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# LBO Valuation of Marimekko

Master Thesis

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## Abstract

The present thesis aims to showcase an example of a leveraged buyout valuation in the fashion industry, as the interest towards fashion companies has increased among private equity firms, and the industry shows considerable growth prospects for the upcoming years. Especially in Europe, the mergers and acquisitions activity in the fashion industry has increased over the recent years. However, there is very little research on the LBO investments in the fashion segment, and thus it offers an intriguing field to examine.

In order to assess the return possibilities in the industry from a PE perspective, we will apply the LBO model on a hypothetical target, using the case study method. The case company, Marimekko, is a renowned Finnish lifestyle house with global ambitions. The valuation will be based on the company's strategic drivers and industry outlooks. To conclude the results derived from the analysis, we establish that Marimekko would not offer an attractive LBO target for a PE firm. The weak results are most probably due to the funding structure with low leverage, and the company's excellent year in the stock markets prior to the buyout, which boosted the acquisition price. Thus, the research does not offer a sufficient example for fashion industry buyouts at large.

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# 1. Introduction

During the first LBO wave in the 1980s, the LBO targets were typically undervalued and mismanaged US conglomerates (Hannus, 2015). However, in the 2000s the LBO market has evolved significantly and spread throughout the different geographies and industries, and looks quite different than in the 1980s. Indeed, in the first half of the 2000s, private equity investments in Europe surpassed the ones in North America for the first time in history, measured in the amounts of capital committed. What is more, Asia was experiencing a strong growth phase, too, principally driven by China's surging economy (Kaiser and Westarp, 2010).

In addition to the LBO market as a whole, also the way how value is created in LBOs has changed over time. For example, in the 1980s, the leverage ratios were significantly higher than these days, and thus enabled higher value creation opportunities through financial engineering (Gompers et al, 2016). Furthermore, as the conglomerates were operating in multiple industries, asset divestments of non-core operations played an important role in value creation. However, later on with the LBO market becoming more sophisticated, operational engineering has gained increasing importance (Kaplan and Strömberg, 2009; Hannus, 2015) and become the main differentiator between the most successful and less successful PE firms.

Moreover, in the 2000s we have seen LBO transactions also in less capital intensive industries, such as in the fashion industry. In 2017, there were 217 M&A deals in total taking place in the fashion and luxury (F&L) industry and approximately one-third of the deals were conducted by a private equity/venture capital firm (Deloitte, 2018). This development is probably due to the attractive growth prospects in the industry, and for the next three years, it is forecasted that the F&L industry will grow by 5-10% per year (Deloitte, 2018).

To combine the attractive growth prospects and private equity firms' increasing interest in the fashion industry, we decided to write our thesis on a hypothetical LBO of a company operating in the fashion industry. Furthermore, as there has not been many Finnish LBO transactions, let alone LBOs of Finnish fashion companies, we decided that the company in the case study will be a Finnish fashion company. In our thesis, we will conduct an LBO valuation and examine whether a private equity

fund, the acquirer, will be able to achieve an acceptable return of their investment over a 5-year holding period.

For the case company, we chose Marimekko, a Finnish lifestyle house. Marimekko offers an interesting case for a hypothetical LBO valuation because it shares many of the common LBO target characteristics. To conduct this case study, it was crucial to find an LBO candidate that is publicly traded as this enables a sufficient financial statement analysis and calculating the market value of equity. Privately held companies are not required to issue financial statements and they are often reluctant to do it voluntarily, which would complicate the future cash flow projections. (Petersen et al. 2006). Marimekko fits this requirement as it is listed in the Helsinki Stock Exchange and they have published sufficient financial statement information for decades.

## 1.1. Research question

As LBOs have recently become more common in the fashion industry, we decided to examine how attractive of an LBO target Marimekko would be for a private equity fund. In the thesis, the private equity fund will acquire Marimekko through a leveraged buyout and hold it for a period of five years. Therefore, for the research question, we have chosen the following:

***How attractive of an LBO target would Marimekko be for a private equity firm in terms of the return achieved from the investment?***

For the sub-research questions, we have chosen the following:

- What are Marimekko's strategic and supporting factors and downsides involved in them?
- What is the acquisition price?
- What kind of a funding structure an LBO investor would apply to a company such as Marimekko
- Exit value based on EV/EBITDA multiple on 31.12.2023

## 1.2. Methodology

In order to establish a clear picture of the thesis, it is necessary to present the methodology applied in this research. As the thesis is heavily reliant on empirical theory and quantitative data, we aim to maintain an objective perspective throughout the research. Therefore, the intention is to conduct the thesis by adapting a positivistic point of view, where the assumptions behind the analysis rely primarily on objective evidence. However, some parts of the analysis require subjective estimations, and in order to remain as objective as possible, these estimations will be based on earlier studies and industry research when such information is available. When subjective assessment is necessary, for example in forecasts, the underlying assumptions will be described thoroughly.

In terms of primary and secondary data, we have used both primary and secondary data for the quantitative information, whereas for qualitative information we applied only secondary data, as we did not engage in collecting of the data ourselves. For the purposes of the thesis, relying primarily on secondary data was sufficient enough to conduct the valuation. The secondary quantitative data retrieved consists of the target's and its peer group's financial statements from their annual reports, stock price and swap rate data from Bloomberg and industry reports published by McKinsey & Co, Nordea, Bain & Co, Deloitte and S&P Global Market Intelligence. A small part of the quantitative data was collected from a primary source, when we contacted a leveraged buyout professional to inquire more detailed information on the LBO debt structure and costs. The secondary qualitative information used in the thesis was collected from the the annual reports, company websites, news articles, literature in respect to the subject, and the aforementioned industry reports.

To conduct the valuation, we have chosen to apply the LBO model as presented by Cannella (2015). LBO model is the most frequently used valuation method in private equity, as it is focused on using the free cash flows of the target to repay the LBO debt, and also on evaluating the IRR (internal rate of return) of the investment. PE literature offers some variations of the method depending the point of view of the LBO investor. If the initial investment is known, the investor can estimate the exit value based on projections, and finally compute the IRR from the two figures. On the other hand, the investor can predetermine the IRR and apply it to the projected exit value to obtain the maximum amount they are prepared to pay for the acquisition. (Ivashina et al., 2018)

Following Cannella's (2015) approach, the valuation analysis starts from determining the acquisition price and the capital structure of the buyout. When the target is publicly traded, the acquisition price is based on the market capitalization and the current debt of the target. The financing of the LBO usually is determined by calculating a maximum leverage as a multiple of EBITDA. In theory, the part that the maximum debt does not account for in acquisition price, becomes the new equity. After deciding on the funding of the LBO, each debt tranche needs to be assigned a share and an interest rate to compute the financial expenses of the transaction. The debt composition is subject to the target's size and industry, and the current credit market situation, among other factors. Next, we will create a 'sources and uses table'. The 'sources' indicates how the transaction is financed and the 'uses' shows how the capital is applied. The table will help guiding the valuation process. (Cannella, 2015)

The next steps in the LBO model are forecasting the income statement, balance sheet and free cash flows. The forecasts will be based on a set of financial drivers that are subject to the target's strategy set by the PE fund. Based on the financial statement projections, we can compute a debt repayment schedule that will depict how quickly the debt can be paid back. The interest expenses from the leverage will flow to the income statement projections and allow the calculation of levered free cash flows. These cash flows will then be used for the debt repayments, which in turn will appear in the balance sheet projections. Therefore, the repayment schedule is inherently linked to the financial statement projections. Finally, we can establish the LBO return to the investors from the acquisition price and exit value. (Cannella, 2015)

The other part where PE literature offers some variations to the LBO model, has to do with the terminal value of the target. When computing the exit value of the target, we have decided to use the exit multiple method, where the exit value will be established by first determining the entry multiple and then using that to compute an exit multiple. The multiple method offers some advantages over other methods, as it is based on current information, while, for example, the discounted cash flow method draws from assumptions of the target's future cash flows after the exit. Depending on the aspirations of the PE fund, the multiple can be kept the same throughout the holding period or the fund can aim to increase it to improve the LBO returns. This is also known as 'multiple expansion'. (Rosenbaum & Pearl, 2009)

In the present thesis, we will thoroughly review each step of the LBO model. In order to perform a sufficient LBO valuation, we will conduct a case study of a possible LBO target. Case study offers a comprehensive, highly detailed method for studying either an individual or a small group of individuals. It is an advantageous tool for analyzing an LBO transaction as it enables a thorough investigation of a specific event and the implications surrounding it. Thus, it offers an appropriate premise for a valuation.

## 1.3. Delimitations

When conducting this research, we wanted to explore the fashion industry in the Nordic market, especially the Finnish one due to the small amount of finalized LBOs there. Furthermore, the chosen target company had to be preferably publicly traded, as it enables a more straight-forward, and accurate calculation of the company's market capitalization, and therefore enterprise value. Nasdaq OMX Helsinki has 129 listed companies, out of which 56 are under the Nordic Small Cap segment. This limited the selection of companies significantly as we thought that a very large company as an LBO target would be less likely in the Finnish market. We reviewed multiple companies and their financials to find a suitable target, and Marimekko seemed to be the best fit for an LBO valuation, and it offered an interesting case for an LBO valuation of a fashion company.

Another limitation was set by the availability of data. Because the target company is publicly traded, we refrained from inquiring for internal information from the company. Therefore, the thesis is subject to using only external or secondary information on the target. The majority of the data was collected from the companies' financial statements, and as companies publish their financial statements on an annual basis reflecting end of fiscal year financials, this limited the possible acquisition dates. Thus, the acquisition date was set as 1$^{st}$ of January, as it was possible to base the target's asset valuation on their end of year financials.

The covenant set for the LBO debt is based on our assumptions, as we were unable to obtain an official estimate for the build of the covenant. LBO transactions usually include several covenants set by the lender, but in the scope of the thesis, we decided to apply only one covenant that restricts the target from increasing their leverage over the holding period.

Regarding transaction fees and expenses that LBO investments typically include, we will not account for them separately in the present thesis, as they are assumed to be included in the leverage expenses.

Marimekko, as a target company, set its own limitations with regards to the selection of the peer group. Finding comparable companies was extremely difficult, due to Marimekko's complexity as a business. Therefore, the chosen peer group sets some limitations to the comparable company analysis, as they operate in slightly different segments, their market sizes are different and they operate in somewhat different markets. For example, one of the peers is a large global company, while another smaller peer operates only in the Nordics. Additionally, Marimekko's peers all have a different fiscal year to the one of Marimekko's, which runs from January to December. H&M's financial year runs between December and November, while both MQ's and Kappahl's financial statements are reported from September to August. This aspect was disregarded, and the statements were treated as they would have represented end of year figures, in order to slightly simplify the analysis.

We will present the different options for exit strategy in the present thesis, but we will not assess which method will be chosen for Marimekko, as it is outside the scope of this research. The exit method is highly reliant on the success of the LBO investment and the prevailing market situation, and ultimately the decision is made by the investor. Thus, we will only assess which method would be possible considering the final return of the transaction.

## 1.4. Structure of the thesis

The following section sheds light on how the research is structured in order to assess the research question stated earlier. Thus, the thesis is organized as follows.

The first part of the research is the literature review, which is focused on the establishing an understanding of how private equity funds first started, how they operate, and how they create value in their targets. The most important value drivers discussed are financial and operational engineering and corporate governance. After this, the section moves towards a more practical point of view, first by presenting the most common leveraged buyout valuation methods. This helps understanding the LBO model used for the valuation in the present thesis. Subsequently, the angle shifts to assessing the theory behind the deal structure of an LBO transaction, and presents the typical instruments used

in the funding, to which the analysis will partly rely on. The next section introduces the four exit strategies used most often in LBOs, the IPO method, strategic sale, secondary buyout and dividend recapitalization. The final part in the literature review guides the reader to the next section of thesis by elaborating on the characteristics of an ideal LBO target.

After reviewing the literature behind LBO transactions, the thesis will move to the hypothetical LBO valuation. As the case study method is used in the analysis, the chosen target will be presented in detail, and their current strategy and market outlook will be analyzed carefully. The valuation of the target will be done by applying of the LBO model, and thus the structure of the analysis will follow the guidelines of the LBO model. First the target's and its peer group's financial statements will be reformulated in order to compare the companies and their metrics. Next, the financial drivers behind the upcoming target's forecasted financial statements will be established. The drivers are based on the strategic analysis discussed earlier.

As the underlying variables have been determined, the discussion turns to the actual valuation of the target. The acquisition price and funding structure of the transaction are established in order to apply their components in the forecasting. The funding structure includes the LBO debt repayment schedule, which is linked to the forecasted financial statements and cash flows. After all components have been forecasted, the exit valuation of the target is determined based on them and an entry multiple. The section is completed by calculating the return of the LBO investment and assessing the result using scenario analysis. Finally, the result is analyzed in conclusions and discussion.

# 2. Literature review

The literature review starts by defining what is private equity and how the private equity fund is structured. Then, we move on to the leveraged buyout market and take a look at how the leveraged buyout market has evolved over time. After that, we discuss on the agency problems perceived in public company corporate governance and how private equity ownership model mitigates these agency problems. Then, we discuss on the agency problems within private equity, such as agency problems between general partner and limited partners. Finally, we explain how the value creation happens in private equity. That part is divided into governance, financial and operational engineering.

## 2.1. Definition of private equity

### 2.1.1. Private equity market and private equity fund structure

Private equity (PE) market can be defined as investments in unlisted companies made by professional investors such as PE funds. Other investors in this market comprise high net-worth individuals, publicly traded investment companies and "in-house" PE subsidiaries of companies, though PE funds are playing the main role. The PE market can further be divided into Venture capital (VC), growth capital and leveraged buyout (LBO) markets. Venture capital refers to minority investments into start-up companies, which typically have low cash flows or not cash flows at all and negative profits but high potential to grow and gain market share. Growth capital, in turn, refers to minority investments into profitable companies which are more mature than target companies in the venture capital market but haven't yet reached an established status and have high growth potential as well. Leveraged buyout market involves investments into mature companies with stable cash flows. In a typical buyout, private equity fund acquires company's entire equity stake using substantial amounts of debt, hence the name *Leveraged buyout* (Døskeland and Strömberg, 2018). An LBO conducted by a PE fund will also be the focus of this research paper.

The PE firms engaged in these leveraged transactions are organized as partnerships or limited liability corporations and have a lean and decentralized structure involving only a few investment professionals. These investment professionals identify potential LBO targets and manage them after

the buyout. Funds for buyouts are raised through PE funds in which the investment professionals are also often general partners (GPs), whereas investors who provide the required capital are limited partners (LPs). PE funds are organized as limited partnerships so that LPs can avoid double taxation and that GPs can take part in the profits generated in the buyout company (Døskeland and Strömberg, 2018). The limited partnership structure also requires that GPs provide minimum of 1 percent of the capital in the fund. The LPs include institutional investors, such as pension funds, insurance companies, asset managers, banks, sovereign wealth funds and sometimes also high net worth individuals (Kaplan and Strömberg, 2009).

The PE funds are so called closed-end funds implying that the capital committed cannot be withdrawn during the life time of the fund. The average life time of the fund is ten years and all the investments have to be resold by this point. However, the fund can be extended by two or three years if the LPs agree. All the capital which is left in the fund at the end is distributed to the investors. In the PE fund set-up, the GPs are compensated in two ways. Firstly, they receive an annual management fee of 1.5-2.5% of the committed capital. Secondly, they get so called "carried interest" which is 20% of all the profits over the "hurdle rate". Since the late 1980s, the hurdle rate has been set to 8% of the invested capital. This compensation structure is built to align conflict of interest between GPs and LPs as it encourages GPs to find lucrative investment targets. In case, the investments don't yield over the fixed hurdle rate, the GPs will only receive the yearly management fee (Døskeland and Strömberg, 2018).

### 2.1.2. Development of Leveraged buyout market

LBO-like transactions were first introduced in the US during the 1960s when they were known as "bootstrapping acquisitions" (Gilhully, 1999) and became more common in the 1970s when the bear market resulted in a drastic slump in initial public offerings and mergers and acquisitions. This created a higher demand for alternative investment strategies and venture capitalists started to target poorly diversified conglomerates which they perceived to be both undervalued and mismanaged. After the buyout, the new owners usually replaced incompetent management, sold off underperforming assets and divisions which were not part of the core business and increased the valuation of the company over the three to five year holding period and then, exited the investment with high profits (Kaiser and Westarp, 2010).

