distortion created by the capital structure chosen by the company. In other words, it keeps out the effect of taxes because it does not consider the tax savings that only debt could realize. Therefore, NOPAT calculates the profit obtained regardless of the type of capital the managers have raised to finance the company's operations. In addition, another positive aspect of NOPAT is that it includes only the income created by the normal corporate operations and does not contemplate extraordinary, temporary expenses.

Moving back to the formula to compute EVA, Capital Charge represents the “opportunity cost”. For what concerns its composition, the Weighted Average Cost of Capital is multiplied by the Invested Capital, also known as Capital Employed (CE). CE can be computed in three different ways that all give the same result:

$$CE = Total\ Assets - Current\ Liabilities$$

$$CE = Non\ Current\ Liabilities + Equity$$

$$CE = Non\ Current\ Assets + Working\ Capital$$

As initially stated, EVA is also a valuation tool utilized at many levels, from estimating an entire corporation's value to judging a single project. This formula is used in the specific case of corporate evaluations, which considers both the invested capital and the firm's expected future estimates of EVA, discounted at the current value. In other words:

$$Corporate\ Value = Invested\ Capital + PV\ of\ future\ expected\ EVA$$

This approach implies the Present Value formula and, therefore, it implies applying the discounting technique belonging to the DCF model (Crowther, Davies and Cooper, 1998).

Instead, in the other case in which EVA is applied for making assessments, with the help of the NPV formula, it is possible to calculate also how much is worth a project in the following way (Crowther, Davies and Cooper, 1998):

$$NPV_{of\ a\ project} = PV\ of\ future\ expected\ EVA$$

This formula comprehends all the expected EVA values, either positive or negative (Crowther, Davies and Cooper, 1998).

In general, Economic Value Added can be measured for any entity, as of the whole company and business units, divisions, segments, departments, and others. It is a flow measure of performance and not a stock measure, like MV, because EVA computes profit, which is a flow by definition. The profit in question is not an accounting figure but an economic one, so it better reflects the actual wealth creation for shareholders. The basic idea behind the computation of EVA is that a business creates value if it can generate above-normal gains. In other words, the company's primary aim, according to EVA, should be to maximize the *excess*

return. In order to accomplish this goal, the firm should produce more than enough revenues to cover both the operating costs and the costs of all capitals (Young and O'Byrne, 2000).

Although EVA is primarily a measure of performance, it can also have other roles within the company. This feature is one reason why VBM adopted precisely this metric as its critical financial indicator to spread its principles among employees. It can also be used in several other ways, for example, as a tool for setting employee remuneration, budgets or strategic plans, or for improving internal and external communication (Young and O'Byrne, 2000; Berzakova, Bartosova and Kicova, 2015). L. Vasilescu and A. Popa (2011), in their article, summarise the four main areas in which this index is applied (Vasilescu and Popa, 2011):

i. Measurement;
ii. Mind-set (way of thinking);
iii. System management; and
iv. Motivation.

It can be concluded that EVA is a comprehensive financial management system involved in many executives' decisions, impacting corporate policies, procedures, activities, strategies, and techniques (Vasilescu and Popa, 2011).

Economic Value Added is considered an improvement of residual income, which in turn is an improvement of the economic profit. EVA has three distinctive features that differentiate it from these two previous indicators. First, it teaches managers a method for calculating the cost of equity. Before, debt was the capital mainly considered in performance evaluations because it was easy. Finding a reasonable estimation of the cost of equity was too time-consuming for companies, and, at last, it was done just for business or project evaluations. Second, EVA wants to make the operating profit free from accounting principles. Residual income accepts the profit written in the Financial Statements as given, while EVA makes a series of adjustments in order to decrease as much as possible the various biases and distortions inherent in the Generally Accepted Accounting Principles (GAAP). Lastly, it is a ratio that incentivises managers and divisional executives to undertake value-enhancing projects that, in the end, will benefit

both the whole company and its single units. This degree of commitment can be reached only by linking the compensation scheme to EVA, and in order to do this, the logic to follow is that shareholders' value grows when the EVA ratio improves. In this way, the more the managers enhance EVA, the more value is created, and so the more significant the reward for the executives, the greater the resources available for the firm's management in the form of equity. In a way, it is a form of self-financing for managers because improving the owners' wealth means improving their personal remunerations (Young and O'Byrne, 2000).

Moreover, executives implementing EVA in the company's financial management system need to understand how to improve this indicator. There are several ways to do it. One example is by enhancing revenue growth, that is to say, increasing the returns of the assets already in the company's hands without making further capital investments. A second way to improve EVA is through profitable growth. Profitable growth can be achieved by expanding the firm's business, exploiting new markets, and undertaking capital investments with expected returns greater than the WACC or the cost of capital related to the new investment. In addition, a third solution would be disinvesting all the activities that are *destroying* rather than *creating* value. Disposing of the underperforming assets or divisions will result in wealth creation for stockholders. Closing down or selling a division or a part of the business decreases the invested capital (Vasilescu and Popa, 2011. Young and O'Byrne, 2000).

Finally, two other ways to improve EVA are, on the one hand, extending as much as possible the period in which the firm can maintain a competitive advantage so that the returns gained are higher than the cost of capital used to generate them for a more protracted period. On the other hand, decreasing the cost of capital because reducing the WACC for a given percentage change can be wealth-enhancing. For what concerns this last point, it is essential to underline that CEOs have a fundamental task: determine the capital structure of the company. The optimal capital structure is the one that minimises the cost of capital, taking into consideration the ability of the firm's assets to generate cash flows (Young and O'Byrne, 2000).

As already determined, EVA has many advantages. It is a versatile financial performance metric: it can be applied for capital allocation, and it can influence the company in several aspects, from the remuneration system to the corporate mindset and culture. It is an index that is easy to communicate and helps the management with employees' cooperation, coordination, and organization. It is a sort of shared language that connect all employees, given that managers can use this single metric for making choices. Therefore, it simplifies the delegation of power and the decentralisation, granting long-term profitability (Vasilescu and Popa, 2011). It also aligns the personal interests of the corporate directors and divisional executives with the firm's interests, or, to better say, of the shareholders. A. Sharma and S. Kumar (2010) wrote a literature review about EVA, and they summarized some statements of several EVA proponents about the most significant positive features of this metric: (i) EVA contributes to decreasing agency conflicts and enhances the decision-making process; (ii) this indicator is tightly linked with the returns of stocks; (iii) it improves the performance of shares; (iv) it gives more information than any other metric about the stock return trends; (v) EVA is interrelated with MV (Sharma and Kumar, 2010).

3.1.1 Limitation of EVA

The limitations of the EVA indicator led corporate directors to seek alternative metrics for managing the company. It is possible to summarize the disadvantages of this indicator into seven main limitations.

Firstly, one of the major criticisms is that EVA is a *short-term* performance measure because it periodizes the costs and revenues ineffectively and inefficiently. The expenses of a project are typically recognised immediately at the beginning, while the benefits and gains are recorded only a few years later. In this

way, the costs are emphasised; consequently, it is more likely that the near term EVA decreases, creating a disincentive for managers to undertake investments that makes EVA negative in the short-run (Mäkeläinen, 1998; Brewer, Chandra and Hock, 1999; Young and O'Byrne, 2000; Vasilescu and Popa, 2011). The projects that are typically penalized by this mechanism are those part of the R&D department, especially investments in new innovative products or technologies. When financial control systems deeply influence companies, many times, the potential benefits of innovation are not enough to offset the risks and uncertainties associated with it. For the same reasons, young companies and all those firms that are in the growing phase are penalized if they adopt EVA as their leading indicator, given that these companies typically make many considerable investments (Mäkeläinen, 1998; Brewer, Chandra and Hock, 1999; Vasilescu and Popa, 2011).

Secondly, EVA is a *financial-oriented* measure because it is based on financial accounting practices. This fact generates two main problems. One is that executives and all those employees with the decision-making power can be tempted to alter the recognition of revenues and expenses. These modifications result from managers putting personal advantages over the company's benefits (Brewer, Chandra and Hock, 1999; Vasilescu and Popa, 2011). Instead, the other issue created because EVA employs financial accounting methods is that the company's management will focus on results, and this problem is presented in the following point.

Thirdly, there is a problem with *result orientation*. EVA is said to emphasise outcomes because it helps managers identify in retrospect if a decision or a project or whatever is analysed was a good or a bad thing. However, it does not explain why is that. In other words, financial methods evaluate the result, but not the causes that led to that specific outcome or the possible solutions to improve the current situation. The reports written by accountants assert what is evident, which is not useful at all to managers who must deliver an ever-improving value to shareholders, and are responsible even for those business processes (Mäkeläinen, 1998) that have little or nothing to do with accounting (Mäkeläinen, 1998; Brewer, Chandra and Hock, 1999; Vasilescu and Popa, 2011).

Fourthly, EVA is influenced by the *size differences* among companies and by the *development policies* adopted. A firm can choose more conservative development strategies instead of more aggressive ones or vice versa. However, this decision, typically driven by the success achieved by the company, can affect EVA. In addition, the success or unsuccess of the development policy implemented is one factor determining the firm's size. Evidence shows that larger companies, and larger divisions or units, often have greater EVA values, an issue already disclosed when discussing the ROI ratio (Brewer, Chandra and Hock, 1999; Vasilescu and Popa, 2011).

Fifthly, the *synergy* problem, which arises when EVA monitors the performance of divisions or business units. When this measure is employed for a particular part of the company, it is assumed that the unit is totally independent from the rest of the firm. However, this implication suggests that synergies between divisions do not occur, but, in real life, they do exist. Examples of synergy creation can be found when units share their equipment or facilities to split the effort and avoid doing the same job or activity twice within the firm. The vertical integration of activities represents another example of synergy creation. Having more power over the value chain means to save money for several reasons: from the more evident ones, such as not having to bargain with the suppliers for better prices, or the creation of economies of scale, to the more hidden motives, such as spare time with the transportation of the products plus the fact a company that knows how the good is made has the opportunities to improve it or to fix it if something does not work., EVA does not catch any of these elements when calculated at the department level (Young and O'Byrne, 2000).

Sixth, particularly for what concerns periodic performance evaluations, Economic Value Added is subjected to some *distortions*. First of all, it is exposed to inflation because it is based in part on historical costs. Therefore, in times of inflation, the costs of an investment might be underestimated, while the profits overstated, resulting in an overestimated EVA. Furthermore, depreciation is another factor that can affect the computation of EVA since it is a practice that decreases the historical cost of fixed assets every year. Reducing the investment base means that Capital Charge diminishes year after year, and consequently, EVA improves.

Theoretically, these potential biases can be defeated by making some adjustments, but it is not very simple. EVA's adjustments are at the core of this metric's seventh and final problem (Mäkeläinen, 1998; Vasilescu and Popa, 2011).

Therefore, the last issue is related to the EVA's *adjustments* on accounting-based numbers. The consulting firm Stern Stewart & Co. recognised 164 possible adjustments to improve EVA truthfulness (Crowther, Davies and Cooper, 1998). Theoretically, these modifications should bring closer the profit measure EVA with market share prices. The adjustments are designed to reach six goals (Young, 1999):

I. Reduce the biases of accrual accounting by making EVA more similar to a cash flow figure.
II. Eliminate the distortions due to the different treatment of tangible and intangible assets, given that the first ones are capitalized.
III. Eliminate the bias created by the amortization of the goodwill.
IV. Remove the Successful-Efforts accounting.
V. Include within the balance sheet the whole amount of debt (also involving the one off-balance sheet).
VI. Correct the misrepresentations created by the depreciation method.

The motives for applying the adjustments seem reasonable; however, in reality, managers only apply a few of them, not all 164. Initially, consulting companies claimed that a firm should implement from ten to twelve of them. Then, after more practical analysis, they observed that companies adopt less than six adjustments (Young, 1999). Managers employ only a few of them due to various explanations. Firstly, adjustments are very time-consuming and expensive. Secondly, many adjustments have a slight influence on profits. Thirdly, corporate managers are not so inclined to deviate from accounting numbers because the accounting system would be more challenging to understand, more costly to manage, and would put employees in an uncomfortable place, considering that detailed information is not always available, so modifications might seem arbitrary. Finally, from the point of view of an outsider, adjustments could be seen as

suspicious, subjective choices of executives to make the reports appear better (Crowther, Davies and Cooper, 1998; Young, 1999).

So far, this last paragraph has presented several flaws of the EVA measure after listing its positive aspects. Therefore, it is possible to conclude that Economic Value Added is a good indicator because it has several advantages, but it is a long way from perfection. Although looking for the perfect performance metric is an unrealistic task, the main goal in this context is to understand whether one specific indicator is better suited than EVA for managing a company or if adopting a combination of measures is preferable.

3.2 MVA – Market Value Added

The first financial alternative to EVA is the Market-Value-Added (MVA)[3] indicator. The Market Value has been previously analysed, and it has been defined as the stock price multiplied by the total number of outstanding shares. MV is tightly linked to investors' perceptions of the company because it is based on share prices and their fluctuation in the market. Therefore, if the investors within the market believe that the company will have positive cash flows in the future, MV will improve. However, a better way to calculate these expectations is by calculating the Market Value Added. MVA represents the current market price of the capital above how much is worth the company's invested capital (or CE), which both shareholders and lenders provide. Notice that, in this case, the market price of capital does not correspond precisely to the MV indicator, already shown in Chapter 2 (i.e., the price of shares multiplied for the number of outstanding stocks). MV represents only the market value of equity. However, it also entails the market value of the debt because it considers all capital providers. Therefore, to avoid misunderstanding, here the market value of both capitals is called Firm Market Value (FMV) (Obaidat, 2019). MVA is computed as follows:

$$MVA = FMV - Invested\ Capital$$

Unlike EVA, which is widely used to calculate the performance of parts of a company, the MVA indicator is a good approximation of how much is worth a company as a whole. Therefore, this metric is typically employed by senior managers (Berzakova, Bartosova and Kicova, 2015).

Considering the current stock price within the Market Value formula, MVA refers to the company's value in a specific time. It is possible to say that a positive MVA

[3] MVA, Market Value Added, is a registered trademark of American consulting firm Stern Stewart & Co. (like EVA).

means that value has been created, and the higher this indicator, the better. However, this conclusion that value is created if the Market Value Added is above zero is quite reductive (Young and O'Byrne, 2000; de Wet, 2005). It gives no clues whether the value generated above the capital invested by the company's owners and lenders, and reflected in the market capitalization, is enough (Crowther, Davies and Cooper, 1998). Instead, it is necessary to compute this metric over time, in different moments and analyse its trend. If MVA improves, then it means that the performance of the management was positive because they created value (de Wet, 2005). To improve this indicator, managers must undertake projects with positive Net Present Values because MVA raises when the capital raised from owners and lenders (i.e., the invested capital) is invested in projects with a capital cost lower than the rate of return gained (Young and O'Byrne, 2000).

Often companies make easier the calculation of this ratio by using the book value of debt and equity instead of the invested capital. This simplification is made when information about the market value of the debt capital is missing or when companies assume that the market value and the book value of debt are the same. In these two cases, the computation of MVA become (Mäkeläinen, 1998; Obaidat, 2019):

$$MVA = MV\ - Book\ Value\ of\ Equity$$

Theoretically, if this MVA is positive, value is created; if negative, managers have destroyed wealth (Mäkeläinen, 1998; Obaidat, 2019).

Furthermore, MVA is very tight with EVA. Thus, when one is positive or negative also the other indicator is respectively above or below zero. This connection is evident when MVA is expressed as the present value of all future expected EVA figures (Mäkeläinen, 1998; de Wet, 2005; Berzakova, Bartosova and Kicova, 2015):

$$MVA = PV\ of\ all\ future\ EVA$$

Anyhow, EVA and MVA are two different indicators. The former is better suited for project evaluations and monitoring the ability and the efficiency of the management. It takes into consideration the economic profit and the opportunity cost of different investment possibilities. Instead, the latter, MVA, does not include the opportunity cost, and it is not an indicator of performance, like EVA, but is a cumulative measure of wealth and operational expertise of a company (Young and O'Byrne, 2000). The fact that MVA includes the company's market capitalization implies that it heavily depends on the market trends and investors' perception of the firm. Therefore, it could happen that the prices of shares suddenly rise or drop when particular events make markets act out of the ordinary. However, these events are out of the control of managers, and it is impossible to determine whether the success or failure of the company is their doing or whether it is subject to external factors.

Moreover, in practice, this indicator is computed only for listed companies because the stock price is public and easily findable for them. To be more precise, privately held firms can try to appraise what could be the market price of their share, but it is too costly and time-consuming to be helpful and valuable. MVA is only advantageous for publicly traded enterprises because it cannot be calculated at the business unit level. After all, divisions or subdivisions do not have stocks. Therefore, it is possible to compute this metric only by taking the whole company.

Furthermore, another flaw of this metric is that it does not consider the firm's dividend policy, and dividend returns could be an essential factor that an investor would consider before purchasing shares. After all, shareholders have two ways to improve their wealth: by selling the stocks at a higher price or when the company's management distributes dividends. Ignoring dividends returns might interfere with the computation of the actual stockholder value (Crowther, Davies and Cooper, 1998; Young and O'Byrne, 2000).

3.3 RONA – Return on Net Assets

Another valuable indicator for assessing how much a company is worth is the Return on Net Assets, abbreviated RONA. This indicator is computed as follows:

$$RONA = \frac{NOPAT}{Net\ Assets}$$

Net Assets is the sum of Fixed Assets and Net Working Capital (NWC)[4], so that:

$$RONA = \frac{NOPAT}{Fixed\ Assets + NWC}$$

To better understand this formula, it is fundamental to underline that NWC is calculated as follows:

$$NWC = Current\ Assets - Current\ Liabilities$$

If managers consider it appropriate, one alternative way to compute RONA is to use the Net Income instead of the NOPAT.

In general, a high level of RONA is positive because it is a sign that the management is efficiently exploiting the firm's assets. If the RONA of different companies is compared, the one with the highest result should be considered the firm with the most successful managerial performance and profitability. RONA is expressed as a percentage, so analysing it alone might not be helpful. A better way

[4] What hereby is called "Net Working Capital" (NWC) in literature can also be called "Working Capital" (WC).

to read it is by confronting the RONA level of the firm with one of its peer competitors. Alternatively, compare the level reached by his indicator in the current period with the previous results to see if the trend is improving or worsening.

One positive aspect of this ratio is that it highlights that purchasing, holding, and utilizing assets is not inexpensive for a firm. RONA recognises the productivity gains of the labour force as much as the fact that the company incurs expenses for exploiting its assets, including the costs of the workforce for using them (Young and O'Byrne, 2000).

Despite this, knowing whether the assets are productive or not is only a component that determines the firm's success. The corporate wealth belonging to shareholders is created in many ways, such as through investments in strategies, organisational design, intangible assets, and more. Unfortunately, this metric ignores all these elements and considers exclusively the assets employed to improve profit (i.e., NOPAT).

Before moving on and seeing other features of this indicator, it is worth mentioning that RONA is very connected to EVA. The two metrics are very similar, and, more importantly, RONA can be used to calculate EVA in the following way (Young and O'Byrne, 2000):

$$EVA = (RONA - WACC) * Invested\ Capital$$

Therefore, EVA is positive when RONA is higher than WACC and negative when WACC is bigger than RONA. However, this way of employing RONA has a side effect: managers might undertake projects that destroy value only to improve RONA, especially when it is lower than WACC, and, vice versa, discard investment opportunities that would enhance wealth, only because they lower RONA when it is higher than WACC (Young and O'Byrne, 2000).

This issue of suboptimal behaviour just presented brings out a controversial aspect of RONA: it can be employed as a performance indicator for elaborating the managers' remuneration and reward scheme. On one side, this is a positive aspect because not all metrics are suited to design the compensation regime. On the other side, it could lead to a biased valuation of investment opportunities, considering that managers might reject value-creating projects just because, in the beginning, they would decrease RONA. This mechanism explains why a very high level of Return on Net Assets might lead a company to underinvest. A high level of RONA makes it more challenging to find a new investment project because there is an increased likelihood that whichever project would lower RONA in the short run. This perspective is unappealing to managers because they would see reduced personal bonuses (Young and O'Byrne, 2000).

3.4 CVA – Cash Value Added

An appealing alternative to the EVA method is the Cash Value Added (CVA) measurement. Before making further considerations about this metric, a clarification is crucial to avoid misunderstandings. There are two models, both known under the same name CVA, but they have pretty much nothing in common. One CVA model was developed by two Swedish scholars, Erik Ottosson and Fredrik Weissenrieder. Instead, the other Cash Value Added method was elaborated by a global management consulting firm: the Boston Consulting Group (BCG). BCG developed it by improving the Cash Flow Return on Investment (CFROI) indicator(Weissenrieder, 2005). Besides the name, these two methods have just a few characteristics in common, but, essentially, they are based on different fundaments. Here will be discussed the second model, the one developed by BCG, because it includes the CFROI ratio that, according to S. D. Young and S. F. O'Byrne (2000), is one of the most popular competitors of EVA, adopted by several consulting firms in the so-called "Metric Wars" (Young and O'Byrne, 2000).

Cash Value Added, just like EVA, is a performance metric, and its goal is to measure the real profitability of a firm. Another similarity between EVA and CVA is that both are measures based on residual income and economic profit. However, one main difference is that CVA is also based on the cash flows created by the corporate operations, while EVA is more focused on profits. Anyhow, the idea that a positive result means that the firm is profitable applies to both metrics.

The Cash Value Added elaborated by BCG can be computed with a direct method or an indirect one, both leading to the same results. The first one computes the CVA in this way:

$$CVA_{direct} = GCF - ED - \ Capital\ Charge$$

"*GCF*" is short for Gross Cash Flows, while "*ED*" is the Economic Depreciation and this second element, Economic Depreciation, is computed as follows:

$$ED = (GI - NDA)\frac{WACC}{(1 + WACC)^{n-1}}$$

"GI" represents the Gross Cash Investment and *"NDA"* the Non-Depreciating Assets, two figures that are discussed in detail later in this paragraph.

Instead, the indirect method to compute CVA includes in the formula the Cash Flow Return on Investment (CFROI) ratio:

$$CVA_{indirect} = (CFROI - WACC) * Gross\ Investment$$

The term Gross Investment is calculated as the sum of the historical initial cost of the assets, plus their current net value. For what concerns the CFROI, a few more words are in order.

Here and before in the computation of ED, it is used WACC, but it is possible to rewrite both formulas by using the generic concept of Cost of Capital.

The Cash Flow Return on Investment indicator is a helpful metric representing the economic return of a firm and all its investment choices made in a specific period. In other words, CFROI is a rate of return, and it is a valuation ratio that measures the performance of an investment project. In a way, it is very similar to IRR as they are both expressed as a percentage, managers can use them both as a minimum hurdle rate to accept project proposals, and they are both computed with the same methodology. Despite these likenesses, these two ratios have very different interpretations, and the main one is that IRR is based on future expectations, while CFROI is founded on historical cash flows. In addition, the

CFROI ratio is adjusted to eliminate the distortions created by inflation. Typically, it is calculated on an annual basis, and it can also be computed for a single business unit. Therefore, it can be employed for private companies and not just public ones (Young and O'Byrne, 2000).

In order to calculate this ratio, there are two available approaches: an algebraic method and a version based on the IRR (Schaefer, 2002). Starting from the second one, this approach built on internal rate of return involves four key steps (Young and O'Byrne, 2000; Schaefer, 2002):

Step 1. Estimate the *Economic Assets Life*. The first phase consists of computing the average number of years over which the firm's depreciable assets are expected to create operating cash flows. This estimation can be done starting from the Financial Statements, by dividing Net Assets plus Accumulated Depreciation, i.e., the Gross (depreciable) Assets at historical cost, for the Depreciation Expenses occurred in the year considered:

$$Economic\ Assets\ Life = \frac{(Net\ Asstes + Accumulated\ Depreciation)}{Depreciation\ Expenses}$$

$$Economic\ Assets\ Life = \frac{Gross\ Assets\ at\ historical\ cost}{Depreciation\ Expenses}$$

Step 2. Assess the *Gross Cash Flows*. Starting from the Net Income, the Gross Cash Flows is measured by adding the Depreciation Expenses and any gain or loss caused by inflation, so they are inflation-adjusted cash flows.

$$Gross\ Cash\ Flows = Net\ Income + \begin{matrix} Depreciation \\ Expenses \end{matrix} \pm \begin{matrix} Inflation \\ Adjustments \end{matrix}$$

Step 3. Calculate the *Gross Cash Investment*. In other words, the third phase is the estimation of the initial investment, which is the sum of Inventories and the Gross Property, Plant and Equipment (PP&E):

$$Gross\ Cash\ Investment\ (GI) = Gross\ PP\&E + Inventories$$

To be clear, it is typically within the Financial Statements that enterprises show the amount of the Net PP&E, which differs from the Gross PP&E. Net PP&E is computed as the sum of the Gross PP&E and the Capital Expenditures (CapEx), less the accumulated depreciation.

$$Net\ PP\&E = Gross\ PP\&E + CapEx - AD$$

Therefore:

$$Gross\ PP\&E = Net\ PP\&E - CapEx + AD$$

Step 4. Compute the *Non-depreciating Assets*. This last item comprehends land, net working capital, and other investments and represents the terminal value of all firm's investments. That is to say, the value of the non-depreciating assets is estimated at the end of the period analysed, and it is added to the computation of CFROI because it represents the company's performance that occurred in the time frame considered.

To summarize, the CFROI can be calculated using the same formula used for the IRR, which is nothing else than the calculation of the Net Present Value (set equal to zero) within the DCF model:

$$0 = -GI + \sum_{t}^{N} \frac{GCF_t}{(1 + CFROI)^t} + \frac{NDA_N}{(1 + CFROI)^N}$$

$$GI = \sum_{t}^{N} \frac{GCF_t}{(1 + CFROI)^t} + \frac{NDA_N}{(1 + CFROI)^N}$$

For simplicity, N indicates the Economic Asset Life (the total number of years under consideration), t represents the year in which a Gross Cash Flows (abbreviated GCF) arises. Then GI stands for Gross Cash Investment, NDA for Non-depreciating Assets, and, finally, the CFROI is the unknown variable that must be calculated (Young and O'Byrne, 2000; Schaefer, 2002).

Despite this method, there are also two other alternative algebraic versions able to compute the CFROI. The first one is:

$$CFROI = \frac{GCF - ED}{Gross\ Investment}$$

Otherwise:

$$CFROI = \frac{Operating\ Cash\ Flow\ (OCF)}{CE}$$

The dominator is the Capital Employed, and chapter 3.1 already presents three different ways to compute it. The numerator, instead, is the Cash Flow from Operations (OCF) and can be computed in two ways. The direct method involves subtracting operating expenses from revenues from total revenues:

$$OCF_{direct} = Total\ Revenue - Operating\ Expenses$$

However, this method should not be confused with the computation of the EBITDA (Earnings Before Interests, Taxes, Depreciation and Amortization) indicator, which is quite similar.

On the contrary, the indirect method sums the Net Income, NON-Cash Expenses, and the changes in the Net Working Capital:

$$OCF_{indirect} = Net\ Income + NON\ Cash\ Expenses + \Delta NWC$$

According to Schaefer (2002), the following is the second version to compute the CFROI algebraically (Schaefer, 2002):

$$CFROI = \frac{GCF - ED}{GK}$$

"GK" is short for Gross Capital, and it represents the inflation-adjusted Capital Employed calculated before including the amortisation and depreciation of fixed assets (Schaefer, 2002).

To sum up, CVA shows the residual gains of the firm in a specific time after subtracting the costs incurred. Given that shareholders have a residual claim on these gains, one can say that CVA measures the amount that owners are earning over the cost of equity in the period under analysis (Schaefer, 2002). Additionally, this metric has several advantages, some of which are already presented in this context, such as using the CFROI as a hurdle rate, which entails the possibility of simplifying the process of optimal capital allocation.

Another benefit of using this indicator is its nature of comprehensive system, which can be implemented in a firm at all levels because it can also be computed for business units and subdivisions. However, this metric is not very simple to

compute and understand. Although the calculation is hereby simplified, it is clear that CVA is a pretty elaborate index. Moreover, CVA is not only a residual income metric, like EVA, but it is also a cash flow measure. This feature makes this indicator also hard to understand and very dangerous if misinterpreted. Relying excessively on a cash flow index can result in underinvesting since, when firms are growing, there is a high probability that they will record negative cash flow figures. In other words, a negative result is not necessarily a synonym of a poor management choice. However, this mechanism might disincentivise managers to undertake some investment opportunities to prevent reducing the short-term performance (Young and O'Byrne, 2000).

For this reason, a firm should adequately train its staff, especially divisional executives, before implementing it, which is expensive and requires time. Though, looking at the bright side, this disadvantage might turn into a positive aspect. That is, training employees is essential because it helps them understand how the firm works, increasing in this way their commitment. Showing them how they can improve the corporate performance and improve their remuneration, if the compensation scheme is set accordingly, enhances the idea that the company is transparent and fair in the way it treats its staff members.

3.5 SVA – Shareholder Value Added

Shareholder Value Added (SVA) is a not so recent metric because it appeared already in the 1980s, thanks to Alfred Rappaport. However, it did not have much exposure, and it is not a very popular measure among managers. Additionally, this indicator is not well documented to the point that there is a bit of confusion in computing it (Mäkeläinen, 1998; Largani, Kaviani and Abdollahpour, 2012).

Although they are not recognised in literature, it is possible to identify three different schools of thought. All these three ways of thinking have one thing in common: the definition of the SVA indicator. They all argue that SVA represents the profits (generated by the firm's operating activities) in excess of the costs incurred to gather the corporate fundings, which have generated precisely that operating profit. In other words, the extra profit over the cost of capital (Mäkeläinen, 1998; Largani, Kaviani and Abdollahpour, 2012). Everything seems very simple reading this definition. However, what causes confusion is the way in which these words have been translated into numerical formulas.

A group of people translated the definition of Shareholder Value Added in the following mathematical expression (Mäkeläinen, 1998; Largani, Kaviani and Abdollahpour, 2012):

$$SVA = NOPAT - \ Cost\ of\ Capital$$

However, considering that the term "Cost of Capital" in this formula is defined as the Capital Charge, then (Geddes, 2011):

$$SVA = NOPAT - (CE * WACC)$$

It is evident that this formula is perfectly identical to the one for calculating EVA, and this is why someone believes that the SVA index is nothing more than the Economic Value Added under a different name.

Instead, the other two currents of thought believe that SVA is the variation of shareholder returns generated between the beginning and the end of a specific period. Nevertheless, again two distinct mathematical interpretations have been given. P. Fernandez (2002) defines the Shareholder Value Added as the difference between the increase and the decrease of the market value of equity in a given time. Notice that here the value of the equity is considered at the actual market value because an increase in its book value is not necessarily an enhancement of shareholders' returns. The book value of equity can change for several reasons. For example, equity improves when shareholders purchase new stocks, but this transaction, which is positive for the company, is not immediately profitable for the stockholders involved. Conversely, when a company pays the owners through a buyback plan, the repurchase of the shares decreases the equity, but the stockholders are satisfied because they received dividends. However, in this context, the focus is on the shareholder perspective.

In detail, SVA is computed as the sum of all the improvements of the equity market value, plus any form of dividend distributed during the period considered, but less any capital outlay and any conversions of convertible debentures. Dividends include stock buybacks and discounts on par value (Fernandez, 2002). The term "Capital Outlays" indicates any expenditure incurred by the firm to buy, preserve and repair any capital asset. While the term "Convertible Debentures" indicates peculiar hybrid securities that firms can issue to raise capital. These securities are defined as "hybrid" because of their double nature: they are at the same time both an equity instrument and a debt instrument. They are fixed-rate loans with a fundamental clause that allows the owners of these instruments to convert the loan amount into company shares. Therefore, according to Fernandez (2002), the Shareholder Value Added is computed as follows (Fernandez, 2002):

$$SVA = \begin{matrix}Increase\ of \\ Equity\ Market \\ Value\ (\Delta MV)\end{matrix} + \begin{matrix}tot.DIV \\ (any\ payment \\ to\ shareholders)\end{matrix} - \begin{matrix}Outlays\ for \\ Capital\ increases\end{matrix} - \begin{matrix}Convertion\ of \\ Convertible \\ Debentures\end{matrix}$$

In his research paper, Fernandez (2002) makes a fundamental clarification: in his opinion, the actual value creation is computed through another indicator, the so-called Created Shareholder Value (CSV), which is the Shareholder Value Added less the market value of equity multiplied for equity cost (Fernandez, 2002):

$$CSV = SVA - (Equity\ Market\ Value * K_E)$$

Therefore, shareholders' value is generated when the SVA goes beyond their expectations, represented in the cost of equity (K_E). After all, the equity cost indicates the minimum return asked by stockholders to maintain their investment within the firm (Fernandez, 2002).

Lastly, another interpretation of the Shareholder Value Added is provided by Alfred Rappaport (1998) in his book *Creating Shareholder Value – A Guide for Managers and Investors*. This SVA model finds its roots in the DCF method. Indeed, its core idea is that shareholders' returns are created merely when corporate money is invested in the project with the highest return, compared to all possible investments with the same risk (Mäkeläinen, 1998; Largani, Kaviani and Abdollahpour, 2012).

In this third and final case, the formula of SVA is the difference between the Shareholder Value (SV) at the end and the SV at the beginning of the period (Berzakova, Bartosova and Kicova, 2015):

$$SVA_t = SV_t - SV_{t-1}$$

Therefore, to compute this metric, the primary step is understanding what Shareholder Value is. The total economic value of the company is the sum of how much equity is worth and the market value of debt, including any claim on the company. The value of equity reflects the Shareholder Value, such that (Rappaport, 1998):

$$Corporate\ Value = Shareholder\ Value\ (SV) + Debt$$

Hence:

$$SV = Corporate\ Value - Debt$$

This formula makes clear that the term Corporate Value is the main hurdle. According to Rappaport, this value is composed of three elements: (i) the total present value of Cash Flows from the Operation (OCF) arose during the time under analysis; (ii) the residual value, that is, the performance of the company at the current value, which is attributable to the time beyond the time frame under consideration; (iii) the present value of marketable securities and other investments convertible in cash and not considered as core operating activities (Rappaport, 1998).

$$Corporate\ Value = PV\ of\ (OCF + Residual\ Value + Marketable\ Securities)$$

To find the total OCF, one should compute all the cash in- and outflows from operations for each year of the analysed time frame. Then they are discounted by using the WACC to find their present value so that they all can be summed together. This result would reflect the amount of cash available to the firm to

repay both its debt and equity providers at once (Rappaport, 1998). The two methods, direct and indirect, for calculating OCF are already shown in the previous paragraph 3.4 dedicated to the Cash Value Added.

For what concerns the Residual Value, there is not a single methodology to calculate it. The most widely used approach is the so-called "perpetuity method", which considers the competitive dynamics within the company's market. This method assumes that the firm will attract new investors because it can earn returns above the cost of capital not only during the forecasted period but also after. However, this approach supposes that the investments made after the period under analysis generate returns equal to the cost of capital. Therefore, the idea of *growth* is not included in the computation. In this case, Residual Value is calculated by taking the Cash Flow (CF) at the time "*t+1*" divided for the WACC (Rappaport, 1998):

$$Residual\ Value_{Perpeuty\ Method} = \frac{CF_{t+1}}{WACC}$$

Then, one must calculate the present value of the Residual Value obtained.

In conclusion, once computed the Corporate Value and Debt, it is possible to calculate the absolute economic value of Shareholder Value (SV). After that, it can assess the change in SV over the time frame considered (Rappaport, 1998).

For the purpose of this thesis, from now on, are considered only to these two last methods and not to the first one because it has the same formula of EVA, so it is not an alternative measure by definition. Even though the second indicator claims that SVA does not actually compute the value created for shareholders, it still can be used to compute the corporate performance. Instead, the third approach is more complex and better suited to calculate the value of an investment project. In addition, the last one can also set the compensation and bonus scheme of all

corporate executives connecting the past performance or the annual one with the long-term strategy established.

Shareholder Value Added is part of the so-called "shareholder value approach" (Rappaport, 1998, p. 71), a comprehensive method with several advantages that influence different corporate areas. This is why SVA is very similar to EVA. Therefore, implementing SVA has certain advantages:

- It helps the management maintaining a long-term financial perspective for strategy setting and decision-making;
- It establishes a comprehensive, universal approach, which is not under the influence of the accounting standards so that it can be applied to any company belonging to any market sector; and
- It is future-oriented, that is, it makes the entity focus on its customers and how to generate cash flows in the future.

This approach requires managers to be on board with the SVA model, or it cannot be effectively applied. In particular, this indicator explains how value is created and, more importantly, how to enhance it, and for this reason, it can be employed by top executives as a business communication tool. Employees need to know how they can influence the company's value creation, especially when their remuneration depends on it. An organization with a business strategy based on the Shareholder Value Added necessarily focuses on three main factors (Largani, Kaviani and Abdollahpour, 2012):

I. Operating decisions. It is fundamental to enhance the operating activities and make smart operating choices.
II. Project investments. Making the right decision in which projects invest shareholders' money is a delicate value-creating phase because investments improve the SVA indicator.
III. Capital optimization. One way to improve SVA is by reducing the cost of capital and, in particular, a firm should get rid of those activities or

assets that do not produce economic profits. A firm should disinvest in those operations that are not an efficient way of employing capital.

Specifically, the firm should improve the cash flows from operations (i.e., the OCF). In general, the cash flows expected in the future depends on three main elements: risk, returns and growth. Rappaport (1998) identifies seven critical value drivers able to explain these three factors and to create value for stockholders. The seven parameters that the firm's managers must manage are the following:

- Sales growth rate,
- Operating profit margin,
- Income tax rate,
- Working capital investment,
- Fixed capital investment,
- Cost of capital,
- Value growth duration,
- Residual value of future cash flows.

To sum up, SVA helps executives keep an eye on the future because it forecasts the company's performance even for the next ten years, focusing on creating long-term value. Moreover, it includes the opportunity cost of the capital, thanks to the WACC. It is a valuable tool for setting strategies and making wise value-driven decisions. It can be employed as a means of communication and can design employee compensation schemes and incentive packages. In addition, this approach highlights the criticality of monitoring and reviewing the business performance to continuously reset targets if the circumstances are no longer the same. Therefore, it supports managers to always keep up with the times and favour the progress.

On the other hand, the Shareholder Value Added has some disadvantages. First of all, it is clear that it is not a simple method that can be quickly established in one day. As well as EVA, it impacts the entire organization and implementing it is costly, time-consuming, and requires much energy, especially from high-level managers that must be fully committed to setting a good example to other employees. Other cons of this metric are that executives need training because the SVA must be explained to the staff, and estimating future cash flows is not easy. The longer the period under analysis, the greater the difficulty in estimating the flows and the higher the risk of making misleading projections. Inaccurate plans can be very detrimental for the firm and, for this reason, the reviewing phase is crucial to avoid making wrong strategic choices.

Furthermore, one critique against this measure is moved by those supporting the idea that companies should not focus on shareholder value. They claim that this emphasis on stockholders can worsen local communities' welfare, deteriorate the employees' working conditions, and worsen the company's internal and external environment. In addition, stressing the shareholder value creation might lead managers to pay attention almost exclusively to short-term profits, endangering the firm's long-term profitability (Largani, Kaviani and Abdollahpour, 2012).

3.6 TSR – Total Shareholder Return

An index that has become more widespread than Shareholder Value Added (SVA) is the so-called Total Shareholder Return (TSR). TSR examines the changes in stock prices and the distribution of dividends to shareholders that happened at a specific time. This performance indicator gives investors an idea bout how much they are gaining from their equity or stock investment. Before proceeding, it is crucial to make two clarifications about the dividends. First, TSR considers any cash payment to stockholders, thus, from the regular distribution of dividends to the occasional, one-time distribution or in the form of share buybacks. Second, the dividends within the TSR framework are reckoned as the amount of money paid to the shareholders per share and not in ablute terms.

Total Shareholder Return can be calculated for various periods, from one year, the most widely used, to even ten years. It became mainly known in the first decade of the 21st century, when the SEC (the Securities and Exchange Commission), one of the most influential government agencies that regulate securities markets, established in the US that firms had to disclose their five-year TSR ratio (Burgman and Van Clieaf, 2012).

Total Shareholder Return can be computed in absolute terms, but it is more utilized in percentage. In the first case, TSR is calculated as follows:

$$TSR = \Delta\, Share\ P + tot.DIV\ per\ share$$

$$TSR = \left(Share\ P_{End} - Share\ P_{Beginning}\right) + tot.DIV\ per\ share$$

TSR for any shareholder can be estimated from the moment he invested in the company stock until now. In this case, the stock price at the end of the period (Share P_{End}) is the current price of the shares, while the price at the begging of the

period (Share $P_{Beginning}$) is the original purchasing price. In addition, in the formula are included all kind of dividend distributions occurred in such period. When managers compute this metric, they assume that shareholders reinvest all the dividends received to buy new company stocks. The abbreviation "*tot. DIV*" indicates all kinds of dividends distributed in the time frame considered.

To compute it as a percentage, one has to divide the result just found by the stock price at the beginning of the period analysed:

$$TSR_{\%} = \frac{\left(Share\ P_{End} - Share\ P_{Beginning}\right) + tot.DIV\ per\ share}{Share\ P_{Beginning}}$$

When companies decide to employ TSR as a financial performance metric, they need to make some choices before (Burgman and Van Clieaf, 2012):

» Identify their peer group.
» Select the performance period to analyse.
» Computation of the distributed dividends or equivalents occurred during the period.
» Evaluate the stock price at the beginning and at the end of the time chosen.

One advantage of this indicator is that it links corporate performance with the remuneration system (Burgman and Van Clieaf, 2012). Moreover, it can be calculated as a percentage, so it is ready confrontable with similar companies of the same sector (peer group) or as a benchmark against the returns of the market or industry.

Furthermore, this indicator has other positive features. For instance, one aspect that can benefit executives is that TSR is easy to compute and simple to comprehend. It gives an overall evaluation of the value of the investment made by the shareholders, and it is well-suited to analyse private equity and venture

capital investment. Finally, it is a good guide for long-term value creation because it can be measured even over a long period, such as ten years.

However, besides these pros, there are some cons of this metric to keep in mind. TSR uses stock prices, which are very tough to measure for privately held companies, and it cannot be used to evaluate divisional or business unit performances. It can be exploited nearly exclusively to compute the overall performance of publicly traded firms. In addition, using stock prices entails limiting the evaluation to past performances because it is complicated to predict future market trends. Share prices reflect the expectations of investors about the company and its future. Therefore, an increase in the market prices means that the firm is *expected* to generate positive cash inflows in a more or less short period. However, they do not reflect how the company is genuinely performing on the accounting and financial levels. Thus, a big issue of the TSR metric is that it is heavily influenced by numerous micro and macro market factors, such as the specific circumstances existing within different industry sectors, the firm's unique competitive position and perceptions of external customers or possible investors, the current economic cycles, the overall conditions of markets, the government monetary policy and many other dynamics outside managers' control. In conclusion, Total Shareholder Return is very sensitive to investors' opinions, and any price volatility, even in the short-term, can be very harmful (Burgman and Van Clieaf, 2012).

Furthermore, it does not consider the investment or its return size or the industry differences. Although TSR can align shareholders' and managers' interests, there is no computation of the cost of capital, and it gives no clues to executives about what they can do to enhance this metric. For this reason, it might not be the best financial indicator to evaluate the employees' performance and determine their incentive remuneration (Lupo, 2016). Finally, with TSR, the company's performance is evaluated for a specific time fare, which implies that this ratio is not comparable over different periods.

3.7 ER – Excess Return

Another market-based metric, like MVA, is the so-called Excess Return (ER). ER is computed by subtracting from the true value of wealth at a specific time t, less the future value of wealth at the same time t; in other words:

$$ER_t = Actual\ Value\ of\ Wealth_t - Expected\ Value\ of\ Wealth_t$$

t represents the time over which the ER metric is calculated. One main difference with MVA is that Excess Return is a cumulative measure of wealth because it includes both the amount of capital exploited and the returns distributed to the stockholders from the start of the period considered. Specifically, the company is charged for the former and accredit for the latter. The returns gained from the shareholders can be distributed in different forms: as dividends, or as stock buybacks or even in the form of market reinvestments (Young and O'Byrne, 2000).

Back to the formula, the minuend of the subtraction is the "Actual Value of Wealth", that is, "the future value of the cashflows received over the measurement period" (Young and O'Byrne, 2000, p. 32). While the subtrahend, the "Expected Value of Wealth" equals the expected future worth of the investment undertook since the beginning of the period t. Therefore, if it is assumed that only one initial investment was made, then it is possible to estimate its future value as follows (Young and O'Byrne, 2000):

$$Expected\ Value\ of\ Wealth_t = I_0\ (1 + K_E)^t$$

This expression equals the Future Value (FV) formula, the opposite of the PV calculation. Instead of computing how much is worth a future amount of cash today, it is evaluated how much the money invested today will be worth in the

future. Another way to use this formula is to compute how much is worth today an amount of cash arose in the past. In our analysis is used mainly this second interpretation model.

In practice, it is possible to compute the Excess Return from time 0 to *t*, assuming that the term "total dividends" (within the formula abbreviated as "tot. DIV") refers to any cash flows distributed to the shareholders (Young and O'Byrne, 2000):

$$Actual\ Wealth_t = tot.DIV_1(1+K_E)^{t-1} + tot.DIV_2(1+K_E)^{t-2} + \cdots + tot.DIV_t + P_t$$

$$Actual\ Wealth_t = \sum tot.DIV_n(1+K_E)^{t-n} + tot.DIV_t + P_t$$

Notice that P_t stands for the total price of the shares at the end of the period under consideration. In other words, it is the market value of equity at time *t* (Young and O'Byrne, 2000), which equals the Market Capitalization (or Market Value – MV) because it is computed by multiplying the number of outstanding shares for their price at the time "*t*". To be consistent, here below the formula of the Expected Wealth is re-wrote using "P_0" instead of "*I*":

$$Expected\ Wealth_t = P_0(1+K_E)^t$$

Therefore, combining these last two formulas, one can obtain the computation of ER at time *t* (Young and O'Byrne, 2000):

$$ER_t = \sum tot.DIV_n(1+K_E)^{t-n} + tot.DIV_t + P_t - P_0(1+K_E)^t$$

It is possible to notice that the dividend policy adopted by companies is a fundamental element of ER. However, this can also represent a disadvantage because a distribution scheme is not set in stone, and firms can arbitrarily change it, complicating the calculation a little. Indeed, besides distributing dividends, the company might issue new equity (by issuing new stocks), or it can buy back shares, and if these actions are taken, they must be considered in the computation of ER (Young and O'Byrne, 2000).

Anyhow, the potential modifications of the distribution policy are not the biggest flaw of this metric. The primary issue of ER is its inefficacy in evaluating and motivating employees. Especially low and middle managers are penalized because divisions or business units do not have a share price in themselves. In fact, like MVA, this indicator can be computed exclusively for the entire corporation and just for companies publicly traded. Only top managers might directly influence the share prices with their single action, while it is almost impossible to trace back how much a low or middle executive influences the price changes with its individual decision. If considered all the actions of lower-level managers collectively, they have certainly influenced the price of the shares, and the respective ER can be estimated. At the same time, it is also true that only high-level managers make critical strategic decisions that impact the company value on the market. However, top executives can do nothing without subordinates because the latter are the ones that actually implement in practice the decisions made by the former. Therefore, it can be concluded that this indicator is not a good motivator or a satisfying evaluation tool for any employee (Young and O'Byrne, 2000).

CHAPTER 4

COMPARISON OF VALUE INDICATORS

The communication between an enterprise and the external world is a delicate matter, and, for now, it is still abundantly sprinkled with traditional metrics based on accounting figures. The reason why things are still in this way is mainly due to time and money. Firms must be compliant with specific accounting rules so it is faster to compute, analyse and publish reports that must, in any case, be disclosed at some point. Additionally, there is already abundant literature explaining how to measure these indexes and to interpret their results. Therefore, for professional analysts, investors, and any other player who wants to know how the company is performing, it is easier to compute or just read about these old fashion indicators, some of which were shown in Chapter 2.