Although the first particular PE firms were established in the latter half of the 1970s, the real breakthrough of LBOs happened in the 1980s. This was due to several reasons. Firstly, regulation on pension funds was loosened and they were no longer banned from investing in PE partnerships. Secondly, capital gains taxes were lowered significantly which encouraged investors to take part in PE investments. Thirdly, the newly developed high yield "junk bond" market in the US enabled higher leverage levels in LBO-transactions. As a result, capital commitments in PE funds from 1980 to 1982 increased exponentially, exceeding by almost threefold those in the entire 1970s (Kaiser and Westarp, 2010). At that time PE transactions were also introduced in the UK where the first management buyout (MBO) was conducted in 1985 and a smaller scale LBO boom was experienced there in the end of 1980s. In contrast, LBO activity did not really take off in continental Europe before the latter part of 1990s. Along the decade, LBOs increased tremendously in the US by numbers and amounts of money involved in the deals and the first wave of LBOs culminated in the buyout of RJR Nabisco in 1988 when a well-known PE firm, Kohlberg Kravis Roberts & Co (KKR), bought it out for $25 billion. On the whole, the value of LBOs in the US during the 1980s totalled $227 billion (Renneboog and Vansteenkiste, 2017, pp. 72-74).

The first wave of LBOs had reached its peak in the late 80s and the US economy slipped into recession almost immediately after the change of the decade in 1990. This, combined with the collapse of the junk bond market, caused that many LBOs went into bankruptcy. In addition, PE firms received lots of criticism for their aggressive management styles in acquired companies and high leverage levels that resulted defaults and therefore, layoffs for employees. These events attracted lots of public interest and the PE industry practices were carefully scrutinized by the media (Kaiser and Westarp, 2010). Bad press towards PE industry and weak overall conditions in the economy in the early 90s caused that the number of LBOs of public companies decreased considerably and stayed in a low level until the early 2000s (Kaplan and Strömberg, 2009). Also, it seemed that public corporations had learned an important lesson from the first LBO wave. They voluntarily strengthened corporate governance and aligned incentives between owners and shareholders, resulting that similar deals were not available to the same extent than in the 1980s (Holmström and Kaplan, 2001). However, the internet boom and recovered economy together with LBOs of private companies, so called private-to-private transactions, kept the demand for PE funds on-going and in fact, made the PE capital commitments to grow in the late 1990s (Kaiser and Westarp, 2010).

The growth period, which started in the late 90s, did not last long as the dot.com bubble burst in 2001 and capital was scarce again. Though, the PE industry revived rather quickly with the help of low interest rates, overall favourable macroeconomic conditions and introduction of new debt financing products such as collateralized loan obligations (CLOs) which offered more possibilities to construct leveraged positions (Kaiser and Westarp, 2010). In the mid-2000s the second LBO boom took place and in years 2004 to 2007 the value of LBOs conducted in the US totalled $535 billion. This was over two times the value of the first wave (Renneboog and Vansteenkiste, 2017, p. 74). However, this time the buyout boom was not limited to Anglo-American countries, but instead both continental Europe and Asia saw their first LBO booms. Indeed, in 2005 PE investments in Europe surpassed those in North America for the first time in history measured in the amounts of capital committed and Asia was experiencing a strong growth phase, too. (Kaiser and Westarp, 2010). The second wave ended when the US mortgage market collapsed in the end of 2007 and spilled over into the leveraged finance markets all over the world. This resulted in a sharp decline in LBOs and overall the activity in the PE industry in years 2008-2009 was very weak. Subsequently, LBO activity has recovered but is still far from the peak mid-2000s numbers rather resembling LBO levels in the late 1990s (Renneboog and Vansteenkiste, 2017, pp. 74-76). In addition, during the boom some PE management companies, such as KKR and Blackstone, went public illustrating the enormous growth the PE industry has experienced over the years (Jensen, 2007).

Like M&As, also LBOs seem to be procyclical and there are some factors which particularly affect the demand and supply of LBOs. First, value creation opportunities through LBOs are different in different times. For example, gross corporate waste and mismanagement faced in conglomerates in the 1980s offered vast value creation opportunities for PE professionals. Second, the availability of capital and leverage are strongly dependent on the overall macroeconomic state in the world. In times of recession, it is difficult to raise capital for new funds or take out debt for leveraged positions. Third, the attitude of society and people towards LBO transactions is not constant and can have an effect on LBO activity. For example, in the beginning of the 1990s, many PE-owned companies defaulted and caused layoffs for employees. This, in turn, decreased the general acceptance of LBO deals and led to the re-enactment of anti-takeover legislation in the US (Renneboog and Vansteenkiste, 2017, pp.69-72). However, despite LBO activity being heavily cyclical and there are boom and bust times, LBOs have become more common over time and established their place as one important way to

restructure companies, even though, Jensen's prediction of the "eclipse of the public corporation" did not materialize and PE firms, who are the primary conductors of LBOs, haven't replaced them as "the main engine of economic progress" (Jensen, 1989, p. 61).

### 2.1.3. Issues related to public company corporate governance

#### 2.1.3.1. Free-cash flow problem

Jensen (1986) describes one of the main problems with public companies, the agency costs of free cash flows between shareholders and managers. He defines free cash flows as "cash flows in excess of that required to fund all investment projects with positive net present values when discounted at the relevant cost of capital". Managers have private incentives to grow the firms they are managing beyond the optimal size (empire building) because larger firms pay higher compensation and offer more promotion possibilities. This drives managers to engage their firms in negative net present value projects instead of distributing free cash flows to shareholders. Usually, public companies could be disciplined by either the product market, internal controls (board of directors) or capital markets but those have proven to be ineffective for mature companies with few investment opportunities and substantial free cash flows. Jensen (1986) uses oil industry as an example of value destroying use of free-cash flows. In the late 1970s and 80s, the oil industry saw a tenfold increase in oil price resulting a lower demand for oil. This led to a situation, where the oil companies had substantial free-cash flows, but overcapacity, and thus, few profitable investments. Nevertheless, oil industry kept investing in exploration and development (E&D) and unsuccessful diversifying acquisitions. Announcements of E&D projects led to declines in share price of oil companies and, on average, $1 invested in E&D generated 60-90c in future reserves. Instead of trying to expand their businesses, oil companies should have paid out free-cash flows to shareholders and adapt to lower demand by cutting E&D costs. But the managers did not have sufficient incentives to do so due to agency costs of free-cash flows.

#### 2.1.3.2. Debt creation as a solution for free-cash flow problem

Jensen (1986) argues that the role of debt can play an important role to align conflicting interests between managers and owners. Agency costs of debt are well known, i.e. costs of financial distress,

risk-shifting and debt overhang. However, debt forces management to pay out future free-cash flows to investors. Of course, managers could decide to distribute future cash flows as dividends or share repurchases as well, but this commitment is weak and can be reversed. Jensen (1989) illustrates the difference between "hard" and "soft" commitments by using an American multinational corporation, General Motors, as an example. General Motors announced in the early 1987 that due to their very large cash balance, the company will repurchase 20% of their shares by the end of 1990. However, as of mid-1989, the company had bought back only 5% of their shares. In turn, debt creation, and paying out proceeds to investors, is a "hard" commitment as the debt holders have the right to take the firm into bankruptcy if they don't meet with their debt repayments. Therefore, taking out debt decreases cash flows under managers' control and hence, mitigates agency costs of free-cash flows.

#### 2.1.3.3. Weak corporate governance

In public companies, ownership and decision rights are separated. Stockowners have transferred control of the company to external managers who are supposed to run the company in the interest of the owners. By doing so, the managers are paid a fixed salary and avoid getting fired. However, due to this arrangement, the managers don't get wealth effects of their decisions and in case not sufficiently incentivized, may engage in decisions which are not maximizing the value of the company but benefitting themselves instead. This creates a need for owners to monitor managers. But if the ownership structure is highly dispersed, meaning that no individual shareowner is holding a large percentage of the company's ownership, there might not be enough incentives for shareowners to monitor and influence managers (Jensen and Meckling, 1976). This is also known as free-rider problem, because If one of the shareowners wants to monitor the company and influence its management, the shareowner bears all the costs of this activism but only receives a small share of the gains. The rest of the gains go to the other shareowners, who have not spent time or money on monitoring. Consequently, the only rational behaviour for shareowners is to be passive and refrain from monitoring the managers, resulting a weaker corporate governance than would be achieved under more concentrated ownership structure (Edmans and Holderness, 2016).

#### 2.1.3.4. Incentivisation of the management

Jensen (1989) compares management pay structures in public companies and companies acquired by PE funds. He points out that compensation in LBO business units is more performance-based than in public companies. On average, a public company CEO's wealth increases only by $3.25 per every $1000 increase in the company's value, whereas in PE fund acquired companies, the business unit manager's wealth increases $64 per every $1000 increase in the company's value. This implies that LBO business unit manager's salary is approximately 20 times more sensitive to the company's performance than CEO's salary in public companies. Hence, shareholder-manager agency problem is mitigated in LBO business units as managers are significant equity holders and therefore have enhanced incentives to maximize company's value. On the other hand, CEOs in public companies have higher probability to engage in empire building activities as increase in company value does not show in their wealth as directly and straightforwardly as it shows in LBO business unit manager's wealth. The study used in the article was conducted in the 1980s and stock- and option-based compensation have been introduced widely in public company CEOs' compensation structures since then. However, LBO business unit managers still hold larger ownership percentages than their public company counterparts and thus, have better aligned incentives between shareholders and managers (Kaplan and Strömberg, 2009).

### 2.1.4. PE ownership model explained

#### 2.1.4.1. How PE ownership mitigates agency problems faced in public companies

The public corporation is a useful invention as it allows investors to diversify their risk, gives liquidity, and a lower cost of capital (Jensen, 1989). However, as we have explained above, public company governance is full of agency problems between shareholders and managers. These agency problems are especially visible in mature, cash flow positive companies which have no or only few growth opportunities. Therefore, it is not a coincidence that the first wave of PE firms started by buying out single divisions of poorly diversified conglomerates which were run wild with agency problems (Kaiser and Westarp, 2010). In the following, we will explain how PE ownership through LBOs eliminates free-cash flow problem, strengthens corporate governance and aligns incentives between owners and managers.

When a company's ownership is transferred to a PE fund after an LBO, its capital structure changes. Debt is now the main item in the capital structure. High leverage reduces free cash flows under management's control because the company has to start repaying their high debt balance and making interest payments. Therefore, the management has less cash to squander in unprofitable investment projects or perquisites like corporate jets (Jensen, 1989). This changes the whole mentality of the management. If the focus was before on growing the business, it will now be on generating enough cash flows to repay the debt and thus, growing the equity side of the company (Jensen, 2007). Consequently, high leverage not only solves the free cash flow problem, but also pushes companies, which would otherwise be at risk to waste their excess cash, towards operational efficiency. The second change under PE ownership is a shift from dispersed ownership to concentrated ownership. PE fund owned companies have significantly more concentrated ownership structure than in public companies and the owners are "active". Active owners often sit on the company board, intensively monitor the management and take part in company's strategic decision-making. Overall, they are better informed what's going on in the company and therefore, information asymmetries between owners and managers are eased off as well. As a result, the company will have stronger corporate governance (Jensen, 2007). The third change under the new ownership form pertains managerial incentivization. Managers in PE owned companies possess relatively large equity stakes due to high leverage and thin capitalization and have carried interest as well. Therefore, their primary goal is to grow the company's valuation, and incentives between owners and managers are more aligned than in public companies (Jensen, 1989).

#### 2.1.4.2. Agency problems between GPs and LPs

PE ownership seems to align, or at least significantly reduce, those agency problems faced in public companies as it strengthens corporate governance and gives management incentives to maximize value of the portfolio company. However, this conclusion only holds for the buyout firm. A new agency problem arises between the PE fund managers (GPs) and the institutional investors (LPs). The GPs invest the LPs' money, not their own, and need to be properly monitored to make sure they are acting in the best interest of the LPs (Døskeland and Strömberg, 2018). So, from that perspective it looks like PE ownership only shifts agency problems originally occurring between the owners and the managers to be occurring between the GPs and the LPs.

Axelson et al. (2009) have studied the financial structure of PE funds and argue that it is the limited partnership structure common in PE funds that aligns incentives between GPs and LPs. In the limited partnerships, LPs provide most of the investable capital whereas GPs hold decision power and receive their share of the profits only after the investment has returned over the hurdle rate. Thus, the GPs have incentive to find good target companies for buyouts and maximize their value. However, performance-based fees are not the only fees the LPs have to pay. There are also fees that are not related to performance, such as management fees, and they can be quite significant. Indeed, Døskeland and Strömberg (2018) point out that in 2016, Blackstone, which is a stock listed PE firm, generated fixed fees of $2.4 billion and performance-based fees of $2.2 billion. Meaning that fixed fees were more significant source of revenues for them than performance-based fees. In addition, it seems that scalability adds GPs incentive to focus more on growing the size of the funds than generating higher profits for LPs. In general, buyout funds are more scalable than VC funds, so it is probable that such behaviour is more prevalent among buyout fund segment than in VC fund segment (Metrick and Yasuda, 2010). Metrick and Yasuda continue that this is quite easy to grasp as the companies in the VC segment are relatively small start-ups, whereas in the buyout segment, there is more variance in the company size since it is no substantial difference to manage a $100 million company compared to a company valued at $1 billion. However, in the amount of management fees charged, it makes a huge difference whether the portfolio company is a $1 billion or $100 million business. In addition, if we take into account that one buyout fund manages 10-12 portfolio companies (Døskeland and Strömberg, 2018) it is no wonder that it might be in the GPs primary interest to grow the size of the funds rather than profits generated from the portfolio companies. And, here we come back to the initial agency conflict. If GPs are primarily focusing on growing the assets under their management, it might divert their goals from those of LPs and thus, exacerbate agency conflicts between GPs and LPs. Also, Jensen (2007) warns about the perils of the recent trend of PE firms going public, as KKR and Blackstone have done. The going-public trend might reintroduce the classical agency problems typical in public companies in the PE industry as well. Those same agency problems, PE organizational form was originally invented to fight back in the 1980s. Furthermore, Phalippou (2009) has studied the contracts between PE funds (GPs) and institutional investors (LPs). He finds that the fee structure explained in the contracts is quite difficult to understand and that the real, materialized fees are often higher than initially expected by the LPs. Also, the way how the returns are presented is somewhat misleading. In addition, both Phalippou and Gottschalg (2009) and

Kaplan and Schoar (2005) find that after the fees are subtracted, the PE returns fall below the returns of the S&P 500 index.

The misaligned incentives and high costs present in the PE industry might make PE look like an uninviting asset class. However, Døskeland and Strömberg (2018) point out that based on the historical evidence, PE has exceeded the public market return (e.g. the S&P 500), even after costs, and performance improvements made in the portfolio companies proof that PE fund managers have had sufficient incentives for value creation. Therefore, it is unlikely that agency conflicts between GPs and LPs are significant. In addition, reputation plays an important role when investors consider which PE fund to invest in. "Two low-return funds and you are out", as Jensen (2007, p. 10) puts it, implies that GPs must consistently show good returns, or they might have hard time to raise new funds in the future. Therefore, reputation works as an additional and informal agency cost mitigator, aligning incentives between GPs and LPs in the PE industry.

## 2.2. Value generation in Private Equity

### 2.2.1. Impact of PE ownership

During the first wave of buyouts in the 1980s, many scholars noticed that PE firms were generating great profits. However, they lacked a mutual understanding whether the profits were generated through value creation or value capture. In 1988, Schleifer and Summers suggested in their article that PE firms generate profits by expropriating value from stakeholders (e.g. employees) and engage in short term "strips and flips" of companies. In contrast, Jensen (1989) declared shortly after Schleifer and Summer's article that PE ownership is a superior governance form which in fact mitigates agency problems, such as free-cash flow problem. Jensen was also convinced that PE ownership creates value through long-term improvements rather than engaging in short-term gains. It did not take long before Jensen's view got support from bunch of respected academics, such as Kaplan (1989), Smith (1990) and Lichtenberg and Siegel (1990). Their studies revolved around the effect of PE ownership to portfolio companies' employment, i.e. whether the operational improvements were achieved at the expense of workers. Among others, Lichtenberg and Siegel found that production workers had actually experienced considerable wage increases when measured one year after the buyout compared to the pre-buyout levels (Palepu, 1990). Also, Bull (1989) and Opler

(1992) report in their studies that portfolio companies' performance was enhanced during the PE ownership. Therefore, there is no question that 1980s was a good decade for PE firms.

On the other hand, the first wave of LBOs was characterized by large buyouts of conglomerates and their divisions (see e.g. Kaplan and Strömberg, 2009 and Kaiser and Westarp, 2010). At that time, the conglomerates were described as being both mismanaged and undervalued. So, it is not a big surprise that value was created under the new, more entrepreneurial ownership. Several researchers have also written about "conglomerate discount". It means that public conglomerates were appreciated with lower multiples than their different parts would be appreciated separately (Hannus, 2015). Thus, by divesting the non-core parts PE funds improved core-part multiples and boosted returns at the time of exit. That is to say, it was yet to be proven whether PE firms were able to systematically create value also in circumstances other than those very specific ones experienced in the 1980s. The era which was characterized by puffy, value destroying multi-business corporations.

Subsequently, scholars turned their eyes on the returns generated by the PE funds (Acharya, Gottschalg, Hahn and Kehoe, 2008). PE industry had grown significantly over the years. For example, when amount of capital committed was $5 billion in 1980, in 2004 it had grown to $300 billion. However, despite PE industry's obvious popularity among investors, there was not an unambiguous and clear picture of PE industry returns in the beginning of 2000s. The reason was primarily in difficulties to access the PE fund data as the funds are not required to disclose information even close to the same extent as public firms do (Phalippou and Gottschalg, 2009). Nonetheless, two very comprehensive studies, namely Kaplan and Schoar (2005) and Phalippou and Gottschalg (2009), were conducted trying to shed some light on the issue. The first key observation derived from their studies was that on average buyout funds generate below the return of the public market index, i.e. the S&P 500 index, when fees are deducted. While the second observation was that some funds tend to outperform their respective industries and this outperforming is persistent. Implying that some PE fund managers can create value, i.e. outperform the industry, over and over again regardless the prevailing circumstances. This finding was in high contrast to mutual funds where only persistence has been detected in relation to underperforming funds (Kaplan and Schoar, 2005). In line with Kaplan and Schoar, Phalippou and Gottschalg (2009) found that the top quartile of buyout funds is consistently outperforming the public market index net-of-fees. So, to sum up, it is undeniable that there is a group of highly skilled PE managers who can create real value in buyout companies. In

addition, Kaplan pointed out that gross-of-fees average PE fund beats the public market equivalent and also part of the value creation goes to the sellers as buyouts are conducted including a control premium (Jensen et al., 2006). But how is this value created? Jensen (1989), argued already in his seminal article that the value creation achieved by PE funds can be divided into *governance*, *financial* and *operational engineering*. This view has later been backed by many scholars (Kaplan and Strömberg, 2009). Next, we will describe in detail how each of these components is contributing to the value creation in practice at the company level.

### 2.2.2. Governance engineering

#### 2.2.2.1. Managerial incentivisation

As mentioned in 1.4.1, PE ownership strengthens corporate governance in the portfolio company. New owners apply high-powered incentives to management, reduce the head count of board of directors (BoDs) and introduce new procedures to exercise governance in the company (Døskeland and Strömberg, 2018). These changes are conducted in order to align incentives between owners and managers and to enhance governance in the company. After the buyout, management's equity ownership increases but the equity is not given for free, instead the managers are required to purchase their equity share with their own money (Kaplan, 1989). This is supposed to serve two purposes. Firstly, higher equity ownership gives managers better incentives to maximize the value of the company as they have a substantial upside in case the company becomes more valuable. Secondly, as the equity is purchased with manager's own money, they have a substantial downside as well. If the company is in turmoil and goes bust, they will lose all their money tied up in the equity. The consequences of the bankruptcy are strengthened by the fact that the equity is illiquid and only exercisable at exit (Jensen et al, 2006).

Overall, high managerial equity ownership is consistent with Lazear's (2004) observation that owners want managers to "put their money where their mouths are", so that interest of owners and managers are better aligned. By investing their own money in the company, the managers also show that they truly believe in the company's business acumen and are committed to implement the company's strategy in a value creating manner. However, as the managers' equity share increases, it might make them more risk-averse, leading to situations where highly profitable but risky projects are rejected

and less risk-driven but less profitable projects are undertaken instead. This behaviour may deteriorate the company's financial performance in the long run and affect negatively the value maximization principle (Holthausen and Larcker, 1996). Therefore, the level of managerial ownership has to be considered with care that the managers don't feel their risk is too undiversified.

Further, high-powered incentives comprise also other things than just increased equity ownership among executives. Baker and Wruck (1989) find that salaries for top executives are increased shortly after the buyout. But, as is often the case under PE ownership, if there is a "carrot", there will also be a "stick". Indeed, increased salary might come together, for example, with a new evaluation system and longer working hours. The new evaluation system is usually tied to cash-flow-based measures, such as EBITDA (earnings before interest, taxes, depreciation and amortization), in contrast to earnings-based and non-financial measures and is supposed to reduce accounting engineering activities (Cronqvist and Fahlenbrach, 2013). Finally, PE firms often enlarge bonus plans to include more managers and bonuses under the new plan are also more significant than those of public companies (Baker and Wruck, 1989). To conclude, the incentivization of management is more comprehensive and performance-sensitive under PE ownership but it is also required that the management have "skin in the game".

#### 2.2.2.2. Board composition and practices under PE ownership

After an LBO, the portfolio company's ownership structure changes and becomes highly concentrated. The number of shareholders is drastically reduced which makes supervision and monitoring of management less costly as the free-rider problem disappears (Renneboog and Vansteenkiste, 2017, p. 14). In addition, PE investors take seats in the board of directors, where they can more efficiently supervise and assess whether the management is acting in line with the company's strategy. Although, managerial equity ownership is, at least partially, offsetting the need for monitoring the management (Nikoskelainen and Wright, 2007). Furthermore, Acharya et al (2009) report four main differences in PE-owned company boards compared to public company boards. Firstly, the composition of the board changes. The number of board members becomes smaller and the new board typically includes five to seven members, of which three are from the PE firm, one to two are managers of the buyout company and one to two are company outsiders (Gompers et al, 2016). The company outsiders are those who are not employed by the buyout company but are

neither from the PE firm. These findings on the board composition are supported by several scholars (see e.g. Gertner and Kaplan, 1996; Peck, 2004 and Cornelli and Karakas, 2012). There are probably various reasons for the reduction of board members but Acharya et al (2009) suggest that due to the limited time horizon (approximately 3-5 years) and very concentrated and homogeneous ownership base, PE boards need to focus only on a couple of clearly defined priorities and thus, less board members are needed. On the other hand, shareholders in public companies consist of a heterogenous group of investors. There might be large institutional investors, small shareholders and short-term hedge funds whose interests and time horizons differ quite significantly from each other. Therefore, as different views are represented in the boards, they tend to be larger and less effective.

Consistent with this, Yermack (1996) finds that larger public company boards correlate with worse performance, i.e. public companies with larger boards generate lower returns for shareholders. Secondly, PE boards have a strong focus on value creation. Practically all the parties involved, such as the management, the owners and the board members, share the same goal which is maximization of the company value at exit. This is further reinforced by board members' increased equity ownership (Gertner and Kaplan, 1996). Equity ownership gives board members an extra incentive to monitor managers and to follow that the company keeps on track with its defined objectives. Thirdly, PE boards define clear strategic goals and key performance indicators (KPI). KPIs are tightly knit with cash-flow-based metrics and progress in them is intensively scrutinized (This is also backed by Heel and Kehoe, 2005). Further, PE boards have high expectations on top executives and one-third of CEOs are replaced within the first 100 days after the buyout while overall two-thirds are replaced over a four-year time span (Acharya and Kehoe 2008). In relation to this, Jensen (2007, p. 10) argues that "in PE firms CEOs have a boss, unlike almost all public corporations where directors generally see themselves as employees of the CEO", which describes quite well the change in paradigm PE ownership brings to corporate governance.

PE ownership also increases turnover of other top executives (Gombers et al, 2016) and of directors (Cornelli and Karakas, 2008). Finally, engagement and commitment of PE board members is high. Especially non-executive directors (both PE investors and outsiders) devote significantly more time than their public company counterparts and meet more frequently in informal occasions with the management. Therefore, PE board members are very well informed what's happening in the company and are able to offer more support and advice to the management. This results in a faster-paced

decision-making process which is not bound to formal meetings in boardrooms. Overall, PE boards are seen as change agents who formulate the company's strategy and contribute to the value creation (Acharya et al, 2009).

### 2.2.3. Financial engineering

#### 2.2.3.1. Capital structure and the effect of high leverage

The term financial engineering refers to the value creation generated by implementing changes in portfolio companies' capital structure. As can be suggested by the name leveraged buyout, portfolio companies' debt increases in buyouts. Hannus (2015) provides three reasons why PE firms increase leverage levels in portfolio companies. First of all, high leverage enables PE firms to acquire larger companies with relatively small equity inputs and to inflate returns at exit. This value creation happens through so called free-cash flow effect (Puche et al, 2015). Debt creation eliminates free-cash flow problem and requires that free-cash flows are primarily used to repay the debt and to make interest payments. This is also the main reason why PE firms emphasize the importance of portfolio companies' ability to generate cash flows. Further, in a simplified form, it can be thought that enterprise value is the sum of a company's debt and equity. Thus, when the company's debt burden goes down, respectively the equity value goes up. This results in that even if the company value remains unchanged over the holding period, PE investors' equity share increases, and when the company is sold at exit, the investors will generate returns on their investment.

Secondly, leverage has also an indirect effect, it mitigates agency costs (Hannus, 2015). The mitigation of agency costs is associated with high debt and managers' increased equity ownership. As managers have put their own money on the table in order to acquire a slice of the company's equity, they have high incentives to meet the required debt repayments. If they fail to do so, creditors can, as the last resort, take the company into bankruptcy. This would cause personal financial plight to the managers as large part of their personal wealth is tied up in the company's equity. Another reason is that by repaying the debt, the managers are indirectly increasing the value of their own equity share in the company as ceteris paribus, lower debt means higher equity value. The combination of high debt and high-powered incentives will also lead to reduction of managers' private perks and to increase in operational efficiency as the focus is more on growing the equity than

growing the company itself (Jensen, 2007). Finally, high debt makes cash a scarce resource and the probability that the most viable projects are undertaken increases because there is cash only for some projects, not for all. Therefore, the screening process for investments is more thorough and less viable projects are likely to become rejected (Hannus, 2015; Gompers et al, 2016).

Debt offers also some tax benefits since interests on debt are tax deductible (Jensen, 1989). However, Jenkinson and Stucke (2011) find that the amount of tax savings is related to the premium paid to selling shareholders in the buyout company, implying that tax savings might already be priced in the transaction price. In addition, many countries have "thin capitalization" rules which restrict tax deductibility. For example, in Denmark, interest exceeding 80% of taxable EBIT is not deductible (EY, 2018) and there are also other restrictions for tax deductibility of interest which vary by country (Døskeland and Strömberg, 2018). Thus, it is unlikely that tax savings are an important factor in the value creation in LBOs (Jenkinson and Stucke, 2011). Moreover, high leverage increases the risk of financial distress and LBOs are distressed more often than public companies.

As large part of cash flows is required for interest expenses and debt repayments, even rather small decreases in demand, increases in interest rates or other external shocks such as changes in political conditions might put the company's ability to survive its liabilities at risk (Palepu, 1990 and Sing, 1993). However, Financial distress does not mean necessarily that LBOs are more likely to go bankrupt. Indeed, Jensen (1989) argue that LBOs rarely enter formal bankruptcy because with high leverage their going-concern value is much higher than the liquidation value when they get in financial distress. Therefore, the creditors have an incentive to reorganize their claims and avoid a costly bankruptcy. A good example of restructuring in the Nordics, is the buyout of Thule in 2007 by the PE firm Nordic Capital. Thule got into financial trouble in 2008 and its debts had to be reorganized. Creditors made concessions by writing-off some parts of the debt and owners allowed creditors to exchange some parts of the debt for equity as bankruptcy would have meant larger losses for both parties. As a result, Thule got back on feet, went public again and creditors got their money back in the end (Becker and Strömberg, 2013).

Further, Hotchkis et al (2012) show that PE-owned companies are adept at handling high debt positions. First, the PE professionals have more experience of dealing with distressed companies than public company managers. Second, their reputation is at risk in case of bankruptcy and would

severely hinder fund-raising in the future. Third, large PE firms have resources to make capital injections into distressed companies if needed. Finally, Wilson and Wright (2013, p. 949) find that "leverage is not the characteristic that distinguishes failed buyouts from those surviving", implying that there are some other reasons behind which affect more the risk of going bankrupt than high leverage. To sum up, it seems that the advantages of high leverage outweigh the disadvantages in LBOs.

### 2.2.4. Operational engineering

While financial and governance engineering were the primary sources of value creation in LBOs conducted in the 1980s, operational engineering has subsequently gained more importance (Kaplan and Strömberg, 2009; Hannus, 2015) and become the main differentiator between the most successful and less successful PE firms (Døskeland and Strömberg, 2018). This, however, does not mean that financial and governance engineering are not important anymore or that they are not contributing to the value creation but rather reflects the change that has happened in the PE industry over the decades. For example, in the 1980s the debt ratios were remarkably higher than these days and enabled PE firms to take more advantage of financial engineering (Gompers et al, 2016). When Gompers et al (2016) surveyed 79 large PE investors with more than $750 billion of assets under management (AUM), PE investors answered that the most important factors in value creation, both pre- and post-investment, are sales growth, improved incentives, multiple expansion, enhanced corporate governance, follow-on acquisitions, purchase at an attractive price and cost reductions. Overall, these answers are consistent with the large body of academic literature on PE industry that the value creation in buyouts is a combination of financial and governance as well as operational engineering.

Of those factors listed, increase in sales, which was the single most important factor, and cost reductions can be directly fitted under operational engineering and follow-on acquisitions fit there to a certain degree as well, since they are related to growth. Moreover, Gompers et al (2016) report that the selection of deals is a crucial phase in buyouts. Less than 4% of investment opportunities considered are ultimately closed and the three highest ranked factors PE professionals emphasize when deciding whether to make an investment, are the business model or competitive position of the buyout company, the management team and the ability to add value, all implying the increased

importance of operational levers. Thus, operational engineering begins already in the deal selection phase and GP's contribution in this phase is significant.

The observation that operational engineering has become more important is because the capabilities needed for it are harder to copy and therefore their impact on value creation can make a big difference between PE firms. On the contrary, the impact of financial and governance engineering is easier to estimate and likely to be added in the transaction price, and hence the impact is less significant. Døskeland and Strömberg (2018) define operational engineering as "industry and operating expertise that PE investors use to add value to their investments". In other words, such factors as increase in sales, improved operating efficiency and decreased capital intensity and ultimately higher valuation at exit, are achieved through the transfer of knowledge and skills of GPs and managers to the portfolio company. Therefore, PE firms have started to hire managers with robust industry experience and knowledge, such as former CEOs of prominent public companies (Kaplan and Strömberg, 2009).

Further, Acharya et al (2013) report that superior performance achieved by large PE funds is associated with differences in human capital. They find that the most successful PE firms have high profile GPs whose skills match with the chosen strategies. If the chosen strategy is to grow through acquisitions, GPs with backgrounds in finance are the most suitable ones, whereas GPs with consulting or industry backgrounds are better at conducting organic growth strategies. Hahn (2010), who studied 110 PE transactions conducted in Western Europe between 1995 and 2005, finds another difference between organic and inorganic strategies. In his study, portfolio companies with an organic approach, improved their EBITDA margins (EBITDA/sales) compared to control group of public companies, whereas portfolio companies with an M&A-based strategy, improved their EBITDA multiples (Enterprise value/EBITDA). Hence, it seems that the organic strategy aims for value creation through improvements in profitability, while inorganic strategy grounds value creation on acquisitions at low valuations which, in turn, enable multiple expansion at exit. Therefore, it is no wonder that the backgrounds of GPs matter in a successful implementation of different strategies.

#### 2.2.4.1. Growth and increase in sales

Several studies since the 1980s have found significant productivity and operating improvements (See e.g. Bull, 1989; Kaplan, 1989; Lerner et al, 2010; Davis et al, 2014) and increase in sales (see e.g.

Sing, 1990; Boucly et al, 2011) associated with PE-owned portfolio companies. In the following, we will discuss the operational drivers that are improved due to operational engineering.