For what concern the communication carried on internally is a whole different kettle of fish. When managers design the organizational and control structure, they must decide which metrics apply to monitor the corporate performance and people behaviours. Nowadays, managers increasingly opt for value-based systems and indicators to run the firm. Although accounting principles will always be part of the company life, managers are trying to abandon them to evaluate performances for several reasons. Accounting measures excessively simplify business reality, are subject to distortions, give space to manipulation and moral hazard behaviours, and excessively focus on current (short-term) performance (Venanzi, 2012).

Deciding which metric to employ is a very challenging task and critical for business success (Venanzi, 2012). However, there is not one single solution, which can be either a fortune or a misfortune. Within Chapter 3 is shown EVA and the other six alternative value measures, among which the management can choose. Besides these seven metrics, many other financial indicators aim to measure the value created by the company, some newer and more popular than others.

Value-Based Management was just the first step toward a world with companies fully committed to understanding which ratio is the right one to guarantee both short-term and long-term success.

In the last couple of decades, a "tough battle" has begun to prove that the new value indicators are superior to the traditional accounting measure. In particular, the world's biggest consultancy firms have not shied away from this fight. Each of them has developed one value indicator or more than one. However, as argued by D. Venanzi, "despite the increasing emphasis on these value measures, no definitive evidence exists of which metric works better than others do" (Venanzi, 2012, p. X). Relying on only one measure is widely recognised as a mistake (Young and O'Byrne, 2000; Venanzi, 2012).

> *"No company relies entirely on a single measure of performance; different measures serve different purposes."*
>
> (Young and O'Byrne, 2000, p. 453)

Hence, by now, it is clear that the ultimate solution for a CEO to manage a whole business does not lie in just one financial performance measure.

Before empirically measuring the value indicators presented in Chapter 3, it is worth summarising what seen so far and starting with a theoretical explanation of the reasons why more than one metric is necessary for assessing the amount of shareholders' returns generated.

4.1 TO SUM UP

EVA and the other six alternative financial indicators of value are very different approaches that assess the worth of the shareholder returns and, in a way, the firm's economic success. Although their numerous differences, some of them share certain common features.

Their primary and essential characteristic that needs to be highlighted is the unit of measure in which they are computed. Very easily and quickly, it is possible to distinguish two groups: those computed in absolute terms and those expressed as a percentage. In particular, the former category is where the most indices fall: EVA, MVA, CVA, SVA, TSR and ER. While the latter includes just two measures: RONA and TSR. It is remarkable that TSR is the only indicator that can be computed in both ways. Undoubtedly, this duality is a significant advantage of this metric because it can both monitor the trend over time and weigh the level reached by the company in comparison to its peer group. The indexes expressed in monetary terms are valuable tools, but they have a significant limitation: they do not consider the firm’s sizes and the peculiarities of each sector where companies operate. Instead, a financial indicator shown in relative terms is perfectly comparable with other firms’ financials, regardless of their development policies and the stage of growth reached.

To be honest, a percentage ratio can only partially consider the features of a specific market in which a firm belongs. Analysts are typically interested in comparing the performances of similar businesses. After all, different sectors have different dynamics that make the comparison hardly useful. A successful strategy often results from many factors that make the company unique, and no one can just copy it.

Regardless, according to S. D. Young and S. F. O’Byrne (2000), these seven indicators can be clustered into four different categories. Actually, the categories are five because they also included the metrics falling in the traditional income

measures. The first group encompasses *residual income components*, which contains just one of the seven indicators: RONA. For information purposes, even though they are not here analysed in detail, NOPAT and EBIT ratios are also included in this category. These measures are detailed and disaggregated, and they are compositional elements of the residual income metrics, which belongs to the below-mentioned second category. The main characteristic of the residual income components is that they typically do not compute the cost of capital in their calculations, and they are often popular among divisional managers (Young and O'Byrne, 2000).

The second group is the *residual income measures* one, which includes EVA and CVA. This category identifies those indexes with two components: the operating profit and cost of capitals, equity and debt. Specifically, the latter element is subtracted from the former. The two metrics belonging to the same category have one main difference: EVA considers the amortization and the depreciation. It accounts for the depreciation policy adopted by the firm, while in contrast, CVA is free from them (Young and O'Byrne, 2000).

However, as the name might suggest, Cash Value Added also falls into the *cash flow measures* group. After all, these categories have no insurmountable boundaries, and one indicator can have multiple natures. Within this category, there is the CVA index, the CFROI taken separately, and SVA. The Shareholder Value Added is a performance indicator that lacks explanations in literature. Rappaport (1998) computes it as a cash flow measure, while according to Fernandez (2002), SVA is more a market-based indicator.

Anyhow, cash flow measures are fundamental indicators because capital markets are essentially based on investors' expectations of companies' future free cash flows. That is to say, if a firm is expected to produce positive cash flows in the future, then investors are more inclined to purchase its shares and consequently, the stock prices tend to improve. However, what is tricky in this way of thinking is the fact that expectations are something uncertain. When someone wants to evaluate a company's possible future, then cash flow measures are perfect for the job. While, on the contrary, when it comes to measuring corporate performance,

for instance, to set the management compensation scheme, historical cash flows might give misleading information (Young and O'Byrne, 2000).

Before disclosing further details about evaluating executives' historical performances and settling compensation and reward schemes, one last category needs to be mentioned: the *market-based measures*. The remaining indexes are part of this last group, namely MVA, TSR, ER and the SVA version according to Fernandez (2002). The fact that they are based on stock prices has two fundamental consequences: they can be computed neither at the business unit or subdivisional level nor privately held companies. Both private firms and business divisions do not have independent shares. Hence, stock-based metrics can supply reliable estimates of the corporate market value just for public entities and judge at most top executives' performance. Finally, another significant peculiarity of this category is that, by nature, they have a long-term perspective because they encompass investors' opinions about the value of future growth opportunities. This means that residual income and cash flows measures and residual income components are short-term metrics by definition (Young and O'Byrne, 2000).

Thanks to this categorisation of value indicators, another aspect that can be highlight concerns their complexity, which can be defined along two dimensions: the ease of calculation and the managerial application. Residual income components and market-based measures are straightforward to compute. They are highly likely to be implemented as managerial tools because they are more straightforward than cash flows and residual income measures. However, one might say that Excess Return represents an exception, considering that it requires more calculation accuracy than the other stock measures.

Instead, CVA has a medium difficulty, and EVA has a medium/hard complexity. There are two explanations for this. On the one hand, they both require some adjustments in such a way as to reverse the accrual accounting and break the bond with the GAAP (Generally Accepted Accounting Principles). EVA undoubtedly has many more possible adjustments compared to CVA. On the other hand, these two metrics cannot be immediately applied and utilized to run a business. They have

much potential, but they need to be implemented gradually and meticulously to exploit them fully. In order to embrace them at all levels and get even to the point to change the corporate culture accordingly, it is crucial having all senior managers on board with the indicator chosen. It is possible to establish a specific propositional mindset through specific training courses for all those employees who will have to deal with those indexes. By the way, it is not essential to train exactly all workers in the company, this might even create confusion and become a distraction for employees at lower levels (Young and O'Byrne, 2000).

Finally, SVA is the only metric with the highest level of calculation difficulty. This judgment does not favour this indicator, and it is caused by the lack of clarity around this indicator and the absence of straight literature.

Moreover, regarding their usability, market-based measures are more limited than the other metrics. They can be computed just for senior managers of publicly traded firms and cannot be implemented at the business unit levels. Another constrain is that managers are incapable of using them for judging the goodness or badness of a project in itself and consequently neither to identify the best option among alternative investment opportunities.

Furthermore, these financial value indicators of performance differ also for the elements that compose their formulas. In detail, EVA, CVA and the Rappaport's SVA include the Weighted Average Cost of Capital (WACC) explicitly. In other words, they charge the company for raising not only debt but also equity funds. Considering that these metrics are the ones that can also be employed to monitor the performance of lower-level employees, this might create an issue: typically, the choices around the corporate capital structure are far beyond divisional managers' tasks. EVA encompasses the capital charge, which is based on both the debt and equity capital. In this way, it does not create inequal situations across different business units, but the capital structure is still charged. In addition, each division might have different values of WACC because their respective managers can undertake various projects and investments opportunities with different degrees of risk (Young and O'Byrne, 2000).

However, EVA, in a way, is highly focused on operating profits. Although it is true that lower managers cannot decide how the capital structure is composed at the core, it does not mean that they have zero influence on it. Middle managers have power over a particular assortment of assets, and they can decide how to manage these assets. For instance, they typically have much control over tangible assets. They can replace some old machinery if no longer productive, buy new ones as a strategic choice, or sometimes evaluate if it is better to repair instead of changing broken equipment, and more. All of these actions and decisions have consequences reflected in the corporate financial charges. RONA somehow solves this issue. Indeed, one of its significant advantages is that it highlights that an asset generates expenses, and it is crucial to monitor its productivity (Young and O'Byrne, 2000).

Nevertheless, it is feasible to use CVA, or one of its breakdowns, at the divisional level. In particular, one of its strengths is the use of the Operating Cash Clow (OCF) instead of the EBITDA. EBITDA and EBIT, which are much more commonly used. The former comes closer to the computation of a cash flow than the latter because, even though they both are residual income components, EBITDA adds back the depreciation and the amortization. Depreciation and amortization are two terms representing an accounting practice that helps understand how expensive it is to run a business, but they are non-cash elements. When a whatever asset loses value along with its useful life, there is no cash outflow from the "pockets" of the company. However, within EBITDA is missing one element: the changes in the Net Working Capital (NWC). The Working Capital Requirement (WCR) is a financial metric that highlights the amount of resources, in financial terms, that are necessary to meet the expenses incurred by the firm to carry on the regular production cycle that starts with the suppliers and ends with the sale of the finished product. Conversely, the Cash Flow from Operations (OCF) indicator accounts for any change in NVW so that every non-cash revenue or expense does not influence the performance under observation (Young and O'Byrne, 2000).

It is worth underlining the concept that evaluating divisional managers' performances through cash flow measures might be an issue because their historical value does not always reflect the effective executive's performance.

Companies in different growth stages inevitably have different results in terms of cash flow, mainly if they are expanding quickly and consequently making numerous investments. In this case, negative cash flow figures are hard to be attributed to bad decisions or a poor administration, rather than a fair result, not out of the ordinary, given the particular business life-cycle stage where the company is. (Young and O'Byrne, 2000).

Besides the corporate capital structure, there are other important aspects that an indicator should take into account. As already said, the two ratios expressed in relative terms (RONA and TSR) take into consideration, on one side, the development policies adopted by the companies because they do not make distinctions on the size of the firm or at which growth stage they are. On the other side, they are often used to compare the firm's performance and the one of its peer group so that there are no differences due to the industry sector. Besides these two elements, there is a significant third one: the dividend policy. The fact that VBM became viral and that stakeholder theory advocates fiercely against the popular theory that sustains shareholder supremacy aims at measuring the amount of value that the company is creating for its owners. Simplistically, one shareholder, not involved in the company management, can make profits only in two ways: by selling the stocks and gaining on the markup or by receiving dividends. Therefore, the distribution of dividends is a phase that should not be forgotten and, from the outside, typically, it is seen as a good sign that the company is profitable.

The indicators that typically include this element are those based on stock markets because the dividends can be computed just for business as a whole, while subdivisions cannot observe them. In this case, the dividend policy is encompassed by the market-based measure, except MVA. ER, TSR and SVA by Fernandez (2002) all add to the market value of the equity any money paid out toward the stockholders, not only in terms of divided distribution, but also in the form of share buybacks, net of new equity issues. Hence, MVA might be a deceiving representation of the cumulative corporate wealth created because it overlooks

the actual situation of the owners, such as if they contribute more and how much is given back to them (Young and O'Byrne, 2000).

Instead, this mechanism is particularly emphasized within the Excess Return framework. Additionally, on the one hand, ER gives credit to the firm for the returns obtained by reinvesting the cash not distributed. On the other hand, it charges the entity for the opportunity cost of the equity because, during the period analysed, the money that is not distributed is not available to shareholders. They remain in the hands of managers who can ideally use them when they wish, thus, the owners are missing potential benefits and earnings from alternative investments.

Finally, these metrics have also some communication skills. EVA, RONA and MVA are by now of shared knowledge, hence, given their popularity, they can be exploited by CEOs to interact with those external actors interested in the corporate activities, such as professional analysts, potential investors, or financial institutions. Although EVA is not the most straightforward indicator to compute, it is easy to understand so that the results can be recognised and interpreted by an expert reader. The other indices, instead, are less known and more complicated to compute, therefore, they would be ignored or, worse, misinterpreted.

From an internal perspective, some ratios can be used as organizational means of communication across different managerial levels. In particular, those indexes that can be exploited as "hurdle rates" are an immediate way of telling lower managers the minimum return considered acceptable for a project and the corresponding level of risk. Usually, higher hurdle rates mean that the firm is willing to accept a higher degree of risk. Long story short, hurdle rates decrease the bureaucracy within the company because supervisors have to check fewer subordinates' investment proposals since these rates already reject some projects. Hurdle rates are necessarily expressed in relative terms and, they are internal rates of return. Specifically, RONA, CFROI, contained within the CVA. and TSR all meet these requirements.

Furthermore, a firm must choose internal financial metrics that motivate employees to align their needs with the corporate goals. Therefore, all market-based ratios can be immediately rejected because they cannot be an appropriate motivational tool for two main reasons. First, they can be computed to monitor just the overall performance of the firm, hence, they are employed only by senior managers. This means that a large part of executives is excluded. Second, stock prices are driven by market dynamics. The volatility of market prices is determined by the investor's expectations of a particular financial instrument. The opinions of these market actors about a company's possible future are influenced by thousands of elements and events, many of which are entirely out of the managers' control. A CEO can make all the right decisions, but he cannot control the course of things, especially when extraordinary events happen.

In addition, also RONA is excluded as the motivational ratio because it can lay the ground for behavioural biases, resulting in suboptimal allocations of capitals. These biases arise when RONA is used as a hurdle rate or to set the bonus plan. For instance, RONA can be used to compute the EVA of a project. In this case, the calculation of EVA includes the spread between the RONA and the WACC of the company. In this case, a positive EVA can result from two scenarios which both have, of course, the RONA of the project higher than the WACC. However, in one scenario, the project improves the RONA of the firm or it has a return above the hurdle rate, while in the other one happens the opposite. In both cases, value is created according to the final result, that is, a positive EVA, but in the second scenario, the project would be rejected either because lower than the minimum requirement or because it would not be desirable for the executive that is not awarded with a remunerative bonus according to the compensation and rewarding scheme.

Moreover, not all indicators are of immediate use. Few of them, such as EVA, CVA, and SVA, require time and experience to be implemented, and their application within the management is more demanding than with other metrics. In order to exploit them, specific training courses for the staff members are needed. Although

the Excess Return is judged not to be a simple indicator, it does not require many traineeships for all employees because it can be used at most by senior managers, who, given the position they hold, should navigate certain notions with competence.

To conclude this summary, EVA has been criticised for being result-oriented, that is, it does not explain the causes that lead to a specific performance, but it just highlights the outcomes. The only two indicators that are judged capable of showing the causes of a particular achievement are the CVA and the Rappaport's SVA. These two indicators analyse past performance and base their future forecasts also on historical achievements. Both entail detailed studies on the expected cash flows starting from calculated assumptions on the possible future growth of the firm. These considerations should be done by someone that knows the business very well and has experience of the company's target market.

Table 1 summarizes all the features of the indicators of value seen so far.

Table 1 - Main features of the value indicators

	EVA	MVA	RONA	CVA	SVA	TSR	ER
Unit of measure							
Absolute terms - monetary	✔	✔		✔	✔	✔	✔
Relative terms - percentage			✔			✔	
Nature							
Categories							
Residual income measure	✔			✔			
Residual income component			✔				
Market-based measure		✔			✔	✔	✔
Cash-flow measure				✔	✔		
Considered Elements							
Accounts for size differences and development policies			✔			✔	
Accounts for industry/sector peculiarities			✔			✔	
Dividend policies					✔	✔	✔
Cost of capitals							
WACC (both cost of equity and debt)	✔	*		✔	✔	*	*
Cost of equity (opportunity cost)	✔	*		✔	✔	*	✔
Complexity							
Ease of calculation							
Easy		✔	✔			✔	
Medium	✔			✔			✔
Hard	✔				✔		✔
Can be adjusted (inflation-adjustments)	✔		✔	✔	✔		
Ease of application							
Easy - just a financial metric		✔	✔			✔	
Medium							✔
Hard - comprehensive system	✔			✔	✔		
Usability							
Assessments							
Approves or rejects a project	✔		✔	✔	✔		
Identifies the best opportunity among different alternatives	✔		✔	✔	✔		
Monitors the business performance							
Whole company	✔	✔	✔	✔	✔	✔	✔
Divisional/operating level	✔		✔	✔	✔		
Set the compensation and bonus scheme							
All employees - top, middle, and lower executives	✔		✔	✔	✔		
Only top managers		✔				✔	✔

* Capital costs are not explicitly included, but they are indirectly reflected in the discount rates to convert future market values

	EVA	MVA	RONA	CVA	SVA	TSR	ER
Type of companies evaluated							
Both publicly traded and privatly held firms	✔		✔	✔	✔		
Only publicly traded companies		✔				✔	✔
Time period analysed							
Perspective							
Short-term	✔		✔	✔	✔		
Long-term		✔			✔	✔	✔
Communication skills							
Externally	✔	✔	✔				
Internally							
As hurdle rate			✔	✔		✔	
To motivate any employee	✔			✔	✔		
Requires training courses for the staff	✔			✔	✔		
Explainatory information							
Result oriented (outcomes only)	✔	✔	✔			✔	✔
Explains the causes and helps find solutions				✔	✔		

4.1.1 Early findings

From this theoretical analysis, few conclusions can already be drawn.

Firstly, managers need different indicators because they have the responsibility for several different activities. Their duties can be gathered within three primary goals (Venanzi, 2012):

A. Operation evaluation: decide about resource allocation. Assess which project is worth undertaking and which are not.
B. Activity valuation: receive feedback about the sub-units performance and at what point the corporation and its divisions are with respect to their objectives.

C. Managerial evaluation: executives need a framework to base the compensation strategy and an appropriate reward plan. Remarkably, the bonus scheme has to motivate employees to achieve the corporate aims by economically recognised the efforts and award the results of the right choices.

Among the various aims of a company, one important objective is to deliver returns to its shareholders. This is a vital characteristic that cannot be missed. There are only two ways to improve shareholders' returns, and, accordingly, the company should aim both to improve the business and to enhance stock prices. This is why it is fundamental to implement at least one market-based measure to track and monitor share prices. On the other hand, it is also equally important to consider the distribution policy adopted by the company, whether in the form of dividends or buybacks, because it is still a way to satisfy shareholders. Additionally, market-based indicators help managers to keep always the long-term perspective under observation.

According to this reasoning, in my opinion, TSR and ER have a leg up on the other stock-based indicators because they both entail market prices and the distribution plan. Moreover, TSR has the advantage to be computable both as a percentage and in monetary terms, but it is a measure tied to a specific time so that it cannot be compared with different periods. ER, instead, is a cumulative indicator that comprehends the time value of the money by means of discounting through the cost of equity. Therefore, another point in favour of ER is that it directly involves the equity cost.

At the same time, once companies have implemented the Value-Based Management approach, they also need a comprehensive indicator acting as a bonding element for the whole enterprise, so that managers have one shared metric both horizontally, at the same hierarchical level, and vertically, at all levels. However, it is tough to determine which one is the best choice among EVA, CVA, and SVA. EVA lacks in make managers thinking about the long-term perspective, and its numerous adjustments can create confusion. If a company decides to practice just some adjustments according to its business features. However,

executives need to verify that the assumption that led to the choice of some adjustments remains over time. Moreover, executives need to oversee if they are applied in the same way throughout the entire company. Instead, CVA is focused on cash flows, which could be an issue, and this means that much more attention and carefulness in interpreting the results are required. On one side, it is a powerful tool because, although it is not based on stocks, market actors make their forecasts relying on expected cash flows. On the other side, it is not the best way to monitor performance, especially at the divisional level. Finally, SVA has many potentialities, but uncertainties surrounding the definition of this index makes its implementation herder than it should be.

Lastly, corporations need at least one indicator able to monitor the performance of middle managers and, specifically, the performance at the divisional level. Besides EVA, CVA, and SVA, the RONA ratio can also be applied at the business unit level. RONA has some advantages compared to the other indices, including its simplicity, the fact that it is expressed as a percentage and makes middle managers think about the costs behind the purchase and the hold of an asset. In any case, whatever index is chosen, managers must always consider the agency problem.

4.2 EVIDENCE FROM THE FIELD

The value indicators are now analysed empirically to better present and understand their most significant features. Before proceeding with the actual calculations of the indexes, it is necessary to clarify both the formulas and data used and to state some preliminary assumptions.

The seven alternative value metrics analysed within this context have been calculated for a sample of 25 companies (Appendix 1). These firms belong to the same market sector so that there are no biases due to the industry dynamics. It is assumed that all 25 companies have the same production cycle. The industry selected is the fashion apparel one, which entails those enterprises that manufacture and sell clothes or accessories, such as jewellery or sunglass. The companies selected were chosen randomly within the fashion industry, with just one mandatory prerequisite: they all must be listed on the market. In this way, all seven indicators can be estimated because four out of seven metrics are immeasurable for privately held firms.

All the data reported in the Financial Statements are publicly available directly from the annual reports of each company, which are typically published on the firms' websites. Instead, the information about the Weighted Average Cost of Capital (WACC) and the cost of equity is gathered according to the factual database Bloomberg. Finally, the market information, such as the stock prices, is taken from Bloomberg as well, even though they are publicly available.

The results of those companies with the Financial Statements expressed in dollars have been converted in euros by using the exchange rates established by the European System of Central Banks (ESCB), accessible in the Banca d'Italia database. Given the type of analysis carried out in this context, the exchange rate used is not crucial. Therefore, since the average interim exchange rate is not handy, the conversion is made by applying just the current rate at the closing date of the balance sheet (Appendix 2).

Every value indicator is measured annually from 2016 to 2020, taking each firm's specific fiscal year (FY) as a reference point. In other words, the result of one value indicator, for instance, for the FY 2020, is assessed starting from the closing date of the FY 2019 until the balance sheet date of FY 2020. However, companies have different fiscal years because each CEO can choose the closing date of the Financial Statements. Therefore, to make all the indicators comparable, it is assumed that every fiscal year is equivalent for each firm, aside from the effective closing dates. Despite this, the closing market prices of the shares identified are those at the balance sheet date. If the price information does not exist on the same date, the price selected is the one on the first available date before the one wanted.

Here below, a brief inspection of the formulas used to estimate the seven value metrics (Appendix 3).

First, the calculations begin with EVA, measured as the difference between the NOPAT and the Capital Charge. Both these terms can be reckoned by applying the breakdown of the EVA formula, already presented in Chapter 3.1. No more explanations are needed considering that information about the NOPAT and the Capital Charge is taken from the Balance Sheets and the Income Statements of the firms. Instead, and the WACC is taken as given from the Bloomberg database, without further analysis. The final EVA index estimated can be called “unadjusted EVA”, given that no modification has been done to avoid any discrepancies.

Second, MVA is calculated by subtracting the book value of equity from its market value. In this context, it is assumed that each company’s market value of the debt equals its book value so that their difference is zero.

Third, RONA is a straightforward percentage ratio calculated by dividing the NOPAT, already measured within the EVA context, by the Net Assets. The Net Assets figure can be quickly computed using Balance Sheet’s information.

Fourth, in contrast to RONA, the estimation of CVA is relatively more complex. CVA is assessed by multiplying the Gross Investment for the difference between two yields: the CFROI and the WACC. While the latter is given, the former needs

to be reckoned. The CFROI is the ratio between the Operating Cash Flow and Capital Invested. The OCF is the sum of the net income, the non-cash expenses, and the variation in NWC. The non-cash expenses are slightly trickier to be determined. Therefore, for the sake of consistency, they are estimated as the sum of the depreciation expenses and the employees' stock-based compensations, which are typically represented by the stock option instruments.

Moreover, the Gross Investment term comprehend the Gross value of the Property, Plant and Equipment item, which, however, not always is recorded in the Financial Statements. Therefore, for each firm, the Gross PP&E is estimated by subtracting the Capital Expenditures from the Net PP&E, which is for sure included in the Balance Sheet, and then adding the Accumulated Depreciation. In a few cases, the Accumulated Depreciation and Depreciation Expenses values were missing in the Financial Statements, therefore, they have been reasonably appraised. While in a limited number of other cases, the Depreciation Expenses is not recorded as a separate item, but it is included within the "Amortization and Depreciation Expenses" figure. However, the Gross PP&E refers only to the tangible assets, hence, it should be considered only the depreciation expenses because the amortization costs refer only to the intangible assets. Fortunately, in those same cases, the amount of intangible assets is so small that it is assumed the whole number is just the Depreciation Expense.

Fifth, the SVA indicator is calculated according to the formula by Fernandez (2002), hence, it is mainly based on market values. The variation of the market value of equity equals the Market Value (or Market Capitalization) that was already calculated within the MVA scope. The amount of "total dividends" is estimated by adding to the amount of dividends, effectively distributed, the market value of the shares repurchased.

Sixth, the TSR ratio is another indicator not challenging to measure. The variation of stock prices from the previous year to the current year is summed to the total amount of dividends distributed, computed per share. Therefore, the total divided above calculated for the SVA is not enough because it must be divided by the number of outstanding shares. To conclude the TSR estimation, the result

obtained is divided by the stock price at the closing date of the Balance Sheet of the previous year.

Lastly, Excess Return is a cumulative measure that compares the Actual Value of Wealth with the Expected one. Theoretically, one should calculate the Expected Value of Wealth starting from the begging of the investment. In this case, the *investment* is represented by the total value of the corporate shares because the ER is calculated for the whole company. This means that the starting point should be the moment when the company became public, if not when it was established. For evident reasons, the calculation in this way is not feasible. Therefore, to overcome this issue, the starting point, that is, when the initial investment was made, is set in 2015 for each firm.

The following phase for estimating ER is to bring forward the market value of the firm of 2015, using every year the respective cost of equity. The estimation is cumulative because each year the Expected Value of Wealth is assessed starting from the Expected Value of the previous year, discounted at the equity cost. Consistently, also the Actual Value of Wealth is measured cumulatively. Indeed, it is the sum of the current Market Value plus the total amount of dividends paid during the fiscal year considered plus the total dividends of the year before, discounted again through the cost of equity.

The next step is to measure these seven value indicators for the 25 companies (Appendixes from 4 to 28). Thanks to these analyses, it is noticeable some interesting facts that can lead to some conclusions. In Appendixes from 30 to 36, some tables summarise all the results obtained grouped according to the metric estimated.

By now, it is well known that the only indicators that can compare the corporate performance of a peer group of firms are RONA and TSR because they are expressed in relative terms. Therefore, starting from this first concept, a bar chart is created to immediately understand how the companies are performing

compared to the other firms in the same industry. These charts are reported in Appendix 36.

One aspect that stands out is the fact that TSR is far more fluctuating than RONA. It has many more ups and down values with peaks and lowest levels much more evident than the ones of RONA. On the contrary, RONA tends to have steady results. As shown in Table 2, RONA never goes above 50% or below – 50%. The lowest point reached is -38,64% in FY 2017, while the best result equals 39,44% in FY 2016. Instead, TSR had a peak equal to 120,67% in 2018, and every year the lowest figure is below -50% (Table 3).

Table 2 – Min, Max and average values of RONA

	RONA				
	2020	2019	2018	2017	2016
Min	-18,32%	-4,50%	-0,76%	-38,64%	1,46%
Max	15,84%	25,24%	26,77%	29,98%	39,44%
Average	0,94%	9,79%	11,72%	10,39%	12,74%

Table 3 – Min, Max and average values of TSR

	TSR				
	2020	2019	2018	2017	2016
Min	-73,57%	-50,25%	-29,92%	-69,38%	-53,71%
Max	46,72%	63,26%	120,67%	102,70%	70,03%
Average	-3,53%	14,74%	13,17%	18,53%	6,26%

The reason why there are these differences is that RONA and TSR are calculated in two different ways, and they give two distinct interpretations of the company value. In particular, TSR depends on the market prices and on the dynamics of the stock quotations. Considering that share prices are highly volatile, it is understandable why the various companies have these unique trends.

Despite this, the blue and the yellow horizontal lines, which represent the average level of respectively TSR and RONA, show that the averages are not so far apart (Table 2 and Table 3). In addition, these lines highlight which companies have results above or close to the group's average and, therefore, that are well-performing. While the other firms, with a low level of the ratio, or even a negative result, are considered not profitable firms. Specifically, when a firm has the RONA below the average, it means that its operating activities generate low net profits compared to the corporate capital. Otherwise, one can read this ratio from another perspective, that is, by examining the assets. One can state that the firm has a level of Net Assets much higher than the NOPAT. Net Assets can be elevated if the firm has either a high level of fixed assets or a high level of current assets, compared to the current liabilities, which enhance the level of the NWC, or a high level of both. Therefore, it is clear that this ratio depends on the corporate results, the tax burden, and the composition of its assets.

On the other hand, the information given by the TSR has little to do with the conclusions obtained through RONA. The total shareholder return ratio is positive when the prices of the shares improve and, vice versa, negative when the prices decrease. Moreover, the results are influenced by the companies' dividend policies adopted, which might include share buyback programs. A firm that has distributed dividends usually has a higher TSR than a company that has distributed anything. In addition, a dividend policy mitigates a lousy performance that led to a negative variation of the market prices of shares.

Effectively, these concepts are reasonable because the TSR metric estimates the value created strictly from the point of view of the shareholders. The owners seek either to receive dividends or to see stock prices grow, and, in both cases, they are somehow satisfied. When one of these two mechanisms is not present, the other, in a way, might compensate. However, this indicator is influenced by the expectations of the market investors, which base their opinions on several factors. Any form of dividends distribution can be seen as a good sign from an external actor, such as a potential investor, because it means that the firm is profitable and the owners are reaping the benefits of their investment. Regardless, this is not a sure thing.

The same logic applied to the dividends can also be replicated with the corporate performance. Rationally, a company should record an improvement in the market prices of its shares when the management is making advantageous strategic choices and vice versa. Instead, there is not necessarily a real correlation between these two elements. This absence of association is visually notable in the graphs in Appendix 36.

Besides these two ratios, the other five value indicators can help managers to analyse the historical trend of each company. However, these trends are incomparable between firms, that is, the performance expressed in absolute terms of a corporation is tough to compare with the one of another firm.

To proceed with the analysis, the results are gathered according to the FY rather than based on the calculated metric (from Appendix 37 to Appendix 41). All seven indexes have only one aspect in common, that is, a result above zero is good, while a negative result is a bad sign. Hence, to see if any correlation exist between two indicators, it is measured for every FY how many metrics disagree and, for exclusion, how many are concordant. For the purpose of this study, the scale of the result is not contemplated. Therefore, it is not recorded how bad or how good the company's performance is according to the indexes, but only if the indicators give a positive or a negative outcome. To perform this assessments efficiently, it is assigned a value of 1 for each positive figure and 0 when the score is negative. After, all the indexes were compared in pairs. For two indicators at a time it is added the value assigned for each company. The possible outcomes of the sum can be either 0 if both indicators gave a negative result, or 2 if both are positive, or 1 if one metric is positive and the other is negative. Since this estimation aims to know the number of matching scores and the number of different results, it is kept just the sums with a final value equal to 1. This procedure gives the total number of companies with discording indicators, while the number of concordant indicators is calculated by the difference with the total number of firms. What instantly jumps out at the eyes is that SVA is concordant with the TSR nearly at 100%, except for just two cases, which can be defined as irrelevant. This discovery

helps simplify the estimations because it is no longer necessary to compare all seven metrics but only six. Therefore, the final number of paired indexes is no more 21 but 16 (15 plus the initial association between TSR and SVA). All the measurements are shown in the Appendixes from 42 to 46, while Table 4 summarizes all the findings.

Table 4 – Number of differences and matches

	SVA vs TSR	EVA vs MVA	EVA vs RONA	EVA vs CVA
2016	0	9	10	7
	25	16	15	18
2017	1	9	5	1
	24	16	20	24
2018	1	9	6	4
	24	16	19	21
2019	0	9	9	5
	25	16	16	20
2020	0	16	6	7
	25	9	19	18
Average n. of differences	**0,4**	**10,4**	**7,2**	**4,8**
Average n. of matches	**24,6**	**14,6**	**17,8**	**20,2**

	EVA vs SVA/TSR	EVA vs ER	MVA vs RONA	MVA vs CVA
2016	6	8	3	6
	19	17	22	19
2017	6	10	4	8
	19	15	21	17
2018	13	7	3	9
	12	18	22	16
2019	7	6	0	14
	18	19	25	11
2020	9	7	10	11
	16	18	15	14
Average n. of differences	**8,2**	**7,6**	**4,0**	**9,6**
Average n. of matches	**16,8**	**17,4**	**21,0**	**15,4**

	MVA vs SVA/TSR	MVA vs ER	RONA vs CVA	RONA vs SVA/TSR
2016	9	11	5	10
	16	14	20	15
2017	7	13	4	3
	18	12	21	22
2018	10	14	6	11
	15	11	19	14
2019	8	15	14	8
	17	10	11	17
2020	9	13	7	7
	16	12	18	18
Average n. of differences	**8,6**	**13,2**	**7,2**	**7,8**
Average n. of matches	**16,4**	**11,8**	**17,8**	**17,2**

	RONA vs ER	CVA vs SVA/TSR	CVA vs ER	SVA/TSR vs ER
2016	12	9	11	2
	13	16	14	23
2017	9	5	9	8
	16	20	16	17
2018	11	11	9	8
	14	14	16	17
2019	15	10	9	7
	10	15	16	18
2020	5	8	8	4
	20	17	17	21
Average n. of differences	**10,4**	**8,6**	**9,2**	**5,8**
Average n. of matches	**14,6**	**16,4**	**15,8**	**19,2**

From this table, some conclusions can be drawn. Firstly, the almost perfect correlation between SVA and TSR can be explained because these two metrics have very similar formulas. They might give different outcomes only if a company has either a very high level of capital outlays or several conversions of convertible debentures or both. In our specific case, the firms analysed do not have these items, or they have amounts so small to be irrelevant. Therefore, it is possible to conclude that they are two sides of the same coin. SVA is an expression in absolute terms of the TSR, and, vice versa, TSR represents the SVA in percentage terms.

Secondly, there are other outcomes not so out of the ordinary. One of these is the correlation between SVA/TSR and ER. Both metrics are market-based, and on

average, they give similar indications on the company's value every year. in addition, one can notice that all these three metrics consider the dividend distribution policies. Another not surprising result is the evident difference between EVA and MVA and between RONA and ER. As already discussed before, when comparing RONA with TSR, it is challenging to find a correlation between stock-based indicators and measures linked to the residual income concept.

One aspect more interesting is the similarity between EVA and CVA. It is possible to say that these two ratios are, on average, in agreement in evaluating the performance of companies within the same sector. In the current scenario, one possible explanation of this outcome is that the firms of the sample are more or less in the same growth phase, that is, they have already achieved the maturity stage.

Fourthly, what is very interesting is the fact that MVA and ER, two market-based indicators, are very far apart. This is the first breakthrough, and it suggests that a firm's distribution policy has a significant role in determining the corporate performance and the amount of value created for the shareholders. Moreover, the fact that ER is a cumulative indicator further emphasises this aspect because the past divides, distributed in the previous years, are brought forward through the discounting method.

Finally, there is also a second breakthrough. The MVA and the RONA are the most similar metrics because they very often give the same signal about corporate performance. This unexpected correlation suggests that the value of a company measured from the market perspective, without considering the total dividend distributed, is similar to the corporate performance calculated by looking at the asset composition.

To summarize, in the specific case of the fashion apparel industry, two indicators that managers should use to improve the value created for the shareholders are RONA and MVA. However, considering that MVA does not include the distribution plan of the dividends, it is better to pair it with another stock-based indicator. The

numbers show that ER is farther apart from MVA than from TSR or SVA. Therefore, in my opinion, MVA should be used along with the TSR because, in this way, the firm will have one metric expressed in absolute terms and on in relative terms. Moreover, RONA is a valuable metric at the divisional level that can be explained easily to lower-level executives. However, this value indicator is less helpful to top managers because it estimates the corporate value considering almost exclusively the corporate assets. For this reason, I think that a more comprehensive system should support RONA so that the whole company has a unique value indicator. Since the empirical analysis shows that EVA is not very concordant with MVA, I suggest choosing CVA instead.

This conclusion is not an absolute truth. This result probably would be different for other companies belonging to another industry. It is realistic for companies within the fashion apparel industry and, probably, for firms within another market sector that mainly includes mature companies and not firms in their fast-growing phase.

CONCLUSIONS

EVA is a good indicator of value creation for several reasons, but the management of a company cannot use it alone. The fact that EVA does not include the point of view of market investors is the biggest flaw of this metric. As shown, stock-based measures are the only metrics with a long-term perspective about corporate performance because they account for the investors' expectations of the company's future cash flows. From the point of view of the owners of the firm, when the company is profitable, shareholders' returns are enhanced only in two cases. On the one hand, when the actors in the market recognise this profitability. On the other hand, when the management distributes the income in excess in the form of dividends.

In conclusion, managers must exploit more than one value indicator to run the business successfully, according to the shareholders' expectations. The choice about which metric is the best one depends on several factors, such as the specific features of the firm, the industry in which it carries on its business and others. It was demonstrated that for some industries, such as the fashion apparel sector, the combination of other indicators different from EVA might be the best solution. What is essential to the company's success is not which value indicators managers choose but the reasons behind those choices.

List of References

Bibliography

A. Rappaport. *Creating Shareholder Value – A Guide for Managers and Investors*, THE FREE PRESS, 1998.

A. Ameels, W. Bruggeman and G. Scheipers. *Value-based Management Control Processes to Create Value through Integration - A literature Review*, Recent Trends in Valuation: From Strategy to Value, 2003, pp. 87–150.

Anonymous. *Finance can inhibit shareholder value creation*, Management Accounting, April 1998, pp. 10-11.

V. Berzakova, V. Bartosova and E. Kicova. *Modification of EVA in Value Based Management*, Procedia Economics and Finance, 2015, pp. 317–324.

P. C. Brewer, G. Chandra and C. A. Hock. *Economic Value Added (EVA): Its Uses and Limitations*, SAM ADVANCED MANAGEMENT JOURNAL, 1999.

R. J. Burgman and M. Van Clieaf. *Total Shareholder Return (TSR) and Management Performance: A Performance Metric Appropriately Used, or Mostly Abused?*, Rotman International Journal of Pension Management, 2012.

D. Crowther, M. Davies and S. M. Cooper. *Evaluating Corporate Performance: a Critique of Economic Value Added*, Journal of Applied Accounting Research, 1998, pp. 3–34.

J. H. de Wet. *EVA versus traditional accounting measures of performance as drivers of shareholder value – A comparative analysis*, Meditari Accountancy Research, 2005, pp. 1–16.

P. Fernandez. *A Definition of Shareholder Value Creation*, 2002.

R. E Freeman. and S. Dmytriyev. *Corporate Social Responsibility and Stakeholder*

Theory: Learning From Each Other, Symphonya. Emerging Issues in Management, 2017, p. 7.

R. E. Freeman and J. F. Mcvea. *A Stakeholder Approach to Strategic Management*, Darden Graduate School of Business Administration University of Virginia, January 2001.

G Arnold and M. Davies. *Value-Based Management: Context and Application*, New York, John Wiley & Sons, 2000.

R. Geddes. *Shareholder value added (Economic profit)*, in An Introduction to Corporate Finance: Transactions and Techniques, 2011, pp. 173–182.

L. H. Goulder and R. N. Stavins. *An eye on the future*, NATURE, 419, 2002, pp. 673–674.

H. Ronte. *Value based management*, Management Accounting, January 1998, pp. 38.

Institute Of Management Accountants. *Measuring and Managing Shareholder Value Creation*, Statement Nr 4AA, March 1997.

C. D. Ittner and D. F. Larcker. *Assessing empirical research in managerial accounting: a value-based management perspective*, Journal of Accounting and Economics, 32, 2001, pp. 349–410.

J. Condon and J. Goldstein. *Value based management – the only way to manage for value*, Accountancy Ireland, October 1998, pp. 10-12.

J. Simms. *Marketing for value*, Marketing, June 2001, pp. 34-35.

T. Koller. *What is value-based management?*, McKinsey Quarterly. Available, 1994.

KPMG consulting. *Value Based Management The growing importance of shareholder value in Europe*, 1999, pp. 20

F. Krol. *Value Based Management in Small and Medium Enterprises. Analysis of internal and external impulses and possibilities*, Arbeitspap, 2007.

M. S. Largani, M. Kaviani and A. Abdollahpour. *A review of the application of the*

concept of Shareholder Value Added (SVA) in financial decisions, Procedia - Social and Behavioral Sciences, 40, 2012, pp. 490–497.

M. A. Latapí Agudelo, L. Jóhannsdóttir and B. Davídsdóttir. *A literature review of the history and evolution of corporate social responsibility*, International Journal of Corporate Social Responsibility, 2019, pp. 1–23.

P. Lupo. *Why Total Shareholder Return Is Not a Cure-All*, Pearl Meyer, 2016.

M. Christopher and L. Ryals. *Supply chain strategy: Its impact on shareholder value, International Journal of Logistics Management*, 1999, vol. 10, no. 1, pp. 1-10.

M. Friedman. *A Friedman doctrine-- The Social Responsibility of Business Is to Increase Its Profits*, The New York Times, September 1970.

E. Mäkeläinen. *Economic Value Added as a Management Tool*, Helsinki School of Economics and Business Administration, 1998.

P. Mella and M. Pellicelli. *The Origin of Value Based Management: Five Interpretative Models of an Unavoidable Evolution*, 2008.

R. W. Mills, C. F. Print and B. Weinstein. *Value Based Management: approaching a dead end or a promising future?*, Henley Discussion Paper Series, 4 August 2003.

O. M. Schaefer. *Performance Measures in Value Based Management. A model based approach to explain the CVA and EVA Measures*, Erich Schmidt Verlag GmbH & Co KG, 2002.

A. N. Obaidat. *Is Economic Value Added Superior To Earnings and Cash Flows in Explaining Market Value Added? An Empirical Study*, International Journal of Business, Accounting, and Finance, 13, 2019, pp. 57–70.

M. Pellicelli. *Value based management. Approccio manageriale al tramonto?*, Dottorato di Ricerca in Economia Aziendale, 2003.

R. E Freeman. *Strategic Management: A Stakeholder Approach*, Boston, MA: Pitman, 1984.

R. Simons. *Performance Measurement and Control Systems for Implementing*

Strategy, Pearson, 2014.

A. Rappaport. *The Economics of Short-Term Performance Obsession*, Financial Analysts Journal, 61, 2005, pp. 65–79.

A. Rappaport. *Ten Ways to Create Shareholder Value*, Harvard Business Review, 2006.

S. David Young and S. F. O'Byrne. *EVA and Value-Based Management: A Practical Guide to Implementation*, McGraw-Hill Education, 2000.

W. Seal. *Managerial discourse and the link between theory and practice: From ROI to value-based management*, Management Accounting Research, 21, 2010, pp. 95–109.

A. K. Sharma and S. Kumar. *Economic Value Added (EVA) - Literature Review and Relevant Issues*, International Journal of Economics and Finance, 2, 2010, pp. 200–220.

A. Shleifer and R. W. Vishny. *The Takeover Wave of the 198Os*, American Association for the Advancement of Science, 249, 1990, pp. 745–749.

R. Simons. *Performance Measurement and Control Systems for Implementing Strategy*, First. Edited by Pearson New International Edition, 2014.

A. Steffan. *Il Value Based Management?*, University of Ca' Foscari Venice, 2014.

Stern Stewart & Co. *EVA & Strategy*, EVAluation, 2000.

T. Copeland, T. Koller and J. Murrin. *Valuation: Measuring and Managing the Value of Companies*, John Wiley & Sons, 2nd ed., 1996, (3rd ed., 2000).

L. Vasilescu and A. Popa. *Economic Value Added: Pros and Cons*, Finance - Challenges of the Future, 13, 2011, pp. 60–65.

D. Venanzi. *Financial Performance Measures and Value Creation: The State of the Art*, Edited by Springer, 2012.

F. Weissenrieder. *Value Based Management: Economic Value Added or Cash Value Added?*, SSRN Electronic Journal, 2005.

S. D. Young, *Some Reflections on Accounting Adjustments and Economic Value Added*, Journal of Financial Statement Analysis, 4, 1999, pp. 7–13.

Sitography

A. Bloomenthal. *Cash Value Added (CVA)*, Investopedia, July 2021. https://www.investopedia.com/terms/c/cva.asp

A. Ganti. *Total Shareholder Return (TSR)*, Investopedia, May 2021. https://www.investopedia.com/terms/t/tsr.asp#what-is-total-shareholder-return-tsr

A. Hayes. *Dotcom Bubble*, Investopedia, Jun 2019. https://www.investopedia.com/terms/d/dotcom-bubble.asp

A. Hayes. *Return on Net Assets (RONA)*, Investopedia, June 2021. https://www.investopedia.com/terms/r/rona.asp

A. Hayes. *Shareholder Value Added (SVA)*, Investopedia, June 2021. https://www.investopedia.com/terms/s/shareholdervalueadded.asp#limitations-of-shareholder-value-added

A. Hayes. *Shareholder Value Added (SVA)*, Investopedia, June 2021. https://www.investopedia.com/terms/s/shareholdervalueadded.asp

A. Tuovila. *Economic Profit (or Loss)*, Investopedia, October 2021. https://www.investopedia.com/terms/e/economicprofit.asp

C. Gallant. *Economic Value Added vs. Market Value Added: What's the Difference?*, Investopedia, August 2021. https://www.investopedia.com/ask/answers/06/economicvsmarketvalueadded.asp

C. M. Koop. *Agency Theory*, Investopedia, July 2021. https://www.investopedia.com/terms/a/agencytheory.asp

CBS NEWS. *Implementing Shareholder Value Analysis*, CBS Interactive Inc., November 2007. https://www.cbsnews.com/news/implementing-shareholder-value-analysis/#app

CERN. *A short history of the Web*, 2021. https://home.cern/science/computing/birth-web/short-history-web

Chartered Institute of Management Accountants (CIMA). *What is the main difference between EVA (earned value analysis) and SVA (shareholder I value analysis)?*, The Free Library, May 2012. https://www.thefreelibrary.com/What+is+the+main+difference+between+EVA+(earned+value+analysis)+and...-a0292374949

CommBank. *What is shareholder return?*, 2021. https://www.commbank.com.au/articles/investing/understanding-shareholder-return.html

Corporate Finance Institute. *Economic Profit. The difference between total revenue and the opportunity cost associated with the revenue generated*, Corporate Finance Institute, 2021. https://corporatefinanceinstitute.com/resources/knowledge/economics/economic-profit/

Corporate Finance Institute. *Return on Net Assets (RONA). An extension of the traditional return on assets ratio*, 2021. https://corporatefinanceinstitute.com/resources/knowledge/finance/return-on-net-assets-rona/

Corporate Finance Institute. *WACC. What is WACC, its formula, and why it's used in corporate finance*, Corporate Finance Institute, 2021. https://corporatefinanceinstitute.com/resources/knowledge/finance/what-is-wacc-formula/

E. Tarver. *Market Segmentation*, Investopedia, April 2015. https://www.investopedia.com/terms/m/marketsegmentation.asp

Editorial Staff. *Capital Outlay (Definition, Examples And Why It's Important)*, incorporated.zone, February 2021. https://incorporated.zone/capital-outlay/#What_Is_Capital_Outlay

FASB. *ABOUT THE FASB*, July 2020. https://www.fasb.org/facts/

G. N. Root III. *Advantages & Disadvantages of Market Value*, CHRON. https://smallbusiness.chron.com/difference-list-price-selling-price-21088.html

https://www.valuebasedmanagement.net/faq_shareholder_stakeholder_perspective.html

J. Bort. *No Google. No Netflix. No iPhone. This Is What Tech Was Like In 1994*, Insider, August 2014. https://www.businessinsider.com/tech-in-1994-the-year-the-web-was-born-2014-8?r=US&IR=T#in-1994-most-people-used-windows-pcs-windows-looked-like-this-1

J. Bruton and L. Bruton. *Scientific Management Theory*, Lumen Learning. https://courses.lumenlearning.com/wm-introductiontobusiness/chapter/scientific-management-theory/

J. Chen. *Convertible Debenture*, Investopedia, October 2020. https://www.investopedia.com/terms/c/convertibledebenture.asp

J. Chen. *Market Value*, Investopedia, April 2021. https://www.investopedia.com/terms/m/marketvalue.asp

J. Fernando. *Corporate Social Responsibility (CSR)*, Investopedia, February 2021. https://www.investopedia.com/terms/c/corp-social-responsibility.asp

J. Fernando. *Discounted Cash Flow (DCF)*, Investopedia, March 2021. https://www.investopedia.com/terms/d/dcf.asp

J. Fernando. *Internal Rate of Return (IRR)*, Investopedia, April 2021. https://www.investopedia.com/terms/i/irr.asp

J. Fernando. *Market Capitalization*, Investopedia, August 2021. https://www.investopedia.com/terms/m/marketcapitalization.asp

J. Fernando. *Net Present Value (NPV)*, Investopedia, April 2021. https://www.investopedia.com/terms/n/npv.asp

J. Fernando. *Present Value (PV)*, Investopedia, February 2021. https://www.investopedia.com/terms/p/presentvalue.asp

J. Fernando. *Return on Investment (ROI)*, Investopedia, April 2021. https://www.investopedia.com/terms/r/returnoninvestment.asp

J. Fernando. *Return on Investment (ROI)*, Investopedia, April 2021. https://www.investopedia.com/terms/r/returnoninvestment.asp

J. Gordon. *Total Shareholder Return – Definition*, The Business Professor, December 2020. https://thebusinessprofessor.com/en_US/accounting-taxation-and-reporting-managerial-amp-financial-accounting-amp-reporting/total-shareholder-return-definition

Ł. Skarka. *Shareholder value added*, CEOpedia, August 2020. https://ceopedia.org/index.php/Shareholder_value_added

Lucitel. *Value Based Management*. https://www.lucintel.com/value-based-management.aspx

M. Horton. *The Difference Between Profitability and Profit*, Investopedia, May 2021. https://www.investopedia.com/ask/answers/012715/what-difference-between-profitability-and-profit.asp

Mariano. *Value based Management: valore in azienda*, B2 Corporate Business Hub, May 2012. https://www.b2corporate.com/value-based-management-valore-in-azienda/

Rahul. *Operating Cash Flow – Definition, Formula, and Examples*, MrTechBusiness, March 2021. https://mrtechbusiness.com/operating-cash-flow/

Rodrigo. *2001 dot-com Bubble: its causes, effect, and lessons learnt*, The Writepass journal, October 2012. https://writepass.com/journal/2012/10/2001-dot-com-bubble-its-causes-effect-and-lessons-learnt/#Effect

S. B. Borad. *Friedman Doctrine – Meaning, Importance, Criticism and More*, e Finance Management, October 2020. https://efinancemanagement.com/financial-management/friedman-doctrine

S. Mukhopadhyay. *CFROI (Cash Flow Return on Investment)*, WallStreetMojo, 2021. https://www.wallstreetmojo.com/cfroi/

Statista Research Department. *Largest bankruptcies in the U.S. as of June 2019, by assets*, Statista, March 2021. https://www.statista.com/statistics/1096794/largest-bankruptcies-usa-by-assets/

STERN VALUE MANAGEMENT. *Our History*, 2021. https://sternvaluemanagement.com/about-us/our-history

Study Finance. *Total Shareholder Return (TSR)*, 2021. https://studyfinance.com/total-shareholder-return/

T. Segal. *Enron Scandal: The Fall of a Wall Street Darling*, Investopedia, Jun 2021. https://www.investopedia.com/updates/enron-scandal-summary/#the-wall-street-darling-crumbles

UKEssays. January 2015. https://www.ukessays.com/essays/accounting/economic-value-added-and-shareholder-value-added-accounting-essay.php

UKEssays. *Economic Value Added And Shareholder Value Added Accounting Essay*, November 2018. https://www.ukessays.com/essays/accounting/economic-value-added-and-shareholder-value-added-accounting-essay.php?vref=1

Value Based Management.net. *Business valuation: Summary and calculation of MVA. Abstract*, 2021. https://www.valuebasedmanagement.net/methods_mva.html

Value Based Management.net. *Calculation of Excess Return. Abstract*, 2021. https://www.valuebasedmanagement.net/methods_er.html

Value Based Management.net. *Corporate Strategy and the Search for Ethics - VBM Thought Leader: R. Edward Freeman, Daniel R. Gilbert, Jr.*, 2021. https://www.valuebasedmanagement.net/books_freeman_corporate.html

Value Based Management.net. *Measuring Company Success: Summary of Return On Net Assets - RONA. Abstract*, 2021. https://www.valuebasedmanagement.net/methods_rona.html

Value Based Management.net. *Summary of Cash Flow Return on Investment. Abstract*, 2021. https://www.valuebasedmanagement.net/methods_cfroi.html

Value Based Management.net. *Summary of Total Shareholder Return. Abstract*, 2021. https://www.valuebasedmanagement.net/methods_tsr.html

Value Based Management.net. *Value Based Management History*, 2021. https://www.valuebasedmanagement.net/faq_history_value_based_management.html

Value Based Management.net. *VBM Thought Leader: Alfred Rappaport – Creating Shareholder Value – The New Standard for Business Performance*, 2021. https://www.valuebasedmanagement.net/books_rappaport_creating.html

W. Kenton. *Cash Flow Return on Investment (CFROI)*, Investopedia, March 2021. https://www.investopedia.com/terms/c/cfroi.asp

W. Kenton. *Cost of Equity*, Investopedia, May 2021. https://www.investopedia.com/terms/c/costofequity.asp

W. Kenton. *Neoclassical Economics*, Investopedia, Jun 2021. https://www.investopedia.com/terms/n/neoclassical.asp

W. Kenton. *Residual Income*, Investopedia, March 2021. https://www.investopedia.com/terms/r/residualincome.asp

W. Kenton. *Value*, Investopedia, June 2020. https://www.investopedia.com/terms/v/value.asp

Databases

Banca d'Italia

Bloomberg

Statista

Additional readings

C. B. Murphy. *Property, Plant, and Equipment (PP&E)*, Investopedia, April 2021. https://www.investopedia.com/terms/p/ppe.asp

Corporate Finance Institute. *Operating Cash Flow Formula. Calculate how much cash a company generated (or consumed) from its operating activities*, 2021. https://corporatefinanceinstitute.com/resources/knowledge/accounting/operating-cash-flow-formula/

D. Vaidya, CFA, FRM. *Capital Expenditure Formula (CAPEX)*, WallStreetMojo, 2021. https://www.wallstreetmojo.com/capital-expenditure-formula-capex/

EULER HERMES. *How to assess your Working Capital Requirement (WCR)*, June 2021. https://www.eulerhermes.com/en_global/news-insights/business-tips-and-trade-advice/ebook-boost-your-financial-performance-analysis/working-capital-requirement-do-not-neglect-it.html

GoCardless. *How does depreciation affect cash flow?*, 2021. https://gocardless.com/guides/posts/how-does-depreciation-affect-cash-flow/

J. Chen. *Market Value Of Equity*, Investopedia, March 2020. https://www.investopedia.com/terms/m/market-value-of-equity.asp

J. Fernando. *Capital Expenditure (CapEx)*, Investopedia, April 2021. https://www.investopedia.com/terms/c/capitalexpenditure.asp

S. Denning. Making Sense Of Shareholder Value: 'The World's Dumbest Idea', Forbes, July 2017. https://www.forbes.com/sites/stevedenning/2017/07/17/making-sense-of-shareholder-value-the-worlds-dumbest-idea/?sh=450e66f22a7e

Appendix

Appendix 1: Fashion apparel industry – Selected companies

1) Aeffe S.p.A.
2) Fossil Group Inc.
3) Christian Dior
4) Brunello Cucinelli S.p.A.
5) Hermès International
6) Hugo Boss
7) Moncler S.p.A.
8) Prada S.p.A.
9) Ralph Lauren Corp.
10) Salvatore Ferragamo S.p.A.
11) Kering S.A.
12) Tod's S.p.A.
13) LVMH Group
14) Compagnie Financière Richemont S.A.
15) Capri Holdings Ltd
16) PVH Corp.
17) GAP Inc.
18) Coach Inc. (Tapestry)
19) Grupo Inditex
20) Puma S.E.
21) Adidas A.G.
22) Guess? Inc.
23) Abercrombie & Fitch Co.
24) Nike Inc.
25) Under Armour Inc.

Appendix 2: Exchange Rates applied ($:€)

Closing date Financial Statements:	28.03.20	30.03.19	31.03.18	01.04.17	02.04.16	28.03.15
RALPH LAUREN	0,9110	0,8901	0,8116	0,9354	0,8747	0,9212

Closing date Financial Statements:	28.03.20	30.03.19	31.03.18	01.04.17	02.04.16	28.03.15
CAPRI HOLDINGS	0,9110	0,8901	0,8116	0,9354	0,8747	0,9212

Closing date Financial Statements:	31.01.21	02.02.20	03.02.19	04.02.18	29.01.17	31.01.16
PVH	0,8240	0,9048	0,8718	0,8005	0,9362	0,9158

Closing date Financial Statements:	30.01.21	01.02.20	02.02.19	03.02.18	28.01.17	30.01.16
GAP	0,8240	0,9048	0,8718	0,8005	0,9362	0,9158

Closing date Financial Statements:	27.06.20	29.06.19	30.06.18	01.07.17	02.07.16	27.06.15
TAPESTRY	0,8918	0,8787	0,8578	0,8763	0,8981	0,8927

Closing date Financial Statements:	01.02.20	02.02.19	03.02.18	28.01.17	30.01.16	31.01.15
GUESS	0,9048	0,8718	0,8005	0,9362	0,9158	0,8846

Closing date Financial Statements:	30.01.21	01.02.20	02.02.19	03.02.18	28.01.17	30.01.16
ABERCROMBIE	0,8240	0,9048	0,8718	0,8005	0,9362	0,9158

Closing date Financial Statements:	31.05.20	31.05.19	31.05.18	31.05.17	31.05.16	31.05.15
NIKE	0,8980	0,8968	0,8548	0,8912	0,8965	0,9116

Closing date Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
UNDER ARMOUR	0,8149	0,8902	0,8734	0,8338	0,8338	0,9185

Closing date Financial Statements:	02.01.21	28.12.19	29.12.18	30.12.17	31.12.16	02.01.16
FOSSIL	0,8149	0,8966	0,8731	0,8338	0,8338	0,9185

Appendix 3: Formulary

1) EVA

EVA = NOPAT - Capital Charge

NOPAT = EBIT - taxes (EBIT = Net sales - Operating Expenses)
Capital Charge = CE * WACC

CE = tot assets - current liabilities
CE = fixed liabilities + Equity
CE = fixed assets + NWC
NWC = current assets - current liabilities

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2) MVA

MVA = MV - Equity

MV = n. of oustanding shares *Pshare
Pshare: CLOSING price

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3) RONA

RONA = NOPAT / Net Assets

Net Assets = Fixed assets + NWC

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4) CVA

CVA = (CFROI - WACC) * GI

CFROI = OCF / CE

OCF = Net Income + Non cash expenses + delta NWC

GI = Gross PP&E + Inventories

Gross PP&E = Net PP&E - CapEx + AD
CapEx = delta Net PP&E - Dep Expenses

---

5) SVA

SVA = Increase of MV + tot DIV - Capital Outlays - Convertion of Convertible Debentures

tot DIV = dividend distributed + share buybacks
Share buybacks = n of shares buy back * Pshare

---

6) TSR

TSR (%) = (delta Pshare + tot DIV per share) / Pshare BEGINNING

7) ER

ER = Actual V - Expected V

Actual V = MV + tot DIV of the year + [tot DIV (t-1) * (1+Ke)]
Expected V = MV (2015) * (1+Ke)

Appendix 4: Aeffe S.p.A.

AEFFE
BIT: AEF
€

All figures are expressed in ***millions €***
Except *for WACC, number of oustanding shares, share prices, RONA, CFROI, TSR (%), Ke and (1 + Ke)*

FY	2020	2019	2018	2017	2016
EVA	(36)	(6)	(16)	(9)	(8)
MVA	(60)	10	54	63	(49)
RONA	-6,26%	4,54%	0,01%	6,36%	2,64%
CVA	(24)	(5)	5	7	9
SVA	(94)	(37)	10	122	(41)
TSR	-44,63%	-14,97%	4,22%	102,70%	-25,45%
ER	(166)	(40)	22	41	(57)

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
EVA						
NOPAT calculation						
EBIT	(25)	25	24	23	10	
(-) Taxes	4	(10)	(10)	(7)	(4)	
(=) NOPAT	(20)	15	14	15	6	
Capital Charge calculation						
Tot. Assets	489	505	404	386	374	
(-) Current liabilities	(164)	(168)	(151)	(146)	(142)	
(=) CE	325	337	253	240	232	
(*) WACC	4,82%	6,19%	11,88%	10,26%	6,25%	
(=) Capital Charge	16	21	30	25	15	
EVA = NOPAT - Capital Charge	(36)	(6)	(16)	(9)	(8)	

	2020	2019	2018	2017	2016	2015
	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
CE check						
Fixed liabilities	146	133	55	62	64	
(+) Equity	179	204	197	178	168	
(=) CE	325	337	253	240	232	
delta	*0*	*0*	*0*	*0*	*0*	
Current assets	228	233	220	197	176	174
(-) Current liabilities	(164)	(168)	(151)	(146)	(142)	(155)
(=) NWC	64	65	69	51	34	19
(+) Fixed assets	261	272	184	189	198	
(=) CE	325	337	253	240	232	
delta	*0*	*0*	*0*	*0*	*0*	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
Stock price - date:	30.12.20	31.12.19	28.12.18	29.12.17	30.12.16	30.12.15
2) MVA						
MV calculation						
n. of oustanding shares	107.362.504	107.362.504	107.362.504	107.362.504	107.362.504	107.362.504
(*) P share	1,104	1,994	2,345	2,250	1,110	1,489
(=) MV (Market Cap)	119	214	252	242	119	160
Equity (E)	179	204	197	178	168	
MVA = MV - E	(60)	10	54	63	(49)	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
3) RONA						
NOPAT	(20)	15	14	15	6	
Net Assets calculation						
Fixed Assets	261	272	183.748	189	198	
(+) NWC	64	65	69	51	34	19
Net Assets	325	337	183.817	240	232	
RONA = NOPAT / Net Assets	-6,26%	4,54%	0,01%	6,36%	2,64%	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
4) CVA							
CFROI calculation							
	Net Income	(21)	12	12	11	4	
	(+) Non Cash Expenses	(5)	(5)	(5)	(5)	(5)	
	(+) Δ NWC	(1)	(4)	18	16	16	
	(=) OCF	(18)	13	36	33	25	
	(/) CE	325	337	253	240	232	
	(=) CFROI	(0,0547)	0,0395	0,1424	0,1363	0,1061	
	WACC	0,0482	0,0619	0,1188	0,1026	0,0625	
GI calculation							
(+)	Net PP&E	62	63	60	59	61	63
	Δ Net PP&E	(1)	3	1	(2)	(2)	
	(+) Depreciation Exp	(5)	(5)	(5)	(5)	(5)	
(-)	(=) CapEx	4	8	7	3	3	
(+)	*Accumulated Depreciation**	*(62)*	*(63)*	*(60)*	*(59)*	*(61)*	
(=)	Gross PP&E	119	118	114	115	119	
	(+) Inventories	109	112	104	98	89	
	(=) GI	229	230	218	213	209	
CVA = (CFROI - WACC) * GI		(24)	(5)	5	7	9	

* estimated

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
	Stock price - date:	30.12.20	31.12.19	28.12.18	29.12.17	30.12.16	30.12.15
5) SVA							
Increase in market value of equity							
	MV	119	214	252	242	119	160
	Δ MV	(96)	(38)	10	122	(41)	
	n. shares buy back	969.200	340.961	0	0	0	
	(*) Pshare	1,104	1,994	2,345	2,250	1,110	
	(=) Share Buybacks	1,070	0,680	0	0	0	
	(+) Dividends Distributed	0	0	0	0	0	
	(=) tot.DIV	1	1	0	0	0	
	Capital Outlays						
	Convertion of Convertible Debetures						
SVA = ΔMV + tot. DIV - Cap Outlays - Conv Debentures		(94)	(37)	10	122	(41)	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
	Stock price - date:	30.12.20	31.12.19	28.12.18	29.12.17	30.12.16	30.12.15
6) TSR (%)							
TSR in absolute value calculation							
	Pshare	1,104	1,994	2,345	2,250	1,110	1,489
	Δ Pshare	(0,890)	(0,351)	0,095	1,140	(0,379)	
	(+) tot. DIV PER SHARE	0,000	0,000	0,000	0,000	0,000	
	(=) TSR	(0,890)	(0,351)	0,095	1,140	(0,379)	
	Pshare (BEGINNING)	1,994	2,345	2,25	1,11	1,489	
TSR (%) = TSR / Pshare BEGINNING		-44,63%	-14,97%	4,22%	102,70%	-25,45%	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
	Stock price - date:	30.12.20	31.12.19	28.12.18	29.12.17	30.12.16	30.12.15
7) ER							
Actual Value of Wealth calculation							
	tot. DIV	1	1	0	0	0	0
	Cost of Equity (Ke)	12,19%	10,86%	14,82%	13,58%	10,37%	
	(1 + Ke)	1,1219	1,1086	1,1482	1,1358	1,1037	
	Tot. DIV (t-1) * (1 + Ke)	1	0	0	0	0	
	Future value of tot. DIV	2	1	0	0	0	
	(+) MV	119	214	252	242	119	160
	(=) Actual Value of Wealth	120	215	252	242	119	
Expected Value of Wealth calculation							
	(=) Expected Value of Wealth	286	255	230	200	176	
ER = Actual Value of Wealth - Expected Value of Wealth		(166)	(40)	22	41	(57)	

Appendix 5: Fossil Group Inc.

FOSSIL
NASDAQ: FOSL
$

*All figures are expressed in **millions €***
***Except** for WACC, number of oustanding shares, share prices, RONA, CFROI, TSR (%), Ke and (1 + Ke)*

FY	2020	2019	2018	2017	2016
EVA	(89)	(99)	(38)	(464)	(71)
MVA	5	(101)	188	(169)	194
RONA	-6,44%	-4,50%	4,29%	-38,64%	5,55%
CVA	(148)	(172)	(64)	(530)	(0)
SVA	14	(346)	393	(720)	(564)
TSR	2,14%	-50,25%	120,67%	-69,38%	-35,12%
ER	(2.577)	(2.311)	(1.706)	(1.820)	(679)

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	02.01.21	28.12.19	29.12.18	30.12.17	31.12.16	02.01.16
1) EVA						
NOPAT calculation						
EBIT	(110)	(25)	55	(354)	106	
(-) Taxes	62	(17)	(18)	(17)	(24)	
(=) NOPAT	(48)	(42)	36	(370)	82	
Capital Charge calculation						
Tot. Assets	1.205	1.439	1.375	1.383	1.823	
(-) Current liabilities	(455)	(501)	(529)	(424)	(346)	(541)
(=) CE	750	937	846	958	1.478	
(*) WACC	5,42%	6,03%	8,80%	9,81%	10,34%	
(=) Capital Charge	41	57	74	94	153	
EVA = NOPAT - Capital Charge	(89)	(99)	(38)	(464)	(71)	

	2020	2019	2018	2017	2016	2015
	02.01.21	28.12.19	29.12.18	30.12.17	31.12.16	02.01.16
CE check						
Fixed liabilities	391	486	332	474	631	
(+) Equity	359	452	514	484	847	
(=) CE	750	937	846	958	1.478	
delta	*0*	*0*	*0*	*0*	*0*	
Current assets	807	950	1.099	1.076	1.123	1.325
(-) Current liabilities	(455)	(501)	(529)	(424)	(346)	(541)
(=) NWC	352	449	570	652	778	784
(+) Fixed assets	398	489	276	306	700	
(=) CE	750	937	846	958	1.478	
delta	*0*	*0*	*0*	*0*	*0*	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	02.01.21	28.12.19	29.12.18	30.12.17	31.12.16	02.01.16
Stock price - date:	31.12.21	27.12.19	28.12.18	29.12.17	30.12.16	31.12.15
2) MVA						
MV calculation						
n. of oustanding shares	51.474.000	50.516.000	49.518.000	48.643.000	48.269.000	48.125.000
(*) P share	7,065	6,940	14,170	6,479	21,562	33,580
(=) MV (Market Cap)	364	351	702	315	1.041	1.616
Equity (E)	359	452	514	484	847	
MVA = MV - E	5	(101)	188	(169)	194	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	02.01.21	28.12.19	29.12.18	30.12.17	31.12.16	02.01.16
3) RONA						
NOPAT	(48)	(42)	36	(370)	82	
Net Assets calculation						
Fixed Assets	398	489	276	306	700	
(+) NWC	352	449	570	652	778	784
Net Assets	750	937	846	958	1.478	
RONA = NOPAT / Net Assets	-6,44%	-4,50%	4,29%	-38,64%	5,55%	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	02.01.21	28.12.19	29.12.18	30.12.17	31.12.16	02.01.16
4) CVA							
CFROI calculation							
	Net Income	(60)	(61)	9	(383)	53	
	(+) Non Cash Expenses	(44)	(66)	(84)	(94)	(105)	
	(+) Δ NWC	(97)	(121)	(82)	(126)	(6)	
	(=) OCF	(113)	(116)	11	(415)	152	
	(/) CE	750	937	846	958	1.478	
	(=) CFROI	-0,150	-0,124	0,013	-0,433	0,103	
	WACC	0,054	0,060	0,088	0,098	0,103	
GI calculation							
(+)	Net PP&E	93	136	160	183	228	300
	Δ Net PP&E	(43)	(24)	(23)	(45)	(71)	
	*(+) Depreciation Exp**	*(35)*	*(49)*	*(59)*	*(68)*	*(79)*	
(-)	(=) CapEx	(8)	25	36	22	7	
(+)	Accumulated Depreciation	(381)	(417)	(396)	(360)	(346)	
(=)	Gross PP&E	481	528	520	521	567	
	(+) Inventories	241	406	330	478	452	
	(=) GI	722	933	850	999	1.019	
CVA = (CFROI - WACC) * GI		(148)	(172)	(64)	(530)	(0,39)	

* assumes no amortization

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	02.01.21	28.12.19	29.12.18	30.12.17	31.12.16	02.01.16
	Stock price - date:	31.12.21	27.12.19	28.12.18	29.12.17	30.12.16	31.12.15
5) SVA							
Increase in market value of equity							
	MV	364	351	702	315	1.041	1.616
	Δ MV	13	(351)	387	(726)	(575)	
	n. shares buy back	169.000	304.000	180.000	93.000	166.000	2.759.000
	(*) Pshare	7,065	6,940	14,170	6,479	21,562	33,580
	(=) Share Buybacks	1	2	3	1	4	93
	(+) Dividends Distributed	0	3	4	5	7	8
	(=) tot.DIV	1	6	6	6	11	101
	Capital Outlays						
	Convertion of Convertible Debetures						
SVA = ΔMV + tot. DIV - Cap Outlays - Conv Debentures		14	(346)	393	(720)	(564)	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	02.01.21	28.12.19	29.12.18	30.12.17	31.12.16	02.01.16
	Stock price - date:	31.12.21	27.12.19	28.12.18	29.12.17	30.12.16	31.12.15
6) TSR (%)							
TSR in absolute value calculation							
	Pshare	7,065	6,940	14,170	6,479	21,562	33,580
	Δ Pshare	0,125	-7,231	7,692	-15,083	-12,018	
	(+) tot. DIV PER SHARE	0,023	0,110	0,126	0,123	0,224	
	(=) TSR	0,149	-7,120	7,818	-14,960	-11,794	
	Pshare (BEGINNING)	6,940	14,170	6,479	21,562	33,580	
TSR (%) = TSR / Pshare BEGINNING		2%	-50%	121%	-69%	-35%	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	02.01.21	28.12.19	29.12.18	30.12.17	31.12.16	02.01.16
	Stock price - date:	31.12.21	27.12.19	28.12.18	29.12.17	30.12.16	31.12.15
7) ER							
Actual Value of Wealth calculation							
	tot. DIV	1	6	6	6	11	101
	Cost of Equity (Ke)	10,25%	10,46%	12,41%	16,67%	14,23%	
	(1 + Ke)	1,103	1,105	1,124	1,167	1,142	
	Tot. DIV (t-1) * (1 + Ke)	6	7	7	13	115	
	Future value of tot. DIV	7	12	13	19	126	
	(+) MV	364	351	702	315	1.041	1.616
	(=) Actual Value of Wealth	371	363	715	334	1.167	
Expected Value of Wealth calculation							
	(=) Expected Value of Wealth	2.948	2.674	2.421	2.154	1.846	
ER = Actual Value of Wealth - Expected Value of Wealth		(2.577)	(2.311)	(1.706)	(1.820)	(679)	

Appendix 6: Christian Dior

CHRISTIAN DIOR
EPA: CDI
€

All figures are expressed in ***millions €***
Except *for WACC, number of oustanding shares, share prices, RONA, CFROI, TSR (%), Ke and (1 + Ke)*

FY	2020	2019	2018	2017	2016
EVA	834	3.853	2.534	2.012	(201)
MVA	45.815	46.739	23.899	22.273	5.887
RONA	6,95%	11,78%	12,28%	10,25%	5,84%
CVA	4.896	(4.315)	(280)	3.023	174
SVA	433	28.570	6.271	19.546	8.067
TSR	0,52%	47,40%	11,41%	54,35%	28,51%
ER	47.290	50.770	25.714	22.971	6.483

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
1) EVA						
NOPAT calculation						
EBIT	7.967	11.261	9.875	8.167	4.145	
(-) Taxes	(2.385)	(2.874)	(2.518)	(2.259)	(1.162)	
(=) NOPAT	5.582	8.387	7.357	5.908	2.983	
Capital Charge calculation						
Tot. Assets	106.017	93.830	77.271	72.743	64.779	
(-) Current liabilities	(25.685)	(22.651)	(17.363)	(15.105)	(13.670)	
(=) CE	80.332	71.179	59.908	57.638	51.109	
(*) WACC	5,91%	6,37%	8,05%	6,76%	6,23%	
(=) Capital Charge	4.748	4.534	4.823	3.896	3.184	
EVA = NOPAT - Capital Charge	834	3.853	2.534	2.012	(201)	

	2020	2019	2018	2017	2016	2015
	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
CE check						
Fixed liabilities	44.088	35.462	23.536	24.937	21.030	
(+) Equity	36.244	35.717	36.372	32.701	30.079	
(=) CE	80.332	71.179	59.908	57.638	51.109	
delta	*0*	*0*	*0*	*0*	*0*	
Current assets	40.377	26.898	29.585	27.109	20.235	19.706
(-) Current liabilities	(25.685)	(22.651)	(17.363)	(15.105)	(13.670)	(13.926)
(=) NWC	14.692	4.247	12.222	12.004	6.565	5.780
(+) Fixed assets	65.640	66.932	47.686	45.634	44.544	
(=) CE	80.332	71.179	59.908	57.638	51.109	
delta	*0*	*0*	*0*	*0*	*0*	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
Stock price - date:	31.12.20	31.12.19	31.12.18	29.12.17	30.12.16	31.12.15
2) MVA						
MV calculation						
n. of oustanding shares	180.507.516	180.507.516	180.507.516	180.507.516	180.507.516	180.507.516
(*) P share	454,600	456,800	333,900	304,550	199,250	156,750
(=) MV (Market Cap)	82.059	82.456	60.271	54.974	35.966	28.295
Equity (E)	36.244	35.717	36.372	32.701	30.079	
MVA = MV - E	45.815	46.739	23.899	22.273	5.887	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
3) RONA						
NOPAT	5.582	8.387	7.357	5.908	2.983	
Net Assets calculation						
Fixed Assets	65.640	66.932	47.686	45.634	44.544	
(+) NWC	14.692	4.247	12.222	12.004	6.565	5.780
Net Assets	80.332	71.179	59.908	57.638	51.109	
RONA = NOPAT / Net Assets	6,95%	11,78%	12,28%	10,25%	5,84%	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
4) CVA							
CFROI calculation							
	Net Income	1.933	2.938	2.584	2.259	1.124	
	(+) Non Cash Expenses	(1.706)	(1.672)	(1.546)	(1.560)	(1.560)	
	(+) Δ NWC	10.445	(7.975)	218	5.439	785	
	(=) OCF	14.084	(3.365)	4.348	9.258	3.469	
	(/) CE	80.332	71.179	59.908	57.638	51.109	
	(=) CFROI	0,175	-0,047	0,073	0,161	0,068	
	WACC	0,0591	0,0637	0,0805	0,0676	0,0623	
GI calculation							
(+)	Net PP&E	17.575	17.878	14.463	13.217	12.962	11.958
	Δ Net PP&E	(303)	3.415	1.246	255	1.004	
	(+) Depreciation Exp	(1.706)	(1.655)	(1.512)	(1.488)	(1.456)	
(-)	(=) CapEx	1.403	5.070	2.758	1.743	2.460	
(+)	Accumulated Depreciation	(12.938)	(12.355)	(11.212)	(10.130)	(9.804)	
(=)	Gross PP&E	29.110	25.163	22.917	21.604	20.306	
	(+) Inventories	13.016	13.717	12.485	10.888	10.929	
	(=) GI	42.126	38.880	35.402	32.492	31.235	
CVA = (CFROI - WACC) * GI		4.896	(4.315)	(280)	3.023	174	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
	Stock price - date:	31.12.20	31.12.19	31.12.18	29.12.17	30.12.16	31.12.15
5) SVA							
Increase in market value of equity							
	MV	82.059	82.456	60.271	54.974	35.966	28.295
	Δ MV	(397)	22.184	5.298	19.007	7.672	
	n. shares buy back	0	0	0	0	0	0
	(*) Pshare	454,600	456,800	333,900	304,550	199,250	156,750
	(=) Share Buybacks	0	0	0	0	0	0
	(+) Dividends Distributed	830	6.386	973	539	395	555
	(=) tot.DIV	830	6.386	973	539	395	555
	Capital Outlays						
	Convertion of Convertible Debetures						
SVA = ΔMV + tot. DIV - Cap Outlays - Conv Debentures		433	28.570	6.271	19.546	8.067	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
	Stock price - date:	31.12.20	31.12.19	31.12.18	29.12.17	30.12.16	31.12.15
6) TSR (%)							
TSR in absolute value calculation							
	Pshare	454,600	456,800	333,900	304,550	199,250	156,750
	Δ Pshare	-2,200	122,900	29,350	105,300	42,500	
	(+) tot. DIV PER SHARE	4,598	35,378	5,390	2,986	2,188	
	(=) TSR	2,398	158,278	34,740	108,286	44,688	
	Pshare (BEGINNING)	456,800	333,900	304,550	199,250	156,750	
TSR (%) = TSR / Pshare BEGINNING		0,52%	47,40%	11,41%	54,35%	28,51%	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
	Stock price - date:	31.12.20	31.12.19	31.12.18	29.12.17	30.12.16	31.12.15
7) ER							
Actual Value of Wealth calculation							
	tot. DIV	830	6.386	973	539	395	555
	Cost of Equity (Ke)	8,73%	8,32%	9,56%	8,18%	7,71%	
	(1 + Ke)	1,087	1,083	1,096	1,082	1,077	
	Tot. DIV (t-1) * (1 + Ke)	6.943	1.054	591	427	598	
	Future value of tot. DIV	7.773	7.440	1.564	966	993	
	(+) MV	82.059	82.456	60.271	54.974	35.966	28.295
	(=) Actual Value of Wealth	89.832	89.896	61.835	55.940	36.959	
Expected Value of Wealth calculation							
	(=) Expected Value of Wealth	42.542	39.126	36.121	32.969	30.476	
ER = Actual Value of Wealth - Expected Value of Wealth		47.290	50.770	25.714	22.971	6.483	

Appendix 7: Brunello Cucinelli S.p.A.

BRUNELLO CUCINELLI
BIT:BC
€

All figures are expressed in ***millions €***
Except *for WACC, number of oustanding shares, share prices, RONA, CFROI, TSR (%), Ke and (1 + Ke)*

FY	2020	2019	2018	2017	2016
EVA	(62)	27	21	26	20
MVA	2.166	1.847	1.756	1.573	1.157
RONA	-1,70%	9,27%	16,73%	18,21%	14,42%
CVA	(41)	(8)	26	64	39
SVA	302	104	225	465	282
TSR	14,07%	5,08%	12,26%	33,59%	25,43%
ER	764	606	613	540	207

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
1) EVA						
NOPAT calculation						
EBIT	(15)	83	70	65	57	
(-) Taxes	2	(16)	(14)	(7)	(16)	
(=) NOPAT	(13)	67	55	58	40	
Capital Charge calculation						
Tot. Assets	1.080	997	496	450	430	
(-) Current liabilities	(311)	(271)	(165)	(133)	(150)	(146)
(=) CE	769	726	331	317	280	
(*) WACC	6,34%	5,59%	10,52%	9,97%	7,17%	
(=) Capital Charge	49	41	35	32	20	
EVA = NOPAT - Capital Charge	(62)	27	21	26	20	

	2020	2019	2018	2017	2016	2015
	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
CE check						
Fixed liabilities	508	427	43	54	54	
(+) Equity	261	299	287	263	226	
(=) CE	769	726	331	317	280	
delta	*0*	*0*	*0*	*0*	*0*	
Current assets	389	364	306	281	268	257
(-) Current liabilities	(311)	(271)	(165)	(133)	(150)	(146)
(=) NWC	78	93	141	149	118	112
(+) Fixed assets	691	633	190	169	162	
(=) CE	769	726	331	317	280	
delta	*0*	*0*	*0*	*0*	*0*	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
Stock price - date:	30.12.20	30.12.219	28.12.18	29.12.17	30.12.16	30.12.15
2) MVA						
MV calculation						
n. of oustanding shares	68.000.000	68.000.000	68.000.000	68.000.000	68.000.000	68.000.000
(*) P share	35,700	31,560	30,050	27,010	20,340	16,320
(=) MV (Market Cap)	2.428	2.146	2.043	1.837	1.383	1.110
Equity (E)	261	299	287	263	226	
MVA = MV - E	2.166	1.847	1.756	1.573	1.157	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
3) RONA						
NOPAT	(13)	67	55	58	40	
Net Assets calculation						
Fixed Assets	691	633	190	169	162	
(+) NWC	78	93	141	149	118	112
Net Assets	769	726	331	317	280	
RONA = NOPAT / Net Assets	-1,70%	9,27%	16,73%	18,21%	14,42%	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
4) CVA							
CFROI calculation							
	Net Income	(32)	53	51	51	36	
	(+) Non Cash Expenses	(25)	(22)	(17)	(15)	(14)	
	(+) Δ NWC	(15)	(48)	(8)	30	7	
	(=) OCF	(22)	27	60	97	57	
	(/) CE	769	726	331	317	280	
	(=) CFROI	-0,028	0,037	0,182	0,305	0,204	
	WACC	0,0634	0,0559	0,1052	0,0997	0,0717	
GI calculation							
(+)	Net PP&E	150	143	126	116	111	101
	Δ Net PP&E	8	17	10	4	10	
	(+) Depreciation Exp	(25)	(22)	(17)	(15)	(14)	
(-)	(=) CapEx	33	39	27	19	24	
(+)	Accumulated Depreciation	(120)	(102)	(82)	(65)	(56)	
(=)	Gross PP&E	238	206	180	161	143	
	(+) Inventories	208	205	162	153	155	
	(=) GI	446	411	342	314	297	
CVA = (CFROI - WACC) * GI		(41)	(8)	26	64	39	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
	Stock price - date:	30.12.20	30.12.219	28.12.18	29.12.17	30.12.16	30.12.15
5) SVA							
Increase in market value of equity							
	MV	2.428	2.146	2.043	1.837	1.383	1.110
	Δ MV	282	103	207	454	273	
	n. shares buy back						
	(*) Pshare	35,700	31,560	30,050	27,010	20,340	
	(=) Share Buybacks	0	0	0	0	0	0
	(+) Dividends Distributed	20	1	18	11	9	8
	(=) tot.DIV	20	1	18	11	9	8
	Capital Outlays						
	Convertion of Convertible Debetures						
SVA = ΔMV + tot. DIV - Cap Outlays - Conv Debentures		302	104	225	465	282	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
	Stock price - date:	30.12.20	30.12.219	28.12.18	29.12.17	30.12.16	30.12.15
6) TSR (%)							
TSR in absolute value calculation							
	Pshare	35,700	31,560	30,050	27,010	20,340	16,320
	Δ Pshare	4,140	1,510	3,040	6,670	4,020	
	(+) tot. DIV PER SHARE	0,301	0,016	0,272	0,162	0,131	
	(=) TSR	4,441	1,526	3,312	6,832	4,151	
	Pshare (BEGINNING)	31,560	30,050	27,010	20,340	16,320	
TSR (%) = TSR / Pshare BEGINNING		14%	5%	12%	34%	25%	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
	Stock price - date:	30.12.20	30.12.219	28.12.18	29.12.17	30.12.16	30.12.15
7) ER							
Actual Value of Wealth calculation							
	tot. DIV	20	1	18	11	9	8
	Cost of Equity (Ke)	7,98%	6,78%	10,88%	10,35%	7,62%	
	(1 + Ke)	1,080	1,068	1,109	1,104	1,076	
	Tot. DIV (t-1) * (1 + Ke)	1	20	12	10	9	
	Future value of tot. DIV	22	21	31	21	18	
	(+) MV	2.428	2.146	2.043	1.837	1.383	1.110
	(=) Actual Value of Wealth	2.449	2.167	2.074	1.858	1.401	
Expected Value of Wealth calculation							
	(=) Expected Value of Wealth	1.685	1.560	1.461	1.318	1.194	
ER = Actual Value of Wealth - Expected Value of Wealth		764	606	613	540	207	

Appendix 8: Hermès International

HERMES
EPA: RMS
€

All figures are expressed in ***millions €***
Except *for WACC, number of oustanding shares, share prices, RONA, CFROI, TSR (%), Ke and (1 + Ke)*

FY	2020	2019	2018	2017	2016
EVA	911	1.006	971	879	826
MVA	85.468	63.754	45.672	42.065	36.787
RONA	15,84%	20,21%	24,25%	23,15%	24,23%
CVA	860	910	850	1.005	1.064
SVA	23.163	19.692	5.078	6.534	8.740
TSR	32,93%	38,48%	10,78%	15,87%	26,56%
ER	47.857	28.385	12.311	10.675	7.426

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
1) EVA						
NOPAT calculation						
EBIT	2.073	2.339	2.098	1.922	1.697	
(-) Taxes	(613)	(751)	(670)	(669)	(556)	
(=) NOPAT	1.460	1.588	1.428	1.253	1.141	
Capital Charge calculation						
Tot. Assets	11.051	9.881	7.468	6.768	5.999	
(-) Current liabilities	(1.839)	(2.024)	(1.581)	(1.358)	(1.290)	(1.157)
(=) CE	9.212	7.858	5.887	5.411	4.709	
(*) WACC	5,95%	7,41%	7,76%	6,90%	6,69%	
(=) Capital Charge	548	582	457	373	315	
EVA = NOPAT - Capital Charge	911	1.006	971	879	826	

	2020	2019	2018	2017	2016	2015
	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
CE check						
Fixed liabilities	1.821	1.282	379	365	324	
(+) Equity	7.391	6.576	5.508	5.046	4.385	
(=) CE	9.212	7.858	5.887	5.411	4.709	
delta	*0*	*0*	*(0)*	*0*	*(0)*	
Current assets	6.650	6.091	4.983	4.471	3.813	3.095
(-) Current liabilities	(1.839)	(2.024)	(1.581)	(1.358)	(1.290)	(1.157)
(=) NWC	4.811	4.067	3.401	3.113	2.523	1.938
(+) Fixed assets	4.401	3.791	2.486	2.298	2.186	
(=) CE	9.212	7.858	5.887	5.411	4.709	
delta	*0*	*0*	*0*	*0*	*0*	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
Stock price - date:	31.12.20	31.12.19	31.12.18	29.12.17	30.12.16	31.12.15
2) MVA						
MV calculation						
n. of oustanding shares	105.569.412	105.569.412	105.569.412	105.569.412	105.569.412	105.569.412
(*) P share	879,600	666,200	484,800	446,250	390,000	311,750
(=) MV (Market Cap)	92.859	70.330	51.180	47.110	41.172	32.911
Equity (E)	7.391	6.576	5.508	5.046	4.385	
MVA = MV - E	85.468	63.754	45.672	42.065	36.787	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
3) RONA						
NOPAT	1.460	1.588	1.428	1.253	1.141	
Net Assets calculation						
Fixed Assets	4.401	3.791	2.486	2.298	2.186	
(+) NWC	4.811	4.067	3.401	3.113	2.523	1.938
Net Assets	9.212	7.858	5.887	5.411	4.709	
RONA = NOPAT / Net Assets	15,84%	20,21%	24,25%	23,15%	24,23%	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
4) CVA							
CFROI calculation							
	Net Income	1.385	1.528	1.405	1.222	1.100	
	(+) Non Cash Expenses	(282)	(275)	(222)	(228)	(215)	
	(+) Δ NWC	744	666	288	590	585	
	(=) OCF	2.412	2.469	1.914	2.040	1.901	
	(/) CE	9.212	7.858	5.887	5.411	4.709	
	(=) CFROI	0,262	0,314	0,325	0,377	0,404	
	WACC	0,0595	0,0741	0,0776	0,069	0,0669	
GI calculation							
(+)	Net PP&E	1.646	1.542	1.345	1.283	1.335	1.287
	Δ Net PP&E	104	196	62	(51)	47	
	(+) Depreciation Exp	(203)	(188)	(170)	(166)	(162)	
(-)	(=) CapEx	308	384	232	115	209	
(+)	Accumulated Depreciation	(1.624)	(1.498)	(1.357)	(1.200)	(1.120)	
(=)	Gross PP&E	2.962	2.656	2.470	2.368	2.246	
	(+) Inventories	1.289	1.133	964	896	915	
	(=) GI	4.252	3.789	3.433	3.264	3.161	
CVA = (CFROI - WACC) * GI		860	910	850	1.005	1.064	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
	Stock price - date:	31.12.20	31.12.19	31.12.18	29.12.17	30.12.16	31.12.15
5) SVA							
Increase in market value of equity							
	MV	92.859	70.330	51.180	47.110	41.172	32.911
	Δ MV	22.529	19.150	4.070	5.938	8.261	
	n. shares buy back	164.936	83.250	102.715	433.242	315.369	5.961
	(*) Pshare	879,600	666,200	484,800	446,250	390,000	311,750
	(=) Share Buybacks	145	55	50	193	123	2
	(+) Dividends Distributed	490	487	958	402	356	834
	(=) tot.DIV	635	542	1.008	595	479	836
	Capital Outlays						
	Convertion of Convertible Debetures	0					
SVA = ΔMV + tot. DIV - Cap Outlays - Conv Debentures		23.163	19.692	5.078	6.534	8.740	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
	Stock price - date:	31.12.20	31.12.19	31.12.18	29.12.17	30.12.16	31.12.15
6) TSR (%)							
TSR in absolute value calculation							
	Pshare	879,600	666,200	484,800	446,250	390,000	311,750
	Δ Pshare	213,400	181,400	38,550	56,250	78,250	
	(+) tot. DIV PER SHARE	6	5	10	6	5	
	(=) TSR	219	187	48	62	83	
	Pshare (BEGINNING)	666,200	484,800	446,250	390,000	311,750	
TSR (%) = TSR / Pshare BEGINNING		33%	38%	11%	16%	27%	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
	Stock price - date:	31.12.20	31.12.19	31.12.18	29.12.17	30.12.16	31.12.15
7) ER							
Actual Value of Wealth calculation							
	tot. DIV	635	542	1.008	595	479	836
	Cost of Equity (Ke)	6,06%	7,53%	7,93%	6,91%	6,70%	
	(1 + Ke)	1,061	1,075	1,079	1,069	1,067	
	Tot. DIV (t-1) * (1 + Ke)	575	1.084	642	512	892	
	Future value of tot. DIV	1.210	1.626	1.651	1.107	1.371	
	(+) MV	92.859	70.330	51.180	47.110	41.172	32.911
	(=) Actual Value of Wealth	94.068	71.956	52.831	48.218	42.543	
Expected Value of Wealth calculation							
	(=) Expected Value of Wealth	46.212	43.571	40.520	37.543	35.116	
ER = Actual Value of Wealth - Expected Value of Wealth		47.857	28.385	12.311	10.675	7.426	

Appendix 9: Hugo Boss

HUGO BOSS
ETR: BOSS
€

All figures are expressed in ***millions €***
Except *for WACC, number of oustanding shares, share prices, RONA, CFROI, TSR (%), Ke and (1 + Ke)*

FY	2020	2019	2018	2017	2016
EVA	(310)	133	147	158	122
MVA	1.161	2.044	2.815	4.079	3.205
RONA	-10,61%	12,23%	20,60%	21,65%	17,39%
CVA	(368)	(36)	408	439	263
SVA	(1.122)	(564)	(1.015)	1.081	(1.050)
TSR	-36,83%	-14,86%	-20,33%	26,42%	-19,48%
ER	(6.077)	(3.873)	(2.597)	(783)	(1.173)

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
1) EVA						
NOPAT calculation						
EBIT	(236)	344	349	341	264	
(-) Taxes	54	(100)	(100)	(100)	(62)	
(=) NOPAT	(182)	244	248	241	202	
Capital Charge calculation						
Tot. Assets	2.570	2.877	1.859	1.720	1.799	
(-) Current liabilities	(860)	(882)	(653)	(607)	(640)	(588)
(=) CE	1.711	1.996	1.206	1.113	1.159	
(*) WACC	7,52%	5,59%	8,37%	7,46%	6,89%	
(=) Capital Charge	129	112	101	83	80	
EVA = NOPAT - Capital Charge	(310)	133	147	158	122	

	2020	2019	2018	2017	2016	2015
	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
CE check						
Fixed liabilities	951	994	225	199	271	
(+) Equity	760	1.002	981	915	888	
(=) CE	1.711	1.996	1.206	1.113	1.159	
delta	*0*	*0*	*0*	*0*	*0*	
Current assets	1.055	1.164	1.172	1.058	1.047	1.036
(-) Current liabilities	(860)	(882)	(653)	(607)	(640)	(588)
(=) NWC	195	282	519	451	407	448
(+) Fixed assets	1.516	1.713	686	662	752	
(=) CE	1.711	1.996	1.206	1.113	1.159	
delta	*0*	*0*	*0*	*0*	*0*	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
Stock price - date:	30.12.20	30.12.19	28.12.18	29.12.17	30.12.16	30.12.15
2) MVA						
MV calculation						
n. of oustanding shares	70.400.000	70.400.000	70.400.000	70.400.000	70.400.000	70.400.000
(*) P share	27,290	43,260	53,920	70,940	58,130	76,600
(=) MV (Market Cap)	1.921	3.046	3.796	4.994	4.092	5.393
Equity (E)	760	1.002	981	915	888	
MVA = MV - E	1.161	2.044	2.815	4.079	3.205	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
3) RONA						
NOPAT	(182)	244	248	241	202	
Net Assets calculation						
Fixed Assets	1.516	1.713	686	662	752	
(+) NWC	195	282	519	451	407	448
Net Assets	1.711	1.996	1.206	1.113	1.159	
RONA = NOPAT / Net Assets	-10,61%	12,23%	20,60%	21,65%	17,39%	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
4) CVA							
CFROI calculation							
	Net Income	(220)	205	236	231	194	
	(+) Non Cash Expenses	(103)	(102)	(93)	(105)	(113)	
	(+) Δ NWC	(87)	(237)	69	44	(41)	
	(=) OCF	(204)	70	397	380	266	
	(/) CE	1.711	1.996	1.206	1.113	1.159	
	(=) CFROI	-0,119	0,035	0,330	0,341	0,229	
	WACC	0,075	0,056	0,084	0,075	0,069	
GI calculation							
(+)	Net PP&E	408	517	389	366	416	440
	Δ Net PP&E	(109)	127	24	(51)	(24)	
	(+) Depreciation Exp	(103)	(102)	(93)	(105)	(113)	
(-)	(=) CapEx	(7)	229	116	54	90	
(+)	Accumulated Depreciation	(856)	(807)	(769)	(800)	(749)	
(=)	Gross PP&E	1.271	1.094	1.042	1.111	1.076	
	(+) Inventories	618	627	618	537	568	
	(=) GI	1.889	1.720	1.660	1.648	1.644	
CVA = (CFROI - WACC) * GI		(368)	(36)	408	439	263	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
	Stock price - date:	30.12.20	30.12.19	28.12.18	29.12.17	30.12.16	30.12.15
5) SVA							
Increase in market value of equity							
	MV	1.921	3.046	3.796	4.994	4.092	5.393
	Δ MV	(1.124)	(750)	(1.198)	902	(1.300)	
	n. shares buy back	0	0	0	0	0	0
	(*) Pshare	27,290	43,260	53,920	70,940	58,130	76,600
	(=) Share Buybacks	0	0	0	0	0	0
	(+) Dividends Distributed	3	186	183	179	250	250
	(=) tot.DIV	3	186	183	179	250	250
	Capital Outlays						
	Convertion of Convertible Debetures						
SVA = ΔMV + tot. DIV - Cap Outlays - Conv Debentures		(1.122)	(564)	(1.015)	1.081	(1.050)	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
	Stock price - date:	30.12.20	30.12.19	28.12.18	29.12.17	30.12.16	30.12.15
6) TSR (%)							
TSR in absolute value calculation							
	Pshare	27,290	43,260	53,920	70,940	58,130	76,600
	Δ Pshare	-15,970	-10,660	-17,020	12,810	-18,470	
	(+) tot. DIV PER SHARE	0,039	2,647	2,598	2,549	3,549	
	(=) TSR	-15,931	-8,013	-14,422	15,359	-14,921	
	Pshare (BEGINNING)	43,260	53,920	70,940	58,130	76,600	
TSR (%) = TSR / Pshare BEGINNING		-37%	-15%	-20%	26%	-19%	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
	Stock price - date:	30.12.20	30.12.19	28.12.18	29.12.17	30.12.16	30.12.15
7) ER							
Actual Value of Wealth calculation							
	tot. DIV	3	186	183	179	250	250
	Cost of Equity (Ke)	12,43%	7,85%	8,76%	7,65%	7,24%	
	(1 + Ke)	1,124	1,079	1,088	1,077	1,072	
	Tot. DIV (t-1) * (1 + Ke)	210	197	195	269	268	
	Future value of tot. DIV	212	384	378	448	518	
	(+) MV	1.921	3.046	3.796	4.994	4.092	5.393
	(=) Actual Value of Wealth	2.133	3.429	4.174	5.443	4.610	
Expected Value of Wealth calculation							
	(=) Expected Value of Wealth	8.210	7.302	6.771	6.225	5.783	
ER = Actual Value of Wealth - Expected Value of Wealth		(6.077)	(3.873)	(2.597)	(783)	(1.173)	

Appendix 10: Moncler S.p.A.