As stated, the ultimate goal of operational engineering is to achieve a higher valuation for the buyout company at exit and the valuation is largely based on free cash flows (FCF). Therefore, by increasing FCFs, also the company's valuation becomes higher. This leads us to the conclusion that by engaging in operational engineering, the GP and managers are actually seeking ways to increase FCFs. In turn, when ways to increase FCFs are considered, top-line growth appears to be important in achieving that goal. Thus, it is no wonder that increase in sales was the most important realized source of value creation in the survey for large PE investors as it is a straight consequence of top-line growth (Gompers et al, 2016). The concept of top-line growth includes both organic and inorganic growth. Organic growth means growth, for example, by expanding to new geographies, product markets or customers, and as mentioned above, Acharya et al (2013) find that a buyout company's success in organic growth strategies is largely dependent on the skills the GP and managers possess. Another strategy is to grow inorganically through acquisitions. One common acquisition-based strategy mentioned in the literature is the so called "buy-and-build" (B&B) strategy (Borell and Heger, 2013). The definition of the B&B strategy is that a PE firm acquires a "platform" company from a fragmented industry and starts consolidating the industry by making several add-on acquisitions of smaller companies operating in that same industry. Those acquisitions are usually made at low valuations and the acquired companies often have high potential for value creation. The goal of the B&B strategy is to create a market leader and exit with a higher multiple than paid in acquisitions over the holding period. Borell and Heger (2013) continue that in addition to classical M&A advantages, such as synergies and economies of scale, the value creation in the B&B strategy largely rely on the changes PE investors make in the acquired companies as well as in a successful multiple expansion at exit.

#### 2.2.4.2. Operational efficiency

Besides growth and increase in sales, FCFs can be increased by improving operational efficiency, and PE firms are even more known for their ability to improve operational efficiency in buyout companies than sales numbers (Kaiser and Westarp, 2010). Operational efficiency is typically measured by using accounting variables, such as cash flows per sales, assets or employees. If, for

some reason, cash flows are not readily available, proxies for cash flows, such as operating income (EBITDA or EBIT) can be used as well. These accounting variables are used to measure productivity and efficiency gains since the same or higher amounts of cash flows or operating income generated by lower levels of sales, assets or employment, are signs that the operations in the company have become more efficient or that the productivity is improved (see e.g. Bull, 1989; Kaplan, 1989; Smith, 1990). There are also studies where "real" measures, such as total factor productivity (TFP) in a plant level are used (see e.g. Davis et al, 2014) but it is more common to see studies which are conducted by using accounting variables. Total factor productivity is measured, for example as output per unit input of assets, employment and materials (Kaiser and Westarp, 2010), and has an indirect effect on FCFs and operating income.

**Divestments and sale and leaseback contracts**

Hannus (2015) argues that in buyouts enhanced asset utilization is a key for productivity and efficiency improvements. Further, the literature finds that divestitures, i.e. sale of underperforming assets are common measures in order to sharpen a buyout company's asset utilization (Bull, 1989; Butler, 2001). Also, "sale and leaseback" contracts can be used to streamline a company's asset base. In a sale and leaseback contract, a company sells an asset, typically an office building, but at the same time makes a lease contract for the office building in order to continue using it (Fisher, 2004). The purpose is to release cash for debt repayments or new investments (Bressler and Willibrand, 2011). With divestitures the effect is similar, i.e. cash is released for more efficient use. As divestitures are often directly related to operations, they have a downward effect on sales numbers, but sales numbers decline relatively less than assets and thus, the overall efficiency is improved.

**Working capital management**

Asset base can be rationalized by working capital management as well. Working capital management, which includes management of accounts receivables, inventory, and accounts payables, plays a significant role in perfecting a company's asset utilization. Kaiser and Westarp (2010) use a car analogy and compare an efficient working capital management as "similar to finding suitcases of cash in the trunk of the car". The efficiency of working capital management is typically measured by net working capital/sales ratio and the smaller the ratio the more efficient is a company's working capital

management. Net working capital equals accounts receivables balance plus inventory less accounts payables balance. Several studies find that after buyouts, portfolio companies' net working capital ratio decreases (see e.g. Baker and Wruck, 1989; Smith, 1990; Holthausen and Larcker, 1996). For more recent evidence, Nordea's working capital management report (2016), finds that many large Nordic companies, which were previously owned by PE firms, have on average 10 percentage points lower NWC/sales ratio than their industry peers when going public, implying that their working capital management had improved significantly under the PE ownership and this trend seems to continue after the IPO.

The idea behind working capital management is to minimize accounts receivables balance and inventory while increasing days of payables outstanding. With lower NWC/sales levels, a company needs to commit less capital when growing, and this increases cash flows. That is due to the accounting fact that when an asset (e.g. accounts receivables or inventory) goes down, the cash flow increases. Similarly, when a liability (e.g. accounts payables) goes up, the cash flow increases. In turn, the effect is the opposite when an asset goes up or a liability goes down, i.e. NWC/sales ratio increases (Nordea, 2016). Hannus (2015) concludes the measures that are taken in order to decrease NWC/sales ratio. They include enforcement of payment terms, expedited distribution of invoices, shortened payment period, prolonged terms for supplier payments and renegotiated prices. Nordea's report (2016) adds to the list off balance sheet factoring for reducing accounts receivables balance, sale of inventory to third party for decreasing levels of inventory and supply chain finance for increasing days for the payment of accounts payables. These additional measures mentioned in the Nordea's report, are considered as more sophisticated than those traditional ones mentioned by Hannus (2015), and often require a good collaboration with a supplier/customer and involvement of a financial institution. However, the interviewed PE professionals confirmed that they use the whole "toolbox" to streamline their working capital management, although, clearly, all the measures are not useful for every company.

#### 2.2.4.3. Improvements in cost structure

We have already mentioned sales increase and asset base rationalizations as means to improve efficiency and productivity in buyout companies. However, so far we have overlooked perhaps the

most obvious way PE firms tune up efficiency and productivity in companies they are managing, cost structure improvements.

Cost structure improvements are probably the reason why PE firms have from time to time been subject to public outcry. Especially some politicians have taken very critical stances towards them. For example, the former Danish prime minister, Poul Nyrup Rasmussen, has criticized that "leveraged buyouts leave the company saddled with debt and interest payments, its workers are laid off, and its assets are sold, … benefiting neither workers nor the real economy" (Davis et al, 2014). Further, the former chairman of the German social democratic party, Franz Müntefering, has compared PE firms to "swarms of locusts sucking the substance" from companies (Renneboog and Vansteenkiste, 2017). But is this really the reality, that PE firms are the worst enemies of workers? In the following, we will try to find out and take a look on the effects of PE ownership on employment, research and development (R&D) costs and capital expenditures.

**Employment**

Davis et al (2014) find in their comprehensive study of 3200 US buyouts from 1980 to 2005 that after buyouts, employment decreases sharply, but also that later on new jobs are created at a greater pace than in the group of control firms. In total, the net loss in employment is around 1% compared to the pre-buyout situation. This is consistent with the view held by researchers that employment follows a J-curve after a buyout, meaning that employment first decreases but later on there is a change in the currents and employment starts to increase during the holding period (Hannus, 2015). On the other hand, Boucly et al (2011) report that in their study, employment, in fact, grows remarkably after a company is taken over by a PE firm. However, the study by Boucly et al (2011) was conducted on French companies and there might be differences on how the employment is affected by PE ownership between the US and France.

Moreover, Olsson and Tåg (2015) find in their study of Swedish firms that PE ownership has negligible effect on net employment, but it appears to be accelerating job polarization. Specifically, unemployment increases for workers holding a routine job, but decreases for workers holding a non-routine job. What is more, Bacon et al (2013) conclude that PE firms have an ability to put workers in more efficient use and that way to achieve productivity gains. The effect of PE ownership on

employee conditions has been studied as well. Indeed, Amess et al (2007) find that after buyouts, supervision decreases and in overall, employees have more freedom over their work conditions compared to employees in control group companies. This is probably due to reduction in managerial layers as PE firms are known for pursuing a flat organization structure where unnecessary hierarchical levels are removed in order to achieve a faster decision making (Hannus, 2015).

Lower levels of supervision come as a byproduct. Overall, the most recent research papers of PE ownership effects on employment don't corroborate the publicly held view that PE firms generate profits at the expense of workers. However, there might be some worker groups, as was the case in the study by Olsson and Tåg (2015), who face greater levels of unemployment after a buyout, but that phenomenon is rather a sign of accelerated job polarization than increased unemployment. To sum up, it seems that in the wake of PE ownership, job polarization is accelerated, employee conditions are improved and improvements in efficiency are achieved rather through job reallocations than cuts in employment as, according to many studies, the net effect on employment is close to zero.

**R&D and capital expenditures**

Many critics have accused PE firms of neglecting R&D activities and capital expenditures in order to serve debt repayments, and of being engaged in short-sighted "strips and flips" of companies, in which a company's long-term ability to compete is drastically deteriorated. However, this so called "short-termism" has not been backed by empirical evidence (Kaplan and Strömberg, 2009).

Kaplan (1989) observes decrease in capital expenditures in his early study on LBOs but argues that the decrease pertains primarily unprofitable investments which are not embarked due to improved efficiency (less economic slack) and alignment of incentives between owners and managers. Similarly, aligned with the findings of Kaplan, Long and Ravenscraft (1993) find declines, but in R&D expenditures, after LBOs. They also account the decline for reduced agency problems as performance gains are not hurt and for the propensity of PE firms conducting LBOs in industries with low R&D intensity. Therefore, the take out is, that PE firms are able to cut non-pivotal R&D which have no or only minor effect on profitability. This also contradicts the allegations of "short-termism" as the reductions are not made at the expense of long-term profitability. Further, Lerner et al (2008) have studied patent activity in companies which have undergone a financial sponsor backed buyout

and find that there is no decrease in patent filing activity between pre- and post-buyout. In fact, the patents filed after buyouts are more often cited, which refers that their economic value and usability is high, and that the R&D spending of buyout companies has become more efficient compared to the pre-buyout time. This observation is supported by Popov and Roosenboom (2009) who find that PE industry's share of industrial innovation in Europe is some percentage points higher than their share of industrial R&D spending, referring, again, that PE firms can improve the efficiency of the R&D function in buyout companies.

To conclude, it seems that PE firms are able to achieve modest reductions in employment, R&D spending and capital expenditures without putting portfolio companies' long-term business vitality at risk. While PE ownership might contribute to job polarization, it on the other hand allows employees more discretion over their work conditions and thus, encourages them into more entrepreneurial thinking. A more efficient R&D function might be a consequence of this. In addition, PE owned companies pursue a flat organization where managerial levels are reduced and incentivization is favored over supervision. In that light, the harsh reactions from some leading European politicians towards PE firms and industry appears to be exaggerated. We end this section with the words of Cumming et al (2007) that "there is a general consensus that across different methodologies, measures, and time periods, … LBOs and especially, MBOs enhance performance and have a salient effect on work practices".

## 2.3. Leveraged buyout valuation

An integral part of acquiring a company is performing a valuation on the target. In an LBO scenario the investor expects to exit the target after a certain holding period, which is why it is important to estimate both the acquisition price, but also the exit price of the target. LBO model was developed as a solution to this issue. LBO model is the most popular tool for valuing LBO transactions, as it considers both ends of the holding period, and is focused on determining the investment's internal rate of return. (Ivashina et al. 2018) If the target is not publicly traded, their acquisition price needs to be determined by other methods than simply looking at their market value. In this section, we will discuss the three most applied LBO valuation methods.

### 2.3.1. Precedent transactions analysis

The precedent transactions analysis also a multiples-based method that compares the multiples that have been paid for similar companies in earlier LBO transactions. As said, the benefit in using precedent transaction analysis is that the purchase price reflects both the value of the target and the premium that was paid. As a leveraged buyout is ultimately an acquisition, having an idea of earlier purchase premiums helps determining what it takes to convince the shareholders to sell their target ownership to the LBO investors. (Rosenbaum & Pearl, 2009) However, precedent transaction analysis carries some issues that make it difficult to apply in practice. Precedent transactions are always historical and if the economic situation has changed since then, the analysis could turn out irrelevant. It is rare to find two or more similar transactions from different points in time, with perfectly matching market conditions. Another problem arises from the difficulty of finding relevant transactions and/or data. Especially in a market with only a few acquisitions, finding comparable transactions can turn out impossible. (Pignataro, 2014)

### 2.3.2. Comparable company analysis

In comparable company analysis, the valuation is based on a multiples comparison between the LBO target and other companies that have similar characteristics to the target. These attributes could include size, product offering, geography and leverage level among others. Comparable company analysis suffers from similar issues as the precedent transaction method. Firstly, finding similar companies to the target is often very difficult. Even when two companies share many significant attributes, they might have completely different ratios due to external factors, such as timing of the comparison. Secondly, using market based methods creates its own issue because they are easily manipulated and can cause severe under- or overvaluations when the market is either rising or decreasing sharply. When using comparable company analysis for LBO valuation, it is important to remember that it does not reflect the premium that needs to be added to the purchase price in acquisitions, something that is inherently built into the precedent transaction method. (DePamphilis, 2005; Pignataro, 2014)

### 2.3.3. Discounted cash flow method

The discounted cash flow (DCF) method uses the target's projected free cash flows (FCF) and discounts these cash flows to present to obtain the current value of the investment. The underlying assumption in DCF analysis is that the value of an investment lies in its ability to generate free cash flows. (Kumar, 2016) DCF is the most technical of the different valuation methods and the disadvantages of it arise from the use of many variables. The projected cash flows are driven by assumptions, so they could easily be undervalued or overvalued. (Pignataro, 2014) The largest issue in the DCF model is that it requires an estimate for the target's future cash flows even after the acquisition, as a 'terminal value'. Cash flows are difficult to estimate in the first place, and the longer the estimation period, the more the forecast suffers from inaccuracies. This is a significant risk because terminal value represents up to 60%–80% of the overall valuation in the DCF model (Petersen et al., 2006). Using DCF requires also an estimation for the discount rate and depending on the chosen DCF method, it can be difficult to obtain. Incorrect estimation of the variables has a direct impact on the valuation. In the worst case, the acquirer would overestimate the value of the target and pay too much for the acquisition. (Pignataro, 2014)

### 2.3.4. Exit value

When the target's initial value has been determined, it is necessary to compute an exit value. In order to determine this, it is necessary to establish the terminal value of the target, no matter which valuation method was used in the acquisition valuation. Conveniently, the same methods that are used for entry valuation, can be used for the exit valuation as well. (Gompers et al., 2016) The downside is that they carry the same issues as discussed earlier. In theoretical DCF modeling, the terminal value is often determined by using Gordon's growth model. The problem in using DCF is that no one knows how the target's cash flows will develop after the exit. Thus, in practice, Gordon's growth model is difficult to use, because it is only based on assumptions on the target's future success. (Petersen et al., 2006) Therefore, it is more common to rely on multiples methods, either comparable companies analysis or precedent transactions analysis. (Gompers et al., 2016)

## 2.4. Deal structure and instruments

In this section, we will review the typical LBO debt instruments and their composition in the overall financing, based on the literature around the subject. The fundamental purpose of using high leverage to finance a buyout is to enable the LBO investor to acquire a larger target, and therefore increase the return on equity. The downside of increasing leverage is that it also hikes up the risk of the investment. (Hannus, 2015) The financing structure of an LBO changes during its lifespan. Right after the LBO transaction, the debt level is high, but it reduces when the target's free cash flows are used to pay back the debt. When the transaction comes closer to its exit horizon, the debt levels have usually returned back to a more normal state. This has a clear impact on the riskiness of equity, as it becomes less risky when the leverage level decreases. (Baldwin (B), 2001)

The LBO deal structure depends also on the running credit cycle. Credit cycle refers to the availability of credit during a certain period of time, as the availability contracts and expands with market movements. When the cycle is at its lowest, the equity contributions are relatively high, at around 40% of the overall financing. However, in bull credit markets, as leverage becomes less risky and less expensive, equity contributions decrease to 20% on average. (Cannella, 2015)

LBO debt structure is normally organized in tranches and more complex deals can have up to six debt tranches, each with different security, priority and payment plan (Baldwin (A), 2001). These tranches can be divided into two higher-level categories, senior and junior debt, based on their use and bankruptcy risk. Bonds and other mezzanine financing instruments are always junior to traditional bank loans and institutional financing, and they usually carry higher risk levels, which makes the differentiation easier in practice. Colla et al. (2012) found that even though senior debt usually constitutes a larger part of the overall debt, significant levels of junior debt are common especially in LBO debt structures. This automatically hikes up the overall risk level of the investment.