MONCLER
BIT: MONC
€

All figures are expressed in ***millions €***
Except *for WACC, number of oustanding shares, share prices, RONA, CFROI, TSR (%), Ke and (1 + Ke)*

FY	2020	2019	2018	2017	2016
EVA	143	200	185	145	128
MVA	11.026	9.031	6.332	5.721	3.432
RONA	14,60%	18,93%	26,77%	23,54%	22,84%
CVA	288	115	126	135	91
SVA	2.316	3.058	945	2.580	957
TSR	25,13%	40,14%	13,76%	59,48%	29,55%
ER	7.633	5.920	3.337	2.907	714

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
1) EVA						
NOPAT calculation						
EBIT	369	492	414	341	298	
(-) Taxes	(45)	(112)	(80)	(86)	(97)	
(=) NOPAT	324	379	334	255	201	
Capital Charge calculation						
Tot. Assets	2.757	2.565	1.626	1.380	1.152	
(-) Current liabilities	(540)	(561)	(377)	(297)	(272)	(253)
(=) CE	2.217	2.004	1.249	1.083	880	
(*) WACC	8,13%	8,94%	11,95%	10,15%	8,28%	
(=) Capital Charge	180	179	149	110	73	
EVA = NOPAT - Capital Charge	143	200	185	145	128	

	2020	2019	2018	2017	2016	2015
	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
CE check						
Fixed liabilities	590	698	180	159	176	
(+) Equity	1.627	1.306	1.069	924	704	
(=) CE	2.217	2.004	1.249	1.083	880	
delta	*0*	*0*	*0*	*0*	*0*	
Current assets	1.331	1.164	902	713	506	398
(-) Current liabilities	(540)	(561)	(377)	(297)	(272)	(253)
(=) NWC	791	603	526	415	234	145
(+) Fixed assets	1.425	1.401	723	667	646	
(=) CE	2.217	2.004	1.249	1.083	880	
delta	*0*	*0*	*0*	*0*	*0*	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
Stock price - date:	30.12.20	30.12.19	28.12.18	29.12.17	30.12.16	30.12.15
2) MVA						
MV calculation						
n. of oustanding shares	252.352.624	257.979.524	255.820.124	254.778.741	250.214.724	250.086.129
(*) P share	50,140	40,070	28,930	26,080	16,530	12,920
(=) MV (Market Cap)	12.653	10.337	7.401	6.645	4.136	3.231
Equity (E)	1.627	1.306	1.069	924	704	
MVA = MV - E	11.026	9.031	6.332	5.721	3.432	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
3) RONA						
NOPAT	324	379	334	255	201	
Net Assets calculation						
Fixed Assets	1.425	1.401	723	667	646	
(+) NWC	791	603	526	415	234	145
Net Assets	2.217	2.004	1.249	1.083	880	
RONA = NOPAT / Net Assets	14,60%	18,93%	26,77%	23,54%	22,84%	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
4) CVA							
CFROI calculation							
	Net Income	300	359	332	250	196	
	(+) Non Cash Expenses	(186)	(158)	(62)	(84)	(34)	
	(+) Δ NWC	188	77	110	182	89	
	(=) OCF	675	594	504	516	319	
	(/) CE	2.217	2.004	1.249	1.083	880	
	(=) CFROI	0,304	0,297	0,404	0,476	0,363	
	WACC	0,081	0,089	0,120	0,102	0,083	
GI calculation							
(+)	Net PP&E	803	807	177	138	124	102
	Δ Net PP&E	(4)	630	39	14	22	
	(+) Depreciation Exp	(185)	(158)	(45)	(38)	(33)	
(-)	(=) CapEx	182	787	83	52	54	
(+)	Accumulated Depreciation	(466)	(328)	(176)	(137)	(121)	
(=)	Gross PP&E	1.087	348	270	224	190	
	(+) Inventories	203	209	173	136	136	
	(=) GI	1.290	556	443	360	326	
CVA = (CFROI - WACC) * GI		288	115	126	135	91	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
	Stock price - date:	30.12.20	30.12.19	28.12.18	29.12.17	30.12.16	30.12.15
5) SVA							
Increase in market value of equity							
	MV	12.653	10.337	7.401	6.645	4.136	3.231
	Δ MV	2.316	2.936	756	2.509	905	
	n. shares buy back	0	498.603	4.100.000	1.000.000	1.000.000	0
	(*) Pshare	50,140	40,070	28,930	26,080	16,530	12,920
	(=) Share Buybacks	0	20	119	26	17	0
	(+) Dividends Distributed	0	102	70	46	35	30
	(=) tot.DIV	0	122	189	72	52	30
	Capital Outlays						
	Convertion of Convertible Debetures						
SVA = ΔMV + tot. DIV - Cap Outlays - Conv Debentures		2.316	3.058	945	2.580	957	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
	Stock price - date:	30.12.20	30.12.19	28.12.18	29.12.17	30.12.16	30.12.15
6) TSR (%)							
TSR in absolute value calculation							
	Pshare	50,140	40,070	28,930	26,080	16,530	12,920
	Δ Pshare	10,070	11,140	2,850	9,550	3,610	
	(+) tot. DIV PER SHARE	0	0,472	0,739	0,281	0,208	
	(=) TSR	10,07	11,612	3,589	9,831	3,818	
	Pshare (BEGINNING)	40,070	28,930	26,080	16,530	12,920	
TSR (%) = TSR / Pshare BEGINNING		25%	40%	14%	59%	30%	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
	Stock price - date:	30.12.20	30.12.19	28.12.18	29.12.17	30.12.16	30.12.15
7) ER							
Actual Value of Wealth calculation							
	tot. DIV	0	122	189	72	52	30
	Cost of Equity (Ke)	8,56%	9,51%	12,07%	10,27%	8,53%	
	(1 + Ke)	1,086	1,095	1,121	1,103	1,085	
	Tot. DIV (t-1) * (1 + Ke)	132	207	80	57	33	
	Future value of tot. DIV	132	329	269	129	85	
	(+) MV	12.653	10.337	7.401	6.645	4.136	3.231
	(=) Actual Value of Wealth	12.785	10.666	7.670	6.774	4.221	
Expected Value of Wealth calculation							
	(=) Expected Value of Wealth	5.152	4.746	4.334	3.867	3.507	
ER = Actual Value of Wealth - Expected Value of Wealth		7.633	5.920	3.337	2.907	714	

Appendix 11: Prada S.p.A.

PRADA
HKG: 1913
€

All figures are expressed in ***millions €***
Except *for WACC, number of oustanding shares, share prices, RONA, CFROI, TSR (%), Ke and (1 + Ke)*

FY	2020	2019	2018	2017	2016
EVA	(386)	(149)	(187)	(74)	33
MVA	10.970	6.432	4.463	4.844	6.867
RONA	0,33%	5,68%	6,22%	5,84%	7,46%
CVA	(238)	(224)	(302)	(21)	223
SVA	4.401	2.215	(152)	(1.954)	3.251
TSR	46,72%	30,09%	-1,98%	-19,59%	46,42%
ER	2.929	(343)	(1.261)	178	3.059

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.01.17	31.01.16
1) EVA						
NOPAT calculation						
EBIT	20	307	324	316	431	
(-) Taxes	(3)	23	(94)	(92)	(131)	
(=) NOPAT	18	330	229	224	300	
Capital Charge calculation						
Tot. Assets	6.528	7.038	4.679	4.739	4.657	
(-) Current liabilities	(1.227)	(1.232)	(987)	(904)	(637)	(792)
(=) CE	5.301	5.807	3.692	3.835	4.020	
(*) WACC	7,62%	8,24%	11,28%	7,76%	6,65%	
(=) Capital Charge	404	478	416	298	267	
EVA = NOPAT - Capital Charge	(386)	(149)	(187)	(74)	33	

	2020	2019	2018	2017	2016	2015
	31.12.20	31.12.19	31.12.18	31.12.17	31.01.17	31.01.16
CE check						
Fixed liabilities	2.449	2.818	795	969	916	
(+) Equity	2.852	2.989	2.897	2.866	3.105	
(=) CE	5.301	5.807	3.692	3.835	4.020	
delta	*0*	*0*	*0*	*0*	*0*	
Current assets	1.655	1.698	1.762	1.965	1.810	1.888
(-) Current liabilities	(1.227)	(1.232)	(987)	(904)	(637)	(792)
(=) NWC	428	466	775	1.060	1.173	1.097
(+) Fixed assets	4.873	5.341	2.917	2.775	2.847	
(=) CE	5.301	5.807	3.692	3.835	4.020	
delta	*0*	*0*	*0*	*0*	*0*	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.01.17	31.01.16
Stock price - date:	31.12.20	31.12.19	31.12.18	29.12.17	27.01.17	29.01.16
2) MVA						
MV calculation						
n. of oustanding shares	2.558.824.000	2.558.824.000	2.558.824.000	2.558.824.000	2.558.824.000	2.558.824.000
(*) P share	5,40147	3,68148	2,87644	3,01322	3,89711	2,73687
(=) MV (Market Cap)	13.821	9.420	7.360	7.710	9.972	7.003
Equity (E)	2.852	2.989	2.897	2.866	3.105	
MVA = MV - E	10.970	6.432	4.463	4.844	6.867	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.01.17	31.01.16
3) RONA						
NOPAT	18	330	229	224	300	
Net Assets calculation						
Fixed Assets	4.873	5.341	2.917	2.775	2.847	
(+) NWC	428	466	775	1.060	1.173	1.097
Net Assets	5.301	5.807	3.692	3.835	4.020	
RONA = NOPAT / Net Assets	0,33%	5,68%	6,22%	5,84%	7,46%	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.01.17	31.01.16
4) CVA							
CFROI calculation							
	Net Income	(54)	256	205	218	278	
	(+) Non Cash Expenses	(173)	(193)	(184)	(169)	(183)	
	(+) Δ NWC	(38)	(309)	(286)	(113)	77	
	(=) OCF	80	140	103	274	538	
	(/) CE	5.301	5.807	3.692	3.835	4.020	
	(=) CFROI	0,01514	0,02407	0,02802	0,07147	0,13392	
	WACC	0,0762	0,0824	0,1128	0,0776	0,0665	
GI calculation							
(+)	Net PP&E	1.506	1.642	1.577	1.523	1.543	1.518
	Δ Net PP&E	(136)	65	55	(20)	25	
	(+) Depreciation Exp	(173)	(193)	(184)	(169)	(183)	
(-)	(=) CapEx	36	258	238	149	208	
(+)	Accumulated Depreciation	(1.768)	(1.747)	(1.590)	(1.465)	(1.440)	
(=)	Gross PP&E	3.238	3.131	2.929	2.838	2.775	
	(+) Inventories	666	713	632	570	527	
	(=) GI	3.904	3.844	3.561	3.408	3.302	
CVA = (CFROI - WACC) * GI		(238)	(224)	(302)	(21)	223	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.01.17	31.01.16
	Stock price - date:	31.12.20	31.12.19	31.12.18	29.12.17	27.01.17	29.01.16
5) SVA							
Increase in market value of equity							
	MV	13.821	9.420	7.360	7.710	9.972	7.003
	Δ MV	4.401	2.060	(350)	(2.262)	2.969	
	n. shares buy back	0	0	0	0	0	0
	(*) Pshare	5,401	3,681	2,876	3,013	3,897	2,737
	(=) Share Buybacks	0	0	0	0	0	0
	(+) Dividends Distributed	0	155	198	308	282	285
	(=) tot.DIV	0	155	198	308	282	285
	Capital Outlays						
	Convertion of Convertible Debetures						
SVA = ΔMV + tot. DIV - Cap Outlays - Conv Debentures		4.401	2.215	(152)	(1.954)	3.251	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.01.17	31.01.16
	Stock price - date:	31.12.20	31.12.19	31.12.18	29.12.17	27.01.17	29.01.16
6) TSR (%)							
TSR in absolute value calculation							
	Pshare	5,401	3,681	2,876	3,013	3,897	2,737
	Δ Pshare	1,720	0,805	-0,137	-0,884	1,160	
	(+) tot. DIV PER SHARE	0	0,0604	0,0772	0,1204	0,1103	
	(=) TSR	1,7200	0,8655	-0,0595	-0,7635	1,2705	
	Pshare (BEGINNING)	3,681	2,876	3,013	3,897	2,737	
TSR (%) = TSR / Pshare BEGINNING		47%	30%	-2%	-20%	46%	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.01.17	31.01.16
	Stock price - date:	31.12.20	31.12.19	31.12.18	29.12.17	27.01.17	29.01.16
7) ER							
Actual Value of Wealth calculation							
	tot. DIV	0	155	198	308	282	285
	Cost of Equity (Ke)	9,12%	10,60%	12,50%	8,62%	7,10%	
	(1 + Ke)	1,091	1,106	1,125	1,086	1,071	
	Tot. DIV (t-1) * (1 + Ke)	169	219	347	307	305	
	Future value of tot. DIV	169	373	544	615	587	
	(+) MV	13.821	9.420	7.360	7.710	9.972	7.003
	(=) Actual Value of Wealth	13.990	9.793	7.905	8.325	10.559	
Expected Value of Wealth calculation							
	(=) Expected Value of Wealth	11.061	10.137	9.165	8.147	7.500	
ER = Actual Value of Wealth - Expected Value of Wealth		2.929	(343)	(1.261)	178	3.059	

Appendix 12: Ralph Lauren Corp.

RALPH LAUREN
NYSE: RL
$

All figures are expressed in ***millions €***
Except *for WACC, number of oustanding shares, share prices, RONA, CFROI, TSR (%), Ke and (1 + Ke)*

FY	2020	2019	2018	2017	2016
EVA	20	42	(207)	(553)	(49)
MVA	34.710	66.331	51.636	42.722	47.769
RONA	7,23%	8,65%	3,77%	-1,93%	8,52%
CVA	(433)	536	(19)	(175)	(43)
SVA	(31.523)	15.430	8.766	(4.914)	(20.979)
TSR	-45,52%	28,34%	19,14%	-9,63%	-28,93%
ER	(79.258)	(36.400)	(43.569)	(42.928)	(27.910)

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	28.03.20	30.03.19	31.03.18	01.04.17	02.04.16	28.03.15
1) EVA						
NOPAT calculation						
EBIT	289	500	404	(86)	510	
(-) Taxes	53	(135)	(265)	5	(136)	
(=) NOPAT	342	365	139	(81)	374	
Capital Charge calculation						
Tot. Assets	6.632	5.290	4.986	5.287	5.435	
(-) Current liabilities	(1.906)	(1.068)	(1.288)	(1.085)	(1.048)	(1.093)
(=) CE	4.726	4.221	3.698	4.202	4.387	
(*) WACC	6,81%	7,65%	9,37%	11,23%	9,65%	
(=) Capital Charge	322	323	346	472	423	
EVA = NOPAT - Capital Charge	20	42	(207)	(553)	(49)	

	2020	2019	2018	2017	2016	2015
	28.03.20	30.03.19	31.03.18	01.04.17	02.04.16	28.03.15
CE check						
Fixed liabilities	2.273	1.296	892	1.115	1.112	
(+) Equity	2.453	2.926	2.806	3.086	3.275	
(=) CE	4.726	4.221	3.698	4.202	4.387	
delta	*0*	*0*	*0*	*0*	*0*	
Current assets	3.075	3.200	2.880	2.764	2.670	3.062
(-) Current liabilities	(1.906)	(1.068)	(1.288)	(1.085)	(1.048)	(1.093)
(=) NWC	1.169	2.132	1.592	1.679	1.623	1.970
(+) Fixed assets	3.557	2.090	2.106	2.523	2.764	
(=) CE	4.726	4.221	3.698	4.202	4.387	
delta	*0*	*0*	*0*	*0*	*0*	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	28.03.20	30.03.19	31.03.18	01.04.17	02.04.16	28.03.15
Stock price - date:	27.03.20	29.03.19	29.03.18	31.03.17	01.04.16	27.03.15
2) MVA						
MV calculation						
n. of oustanding shares	600.000.000	600.000.000	600.000.000	600.000.000	600.000.000	600.000.000
(*) P share	61,939	115,428	90,737	76,347	85,073	120,880
(=) MV (Market Cap)	37.163	69.257	54.442	45.808	51.044	72.528
Equity (E)	2.453	2.926	2.806	3.086	3.275	
MVA = MV - E	34.710	66.331	51.636	42.722	47.769	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	28.03.20	30.03.19	31.03.18	01.04.17	02.04.16	28.03.15
3) RONA						
NOPAT	342	365	139	(81)	374	
Net Assets calculation						
Fixed Assets	3.557	2.090	2.106	2.523	2.764	
(+) NWC	1.169	2.132	1.592	1.679	1.623	1.970
Net Assets	4.726	4.221	3.698	4.202	4.387	
RONA = NOPAT / Net Assets	7,23%	8,65%	3,77%	-1,93%	8,52%	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	28.03.20	30.03.19	31.03.18	01.04.17	02.04.16	28.03.15
4) CVA						
CFROI calculation						
Net Income	350	384	132	(93)	347	
(+) Non Cash Expenses	(316)	(79)	(281)	(313)	(373)	
(+) Δ NWC	(963)	540	(87)	56	(347)	
(=) OCF	(296)	1.002	326	276	372	
(/) CE	4.726	4.221	3.698	4.202	4.387	
(=) CFROI	-0,063	0,237	0,088	0,066	0,085	
WACC	0,0681	0,0765	0,0937	0,1123	0,0965	
GI calculation						
(+) Net PP&E	892	925	963	1.231	1.385	1.323
Δ Net PP&E	(33)	(38)	(268)	(154)	62	
(+) Depreciation Exp	(225)	(229)	(220)	(265)	(250)	
(-) (=) CapEx	192	192	(48)	111	312	
(+) Accumulated Depreciation	(1.939)	(1.872)	(1.780)	(1.890)	(1.665)	
(=) Gross PP&E	2.639	2.605	2.791	3.010	2.738	
(+) Inventories	671	728	618	740	984	
(=) GI	3.310	3.333	3.409	3.750	3.722	
CVA = (CFROI - WACC) * GI	(433)	536	(19)	(175)	(43)	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	28.03.20	30.03.19	31.03.18	01.04.17	02.04.16	28.03.15
Stock price - date:	27.03.20	29.03.19	29.03.18	31.03.17	01.04.16	27.03.15
5) SVA						
Increase in market value of equity						
MV	37.163	69.257	54.442	45.808	51.044	72.528
Δ MV	(32.094)	14.815	8.634	(5.236)	(21.484)	
n. shares buy back	6.200.000	3.800.000	0	2.200.000	4.200.000	3.200.000
(*) Pshare	61,939	115,428	90,737	76,347	85,073	120,880
(=) Share Buybacks	384	439	0	168	357	387
(+) Dividends Distributed	187	177	132	153	147	148
(=) tot.DIV	571	616	132	321	505	535
Capital Outlays						
Convertion of Convertible Debetures						
SVA = ΔMV + tot. DIV - Cap Outlays - Conv Debentures	(31.523)	15.430	8.766	(4.914)	(20.979)	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	28.03.20	30.03.19	31.03.18	01.04.17	02.04.16	28.03.15
Stock price - date:	27.03.20	29.03.19	29.03.18	31.03.17	01.04.16	27.03.15
6) TSR (%)						
TSR in absolute value calculation						
Pshare	61,939	115,428	90,737	76,347	85,073	120,880
Δ Pshare	-53,489	24,691	14,390	-8,726	-35,807	
(+) tot. DIV PER SHARE	0,9511	1,0261	0,2198	0,5353	0,8413	
(=) TSR	-52,538	25,717	14,609	-8,191	-34,965	
Pshare (BEGINNING)	115,428	90,737	76,347	85,073	120,880	
TSR (%) = TSR / Pshare BEGINNING	-46%	28%	19%	-10%	-29%	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	28.03.20	30.03.19	31.03.18	01.04.17	02.04.16	28.03.15
Stock price - date:	27.03.20	29.03.19	29.03.18	31.03.17	01.04.16	27.03.15
7) ER						
Actual Value of Wealth calculation						
tot. DIV	571	616	132	321	505	535
Cost of Equity (Ke)	10,58%	8,04%	9,90%	11,96%	10,37%	
(1 + Ke)	1,106	1,080	1,099	1,120	1,104	
Tot. DIV (t-1) * (1 + Ke)	681	142	353	565	591	
Future value of tot. DIV	1.251	758	485	886	1.095	
(+) MV	37.163	69.257	54.442	45.808	51.044	72.528
(=) Actual Value of Wealth	38.415	70.015	54.927	46.695	52.139	
Expected Value of Wealth calculation						
(=) Expected Value of Wealth	117.673	106.415	98.496	89.623	80.049	
ER = Actual Value of Wealth - Expected Value of Wealth	(79.258)	(36.400)	(43.569)	(42.928)	(27.910)	

Appendix 13: Salvatore Ferragamo S.p.A.

SALVATORE FERRAGAMO
BIT: SFER
€

All figures are expressed in ***millions €***
Except *for WACC, number of oustanding shares, share prices, RONA, CFROI, TSR (%), Ke and (1 + Ke)*

FY	2020	2019	2018	2017	2016
EVA	(175)	5	2	31	134
MVA	1.967	2.380	2.200	2.990	3.063
RONA	-3,96%	8,64%	11,69%	14,84%	26,12%
CVA	304	209	445	456	641
SVA	(488)	275	(694)	30	194
TSR	-15,41%	9,22%	-18,57%	0,80%	5,28%
ER	(3.382)	(2.200)	(1.893)	(599)	(96)

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
1) EVA						
NOPAT calculation						
EBIT	(62)	150	150	186	261	
(-) Taxes	8	(30)	(46)	(59)	(47)	
(=) NOPAT	(53)	120	104	127	213	
Capital Charge calculation						
Tot. Assets	1.714	1.844	1.187	1.183	1.195	
(-) Current liabilities	(365)	(456)	(297)	(327)	(378)	(413)
(=) CE	1.349	1.388	890	856	817	
(*) WACC	9,04%	8,29%	11,42%	11,25%	9,70%	
(=) Capital Charge	122	115	102	96	79	
EVA = NOPAT - Capital Charge	(175)	5	2	31	134	

	2020	2019	2018	2017	2016	2015
	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
CE check						
Fixed liabilities	639	603	110	108	94	
(+) Equity	710	785	780	748	723	
(=) CE	1.349	1.388	890	856	817	
delta	*(0)*	*0*	*0*	*0*	*0*	
Current assets	840	818	781	783	772	714
(-) Current liabilities	(365)	(456)	(297)	(327)	(378)	(413)
(=) NWC	476	362	485	456	393	302
(+) Fixed assets	874	1.026	406	400	424	
(=) CE	1.349	1.388	890	856	817	
delta	*0*	*0*	*0*	*0*	*0*	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
Stock price - date:	30.12.20	30.12.19	28.12.18	29.12.17	30.12.16	30.12.15
2) MVA						
MV calculation						
n. of oustanding shares	168.790.000	168.790.000	168.790.000	168.790.000	168.790.000	168.790.000
(*) P share	15,860	18,750	17,655	22,150	22,430	21,750
(=) MV (Market Cap)	2.677	3.165	2.980	3.739	3.786	3.671
Equity (E)	710	785	780	748	723	
MVA = MV - E	1.967	2.380	2.200	2.990	3.063	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
3) RONA						
NOPAT	(53)	120	104	127	213	
Net Assets calculation						
Fixed Assets	874	1.026	406	400	424	
(+) NWC	476	362	485	456	393	302
Net Assets	1.349	1.388	890	856	817	
RONA = NOPAT / Net Assets	-3,96%	8,64%	11,69%	14,84%	26,12%	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
4) CVA							
CFROI calculation							
	Net Income	(66)	87	88	119	202	
	(+) Non Cash Expenses	(477)	(430)	(398)	(360)	(357)	
	(+) Δ NWC	114	(123)	29	63	92	
	(=) OCF	524	395	515	541	650	
	(/) CE	1.349	1.388	890	856	817	
	(=) CFROI	0,389	0,284	0,578	0,632	0,796	
	WACC	0,090	0,083	0,114	0,113	0,097	
GI calculation							
(+)	Net PP&E	183	252	260	250	244	238
	Δ Net PP&E	(69)	(8)	10	6	5	
	(+) Depreciation Exp	(53)	(54)	(52)	(51)	(52)	
(-)	(=) CapEx	(16)	46	62	57	58	
(+)	Accumulated Depreciation	(477)	(431)	(398)	(359)	(356)	
(=)	Gross PP&E	676	637	596	552	543	
	(+) Inventories	342	400	363	326	375	
	(=) GI	1.018	1.036	959	877	917	
CVA = (CFROI - WACC) * GI		304	209	445	456	641	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
	Stock price - date:	30.12.20	30.12.19	28.12.18	29.12.17	30.12.16	30.12.15
5) SVA							
Increase in market value of equity							
	MV	2.677	3.165	2.980	3.739	3.786	3.671
	Δ MV	(488)	185	(759)	(47)	115	
	n. shares buy back		136.000	14.000			
	(*) Pshare	15,860	18,750	17,655	22,150	22,430	21,750
	(=) Share Buybacks	0	3	0	0	0	0
	(+) Dividends Distributed	0	87	64	78	79	71
	(=) tot.DIV	0	90	64	78	79	71
	Capital Outlays						
	Convertion of Convertible Debetures						
SVA = ΔMV + tot. DIV - Cap Outlays - Conv Debentures		(488)	275	(694)	30	194	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
	Stock price - date:	30.12.20	30.12.19	28.12.18	29.12.17	30.12.16	30.12.15
6) TSR (%)							
TSR in absolute value calculation							
	Pshare	15,860	18,750	17,655	22,150	22,430	21,750
	Δ Pshare	-2,890	1,095	-4,495	-0,280	0,680	
	(+) tot. DIV PER SHARE	0	0,533	0,381	0,460	0,467	
	(=) TSR	-2,890	1,628	-4,114	0,180	1,147	
	Pshare (BEGINNING)	18,750	17,655	22,150	22,430	21,750	
TSR (%) = TSR / Pshare BEGINNING		-15%	9%	-19%	1%	5%	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
	Stock price - date:	30.12.20	30.12.19	28.12.18	29.12.17	30.12.16	30.12.15
7) ER							
Actual Value of Wealth calculation							
	tot. DIV	0	90	64	78	79	71
	Cost of Equity (Ke)	11,46%	9,98%	11,56%	11,50%	10,02%	
	(1 + Ke)	1,115	1,100	1,116	1,115	1,100	
	Tot. DIV (t-1) * (1 + Ke)	100	71	87	88	79	
	Future value of tot. DIV	100	161	151	166	157	
	(+) MV	2.677	3.165	2.980	3.739	3.786	3.671
	(=) Actual Value of Wealth	2.777	3.326	3.131	3.904	3.943	
Expected Value of Wealth calculation							
	(=) Expected Value of Wealth	6.159	5.526	5.024	4.504	4.039	
ER = Actual Value of Wealth - Expected Value of Wealth		(3.382)	(2.200)	(1.893)	(599)	(96)	

Appendix 14: Kering S.A.

KERING	FY	2020	2019	2018	2017	2016
EPA: KER	EVA	901	766	1.138	184	(290)
€	MVA	62.219	62.722	41.915	33.505	13.074
	RONA	11,94%	13,03%	18,84%	9,97%	5,63%
All figures are expressed in ***millions €***	CVA	1.309	(167)	692	411	92
Except *for WACC, number of oustanding shares, share prices, RONA, CFROI, TSR (%), Ke and (1 + Ke)*	SVA	2.031	23.264	11.352	21.777	7.043
	TSR	2,85%	46,22%	24,61%	86,98%	37,96%
	ER	47.698	53.952	33.425	25.285	6.071

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
1) EVA						
NOPAT calculation						
EBIT	3.298	4.610	3.721	2.527	1.380	
(-) Taxes	(759)	(2.134)	(868)	(551)	(296)	
(=) NOPAT	2.539	2.476	2.854	1.976	1.084	
Capital Charge calculation						
Tot. Assets	28.005	27.148	21.368	25.577	24.139	
(-) Current liabilities	(6.735)	(8.148)	(6.222)	(5.763)	(4.899)	(5.099)
(=) CE	21.271	19.001	15.146	19.815	19.240	
(*) WACC	7,70%	9,00%	11,33%	9,04%	7,14%	
(=) Capital Charge	1.638	1.710	1.716	1.791	1.374	
EVA = NOPAT - Capital Charge	901	766	1.138	184	(290)	

	2020	2019	2018	2017	2016	2015
	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
CE check						
Fixed liabilities	9.236	8.562	4.895	7.188	7.277	
(+) Equity	12.035	10.439	10.062	12.626	11.964	
(=) CE	21.271	19.001	14.957	19.815	19.240	
delta	*0*	*0*	*(189)*	*0*	*0*	
Current assets	9.021	7.546	7.071	7.317	5.640	5.365
(-) Current liabilities	(6.735)	(8.148)	(6.222)	(5.763)	(4.899)	(5.099)
(=) NWC	2.286	(602)	849	1.554	742	265
(+) Fixed assets	18.975	19.603	14.297	18.261	18.499	
(=) CE	21.261	19.001	15.146	19.815	19.240	
delta	*(10)*	*0*	*0*	*0*	*0*	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
Stock price - date:	31.12.20	31.12.19	31.12.18	29.12.17	30.12.16	31.12.15
2) MVA						
MV calculation						
n. of oustanding shares	124.922.916	125.017.916	126.279.322	126.279.322	126.279.322	126.251.724
(*) P share	594,4	585,2	411,600	365,31	198,27	146,820
(=) MV (Market Cap)	74.254	73.160	51.977	46.131	25.037	18.536
Equity (E)	12.035	10.439	10.062	12.626	11.964	
MVA = MV - E	62.219	62.722	41.915	33.505	13.074	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
3) RONA						
NOPAT	2.539	2.476	2.854	1.976	1.084	
Net Assets calculation						
Fixed Assets	18.975	19.603	14.297	18.261	18.499	
(+) NWC	2.286	(602)	849	1.554	742	265
Net Assets	21.261	19.001	15.146	19.815	19.240	
RONA = NOPAT / Net Assets	11,94%	13,03%	18,84%	9,97%	5,63%	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
4) CVA							
CFROI calculation							
	Net Income	2.150	2.309	3.715	1.786	814	
	(+) Non Cash Expenses	(450)	(388)	(382)	(416)	(368)	
	(+) Δ NWC	2.888	(1.451)	(705)	813	476	
	(=) OCF	5.488	1.246	3.392	3.014	1.658	
	(/) CE	21.271	19.001	15.146	19.815	19.240	
	(=) CFROI	0,258	0,066	0,224	0,152	0,086	
	WACC	0,077	0,09	0,1133	0,0904	0,0714	
GI calculation							
(+)	Net PP&E	2.670	2.619	2.229	2.268	2.207	2.073
	Δ Net PP&E	51	391	(39)	61	134	
	(+) Depreciation Exp	(441)	(388)	(382)	(416)	(368)	
(-)	(=) CapEx	492	779	343	477	501	
(+)	Accumulated Depreciation	(2.206)	(2.034)	(1.958)	(2.167)	(2.082)	
(=)	Gross PP&E	4.385	3.874	3.844	3.958	3.788	
	(+) Inventories	2.846	2.959	2.415	2.699	2.432	
	(=) GI	7.231	6.833	6.258	6.657	6.220	
CVA = (CFROI - WACC) * GI		1.309	(167)	692	411	92	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
	Stock price - date:	31.12.20	31.12.19	31.12.18	29.12.17	30.12.16	31.12.15
5) SVA							
Increase in market value of equity							
	MV	74.254	73.160	51.977	46.131	25.037	18.536
	Δ MV	1.094	21.184	5.845	21.094	6.501	
	n. shares buy back	95.000	1.261.406				
	(*) Pshare	594,400	585,200	411,600	365,310	198,270	146,820
	(=) Share Buybacks	56	738	0	0	0	0
	(+) Dividends Distributed	881	1.342	5.507	683	541	562
	(=) tot.DIV	937	2.080	5.507	683	541	562
	Capital Outlays						
	Convertion of Convertible Debetures						
SVA = ΔMV + tot. DIV - Cap Outlays - Conv Debentures		2.031	23.264	11.352	21.777	7.043	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
	Stock price - date:	31.12.20	31.12.19	31.12.18	29.12.17	30.12.16	31.12.15
6) TSR (%)							
TSR in absolute value calculation							
	Pshare	594,400	585,200	411,600	365,310	198,270	146,820
	Δ Pshare	9,200	173,600	46,290	167,040	51,450	
	(+) tot. DIV PER SHARE	7,503	16,639	43,607	5,410	4,287	
	(=) TSR	16,703	190,239	89,897	172,450	55,737	
	Pshare (BEGINNING)	585,200	411,600	365,310	198,270	146,820	
TSR (%) = TSR / Pshare BEGINNING		3%	46%	25%	87%	38%	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
	Stock price - date:	31.12.20	31.12.19	31.12.18	29.12.17	30.12.16	31.12.15
7) ER							
Actual Value of Wealth calculation							
	tot. DIV	937	2.080	5.507	683	541	562
	Cost of Equity (Ke)	8,77%	10,20%	12,20%	9,98%	8,53%	
	(1 + Ke)	1,088	1,102	1,122	1,100	1,085	
	Tot. DIV (t-1) * (1 + Ke)	2.263	6.068	767	595	609	
	Future value of tot. DIV	3.200	8.148	6.273	1.279	1.151	
	(+) MV	74.254	73.160	51.977	46.131	25.037	18.536
	(=) Actual Value of Wealth	77.454	81.309	58.250	47.410	26.188	
Expected Value of Wealth calculation							
	(=) Expected Value of Wealth	29.756	27.356	24.824	22.125	20.117	
ER = Actual Value of Wealth - Expected Value of Wealth		47.698	53.952	33.425	25.285	6.071	

Appendix 15: Tod's S.p.A.

TOD'S	FY	2020	2019	2018	2017	2016
BIT: TOD	EVA	(109)	(7)	(54)	(67)	(20)
€	MVA	(65)	284	301	928	955
	RONA	-3,70%	4,39%	4,28%	6,06%	7,30%
All figures are expressed in ***millions €***	CVA	(128)	(2)	(73)	(31)	(147)
Except *for WACC, number of oustanding shares, share prices, RONA, CFROI, TSR (%), Ke and (1 + Ke)*	SVA	(422)	31	(603)	26	(125)
	TSR	-30,96%	2,28%	-29,92%	1,29%	-12,66%
	ER	(2.517)	(1.791)	(1.560)	(606)	(274)

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
1) EVA						
NOPAT calculation						
EBIT	(135)	101	72	112	128	
(-) Taxes	85	(31)	(19)	(33)	(29)	
(=) NOPAT	(51)	70	52	79	99	
Capital Charge calculation						
Tot. Assets	2.065	2.006	1.617	1.585	1.609	
(-) Current liabilities	(699)	(416)	(392)	(276)	(250)	222
(=) CE	1.366	1.590	1.225	1.308	1.358	
(*) WACC	4,29%	4,80%	8,72%	11,17%	8,74%	
(=) Capital Charge	59	76	107	146	119	
EVA = NOPAT - Capital Charge	(109)	(7)	(54)	(67)	(20)	

	2020	2019	2018	2017	2016	2015
	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
CE check						
Fixed liabilities	359	509	160	221	268	
(+) Equity	1.007	1.081	1.065	1.087	1.090	
(=) CE	1.366	1.590	1.225	1.308	1.358	
delta	*0*	*(0)*	*0*	*0*	*0*	
Current assets	843	748	733	713	706	730
(-) Current liabilities	(699)	(416)	(392)	(276)	(250)	222
(=) NWC	144	332	341	436	455	953
(+) Fixed assets	1.223	1.258	884	872	903	
(=) CE	1.366	1.590	1.225	1.308	1.358	
delta	*0*	*0*	*0*	*0*	*0*	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
Stock price - date:	30.12.20	30.12.19	29.12.18	29.12.17	30.12.16	30.12.15
2) MVA						
MV calculation						
n. of oustanding shares	33.093.539	33.093.539	33.093.539	33.093.539	33.093.539	30.609.401
(*) P share	28,46	41,22	41,28	60,900	61,800	73,050
(=) MV (Market Cap)	942	1.364	1.366	2.015	2.045	2.236
Equity (E)	1.007	1.081	1.065	1.087	1.090	
MVA = MV - E	(65)	284	301	928	955	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
3) RONA						
NOPAT	(51)	70	52	79	99	
Net Assets calculation						
Fixed Assets	1.223	1.258	884	872	903	
(+) NWC	144	332	341	436	455	953
Net Assets	1.366	1.590	1.225	1.308	1.358	
RONA = NOPAT / Net Assets	-3,70%	4,39%	4,28%	6,06%	7,30%	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
4) CVA							
CFROI calculation							
	Net Income	(73)	46	47	71	86	
	(+) Non Cash Expenses	(32)	(35)	(34)	(35)	(37)	
	(+) Δ NWC	(188)	(9)	(96)	(19)	(497)	
	(=) OCF	(229)	72	(14)	87	(374)	
	(/) CE	1.366	1.590	1.225	1.308	1.358	
	(=) CFROI	-0,1675318	0,0453896	-0,0117749	0,0667484	-0,2752757	
	WACC	0,0429	0,048	0,0872	0,1117	0,0874	
GI calculation							
(+)	Net PP&E	136	151	204	201	217	227
	Δ Net PP&E	(14)	(53)	3	(16)	(10)	
	(+) Depreciation Exp	(32)	(35)	(34)	(35)	(37)	
(-)	(=) CapEx	18	(18)	37	19	27	
(+)	*Accumulated Depreciation**	*(136)*	*(151)*	*(204)*	*(201)*	*(217)*	
(=)	Gross PP&E	255	319	371	382	406	
	(+) Inventories	354	385	362	312		
	(=) GI	609	704	733	695	406	
CVA = (CFROI - WACC) * GI		(128)	(2)	(73)	(31)	(147)	

* estimated

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
	Stock price - date:	30.12.20	30.12.19	29.12.18	29.12.17	30.12.16	30.12.15
5) SVA							
Increase in market value of equity							
	MV	942	1.364	1.366	2.015	2.045	2.236
	Δ MV	(422)	(2)	(649)	(30)	(191)	
	n. shares buy back	0	0	0	0	0	0
	(*) Pshare	28,460	41,220	41,280	60,900	61,800	73,050
	(=) Share Buybacks	0	0	0	0	0	0
	(+) Dividends Distributed	0	33	46	56	66	61
	(=) tot.DIV	0	33	46	56	66	61
	Capital Outlays						
	Convertion of Convertible Debetures						
SVA = ΔMV + tot. DIV - Cap Outlays - Conv Debentures		(422)	31	(603)	26	(125)	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
	Stock price - date:	30.12.20	30.12.19	29.12.18	29.12.17	30.12.16	30.12.15
6) TSR (%)							
TSR in absolute value calculation							
	Pshare	28,460	41,220	41,280	60,900	61,800	73,050
	Δ Pshare	-12,760	-0,060	-19,620	-0,900	-11,250	
	(+) tot. DIV PER SHARE	0	1,00001	1,40000	1,70000	2,00000	
	(=) TSR	-12,76	0,9400	-18,2200	0,8000	-9,2500	
	Pshare (BEGINNING)	41,220	41,280	60,900	61,800	73,050	
TSR (%) = TSR / Pshare BEGINNING		-30,96%	2,28%	-29,92%	1,29%	-12,66%	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
	Stock price - date:	30.12.20	30.12.19	29.12.18	29.12.17	30.12.16	30.12.15
7) ER							
Actual Value of Wealth calculation							
	tot. DIV	0	33	46	56	66	61
	Cost of Equity (Ke)	7,94%	6,71%	10,23%	12,22%	9,69%	
	(1 + Ke)	1,079	1,067	1,102	1,122	1,097	
	Tot. DIV (t-1) * (1 + Ke)	36	49	62	74	67	
	Future value of tot. DIV	36	83	108	131	133	
	(+) MV	942	1.364	1.366	2.015	2.045	2.236
	(=) Actual Value of Wealth	978	1.447	1.474	2.146	2.179	
Expected Value of Wealth calculation							
	(=) Expected Value of Wealth	3.495	3.238	3.034	2.752	2.453	
ER = Actual Value of Wealth - Expected Value of Wealth		(2.517)	(1.791)	(1.560)	(606)	(274)	

Appendix 16: LVMH Group

LVMH	FY	2020	2019	2018	2017	2016
EPA: MC	EVA	(113)	1.684	1.080	1.393	1.059
€	MVA	219.396	170.818	96.961	94.168	64.090
	RONA	6,67%	11,29%	12,84%	10,82%	10,24%
All figures are expressed in ***millions €***	CVA	5.934	3.509	1.409	1.010	1.201
Except *for WACC, number of oustanding shares, share prices, RONA, CFROI, TSR (%), Ke and (1 + Ke)*	SVA	52.079	81.818	10.267	35.000	20.758
	TSR	24,80%	63,14%	8,25%	38,07%	28,25%
	ER	149.638	109.822	40.305	42.497	16.666

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
1) EVA						
NOPAT calculation						
EBIT	7.972	11.273	9.877	8.113	6.904	
(-) Taxes	(2.409)	(2.932)	(2.499)	(2.318)	(2.109)	
(=) NOPAT	5.563	8.341	7.378	5.795	4.795	
Capital Charge calculation						
Tot. Assets	108.671	96.507	74.300	68.550	59.622	
(-) Current liabilities	(25.318)	(22.623)	(16.833)	(15.003)	(12.810)	(12.699)
(=) CE	83.353	73.884	57.467	53.547	46.812	
(*) WACC	6,81%	9,01%	10,96%	8,22%	7,98%	
(=) Capital Charge	5.676	6.657	6.298	4.402	3.736	
EVA = NOPAT - Capital Charge	(113)	1.684	1.080	1.393	1.059	

	2020	2019	2018	2017	2016	2015
	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
CE check						
Fixed liabilities	44.524	35.519	23.510	23.287	18.909	
(+) Equity	38.829	38.365	33.957	30.260	27.903	
(=) CE	83.353	73.884	57.467	53.547	46.812	
delta	*0*	*0*	*0*	*0*	*0*	
Current assets	39.973	26.510	23.551	21.082	19.398	18.950
(-) Current liabilities	(25.318)	(22.623)	(16.833)	(15.003)	(12.810)	(12.699)
(=) NWC	14.655	3.887	6.718	6.079	6.588	6.251
(+) Fixed assets	68.698	69.997	50.749	47.468	40.224	
(=) CE	83.353	73.884	57.467	53.547	46.812	
delta	*0*	*0*	*0*	*0*	*0*	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
Stock price - date:	31.12.20	31.12.19	31.12.18	29.12.17	30.12.16	31.12.15
2) MVA						
MV calculation						
n. of oustanding shares	505.431.285	505.029.495	507.042.596	507.042.596	507.126.088	507.139.110
(*) P share	510,9	414,2	258,2	245,4	181,4	144,9
(=) MV (Market Cap)	258.225	209.183	130.918	124.428	91.993	73.484
Equity (E)	38.829	38.365	33.957	30.260	27.903	
MVA = MV - E	219.396	170.818	96.961	94.168	64.090	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
3) RONA						
NOPAT	5.563	8.341	7.378	5.795	4.795	
Net Assets calculation						
Fixed Assets	68.698	69.997	50.749	47.468	40.224	
(+) NWC	14.655	3.887	6.718	6.079	6.588	6.251
Net Assets	83.353	73.884	57.467	53.547	46.812	
RONA = NOPAT / Net Assets	6,67%	11,29%	12,84%	10,82%	10,24%	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
4) CVA							
CFROI calculation							
	Net Income	4.702	7.171	6.354	5.129	3.981	
	(+) Non Cash Expenses	(1.769)	(8.876)	(1.594)	(1.484)	(1.315)	
	(+) Δ NWC	10.768	(2.831)	639	(509)	337	
	(=) OCF	17.239	13.216	8.587	6.104	5.633	
	(/) CE	83.353	73.884	57.467	53.547	46.812	
	(=) CFROI	0,206819191	0,178874993	0,149424887	0,113993314	0,120332393	
	WACC	0,0681	0,0901	0,1096	0,0822	0,0798	
GI calculation							
(+)	Net PP&E	18.224	18.533	15.112	13.206	12.139	11.157
	Δ Net PP&E	(309)	3.421	1.906	1.067	982	
	(+) Depreciation Exp	(1.706)	(1.655)	(1.512)	(1.422)	(1.274)	
(-)	(=) CapEx	1.397	5.076	3.418	2.489	2.256	
(+)	Accumulated Depreciation	(12.937)	(12.354)	(11.211)	(10.129)	(9.197)	
(=)	Gross PP&E	29.764	25.811	22.905	20.846	19.080	
	(+) Inventories	13.016	13.717	12.485	10.908	10.546	
	(=) GI	42.780	39.528	35.390	31.754	29.626	
CVA = (CFROI - WACC) * GI		5.934	3.509	1.409	1.010	1.201	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
	Stock price - date:	31.12.20	31.12.19	31.12.18	29.12.17	30.12.16	31.12.15
5) SVA							
Increase in market value of equity							
	MV	258.225	209.183	130.918	124.428	91.993	73.484
	Δ MV	49.042	78.265	6.490	32.436	18.508	
	n. shares buy back	673.946	2.156	2.775.952	791.977	920.951	1.124.740
	(*) Pshare	510,900	414,200	258,200	245,400	181,400	144,900
	(=) Share Buybacks	344	1	717	194	167	163
	(+) Dividends Distributed	2.693	3.552	3.060	2.370	2.083	1.888
	(=) tot.DIV	3.037	3.553	3.777	2.564	2.250	2.051
	Capital Outlays						
	Convertion of Convertible Debetures						
SVA = ΔMV + tot. DIV - Cap Outlays - Conv Debentures		52.079	81.818	10.267	35.000	20.758	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
	Stock price - date:	31.12.20	31.12.19	31.12.18	29.12.17	30.12.16	31.12.15
6) TSR (%)							
TSR in absolute value calculation							
	Pshare	510,900	414,200	258,200	245,400	181,400	144,900
	Δ Pshare	96,700	156,000	12,800	64,000	36,500	
	(+) tot. DIV PER SHARE	6,009	7,035	7,449	5,057	4,437	
	(=) TSR	102,709	163,035	20,249	69,057	40,937	
	Pshare (BEGINNING)	414,200	258,200	245,400	181,400	144,900	
TSR (%) = TSR / Pshare BEGINNING		25%	63%	8%	38%	28%	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
	Stock price - date:	31.12.20	31.12.19	31.12.18	29.12.17	30.12.16	31.12.15
7) ER							
Actual Value of Wealth calculation							
	tot. DIV	3.037	3.553	3.777	2.564	2.250	2.051
	Cost of Equity (Ke)	7,83%	10,09%	11,86%	8,95%	8,60%	
	(1 + Ke)	1,078	1,101	1,119	1,090	1,086	
	Tot. DIV (t-1) * (1 + Ke)	3.831	4.158	2.868	2.451	2.227	
	Future value of tot. DIV	6.868	7.711	6.645	5.016	4.477	
	(+) MV	258.225	209.183	130.918	124.428	91.993	73.484
	(=) Actual Value of Wealth	265.093	216.894	137.564	129.444	96.470	
Expected Value of Wealth calculation							
	(=) Expected Value of Wealth	115.456	107.072	97.258	86.947	79.804	
ER = Actual Value of Wealth - Expected Value of Wealth		149.638	109.822	40.305	42.497	16.666	

Appendix 17: Compagnie Financière Richemont S.A.

RICHEMONT
JSE: CFR
€

All figures are expressed in ***millions €***
Except *for WACC, number of oustanding shares, share prices, RONA, CFROI, TSR (%), Ke and (1 + Ke)*

FY	2020	2019	2018	2017	2016
EVA	(413)	(151)	103	90	(606)
MVA	35.015	50.744	61.472	61.776	45.747
RONA	5,09%	7,19%	7,34%	8,63%	7,48%
CVA	(106)	(401)	1.536	440	63
SVA	(14.491)	(7.401)	(277)	17.389	(16.680)
TSR	-21,38%	-9,72%	-0,36%	28,60%	-21,30%
ER	(68.820)	(43.067)	(25.075)	(16.186)	(25.453)

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.03.20	31.03.19	31.03.18	31.03.17	31.03.16	31.03.15
1) EVA						
NOPAT calculation						
EBIT	1.518	1.943	1.844	1.764	2.061	
(-) Taxes	(267)	(381)	(432)	(360)	(870)	
(=) NOPAT	1.251	1.562	1.412	1.404	1.191	
Capital Charge calculation						
Tot. Assets	30.461	28.039	25.558	20.160	20.125	
(-) Current liabilities	(5.875)	(6.303)	(6.315)	(3.900)	(4.196)	(5.088)
(=) CE	24.586	21.736	19.243	16.260	15.929	
(*) WACC	6,77%	7,88%	6,80%	8,08%	11,28%	
(=) Capital Charge	1.664	1.713	1.309	1.314	1.797	
EVA = NOPAT - Capital Charge	(413)	(151)	103	90	(606)	

	2020	2019	2018	2017	2016	2015
	31.03.20	31.03.19	31.03.18	31.03.17	31.03.16	31.03.15
CE check						
Fixed liabilities	7.327	4.697	4.605	731	882	
(+) Equity	17.259	17.039	14.638	15.529	15.047	
(=) CE	24.586	21.736	19.243	16.260	15.929	
delta	*0*	*0*	*0*	*0*	*0*	
Current assets	16.801	17.278	19.584	14.433	14.358	15.928
(-) Current liabilities	(5.875)	(6.303)	(6.315)	(3.900)	(4.196)	(5.088)
(=) NWC	10.926	10.975	13.269	10.533	10.162	10.840
(+) Fixed assets	13.660	10.761	5.974	5.727	5.767	
(=) CE	24.586	21.736	19.243	16.260	15.929	
delta	*0*	*0*	*0*	*0*	*0*	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.03.20	31.03.19	31.03.18	31.03.17	31.03.16	31.03.15
Stock price - date:	31.03.20	29.03.19	29.03.18	31.03.17	31.03.16	31.03.15
2) MVA						
MV calculation						
n. of oustanding shares	1.044.000.000	1.044.000.000	1.044.000.000	1.044.000.000	1.044.000.000	1.044.000.000
(*) P share	50,0713	64,92583	72,90213	74,04685	58,23201	75,02732
(=) MV (Market Cap)	52.274	67.783	76.110	77.305	60.794	78.329
Equity (E)	17.259	17.039	14.638	15.529	15.047	
MVA = MV - E	35.015	50.744	61.472	61.776	45.747	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.03.20	31.03.19	31.03.18	31.03.17	31.03.16	31.03.15
3) RONA						
NOPAT	1.251	1.562	1.412	1.404	1.191	
Net Assets calculation						
Fixed Assets	13.660	10.761	5.974	5.727	5.767	
(+) NWC	10.926	10.975	13.269	10.533	10.162	10.840
Net Assets	24.586	21.736	19.243	16.260	15.929	
RONA = NOPAT / Net Assets	5,09%	7,19%	7,34%	8,63%	7,48%	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.03.20	31.03.19	31.03.18	31.03.17	31.03.16	31.03.15
4) CVA						
CFROI calculation						
Net Income	931	2.787	1.221	1.210	2.227	
(+) Non Cash Expenses	(569)	(427)	(394)	(457)	(351)	
(+) Δ NWC	(49)	(2.294)	2.736	371	(678)	
(=) OCF	1.451	920	4.351	2.038	1.900	
(/) CE	24.586	21.736	19.243	16.260	15.929	
(=) CFROI	0,059	0,042	0,226	0,125	0,119	
WACC	0,068	0,079	0,068	0,081	0,113	
GI calculation						
(+) Net PP&E	2.774	2.728	2.325	2.558	2.476	2.446
Δ Net PP&E	46	403	(233)	82	30	
(+) Depreciation Exp	(515)	(482)	(454)	(467)	(447)	
(-) (=) CapEx	561	885	221	549	477	
(+) Accumulated Depreciation	(3.328)	(2.959)	(2.670)	(2.558)	(2.341)	
(=) Gross PP&E	5.541	4.802	4.774	4.567	4.340	
(+) Inventories	6.658	6.186	4.943	5.302	5.345	
(=) GI	12.199	10.988	9.717	9.869	9.685	
CVA = (CFROI - WACC) * GI	(106)	(401)	1.536	440	63	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.03.20	31.03.19	31.03.18	31.03.17	31.03.16	31.03.15
Stock price - date:	31.03.20	29.03.19	29.03.18	31.03.17	31.03.16	31.03.15
5) SVA						
Increase in market value of equity						
MV	52.274	67.783	76.110	77.305	60.794	78.329
Δ MV	(15.508)	(8.327)	(1.195)	16.511	(17.534)	
n. shares buy back						
(*) Pshare	50,071	64,926	72,902	74,047	58,232	75,027
(=) Share Buybacks	0	0	0	0	0	0
(+) Dividends Distributed	1.017	926	918	878	854	650
(=) tot.DIV	1.017	926	918	878	854	650
Capital Outlays						
Convertion of Convertible Debetures						
SVA = ΔMV + tot. DIV - Cap Outlays - Conv Debentures	(14.491)	(7.401)	(277)	17.389	(16.680)	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.03.20	31.03.19	31.03.18	31.03.17	31.03.16	31.03.15
Stock price - date:	31.03.20	29.03.19	29.03.18	31.03.17	31.03.16	31.03.15
6) TSR (%)						
TSR in absolute value calculation						
Pshare	50,071	64,926	72,902	74,047	58,232	75,027
Δ Pshare	-14,855	-7,976	-1,145	15,815	-16,795	
(+) tot. DIV PER SHARE	0,974	0,887	0,879	0,841	0,818	
(=) TSR	-13,880	-7,089	-0,265	16,656	-15,977	
Pshare (BEGINNING)	64,926	72,902	74,047	58,232	75,027	
TSR (%) = TSR / Pshare BEGINNING	-21%	-10%	0%	29%	-21%	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.03.20	31.03.19	31.03.18	31.03.17	31.03.16	31.03.15
Stock price - date:	31.03.20	29.03.19	29.03.18	31.03.17	31.03.16	31.03.15
7) ER						
Actual Value of Wealth calculation						
tot. DIV	1.017	926	918	878	854	650
Cost of Equity (Ke)	9,17%	9,44%	8,14%	8,50%	12,13%	
(1 + Ke)	1,092	1,094	1,081	1,085	1,121	
Tot. DIV (t-1) * (1 + Ke)	1.011	1.005	949	927	729	
Future value of tot. DIV	2.028	1.931	1.867	1.805	1.583	
(+) MV	52.274	67.783	76.110	77.305	60.794	78.329
(=) Actual Value of Wealth	54.302	69.713	77.977	79.110	62.377	
Expected Value of Wealth calculation						
(=) Expected Value of Wealth	123.122	112.780	103.052	95.295	87.830	
ER = Actual Value of Wealth - Expected Value of Wealth	(68.820)	(43.067)	(25.075)	(16.186)	(25.453)	

Appendix 18: Capri Holdings Ltd

CAPRI HOLDINGS
NYSE: CPR
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All figures are expressed in ***millions €***
Except *for WACC, number of oustanding shares, share prices, RONA, CFROI, TSR (%), Ke and (1 + Ke)*

FY	2020	2019	2018	2017	2016
EVA	(453)	281	273	371	589
MVA	335	6.633	8.990	5.970	8.620
RONA	-3,09%	12,84%	19,33%	29,98%	39,44%
CVA	22	165	106	84	245
SVA	(6.459)	(1.681)	3.556	(2.131)	(1.136)
TSR	-73,57%	-17,79%	46,50%	-21,03%	-9,62%
ER	(17.431)	(8.196)	(4.399)	(5.345)	(1.998)

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	28.03.20	30.03.19	31.03.18	01.04.17	02.04.16	28.03.15
1) EVA						
NOPAT calculation						
EBIT	(175)	654	608	645	1.028	
(-) Taxes	(9)	(70)	(122)	(128)	(293)	
(=) NOPAT	(184)	584	486	517	735	
Capital Charge calculation						
Tot. Assets	7.239	5.919	3.294	2.254	2.245	
(-) Current liabilities	(1.276)	(1.373)	(779)	(529)	(381)	(301)
(=) CE	5.962	4.547	2.515	1.725	1.864	
(*) WACC	4,51%	6,66%	8,48%	8,48%	7,83%	
(=) Capital Charge	269	303	213	146	146	
EVA = NOPAT - Capital Charge	(453)	281	273	371	589	

	2020	2019	2018	2017	2016	2015
	28.03.20	30.03.19	31.03.18	01.04.17	02.04.16	28.03.15
CE check						
Fixed liabilities	3.987	2.382	874	233	115	
(+) Equity	1.975	2.165	1.641	1.492	1.749	
(=) CE	5.962	4.547	2.515	1.725	1.864	
delta	*0*	*0*	*0*	*0*	*0*	
Current assets	1.725	1.539	1.024	1.089	1.461	1.833
(-) Current liabilities	(1.276)	(1.373)	(779)	(529)	(381)	(301)
(=) NWC	449	166	245	560	1.080	1.532
(+) Fixed assets	5.513	4.380	2.270	1.164	785	
(=) CE	5.962	4.547	2.515	1.725	1.864	
delta	*0*	*0*	*0*	*0*	*0*	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	28.03.20	30.03.19	31.03.18	01.04.17	02.04.16	28.03.15
Stock price - date:	27.03.20	29.03.19	29.03.18	31.03.17	01.04.16	27.03.15
2) MVA						
MV calculation						
n. of oustanding shares	217.320.010	216.050.939	210.991.091	209.332.493	208.084.175	206.486.699
(*) P share	10,631	40,722	50,384	35,648	49,832	61,693
(=) MV (Market Cap)	2.310	8.798	10.631	7.462	10.369	12.739
Equity (E)	1.975	2.165	1.641	1.492	1.749	
MVA = MV - E	335	6.633	8.990	5.970	8.620	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	28.03.20	30.03.19	31.03.18	01.04.17	02.04.16	28.03.15
3) RONA						
NOPAT	(184)	584	486	517	735	
Net Assets calculation						
Fixed Assets	5.513	4.380	2.270	1.164	785	
(+) NWC	449	166	245	560	1.080	1.532
Net Assets	5.962	4.547	2.515	1.725	1.864	
RONA = NOPAT / Net Assets	-3,09%	12,84%	19,33%	29,98%	39,44%	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	28.03.20	30.03.19	31.03.18	01.04.17	02.04.16	28.03.15
4) CVA						
CFROI calculation						
Net Income	(203)	483	480	517	734	
(+) Non Cash Expenses	(246)	(247)	(200)	(231)	(223)	
(+) Δ NWC	283	(78)	(315)	(519)	(453)	
(=) OCF	325	651	365	228	504	
(/) CE	5.962	4.547	2.515	1.725	1.864	
(=) CFROI	0,0546	0,1433	0,1451	0,1322	0,2702	
WACC	0,0451	0,0666	0,0848	0,0848	0,0783	
GI calculation						
(+) Net PP&E	511	547	473	553	663	519
Δ Net PP&E	(36)	74	(80)	(110)	145	
(+) Depreciation Exp	(182)	(167)	(148)	(185)	(151)	
(-) (=) CapEx	146	241	68	75	295	
(+) Accumulated Depreciation	(1.193)	(992)	(813)	(780)	(429)	
(=) Gross PP&E	1.559	1.298	1.218	1.258	797	
(+) Inventories	753	848	536	514	478	
(=) GI	2.312	2.147	1.755	1.772	1.276	
CVA = (CFROI - WACC) * GI	22	165	106	84	245	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	28.03.20	30.03.19	31.03.18	01.04.17	02.04.16	28.03.15
Stock price - date:	27.03.20	29.03.19	29.03.18	31.03.17	01.04.16	27.03.15
5) SVA						
Increase in market value of equity						
MV	2.310	8.798	10.631	7.462	10.369	12.739
Δ MV	(6.488)	(1.833)	3.168	(2.907)	(2.370)	
n. shares buy back	2.711.807	3.718.237	7.700.959	21.756.353	24.757.543	2.040.979
(*) Pshare	10,631	40,722	50,384	35,648	49,832	61,693
(=) Share Buybacks	29	151	388	776	1.234	126
(+) Dividends Distributed	0	0	0	0	0	0
(=) tot.DIV	29	151	388	776	1.234	126
Capital Outlays						
Convertion of Convertible Debetures						
SVA = ΔMV + tot. DIV - Cap Outlays - Conv Debentures	(6.459)	(1.681)	3.556	(2.131)	(1.136)	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	28.03.20	30.03.19	31.03.18	01.04.17	02.04.16	28.03.15
Stock price - date:	27.03.20	29.03.19	29.03.18	31.03.17	01.04.16	27.03.15
6) TSR (%)						
TSR in absolute value calculation						
Pshare	10,631	40,722	50,384	35,648	49,832	61,693
Δ Pshare	-30,091	-9,662	14,736	-14,184	-11,861	
(+) tot. DIV PER SHARE	0,133	0,701	1,839	3,705	5,929	
(=) TSR	-29,958	-8,961	16,575	-10,479	-5,932	
Pshare (BEGINNING)	40,722	50,384	35,648	49,832	61,693	
TSR (%) = TSR / Pshare BEGINNING	-74%	-18%	46%	-21%	-10%	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	28.03.20	30.03.19	31.03.18	01.04.17	02.04.16	28.03.15
Stock price - date:	27.03.20	29.03.19	29.03.18	31.03.17	01.04.16	27.03.15
7) ER						
Actual Value of Wealth calculation						
tot. DIV	29	151	388	776	1.234	126
Cost of Equity (Ke)	13,54%	8,00%	8,98%	8,64%	7,83%	
(1 + Ke)	1,135	1,080	1,090	1,086	1,078	
Tot. DIV (t-1) * (1 + Ke)	172	419	845	1.340	136	
Future value of tot. DIV	201	570	1.233	2.116	1.369	
(+) MV	2.310	8.798	10.631	7.462	10.369	12.739
(=) Actual Value of Wealth	2.511	9.369	11.864	9.578	11.739	
Expected Value of Wealth calculation						
(=) Expected Value of Wealth	19.942	17.564	16.263	14.923	13.736	
ER = Actual Value of Wealth - Expected Value of Wealth	(17.431)	(8.196)	(4.399)	(5.345)	(1.998)	

Appendix 19: PVH Corp.

PVH
NYSE: PVH
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All figures are expressed in ***millions €***
Except *for WACC, number of oustanding shares, share prices, RONA, CFROI, TSR (%), Ke and (1 + Ke)*

FY	2020	2019	2018	2017	2016
EVA	(1.782)	(245)	23	(244)	(21)
MVA	2.165	1.516	3.021	5.829	2.597
RONA	-9,49%	4,70%	8,63%	6,57%	6,98%
CVA	(512)	(81)	192	(109)	81
SVA	(602)	(1.037)	(1.925)	3.454	1.772
TSR	-9,31%	-13,25%	-19,32%	47,06%	30,97%
ER	(3.340)	(962)	1.176	4.072	1.380

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.01.21	02.02.20	03.02.19	04.02.18	29.01.17	31.01.16
1) EVA						
NOPAT calculation						
EBIT	(883)	506	777	506	739	
(-) Taxes	46	(26)	(27)	21	(117)	
(=) NOPAT	(837)	479	750	527	621	
Capital Charge calculation						
Tot. Assets	10.954	12.333	10.343	9.515	10.362	
(-) Current liabilities	(2.128)	(2.136)	(1.651)	(1.498)	(1.465)	(1.399)
(=) CE	8.826	10.197	8.692	8.016	8.897	
(*) WACC	10,70%	7,10%	8,37%	9,62%	7,22%	
(=) Capital Charge	944	724	727	771	642	
EVA = NOPAT - Capital Charge	(1.782)	(245)	23	(244)	(21)	

	2020	2019	2018	2017	2016	2015
	31.01.21	02.02.20	03.02.19	04.02.18	29.01.17	31.01.16
CE check						
Fixed liabilities	4.928	4.939	3.611	3.584	4.399	
(+) Equity	3.898	5.258	5.081	4.432	4.498	
(=) CE	8.826	10.197	8.692	8.016	8.897	
delta	*0*	*0*	*0*	*0*	*0*	
Current assets	3.250	3.071	2.823	2.426	2.696	2.568
(-) Current liabilities	(2.128)	(2.136)	(1.651)	(1.498)	(1.465)	(1.399)
(=) NWC	1.122	935	1.172	928	1.231	1.170
(+) Fixed assets	7.704	9.262	7.519	7.088	7.666	
(=) CE	8.826	10.197	8.692	8.016	8.897	
delta	*0*	*0*	*0*	*0*	*0*	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.01.21	02.02.20	03.02.19	04.02.18	29.01.17	31.01.16
Stock price - date:	29.01.21	31.01.20	01.02.19	02.02.18	27.01.17	29.01.16
2) MVA						
MV calculation						
n. of oustanding shares	86.293.158	85.890.276	85.446.141	84.851.079	83.923.184	83.545.818
(*) P share	70,254	78,871	94,817	120,932	84,539	67,201
(=) MV (Market Cap)	6.062	6.774	8.102	10.261	7.095	5.614
Equity (E)	3.898	5.258	5.081	4.432	4.498	
MVA = MV - E	2.165	1.516	3.021	5.829	2.597	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.01.21	02.02.20	03.02.19	04.02.18	29.01.17	31.01.16
3) RONA						
NOPAT	(837)	479	750	527	621	
Net Assets calculation						
Fixed Assets	7.704	9.262	7.519	7.088	7.666	
(+) NWC	1.122	935	1.172	928	1.231	1.170
Net Assets	8.826	10.197	8.692	8.016	8.897	
RONA = NOPAT / Net Assets	-9,49%	4,70%	8,63%	6,57%	6,98%	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.01.21	02.02.20	03.02.19	04.02.18	29.01.17	31.01.16
4) CVA							
CFROI calculation							
	Net Income	(936)	378	651	431	514	
	(+) Non Cash Expenses	(313)	(346)	(359)	(320)	(343)	
	(+) Δ NWC	187	(238)	244	(303)	61	
	(=) OCF	(436)	486	1.254	448	918	
	(/) CE	8.826	10.197	8.692	8.016	8.897	
	(=) CFROI	-0,049	0,048	0,144	0,056	0,103	
	WACC	0,107	0,071	0,084	0,096	0,072	
GI calculation							
(+)	Net PP&E	777	929	858	720	711	682
	Δ Net PP&E	(152)	71	138	9	30	
	*(+) Depreciation Exp**	*(268)*	*(293)*	*(292)*	*(260)*	*(301)*	
(-)	(=) CapEx	116	364	430	269	331	
(+)	Accumulated Depreciation	(1.443)	(1.429)	(1.233)	(985)	(987)	
(=)	Gross PP&E	2.104	1.994	1.661	1.436	1.368	
	(+) Inventories	1.168	1.462	1.510	1.274	1.234	
	(=) GI	3.272	3.456	3.171	2.710	2.602	
CVA = (CFROI - WACC) * GI		(512)	(81)	192	(109)	81	

* assumes no amortization

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.01.21	02.02.20	03.02.19	04.02.18	29.01.17	31.01.16
	Stock price - date:	29.01.21	31.01.20	01.02.19	02.02.18	27.01.17	29.01.16
5) SVA							
Increase in market value of equity							
	MV	6.062	6.774	8.102	10.261	7.095	5.614
	Δ MV	(712)	(1.327)	(2.159)	3.166	1.480	
	n. shares buy back	1.536.550	3.554.603	2.370.193	2.300.657	3.313.810	1.454.368
	(*) Pshare	70,254	78,871	94,817	120,932	84,539	67,201
	(=) Share Buybacks	108	280	225	278	280	98
	(+) Dividends Distributed	2	10	10	10	11	11
	(=) tot.DIV	110	291	235	288	292	109
	Capital Outlays						
	Convertion of Convertible Debetures						
SVA = ΔMV + tot. DIV - Cap Outlays - Conv Debentures		(602)	(1.037)	(1.925)	3.454	1.772	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.01.21	02.02.20	03.02.19	04.02.18	29.01.17	31.01.16
	Stock price - date:	29.01.21	31.01.20	01.02.19	02.02.18	27.01.17	29.01.16
6) TSR (%)							
TSR in absolute value calculation							
	Pshare	70,254	78,871	94,817	120,932	84,539	67,201
	Δ Pshare	-8,617	-15,946	-26,115	36,393	17,337	
	(+) tot. DIV PER SHARE	1,277	3,383	2,748	3,391	3,474	
	(=) TSR	-7,340	-12,562	-23,366	39,784	20,812	
	Pshare (BEGINNING)	78,871	94,817	120,932	84,539	67,201	
TSR (%) = TSR / Pshare BEGINNING		-9%	-13%	-19%	47%	31%	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.01.21	02.02.20	03.02.19	04.02.18	29.01.17	31.01.16
	Stock price - date:	29.01.21	31.01.20	01.02.19	02.02.18	27.01.17	29.01.16
7) ER							
Actual Value of Wealth calculation							
	tot. DIV	110	291	235	288	292	109
	Cost of Equity (Ke)	18,96%	10,83%	9,95%	11,02%	9,10%	
	(1 + Ke)	1,190	1,108	1,100	1,110	1,091	
	Tot. DIV (t-1) * (1 + Ke)	346	260	316	324	119	
	Future value of tot. DIV	456	551	551	611	411	
	(+) MV	6.062	6.774	8.102	10.261	7.095	5.614
	(=) Actual Value of Wealth	6.518	7.325	8.653	10.873	7.505	
Expected Value of Wealth calculation							
	(=) Expected Value of Wealth	9.858	8.287	7.477	6.800	6.125	
ER = Actual Value of Wealth - Expected Value of Wealth		(3.340)	(962)	1.176	4.072	1.380	

Appendix 20: GAP Inc.

GAP
NYSE: GPS
$

All figures are expressed in ***millions €***
Except *for WACC, number of oustanding shares, share prices, RONA, CFROI, TSR (%), Ke and (1 + Ke)*

FY	2020	2019	2018	2017	2016
EVA	(1.113)	(30)	537	144	244
MVA	4.087	2.844	5.141	7.476	5.716
RONA	-4,30%	3,79%	17,75%	16,34%	14,41%
CVA	(286)	(128)	2.079	1.059	956
SVA	471	(1.907)	(1.124)	2.181	(209)
TSR	7,20%	-21,70%	-8,66%	29,09%	-2,82%
ER	(8.457)	(6.076)	(2.668)	(316)	(13)

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	30.01.21	01.02.20	02.02.19	03.02.18	28.01.17	30.01.16
1) EVA						
NOPAT calculation						
EBIT	(710)	519	1.187	1.184	1.115	
(-) Taxes	360	(160)	(278)	(461)	(419)	
(=) NOPAT	(350)	359	909	723	696	
Capital Charge calculation						
Tot. Assets	11.346	12.377	7.017	6.395	7.124	
(-) Current liabilities	(3.200)	(2.904)	(1.895)	(1.970)	(2.296)	(2.322)
(=) CE	8.145	9.473	5.122	4.425	4.828	
(*) WACC	9,37%	4,11%	7,27%	13,07%	9,36%	
(=) Capital Charge	763	389	372	578	452	
EVA = NOPAT - Capital Charge	(1.113)	(30)	537	144	244	

	2020	2019	2018	2017	2016	2015
	30.01.21	01.02.20	02.02.19	03.02.18	28.01.17	30.01.16
CE check						
Fixed liabilities	5.991	6.473	2.024	1.908	2.109	
(+) Equity	2.154	3.000	3.098	2.517	2.719	
(=) CE	8.145	9.473	5.122	4.425	4.828	
delta	*0*	*0*	*0*	*0*	*0*	
Current assets	4.951	4.086	3.706	3.657	4.040	3.649
(-) Current liabilities	(3.200)	(2.904)	(1.895)	(1.970)	(2.296)	(2.322)
(=) NWC	1.750	1.183	1.811	1.687	1.743	1.328
(+) Fixed assets	6.395	8.291	3.311	2.739	3.085	
(=) CE	8.145	9.473	5.122	4.425	4.828	
delta	*0*	*0*	*0*	*0*	*0*	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	30.01.21	01.02.20	02.02.19	03.02.18	28.01.17	30.01.16
Stock price - date:	29.01.21	31.01.20	01.02.19	02.02.18	28.01.17	29.01.16
2) MVA						
MV calculation						
n. of oustanding shares	374.000.000	371.000.000	378.000.000	389.000.000	399.000.000	397.000.000
(*) P share	16,686	15,753	21,795	25,688	21,139	22,639
(=) MV (Market Cap)	6.241	5.844	8.239	9.993	8.435	8.988
Equity (E)	2.154	3.000	3.098	2.517	2.719	
MVA = MV - E	4.087	2.844	5.141	7.476	5.716	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	30.01.21	01.02.20	02.02.19	03.02.18	28.01.17	30.01.16
3) RONA						
NOPAT	(350)	359	909	723	696	
Net Assets calculation						
Fixed Assets	6.395	8.291	3.311	2.739	3.085	
(+) NWC	1.750	1.183	1.811	1.687	1.743	1.328
Net Assets	8.145	9.473	5.122	4.425	4.828	
RONA = NOPAT / Net Assets	-4,30%	3,79%	17,75%	16,34%	14,41%	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	30.01.21	01.02.20	02.02.19	03.02.18	28.01.17	30.01.16
4) CVA							
CFROI calculation							
	Net Income	(548)	318	874	679	633	
	(+) Non Cash Expenses	(486)	(569)	(609)	(516)	(628)	
	(+) Δ NWC	568	(628)	124	(57)	415	
	(=) OCF	506	259	1.608	1.138	1.676	
	(/) CE	8.145	9.473	5.122	4.425	4.828	
	(=) CFROI	0,062	0,027	0,314	0,257	0,347	
	WACC	0,094	0,041	0,073	0,131	0,094	
GI calculation							
(+)	Net PP&E	2.341	2.825	2.539	2.245	2.449	2.610
	Δ Net PP&E	(484)	286	293	(204)	(161)	
	(+) Depreciation Exp	(416)	(501)	(501)	(445)	(552)	
(-)	(=) CapEx	(68)	787	795	241	391	
(+)	Accumulated Depreciation	(4.621)	(5.283)	(5.017)	(4.773)	0	
(=)	Gross PP&E	7.030	7.321	6.761	6.777	2.058	
	(+) Inventories	2.020	1.951	1.858	1.599	1.713	
	(=) GI	9.049	9.271	8.619	8.375	3.771	
CVA = (CFROI - WACC) * GI		(286)	(128)	2.079	1.059	956	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	30.01.21	01.02.20	02.02.19	03.02.18	28.01.17	30.01.16
	Stock price - date:	29.01.21	31.01.20	01.02.19	02.02.18	28.01.17	29.01.16
5) SVA							
Increase in market value of equity							
	MV	6.241	5.844	8.239	9.993	8.435	8.988
	Δ MV	396	(2.394)	(1.754)	1.558	(553)	
	n. shares buy back	0	10.000.000	14.000.000	13.000.000	0	30.000.000
	(*) Pshare	16,686	15,753	21,795	25,688	21,139	22,639
	(=) Share Buybacks	0	158	305	334	0	679
	(+) Dividends Distributed	75	329	325	289	344	345
	(=) tot.DIV	75	487	630	623	344	1.024
	Capital Outlays						
	Convertion of Convertible Debetures						
SVA = ΔMV + tot. DIV - Cap Outlays - Conv Debentures		471	(1.907)	(1.124)	2.181	(209)	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	30.01.21	01.02.20	02.02.19	03.02.18	28.01.17	30.01.16
	Stock price - date:	29.01.21	31.01.20	01.02.19	02.02.18	28.01.17	29.01.16
6) TSR (%)							
TSR in absolute value calculation							
	Pshare	16,686	15,753	21,795	25,688	21,139	22,639
	Δ Pshare	0,933	-6,042	-3,893	4,549	-1,499	
	(+) tot. DIV PER SHARE	0,200	1,312	1,667	1,601	0,861	
	(=) TSR	1,134	-4,730	-2,226	6,150	-0,638	
	Pshare (BEGINNING)	15,753	21,795	25,688	21,139	22,639	
TSR (%) = TSR / Pshare BEGINNING		7%	-22%	-9%	29%	-3%	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	30.01.21	01.02.20	02.02.19	03.02.18	28.01.17	30.01.16
	Stock price - date:	29.01.21	31.01.20	01.02.19	02.02.18	28.01.17	29.01.16
7) ER							
Actual Value of Wealth calculation							
	tot. DIV	75	487	630	623	344	1.024
	Cost of Equity (Ke)	17,28%	7,16%	7,82%	14,12%	10,40%	
	(1 + Ke)	1,173	1,072	1,078	1,141	1,104	
	Tot. DIV (t-1) * (1 + Ke)	571	675	672	392	1.131	
	Future value of tot. DIV	646	1.162	1.302	1.015	1.475	
	(+) MV	6.241	5.844	8.239	9.993	8.435	8.988
	(=) Actual Value of Wealth	6.887	7.007	9.540	11.008	9.909	
Expected Value of Wealth calculation							
	(=) Expected Value of Wealth	15.344	13.083	12.209	11.323	9.922	
ER = Actual Value of Wealth - Expected Value of Wealth		(8.457)	(6.076)	(2.668)	(316)	(13)	

Appendix 21: Coach Inc. (Tapestry)

TAPESTRY
NYSE: TPR
$

All figures are expressed in ***millions €***
Except *for WACC, number of oustanding shares, share prices, RONA, CFROI, TSR (%), Ke and (1 + Ke)*

FY	2020	2019	2018	2017	2016
EVA	(882)	205	16	226	129
MVA	1.061	4.909	8.756	9.064	7.778
RONA	-9,36%	11,69%	8,21%	13,99%	11,99%
CVA	(573)	275	(417)	790	46
SVA	(4.519)	(3.105)	176	1.839	1.605
TSR	-54,85%	-26,60%	-0,64%	16,63%	17,20%
ER	(10.383)	(3.776)	668	1.736	1.166

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	27.06.20	29.06.19	30.06.18	01.07.17	02.07.16	27.06.15
1) EVA						
NOPAT calculation						
EBIT	(491)	720	575	770	587	
(-) Taxes	(25)	(108)	(171)	(147)	(149)	
(=) NOPAT	(516)	612	404	623	438	
Capital Charge calculation						
Tot. Assets	7.067	6.043	5.729	5.110	4.394	
(-) Current liabilities	(1.554)	(807)	(805)	(661)	(742)	(745)
(=) CE	5.513	5.236	4.924	4.450	3.652	
(*) WACC	6,64%	7,78%	7,88%	8,92%	8,46%	
(=) Capital Charge	366	407	388	397	309	
EVA = NOPAT - Capital Charge	(882)	205	16	226	129	

	2020	2019	2018	2017	2016	2015
	27.06.20	29.06.19	30.06.18	01.07.17	02.07.16	27.06.15
CE check						
Fixed liabilities	3.483	2.149	2.141	1.819	1.242	
(+) Equity	2.030	3.087	2.783	2.631	2.410	
(=) CE	5.513	5.236	4.924	4.450	3.652	
delta	*0*	*0*	*0*	*0*	*0*	
Current assets	2.277	2.247	2.087	3.464	1.951	2.238
(-) Current liabilities	(1.554)	(807)	(805)	(661)	(742)	(745)
(=) NWC	723	1.440	1.282	2.804	1.209	1.492
(+) Fixed assets	4.790	3.796	3.642	1.646	2.443	
(=) CE	5.513	5.236	4.924	4.450	3.652	
delta	*0*	*0*	*0*	*0*	*0*	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	27.06.20	29.06.19	30.06.18	01.07.17	02.07.16	27.06.15
Stock price - date:	27.06.20	29.06.19	30.06.18	30.06.17	01.07.16	26.06.15
2) MVA						
MV calculation						
n. of oustanding shares	276.200.000	286.800.000	288.000.000	281.900.000	278.500.000	276.600.000
(*) P share	11,192	27,881	40,068	41,484	36,580	32,244
(=) MV (Market Cap)	3.091	7.996	11.540	11.694	10.187	8.919
Equity (E)	2.030	3.087	2.783	2.631	2.410	
MVA = MV - E	1.061	4.909	8.756	9.064	7.778	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	27.06.20	29.06.19	30.06.18	01.07.17	02.07.16	27.06.15
3) RONA						
NOPAT	(516)	612	404	623	438	
Net Assets calculation						
Fixed Assets	4.790	3.796	3.642	1.646	2.443	
(+) NWC	723	1.440	1.282	2.804	1.209	1.492
Net Assets	5.513	5.236	4.924	4.450	3.652	
RONA = NOPAT / Net Assets	-9,36%	11,69%	8,21%	13,99%	11,99%	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	27.06.20	29.06.19	30.06.18	01.07.17	02.07.16	27.06.15
4) CVA							
CFROI calculation							
	Net Income	(582)	565	341	518	414	
	(+) Non Cash Expenses	(272)	(321)	(414)	(293)	(281)	
	(+) Δ NWC	(717)	158	(1.522)	1.595	(283)	
	(=) OCF	(1.027)	1.044	(767)	2.405	412	
	(/) CE	5.513	5.236	4.924	4.450	3.652	
	(=) CFROI	-0,186	0,199	-0,156	0,541	0,113	
	WACC	0,066	0,078	0,079	0,089	0,085	
GI calculation							
(+)	Net PP&E	691	825	759	606	826	654
	Δ Net PP&E	(134)	65	154	(220)	172	
	*(+) Depreciation Exp**	*(221)*	*(236)*	*(223)*	*(186)*	*(189)*	
(-)	(=) CapEx	88	301	377	(33)	361	
(+)	Accumulated Depreciation	(1.007)	(1.055)	(819)	(699)	(774)	
(=)	Gross PP&E	1.611	1.579	1.201	1.339	1.239	
	(+) Inventories	657	684	578	412	412	
	(=) GI	2.268	2.263	1.779	1.750	1.651	
CVA = (CFROI - WACC) * GI		(573)	275	(417)	790	46	

* assumes no amortization

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	27.06.20	29.06.19	30.06.18	01.07.17	02.07.16	27.06.15
	Stock price - date:	27.06.20	29.06.19	30.06.18	30.06.17	01.07.16	26.06.15
5) SVA							
Increase in market value of equity							
	MV	3.091	7.996	11.540	11.694	10.187	8.919
	Δ MV	(4.905)	(3.543)	(155)	1.507	1.269	
	n. shares buy back	11.900.000	3.400.000	0	0	0	0
	(*) Pshare	11,192	27,881	40,068	41,484	36,580	32,244
	(=) Share Buybacks	133	95	0	0	0	0
	(+) Dividends Distributed	253	344	331	332	337	333
	(=) tot.DIV	386	438	331	332	337	333
	Capital Outlays						
	Convertion of Convertible Debetures						
SVA = ΔMV + tot. DIV - Cap Outlays - Conv Debentures		(4.519)	(3.105)	176	1.839	1.605	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	27.06.20	29.06.19	30.06.18	01.07.17	02.07.16	27.06.15
	Stock price - date:	27.06.20	29.06.19	30.06.18	30.06.17	01.07.16	26.06.15
6) TSR (%)							
TSR in absolute value calculation							
	Pshare	11,192	27,881	40,068	41,484	36,580	32,244
	Δ Pshare	-16,689	-12,187	-1,416	4,904	4,335	
	(+) tot. DIV PER SHARE	1,398	1,528	1,150	1,179	1,209	
	(=) TSR	-15,291	-10,658	-0,266	6,083	5,545	
	Pshare (BEGINNING)	27,881	40,068	41,484	36,580	32,244	
TSR (%) = TSR / Pshare BEGINNING		-55%	-27%	-1%	17%	17%	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	27.06.20	29.06.19	30.06.18	01.07.17	02.07.16	27.06.15
	Stock price - date:	27.06.20	29.06.19	30.06.18	30.06.17	01.07.16	26.06.15
7) ER							
Actual Value of Wealth calculation							
	tot. DIV	386	438	331	332	337	333
	Cost of Equity (Ke)	14,24%	8,71%	8,48%	9,66%	8,99%	
	(1 + Ke)	1,142	1,087	1,085	1,097	1,090	
	Tot. DIV (t-1) * (1 + Ke)	501	360	360	369	362	
	Future value of tot. DIV	887	799	692	702	699	
	(+) MV	3.091	7.996	11.540	11.694	10.187	8.919
	(=) Actual Value of Wealth	3.978	8.795	12.231	12.396	10.887	
Expected Value of Wealth calculation							
	(=) Expected Value of Wealth	14.361	12.571	11.564	10.660	9.721	
ER = Actual Value of Wealth - Expected Value of Wealth		(10.383)	(3.776)	668	1.736	1.166	

Appendix 22: Grupo Inditex

INDITEX
BME: ITX
€

All figures are expressed in ***millions €***
Except *for WACC, number of oustanding shares, share prices, RONA, CFROI, TSR (%), Ke and (1 + Ke)*

FY	2020	2019	2018	2017	2016
EVA	(1.047)	1.861	1.760	1.926	1.714
MVA	61.777	79.704	61.208	76.456	82.415
RONA	6,03%	17,73%	20,72%	22,15%	21,91%
CVA	700	1.897	3.939	4.306	4.127
SVA	(17.236)	21.503	(11.752)	(3.062)	2.962
TSR	-18,21%	28,33%	-13,06%	-3,22%	3,15%
ER	(72.065)	(36.089)	(43.640)	(18.834)	(4.482)

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.01.21	31.01.20	31.01.19	31.01.18	31.01.17	31.01.16
1) EVA						
NOPAT calculation						
EBIT	1.507	4.772	4.357	4.314	4.021	
(-) Taxes	(297)	(1.034)	(980)	(979)	(917)	
(=) NOPAT	1.210	3.738	3.377	3.335	3.104	
Capital Charge calculation						
Tot. Assets	26.418	28.391	21.684	20.231	19.621	
(-) Current liabilities	(6.338)	(7.306)	(5.383)	(5.173)	(5.451)	(4.670)
(=) CE	20.080	21.085	16.301	15.058	14.170	
(*) WACC	11,24%	8,90%	9,92%	9,36%	9,81%	
(=) Capital Charge	2.257	1.877	1.617	1.409	1.390	
EVA = NOPAT - Capital Charge	(1.047)	1.861	1.760	1.926	1.714	

	2020	2019	2018	2017	2016	2015
	31.01.21	31.01.20	31.01.19	31.01.18	31.01.17	31.01.16
CE check						
Fixed liabilities	5.529	6.136	1.619	1.536	1.418	
(+) Equity	14.550	14.949	14.682	13.522	12.752	
(=) CE	20.079	21.085	16.301	15.058	14.170	
delta	*(1)*	*0*	*0*	*0*	*0*	
Current assets	10.957	11.414	10.620	10.147	9.898	8.449
(-) Current liabilities	(6.338)	(7.306)	(5.383)	(5.173)	(5.451)	(4.670)
(=) NWC	4.619	4.108	5.237	4.974	4.447	3.779
(+) Fixed assets	15.460	16.977	11.064	10.084	9.723	
(=) CE	20.079	21.085	16.301	15.058	14.170	
delta	*(1)*	*0*	*0*	*0*	*0*	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.01.21	31.01.20	31.01.19	31.01.18	31.01.17	31.01.16
Stock price - date:	29.01.21	31.01.20	31.01.19	31.01.18	31.01.17	31.01.16
2) MVA						
MV calculation						
n. of oustanding shares	3.116.652.000	3.116.652.000	3.116.652.000	3.116.652.000	3.116.652.000	3.116.652.000
(*) P share	24,49	30,37	24,35	28,87	30,535	30,185
(=) MV (Market Cap)	76.327	94.653	75.890	89.978	95.167	94.076
Equity (E)	14.550	14.949	14.682	13.522	12.752	
MVA = MV - E	61.777	79.704	61.208	76.456	82.415	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.01.21	31.01.20	31.01.19	31.01.18	31.01.17	31.01.16
3) RONA						
NOPAT	1.210	3.738	3.377	3.335	3.104	
Net Assets calculation						
Fixed Assets	15.460	16.977	11.064	10.084	9.723	
(+) NWC	4.619	4.108	5.237	4.974	4.447	3.779
Net Assets	20.079	21.085	16.301	15.058	14.170	
RONA = NOPAT / Net Assets	6,03%	17,73%	20,72%	22,15%	21,91%	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.01.21	31.01.20	31.01.19	31.01.18	31.01.17	31.01.16
4) CVA							
CFROI calculation							
	Net Income	1.106	3.639	3.444	3.372	3.157	
	(+) Non Cash Expenses	(1.484)	(1.675)	(1.672)	(1.533)	(1.461)	
	(+) Δ NWC	511	(1.129)	263	527	668	
	(=) OCF	3.101	4.185	5.379	5.432	5.286	
	(/) CE	20.080	21.085	16.301	15.058	14.170	
	(=) CFROI	0,1545	0,1985	0,3300	0,3607	0,3730	
	WACC	0,1124	0,089	0,0992	0,0936	0,0981	
GI calculation							
(+)	Net PP&E	7.422	8.376	8.359	7.664	7.305	6.619
	Δ Net PP&E	(954)	17	695	359	686	
	*(+) Depreciation Exp**	*(1.484)*	*(1.675)*	*(1.672)*	*(1.533)*	*(1.461)*	
(-)	(=) CapEx	530	1.692	2.367	1.892	2.147	
(+)	*Accumulated Depreciation**	*(7.422)*	*(8.376)*	*(8.359)*	*(7.664)*	*(7.305)*	
(=)	Gross PP&E	14.314	15.060	14.351	13.436	12.463	
	(+) Inventories	2.321	2.269	2.716	2.685	2.549	
	(=) GI	16.635	17.329	17.067	16.121	15.012	
CVA = (CFROI - WACC) * GI		700	1.897	3.939	4.306	4.127	

* estimated

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.01.21	31.01.20	31.01.19	31.01.18	31.01.17	31.01.16
	Stock price - date:	29.01.21	31.01.20	31.01.19	31.01.18	31.01.17	31.01.16
5) SVA							
Increase in market value of equity							
	MV	76.327	94.653	75.890	89.978	95.167	94.076
	Δ MV	(18.326)	18.762	(14.087)	(5.189)	1.091	
	n. shares buy back						
	(*) Pshare	24,490	30,370	24,350	28,870	30,535	30,185
	(=) Share Buybacks	0	0	0	0	0	0
	(+) Dividends Distributed	1.090	2.741	2.335	2.127	1.871	1.626
	(=) tot.DIV	1.090	2.741	2.335	2.127	1.871	1.626
	Capital Outlays						
	Convertion of Convertible Debetures						
SVA = ΔMV + tot. DIV - Cap Outlays - Conv Debentures		(17.236)	21.503	(11.752)	(3.062)	2.962	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.01.21	31.01.20	31.01.19	31.01.18	31.01.17	31.01.16
	Stock price - date:	29.01.21	31.01.20	31.01.19	31.01.18	31.01.17	31.01.16
6) TSR (%)							
TSR in absolute value calculation							
	Pshare	24,490	30,370	24,350	28,870	30,535	30,185
	Δ Pshare	-5,880	6,020	-4,520	-1,665	0,350	
	(+) tot. DIV PER SHARE	0,3497	0,8795	0,7492	0,6825	0,6003	
	(=) TSR	-5,5303	6,8995	-3,7708	-0,9825	0,9503	
	Pshare (BEGINNING)	30,370	24,350	28,870	30,535	30,185	
TSR (%) = TSR / Pshare BEGINNING		-18,21%	28,33%	-13,06%	-3,22%	3,15%	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.01.21	31.01.20	31.01.19	31.01.18	31.01.17	31.01.16
	Stock price - date:	29.01.21	31.01.20	31.01.19	31.01.18	31.01.17	31.01.16
7) ER							
Actual Value of Wealth calculation							
	tot. DIV	1.090	2.741	2.335	2.127	1.871	1.626
	Cost of Equity (Ke)	12,14%	9,53%	9,93%	9,37%	9,81%	
	(1 + Ke)	1,121	1,095	1,099	1,094	1,098	
	Tot. DIV (t-1) * (1 + Ke)	3.074	2.558	2.338	2.046	1.786	
	Future value of tot. DIV	4.164	5.299	4.673	4.173	3.657	
	(+) MV	76.327	94.653	75.890	89.978	95.167	94.076
	(=) Actual Value of Wealth	80.491	99.951	80.564	94.151	98.823	
Expected Value of Wealth calculation							
	(=) Expected Value of Wealth	152.556	136.041	124.204	112.985	103.305	
ER = Actual Value of Wealth - Expected Value of Wealth		(72.065)	(36.089)	(43.640)	(18.834)	(4.482)	

Appendix 23: Puma S.E.