**Table 1: LBO capital structure 'ladder'**

| Instrument | Share of the funding | Expected return |
|---|---|---|
| Senior loans | 30-50% | 5-12% |
| High yield debt | 0-10% | 12-15% |
| Mezzanine securities | 20-30% | 3-25% |
| Equity contribution | 20-30% | 20-30% |

Source: Pignataro, 2014

Generally, the lower a debt instrument ranks in the capital structure ladder in Table 1, the higher its risk, and therefore, the higher its rate of return to the issuer. Senior loans or bank debt are typically the largest asset group in LBO financing, accounting for up to 50% of the overall capital structure. Typically, senior loans are divided into term loan A and term loan B, depending on which party issues the debt. Term loan A is usually provided by either commercial banks or syndicates of banks, while term loan B is issued by institutional investors and private funds. Senior loans carry lower interest rates than the other LBO financing instruments, usually between 5% to 12%, depending on the credit cycle. (Colla et al., 2011; Pignataro, 2014) The interest rate comprises of a given benchmark rate, such as LIBOR or a base rate, and an added margin based on the borrower's credit. The interest rate may change over the life of the debt if the underlying base rate changes, or if the margin is tied to the borrower's performance or credit rating. (Rosenbaum & Pearl, 2009)

High yield bonds carry higher risk than senior bank debt, and therefore usually they offer higher returns as well. (Pignataro, 2014) High yield bonds are debt securities that enable the investor to increase the total LBO leverage above the normal availability in the leveraged debt market. When used together with senior loans, this allows the investors to pay more for the acquisition or reduce the amount of equity contribution. In a typical LBO setting, high yield bonds often pay a fixed interest rate throughout the maturity and they are typically structured as senior unsecured, senior subordinated, or in some cases, as senior secured securities. (Rosenbaum & Pearl, 2009)

Mezzanine instruments are hybrid securities between equity and debt. Typical examples include convertible bonds, preferred securities and subordinated loans. The underlying concept in mezzanine lending is that initially the security is considered as debt, and after certain time has passed or a threshold has been met, it will convert into equity. This provides the investor some downside protection during the first few years of lending, and once the instrument converts, the investor can

enjoy the upside potential of equity. The expected return of mezzanine financing lies between those of debt and equity, typically between 13% and 25%. (Pignataro, 2014)

Equity contribution accounts for the last part of LBO financing. It includes equity provided by the LBO investor, usually similar to preferred equity and common equity, and sometimes also rolled equity from the target's management. The total amount of equity normally ranges between 20%-30% of the financing structure, and it depends on the current debt market situation, the target's industry and the LBO acquisition price. The equity stake provides security for the debt holders in case the target's enterprise value would decline, because the it will only affect the debt principal after the decrease has surpassed the value of equity. Intuitively, the higher the equity contribution, the safer the debt is. (Rosenbaum & Pearl, 2009)

## 2.5. Exit strategies

Without a solid exit strategy, an otherwise attractive LBO might not take place. The chosen exit method will depict how, when and in what extent the LBO investors will realize returns from their investment. The investors usually aim to exit their investments within three to five years from the acquisition, but ultimately the exit decision depends on the current market situation and the target's performance during the investment period. (Rosenbaum & Pearl, 2009) This can also affect the choice of exit route because the investors usually try to reinvest the money as quickly as possible into a new project and pay profits to the LPs. Most often LBO investments are monetized through a strategic sale, a secondary buyout, an initial public offering (hereafter IPO) or a dividend recapitalization. (Yousfi, 2011)

IPO is generally the exit method of highly successful LBOs. From the target's point of view, it is the preferred exit strategy because it leads to the highest valuation of the company and it provides independence for both the target and its management. Yousfi (2011) argues that the choice of exit strategy can cause agency conflicts between the management of the target and the LBO firm. This happens because in an IPO exit, the target management also has an informational advantage over the new shareholders, which encourages them to engage in opportunistic behavior and undertake excessive risks to decrease the chance of a sale exit. However, an IPO is usually not a full exit for the LBO investors because they only sell a portion of their shares in the target. After the IPO, the investor

often remains as the largest shareholder and the final exit takes place later through a future equity offering or a sale of the target. The benefit from this is that their equity stake becomes more liquid and if the target becomes a success after the IPO, the LBO investors still have access the positive returns. (Rosenbaum & Pearl, 2009)

A strategic sale is the most common LBO exit method and the preferred option from the investor's point of view. The buyer is typically a non-PE/LBO company and their interest in the target is often related to the synergy opportunities, patents or market growth they could gain from the acquisition. They view the target as a long-term investment as it is expected to increase their respective market share and competitive advantage. (Folus & Boutron, 2015) This usually makes strategic investors the strongest bidders, which can result in a higher sale price, thus benefitting the LBO investor. (Rosenbaum & Pearl, 2009)

In a secondary buyout the target is sold from one LBO investor to another. This usually takes place because the current investor suspects that a larger investor could add more value to the target, or they have already exceeded their minimum investment period and gained sufficient returns from the investment. It is also possible that the investor is unable or unwilling to keep financing the target until the end of the LBO investment period. A secondary buyout offers an immediate and full exit as a solution to the issue. (Folus & Boutron, 2015) The evident downside of the method is that it often leads to a lower exit price and therefore to lower returns for the original LBO investor.

While dividend recapitalization is not one of the traditional exit methods, it offers the investors a solid option for realizing a part of their LBO returns before the final exit. In a dividend recap, the LBO investor issues new debt for the target, which in turn pays it out as a dividend to its shareholders. With a large enough dividend, the investor could redeem their entire initial investment or more. It is used especially with successful LBO targets because it does not reduce the investor's ownership in the company, thus enabling them to share in to any additional profits. (Rosenbaum & Pearl, 2009)

## 2.6. Characteristics of a good LBO target

While LBO investors look for possible targets from a broad spectrum of sectors, geographies, industries and markets, typical LBOs share a set of common characteristics (Rosenbaum & Pearl, 2009):

- Strong and predictable cash flows
- Leading market position
- Good or replaceable management team
- Strong asset base
- Growth opportunities
- Potential for efficiency improvements
- Minimal capital expenditure requirements

The strength and predictability of cash flows plays an important role when choosing an LBO target due to the highly levered capital structure of the transaction. The cash flows are used to cover the financial expenses of the debt, such as interest payments and debt repayments, during the life of the LBO. Operating in niche or mature markets, solid demand and customer base, and strong brand name all contribute to the cash flow predictability. Furthermore, these attributes help defending a leading market position, as they create barriers to entry for competitors. Strong market stand adds to the attractiveness of a company as an LBO candidate because it often entails also superior product offering, efficient cost management and economies of scale.

To generate satisfactory returns from an LBO investment, it is important to search for targets that can be improved in one way or another. This is usually achieved through growth opportunities or efficiency improvements. For example, revenue growth can increase net returns, enterprise value and EBITDA of the target, and thus generate higher cash flow for debt repayments. Efficiency improvements are usually either operational or financial, for example, reducing the cost base or increasing the productivity of the target's business structure. (Hannus, 2015)

Strong management team is crucial in an LBO scenario because the increased leverage puts the target under significant financial stress. The management needs to operate properly under the new structure and at the same time, strive to achieve the performance targets set by the investors. Therefore, LBO investors are typically after companies with either highly performing management, or companies with a good business model and easily replaceable management. If the original management team proves

to be weak, the investors rarely hesitate to make changes to it or replace it completely with a better team. (Rosenbaum & Pearl, 2009; Castillo & McAniff, 2007)

The debt financing in an LBO sets certain prerequisites for the existing asset base of the LBO target. The asset base is usually used as a loan collateral, which affects the probability of principal recovery if the target would go bankrupt or get liquidated. With a strong asset base, this probability is higher and it can also increase the amount of leverage available for the financing of the LBO. (Rosenbaum & Pearl, 2009) In relation to this, an attractive LBO candidate has a clean balance sheet with little debt. Debt increases the risk of financial distress, and as LBOs are financed with major debt, targets with high initial leverage can be simply too risky. (Hannus, 2015)

Low capital expenditure requirements improve the target's ability to cover the interest payments, debt paybacks and dividends to shareholders. Therefore, LBO investors usually search for targets that already have low capital expenses, or targets whose capital expenditure can be significantly reduced. (Castillo & McAniff, 2007)

None of the above-mentioned qualities are written in stone, and a company that possesses only a few or none of them, can still become an LBO target. Often, the LBO targets are simply well-performing companies with valuable business models, defensible market positions and some untapped growth opportunities. The fundamental point of an LBO transaction is to generate sufficient returns, so the most important thing is that the target can be acquired for a reasonable price and later sold using a viable exit strategy, both of which will be addressed in closer detail later in this thesis. (Rosenbaum & Pearl, 2009)

# 3. Case study: Marimekko

In order to apply the LBO model in practice, we will perform an LBO valuation by using the case study method. We chose a Finnish lifestyle and fashion house, Marimekko, as the target of the hypothetical LBO valuation. Marimekko and its subsidiaries together design, manufacture and market clothing, interior design and accessories. The company is best known for its colorful prints and timeless take on design. Marimekko is a small publicly traded company, that employs approximately 450 people, primarily in Finland. However, their operations reach customers all the way from Northern Europe to Asia and United States.

In this section, we will introduce Marimekko by presenting their history, product offering, markets, share price developments and ownership structure. These paragraphs will offer a basis for a brief analysis of why Marimekko would be an attractive LBO target. After this, we will provide a thorough review of the company's current strategy and market outlook using strategic analysis. Later, when valuing Marimekko's current state and future prospects in the financial analysis and budgeting, the forecast will be derived from the strategic analysis.

## 3.1. History

Marimekko was founded in 1951 by Armi and Viljo Ratia. Viljo owned a small textile printing factory, Printex, in Helsinki. While his oil-cloth factory project turned out to be unsuccessful, his wife Armi had more ambitious plans for the factory. She wanted to reshape the Finnish textile industry by offering something new and out of the ordinary to the market. Her original business plan revolved around hiring young, visionary artists to design fresh textile prints for the company, which later turned into Marimekko. Eventually, Armi became one of Finland's most successful female entrepreneurs of the time. (Company.marimekko.com)

Finnish consumers were quick to adopt the growing textile house into their homes and everyday wardrobes. In 1959, the company expanded to the American market, and when Jacqueline Kennedy wore a couple of different Marimekko dresses during the US presidential campaign in 1960s, these bold prints and designs became regular features in international fashion publications.

In the 1970s, Marimekko hired new designers from Japan and expanded their printing facilities in Helsinki. For the first time, they also experienced serious financial problems, and 30% of the employees were let go and marginal product lines had to be discontinued to manage costs (Donner, 1986). Marimekko went public in 1974, which initially was a great success with a 40% growth in revenue, further factory expansions across Helsinki and store openings in New York. However, a year after the initial public offering, the company struggled to keep their revenues steady. The downside of international sales was that they made Marimekko's profit highly dependent on exchange rate fluctuations and therefore volatile. (Annual report, 1973)

Armi Ratia passed away in 1979. She had been heavily involved with Marimekko until the very end, and after she passed away, the company struggled to find direction. Armi's three children had difficulties in managing the company in agreement and they decided to sell their shares to Amer Group in 1985. The Finnish conglomerate acquired Marimekko with high hopes for the future of the textile company. They introduced large changes to the company, first by relocating some of the production from Finland to other countries with lower production costs, and then shifting the focus of the business towards maximizing sales. Amer Group wanted to change this and they poured a sales mentality through the whole organization so that even the designers started focusing on improving sales. Despite all the efforts, during the time Marimekko was owned by Amer Group, the company had zero profitable years. (The New York Times, 1988)

Kirsti Paakkanen, a successful advertising agency owner, bought the troubled company in 1991 and began transforming Marimekko to the success story it still is today. She started organizing Marimekko's own fashion shows around the country and hired some of Finland's most notable fashion designers to strengthen the company's fashion sales. In 2006, Marimekko expanded its operations to Asia, starting with a chain of stores in Japan. Soon after that, Mika Ihamuotila took over as the CEO of Marimekko, with a clear intention of transforming it into a truly international company. Under his leadership, Marimekko joined the global fashion weeks in Tokyo, New York, Stockholm and Copenhagen. (Company.marimekko.com)

Today, Marimekko has flagship stores in Helsinki, Stockholm, Tokyo, New York and Sydney. They have had multiple partnerships with other international brands, such as Target, Converse and Hennes

& Mauritz. Tiina Alahuhta-Kasko became the CEO of Marimekko in 2016, and she made it her mission to increase Marimekko's profitability through changes towards better cost management and increasing the company's international sales. (Company.marimekko.com)

## 3.2. Products

Marimekko's product offering consists of three lines; Home, Fashion and Bags & accessories. Each line comprises of two collections, a seasonal one with changing product offering and an ongoing one with Marimekko classics and other on-demand items. The "Marimekko touch" is evident throughout the whole assortment due to the bold, easily recognizable prints that the company is known for. Marimekko prioritizes sustainability in all of their operations, and this is apparent also in the materials they use; natural materials are the core of their design philosophy. Cotton, wool and linen have always been the most used materials in their textiles, while leather is used for the handbags and shoes. In recent years, they have introduced alternative materials, such as lyocell, modal and viscose, as a response to the increasing demand for more innovative and ecological options. (Company.marimekko.com)

The Home portfolio includes of a range of different textiles, everything from ready-to-use towels and bedding to print fabrics that consumers can buy to prepare their own home textiles, and a full set of tableware and other stoneware and glass items for home décor. The Fashion line consists of a wide collection of clothes for both day- and evening wear for women and children. Marimekko has a small collection of unisex items for both men and women, but they have chosen not to offer a men's collection. (Marimekko.com)

Marimekko's net sales in 2018 were evenly distributed between the three collections, with 39% from the Home line, 35% from Fashion, and 26% from Bags and Accessories. (Annual Report, 2018)

## 3.3. Markets

While Marimekko has sales all over the world, the company has focused most of its operations to Northern Europe, North America and Asia. Their distribution network includes Marimekko's own stores, retail-owned stores, and smaller shops in department stores. Altogether, Marimekko has 153

stores around the world, out of which 72 stores are located in Finland and Scandinavia, and 70 in the Asia-Pacific area. In addition to the walk-in stores, Marimekko's online operations reach customers in Europe, United States, Japan and Australia. All in all, their products are now sold in 40 different countries. (company.marimekko.com)

In 2018, Finland was still Marimekko's main sales driver, with EUR 63.8m, corresponding to 57% of the overall sales (see Appendix 3). The second largest market was Asia-Pacific, with EUR 21.3m (19%) in net sales. North America, Scandinavia and EMEA (Europe, Middle East and Africa) each accounted for less than 10% of the company's net sales.

## 3.4. Share price performance

The market value of the target company's equity is an important factor in an LBO valuation, as it is used to determine the acquisition price. The acquirer aims to buy the target at the lowest possible price to maximize returns once they exit the target. To examine this, it is important to review the targets historical stock performance, as it acts as an indicator of how well the acquisition is timed. In an ideal situation, the acquisition would take place when the target's share price is low in comparison to its previous performance.

As previously stated, Marimekko was listed in 1973 in the Helsinki Stock Exchange and it has stayed public ever since. The past 15 years, the company's share price has had a volatile development, ranging between 5 and 25 EUR (see Appendix 1). The share price reacted positively to Marimekko's international expansions and CEO changes the beginning of 2000s. The financial crisis of 2008 halved the company's share price, but the impact was only short term, as the price recovered to its pre-crisis level in a matter of three years. From 2016 to 2019, the share price has increased a considerable 400%. (Bloomberg.com) This sudden growth started when the new CEO was elected in 2016 and she introduced multiple profitability improvements at Marimekko.

## 3.5. Ownership structure

Marimekko is listed in Nasdaq Helsinki Ltd under the Consumer Goods sector. With their current market capitalization, they are considered a small cap company. The company has issued one series

of shares, and each share carries the same voting rights. At the end of financial year 2018, Marimekko had 8,335 shareholders and 8,089,610 shares outstanding.

Appendix 2 details Marimekko's ownership by sector. Households are still Marimekko's largest shareholder group with a 38% ownership, while non-financial and housing corporations hold 29% of the company. Finnish government, foreign investors and financial and insurance companies share third place as largest investor group, each with approximately 10% ownership of Marimekko. (Annual Report, 2018)

The Management Group and Board of Directors held 17% of Marimekko's equity at the end of 2018. Majority of this belongs to Mika Ihamuotila, the previous CEO and current Chairman of the Board, as he remains as the largest individual shareholder with his 16% ownership. Table 2 lists the four largest shareholders, each with higher than 4% ownership in the company, and the amount of shares they own and the corresponding ownership in Marimekko. All other shareholders hold less than 3% in the company.

**Table 2: Marimekko's largest shareholders, 31 December 2018**

| Largest shareholders (>3% ownership) | # of shares | % |
|---|---|---|
| PowerBank Ventrures Ltd (Mika Ihamuotila) | 1,297,700 | 16.04 |
| Moomin Characters Oy Ltd | 615,240 | 7.61 |
| Ehrnrooth Anna Sophia | 400,377 | 4.95 |
| Varma Mutual Pension Insurance Company | 385,920 | 4.77 |

Source: Company.marimekko.com

## 3.6. Marimekko as an LBO target

Even though all LBO transactions are different and unique, they often carry a set of similar characteristics. Marimekko was chosen as the case company because it shares many of the typical LBO candidate attributes. In this section, we will cover these qualities in detail as it also provides further motivation for the choice of the LBO target.