PUMA
ETR: PUM
€

All figures are expressed in ***millions €***
Except *for WACC, number of oustanding shares, share prices, RONA, CFROI, TSR (%), Ke and (1 + Ke)*

FY	2020	2019	2018	2017	2016
EVA	(111)	168	116	63	146
MVA	12.154	8.389	(1.078)	(1.109)	(1.346)
RONA	6,05%	11,76%	12,61%	10,09%	5,19%
CVA	(199)	(257)	204	23	(307)
SVA	3.655	9.736	339	196	104
TSR	35,45%	61,17%	61,92%	51,94%	34,62%
ER	13.617	10.254	552	263	139

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
1) EVA						
NOPAT calculation						
EBIT	209	440	337	245	128	
(-) Taxes	(39)	(109)	(84)	(63)	(31)	
(=) NOPAT	170	332	254	181	97	
Capital Charge calculation						
Tot. Assets	4.684	4.378	3.207	2.854		
(-) Current liabilities	(1.873)	(1.559)	(1.195)	(1.057)	(895)	(880)
(=) CE	2.811	2.819	2.012	1.797	(895)	
(*) WACC	9,98%	5,81%	6,84%	6,60%	5,47%	
(=) Capital Charge	281	164	138	119	(49)	
EVA = NOPAT - Capital Charge	(111)	168	116	63	146	

	2020	2019	2018	2017	2016	2015
	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
CE check						
Fixed liabilities	1.047	899	290	141	148	
(+) Equity	1.764	1.920	1.722	1.657	1.722	
(=) CE	2.811	2.819	2.012	1.797	1.870	
delta	*0*	*0*	*(0)*	*0*	*2.765*	
Current assets	2.613	2.481	2.193	1.885	1.765	1.685
(-) Current liabilities	(1.873)	(1.559)	(1.195)	(1.057)	(895)	(880)
(=) NWC	740	922	998	828	871	805
(+) Fixed assets	2.071	1.897	1.014	969	1.000	
(=) CE	2.811	2.819	2.012	1.797	1.870	
delta	*(0)*	*0*	*0*	*0*	*2.765*	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
Stock price - date:	30.12.20	30.12.19	28.12.18	29.12.17	30.12.16	30.12.15
2) MVA						
MV calculation						
n. of oustanding shares	150.824.640	150.824.640	15.082.464	15.082.464	15.082.464	15.082.464
(*) P share	92,28	68,35	42,7	36,3	24,965	19,865
(=) MV (Market Cap)	13.918	10.309	644	547	377	300
Equity (E)	1.764	1.920	1.722	1.657	1.722	
MVA = MV - E	12.154	8.389	(1.078)	(1.109)	(1.346)	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
3) RONA						
NOPAT	170	332	254	181	97	
Net Assets calculation						
Fixed Assets	2.071	1.897	1.014	969	1.000	
(+) NWC	740	922	998	828	871	805
Net Assets	2.811	2.819	2.012	1.797	1.870	
RONA = NOPAT / Net Assets	6,05%	11,76%	12,61%	10,09%	5,19%	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
4) CVA							
CFROI calculation							
	Net Income	79	(262)	188	136	62	
	(+) Non Cash Expenses	(83)	(77)	(67)	(58)	(50)	
	(+) Δ NWC	(182)	(75)	169	(42)	66	
	(=) OCF	(20)	(261)	424	152	178	
	(/) CE	2.811	2.819	2.012	1.797	(895)	
	(=) CFROI	-0,007	-0,092	0,211	0,085	-0,199	
	WACC	0,100	0,058	0,068	0,066	0,055	
GI calculation							
(+)	Net PP&E	407	395	295	260	252	233
	Δ Net PP&E	12	100	35	8	20	
	(+) Depreciation Exp	(81)	(75)	(65)	(56)	(50)	
(-)	(=) CapEx	93	175	100	64	70	
(+)	Accumulated Depreciation	(411)	(378)	(325)	(290)	(308)	
(=)	Gross PP&E	725	598	521	486	490	
	(+) Inventories	1.138	1.110	915	779	719	
	(=) GI	1.863	1.708	1.436	1.264	1.209	
CVA = (CFROI - WACC) * GI		(199)	(257)	204	23	(307)	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
	Stock price - date:	30.12.20	30.12.19	28.12.18	29.12.17	30.12.16	30.12.15
5) SVA							
Increase in market value of equity							
	MV	13.918	10.309	644	547	377	300
	Δ MV	3.609	9.665	97	171	77	
	n. shares buy back						
	(*) Pshare	92,280	68,350	42,700	36,300	24,965	19,865
	(=) Share Buybacks	0	0	0	0	0	0
	(+) Dividends Distributed	46	71	243	25	27	50
	(=) tot.DIV	46	71	243	25	27	50
	Capital Outlays						
	Convertion of Convertible Debetures						
SVA = ΔMV + tot. DIV - Cap Outlays - Conv Debentures		3.655	9.736	339	196	104	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
	Stock price - date:	30.12.20	30.12.19	28.12.18	29.12.17	30.12.16	30.12.15
6) TSR (%)							
TSR in absolute value calculation							
	Pshare	92,280	68,350	42,700	36,300	24,965	19,865
	Δ Pshare	23,930	25,650	6,400	11,335	5,100	
	(+) tot. DIV PER SHARE	0,302	0,470	16,078	1,631	1,777	
	(=) TSR	24,232	26,120	22,478	12,966	6,877	
	Pshare (BEGINNING)	68,350	42,700	36,300	24,965	19,865	
TSR (%) = TSR / Pshare BEGINNING		35%	61%	62%	52%	35%	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
	Stock price - date:	30.12.20	30.12.19	28.12.18	29.12.17	30.12.16	30.12.15
7) ER							
Actual Value of Wealth calculation							
	tot. DIV	46	71	243	25	27	50
	Cost of Equity (Ke)	10,89%	6,35%	7,05%	6,66%	5,53%	
	(1 + Ke)	1,109	1,064	1,071	1,067	1,055	
	Tot. DIV (t-1) * (1 + Ke)	79	258	26	29	52	
	Future value of tot. DIV	124	329	269	53	79	
	(+) MV	13.918	10.309	644	547	377	300
	(=) Actual Value of Wealth	14.042	10.638	913	601	456	
Expected Value of Wealth calculation							
	(=) Expected Value of Wealth	426	384	361	337	316	
ER = Actual Value of Wealth - Expected Value of Wealth		13.617	10.254	552	263	139	

Appendix 24: Adidas A.G.

ADIDAS
ETR: ADS
€

All figures are expressed in ***millions €***
Except *for WACC, number of oustanding shares, share prices, RONA, CFROI, TSR (%), Ke and (1 + Ke)*

FY	2020	2019	2018	2017	2016
EVA	(624)	1.184	1.019	822	501
MVA	53.013	51.023	30.192	28.953	24.959
RONA	4,95%	16,94%	19,36%	18,14%	12,66%
CVA	565	516	1.610	989	603
SVA	1.924	23.125	3.691	4.089	12.934
TSR	3,31%	63,26%	15,50%	13,75%	70,03%
ER	33.744	36.743	16.064	14.650	12.576

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
1) EVA						
NOPAT calculation						
EBIT	751	2.660	2.368	2.070	1.491	
(-) Taxes	(146)	(640)	(669)	(668)	(426)	
(=) NOPAT	605	2.020	1.699	1.402	1.065	
Capital Charge calculation						
Tot. Assets	21.053	20.680	15.612	14.019	15.177	
(-) Current liabilities	(8.827)	(8.754)	(6.834)	(6.291)	(6.765)	(5.364)
(=) CE	12.226	11.926	8.778	7.728	8.412	
(*) WACC	10,05%	7,01%	7,75%	7,51%	6,70%	
(=) Capital Charge	1.229	836	680	580	564	
EVA = NOPAT - Capital Charge	(624)	1.184	1.019	822	501	

	2020	2019	2018	2017	2016	2015
	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
CE check						
Fixed liabilities	5.535	4.868	2.414	1.711	1.957	
(+) Equity	6.691	7.058	6.364	6.017	6.455	
(=) CE	12.226	11.926	8.778	7.728	8.412	
delta	*0*	*0*	*0*	*0*	*0*	
Current assets	12.154	10.934	9.813	8.645	8.887	7.497
(-) Current liabilities	(8.827)	(8.754)	(6.834)	(6.291)	(6.765)	(5.364)
(=) NWC	3.327	2.180	2.979	2.354	2.122	2.133
(+) Fixed assets	8.899	9.746	5.799	5.374	6.290	
(=) CE	12.226	11.926	8.778	7.728	8.412	
delta	*0*	*0*	*0*	*0*	*0*	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
Stock price - date:	30.12.20	30.12.19	28.12.18	29.12.17	30.12.16	30.12.15
2) MVA						
MV calculation						
n. of oustanding shares	200.416.186	200.416.186	200.416.186	209.216.186	209.216.186	209.216.186
(*) P share	297,9	289,8	182,4	167,15	150,15	89,910
(=) MV (Market Cap)	59.704	58.081	36.556	34.970	31.414	18.811
Equity (E)	6.691	7.058	6.364	6.017	6.455	
MVA = MV - E	53.013	51.023	30.192	28.953	24.959	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
3) RONA						
NOPAT	605	2.020	1.699	1.402	1.065	
Net Assets calculation						
Fixed Assets	8.899	9.746	5.799	5.374	6.290	
(+) NWC	3.327	2.180	2.979	2.354	2.122	2.133
Net Assets	12.226	11.926	8.778	7.728	8.412	
RONA = NOPAT / Net Assets	4,95%	16,94%	19,36%	18,14%	12,66%	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
4) CVA							
CFROI calculation							
	Net Income	432	1.976	1.702	1.097	1.017	
	(+) Non Cash Expenses	(463)	(436)	(413)	(363)	(304)	
	(+) Δ NWC	1.147	(799)	625	232	(11)	
	(=) OCF	2.042	1.613	2.740	1.692	1.310	
	(/) CE	12.226	11.926	8.778	7.728	8.412	
	(=) CFROI	0,1670	0,1353	0,3121	0,2189	0,1557	
	WACC	0,101	0,070	0,078	0,075	0,067	
GI calculation							
(+)	Net PP&E	2.157	2.380	2.237	2.000	1.915	1.638
	Δ Net PP&E	(223)	143	237	85	277	
	(+) Depreciation Exp	(456)	(432)	(409)	(358)	(303)	
(-)	(=) CapEx	233	575	646	443	580	
(+)	Accumulated Depreciation	(2.169)	(2.025)	(1.824)	(1.629)	(1.697)	
(=)	Gross PP&E	4.093	3.830	3.415	3.186	3.032	
	(+) Inventories	4.397	4.085	3.445	3.692	3.763	
	(=) GI	8.490	7.915	6.860	6.878	6.795	
CVA = (CFROI - WACC) * GI		565	516	1.610	989	603	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
	Stock price - date:	30.12.20	30.12.19	28.12.18	29.12.17	30.12.16	30.12.15
5) SVA							
Increase in market value of equity							
	MV	59.704	58.081	36.556	34.970	31.414	18.811
	Δ MV	1.623	21.525	1.585	3.557	12.603	
	n. shares buy back	953.018	3.223.214	8.800.000	2.128.200	1.655.234	4.129.627
	(*) Pshare	297,900	289,800	182,400	167,150	150,150	89,910
	(=) Share Buybacks	284	934	1.605	356	249	371
	(+) Dividends Distributed	17	666	530	406	322	309
	(=) tot.DIV	301	1.600	2.135	762	571	680
	Capital Outlays						
	Convertion of Convertible Debetures	0	0	30	229	240	
SVA = ΔMV + tot. DIV - Cap Outlays - Conv Debentures		1.924	23.125	3.691	4.089	12.934	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
	Stock price - date:	30.12.20	30.12.19	28.12.18	29.12.17	30.12.16	30.12.15
6) TSR (%)							
TSR in absolute value calculation							
	Pshare	297,900	289,800	182,400	167,150	150,150	89,910
	Δ Pshare	8,100	107,400	15,250	17,000	60,240	
	(+) tot. DIV PER SHARE	1,501	7,984	10,653	3,641	2,727	
	(=) TSR	9,601	115,384	25,903	20,641	62,967	
	Pshare (BEGINNING)	289,800	182,400	167,150	150,150	89,910	
TSR (%) = TSR / Pshare BEGINNING		3%	63%	15%	14%	70%	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
	Stock price - date:	30.12.20	30.12.19	28.12.18	29.12.17	30.12.16	30.12.15
7) ER							
Actual Value of Wealth calculation							
	tot. DIV	301	1.600	2.135	762	571	680
	Cost of Equity (Ke)	11,11%	7,61%	8,08%	7,75%	7,05%	
	(1 + Ke)	1,111	1,076	1,081	1,078	1,071	
	Tot. DIV (t-1) * (1 + Ke)	1.778	2.298	823	615	728	
	Future value of tot. DIV	2.079	3.898	2.958	1.376	1.299	
	(+) MV	59.704	58.081	36.556	34.970	31.414	18.811
	(=) Actual Value of Wealth	61.783	61.978	39.514	36.347	32.713	
Expected Value of Wealth calculation							
	(=) Expected Value of Wealth	28.039	25.235	23.451	21.697	20.137	
ER = Actual Value of Wealth - Expected Value of Wealth		33.744	36.743	16.064	14.650	12.576	

Appendix 25: Guess? Inc.

GUESS?
NYSE: GES
$

All figures are expressed in ***millions €***
Except *for WACC, number of oustanding shares, share prices, RONA, CFROI, TSR (%), Ke and (1 + Ke)*

FY	2020	2019	2018	2017	2016
EVA	46	(43)	(156)	(116)	(30)
MVA	2.154	1.623	909	700	1.433
RONA	6,60%	2,05%	-0,76%	-0,46%	6,51%
CVA	18	(7)	(237)	(8)	(10)
SVA	721	797	146	(683)	168
TSR	31,34%	47,02%	8,14%	-28,99%	6,87%
ER	(439)	(885)	(1.387)	(976)	28

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	01.02.20	02.02.19	03.02.18	28.01.17	30.01.16	31.01.15
1) EVA						
NOPAT calculation						
EBIT	127	46	52	21	111	
(-) Taxes	(20)	(26)	(59)	(26)	(39)	
(=) NOPAT	107	20	(7)	(5)	72	
Capital Charge calculation						
Tot. Assets	2.198	1.438	1.325	1.437	1.409	
(-) Current liabilities	(578)	(474)	(375)	(323)	(300)	(267)
(=) CE	1.620	964	951	1.113	1.110	
(*) WACC	3,74%	6,49%	15,60%	9,94%	9,21%	
(=) Capital Charge	61	63	148	111	102	
EVA = NOPAT - Capital Charge	46	(43)	(156)	(116)	(30)	

	2020	2019	2018	2017	2016	2015
	01.02.20	02.02.19	03.02.18	28.01.17	30.01.16	31.01.15
CE check						
Fixed liabilities	1.022	220	204	195	165	
(+) Equity	598	744	747	918	944	
(=) CE	1.620	964	951	1.113	1.110	
delta	*0*	*0*	*0*	*0*	*0*	
Current assets	963	949	888	977	949	966
(-) Current liabilities	(578)	(474)	(375)	(323)	(300)	(267)
(=) NWC	385	475	513	654	649	699
(+) Fixed assets	1.235	489	438	459	460	
(=) CE	1.620	964	951	1.113	1.110	
delta	*0*	*0*	*0*	*0*	*0*	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	01.02.20	02.02.19	03.02.18	28.01.17	30.01.16	31.01.15
Stock price - date:	31.01.20	01.02.19	02.02.18	27.01.17	29.01.16	30.01.15
2) MVA						
MV calculation						
n. of oustanding shares	142.867.947	142.707.300	141.623.687	140.509.974	140.028.937	139.559.000
(*) P share	19,263	16,590	11,695	11,515	16,979	16,613
(=) MV (Market Cap)	2.752	2.368	1.656	1.618	2.378	2.318
Equity (E)	598	744	747	918	944	
MVA = MV - E	2.154	1.623	909	700	1.433	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	01.02.20	02.02.19	03.02.18	28.01.17	30.01.16	31.01.15
3) RONA						
NOPAT	107	20	(7)	(5)	72	
Net Assets calculation						
Fixed Assets	1.235	489	438	459	460	
(+) NWC	385	475	513	654	649	699
Net Assets	1.620	964	951	1.113	1.110	
RONA = NOPAT / Net Assets	6,60%	2,05%	-0,76%	-0,46%	6,51%	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	01.02.20	02.02.19	03.02.18	28.01.17	30.01.16	31.01.15
4) CVA							
CFROI calculation							
	Net Income	87	12	(6)	21	75	
	(+) Non Cash Expenses	(91)	(82)	(64)	(76)	(64)	
	(+) Δ NWC	(90)	(38)	(141)	5	(50)	
	(=) OCF	87	57	(83)	102	90	
	(/) CE	1.620	964	951	1.113	1.110	
	(=) CFROI	0,054	0,059	-0,087	0,091	0,081	
	WACC	0,037	0,065	0,156	0,099	0,092	
GI calculation							
(+)	Net PP&E	261	275	236	228	234	230
	Δ Net PP&E	(14)	40	8	(6)	4	
	(+) Depreciation Exp	(65)	(60)	(50)	(63)	(63)	
(-)	(=) CapEx	51	99	58	57	67	
(+)	Accumulated Depreciation	(553)	(499)	(453)	(507)	(459)	
(=)	Gross PP&E	763	675	631	678	625	
	(+) Inventories	356	409	343	344	285	
	(=) GI	1.119	1.084	973	1.022	911	
CVA = (CFROI - WACC) * GI		18	(7)	(237)	(8)	(10)	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	01.02.20	02.02.19	03.02.18	28.01.17	30.01.16	31.01.15
	Stock price - date:	31.01.20	01.02.19	02.02.18	27.01.17	29.01.16	30.01.15
5) SVA							
Increase in market value of equity							
	MV	2.752	2.368	1.656	1.618	2.378	2.318
	Δ MV	385	711	38	(760)	59	
	n. shares buy back	16.739.740	1.118.808	3.866.387	289.968	2.000.000	0
	(*) Pshare	19,263	16,590	11,695	11,515	16,979	16,613
	(=) Share Buybacks	322	19	45	3	34	0
	(+) Dividends Distributed	38	68	62	73	75	68
	(=) tot.DIV	361	86	107	76	108	68
	Capital Outlays						
	Convertion of Convertible Debetures	24					
SVA = ΔMV + tot. DIV - Cap Outlays - Conv Debentures		721	797	146	(683)	168	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	01.02.20	02.02.19	03.02.18	28.01.17	30.01.16	31.01.15
	Stock price - date:	31.01.20	01.02.19	02.02.18	27.01.17	29.01.16	30.01.15
6) TSR (%)							
TSR in absolute value calculation							
	Pshare	19,263	16,590	11,695	11,515	16,979	16,613
	Δ Pshare	2,673	4,895	0,180	-5,464	0,366	
	(+) tot. DIV PER SHARE	2,526	0,604	0,757	0,541	0,775	
	(=) TSR	5,199	5,499	0,937	-4,922	1,141	
	Pshare (BEGINNING)	16,590	11,695	11,515	16,979	16,613	
TSR (%) = TSR / Pshare BEGINNING		31%	47%	8%	-29%	7%	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	01.02.20	02.02.19	03.02.18	28.01.17	30.01.16	31.01.15
	Stock price - date:	31.01.20	01.02.19	02.02.18	27.01.17	29.01.16	30.01.15
7) ER							
Actual Value of Wealth calculation							
	tot. DIV	361	86	107	76	108	68
	Cost of Equity (Ke)	5,51%	6,61%	16,10%	10,14%	9,25%	
	(1 + Ke)	1,055	1,066	1,161	1,101	1,093	
	Tot. DIV (t-1) * (1 + Ke)	91	114	88	119	75	
	Future value of tot. DIV	452	200	195	196	183	
	(+) MV	2.752	2.368	1.656	1.618	2.378	2.318
	(=) Actual Value of Wealth	3.204	2.568	1.852	1.814	2.561	
Expected Value of Wealth calculation							
	(=) Expected Value of Wealth	3.643	3.453	3.239	2.790	2.533	
ER = Actual Value of Wealth - Expected Value of Wealth		(439)	(885)	(1.387)	(976)	28	

Appendix 26: Abercrombie & Fitch Co.

ABERCROMBIE & FITCH
NYSE: ANF
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All figures are expressed in ***millions €***
Except *for WACC, number of oustanding shares, share prices, RONA, CFROI, TSR (%), Ke and (1 + Ke)*

FY	2020	2019	2018	2017	2016
EVA	(212)	(67)	(85)	(151)	(135)
MVA	1.181	560	862	696	(74)
RONA	-3,43%	1,93%	4,92%	1,51%	1,46%
CVA	100	(206)	230	(9)	89
SVA	475	(288)	332	645	(1.333)
TSR	31,09%	-14,94%	19,52%	58,71%	-53,71%
ER	(2.288)	(2.122)	(1.453)	(1.358)	(1.501)

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	30.01.21	01.02.20	02.02.19	03.02.18	28.01.17	30.01.16
1) EVA						
NOPAT calculation						
EBIT	(17)	63	111	58	14	
(-) Taxes	(50)	(16)	(33)	(36)	10	
(=) NOPAT	(66)	48	78	22	25	
Capital Charge calculation						
Tot. Assets	2.731	3.212	2.080	1.862	2.149	
(-) Current liabilities	(791)	(738)	(487)	(406)	(455)	(490)
(=) CE	1.941	2.474	1.592	1.455	1.694	
(*) WACC	7,51%	4,64%	10,28%	11,89%	9,43%	
(=) Capital Charge	146	115	164	173	160	
EVA = NOPAT - Capital Charge	(212)	(67)	(85)	(151)	(135)	

	2020	2019	2018	2017	2016	2015
	30.01.21	01.02.20	02.02.19	03.02.18	28.01.17	30.01.16
CE check						
Fixed liabilities	1.159	1.505	530	453	522	
(+) Equity	782	969	1.062	1.003	1.172	
(=) CE	1.941	2.474	1.592	1.455	1.694	
delta	*0*	*0*	*0*	*0*	*0*	
Current assets	1.369	1.144	1.165	1.012	1.067	1.080
(-) Current liabilities	(791)	(738)	(487)	(406)	(455)	(490)
(=) NWC	579	407	677	606	612	590
(+) Fixed assets	1.362	2.067	915	849	1.083	
(=) CE	1.941	2.474	1.592	1.455	1.694	
delta	*0*	*0*	*0*	*0*	*0*	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	30.01.21	01.02.20	02.02.19	03.02.18	28.01.17	30.01.16
Stock price - date:	29.01.21	31.01.20	01.02.19	02.02.18	27.01.17	29.01.16
2) MVA						
MV calculation						
n. of oustanding shares	103.300.000	103.300.000	103.300.000	103.300.000	103.300.000	103.300.000
(*) P share	19,010	14,803	18,630	16,442	10,635	24,031
(=) MV (Market Cap)	1.964	1.529	1.925	1.698	1.099	2.482
Equity (E)	782	969	1.062	1.003	1.172	
MVA = MV - E	1.181	560	862	696	(74)	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	30.01.21	01.02.20	02.02.19	03.02.18	28.01.17	30.01.16
3) RONA						
NOPAT	(66)	48	78	22	25	
Net Assets calculation						
Fixed Assets	1.362	2.067	915	849	1.083	
(+) NWC	579	407	677	606	612	590
Net Assets	1.941	2.474	1.592	1.455	1.694	
RONA = NOPAT / Net Assets	-3,43%	1,93%	4,92%	1,51%	1,46%	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	30.01.21	01.02.20	02.02.19	03.02.18	28.01.17	30.01.16
4) CVA						
CFROI calculation						
Net Income	(94)	36	65	6	4	
(+) Non Cash Expenses	(148)	(163)	(164)	(168)	(187)	
(+) Δ NWC	172	(271)	71	(6)	22	
(=) OCF	227	(73)	300	168	213	
(/) CE	1.941	2.474	1.592	1.455	1.694	
(=) CFROI	0,117	-0,029	0,188	0,116	0,126	
WACC	0,075	0,046	0,103	0,119	0,094	
GI calculation						
(+) Net PP&E	454	602	606	591	772	819
Δ Net PP&E	(148)	(4)	15	(181)	(47)	
(+) Depreciation Exp	(138)	(156)	(151)	(152)	(179)	
(-) (=) CapEx	(10)	152	166	(29)	132	
(+) Accumulated Depreciation	(1.597)	(1.882)	(1.861)	(1.668)	(1.823)	
(=) Gross PP&E	2.061	2.331	2.301	2.288	2.463	
(+) Inventories	333	393	382	340	374	
(=) GI	2.394	2.724	2.683	2.628	2.838	
CVA = (CFROI - WACC) * GI	100	(206)	230	(9)	89	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	30.01.21	01.02.20	02.02.19	03.02.18	28.01.17	30.01.16
Stock price - date:	29.01.21	31.01.20	01.02.19	02.02.18	27.01.17	29.01.16
5) SVA						
Increase in market value of equity						
MV	1.964	1.529	1.925	1.698	1.099	2.482
Δ MV	435	(395)	226	600	(1.384)	
n. shares buy back	1.397.000	3.957.000	2.931.000	0	0	2.461.000
(*) Pshare	19,010	14,803	18,630	16,442	10,635	24,031
(=) Share Buybacks	27	59	55	0	0	59
(+) Dividends Distributed	14	49	51	45	50	49
(=) tot.DIV	41	108	105	45	50	108
Capital Outlays						
Convertion of Convertible Debetures						
SVA = ΔMV + tot. DIV - Cap Outlays - Conv Debentures	475	(288)	332	645	(1.333)	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	30.01.21	01.02.20	02.02.19	03.02.18	28.01.17	30.01.16
Stock price - date:	29.01.21	31.01.20	01.02.19	02.02.18	27.01.17	29.01.16
6) TSR (%)						
TSR in absolute value calculation						
Pshare	19,010	14,803	18,630	16,442	10,635	24,031
Δ Pshare	4,207	-3,828	2,188	5,807	-13,395	
(+) tot. DIV PER SHARE	0,40	1,04	1,02	0,44	0,49	
(=) TSR	4,60	-2,78	3,21	6,24	-12,91	
Pshare (BEGINNING)	14,803	18,630	16,442	10,635	24,031	
TSR (%) = TSR / Pshare BEGINNING	31%	-15%	20%	59%	-54%	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	30.01.21	01.02.20	02.02.19	03.02.18	28.01.17	30.01.16
Stock price - date:	29.01.21	31.01.20	01.02.19	02.02.18	27.01.17	29.01.16
7) ER						
Actual Value of Wealth calculation						
tot. DIV	41	108	105	45	50	108
Cost of Equity (Ke)	13,96%	9,66%	11,82%	14,04%	11,61%	
(1 + Ke)	1,140	1,097	1,118	1,140	1,116	
Tot. DIV (t-1) * (1 + Ke)	123	116	50	58	121	
Future value of tot. DIV	164	224	156	103	171	
(+) MV	1.964	1.529	1.925	1.698	1.099	2.482
(=) Actual Value of Wealth	2.127	1.753	2.080	1.801	1.270	
Expected Value of Wealth calculation						
(=) Expected Value of Wealth	4.415	3.874	3.533	3.160	2.771	
ER = Actual Value of Wealth - Expected Value of Wealth	(2.288)	(2.122)	(1.453)	(1.358)	(1.501)	

Appendix 27: Nike Inc.

NIKE
NYSE: NKE
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All figures are expressed in ***millions €***
Except *for WACC, number of oustanding shares, share prices, RONA, CFROI, TSR (%), Ke and (1 + Ke)*

FY	2020	2019	2018	2017	2016
EVA	670	2.446	513	2.157	1.999
MVA	130.688	100.366	89.874	66.533	72.278
RONA	12,00%	25,24%	12,45%	23,07%	22,69%
CVA	3.877	3.500	124	2.956	2.283
SVA	33.798	15.167	26.048	(1.810)	7.598
TSR	32,00%	17,87%	37,08%	0,15%	11,53%
ER	25.151	7.284	4.377	(9.400)	4.358

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.05.20	31.05.19	31.05.18	31.05.17	31.05.16	31.05.15
1) EVA						
NOPAT calculation						
EBIT	2.796	4.280	3.800	4.232	4.036	
(-) Taxes	(313)	(692)	(2.045)	(576)	(774)	
(=) NOPAT	2.484	3.587	1.755	3.657	3.262	
Capital Charge calculation						
Tot. Assets	28.145	21.269	19.264	20.728	19.182	
(-) Current liabilities	(7.439)	(7.054)	(5.163)	(4.878)	(4.803)	(5.772)
(=) CE	20.706	14.215	14.101	15.850	14.378	
(*) WACC	8,76%	8,03%	8,81%	9,46%	8,79%	
(=) Capital Charge	1.814	1.141	1.242	1.499	1.264	
EVA = NOPAT - Capital Charge	670	2.446	513	2.157	1.999	

	2020	2019	2018	2017	2016	2015
	31.05.20	31.05.19	31.05.18	31.05.17	31.05.16	31.05.15
CE check						
Fixed liabilities	13.473	6.108	5.713	4.793	3.389	
(+) Equity	7.233	8.107	8.387	11.057	10.989	
(=) CE	20.706	14.215	14.101	15.850	14.378	
delta	*0*	*0*	*0*	*0*	*0*	
Current assets	18.459	14.820	12.937	14.314	13.470	14.209
(-) Current liabilities	(7.439)	(7.054)	(5.163)	(4.878)	(4.803)	(5.772)
(=) NWC	11.020	7.765	7.774	9.435	8.666	8.437
(+) Fixed assets	9.686	6.450	6.327	6.415	5.712	
(=) CE	20.706	14.215	14.101	15.850	14.378	
delta	*0*	*0*	*0*	*0*	*0*	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.05.20	31.05.19	31.05.18	31.05.17	31.05.16	31.05.15
Stock price - date:	29.05.20	31.05.19	31.05.18	31.05.17	31.05.16	29.05.15
2) MVA						
MV calculation						
n. of oustanding shares	1.558.000.000	1.568.000.000	1.601.000.000	1.643.000.000	1.682.000.000	1.712.000.000
(*) P share	88,525	69,179	61,375	47,225	49,505	46,341
(=) MV (Market Cap)	137.922	108.473	98.261	77.590	83.267	79.336
Equity (E)	7.233	8.107	8.387	11.057	10.989	
MVA = MV - E	130.688	100.366	89.874	66.533	72.278	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.05.20	31.05.19	31.05.18	31.05.17	31.05.16	31.05.15
3) RONA						
NOPAT	2.484	3.587	1.755	3.657	3.262	
Net Assets calculation						
Fixed Assets	9.686	6.450	6.327	6.415	5.712	
(+) NWC	11.020	7.765	7.774	9.435	8.666	8.437
Net Assets	20.706	14.215	14.101	15.850	14.378	
RONA = NOPAT / Net Assets	12,00%	25,24%	12,45%	23,07%	22,69%	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.05.20	31.05.19	31.05.18	31.05.17	31.05.16	31.05.15
4) CVA						
CFROI calculation						
Net Income	2.280	3.613	1.652	3.779	3.371	
(+) Non Cash Expenses	(1.804)	(1.532)	(1.408)	(1.385)	(1.487)	
(+) Δ NWC	3.255	(8)	(1.662)	769	230	
(=) OCF	7.339	5.137	1.399	5.932	5.088	
(/) CE	20.706	14.215	14.101	15.850	14.378	
(=) CFROI	0,354	0,361	0,099	0,374	0,354	
WACC	0,088	0,080	0,088	0,095	0,088	
GI calculation						
(+) Net PP&E	4.370	4.254	3.807	3.555	3.156	1.833
Δ Net PP&E	115	447	252	399	1.322	
(+) Depreciation Exp	(647)	(632)	(639)	(629)	(582)	
(-) (=) CapEx	763	1.079	891	1.029	1.904	
(+) Accumulated Depreciation	(4.306)	(4.237)	(3.793)	(3.537)	(2.995)	
(=) Gross PP&E	7.913	7.412	6.709	6.064	4.247	
(+) Inventories	6.616	5.042	4.497	4.505	4.337	
(=) GI	14.528	12.454	11.206	10.569	8.584	
CVA = (CFROI - WACC) * GI	3.877	3.500	124	2.956	2.283	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.05.20	31.05.19	31.05.18	31.05.17	31.05.16	31.05.15
Stock price - date:	29.05.20	31.05.19	31.05.18	31.05.17	31.05.16	29.05.15
5) SVA						
Increase in market value of equity						
MV	137.922	108.473	98.261	77.590	83.267	79.336
Δ MV	29.449	10.212	20.671	(5.677)	3.931	
n. shares buy back	34.000.000	54.000.000	70.000.000	60.000.000	55.000.000	58.000.000
(*) Pshare	88,525	69,179	61,375	47,225	49,505	46,341
(=) Share Buybacks	3.010	3.736	4.296	2.833	2.723	2.688
(+) Dividends Distributed	1.339	1.220	1.081	1.033	944	849
(=) tot.DIV	4.349	4.955	5.378	3.866	3.667	3.536
Capital Outlays						
Convertion of Convertible Debetures						
SVA = ΔMV + tot. DIV - Cap Outlays - Conv Debentures	33.798	15.167	26.048	(1.810)	7.598	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.05.20	31.05.19	31.05.18	31.05.17	31.05.16	31.05.15
Stock price - date:	29.05.20	31.05.19	31.05.18	31.05.17	31.05.16	29.05.15
6) TSR (%)						
TSR in absolute value calculation						
Pshare	88,525	69,179	61,375	47,225	49,505	46,341
Δ Pshare	19,346	7,805	14,150	-2,280	3,164	
(+) tot. DIV PER SHARE	2,791	3,160	3,359	2,353	2,180	
(=) TSR	22,137	10,965	17,509	0,073	5,344	
Pshare (BEGINNING)	69,179	61,375	47,225	49,505	46,341	
TSR (%) = TSR / Pshare BEGINNING	32%	18%	37%	0%	12%	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.05.20	31.05.19	31.05.18	31.05.17	31.05.16	31.05.15
Stock price - date:	29.05.20	31.05.19	31.05.18	31.05.17	31.05.16	29.05.15
7) ER						
Actual Value of Wealth calculation						
tot. DIV	4.349	4.955	5.378	3.866	3.667	3.536
Cost of Equity (Ke)	9,45%	8,20%	9,06%	9,78%	8,94%	
(1 + Ke)	1,095	1,082	1,091	1,098	1,089	
Tot. DIV (t-1) * (1 + Ke)	5.424	5.819	4.217	4.025	3.853	
Future value of tot. DIV	9.772	10.774	9.594	7.892	7.519	
(+) MV	137.922	108.473	98.261	77.590	83.267	79.336
(=) Actual Value of Wealth	147.694	119.247	107.855	85.482	90.786	
Expected Value of Wealth calculation						
(=) Expected Value of Wealth	122.543	111.963	103.478	94.881	86.429	
ER = Actual Value of Wealth - Expected Value of Wealth	25.151	7.284	4.377	(9.400)	4.358	

Appendix 28: Under Armour Inc.

UNDER ARMOUR
NYSE: UAA
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All figures are expressed in ***millions €***
Except *for WACC, number of oustanding shares, share prices, RONA, CFROI, TSR (%), Ke and (1 + Ke)*

FY	2020	2019	2018	2017	2016
EVA	(821)	(162)	(320)	(298)	(3)
MVA	5.001	6.773	5.161	3.636	8.926
RONA	-18,32%	4,87%	-0,15%	-0,34%	9,67%
CVA	(163)	(3)	(91)	(127)	139
SVA	(2.320)	1.764	1.604	(5.301)	(5.909)
TSR	-27,23%	24,59%	28,27%	-50,33%	-36,67%
ER	(22.560)	(17.223)	(16.359)	(15.266)	(7.605)

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
1) EVA						
NOPAT calculation						
EBIT	(500)	211	(22)	23	348	
(-) Taxes	(40)	(62)	18	(32)	(109)	
(=) NOPAT	(540)	148	(4)	(8)	239	
Capital Charge calculation						
Tot. Assets	4.099	4.312	3.708	3.341	3.039	
(-) Current liabilities	(1.152)	(1.266)	(1.149)	(884)	(572)	(440)
(=) CE	2.948	3.046	2.558	2.456	2.467	
(*) WACC	9,54%	10,20%	12,35%	11,78%	9,78%	
(=) Capital Charge	281	311	316	289	241	
EVA = NOPAT - Capital Charge	(821)	(162)	(320)	(298)	(3)	

	2020	2019	2018	2017	2016	2015
	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
CE check						
Fixed liabilities	1.582	1.132	797	773	773	
(+) Equity	1.366	1.914	1.762	1.683	1.693	
(=) CE	2.948	3.046	2.558	2.456	2.467	
delta	*0*	*0*	*0*	*0*	*0*	
Current assets	2.626	2.406	2.265	1.949	1.639	1.377
(-) Current liabilities	(1.152)	(1.266)	(1.149)	(884)	(572)	(440)
(=) NWC	1.475	1.140	1.116	1.065	1.067	937
(+) Fixed assets	1.473	1.906	1.442	1.391	1.400	
(=) CE	2.948	3.046	2.558	2.456	2.467	
delta	*0*	*0*	*0*	*0*	*0*	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
Stock price - date:	31.12.20	31.12.19	31.12.18	29.12.17	30.12.16	31.12.15
2) MVA						
MV calculation						
n. of oustanding shares	455.007.353	451.767.410	448.582.282	442.082.502	438.438.959	432.159.282
(*) P share	13,992	19,228	15,433	12,032	24,222	38,247
(=) MV (Market Cap)	6.366	8.687	6.923	5.319	10.620	16.529
Equity (E)	1.366	1.914	1.762	1.683	1.693	
MVA = MV - E	5.001	6.773	5.161	3.636	8.926	

Fiscal Year :	2020	2019	2018	2017	2016	2015
Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
3) RONA						
NOPAT	(540)	148	(4)	(8)	239	
Net Assets calculation						
Fixed Assets	1.473	1.906	1.442	1.391	1.400	
(+) NWC	1.475	1.140	1.116	1.065	1.067	937
Net Assets	2.948	3.046	2.558	2.456	2.467	
RONA = NOPAT / Net Assets	-18,32%	4,87%	-0,15%	-0,34%	9,67%	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
4) CVA							
CFROI calculation							
	Net Income	(448)	82	(40)	(40)	165	
	(+) Non Cash Expenses	(157)	(200)	(192)	(171)	(177)	
	(+) Δ NWC	335	24	51	(2)	130	
	(=) OCF	45	306	202	129	472	
	(/) CE	2.948	3.046	2.558	2.456	2.467	
	(=) CFROI	0,015	0,100	0,079	0,053	0,191	
	WACC	0,095	0,102	0,124	0,118	0,098	
GI calculation							
(+)	Net PP&E	537	705	722	739	671	495
	Δ Net PP&E	(168)	(17)	(16)	68	176	
	(+) Depreciation Exp	(126)	(158)	(151)	(137)	(109)	
(-)	(=) CapEx	(43)	141	135	205	285	
(+)	Accumulated Depreciation	(720)	(721)	(573)	(439)	(331)	
(=)	Gross PP&E	1.299	1.286	1.160	973	717	
	(+) Inventories	730	794	890	966	765	
	(=) GI	2.030	2.080	2.050	1.939	1.482	
CVA = (CFROI - WACC) * GI		(163)	(3)	(91)	(127)	139	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
	Stock price - date:	31.12.20	31.12.19	31.12.18	29.12.17	30.12.16	31.12.15
5) SVA							
Increase in market value of equity							
	MV	6.366	8.687	6.923	5.319	10.620	16.529
	Δ MV	(2.320)	1.764	1.604	(5.301)	(5.909)	
	n. shares buy back	0	0	0	0	0	0
	(*) Pshare	13,992	19,228	15,433	12,032	24,222	38,247
	(=) Share Buybacks	0	0	0	0	0	0
	(+) Dividends Distributed	0	0	0	0	0	0
	(=) tot.DIV	0	0	0	0	0	0
	Capital Outlays						
	Convertion of Convertible Debetures						
SVA = ΔMV + tot. DIV - Cap Outlays - Conv Debentures		(2.320)	1.764	1.604	(5.301)	(5.909)	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
	Stock price - date:	31.12.20	31.12.19	31.12.18	29.12.17	30.12.16	31.12.15
6) TSR (%)							
TSR in absolute value calculation							
	Pshare	13,992	19,228	15,433	12,032	24,222	38,247
	Δ Pshare	-5,236	3,795	3,401	-12,190	-14,026	
	(+) tot. DIV PER SHARE	0	0	0	0	0	
	(=) TSR	-5,236487	3,795342	3,401244	-12,190156	-14,0255522	
	Pshare (BEGINNING)	19,228	15,433	12,032	24,222	38,247	
TSR (%) = TSR / Pshare BEGINNING		-27%	25%	28%	-50%	-37%	

	Fiscal Year :	2020	2019	2018	2017	2016	2015
	Closing date of the Financial Statements:	31.12.20	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
	Stock price - date:	31.12.20	31.12.19	31.12.18	29.12.17	30.12.16	31.12.15
7) ER							
Actual Value of Wealth calculation							
	tot. DIV	0	0	0	0	0	0
	Cost of Equity (Ke)	11,64%	11,29%	13,10%	12,95%	10,26%	
	(1 + Ke)	1,116	1,113	1,131	1,130	1,103	
	Tot. DIV (t-1) * (1 + Ke)	0	0	0	0	0	
	Future value of tot. DIV	0	0	0	0	0	
	(+) MV	6.366	8.687	6.923	5.319	10.620	16.529
	(=) Actual Value of Wealth	6.366	8.687	6.923	5.319	10.620	
Expected Value of Wealth calculation							
	(=) Expected Value of Wealth	28.926	25.910	23.282	20.585	18.225	
ER = Actual Value of Wealth - Expected Value of Wealth		(22.560)	(17.223)	(16.359)	(15.266)	(7.605)	

Appendix 29: EVA results

EVA						
All figures are expressed in ***millions €***						
	FY Company	2020	2019	2018	2017	2016
1	Aeffe	(36)	(6)	(16)	(9)	(8)
2	Fossil	(89)	(99)	(38)	(464)	(71)
3	Christian Dior	834	3.853	2.534	2.012	(201)
4	Brunello Cucinelli	(62)	27	21	26	20
5	Hermes	911	1.006	971	879	826
6	Hugo Boss	(310)	133	147	158	122
7	Moncler	143	200	185	145	128
8	Prada	(386)	(149)	(187)	(74)	33
9	Ralph Lauren	20	42	(207)	(553)	(49)
10	Salvatore Ferragamo	(175)	5	2	31	134
11	Kering	901	766	1.138	184	(290)
12	Tod's	(109)	(7)	(54)	(67)	(20)
13	LVMH	(113)	1.684	1.080	1.393	1.059
14	Richemont	(413)	(151)	103	90	(606)
15	Capri Holdings	(453)	281	273	371	589
16	PVH	(1.782)	(245)	23	(244)	(21)
17	GAP	(1.113)	(30)	537	144	244
18	Tapestry	(882)	205	16	226	129
19	Inditex	(1.047)	1.861	1.760	1.926	1.714
20	Puma	(111)	168	116	63	146
21	Adidas	(624)	1.184	1.019	822	501
22	Guess?	46	(43)	(156)	(116)	(30)
23	Abercrombie & Fitch	(212)	(67)	(85)	(151)	(135)
24	Nike	670	2.446	513	2.157	1.999
25	Under Armour	(821)	(162)	(320)	(298)	(3)

Appendix 30: MVA results

MVA						
All figures are expressed in ***millions €***						
	FY Company	2020	2019	2018	2017	2016
1	Aeffe	(60)	10	54	63	(49)
2	Fossil	5	(101)	188	(169)	194
3	Christian Dior	45.815	46.739	23.899	22.273	5.887
4	Brunello Cucinelli	2.166	1.847	1.756	1.573	1.157
5	Hermes	85.468	63.754	45.672	42.065	36.787
6	Hugo Boss	1.161	2.044	2.815	4.079	3.205
7	Moncler	11.026	9.031	6.332	5.721	3.432
8	Prada	10.970	6.432	4.463	4.844	6.867
9	Ralph Lauren	34.710	66.331	51.636	42.722	47.769
10	Salvatore Ferragamo	1.967	2.380	2.200	2.990	3.063
11	Kering	62.219	62.722	41.915	33.505	13.074
12	Tod's	(65)	284	301	928	955
13	LVMH	219.396	170.818	96.961	94.168	64.090
14	Richemont	35.015	50.744	61.472	61.776	45.747
15	Capri Holdings	335	6.633	8.990	5.970	8.620
16	PVH	2.165	1.516	3.021	5.829	2.597
17	GAP	4.087	2.844	5.141	7.476	5.716
18	Tapestry	1.061	4.909	8.756	9.064	7.778
19	Inditex	61.777	79.704	61.208	76.456	82.415
20	Puma	12.154	8.389	(1.078)	(1.109)	(1.346)
21	Adidas	53.013	51.023	30.192	28.953	24.959
22	Guess?	2.154	1.623	909	700	1.433
23	Abercrombie & Fitch	1.181	560	862	696	(74)
24	Nike	130.688	100.366	89.874	66.533	72.278
25	Under Armour	5.001	6.773	5.161	3.636	8.926

Appendix 31: RONA results

RONA						
	FY Company	2020	2019	2018	2017	2016
1	Aeffe	-6,26%	4,54%	0,01%	6,36%	2,64%
2	Fossil	-6,44%	-4,50%	4,29%	-38,64%	5,55%
3	Christian Dior	6,95%	11,78%	12,28%	10,25%	5,84%
4	Brunello Cucinelli	-1,70%	9,27%	16,73%	18,21%	14,42%
5	Hermes	15,84%	20,21%	24,25%	23,15%	24,23%
6	Hugo Boss	-10,61%	12,23%	20,60%	21,65%	17,39%
7	Moncler	14,60%	18,93%	26,77%	23,54%	22,84%
8	Prada	0,33%	5,68%	6,22%	5,84%	7,46%
9	Ralph Lauren	7,23%	8,65%	3,77%	-1,93%	8,52%
10	Salvatore Ferragamo	-3,96%	8,64%	11,69%	14,84%	26,12%
11	Kering	11,94%	13,03%	18,84%	9,97%	5,63%
12	Tod's	-3,70%	4,39%	4,28%	6,06%	7,30%
13	LVMH	6,67%	11,29%	12,84%	10,82%	10,24%
14	Richemont	5,09%	7,19%	7,34%	8,63%	7,48%
15	Capri Holdings	-3,09%	12,84%	19,33%	29,98%	39,44%
16	PVH	-9,49%	4,70%	8,63%	6,57%	6,98%
17	GAP	-4,30%	3,79%	17,75%	16,34%	14,41%
18	Tapestry	-9,36%	11,69%	8,21%	13,99%	11,99%
19	Inditex	6,03%	17,73%	20,72%	22,15%	21,91%
20	Puma	6,05%	11,76%	12,61%	10,09%	5,19%
21	Adidas	4,95%	16,94%	19,36%	18,14%	12,66%
22	Guess?	6,60%	2,05%	-0,76%	-0,46%	6,51%
23	Abercrombie & Fitch	-3,43%	1,93%	4,92%	1,51%	1,46%
24	Nike	12,00%	25,24%	12,45%	23,07%	22,69%
25	Under Armour	-18,32%	4,87%	-0,15%	-0,34%	9,67%

Appendix 32: CVA results

CVA						
All figures are expressed in ***millions €***						
	FY Company	2020	2019	2018	2017	2016
1	Aeffe	(24)	(5)	5	7	9
2	Fossil	(148)	(172)	(64)	(530)	(0)
3	Christian Dior	4.896	(4.315)	(280)	3.023	174
4	Brunello Cucinelli	(41)	(8)	26	64	39
5	Hermes	860	910	850	1.005	1.064
6	Hugo Boss	(368)	(36)	408	439	263
7	Moncler	288	115	126	135	91
8	Prada	(238)	(224)	(302)	(21)	223
9	Ralph Lauren	(433)	536	(19)	(175)	(43)
10	Salvatore Ferragamo	304	209	445	456	641
11	Kering	1.309	(167)	692	411	92
12	Tod's	(128)	(2)	(73)	(31)	(147)
13	LVMH	5.934	3.509	1.409	1.010	1.201
14	Richemont	(106)	(401)	1.536	440	63
15	Capri Holdings	22	165	106	84	245
16	PVH	(512)	(81)	192	(109)	81
17	GAP	(286)	(128)	2.079	1.059	956
18	Tapestry	(573)	275	(417)	790	46
19	Inditex	700	1.897	3.939	4.306	4.127
20	Puma	(199)	(257)	204	23	(307)
21	Adidas	565	516	1.610	989	603
22	Guess?	18	(7)	(237)	(8)	(10)
23	Abercrombie & Fitch	100	(206)	230	(9)	89
24	Nike	3.877	3.500	124	2.956	2.283
25	Under Armour	(163)	(3)	(91)	(127)	139