To begin with, Marimekko has attractive financials from an LBO perspective. They have had a strong asset base with only few liabilities for the past five years, which plays an important role in LBO financing. End of 2018, only 30% of their assets were debt financed, and 98% of these liabilities were short-term debt, mostly in accounts payable and accrued expenses. Furthermore, the company has had stable revenues at around EUR 100m and steady annual revenue growth ever since the new CEO started in 2016. Their free cash flows had a similar development for years, but during 2017-2018 Marimekko effectively multiplied their cash flows from EUR 3m to EUR 12m. At the same time, their capital expenditures have dropped down to 1% of annual income due to decreased investments in intangible and tangible assets. If these trends continue in the coming years, it would ensure substantial cash flows for LBO debt repayments. (Company.marimekko.com)

As an LBO target, Marimekko could offer major growth opportunities through internalization. They are already well represented in the Nordics and parts of Asia, but they could expand their operations especially in the United States and elsewhere in Europe. Furthermore, even though Finland is still their largest sales channel, Marimekko could increase their market share in their existing foreign markets, especially in Asia. The company enjoys an extremely high brand value in Asia which enables further expansions (Kauppapolitiikka, 2016).

On the other hand, Marimekko is not a perfect LBO candidate, as its strong share price performance during the past few years creates an issue with the acquisition price (see Appendix 1). Even though increasing market value signals good performance, it is usually a negative factor from an LBO investors point of view. In order to generate sufficient returns from the acquisition, the investor aims to carry out the acquisition when the target is at its lowest valuation, or even undervalued. In Marimekko's case, just three years ago their market valuation was only one fifth of what it is today, and since then the company's share price has climbed to an all-time high. The company is far from its lowest valuation, and it could even be overvalued at the moment. However, this does not mean the share price has reached its maximum. It is possible that the company's latest share performance was only the start of an even stronger growth.

Another silver lining in the strong stock performance is that it speaks to the competence and expertise of Marimekko's current management team. Strong leadership has been the heart of Marimekko for many years. When Tiina Alahuhta-Kasko started as the president and CEO in 2016, she moved most

of the company's production to low production cost countries in order to get the company's profit back on track. She has been able to improve an already successful company and carry it through major strategy changes. This is an attractive factor for an LBO investor as it indicates that the current management team is adequate to lead change, and therefore it would be unnecessary to find a replacement for them.

# 4. Strategic analysis

The intention of the following strategic analysis is to analyze Marimekko's company specific capabilities and opportunities while taking into account the outlooks of the fashion industry and macroeconomic state in the market areas, where the company is currently present. The strategic analysis will be divided into two parts. First, we will present Marimekko's key strategic and supporting factors, as well as possible downsides involved in these factors. Second, we will go through all the five market areas Marimekko is present and take a look on their market outlooks. The review for Finland and Asia-Pacific will be more thorough than the other markets as they account for more than three quarters of the company's revenues.

## 4.1. Key strategic and supporting factors

This section will examine the key strategic and supporting factors Marimekko will base its future growth and internationalization strategy on, after it has been taken over by the PE fund. While the strategic factors are the most integral part in succeeding in the strategy set by the PE fund, the supporting factors are elements that are enabling this achievement in the background. The chosen strategic factors are 1) maximizing sales by building omnichannel ecosystems, 2) appealing to a broader global target audience and 3) approaching key markets through key cities. The chosen supporting factors are 4) sustainability and 5) empowering women.

### 4.1.1. Maximizing sales by building omnichannel ecosystems

Digitalization is one of the four megatrends affecting the fashion industry (Marimekko, 2018), and it has made omnichannel presence possible, but also necessary for companies in order to compete successfully in the industry. Omnichannel includes such channels as physical locations, online, e-commerce, mobile applications, and social media. If Marimekko wants to fulfill its growth targets, investments in digital channels are required. This is in line with the State of Fashion Survey by BoF-McKinsey, where 54% of respondents, who were global fashion executives, said that "increasing omnichannel integration is their number one priority for 2019".

At the moment Marimekko has stores in 15 countries and its online store is available in 32 countries. The company is also selling products through e-commerce channels such as Amazon and have a mobile app for customers in Japan. What is more, this year the company is planning on investing in digital business, omnichannel operations, IT systems and growth in Asia. Especially China is an important market for Marimekko, and they are about to launch sales in WeChat and Tmall, both of which are Chinese e-commerce platforms. There are two main reasons that make China so important. First, China is one of the biggest and most advanced online market places (Marimekko, 2018), and second, Asia-Pacific emerging region is expected to be the fastest growing market in the fashion industry in 2019 (McKinsey.com).

However, there are also risks associated with this strategy. As the company seeks growth in Asia, it will also be more exposed to intellectual property right infringements which are relatively common in Asia and especially in China (Marimekko, 2018). Furthermore, as the share of online sales increases, additional costs will incur. For example, around half of the products sold by the online fashion retailer Zalando are returned after the purchase(Euronews.com). It is unlikely that the share of returned products would be that high for Marimekko, as it operates in a different value segment than Zalando. Nevertheless, when the share of online sales increases, it will also increase the amount of some costs, such as freight and transportation costs, which have to be taken into account when assessing the viability of expanding into digital sales channels.

### 4.1.2. Appealing to a broader global target audience

Marimekko has in general been known throughout its history for bold prints and in particular for its over half-a-century old Unikko poppy print. However, when the current CEO, Tiina Alahuhta-Kasko, assumed office in 2016, she decided to start modernizing the traditional brand. While earlier, such pieces of clothing, as hoodies, would have been unheard at Marimekko, now they are an integral part of their assortment. The idea is to keep their bold prints but add them to items which appeal to younger generations of customers as well, such as caps, tote bags and hoodies (Ft.com). With this approach, they are targeting those hundreds of millions of young urbanites all over the world but particularly in Asia, who have an enormous market power as a group, and who want to express themselves through fashion (BoF-McKinsey, 2018). However, there are dangers lurking in this approach, as changing customer preferences were mentioned to be the third biggest single challenge for fashion companies

in the State of Fashion Survey 2019. Marimekko has to handle this shift from "exclusive to inclusive" with care, to make sure it does not turn back on its loyal clientele while trying to attract new customers. Loyal customers are a rare luxury for a small player in the segment which is dominated by the large luxury houses. So, it is vital that the word "authenticity" will continue to be associated with the brand in the future as well (Ft.com).

### 4.1.3. Approaching key markets through key cities

Marimekko has five flagship stores and they are located on high streets in its key cities in Helsinki, Stockholm, Tokyo, Sydney and New York. The locations of flagship stores are chosen to reach as many people as possible in the company's key markets in Northern Europe, Asia-Pacific and North America. The purpose of the flagship stores is to serve as "spearheads" increasing awareness of Marimekko brand among customers and displaying the widest selection of the company's fashion and home décor items (Marimekko, 2018). In addition, the flagship stores are an essential part of Marimekko's omnichannel approach. While online channels are improving availability, flagship stores are working as a "showcase" of what Marimekko has to offer its customers (huffpost.com).

Marimekko invests considerable amounts of money in its flagship stores every year and for example, last year Stockholm and Tokyo flagship stores went through a thorough facelift, whereas the flagship store in Sydney was relaunched in a new location (Marimekko, 2018). However, despite the high hopes set on the flagship stores, the success has been mixed. The flagship stores in Helsinki and Tokyo have been very successful and Marimekko has managed to expand its store network in those cities over the years, and there are now 15 stores in Helsinki (Marimekko.com) and 18 stores in Tokyo (retailnews.asia). In contrast, the flagship store in Sydney did not fulfill its expectations and got a new start in a different location last year. Similarly, the success in New York could have been better. Marimekko has not been able to increase its market share and last year, the North America region was the only market area which did not see any growth (Marimekko, 2018). As Marimekko puts lots of money into its flagship stores, their development has to be followed intensively. If the company's efforts do not take wind in the sails in those cities, Marimekko has to reconsider which really are the key cities it should invest its limited resources to achieve acceptable growth in the future.

### 4.1.4. Sustainability

Sustainability is getting more and more foothold in the fashion industry. Especially young consumers are taking sustainability seriously. More than nine out of ten generation Z consumers think companies have a responsibility to address social and environmental issues, and they are not just a small minority but will account for 40% of all consumers by 2020 (Cone Gen Z CSR study, 2017). This will definitely put more pressure on companies to lift sustainability up in their priority lists. First sign of the increased importance was seen when fashion executives were asked to assess which trends have had the largest impact on their businesses in 2018. Sustainability made it to the list for the first time being the fifth most impacted trend (BoF-McKinsey, 2018). However, sustainability is not a factor which would single-handedly make a company a success story but more like a factor which affects negatively the company image and thereby revenues, if not addressed properly.

At Marimekko, sustainability is taken seriously, and it comprises such things as sustainable and timeless design, a responsible supply chain and caring for the environment and personnel. Since the inception of the company, it has not been fast fashion but timelessness that has guided their product design (Marimekko, 2018). Timelessness matches very well with the current trend among consumers to stretch the lifespan of fashion products, and it has strengthened the second-hand market for premium clothes. The global second-hand market is even expected to surpass fast fashion in size within ten years as consumers, on one hand, want to be sustainable, while on the other hand, have hunger for newness (BoF-McKinsey, 2018). This offers new opportunities for companies but especially for those whose products are characterized as timeless. Marimekko has noted this and has for example, started to cooperate with We Started This (WST), which is a Finnish second-hand clothing online retailer (Marimekko, 2018).

Further, to comply with the principles about a responsible supply chain and sustainable environment, Marimekko is committed to several initiatives. Since 2011, the company has been a member of amfori BSCI initiative and only cooperates with suppliers who have committed to refrain from child and forced labour. There are also other criteria but child and forced labour are probably the most flagrant misconducts in global supply chains and are therefore emphasized. In addition, Marimekko is a member of Better Cotton Initiative. Suppliers in Better Cotton Initiative produce cotton in a sustainable way and in 2017 53% of the cotton used in Marimekko's products was sustainable cotton

and the share is expected to grow. Better Cotton is highly relevant for Marimekko as cotton is used in approximately 80% of their textile products (Marimekko Sustainability Review 2017). So, by switching to Better Cotton they are taking a big step forward on their way of being a sustainable company. However, when companies are profiling and marketing themselves as "sustainably conscious" it includes some risks as well. As multinational companies often have extremely complex supply chains, it is quite difficult to control every single subcontractor in the chain. However, any errors or failures in that area will cause huge reputational risks, and the hardest are hit those who have boasted their sustainability efforts and even tried to make a difference to competitors in that sector.

### 4.1.5. Empowering women

In addition to sustainability, there are also other shifts happening in consumer preferences. People are increasingly reflecting their principles and values in their purchasing decisions and this has not gone unnoticed by fashion companies (BoF-McKinsey, 2018). As women spend a threefold amount of money on fashion compared to men (McKinsey.com), it is unsurprising that the values and principles women are bringing up in society are also starting to be reflected in the marketing efforts of fashion companies. For example, the word "feminist" appeared five times more frequently on newsletters and homepages of fashion companies in 2018 compared to 2016 (BoF-McKinsey, 2018). But people are also looking behind the "outer shell" of companies and are favouring those brands which live up to their principles. It is not considered credible if the companies are talking about empowering women and feminism if, at the same time, the large majority of their key decision makers are men and that is largely the reality in fashion business. While the majority of entry level jobs in the fashion are occupied by women, less than 15% of major brands have a female CEO and fewer than half of the main designers are women (BoF, 2017).

In that regard, Marimekko is a refreshing exception with their 37-year-old female CEO, and since the beginning, the company's mission has been to empower women and encourage them to dress up in bold colors and live the life they want to (Marimekko, 2018). However, while it is true that Marimekko's modern corporate culture is supporting their efforts with the new strategy to appeal to a broader target audience, they have also room for improvements in relation to diversity. Indeed, even though Marimekko has a female CEO, it cannot be considered as a gender-diverse company as 92% of their employees and 88% of the management team members are women (Marimekko Sustainability

Review 2017). On the other hand, the board of directors is more evenly distributed and the share of women of the board members is 57% (Marimekko, 2018). Nevertheless, this does not give a diverse picture of the company's management, as diversity does not mean the absence of men, but is more about having a good balance between people with different genders, ages and backgrounds. Why should this matter? Based on McKinsey's Delivering Through Diversity Report (2018) more diverse companies are better at attracting top talent and especially gender-diverse companies are outperforming their peers. Therefore, the diversity aspect is something the new owners should consider after the buyout has taken place.

## 4.2. Market outlook

This section will analyze the fashion industry outlook in general and Marimekko's market outlook in particular. The key markets of Marimekko are Northern Europe (Finland and Scandinavia), Asia-Pacific and North America. In addition, the company is present in EMEA (Europe, Middle East and Asia) region. As Finland and Asia-Pacific account for more than three quarters of the company's revenues, they will be reviewed more thoroughly than the other markets. Last year, Marimekko's revenues grew by 9%, and the company saw growth in all of its market areas except North America (Marimekko, 2018). That was significantly more than the predicted 4.5% global growth in the "affordable luxury" segment (McKinsey.com), the same segment to which Marimekko classifies itself belonging in.

### 4.2.1. Finland

Finland is Marimekko's home market and the company generates more than half of its revenues there. Last year was a time of really strong growth for Marimekko in its domestic market and the value of its net sales grew by 14% when the overall value of retail sales in Finland grew only by 3% (Marimekko, 2018). While it is unlikely that Marimekko could keep its current growth numbers in the long-term as the economic prospects in Finland are weakening (EK.fi), we believe there is still room to grow and to beat the predicted retail sale growth rates. Therefore, we estimate their growth to stay in a relatively high level in short and mid-long term, but to converge with the overall Finnish economy growth numbers in the long-term. To support growth, Marimekko sold its headquarters in Helsinki last year and signed a sale and leaseback contract to continue operating there. This maneuver

released cash for investments in digital business and growth in Asia. Furthermore, the new owner has started renovating the head office and the aim is to attract more visitors and thereby to increase sales through new customers. The head office, which carries the name "Marimekko house", additionally includes design functions, a textile printing factory and two retail stores, all under the same roof. Last year, the Marimekko house attracted over 100,000 visitors and the number is expected to grow this year (Marimekko, 2018). What is more, Marimekko reopened its Helsinki flagship store with a new concept in November 2016. The new concept displays the widest range of Marimekko fashion, combined with the more commercial design and is directed to attract a wider group of customers (Marimekko.com).

### 4.2.2. Scandinavia

Scandinavia is a part of Marimekko's Northern Europe market together with Finland. Scandinavia accounts for less than 10% of Marimekko's revenues but during the past two years the growth has been strong and last year the company's net sales in Scandinavia grew by 6%. In addition, the flagship store in Stockholm was revamped last year and similarly to Helsinki flagship store, the new store concept was incorporated there. The new store concept is also in use in the company's store in Oslo (marimekko.com). As a market, Scandinavia resembles Finland in that the majority of revenues is derived from retail sales in contrast to wholesale sales (Marimekko, 2018). For 2019, McKinsey's Global Fashion Index expects the growth rate to be at 2.5% in Europe mature countries to which Scandinavia can also be counted in. However, as we expect the new store concept together with the company's omnichannel approach to support growth, we estimate that the growth rate will stay around the same in the mid-long term it was in 2018.

### 4.2.3. Asia-Pacific region

Asia-Pacific region is Marimekko's second-biggest market by net sales and two of the company's five flagship stores are located there (Marimekko, 2018). Marimekko has in many occurrences mentioned that their goal is to achieve international success and Asia-Pacific is a crucial piece in that puzzle. There are many reasons for Asia's importance. First, Marimekko already has a comprehensive store network in Japan (Retailnews.Asia). So, it is easier to expand to other countries in the region, after the company has gained popularity in one of the region's and, at the same time, world's biggest

economic powers. Second, digitalization is one of the megatrends affecting the fashion industry and China is one of the most advanced and fastest developing online sales hubs in the world (Marimekko, 2018). Third, just the mere size of the rapidly growing middle class in the region who want to express themselves through fashion is too tempting of an opportunity to leave for other players in the market. Fourth, Greater China, comprising China, Taiwan, Hong Kong and Macau, will this year surpass the US as the largest fashion market in the world. Fifth, the growth in the fashion market will primarily be derived from emerging and luxury segments in Asia (BoF-McKinsey, 2018).