Appendix 33: SVA results

SVA						
All figures are expressed in ***millions €***						
	FY Company	2020	2019	2018	2017	2016
1	Aeffe	(94)	(37)	10	122	(41)
2	Fossil	14	(346)	393	(720)	(564)
3	Christian Dior	433	28.570	6.271	19.546	8.067
4	Brunello Cucinelli	302	104	225	465	282
5	Hermes	23.163	19.692	5.078	6.534	8.740
6	Hugo Boss	(1.122)	(564)	(1.015)	1.081	(1.050)
7	Moncler	2.316	3.058	945	2.580	957
8	Prada	4.401	2.215	(152)	(1.954)	3.251
9	Ralph Lauren	(31.523)	15.430	8.766	(4.914)	(20.979)
10	Salvatore Ferragamo	(488)	275	(694)	30	194
11	Kering	2.031	23.264	11.352	21.777	7.043
12	Tod's	(422)	31	(603)	26	(125)
13	LVMH	52.079	81.818	10.267	35.000	20.758
14	Richemont	(14.491)	(7.401)	(277)	17.389	(16.680)
15	Capri Holdings	(6.459)	(1.681)	3.556	(2.131)	(1.136)
16	PVH	(602)	(1.037)	(1.925)	3.454	1.772
17	GAP	471	(1.907)	(1.124)	2.181	(209)
18	Tapestry	(4.519)	(3.105)	176	1.839	1.605
19	Inditex	(17.236)	21.503	(11.752)	(3.062)	2.962
20	Puma	3.655	9.736	339	196	104
21	Adidas	1.924	23.125	3.691	4.089	12.934
22	Guess?	721	797	146	(683)	168
23	Abercrombie & Fitch	475	(288)	332	645	(1.333)
24	Nike	33.798	15.167	26.048	(1.810)	7.598
25	Under Armour	(2.320)	1.764	1.604	(5.301)	(5.909)

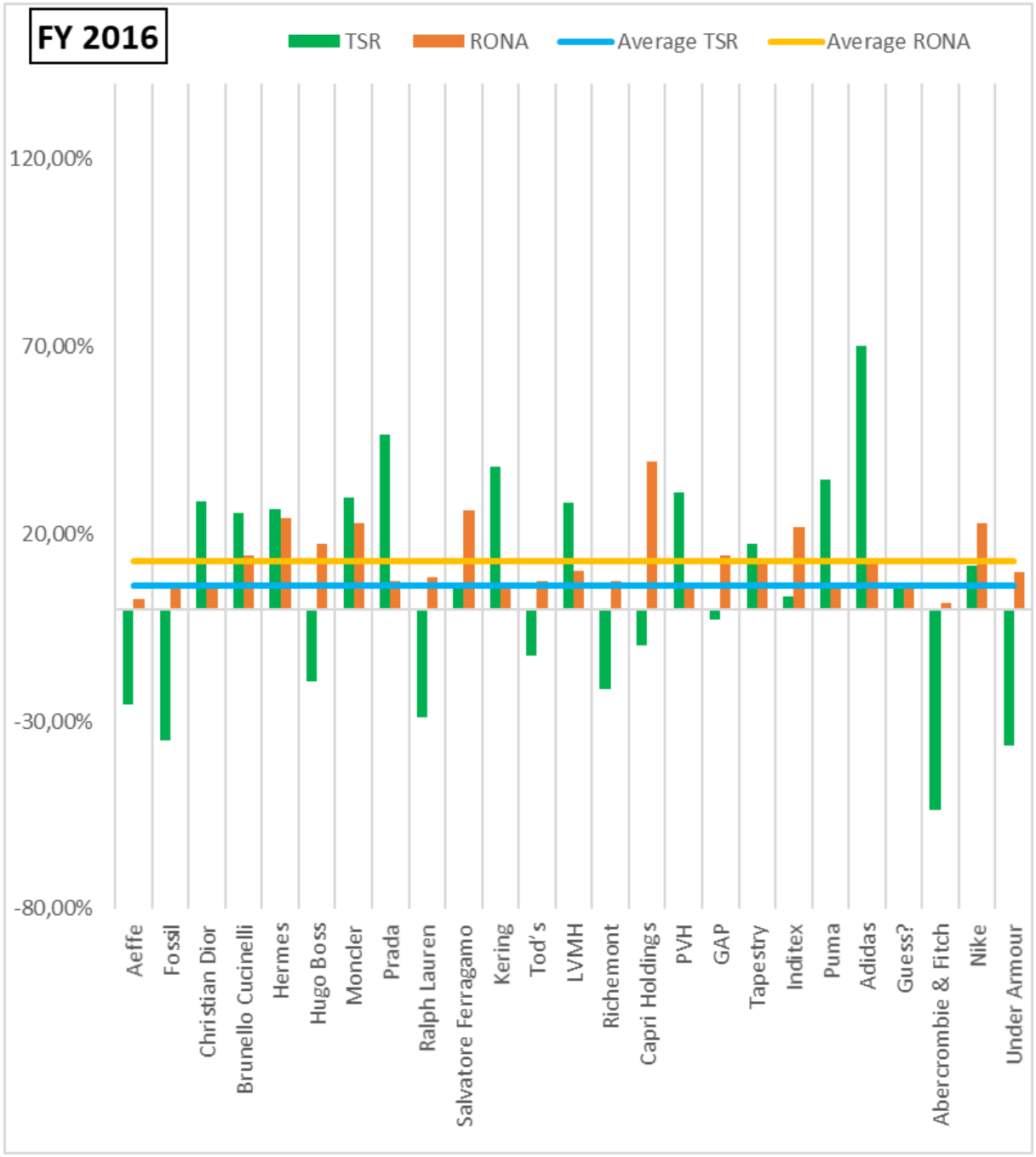
Appendix 34: TSR results

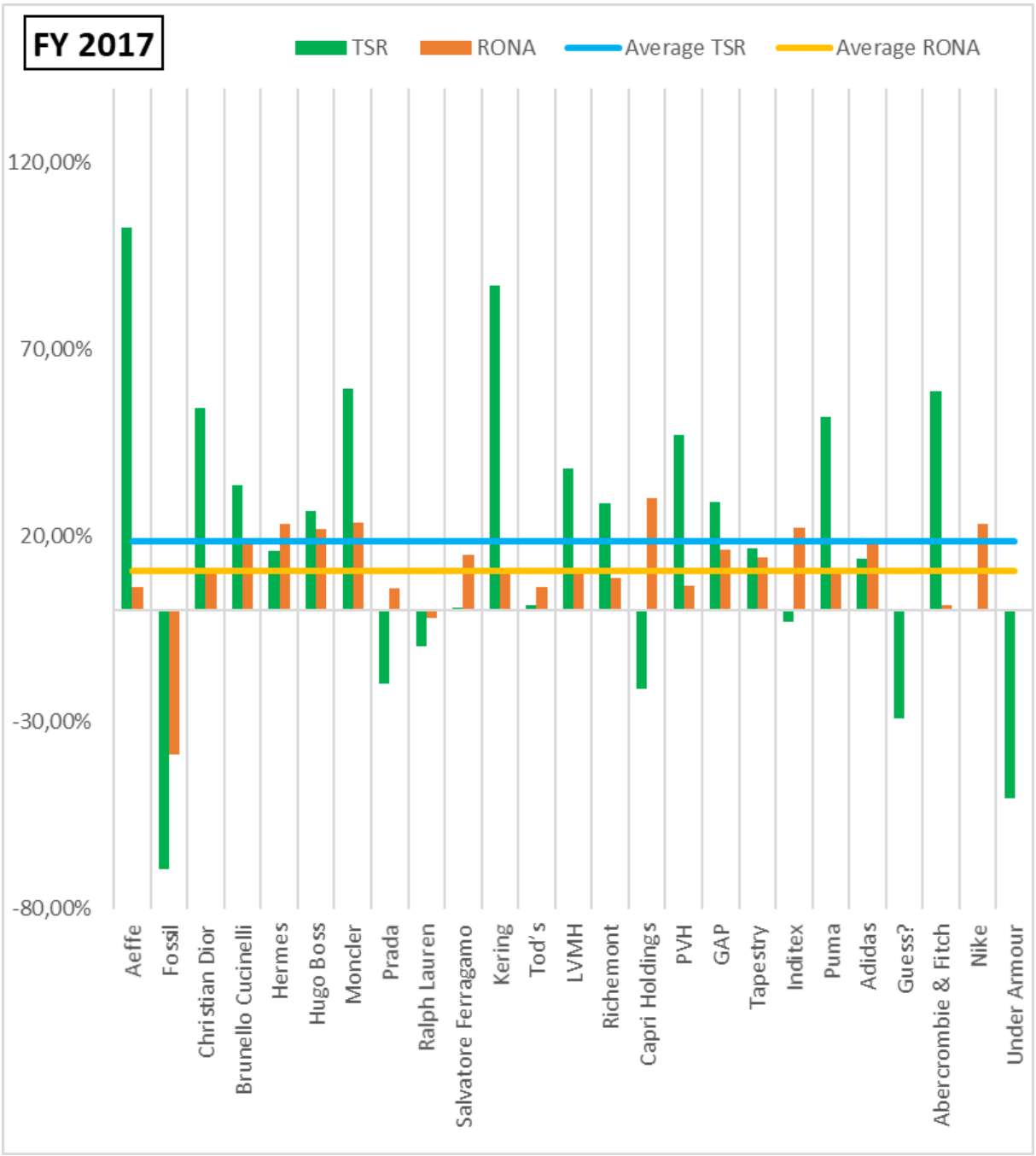
TSR						
	FY Company	2020	2019	2018	2017	2016
1	Aeffe	-44,63%	-14,97%	4,22%	102,70%	-25,45%
2	Fossil	2,14%	-50,25%	120,67%	-69,38%	-35,12%
3	Christian Dior	0,52%	47,40%	11,41%	54,35%	28,51%
4	Brunello Cucinelli	14,07%	5,08%	12,26%	33,59%	25,43%
5	Hermes	32,93%	38,48%	10,78%	15,87%	26,56%
6	Hugo Boss	-36,83%	-14,86%	-20,33%	26,42%	-19,48%
7	Moncler	25,13%	40,14%	13,76%	59,48%	29,55%
8	Prada	46,72%	30,09%	-1,98%	-19,59%	46,42%
9	Ralph Lauren	-45,52%	28,34%	19,14%	-9,63%	-28,93%
10	Salvatore Ferragamo	-15,41%	9,22%	-18,57%	0,80%	5,28%
11	Kering	2,85%	46,22%	24,61%	86,98%	37,96%
12	Tod's	-30,96%	2,28%	-29,92%	1,29%	-12,66%
13	LVMH	24,80%	63,14%	8,25%	38,07%	28,25%
14	Richemont	-21,38%	-9,72%	-0,36%	28,60%	-21,30%
15	Capri Holdings	-73,57%	-17,79%	46,50%	-21,03%	-9,62%
16	PVH	-9,31%	-13,25%	-19,32%	47,06%	30,97%
17	GAP	7,20%	-21,70%	-8,66%	29,09%	-2,82%
18	Tapestry	-54,85%	-26,60%	-0,64%	16,63%	17,20%
19	Inditex	-18,21%	28,33%	-13,06%	-3,22%	3,15%
20	Puma	35,45%	61,17%	61,92%	51,94%	34,62%
21	Adidas	3,31%	63,26%	15,50%	13,75%	70,03%
22	Guess?	31,34%	47,02%	8,14%	-28,99%	6,87%
23	Abercrombie & Fitch	31,09%	-14,94%	19,52%	58,71%	-53,71%
24	Nike	32,00%	17,87%	37,08%	0,15%	11,53%
25	Under Armour	-27,23%	24,59%	28,27%	-50,33%	-36,67%

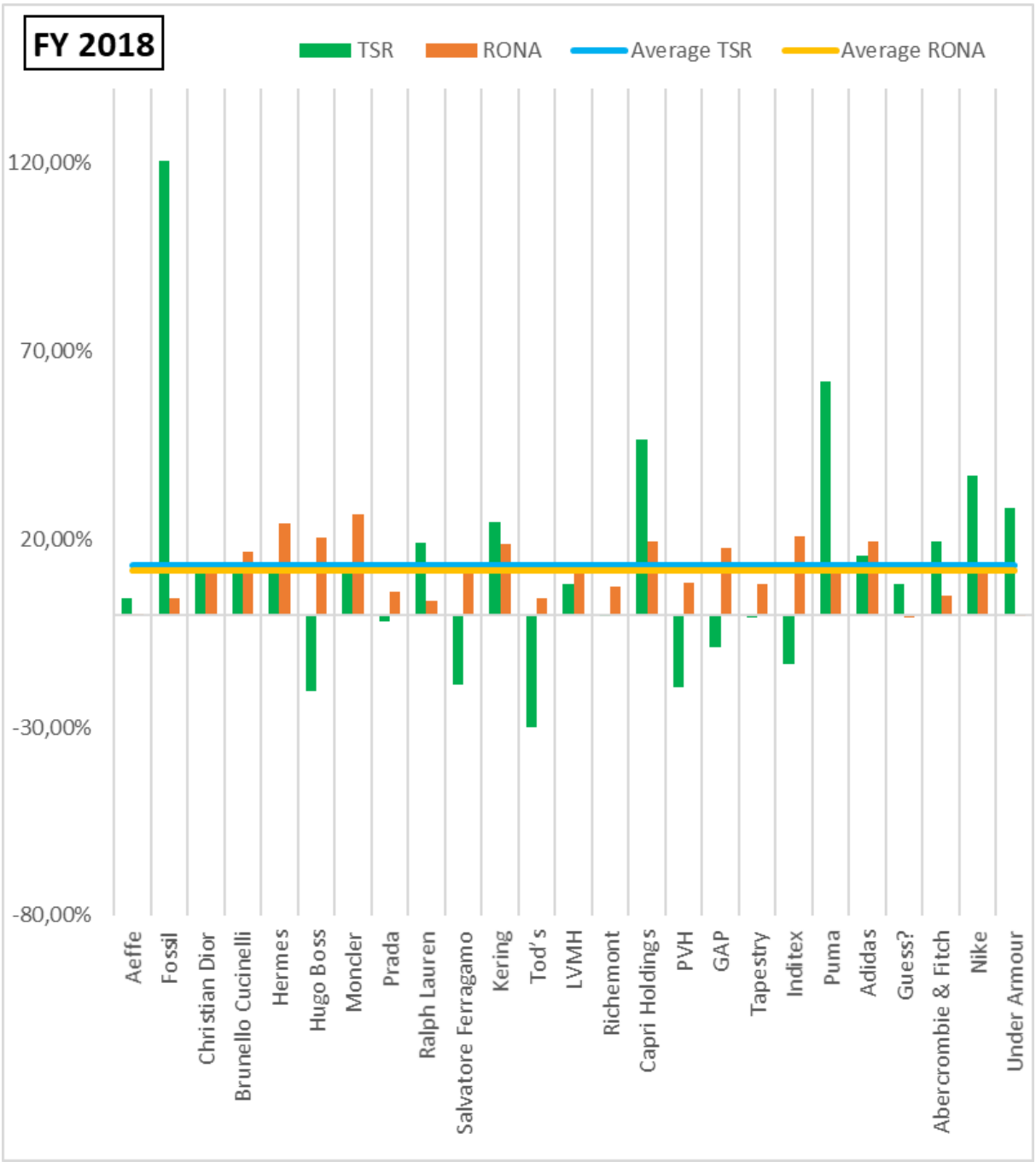
Appendix 35: ER results

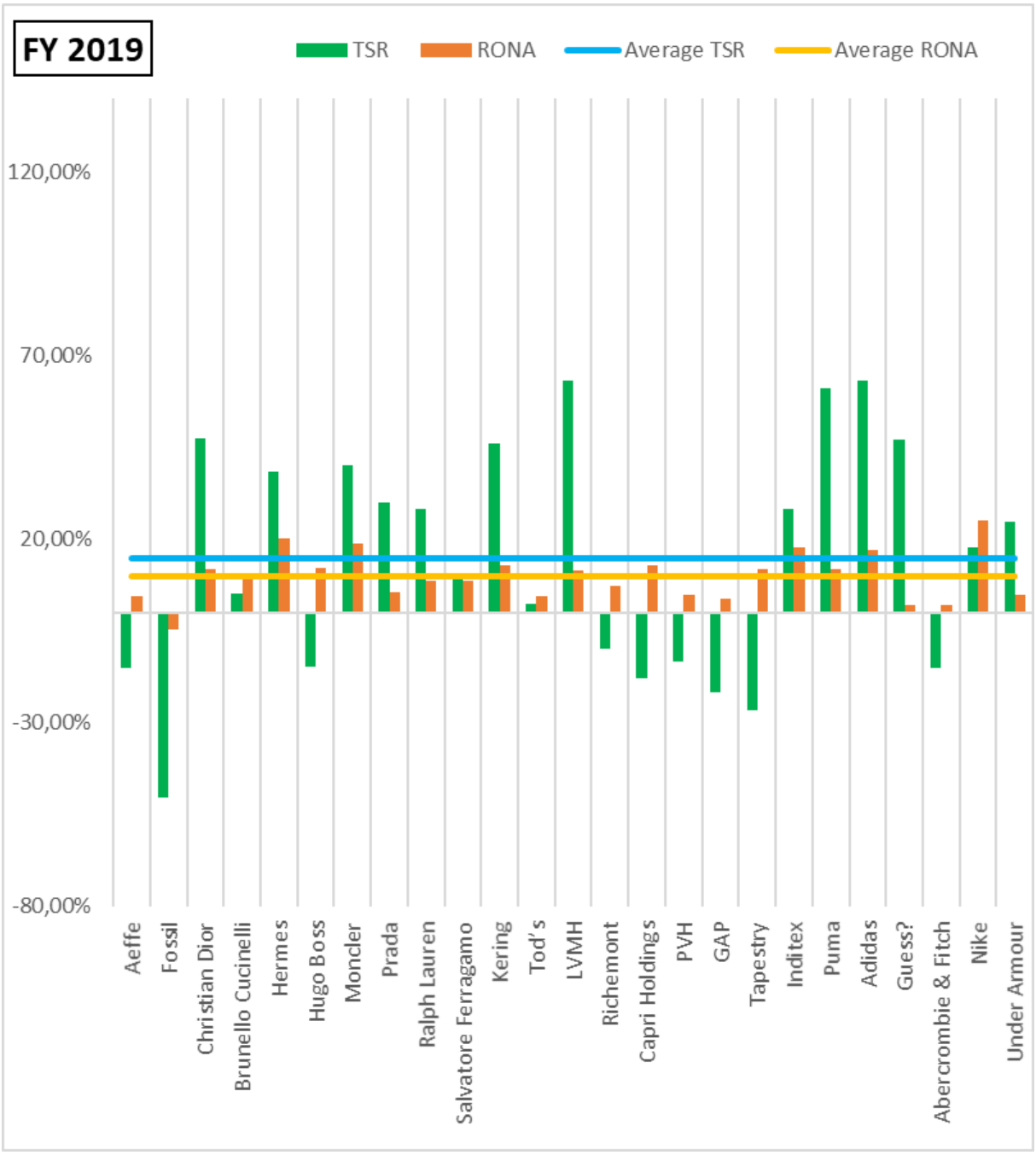
ER						
All figures are expressed in ***millions €***						
	FY Company	2020	2019	2018	2017	2016
1	Aeffe	(166)	(40)	22	41	(57)
2	Fossil	(2.577)	(2.311)	(1.706)	(1.820)	(679)
3	Christian Dior	47.290	50.770	25.714	22.971	6.483
4	Brunello Cucinelli	764	606	613	540	207
5	Hermes	47.857	28.385	12.311	10.675	7.426
6	Hugo Boss	(6.077)	(3.873)	(2.597)	(783)	(1.173)
7	Moncler	7.633	5.920	3.337	2.907	714
8	Prada	2.929	(343)	(1.261)	178	3.059
9	Ralph Lauren	(79.258)	(36.400)	(43.569)	(42.928)	(27.910)
10	Salvatore Ferragamo	(3.382)	(2.200)	(1.893)	(599)	(96)
11	Kering	47.698	53.952	33.425	25.285	6.071
12	Tod's	(2.517)	(1.791)	(1.560)	(606)	(274)
13	LVMH	149.638	109.822	40.305	42.497	16.666
14	Richemont	(68.820)	(43.067)	(25.075)	(16.186)	(25.453)
15	Capri Holdings	(17.431)	(8.196)	(4.399)	(5.345)	(1.998)
16	PVH	(3.340)	(962)	1.176	4.072	1.380
17	GAP	(8.457)	(6.076)	(2.668)	(316)	(13)
18	Tapestry	(10.383)	(3.776)	668	1.736	1.166
19	Inditex	(72.065)	(36.089)	(43.640)	(18.834)	(4.482)
20	Puma	13.617	10.254	552	263	139
21	Adidas	33.744	36.743	16.064	14.650	12.576
22	Guess?	(439)	(885)	(1.387)	(976)	28
23	Abercrombie & Fitch	(2.288)	(2.122)	(1.453)	(1.358)	(1.501)
24	Nike	25.151	7.284	4.377	(9.400)	4.358
25	Under Armour	(22.560)	(17.223)	(16.359)	(15.266)	(7.605)

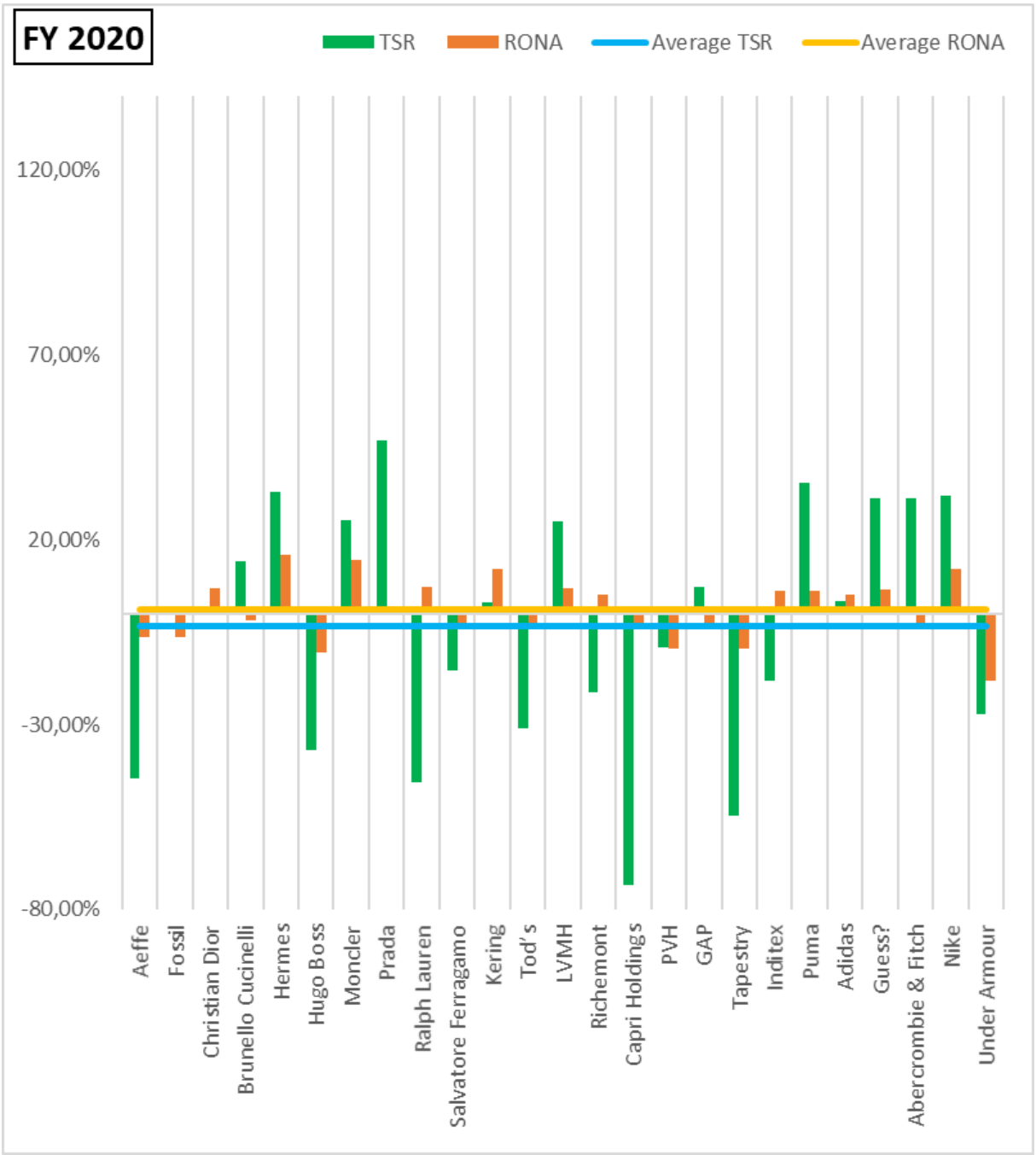
Appendix 36: Graphs of TSR vs RONA




FY 2017
TSR
RONA
Average TSR
Average RONA
120,00%
70,00%
20,00%
-30,00%
-80,00%
Aeffe
Fossil
Christian Dior
Brunello Cucinelli
Hermes
Hugo Boss
Moncler
Prada
Ralph Lauren
Salvatore Ferragamo
Kering
Tod's
LVMH
Richemont
Capri Holdings
PVH
GAP
Tapestry
Inditex
Puma
Adidas
Guess?
Abercrombie & Fitch
Nike
Under Armour


FY 2018
TSR
RONA
Average TSR
Average RONA
120,00%
70,00%
20,00%
-30,00%
-80,00%
Aeffe
Fossil
Christian Dior
Brunello Cucinelli
Hermes
Hugo Boss
Moncler
Prada
Ralph Lauren
Salvatore Ferragamo
Kering
Tod's
LVMH
Richemont
Capri Holdings
PVH
GAP
Tapestry
Inditex
Puma
Adidas
Guess?
Abercrombie & Fitch
Nike
Under Armour


FY 2019
TSR
RONA
Average TSR
Average RONA
120,00%
70,00%
20,00%
-30,00%
-80,00%
Aeffe
Fossil
Christian Dior
Brunello Cucinelli
Hermes
Hugo Boss
Moncler
Prada
Ralph Lauren
Salvatore Ferragamo
Kering
Tod's
LVMH
Richemont
Capri Holdings
PVH
GAP
Tapestry
Inditex
Puma
Adidas
Guess?
Abercrombie & Fitch
Nike
Under Armour


FY 2020
TSR
RONA
Average TSR
Average RONA
120,00%
70,00%
20,00%
-30,00%
-80,00%
Aeffe
Fossil
Christian Dior
Brunello Cucinelli
Hermes
Hugo Boss
Moncler
Prada
Ralph Lauren
Salvatore Ferragamo
Kering
Tod's
LVMH
Richemont
Capri Holdings
PVH
GAP
Tapestry
Inditex
Puma
Adidas
Guess?
Abercrombie & Fitch
Nike
Under Armour

Appendix 37: FY 2016 results

	FY 2016							
All figures are expressed in ***millions €****, except for RONA and TSR*								
	Value Indicator / Company	EVA	MVA	RONA	CVA	SVA	TSR	ER
1	Aeffe	(8)	(49)	2,64%	9	(41)	-25,45%	(57)
2	Fossil	(71)	194	5,55%	(0)	(564)	-35,12%	(679)
3	Christian Dior	834	5.887	5,84%	174	8.067	28,51%	6.483
4	Brunello Cucinelli	20	1.157	14,42%	39	282	25,43%	207
5	Hermes	826	36.787	24,23%	1.064	8.740	26,56%	7.426
6	Hugo Boss	122	3.205	17,39%	263	(1.050)	-19,48%	(1.173)
7	Moncler	128	3.432	22,84%	91	957	29,55%	714
8	Prada	33	6.867	7,46%	223	3.251	46,42%	3.059
9	Ralph Lauren	(49)	47.769	8,52%	(43)	(20.979)	-28,93%	(27.910)
10	Salvatore Ferragamo	134	3.063	26,12%	641	194	5,28%	(96)
11	Kering	(290)	13.074	5,63%	92	7.043	37,96%	6.071
12	Tod's	(20)	955	7,30%	(147)	(125)	-12,66%	(274)
13	LVMH	1.059	64.090	10,24%	1.201	20.758	28,25%	16.666
14	Richemont	(606)	45.747	7,48%	63	(16.680)	-21,30%	(25.453)
15	Capri Holdings	589	8.620	39,44%	245	(1.136)	-9,62%	(1.998)
16	PVH	(21)	2.597	6,98%	81	1.772	30,97%	1.380
17	GAP	244	5.716	14,41%	956	(209)	-2,82%	(13)
18	Tapestry	129	7.778	11,99%	46	1.605	17,20%	1.166
19	Inditex	1.714	82.415	21,91%	4.127	2.962	3,15%	(4.482)
20	Puma	146	(1.346)	5,19%	(307)	104	34,62%	139
21	Adidas	501	24.959	12,66%	603	12.934	70,03%	12.576
22	Guess?	(30)	1.433	6,51%	(10)	168	6,87%	28
23	Abercrombie & Fitch	(135)	(74)	1,46%	89	(1.333)	-53,71%	(1.501)
24	Nike	1.999	72.278	22,69%	2.283	7.598	11,53%	4.358
25	Under Armour	(821)	8.926	9,67%	139	(5.909)	-36,67%	(7.605)

Appendix 38: FY 2017 results

FY 2017								
*All figures are expressed in **millions €**, except for RONA and TSR*								
	Value Indicator / Company	EVA	MVA	RONA	CVA	SVA	TSR	ER
1	Aeffe	(9)	63	6,36%	7	122	102,70%	41
2	Fossil	(464)	(169)	-38,64%	(530)	(720)	-69,38%	(1.820)
3	Christian Dior	834	22.273	10,25%	3.023	19.546	54,35%	22.971
4	Brunello Cucinelli	26	1.573	18,21%	64	465	33,59%	540
5	Hermes	879	42.065	23,15%	1.005	6.534	15,87%	10.675
6	Hugo Boss	158	4.079	21,65%	439	1.081	26,42%	(783)
7	Moncler	145	5.721	23,54%	135	2.580	59,48%	2.907
8	Prada	(74)	4.844	5,84%	(21)	(1.954)	-19,59%	178
9	Ralph Lauren	(553)	42.722	-1,93%	(175)	(4.914)	-9,63%	(42.928)
10	Salvatore Ferragamo	31	2.990	14,84%	456	30	0,80%	(599)
11	Kering	184	33.505	9,97%	411	21.777	86,98%	25.285
12	Tod's	(67)	928	6,06%	(31)	26	1,29%	(606)
13	LVMH	1.393	94.168	10,82%	1.010	35.000	38,07%	42.497
14	Richemont	90	61.776	8,63%	440	17.389	28,60%	(16.186)
15	Capri Holdings	371	5.970	29,98%	84	(2.131)	-21,03%	(5.345)
16	PVH	(244)	5.829	6,57%	(109)	3.454	47,06%	4.072
17	GAP	144	7.476	16,34%	1.059	2.181	29,09%	(316)
18	Tapestry	226	9.064	13,99%	790	1.839	16,63%	1.736
19	Inditex	1.926	76.456	22,15%	4.306	(3.062)	-3,22%	(18.834)
20	Puma	63	(1.109)	10,09%	23	196	51,94%	263
21	Adidas	822	28.953	18,14%	989	4.089	13,75%	14.650
22	Guess?	(116)	700	-0,46%	(8)	(683)	-28,99%	(976)
23	Abercrombie & Fitch	(151)	696	1,51%	(9)	645	58,71%	(1.358)
24	Nike	2.157	66.533	23,07%	2.956	(1.810)	0,15%	(9.400)
25	Under Armour	(821)	3.636	-0,34%	(127)	(5.301)	-50,33%	(15.266)

Appendix 39: FY 2018 results

FY 2018								
*All figures are expressed in **millions €**, except for RONA and TSR*								
	Value Indicator / Company	EVA	MVA	RONA	CVA	SVA	TSR	ER
1	Aeffe	(16)	54	0,01%	5	10	4,22%	22
2	Fossil	(38)	188	4,29%	(64)	393	120,67%	(1.706)
3	Christian Dior	834	23.899	12,28%	(280)	6.271	11,41%	25.714
4	Brunello Cucinelli	21	1.756	16,73%	26	225	12,26%	613
5	Hermes	971	45.672	24,25%	850	5.078	10,78%	12.311
6	Hugo Boss	147	2.815	20,60%	408	(1.015)	-20,33%	(2.597)
7	Moncler	185	6.332	26,77%	126	945	13,76%	3.337
8	Prada	(187)	4.463	6,22%	(302)	(152)	-1,98%	(1.261)
9	Ralph Lauren	(207)	51.636	3,77%	(19)	8.766	19,14%	(43.569)
10	Salvatore Ferragamo	2	2.200	11,69%	445	(694)	-18,57%	(1.893)
11	Kering	1.138	41.915	18,84%	692	11.352	24,61%	33.425
12	Tod's	(54)	301	4,28%	(73)	(603)	-29,92%	(1.560)
13	LVMH	1.080	96.961	12,84%	1.409	10.267	8,25%	40.305
14	Richemont	103	61.472	7,34%	1.536	(277)	-0,36%	(25.075)
15	Capri Holdings	273	8.990	19,33%	106	3.556	46,50%	(4.399)
16	PVH	23	3.021	8,63%	192	(1.925)	-19,32%	1.176
17	GAP	537	5.141	17,75%	2.079	(1.124)	-8,66%	(2.668)
18	Tapestry	16	8.756	8,21%	(417)	176	-0,64%	668
19	Inditex	1.760	61.208	20,72%	3.939	(11.752)	-13,06%	(43.640)
20	Puma	116	(1.078)	12,61%	204	339	61,92%	552
21	Adidas	1.019	30.192	19,36%	1.610	3.691	15,50%	16.064
22	Guess?	(156)	909	-0,76%	(237)	146	8,14%	(1.387)
23	Abercrombie & Fitch	(85)	862	4,92%	230	332	19,52%	(1.453)
24	Nike	513	89.874	12,45%	124	26.048	37,08%	4.377
25	Under Armour	(821)	5.161	-0,15%	(91)	1.604	28,27%	(16.359)

Appendix 40: FY 2019 results

FY 2019								
*All figures are expressed in **millions €**, except for RONA and TSR*								
	Value Indicator / Company	EVA	MVA	RONA	CVA	SVA	TSR	ER
1	Aeffe	(6)	10	4,54%	(5)	(37)	-14,97%	(40)
2	Fossil	(99)	(101)	-4,50%	(172)	(346)	-50,25%	(2.311)
3	Christian Dior	834	46.739	11,78%	(4.315)	28.570	47,40%	50.770
4	Brunello Cucinelli	27	1.847	9,27%	(8)	104	5,08%	606
5	Hermes	1.006	63.754	20,21%	910	19.692	38,48%	28.385
6	Hugo Boss	133	2.044	12,23%	(36)	(564)	-14,86%	(3.873)
7	Moncler	200	9.031	18,93%	115	3.058	40,14%	5.920
8	Prada	(149)	6.432	5,68%	(224)	2.215	30,09%	(343)
9	Ralph Lauren	42	66.331	8,65%	536	15.430	28,34%	(36.400)
10	Salvatore Ferragamo	5	2.380	8,64%	209	275	9,22%	(2.200)
11	Kering	766	62.722	13,03%	(167)	23.264	46,22%	53.952
12	Tod's	(7)	284	4,39%	(2)	31	2,28%	(1.791)
13	LVMH	1.684	170.818	11,29%	3.509	81.818	63,14%	109.822
14	Richemont	(151)	50.744	7,19%	(401)	(7.401)	-9,72%	(43.067)
15	Capri Holdings	281	6.633	12,84%	165	(1.681)	-17,79%	(8.196)
16	PVH	(245)	1.516	4,70%	(81)	(1.037)	-13,25%	(962)
17	GAP	(30)	2.844	3,79%	(128)	(1.907)	-21,70%	(6.076)
18	Tapestry	205	4.909	11,69%	275	(3.105)	-26,60%	(3.776)
19	Inditex	1.861	79.704	17,73%	1.897	21.503	28,33%	(36.089)
20	Puma	168	8.389	11,76%	(257)	9.736	61,17%	10.254
21	Adidas	1.184	51.023	16,94%	516	23.125	63,26%	36.743
22	Guess?	(43)	1.623	2,05%	(7)	797	47,02%	(885)
23	Abercrombie & Fitch	(67)	560	1,93%	(206)	(288)	-14,94%	(2.122)
24	Nike	2.446	100.366	25,24%	3.500	15.167	17,87%	7.284
25	Under Armour	(821)	6.773	4,87%	(3)	1.764	24,59%	(17.223)

Appendix 41: FY 2020 results

FY 2020								
*All figures are expressed in **millions €**, except for RONA and TSR*								
	Value Indicator / Company	EVA	MVA	RONA	CVA	SVA	TSR	ER
1	Aeffe	(36)	(60)	-6,26%	(24)	(94)	-44,63%	(166)
2	Fossil	(89)	5	-6,44%	(148)	14	2,14%	(2.577)
3	Christian Dior	834	45.815	6,95%	4.896	433	0,52%	47.290
4	Brunello Cucinelli	(62)	2.166	-1,70%	(41)	302	14,07%	764
5	Hermes	911	85.468	15,84%	860	23.163	32,93%	47.857
6	Hugo Boss	(310)	1.161	-10,61%	(368)	(1.122)	-36,83%	(6.077)
7	Moncler	143	11.026	14,60%	288	2.316	25,13%	7.633
8	Prada	(386)	10.970	0,33%	(238)	4.401	46,72%	2.929
9	Ralph Lauren	20	34.710	7,23%	(433)	(31.523)	-45,52%	(79.258)
10	Salvatore Ferragamo	(175)	1.967	-3,96%	304	(488)	-15,41%	(3.382)
11	Kering	901	62.219	11,94%	1.309	2.031	2,85%	47.698
12	Tod's	(109)	(65)	-3,70%	(128)	(422)	-30,96%	(2.517)
13	LVMH	(113)	219.396	6,67%	5.934	52.079	24,80%	149.638
14	Richemont	(413)	35.015	5,09%	(106)	(14.491)	-21,38%	(68.820)
15	Capri Holdings	(453)	335	-3,09%	22	(6.459)	-73,57%	(17.431)
16	PVH	(1.782)	2.165	-9,49%	(512)	(602)	-9,31%	(3.340)
17	GAP	(1.113)	4.087	-4,30%	(286)	471	7,20%	(8.457)
18	Tapestry	(882)	1.061	-9,36%	(573)	(4.519)	-54,85%	(10.383)
19	Inditex	(1.047)	61.777	6,03%	700	(17.236)	-18,21%	(72.065)
20	Puma	(111)	12.154	6,05%	(199)	3.655	35,45%	13.617
21	Adidas	(624)	53.013	4,95%	565	1.924	3,31%	33.744
22	Guess?	46	2.154	6,60%	18	721	31,34%	(439)
23	Abercrombie & Fitch	(212)	1.181	-3,43%	100	475	31,09%	(2.288)
24	Nike	670	130.688	12,00%	3.877	33.798	32,00%	25.151
25	Under Armour	(821)	5.001	-18,32%	(163)	(2.320)	-27,23%	(22.560)

Appendix 42: FY 2016 results

		FY 2016											
		SVA	TSR	Sum	n. of differences	EVA	MVA	Sum	n. of differences	EVA	RONA	Sum	n. of differences
1	Aeffe	0	0	0	0	0	0	0	0	0	1	1	1
2	Fossil	0	0	0	0	0	1	1	1	0	1	1	1
3	Christian Dior	1	1	2	0	1	1	2	0	1	1	2	0
4	Brunello Cucinelli	1	1	2	0	1	1	2	0	1	1	2	0
5	Hermes	1	1	2	0	1	1	2	0	1	1	2	0
6	Hugo Boss	0	0	0	0	1	1	2	0	1	1	2	0
7	Moncler	1	1	2	0	1	1	2	0	1	1	2	0
8	Prada	1	1	2	0	1	1	2	0	1	1	2	0
9	Ralph Lauren	0	0	0	0	0	1	1	1	0	1	1	1
10	Ferragamo	1	1	2	0	1	1	2	0	1	1	2	0
11	Kering	1	1	2	0	0	1	1	1	0	1	1	1
12	Tod's	0	0	0	0	0	1	1	1	0	1	1	1
13	LVMH	1	1	2	0	1	1	2	0	1	1	2	0
14	Richemont	0	0	0	0	0	1	1	1	0	1	1	1
15	Capri Holdings	0	0	0	0	1	1	2	0	1	1	2	0
16	PVH	1	1	2	0	0	1	1	1	0	1	1	1
17	GAP	0	0	0	0	1	1	2	0	1	1	2	0
18	Tapestry	1	1	2	0	1	1	2	0	1	1	2	0
19	Inditex	1	1	2	0	1	1	2	0	1	1	2	0
20	Puma	1	1	2	0	1	0	1	1	1	1	2	0
21	Adidas	1	1	2	0	1	1	2	0	1	1	2	0
22	Guess?	1	1	2	0	0	1	1	1	0	1	1	1
23	Abercrombie	0	0	0	0	0	0	0	0	0	1	1	1
24	Nike	1	1	2	0	1	1	2	0	1	1	2	0
25	Under Armour	0	0	0	0	0	1	1	1	0	1	1	1
		Total			**0**	**Total**			**9**	**Total**			**10**
		n. of matches			**25**	**n. of matches**			**16**	**n. of matches**			**15**

		FY 2016											
		EVA	CVA	Sum	n. of differences	EVA	SVA/TSR	Sum	n. of differences	EVA	ER	Sum	n. of differences
1	Aeffe	0	1	1	1	0	0	0	0	0	0	0	0
2	Fossil	0	0	0	0	0	0	0	0	0	0	0	0
3	Christian Dior	1	1	2	0	1	1	2	0	1	1	2	0
4	Brunello Cucinelli	1	1	2	0	1	1	2	0	1	1	2	0
5	Hermes	1	1	2	0	1	1	2	0	1	1	2	0
6	Hugo Boss	1	1	2	0	1	0	1	1	1	0	1	1
7	Moncler	1	1	2	0	1	1	2	0	1	1	2	0
8	Prada	1	1	2	0	1	1	2	0	1	1	2	0
9	Ralph Lauren	0	0	0	0	0	0	0	0	0	0	0	0
10	Ferragamo	1	1	2	0	1	1	2	0	1	0	1	1
11	Kering	0	1	1	1	0	1	1	1	0	1	1	1
12	Tod's	0	0	0	0	0	0	0	0	0	0	0	0
13	LVMH	1	1	2	0	1	1	2	0	1	1	2	0
14	Richemont	0	1	1	1	0	0	0	0	0	0	0	0
15	Capri Holdings	1	1	2	0	1	0	1	1	1	0	1	1
16	PVH	0	1	1	1	0	1	1	1	0	1	1	1
17	GAP	1	1	2	0	1	0	1	1	1	0	1	1
18	Tapestry	1	1	2	0	1	1	2	0	1	1	2	0
19	Inditex	1	1	2	0	1	1	2	0	1	0	1	1
20	Puma	1	0	1	1	1	1	2	0	1	1	2	0
21	Adidas	1	1	2	0	1	1	2	0	1	1	2	0
22	Guess?	0	0	0	0	0	1	1	1	0	1	1	1
23	Abercrombie	0	1	1	1	0	0	0	0	0	0	0	0
24	Nike	1	1	2	0	1	1	2	0	1	1	2	0
25	Under Armour	0	1	1	1	0	0	0	0	0	0	0	0
		Total			**7**	**Total**			**6**	**Total**			**8**
		n. of matches			**18**	**n. of matches**			**19**	**n. of matches**			**17**

		FY 2016											
		MVA	RONA	Sum	n. of differences	MVA	CVA	Sum	n. of differences	MVA	SVA/TSR	Sum	n. of differences
1	Aeffe	0	1	1	1	0	1	1	1	0	0	0	0
2	Fossil	1	1	2	0	1	0	1	1	1	0	1	1
3	Christian Dior	1	1	2	0	1	1	2	0	1	1	2	0
4	Brunello Cucinelli	1	1	2	0	1	1	2	0	1	1	2	0
5	Hermes	1	1	2	0	1	1	2	0	1	1	2	0
6	Hugo Boss	1	1	2	0	1	1	2	0	1	0	1	1
7	Moncler	1	1	2	0	1	1	2	0	1	1	2	0
8	Prada	1	1	2	0	1	1	2	0	1	1	2	0
9	Ralph Lauren	1	1	2	0	1	0	1	1	1	0	1	1
10	Ferragamo	1	1	2	0	1	1	2	0	1	1	2	0
11	Kering	1	1	2	0	1	1	2	0	1	1	2	0
12	Tod's	1	1	2	0	1	0	1	1	1	0	1	1
13	LVMH	1	1	2	0	1	1	2	0	1	1	2	0
14	Richemont	1	1	2	0	1	1	2	0	1	0	1	1
15	Capri Holdings	1	1	2	0	1	1	2	0	1	0	1	1
16	PVH	1	1	2	0	1	1	2	0	1	1	2	0
17	GAP	1	1	2	0	1	1	2	0	1	0	1	1
18	Tapestry	1	1	2	0	1	1	2	0	1	1	2	0
19	Inditex	1	1	2	0	1	1	2	0	1	1	2	0
20	Puma	0	1	1	1	0	0	0	0	0	1	1	1
21	Adidas	1	1	2	0	1	1	2	0	1	1	2	0
22	Guess?	1	1	2	0	1	0	1	1	1	1	2	0
23	Abercrombie	0	1	1	1	0	1	1	1	0	0	0	0
24	Nike	1	1	2	0	1	1	2	0	1	1	2	0
25	Under Armour	1	1	2	0	1	1	2	0	1	0	1	1
		Total			**3**	**Total**			**6**	**Total**			**9**
		n. of matches			**22**	**n. of matches**			**19**	**n. of matches**			**16**

		FY 2016											
		MVA	ER	Sum	n. of differences	RONA	CVA	Sum	n. of differences	RONA	SVA/TSR	Sum	n. of differences
1	Aeffe	0	0	0	0	1	1	2	0	1	0	1	1
2	Fossil	1	0	1	1	1	0	1	1	1	0	1	1
3	Christian Dior	1	1	2	0	1	1	2	0	1	1	2	0
4	Brunello Cucinelli	1	1	2	0	1	1	2	0	1	1	2	0
5	Hermes	1	1	2	0	1	1	2	0	1	1	2	0
6	Hugo Boss	1	0	1	1	1	1	2	0	1	0	1	1
7	Moncler	1	1	2	0	1	1	2	0	1	1	2	0
8	Prada	1	1	2	0	1	1	2	0	1	1	2	0
9	Ralph Lauren	1	0	1	1	1	0	1	1	1	0	1	1
10	Ferragamo	1	0	1	1	1	1	2	0	1	1	2	0
11	Kering	1	1	2	0	1	1	2	0	1	1	2	0
12	Tod's	1	0	1	1	1	0	1	1	1	0	1	1
13	LVMH	1	1	2	0	1	1	2	0	1	1	2	0
14	Richemont	1	0	1	1	1	1	2	0	1	0	1	1
15	Capri Holdings	1	0	1	1	1	1	2	0	1	0	1	1
16	PVH	1	1	2	0	1	1	2	0	1	1	2	0
17	GAP	1	0	1	1	1	1	2	0	1	0	1	1
18	Tapestry	1	1	2	0	1	1	2	0	1	1	2	0
19	Inditex	1	0	1	1	1	1	2	0	1	1	2	0
20	Puma	0	1	1	1	1	0	1	1	1	1	2	0
21	Adidas	1	1	2	0	1	1	2	0	1	1	2	0
22	Guess?	1	1	2	0	1	0	1	1	1	1	2	0
23	Abercrombie	0	0	0	0	1	1	2	0	1	0	1	1
24	Nike	1	1	2	0	1	1	2	0	1	1	2	0
25	Under Armour	1	0	1	1	1	1	2	0	1	0	1	1
		Total			**11**	**Total**			**5**	**Total**			**10**
		n. of matches			**14**	**n. of matches**			**20**	**n. of matches**			**15**

		FY 2016								FY 2016							
		RONA	ER	Sum	n. of differences	CVA	SVA/TSR	Sum	n. of differences	CVA	ER	Sum	n. of differences	SVA/TSR	ER	Sum	n. of differences
1	Aeffe	1	0	1	1	1	0	1	1	1	0	1	1	0	0	0	0
2	Fossil	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
3	Christian Dior	1	1	2	0	1	1	2	0	1	1	2	0	1	1	2	0
4	Brunello Cucinelli	1	1	2	0	1	1	2	0	1	1	2	0	1	1	2	0
5	Hermes	1	1	2	0	1	1	2	0	1	1	2	0	1	1	2	0
6	Hugo Boss	1	0	1	1	1	0	1	1	1	0	1	1	0	0	0	0
7	Moncler	1	1	2	0	1	1	2	0	1	1	2	0	1	1	2	0
8	Prada	1	1	2	0	1	1	2	0	1	1	2	0	1	1	2	0
9	Ralph Lauren	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
10	Ferragamo	1	0	1	1	1	1	2	0	1	0	1	1	1	0	1	1
11	Kering	1	1	2	0	1	1	2	0	1	1	2	0	1	1	2	0
12	Tod's	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
13	LVMH	1	1	2	0	1	1	2	0	1	1	2	0	1	1	2	0
14	Richemont	1	0	1	1	1	0	1	1	1	0	1	1	0	0	0	0
15	Capri Holdings	1	0	1	1	1	0	1	1	1	0	1	1	0	0	0	0
16	PVH	1	1	2	0	1	1	2	0	1	1	2	0	1	1	2	0
17	GAP	1	0	1	1	1	0	1	1	1	0	1	1	0	0	0	0
18	Tapestry	1	1	2	0	1	1	2	0	1	1	2	0	1	1	2	0
19	Inditex	1	0	1	1	1	1	2	0	1	0	1	1	1	0	1	1
20	Puma	1	1	2	0	0	1	1	1	0	1	1	1	1	1	2	0
21	Adidas	1	1	2	0	1	1	2	0	1	1	2	0	1	1	2	0
22	Guess?	1	1	2	0	0	1	1	1	0	1	1	1	1	1	2	0
23	Abercrombie	1	0	1	1	1	0	1	1	1	0	1	1	0	0	0	0
24	Nike	1	1	2	0	1	1	2	0	1	1	2	0	1	1	2	0
25	Under Armour	1	0	1	1	1	0	1	1	1	0	1	1	0	0	0	0
		Total			**12**	**Total**			**9**	**Total**			**11**	**Total**			**2**
		n. of matches			**13**	**n. of matches**			**16**	**n. of matches**			**14**	**n. of matches**			**23**

Appendix 43: FY 2017 results

		FY 2017											
	Company	SVA	TSR	Sum	n. of differences	EVA	MVA	Sum	n. of differences	EVA	RONA	Sum	n. of differences
1	Aeffe	1	1	2	0	0	1	1	1	0	1	1	1
2	Fossil	0	0	0	0	0	0	0	0	0	0	0	0
3	Christian Dior	1	1	2	0	1	1	2	0	1	1	2	0
4	Brunello Cucinelli	1	1	2	0	1	1	2	0	1	1	2	0
5	Hermes	1	1	2	0	1	1	2	0	1	1	2	0
6	Hugo Boss	1	1	2	0	1	1	2	0	1	1	2	0
7	Moncler	1	1	2	0	1	1	2	0	1	1	2	0
8	Prada	0	0	0	0	0	1	1	1	0	1	1	1
9	Ralph Lauren	0	0	0	0	0	1	1	1	0	0	0	0
10	Salvatore Ferragamo	1	1	2	0	1	1	2	0	1	1	2	0
11	Kering	1	1	2	0	1	1	2	0	1	1	2	0
12	Tod's	1	1	2	0	0	1	1	1	0	1	1	1
13	LVMH	1	1	2	0	1	1	2	0	1	1	2	0
14	Richemont	1	1	2	0	1	1	2	0	1	1	2	0
15	Capri Holdings	0	0	0	0	1	1	2	0	1	1	2	0
16	PVH	1	1	2	0	0	1	1	1	0	1	1	1
17	GAP	1	1	2	0	1	1	2	0	1	1	2	0
18	Tapestry	1	1	2	0	1	1	2	0	1	1	2	0
19	Inditex	0	0	0	0	1	1	2	0	1	1	2	0
20	Puma	1	1	2	0	1	0	1	1	1	1	2	0
21	Adidas	1	1	2	0	1	1	2	0	1	1	2	0
22	Guess?	0	0	0	0	0	1	1	1	0	0	0	0
23	Abercrombie & Fitch	1	1	2	0	0	1	1	1	0	1	1	1
24	Nike	0	1	1	1	1	1	2	0	1	1	2	0
25	Under Armour	0	0	0	0	0	1	1	1	0	0	0	0
		Total			**1**	**Total**			**9**	**Total**			**5**
		n. of matches			**24**	**n. of matches**			**16**	**n. of matches**			**20**

	Company	FY 2017											
		EVA	CVA	Sum	n. of differences	EVA	SVA/TSR	Sum	n. of differences	EVA	ER	Sum	n. of differences
1	Aeffe	0	1	1	1	0	1	1	1	0	1	1	1
2	Fossil	0	0	0	0	0	0	0	0	0	0	0	0
3	Christian Dior	1	1	2	0	1	1	2	0	1	1	2	0
4	Brunello Cucinelli	1	1	2	0	1	1	2	0	1	1	2	0
5	Hermes	1	1	2	0	1	1	2	0	1	1	2	0
6	Hugo Boss	1	1	2	0	1	1	2	0	1	0	1	1
7	Moncler	1	1	2	0	1	1	2	0	1	1	2	0
8	Prada	0	0	0	0	0	0	0	0	0	1	1	1
9	Ralph Lauren	0	0	0	0	0	0	0	0	0	0	0	0
10	Salvatore Ferragamo	1	1	2	0	1	1	2	0	1	0	1	1
11	Kering	1	1	2	0	1	1	2	0	1	1	2	0
12	Tod's	0	0	0	0	0	1	1	1	0	0	0	0
13	LVMH	1	1	2	0	1	1	2	0	1	1	2	0
14	Richemont	1	1	2	0	1	1	2	0	1	0	1	1
15	Capri Holdings	1	1	2	0	1	0	1	1	1	0	1	1
16	PVH	0	0	0	0	0	1	1	1	0	1	1	1
17	GAP	1	1	2	0	1	1	2	0	1	0	1	1
18	Tapestry	1	1	2	0	1	1	2	0	1	1	2	0
19	Inditex	1	1	2	0	1	0	1	1	1	0	1	1
20	Puma	1	1	2	0	1	1	2	0	1	1	2	0
21	Adidas	1	1	2	0	1	1	2	0	1	1	2	0
22	Guess?	0	0	0	0	0	0	0	0	0	0	0	0
23	Abercrombie & Fitch	0	0	0	0	0	1	1	1	0	0	0	0
24	Nike	1	1	2	0	1	1	2	0	1	0	1	1
25	Under Armour	0	0	0	0	0	0	0	0	0	0	0	0
		Total			**1**	**Total**			**6**	**Total**			**10**
		n. of matches			**24**	**n. of matches**			**19**	**n. of matches**			**15**

		FY 2017											
	Company	MVA	RONA	Sum	n. of differences	MVA	CVA	Sum	n. of differences	MVA	SVA/TSR	Sum	n. of differences
1	Aeffe	1	1	2	0	1	1	2	0	1	1	2	0
2	Fossil	0	0	0	0	0	0	0	0	0	0	0	0
3	Christian Dior	1	1	2	0	1	1	2	0	1	1	2	0
4	Brunello Cucinelli	1	1	2	0	1	1	2	0	1	1	2	0
5	Hermes	1	1	2	0	1	1	2	0	1	1	2	0
6	Hugo Boss	1	1	2	0	1	1	2	0	1	1	2	0
7	Moncler	1	1	2	0	1	1	2	0	1	1	2	0
8	Prada	1	1	2	0	1	0	1	1	1	0	1	1
9	Ralph Lauren	1	0	1	1	1	0	1	1	1	0	1	1
10	Salvatore Ferragamo	1	1	2	0	1	1	2	0	1	1	2	0
11	Kering	1	1	2	0	1	1	2	0	1	1	2	0
12	Tod's	1	1	2	0	1	0	1	1	1	1	2	0
13	LVMH	1	1	2	0	1	1	2	0	1	1	2	0
14	Richemont	1	1	2	0	1	1	2	0	1	1	2	0
15	Capri Holdings	1	1	2	0	1	1	2	0	1	0	1	1
16	PVH	1	1	2	0	1	0	1	1	1	1	2	0
17	GAP	1	1	2	0	1	1	2	0	1	1	2	0
18	Tapestry	1	1	2	0	1	1	2	0	1	1	2	0
19	Inditex	1	1	2	0	1	1	2	0	1	0	1	1
20	Puma	0	1	1	1	0	1	1	1	0	1	1	1
21	Adidas	1	1	2	0	1	1	2	0	1	1	2	0
22	Guess?	1	0	1	1	1	0	1	1	1	0	1	1
23	Abercrombie & Fitch	1	1	2	0	1	0	1	1	1	1	2	0
24	Nike	1	1	2	0	1	1	2	0	1	1	2	0
25	Under Armour	1	0	1	1	1	0	1	1	1	0	1	1
		Total			**4**	**Total**			**8**	**Total**			**7**
		n. of matches			**21**	**n. of matches**			**17**	**n. of matches**			**18**

	Company	FY 2017											
		MVA	ER	Sum	n. of differences	RONA	CVA	Sum	n. of differences	RONA	SVA/TSR	Sum	n. of differences
1	Aeffe	1	1	2	0	1	1	2	0	1	1	2	0
2	Fossil	0	0	0	0	0	0	0	0	0	0	0	0
3	Christian Dior	1	1	2	0	1	1	2	0	1	1	2	0
4	Brunello Cucinelli	1	1	2	0	1	1	2	0	1	1	2	0
5	Hermes	1	1	2	0	1	1	2	0	1	1	2	0
6	Hugo Boss	1	0	1	1	1	1	2	0	1	1	2	0
7	Moncler	1	1	2	0	1	1	2	0	1	1	2	0
8	Prada	1	1	2	0	1	0	1	1	1	0	1	1
9	Ralph Lauren	1	0	1	1	0	0	0	0	0	0	0	0
10	Salvatore Ferragamo	1	0	1	1	1	1	2	0	1	1	2	0
11	Kering	1	1	2	0	1	1	2	0	1	1	2	0
12	Tod's	1	0	1	1	1	0	1	1	1	1	2	0
13	LVMH	1	1	2	0	1	1	2	0	1	1	2	0
14	Richemont	1	0	1	1	1	1	2	0	1	1	2	0
15	Capri Holdings	1	0	1	1	1	1	2	0	1	0	1	1
16	PVH	1	1	2	0	1	0	1	1	1	1	2	0
17	GAP	1	0	1	1	1	1	2	0	1	1	2	0
18	Tapestry	1	1	2	0	1	1	2	0	1	1	2	0
19	Inditex	1	0	1	1	1	1	2	0	1	0	1	1
20	Puma	0	1	1	1	1	1	2	0	1	1	2	0
21	Adidas	1	1	2	0	1	1	2	0	1	1	2	0
22	Guess?	1	0	1	1	0	0	0	0	0	0	0	0
23	Abercrombie & Fitch	1	0	1	1	1	0	1	1	1	1	2	0
24	Nike	1	0	1	1	1	1	2	0	1	1	2	0
25	Under Armour	1	0	1	1	0	0	0	0	0	0	0	0
		Total			**13**	**Total**			**4**	**Total**			**3**
		n. of matches			**12**	**n. of matches**			**21**	**n. of matches**			**22**

	Company	FY 2017															
		RONA	ER	Sum	n. of differences	CVA	SVA/TSR	Sum	n. of differences	CVA	ER	Sum	n. of differences	SVA/TSR	ER	Sum	n. of differences
1	Aeffe	1	1	2	0	1	1	2	0	1	1	2	0	1	1	2	0
2	Fossil	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Christian Dior	1	1	2	0	1	1	2	0	1	1	2	0	1	1	2	0
4	Brunello Cucinelli	1	1	2	0	1	1	2	0	1	1	2	0	1	1	2	0
5	Hermes	1	1	2	0	1	1	2	0	1	1	2	0	1	1	2	0
6	Hugo Boss	1	0	1	1	1	1	2	0	1	0	1	1	1	0	1	1
7	Moncler	1	1	2	0	1	1	2	0	1	1	2	0	1	1	2	0
8	Prada	1	1	2	0	0	0	0	0	0	1	1	1	0	1	1	1
9	Ralph Lauren	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	Salvatore Ferragamo	1	0	1	1	1	1	2	0	1	0	1	1	1	0	1	1
11	Kering	1	1	2	0	1	1	2	0	1	1	2	0	1	1	2	0
12	Tod's	1	0	1	1	0	1	1	1	0	0	0	0	1	0	1	1
13	LVMH	1	1	2	0	1	1	2	0	1	1	2	0	1	1	2	0
14	Richemont	1	0	1	1	1	1	2	0	1	0	1	1	1	0	1	1
15	Capri Holdings	1	0	1	1	1	0	1	1	1	0	1	1	0	0	0	0
16	PVH	1	1	2	0	0	1	1	1	0	1	1	1	1	1	2	0
17	GAP	1	0	1	1	1	1	2	0	1	0	1	1	1	0	1	1
18	Tapestry	1	1	2	0	1	1	2	0	1	1	2	0	1	1	2	0
19	Inditex	1	0	1	1	1	0	1	1	1	0	1	1	0	0	0	0
20	Puma	1	1	2	0	1	1	2	0	1	1	2	0	1	1	2	0
21	Adidas	1	1	2	0	1	1	2	0	1	1	2	0	1	1	2	0
22	Guess?	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	Abercrombie & Fitch	1	0	1	1	0	1	1	1	0	0	0	0	1	0	1	1
24	Nike	1	0	1	1	1	1	2	0	1	0	1	1	1	0	1	1
25	Under Armour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total			**9**	**Total**			**5**	**Total**			**9**	**Total**			**8**
		n. of matches			**16**	**n. of matches**			**20**	**n. of matches**			**16**	**n. of matches**			**17**

Appendix 44: FY 2018 results

		FY 2018											
	Company	SVA	TSR	Sum	n. of differences	EVA	MVA	Sum	n. of differences	EVA	RONA	Sum	n. of differences
1	Aeffe	1	1	2	0	0	1	1	1	0	1	1	1
2	Fossil	1	1	2	0	0	1	1	1	0	1	1	1
3	Christian Dior	1	1	2	0	1	1	2	0	1	1	2	0
4	Brunello Cucinelli	1	1	2	0	1	1	2	0	1	1	2	0
5	Hermes	1	1	2	0	1	1	2	0	1	1	2	0
6	Hugo Boss	0	0	0	0	1	1	2	0	1	1	2	0
7	Moncler	1	1	2	0	1	1	2	0	1	1	2	0
8	Prada	0	0	0	0	0	1	1	1	0	1	1	1
9	Ralph Lauren	1	1	2	0	0	1	1	1	0	1	1	1
10	Salvatore Ferragamo	0	0	0	0	1	1	2	0	1	1	2	0
11	Kering	1	1	2	0	1	1	2	0	1	1	2	0
12	Tod's	0	0	0	0	0	1	1	1	0	1	1	1
13	LVMH	1	1	2	0	1	1	2	0	1	1	2	0
14	Richemont	0	0	0	0	1	1	2	0	1	1	2	0
15	Capri Holdings	1	1	2	0	1	1	2	0	1	1	2	0
16	PVH	0	0	0	0	1	1	2	0	1	1	2	0
17	GAP	0	0	0	0	1	1	2	0	1	1	2	0
18	Tapestry	1	0	1	1	1	1	2	0	1	1	2	0
19	Inditex	0	0	0	0	1	1	2	0	1	1	2	0
20	Puma	1	1	2	0	1	0	1	1	1	1	2	0
21	Adidas	1	1	2	0	1	1	2	0	1	1	2	0
22	Guess?	1	1	2	0	0	1	1	1	0	0	0	0
23	Abercrombie & Fitch	1	1	2	0	0	1	1	1	0	1	1	1
24	Nike	1	1	2	0	1	1	2	0	1	1	2	0
25	Under Armour	1	1	2	0	0	1	1	1	0	0	0	0
		Total			**1**	**Total**			**9**	**Total**			**6**
		n. of matches			**24**	**n. of matches**			**16**	**n. of matches**			**19**

	Company	FY 2018											
		EVA	CVA	Sum	n. of differences	EVA	SVA/TSR	Sum	n. of differences	EVA	ER	Sum	n. of differences
1	Aeffe	0	1	1	1	0	1	1	1	0	1	1	1
2	Fossil	0	0	0	0	0	1	1	1	0	0	0	0
3	Christian Dior	1	0	1	1	1	1	2	0	1	1	2	0
4	Brunello Cucinelli	1	1	2	0	1	1	2	0	1	1	2	0
5	Hermes	1	1	2	0	1	1	2	0	1	1	2	0
6	Hugo Boss	1	1	2	0	1	0	1	1	1	0	1	1
7	Moncler	1	1	2	0	1	1	2	0	1	1	2	0
8	Prada	0	0	0	0	0	0	0	0	0	0	0	0
9	Ralph Lauren	0	0	0	0	0	1	1	1	0	0	0	0
10	Salvatore Ferragamo	1	1	2	0	1	0	1	1	1	0	1	1
11	Kering	1	1	2	0	1	1	2	0	1	1	2	0
12	Tod's	0	0	0	0	0	0	0	0	0	0	0	0
13	LVMH	1	1	2	0	1	1	2	0	1	1	2	0
14	Richemont	1	1	2	0	1	0	1	1	1	0	1	1
15	Capri Holdings	1	1	2	0	1	1	2	0	1	0	1	1
16	PVH	1	1	2	0	1	0	1	1	1	1	2	0
17	GAP	1	1	2	0	1	0	1	1	1	0	1	1
18	Tapestry	1	0	1	1	1	0	1	1	1	1	2	0
19	Inditex	1	1	2	0	1	0	1	1	1	0	1	1
20	Puma	1	1	2	0	1	1	2	0	1	1	2	0
21	Adidas	1	1	2	0	1	1	2	0	1	1	2	0
22	Guess?	0	0	0	0	0	1	1	1	0	0	0	0
23	Abercrombie & Fitch	0	1	1	1	0	1	1	1	0	0	0	0
24	Nike	1	1	2	0	1	1	2	0	1	1	2	0
25	Under Armour	0	0	0	0	0	1	1	1	0	0	0	0
		Total			**4**	**Total**			**13**	**Total**			**7**
		n. of matches			**21**	**n. of matches**			**12**	**n. of matches**			**18**

	Company	FY 2018											
		MVA	RONA	Sum	n. of differences	MVA	CVA	Sum	n. of differences	MVA	SVA/TSR	Sum	n. of differences
1	Aeffe	1	1	2	0	1	1	2	0	1	1	2	0
2	Fossil	1	1	2	0	1	0	1	1	1	1	2	0
3	Christian Dior	1	1	2	0	1	0	1	1	1	1	2	0
4	Brunello Cucinelli	1	1	2	0	1	1	2	0	1	1	2	0
5	Hermes	1	1	2	0	1	1	2	0	1	1	2	0
6	Hugo Boss	1	1	2	0	1	1	2	0	1	0	1	1
7	Moncler	1	1	2	0	1	1	2	0	1	1	2	0
8	Prada	1	1	2	0	1	0	1	1	1	0	1	1
9	Ralph Lauren	1	1	2	0	1	0	1	1	1	1	2	0
10	Salvatore Ferragamo	1	1	2	0	1	1	2	0	1	0	1	1
11	Kering	1	1	2	0	1	1	2	0	1	1	2	0
12	Tod's	1	1	2	0	1	0	1	1	1	0	1	1
13	LVMH	1	1	2	0	1	1	2	0	1	1	2	0
14	Richemont	1	1	2	0	1	1	2	0	1	0	1	1
15	Capri Holdings	1	1	2	0	1	1	2	0	1	1	2	0
16	PVH	1	1	2	0	1	1	2	0	1	0	1	1
17	GAP	1	1	2	0	1	1	2	0	1	0	1	1
18	Tapestry	1	1	2	0	1	0	1	1	1	0	1	1
19	Inditex	1	1	2	0	1	1	2	0	1	0	1	1
20	Puma	0	1	1	1	0	1	1	1	0	1	1	1
21	Adidas	1	1	2	0	1	1	2	0	1	1	2	0
22	Guess?	1	0	1	1	1	0	1	1	1	1	2	0
23	Abercrombie & Fitch	1	1	2	0	1	1	2	0	1	1	2	0
24	Nike	1	1	2	0	1	1	2	0	1	1	2	0
25	Under Armour	1	0	1	1	1	0	1	1	1	1	2	0
		Total			**3**	**Total**			**9**	**Total**			**10**
		n. of matches			**22**	**n. of matches**			**16**	**n. of matches**			**15**

	Company	FY 2018											
		MVA	ER	Sum	n. of differences	RONA	CVA	Sum	n. of differences	RONA	SVA/TSR	Sum	n. of differences
1	Aeffe	1	1	2	0	1	1	2	0	1	1	2	0
2	Fossil	1	0	1	1	1	0	1	1	1	1	2	0
3	Christian Dior	1	1	2	0	1	0	1	1	1	1	2	0
4	Brunello Cucinelli	1	1	2	0	1	1	2	0	1	1	2	0
5	Hermes	1	1	2	0	1	1	2	0	1	1	2	0
6	Hugo Boss	1	0	1	1	1	1	2	0	1	0	1	1
7	Moncler	1	1	2	0	1	1	2	0	1	1	2	0
8	Prada	1	0	1	1	1	0	1	1	1	0	1	1
9	Ralph Lauren	1	0	1	1	1	0	1	1	1	1	2	0
10	Salvatore Ferragamo	1	0	1	1	1	1	2	0	1	0	1	1
11	Kering	1	1	2	0	1	1	2	0	1	1	2	0
12	Tod's	1	0	1	1	1	0	1	1	1	0	1	1
13	LVMH	1	1	2	0	1	1	2	0	1	1	2	0
14	Richemont	1	0	1	1	1	1	2	0	1	0	1	1
15	Capri Holdings	1	0	1	1	1	1	2	0	1	1	2	0
16	PVH	1	1	2	0	1	1	2	0	1	0	1	1
17	GAP	1	0	1	1	1	1	2	0	1	0	1	1
18	Tapestry	1	1	2	0	1	0	1	1	1	0	1	1
19	Inditex	1	0	1	1	1	1	2	0	1	0	1	1
20	Puma	0	1	1	1	1	1	2	0	1	1	2	0
21	Adidas	1	1	2	0	1	1	2	0	1	1	2	0
22	Guess?	1	0	1	1	0	0	0	0	0	1	1	1
23	Abercrombie & Fitch	1	0	1	1	1	1	2	0	1	1	2	0
24	Nike	1	1	2	0	1	1	2	0	1	1	2	0
25	Under Armour	1	0	1	1	0	0	0	0	0	1	1	1
		Total			**14**	**Total**			**6**	**Total**			**11**
		n. of matches			**11**	**n. of matches**			**19**	**n. of matches**			**14**

	Company	FY 2018															
		RONA	ER	Sum	n. of differences	CVA	SVA/TSR	Sum	n. of differences	CVA	ER	Sum	n. of differences	SVA/TSR	ER	Sum	n. of differences
1	Aeffe	1	1	2	0	1	1	2	0	1	1	2	0	1	1	2	0
2	Fossil	1	0	1	1	0	1	1	1	0	0	0	0	1	0	1	1
3	Christian Dior	1	1	2	0	0	1	1	1	0	1	1	1	1	1	2	0
4	Brunello Cucinelli	1	1	2	0	1	1	2	0	1	1	2	0	1	1	2	0
5	Hermes	1	1	2	0	1	1	2	0	1	1	2	0	1	1	2	0
6	Hugo Boss	1	0	1	1	1	0	1	1	1	0	1	1	0	0	0	0
7	Moncler	1	1	2	0	1	1	2	0	1	1	2	0	1	1	2	0
8	Prada	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
9	Ralph Lauren	1	0	1	1	0	1	1	1	0	0	0	0	1	0	1	1
10	Salvatore Ferragamo	1	0	1	1	1	0	1	1	1	0	1	1	0	0	0	0
11	Kering	1	1	2	0	1	1	2	0	1	1	2	0	1	1	2	0
12	Tod's	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
13	LVMH	1	1	2	0	1	1	2	0	1	1	2	0	1	1	2	0
14	Richemont	1	0	1	1	1	0	1	1	1	0	1	1	0	0	0	0
15	Capri Holdings	1	0	1	1	1	1	2	0	1	0	1	1	1	0	1	1
16	PVH	1	1	2	0	1	0	1	1	1	1	2	0	0	1	1	1
17	GAP	1	0	1	1	1	0	1	1	1	0	1	1	0	0	0	0
18	Tapestry	1	1	2	0	0	0	0	0	0	1	1	1	0	1	1	1
19	Inditex	1	0	1	1	1	0	1	1	1	0	1	1	0	0	0	0
20	Puma	1	1	2	0	1	1	2	0	1	1	2	0	1	1	2	0
21	Adidas	1	1	2	0	1	1	2	0	1	1	2	0	1	1	2	0
22	Guess?	0	0	0	0	0	1	1	1	0	0	0	0	1	0	1	1
23	Abercrombie & Fitch	1	0	1	1	1	1	2	0	1	0	1	1	1	0	1	1
24	Nike	1	1	2	0	1	1	2	0	1	1	2	0	1	1	2	0
25	Under Armour	0	0	0	0	0	1	1	1	0	0	0	0	1	0	1	1
		Total			**11**	**Total**			**11**	**Total**			**9**	**Total**			**8**
		n. of matches			**14**	**n. of matches**			**14**	**n. of matches**			**16**	**n. of matches**			**17**

Appendix 45: FY 2019 results

	Company	FY 2019											
		SVA	TSR	Sum	n. of differences	EVA	MVA	Sum	n. of differences	EVA	RONA	Sum	n. of differences
1	Aeffe	0	0	0	0	0	1	1	1	0	1	1	1
2	Fossil	0	0	0	0	0	0	0	0	0	0	0	0
3	Christian Dior	1	1	2	0	1	1	2	0	1	1	2	0
4	Brunello Cucinelli	1	1	2	0	1	1	2	0	1	1	2	0
5	Hermes	1	1	2	0	1	1	2	0	1	1	2	0
6	Hugo Boss	0	0	0	0	1	1	2	0	1	1	2	0
7	Moncler	1	1	2	0	1	1	2	0	1	1	2	0
8	Prada	1	1	2	0	0	1	1	1	0	1	1	1
9	Ralph Lauren	1	1	2	0	1	1	2	0	1	1	2	0
10	Salvatore Ferragamo	1	1	2	0	1	1	2	0	1	1	2	0
11	Kering	1	1	2	0	1	1	2	0	1	1	2	0
12	Tod's	1	1	2	0	0	1	1	1	0	1	1	1
13	LVMH	1	1	2	0	1	1	2	0	1	1	2	0
14	Richemont	0	0	0	0	0	1	1	1	0	1	1	1
15	Capri Holdings	0	0	0	0	1	1	2	0	1	1	2	0
16	PVH	0	0	0	0	0	1	1	1	0	1	1	1
17	GAP	0	0	0	0	0	1	1	1	0	1	1	1
18	Tapestry	0	0	0	0	1	1	2	0	1	1	2	0
19	Inditex	1	1	2	0	1	1	2	0	1	1	2	0
20	Puma	1	1	2	0	1	1	2	0	1	1	2	0
21	Adidas	1	1	2	0	1	1	2	0	1	1	2	0
22	Guess?	1	1	2	0	0	1	1	1	0	1	1	1
23	Abercrombie & Fitch	0	0	0	0	0	1	1	1	0	1	1	1
24	Nike	1	1	2	0	1	1	2	0	1	1	2	0
25	Under Armour	1	1	2	0	0	1	1	1	0	1	1	1
		Total			**0**	**Total**			**9**	**Total**			**9**
		n. of matches			**25**	**n. of matches**			**16**	**n. of matches**			**16**

	Company	FY 2019											
		EVA	CVA	Sum	n. of differences	EVA	SVA/TSR	Sum	n. of differences	EVA	ER	Sum	n. of differences
1	Aeffe	0	0	0	0	0	0	0	0	0	0	0	0
2	Fossil	0	0	0	0	0	0	0	0	0	0	0	0
3	Christian Dior	1	0	1	1	1	1	2	0	1	1	2	0
4	Brunello Cucinelli	1	0	1	1	1	1	2	0	1	1	2	0
5	Hermes	1	1	2	0	1	1	2	0	1	1	2	0
6	Hugo Boss	1	0	1	1	1	0	1	1	1	0	1	1
7	Moncler	1	1	2	0	1	1	2	0	1	1	2	0
8	Prada	0	0	0	0	0	1	1	1	0	0	0	0
9	Ralph Lauren	1	1	2	0	1	1	2	0	1	0	1	1
10	Salvatore Ferragamo	1	1	2	0	1	1	2	0	1	0	1	1
11	Kering	1	0	1	1	1	1	2	0	1	1	2	0
12	Tod's	0	0	0	0	0	1	1	1	0	0	0	0
13	LVMH	1	1	2	0	1	1	2	0	1	1	2	0
14	Richemont	0	0	0	0	0	0	0	0	0	0	0	0
15	Capri Holdings	1	1	2	0	1	0	1	1	1	0	1	1
16	PVH	0	0	0	0	0	0	0	0	0	0	0	0
17	GAP	0	0	0	0	0	0	0	0	0	0	0	0
18	Tapestry	1	1	2	0	1	0	1	1	1	0	1	1
19	Inditex	1	1	2	0	1	1	2	0	1	0	1	1
20	Puma	1	0	1	1	1	1	2	0	1	1	2	0
21	Adidas	1	1	2	0	1	1	2	0	1	1	2	0
22	Guess?	0	0	0	0	0	1	1	1	0	0	0	0
23	Abercrombie & Fitch	0	0	0	0	0	0	0	0	0	0	0	0
24	Nike	1	1	2	0	1	1	2	0	1	1	2	0
25	Under Armour	0	0	0	0	0	1	1	1	0	0	0	0
		Total			**5**	**Total**			**7**	**Total**			**6**
		n. of matches			**20**	**n. of matches**			**18**	**n. of matches**			**19**

	Company	FY 2019											
		MVA	RONA	Sum	n. of differences	MVA	CVA	Sum	n. of differences	MVA	SVA/TSR	Sum	n. of differences
1	Aeffe	1	1	2	0	1	0	1	1	1	0	1	1
2	Fossil	0	0	0	0	0	0	0	0	0	0	0	0
3	Christian Dior	1	1	2	0	1	0	1	1	1	1	2	0
4	Brunello Cucinelli	1	1	2	0	1	0	1	1	1	1	2	0
5	Hermes	1	1	2	0	1	1	2	0	1	1	2	0
6	Hugo Boss	1	1	2	0	1	0	1	1	1	0	1	1
7	Moncler	1	1	2	0	1	1	2	0	1	1	2	0
8	Prada	1	1	2	0	1	0	1	1	1	1	2	0
9	Ralph Lauren	1	1	2	0	1	1	2	0	1	1	2	0
10	Salvatore Ferragamo	1	1	2	0	1	1	2	0	1	1	2	0
11	Kering	1	1	2	0	1	0	1	1	1	1	2	0
12	Tod's	1	1	2	0	1	0	1	1	1	1	2	0
13	LVMH	1	1	2	0	1	1	2	0	1	1	2	0
14	Richemont	1	1	2	0	1	0	1	1	1	0	1	1
15	Capri Holdings	1	1	2	0	1	1	2	0	1	0	1	1
16	PVH	1	1	2	0	1	0	1	1	1	0	1	1
17	GAP	1	1	2	0	1	0	1	1	1	0	1	1
18	Tapestry	1	1	2	0	1	1	2	0	1	0	1	1
19	Inditex	1	1	2	0	1	1	2	0	1	1	2	0
20	Puma	1	1	2	0	1	0	1	1	1	1	2	0
21	Adidas	1	1	2	0	1	1	2	0	1	1	2	0
22	Guess?	1	1	2	0	1	0	1	1	1	1	2	0
23	Abercrombie & Fitch	1	1	2	0	1	0	1	1	1	0	1	1
24	Nike	1	1	2	0	1	1	2	0	1	1	2	0
25	Under Armour	1	1	2	0	1	0	1	1	1	1	2	0
		Total			**0**	**Total**			**14**	**Total**			**8**
		n. of matches			**25**	**n. of matches**			**11**	**n. of matches**			**17**

	Company	FY 2019											
		MVA	ER	Sum	n. of differences	RONA	CVA	Sum	n. of differences	RONA	SVA/TSR	Sum	n. of differences
1	Aeffe	1	0	1	1	1	0	1	1	1	0	1	1
2	Fossil	0	0	0	0	0	0	0	0	0	0	0	0
3	Christian Dior	1	1	2	0	1	0	1	1	1	1	2	0
4	Brunello Cucinelli	1	1	2	0	1	0	1	1	1	1	2	0
5	Hermes	1	1	2	0	1	1	2	0	1	1	2	0
6	Hugo Boss	1	0	1	1	1	0	1	1	1	0	1	1
7	Moncler	1	1	2	0	1	1	2	0	1	1	2	0
8	Prada	1	0	1	1	1	0	1	1	1	1	2	0
9	Ralph Lauren	1	0	1	1	1	1	2	0	1	1	2	0
10	Salvatore Ferragamo	1	0	1	1	1	1	2	0	1	1	2	0
11	Kering	1	1	2	0	1	0	1	1	1	1	2	0
12	Tod's	1	0	1	1	1	0	1	1	1	1	2	0
13	LVMH	1	1	2	0	1	1	2	0	1	1	2	0
14	Richemont	1	0	1	1	1	0	1	1	1	0	1	1
15	Capri Holdings	1	0	1	1	1	1	2	0	1	0	1	1
16	PVH	1	0	1	1	1	0	1	1	1	0	1	1
17	GAP	1	0	1	1	1	0	1	1	1	0	1	1
18	Tapestry	1	0	1	1	1	1	2	0	1	0	1	1
19	Inditex	1	0	1	1	1	1	2	0	1	1	2	0
20	Puma	1	1	2	0	1	0	1	1	1	1	2	0
21	Adidas	1	1	2	0	1	1	2	0	1	1	2	0
22	Guess?	1	0	1	1	1	0	1	1	1	1	2	0
23	Abercrombie & Fitch	1	0	1	1	1	0	1	1	1	0	1	1
24	Nike	1	1	2	0	1	1	2	0	1	1	2	0
25	Under Armour	1	0	1	1	1	0	1	1	1	1	2	0
		Total			**15**	**Total**			**14**	**Total**			**8**
		n. of matches			**10**	**n. of matches**			**11**	**n. of matches**			**17**

	Company	FY 2019															
		RONA	ER	Sum	n. of differences	CVA	SVA/TSR	Sum	n. of differences	CVA	ER	Sum	n. of differences	SVA/TSR	ER	Sum	n. of differences
1	Aeffe	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
2	Fossil	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Christian Dior	1	1	2	0	0	1	1	1	0	1	1	1	1	1	2	0
4	Brunello Cucinelli	1	1	2	0	0	1	1	1	0	1	1	1	1	1	2	0
5	Hermes	1	1	2	0	1	1	2	0	1	1	2	0	1	1	2	0
6	Hugo Boss	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
7	Moncler	1	1	2	0	1	1	2	0	1	1	2	0	1	1	2	0
8	Prada	1	0	1	1	0	1	1	1	0	0	0	0	1	0	1	1
9	Ralph Lauren	1	0	1	1	1	1	2	0	1	0	1	1	1	0	1	1
10	Salvatore Ferragamo	1	0	1	1	1	1	2	0	1	0	1	1	1	0	1	1
11	Kering	1	1	2	0	0	1	1	1	0	1	1	1	1	1	2	0
12	Tod's	1	0	1	1	0	1	1	1	0	0	0	0	1	0	1	1
13	LVMH	1	1	2	0	1	1	2	0	1	1	2	0	1	1	2	0
14	Richemont	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
15	Capri Holdings	1	0	1	1	1	0	1	1	1	0	1	1	0	0	0	0
16	PVH	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
17	GAP	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
18	Tapestry	1	0	1	1	1	0	1	1	1	0	1	1	0	0	0	0
19	Inditex	1	0	1	1	1	1	2	0	1	0	1	1	1	0	1	1
20	Puma	1	1	2	0	0	1	1	1	0	1	1	1	1	1	2	0
21	Adidas	1	1	2	0	1	1	2	0	1	1	2	0	1	1	2	0
22	Guess?	1	0	1	1	0	1	1	1	0	0	0	0	1	0	1	1
23	Abercrombie & Fitch	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
24	Nike	1	1	2	0	1	1	2	0	1	1	2	0	1	1	2	0
25	Under Armour	1	0	1	1	0	1	1	1	0	0	0	0	1	0	1	1
		Total			**15**	**Total**			**10**	**Total**			**9**	**Total**			**7**
		n. of matches			**10**	**n. of matches**			**15**	**n. of matches**			**16**	**n. of matches**			**18**

Appendix 46: FY 2020 results

	Company	FY 2020											
		SVA	TSR	Sum	n. of differences	EVA	MVA	Sum	n. of differences	EVA	RONA	Sum	n. of differences
1	Aeffe	0	0	0	0	0	0	0	0	0	0	0	0
2	Fossil	1	1	2	0	0	1	1	1	0	0	0	0
3	Christian Dior	1	1	2	0	1	1	2	0	1	1	2	0
4	Brunello Cucinelli	1	1	2	0	0	1	1	1	0	0	0	0
5	Hermes	1	1	2	0	1	1	2	0	1	1	2	0
6	Hugo Boss	0	0	0	0	0	1	1	1	0	0	0	0
7	Moncler	1	1	2	0	1	1	2	0	1	1	2	0
8	Prada	1	1	2	0	0	1	1	1	0	1	1	1
9	Ralph Lauren	0	0	0	0	1	1	2	0	1	1	2	0
10	Salvatore Ferragamo	0	0	0	0	0	1	1	1	0	0	0	0
11	Kering	1	1	2	0	1	1	2	0	1	1	2	0
12	Tod's	0	0	0	0	0	0	0	0	0	0	0	0
13	LVMH	1	1	2	0	0	1	1	1	0	1	1	1
14	Richemont	0	0	0	0	0	1	1	1	0	1	1	1
15	Capri Holdings	0	0	0	0	0	1	1	1	0	0	0	0
16	PVH	0	0	0	0	0	1	1	1	0	0	0	0
17	GAP	1	1	2	0	0	1	1	1	0	0	0	0
18	Tapestry	0	0	0	0	0	1	1	1	0	0	0	0
19	Inditex	0	0	0	0	0	1	1	1	0	1	1	1
20	Puma	1	1	2	0	0	1	1	1	0	1	1	1
21	Adidas	1	1	2	0	0	1	1	1	0	1	1	1
22	Guess?	1	1	2	0	1	1	2	0	1	1	2	0
23	Abercrombie & Fitch	1	1	2	0	0	1	1	1	0	0	0	0
24	Nike	1	1	2	0	1	1	2	0	1	1	2	0
25	Under Armour	0	0	0	0	0	1	1	1	0	0	0	0
		Total			**0**	**Total**			**16**	**Total**			**6**
		n. of matches			**25**	**n. of matches**			**9**	**n. of matches**			**19**

	Company	FY 2020											
		EVA	CVA	Sum	n. of differences	EVA	SVA/TSR	Sum	n. of differences	EVA	ER	Sum	n. of differences
1	Aeffe	0	0	0	0	0	0	0	0	0	0	0	0
2	Fossil	0	0	0	0	0	1	1	1	0	0	0	0
3	Christian Dior	1	1	2	0	1	1	2	0	1	1	2	0
4	Brunello Cucinelli	0	0	0	0	0	1	1	1	0	1	1	1
5	Hermes	1	1	2	0	1	1	2	0	1	1	2	0
6	Hugo Boss	0	0	0	0	0	0	0	0	0	0	0	0
7	Moncler	1	1	2	0	1	1	2	0	1	1	2	0
8	Prada	0	0	0	0	0	1	1	1	0	1	1	1
9	Ralph Lauren	1	0	1	1	1	0	1	1	1	0	1	1
10	Salvatore Ferragamo	0	1	1	1	0	0	0	0	0	0	0	0
11	Kering	1	1	2	0	1	1	2	0	1	1	2	0
12	Tod's	0	0	0	0	0	0	0	0	0	0	0	0
13	LVMH	0	1	1	1	0	1	1	1	0	1	1	1
14	Richemont	0	0	0	0	0	0	0	0	0	0	0	0
15	Capri Holdings	0	1	1	1	0	0	0	0	0	0	0	0
16	PVH	0	0	0	0	0	0	0	0	0	0	0	0
17	GAP	0	0	0	0	0	1	1	1	0	0	0	0
18	Tapestry	0	0	0	0	0	0	0	0	0	0	0	0
19	Inditex	0	1	1	1	0	0	0	0	0	0	0	0
20	Puma	0	0	0	0	0	1	1	1	0	1	1	1
21	Adidas	0	1	1	1	0	1	1	1	0	1	1	1
22	Guess?	1	1	2	0	1	1	2	0	1	0	1	1
23	Abercrombie & Fitch	0	1	1	1	0	1	1	1	0	0	0	0
24	Nike	1	1	2	0	1	1	2	0	1	1	2	0
25	Under Armour	0	0	0	0	0	0	0	0	0	0	0	0
		Total			**7**	**Total**			**9**	**Total**			**7**
		n. of matches			**18**	**n. of matches**			**16**	**n. of matches**			**18**

	Company	FY 2020											
		MVA	RONA	Sum	n. of differences	MVA	CVA	Sum	n. of differences	MVA	SVA/TSR	Sum	n. of differences
1	Aeffe	0	0	0	0	0	0	0	0	0	0	0	0
2	Fossil	1	0	1	1	1	0	1	1	1	1	2	0
3	Christian Dior	1	1	2	0	1	1	2	0	1	1	2	0
4	Brunello Cucinelli	1	0	1	1	1	0	1	1	1	1	2	0
5	Hermes	1	1	2	0	1	1	2	0	1	1	2	0
6	Hugo Boss	1	0	1	1	1	0	1	1	1	0	1	1
7	Moncler	1	1	2	0	1	1	2	0	1	1	2	0
8	Prada	1	1	2	0	1	0	1	1	1	1	2	0
9	Ralph Lauren	1	1	2	0	1	0	1	1	1	0	1	1
10	Salvatore Ferragamo	1	0	1	1	1	1	2	0	1	0	1	1
11	Kering	1	1	2	0	1	1	2	0	1	1	2	0
12	Tod's	0	0	0	0	0	0	0	0	0	0	0	0
13	LVMH	1	1	2	0	1	1	2	0	1	1	2	0
14	Richemont	1	1	2	0	1	0	1	1	1	0	1	1
15	Capri Holdings	1	0	1	1	1	1	2	0	1	0	1	1
16	PVH	1	0	1	1	1	0	1	1	1	0	1	1
17	GAP	1	0	1	1	1	0	1	1	1	1	2	0
18	Tapestry	1	0	1	1	1	0	1	1	1	0	1	1
19	Inditex	1	1	2	0	1	1	2	0	1	0	1	1
20	Puma	1	1	2	0	1	0	1	1	1	1	2	0
21	Adidas	1	1	2	0	1	1	2	0	1	1	2	0
22	Guess?	1	1	2	0	1	1	2	0	1	1	2	0
23	Abercrombie & Fitch	1	0	1	1	1	1	2	0	1	1	2	0
24	Nike	1	1	2	0	1	1	2	0	1	1	2	0
25	Under Armour	1	0	1	1	1	0	1	1	1	0	1	1
		Total			**10**	**Total**			**11**	**Total**			**9**
		n. of matches			**15**	**n. of matches**			**14**	**n. of matches**			**16**

	Company	FY 2020											
		MVA	ER	Sum	n. of differences	RONA	CVA	Sum	n. of differences	RONA	SVA/TSR	Sum	n. of differences
1	Aeffe	0	0	0	0	0	0	0	0	0	0	0	0
2	Fossil	1	0	1	1	0	0	0	0	0	1	1	1
3	Christian Dior	1	1	2	0	1	1	2	0	1	1	2	0
4	Brunello Cucinelli	1	1	2	0	0	0	0	0	0	1	1	1
5	Hermes	1	1	2	0	1	1	2	0	1	1	2	0
6	Hugo Boss	1	0	1	1	0	0	0	0	0	0	0	0
7	Moncler	1	1	2	0	1	1	2	0	1	1	2	0
8	Prada	1	1	2	0	1	0	1	1	1	1	2	0
9	Ralph Lauren	1	0	1	1	1	0	1	1	1	0	1	1
10	Salvatore Ferragamo	1	0	1	1	0	1	1	1	0	0	0	0
11	Kering	1	1	2	0	1	1	2	0	1	1	2	0
12	Tod's	0	0	0	0	0	0	0	0	0	0	0	0
13	LVMH	1	1	2	0	1	1	2	0	1	1	2	0
14	Richemont	1	0	1	1	1	0	1	1	1	0	1	1
15	Capri Holdings	1	0	1	1	0	1	1	1	0	0	0	0
16	PVH	1	0	1	1	0	0	0	0	0	0	0	0
17	GAP	1	0	1	1	0	0	0	0	0	1	1	1
18	Tapestry	1	0	1	1	0	0	0	0	0	0	0	0
19	Inditex	1	0	1	1	1	1	2	0	1	0	1	1
20	Puma	1	1	2	0	1	0	1	1	1	1	2	0
21	Adidas	1	1	2	0	1	1	2	0	1	1	2	0
22	Guess?	1	0	1	1	1	1	2	0	1	1	2	0
23	Abercrombie & Fitch	1	0	1	1	0	1	1	1	0	1	1	1
24	Nike	1	1	2	0	1	1	2	0	1	1	2	0
25	Under Armour	1	0	1	1	0	0	0	0	0	0	0	0
		Total			**13**	**Total**			**7**	**Total**			**7**
		n. of matches			**12**	**n. of matches**			**18**	**n. of matches**			**18**

	Company	FY 2020															
		RONA	ER	Sum	n. of differences	CVA	SVA/TSR	Sum	n. of differences	CVA	ER	Sum	n. of differences	SVA/TSR	ER	Sum	n. of differences
1	Aeffe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Fossil	0	0	0	0	0	1	1	1	0	0	0	0	1	0	1	1
3	Christian Dior	1	1	2	0	1	1	2	0	1	1	2	0	1	1	2	0
4	Brunello Cucinelli	0	1	1	1	0	1	1	1	0	1	1	1	1	1	2	0
5	Hermes	1	1	2	0	1	1	2	0	1	1	2	0	1	1	2	0
6	Hugo Boss	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	Moncler	1	1	2	0	1	1	2	0	1	1	2	0	1	1	2	0
8	Prada	1	1	2	0	0	1	1	1	0	1	1	1	1	1	2	0
9	Ralph Lauren	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
10	Salvatore Ferragamo	0	0	0	0	1	0	1	1	1	0	1	1	0	0	0	0
11	Kering	1	1	2	0	1	1	2	0	1	1	2	0	1	1	2	0
12	Tod's	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	LVMH	1	1	2	0	1	1	2	0	1	1	2	0	1	1	2	0
14	Richemont	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
15	Capri Holdings	0	0	0	0	1	0	1	1	1	0	1	1	0	0	0	0
16	PVH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	GAP	0	0	0	0	0	1	1	1	0	0	0	0	1	0	1	1
18	Tapestry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	Inditex	1	0	1	1	1	0	1	1	1	0	1	1	0	0	0	0
20	Puma	1	1	2	0	0	1	1	1	0	1	1	1	1	1	2	0
21	Adidas	1	1	2	0	1	1	2	0	1	1	2	0	1	1	2	0
22	Guess?	1	0	1	1	1	1	2	0	1	0	1	1	1	0	1	1
23	Abercrombie & Fitch	0	0	0	0	1	1	2	0	1	0	1	1	1	0	1	1
24	Nike	1	1	2	0	1	1	2	0	1	1	2	0	1	1	2	0
25	Under Armour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total			**5**	**Total**			**8**	**Total**			**8**	**Total**			**4**
		n. of matches			**20**	**n. of matches**			**17**	**n. of matches**			**17**	**n. of matches**			**21**