Against this background, it is no wonder that a total of 12 stores Marimekko opened last year, nine of them were opened in the Asia-Pacific region (Marimekko, 2018). Store openings are one part of Marimekko's omnichannel strategy, where the core idea is to create a seamless customer experience by offering products in several online sales channels as well as in brick-and-mortar stores. The other part of the strategy is to strengthen their presence in digital channels. The different channels are supposed to support and complement rather than compete with each other (Marimekko.com). In this regard, the company opened last year a new subsidiary in China to increase marketing efforts in the area and to facilitate the launch of online sales in Tmall and WeChat. In China, the physical stores are run by a local partner and Marimekko is taking care of online sales. While internationalization provides many opportunities, it is good to keep in mind that partnering contracts are not always uncomplicated and might bring some issues, such as infringements of intellectual property rights. That's true especially in Asia's emerging markets (Marimekko, 2018). Therefore, in spite of the region's enormous potential, successful internationalization will not be easy or straightforward. In addition, last year the company increased its revenues in the region by a paltry 3%. This can be explained by the weak result generated in Japan where Marimekko saw only a growth of 1%. Japan still accounts for a large share of the company's net sales and it is by far the most important country for Marimekko in the region. Marimekko expects to see moderate growth in Asia-Pacific region's mature countries such as in Japan and accelerating growth in the region's emerging countries such as in China, once the investments in digital business and omnichannel operations start to bear fruit. McKinsey's Global Fashion Index expects 3% and 7.5% growth for Asia-Pacific region's mature and emerging parts, respectively (McKinsey.com). We believe these growth numbers are somewhat indicative for Marimekko as well. To sum up, Asia-Pacific region is one of the key markets for Marimekko where it can expect strong growth in the long term if its internationalization goes as planned.

### 4.2.4. North America

Marimekko considers North America as one of its key markets (Marimekko, 2018). Purely based on numbers this decision does not get much support as North America accounted for only 7% of the company's revenues last year, being the smallest market area even behind Scandinavia and EMEA regions. Therefore, the decision to include North America as one of the key markets, rather demonstrates the region's potential and Marimekko's hopes to gain market share than the actual situation. As mentioned above, last year Marimekko did not see growth in North America and the amount of net sales even decreased by 1%. For 2019, McKinsey's Global Fashion Index forecasts a growth rate of 3.5% for North America's fashion industry but points out that there are some fears of a possible bubble in the US economy which would drag the forecasted growth rate down (BoF-McKinsey, 2018). As Marimekko has had some partnerships in the US in recent years, such as with the retail chain Target in 2016 (corporate.target.com) and with the cosmetics brand Clinique in 2018 (Clinique.com), its brand has gained more awareness in the US. Therefore, we estimate that Marimekko will get back to growth path this year, but the growth will be slightly below the estimated industry growth of 3.5%. For the subsequent years, we expect mediocre but slightly accelerating growth compared to 2019.

### 4.2.5. EMEA

Marimekko does not count EMEA as one of its key markets. Nevertheless, the growth has been pretty good in the past years and last year the company's net sales grew by 6% in the region. The region is geographically really large as it covers Europe (Excluding Northern Europe), the Middle East and Africa. However, there is only one physical store in the whole region which is located in Germany (company.marimekko.com). Therefore, a vast majority of the revenues is derived from different online sales channels and the future growth heavily depends on investments in digital business and increasing brand recognition. For 2019, McKinsey's Global Fashion Index expects the growth to be at 4% in the Middle East and Africa region, at 5.5% in Europe emerging region and at 2.5% in Europe mature region (BoF-McKinsey, 2018). All the growth estimates for 2019 are pointing downwards compared to the year before. However, there are lots of untapped markets for Marimekko due to the region's large population which comprises many wealthy countries. In addition, based on the good

growth rates in the past years, it seems that Marimekko's products are gaining traction in the region and thus, we expect that Marimekko can keep their good growth in the future as well.

# 5. Financial analysis and budgeting

In order to carry out the LBO valuation of Marimekko, it is necessary to both analyze the company's historical performance and also forecast their future performance throughout the holding period. The analysis enables us to obtain an estimate of Marimekko's acquisition price and exit value, from which we can determine the return of the LBO investment.

After representing the peer group, the section continues with the reformulation of Marimekko's and its peer groups financial statements. The historical analysis will be carried out for a period of 2015-2018, four years prior to the hypothetical acquisition date. This offers sufficient basis for financial analysis and future cash flow projections. Based on the analytical statements, we will determine and analyze the key financial drivers for the upcoming forecast. The financial drivers will be benchmarked and comparable company analysis will be used to exhibit Marimekko's financial and operational efficiency compared to its competitors.

After this, the components of the LBO valuation will be established. First, we will determine the acquisition price and the financial structure of the transaction. Second, we will forecast the income and balance sheet based on the financial drivers set earlier. In the balance sheet projection, an LBO debt repayment schedule will be presented relative to the forecasted free cash flows. To finish the section, we can compute the exit value of Marimekko, and calculate the return of the LBO investment.

## 5.1. The peer group

Finding a sufficient peer group for Marimekko was difficult due to the company's relatively small size, the wide market it serves and their unique product offering. Additionally, in order to obtain adequate financial statement information, the comparable companies had to be publicly traded. No company offered a perfect match with Marimekko, but we were able to gather a small group of Swedish companies that operate in the same sector as Marimekko and share other similarities to it.

Hennes & Mauritz (hereafter H&M), a well-known fashion giant, was chosen due to their similar product offering and the worldwide market they serve. H&M is considerably larger in size and their

price range is lower than Marimekko's, but using them as a comparable company could showcase possible efficiency improvements with Marimekko. Another Swedish clothing company, Kappahl, was chosen because of their similar market size and product assortment to the ones of Marimekko. Out of the three chosen peers, Kappahl is closest to Marimekko in size, and therefore could offer the a good comparison when it comes to financial analysis. The third company chosen for the comparison is MQ, a Göteborg-based fashion retailer. The decision behind MQ was Nordea's Working Capital Report 2016, where companies and their peers are compared based on their working capital management. The report shows that Marimekko is scored 7 out of 10 in peer relevance rating compared to MQ, implying significant similarities between the companies. In addition to operating in the same sector, both Kappahl and MQ have previously been owned by PE firms. As PE firms are known for streamlining processes in their targets, the two offer a good benchmark for Marimekko in that regard as well. For example, their NWC/Sales ratio is significantly below the industry average. (Nordea Working Capital Report, 2016)

## 5.2. Analytical financial statements

In order to carry out a financial statement analysis, both Marimekko's and its three competitors' financial statements had to be reorganized into analytical statements. The reformulated statements enable forecasting of Marimekko's future cash flows and the comparison between the four companies, using both absolute figures and a set of ratios that draw from the analytical income statement and balance sheet.

All four financial statements were reorganized according to the same accounting policies to ensure a reliable case for comparisons. To standardize the reformulation, we first organized Marimekko's financial statements, and then applied the same principles when transforming the three competitors' financial statements. The four companies had somewhat different asset classes in their statements, but it was possible to categorize the different assets to their own appropriate groups. All four analytical statements can be found from Appendix 8-11. Next, we will provide a brief description of the reformulation process.

All four income statements were reorganized to obtain values for EBITDA and NOPAT. To begin with, depreciation and impairments were added back to the operating profit to establish values for

EBITDA, which will be used to determine the exit value of the target. Depreciation and impairments were separate items in Marimekko's and MQ's financial statements, whereas with Kappahl and H&M they were already included in selling expenses, and therefore the items were added back straight from the respective companies' cash flow statements. After this, depreciation and impairments were deducted from EBITDA to compute the values for EBIT. In order to determine NOPAT, we calculated the tax on EBIT by multiplying EBIT with the tax rate of the specific year and deducted it from EBIT. Next, we determined the tax shield by using the same tax rate on net financial expenses, and computed the after tax financial expenses for the year by adding the tax shield to the financial expenses before tax. Subsequently, we deducted the net financial expenses from NOPAT, to establish the net profit of the year.

The four companies' balance sheets were reformulated to determine their net operating assets, and consequently invested capital. All assets and liabilities were divided into operating and financial items, essentially all interest-bearing items and shareholder's equity were regarded as financial assets and liabilities, while other items were considered as a part of operational activities, and as such included in operating assets and liabilities. In order to improve the classification and to facilitate further calculations, all items were also categorized in non-current and current assets and liabilities.

While most of the items can be easily defined, it can be discussed whether or not provisions are an operating or financial liability, as each company defines them independently. In Marimekko's case, their provisions had decreased down to zero during the past few years, so the classification was not as important for them. Both Kappahl and H&M had provisions for pensions and other similar obligations, and the items were classified as operating liabilities, as pensions are an operational expense. MQ had provisions for deferred tax in their balance sheet, and it was also included in operating liabilities, as it is a non-interest-bearing item.

Other balance sheet items were more straight forward to classify, and thus can be referred to in Appendix 8-11. To calculate the net operating assets, we deducted all operating liabilities from the total operating assets. Finally, to check that the net operating assets match the invested capital, we deducted financial assets from financial liabilities, and added the unchanged shareholders' equity to it, to compute net financial liabilities.

When reformulating Marimekko's financial statements, we calculated comparable values for some of the 2018 items because of the sale and leaseback of the company's headquarters. The transaction had a major impact on their EBITDA and operating profit, as it effectively doubled both of the reported figures. As the sale and leaseback is a non-recurring event, it should not have a full impact on the forecasting of the income statement. Therefore, we adjusted the items and used comparable values for them; Marimekko's EBITDA without the transaction became EUR 14.7m and their EBIT decreased to EUR 12.2m. The overall impact on the net profit of the year was approximately 30%, and the comparable value for profit changed to EUR 9.39m. The balance sheet does not require any adjustments, as the sale and leaseback will have a permanent impact on the company's asset base and liabilities, and therefore it should be considered in the forecasting of the balance sheet as well. These changes are presented in Marimekko's reformulated financial statements in Appendix A. The impact of the sale and leaseback will be further elaborated on in the forecasting of financial statements.

## 5.3. Analysis and forecast of financial drivers

In this section, we will establish and analyze the key financial drivers determining the financial statement forecasts. These drivers include revenue growth, net working capital, capital expenditures, cost of goods sold, and other operating expenses. The key drivers will be benchmarked against the peer groups' financials and forecasted throughout the LBO holding period. Additionally, we will provide analysis on the operating margin development of the peer group.

### 5.3.1. Revenue

#### 5.3.1.1. Historical revenue comparison

In order to forecast Marimekko's future revenue growth, it is useful to first establish an idea of how revenue growth has developed in the fashion and textile industry by observing the historical growth among Marimekko and its competitors.

Table 3 illustrates the four companies' revenue growth rates between 2015 and 2018. Out of the peer group, H&M and Marimekko are the only companies that have had a positive revenue growth throughout the period. Both Kappahl and MQ had negative growth in 2018, the year of Marimekko's

historically high revenues. Just a year before in 2017, the tables were completely other way around, as MQ had the highest growth rate, while Marimekko had the slowest growth in the peer group. Prior to 2018, Marimekko's sales growth was continuously below the ones of H&M and MQ. This can be explained by their struggles keeping all of their segments' growth rates positive (see Table 4). The revenue growth between the peers has not been stable 'horizontally', but even looking at the rates in each year individually, there is no sign of joint movements. It is difficult to draw conclusions based on the historical performance, as each company's sales growth has been extremely volatile during the observed time horizon. This could be due to complex nature of the industry, as it is highly dependent on demand and market developments.

**Table 3: Peer group's revenue growth comparison**

| Revenue growth % | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|
| Marimekko | 1.6% | 4.1% | 2.7% | 9.4% |
| Kappahl | -3.3% | 3.0% | 4.1% | -3.2% |
| Hennes & Mauritz | 19.4% | 6.3% | 4.0% | 5.2% |
| MQ | 2.4% | 8.0% | 8.3% | -4.7% |

Source: Calculated from each company's financial statements

The State of Fashion 2019 report, published by McKinsey, projected the revenue growth in the fashion industry from 2018 to 2019. According to the report, the growth in Europe in 2018 was approximately 3% on average, while the forecast for 2019 was slightly lower, at 2.75%. Considering the report, none of the four companies followed this average, and Marimekko's growth rate surpassed this industry average by up to 6.4%. As discussed earlier, this growth was largely led by Marimekko's success in Finland in Asia Pacific, as they were able to hike up the sales by expanding their customer base.

#### 5.3.1.2. Revenue forecast

The first and most important factor to forecast in the income statement is the annual revenue growth of the target. The revenue growth has a direct impact on the free cash flows the target generates, and thus the speed of the LBO debt repayments. It will also determine how successful the LBO transaction is, because higher revenues generally increase the company's valuation and the exit value of the

investment. As Marimekko operates in different segments around the world, their overall revenue projections will be computed by first forecasting the sales growth in each individual segment separately.

In their Annual Report 2018, Marimekko stated that their goal for annual net sales growth remains at over 10%. This was after an incredibly profitable year of 2018, with a total sales growth of 9.4%, a EUR 9.6 million increase from 2017. As Table 4 portrays, the growth was primarily led by a 14% sales increase in Finland. Even though the international segments showed decent success as well, the overall international sales growth halved from 2017 level due to the significantly slower growth rate in Asia-Pacific region and Scandinavia. Historically, EMEA is the only segment that has had positive and relatively steady growth from 2015 onwards. Looking at the absolute sales figures, North America has been Marimekko's smallest market over the years. Considering the segment's geographically significant size and location, Marimekko has not yet been able to turn its potential into a successful sales driver, as North America's sales have stayed on par with Scandinavia, a much smaller market.

**Table 4: Marimekko's net sales and sales growth projections by segment**

| **Net sales by market area (EUR 1,000,000)** | **2015** | **2016** | **2017** | **2018** | **2019F** | **2020F** | **2021F** | **2022F** | **2023F** |
|---|---|---|---|---|---|---|---|---|---|
| **Finland** | **52.7** | **55.8** | **55.7** | **63.5** | **69.9** | **75.8** | **81.5** | **86.8** | **92.0** |
| Growth (%) | 1.3% | 5.9% | -0.2% | 14.0% | 10.0% | 8.5% | 7.5% | 6.5% | 6.0% |
| **Scandinavia** | **7.8** | **7.8** | **8.5** | **9** | **9.5** | **10.1** | **10.7** | **11.4** | **12.0** |
| Growth (%) | -8.2% | 0.0% | 9.0% | 5.9% | 6.0% | 6.0% | 6.0% | 6.0% | 6.0% |
| **EMEA** | **8.3** | **9.2** | **9.7** | **10.3** | **11.0** | **11.8** | **12.7** | **13.7** | **14.7** |
| Growth (%) | 9.2% | 10.8% | 5.4% | 6.2% | 7.0% | 7.5% | 7.5% | 7.5% | 7.5% |
| **North America** | **9.2** | **7.9** | **8.3** | **8.2** | **8.4** | **8.8** | **9.2** | **9.6** | **10.0** |
| Growth (%) | 7.0% | -14.1% | 5.1% | -1.2% | 3.0% | 4.0% | 4.5% | 4.5% | 4.5% |
| **Asia-Pasific** | **17.7** | **18.8** | **20.2** | **20.8** | **21.8** | **23.6** | **25.7** | **28.3** | **31.1** |
| Growth (%) | 1.1% | 6.2% | 7.4% | 3.0% | 5.0% | 8.0% | 9.0% | 10.0% | 10.0% |
| **International sales, total** | **43** | **43.8** | **46.6** | **48.3** | **50.8** | **54.3** | **58.3** | **62.9** | **67.9** |
| Growth (%) | 2.1% | 1.9% | 6.4% | 3.6% | 5.3% | 6.9% | 7.4% | 7.9% | 7.9% |
| **Total** | **95.7** | **99.6** | **102.3** | **111.9** | **120.7** | **130.1** | **139.8** | **149.7** | **159.9** |
| **Growth (%)** | **1.6%** | **4.1%** | **2.7%** | **9.4%** | **7.9%** | **7.8%** | **7.5%** | **7.1%** | **6.8%** |

Source: Forecasts by the writers, historical computations from Marimekko's financial statements

The company's stated 10% annual sales growth goal is extremely ambitious and would require a steady growth in all of their segments. Additionally, Marimekko's historical performance does not support the expectation of steady, high returns, regardless of the great success in 2018. After a careful consideration of the different segments and their growth possibilities, we decided to take a more conservative point of view regarding Marimekko's total sales growth during the forecasting period of 2019-2023, presented in Table 4. Next, we will briefly discuss the drivers of the total growth, the growth forecast in the different segments.

Finland has been Marimekko's largest sales channel throughout the years, and this is expected to continue during the LBO transaction. The company's current strategy in Finland paid off in 2018, and the success is forecasted to continue for a couple of years after the acquisition. After this, the growth is expected to slowly shift towards the growth rate of Finnish economy, as maintaining the extremely high growth rates is unlikely. Thus, the forecast for 2019 is still 10%, after which it decreases to 6% by the end of the transaction.

As discussed in the strategy analysis, Marimekko has already taken actions towards improving their international sales and brand image, and they are expected to continue on that path during the holding period. Their primary goal is reaching a wider global audience by increasing their online sales around the world, and opening new stores, especially in the Asia-Pacific region. They expect the sales in Asia-Pacific to increase significantly over the coming years and to become another key driver in their global business. Historically, Marimekko has had fluctuating success in the segment, but the sales growth in Asia-Pacific is expected to pick up quickly during the first after the acquisition. By 2022, the growth is forecasted to reach 10%, and thus become the second largest growth driver in the company's sales.

In Scandinavia and EMEA, Marimekko has had relatively stable growth the past few years, as they have managed to get some foothold on both markets. During the LBO transaction, they are not going to invest specifically to these segments, but the growth expectation is derived from Marimekko's focus on improving their digital channels and increasing brand recognition. As can be seen from Table 4, both markets are forecasted to have stable growth throughout the investment horizon. EMEA has a higher growth expectation because as a large segment, it has a lot of potential for growth through online sales.

Marimekko's revenue growth in North America has been volatile, and they have struggled to improve their market position there. The company does not have ambitious growth expectations there, but the they aim to stabilize their position in the segment through some growth. Therefore, the forecast for the segment is relatively conservative, with an annual revenue growth increasing to 4.5% by 2021 and then continuing as such until the end of the holding period.

Other possibilities regarding sales growth and its impact on Marimekko's profitability will be discussed further in the scenario analysis, with two added scenarios, one considering a highly successful LBO investment, and another one examining the consequences of a less successful acquisition.

### 5.3.2. Net working capital

As discussed in section 2.2.4.2, the efficiency of working capital management is typically measured by a net working capital/sales ratio and the smaller the ratio the more efficient the company's working capital management is. Net working capital is an important element in free cash flow calculations. If the yearly change in net working capital has been negative, it increases free cash flows and respectively, if the yearly change has been positive, it has a negative effect on free cash flows. Therefore, changes in net working capital are directly linked to a company's free cash flows and thereby also its ability to make debt repayments.

#### 5.3.2.1. Historical net working capital capital comparison

When assessing a company's efficiency in working capital management, the comparison is typically done between companies within the same industry as there are large differences, for example, in how much a company which operates in the fashion industry has to tie up cash in inventories, compared to a company operating in the telecommunications industry. In the Table 5 below, we have calculated NWC/sales ratios and converted them into operating cycles for Marimekko and its peer group, based on the information given in their financial statements. In addition, days of receivables outstanding, days of inventory on hand, and days of payables outstanding are calculated in order to get a better overview where the differences in the NWC/sales ratios come from.

**NWC/sales ratio**

In the Table 5, we can see that Marimekko has had the highest NWC/sales ratio during the whole observation period which covers the years from 2014 to 2018. While Marimekko's NWC/sales ratio has varied between 20% to 24%, its peer group companies have had NWC/sales ratios of 9% to 18% in the same period. This indicates that Marimekko has more cash tied up in working capital than the peer group, and therefore, its working capital management can be seen as less efficient. However, a positive sign is that Marimekko's trend in NWC/sales ratio is slightly declining and the lowest ratio was achieved in the last year of the observation period.

**Operating cycle**

The operating cycle was calculated by multiplying NWC/Sales ratio by 365 and it measures how many days it takes, on average, for a company to collect cash from customers, once it has paid to suppliers (Smith, 1990). In the table below, we can see that Marimekko's operating cycle has varied from 75 days to 89 days, while the peer group's operating cycle has varied from 33 days for MQ in 2014 to 67 days for H&M in 2018. In 2018, MQ's operating cycle was 40 days, while Marimekko's operating cycle was 75 days. This implies that the time for MQ to collect cash from customers, once it had paid to suppliers, was almost two times shorter compared to Marimekko. Kappahl and H&M have also had several days shorter operating cycles throughout the observation period than Marimekko.

**Days of receivables outstanding**

Days of receivables outstanding was calculated by including "trade and other receivables" in the receivables balance and then dividing the balance by sales. To get the number of days, we multiplied the receivables/sales ratio by 365. The decision to include also other receivables in the receivables balance was made to keep the days of receivables outstanding comparable between companies, as some companies haven't separated these items in their financial statements. All the items used in calculations were year-end items.

$$Days\ of\ receivables\ outstanding = \frac{Year-end\ trade\ and\ other\ receivables}{Sales} * 365\ Days$$

Days of receivables outstanding measures the average time it takes for a company to collect receivables from customers. In the table below, we can see that for Marimekko it takes significantly more time than for the peer group. During the observation period, Marimekko has reduced the collection time but nevertheless, it is still lagging far behind the peer group. For example, in 2018 it took on average 23 days for Marimekko to collect receivables, while for Kappahl it took only 4 days. MQ was not far behind and it collected receivables on average within 5 days. It is noteworthy that both MQ and Kappahl have previously been owned by PE firms (Nordea, 2016), so they are good reference points of how the streamlined days of receivables should look like.

**Days of inventory on hand**

Days of inventory on hand was calculated by dividing the balance of inventories first by sales and then multiplying by 365. When calculating days of inventory on hand, cost of sales figure could have been used instead of sales figure. However, we followed the calculation method used in Nordea's working capital report from 2016 and used the sales figure instead. Therefore, the number of days of inventory is smaller than if we had used the cost of sales figure, as the sales figure is typically larger than the cost of sales figure. All the items used in calculations were year-end items.

$$Days\ of\ inventory\ on\ hand = \frac{Year - end\ inventories}{Sales} * 365\ Days$$

Days of inventory on hand measures the average time it takes for a company to sell its inventory to customers. Marimekko is, again, performing the worst among its peer group. However, this time the difference is not that striking than with receivables. Other observation is that Marimekko has improved relatively compared to H&M and MQ which inventory turnovers have slowed down by 18 and 10 days over the observation period.

**Days of payables outstanding**

Days of payables outstanding was calculated by dividing trade payables balance by sales and then multiplying by 365. Similarly to days on inventory on hand calculations, we used the sales figure instead of cost of sales figure. All the items used in calculations were year-end items.

$$Days\ of\ payables\ outstanding = \frac{Year - end\ trade\ payables}{Sales} * 365\ Days$$

Days of payables outstanding measures the average time it takes for a company to pay suppliers. As days of payables outstanding reduces the days in operating cycle, a company's management of payables is considered the more efficient the more it can postpone the payments to suppliers. In 2018, Marimekko was the second best in postponing payments among the peer group but MQ was a clear winner. While MQ's days of payables outstanding have varied from 32 to 35 days, Marimekko's days of payables have been significantly at lower levels, varying between 15 to 20 days over the observation period.

**Table 5: Net working capital comparison**

| **NWC/Sales %** | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|
| Marimekko | 22 % | 20 % | 24 % | 22 % | 20 % |
| Kappahl | 11 % | 11 % | 14 % | 13 % | 13 % |
| H&M | 13 % | 13 % | 17 % | 17 % | 18 % |
| MQ | 9 % | 10 % | 11 % | 9 % | 11 % |
| **Operating cycle** | | | | | |
| Marimekko | 81 | 73 | 89 | 79 | 75 |
| Kappahl | 41 | 39 | 52 | 47 | 49 |
| H&M | 46 | 49 | 61 | 61 | 67 |
| MQ | 33 | 35 | 42 | 34 | 40 |
| **Days receivables outstanding** | | | | | |
| Marimekko | 28 | 23 | 29 | 24 | 23 |
| Kappahl | 3 | 2 | 3 | 7 | 4 |
| H&M | 12 | 11 | 14 | 13 | 14 |
| MQ | 5 | 3 | 2 | 1 | 5 |
| **Days inventory on hand** | | | | | |
| Marimekko | 68 | 71 | 78 | 75 | 72 |
| Kappahl | 56 | 58 | 63 | 54 | 59 |
| H&M | 47 | 50 | 60 | 62 | 65 |
| MQ | 60 | 67 | 74 | 68 | 70 |
| **Days payables outstanding** | | | | | |
| Marimekko | 15 | 20 | 18 | 20 | 20 |
| Kappahl | 18 | 21 | 15 | 13 | 14 |
| H&M | 13 | 12 | 14 | 13 | 12 |
| MQ | 32 | 35 | 35 | 35 | 35 |

Source: Calculated from each companies' financial statements

#### 5.3.2.2. Forecasting Marimekko's net working capital

As PE firms are known for their ability to optimize net working capital in companies they are managing, we expect certain improvements to happen in that regard over the holding period at Marimekko as well (see Table 6). There are room for improvements especially in days of receivables outstanding and days of inventory on hand.

We estimate that the days of receivables outstanding will be reduced over the holding period. The biggest changes will happen already in the first year and some additional improvements will follow later on in the holding period, so that the days of receivables outstanding will be around 7 days at the time of exit. We expect that the PE firm will achieve the reductions primarily by using off-balance sheet factoring. The off-balance sheet factoring is especially useful for those receivables which take a long time to collect and which increase the days of receivables outstanding the most. However, as off-balance sheet factoring will incur some costs in the form of fees and interests paid to the factoring firm, it is not meaningful to use it for all receivables (Nordea, 2016). Moreover, we anticipate that by renegotiating payment terms with customers the receivables balance can further be decreased.

For Marimekko, it is typical that the proportion of holiday sales is particularly significant and most of their deliveries usually take place in the second and third quarters (Marimekko, 2018). Therefore, as the company can estimate quite well when its biggest deliveries are taking place, it is possible to start using Just-in-time inventory management method and reduce the level of inventory needed to serve its customers in a good level. We expect the reduction in inventories to happen gradually over the holding period, so that at the time of exit the days of inventory on hand will be around 55 days. That would be a significant improvement as the pre-buyout inventory on hand was 72 days.

In regard to the days of payables outstanding, Marimekko is already performing quite well, so we do not expect to see much improvements in them. Therefore, the payables outstanding are expected to remain stable over the holding period, apart from a 2-day additional postponing achieved in payables in the first year after the buyout. We estimate that the 2-day postponing can be achieved by renegotiating payment terms with suppliers. Therefore, at the time of exit, days of payables outstanding is estimated to be around 22 days which is a 2-day improvement compared to the pre-buyout situation.

When we add up these changes together, we can see that the estimated change in the operating cycle is almost 35 days. This means that at the time of exit, the operating cycle is estimated to be reduced from 75 days to 40 days. Surprisingly, that's the same operating cycle than MQ, the best performer in the peer group, had in the end of the observation period. And as MQ has previously been PE-owned, its "best-in-class" operating cycle is a good reference point for Marimekko.

**Table 6: Forecasting Net Working Capital**

| Marimekko | 2015 | 2016 | 2017 | 2018 | 2019F | 2020F | 2021F | 2022F | 2023F |
|---|---|---|---|---|---|---|---|---|---|
| **Days payables outstanding** | **20.4** | **18.4** | **19.8** | **20.1** | **21.9** | **21.9** | **21.9** | **21.9** | **21.9** |
| % of sales | 6 % | 5 % | 5 % | 5 % | 6 % | 6 % | 6 % | 6 % | 6% |
| **Days inventory at hand** | **70.5** | **78.3** | **74.6** | **72.1** | **69.4** | **65.7** | **62.1** | **58.4** | **54.8** |
| % of sales | 19 % | 21 % | 20 % | 20 % | 19 % | 18 % | 17 % | 16 % | 15 % |
| **Days receivables outstanding** | **22.8** | **29.4** | **23.7** | **22.6** | **11.0** | **11.0** | **11.0** | **7.3** | **7.3** |
| % of sales | 6 % | 8 % | 6 % | 6 % | 3 % | 3 % | 3 % | 2 % | 2 % |
| **Operating cycle** | **72.9** | **89.3** | **78.5** | **74.7** | **58.4** | **54.8** | **51.1** | **43.8** | **40.2** |
| % of sales | 20 % | 24 % | 22 % | 20 % | 16 % | 15 % | 14 % | 12 % | 11 % |

Source: Calculations based on financial statements and writers' forecasts

### 5.3.3. Capital expenditures

Capital expenditures are calculated as percentages of sales and they consist of investments in tangible and intangible assets. As fashion industry is not very capital intensive, CAPEX are typically a small percentage of sales, and for Marimekko it has been varying from a little over 3% in 2015 to 1% in 2018.

The forecasted CAPEX can be observed in Table 7. We estimate that the CAPEX for the holding period will reflect the CAPEX levels in 2017 and 2018, with the exception that in 2019 and 2020 the CAPEX levels are estimated to be 0.5 percentage point higher as Marimekko is investing in digital

business, omnichannel operations and growth in Asia. After two years, it is expected that the CAPEX level will return back to 1% of sales and remain there till the end of the holding period.

**Table 7: CAPEX forecast**

| EUR 1,000 | 2015 | 2016 | 2017 | 2018 | 2019F | 2020F | 2021F | 2022F | 2023F |
|---|---|---|---|---|---|---|---|---|---|
| CAPEX | -3156.5 | -2590.0 | -1023.2 | -1118.8 | -1810.1 | -1951.4 | -1397.9 | -1496.7 | -1598.4 |
| % of Sales | -3.3 % | -2.6 % | -1.0 % | -1.0 % | -1.5 % | -1.5 % | -1.0 % | -1.0 % | -1.0 % |

Source: Calculations based on financial statements and writers' forecasts

### 5.3.4. Expenses

#### 5.3.4.1. Historical expense comparison

**Cost of goods sold**

In the past five years, Marimekko's cost of goods sold (COGS) has remained below its peers when compared as a percentage of revenue and the ratio has been quite stable all the time, being at 37% of revenues in 2018, as can be seen in Table 8. For Kappahl, the situation has been similar to Marimekko but when Marimekko's COGS ratio has increased by one percentage point over the years, Kappahl's COGS ratio has decreased by one percentage point and was at 38% in 2018. For H&M, the past five years have been a time of significant increase in the COGS to revenue ratio. While their ratio was at 41% in 2014, in 2018 it was already at 47%, making them the most COGS intensive company among the peer group. In turn, MQ has kept their COGS to revenue ratio quite stable in the past five years and its ratio in 2018 was the same than in 2014, being at 44%. In general, the changes in COGS ratios among the peer group are quite well in line with the overall development in COGS in the fashion industry. For example, in McKinsey's Global Fashion Index (MGFI), the COGS to revenue ratios in the past five years increased by 0.5% or more for 43% of companies, and by 2% or more for 25% of companies. The reason for increases in COGS ratios was seen to be markdown pressure as companies operating in emerging countries are entering in the fashion markets to a greater extent (BoF-McKinsey, 2018).

**Table 8: Cost of goods sold relative to revenue**

| COGS/Revenue | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|
| Marimekko | -36% | -36% | -37% | -36% | -37% |
| Kappahl | -39% | -40% | -38% | -38% | -38% |
| H&M | -41% | -43% | -45% | -46% | -47% |
| MQ | -44% | -44% | -46% | -43% | -44% |

Source: Computed from the companies' financial statements

**Other operating expenses**

In contrast to the COGS ratios, H&M is a clear champion in other operating expenses as its ratio is around 40% while the ratio for others is over 50% (see Table 9). However, the trends are pointing in different directions. Over the course of five years, Marimekko has been able to decrease its ratio by six percentage points, whereas MQ's ratio has gone up by six percentage points. Kappahl and H&M have been able to keep their ratios almost on par but there has been an increase of one percentage point for Kappahl and two percentage points for H&M.

**Table 9: Other operating expenses relative to revenue**

| Other operating expenses/Revenue | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|
| Marimekko | -58% | -54% | -57% | -53% | -52% |
| Kappahl | -52% | -53% | -52% | -50% | -53% |
| H&M | -39% | -39% | -39% | -40% | -41% |
| MQ | -45% | -44% | -45% | -49% | -51% |

Source: Computed from the companies' financial statements

#### 5.3.4.2. Expense forecast

The expense forecast for all of Marimekko's operating expenses is portrayed in Table 10, and the details of the forecast will be discussed below.

**COGS**

For COGS, we expect that the ratio to sales will remain the same during the first year after the buyout compared to 2018. For subsequent years, it is expected that the COGS ratio will start decreasing slowly as investments in digital business and omnichannel operations will start materializing. Meaning that the share of sales through different online channels is expected to increase relative to sales through brick-and-mortar stores. As online sales channels are less cost intensive, this will also start pressing the COGS to sales ratio down. In addition, as sales are expected to grow every year over the holding period, we estimate that Marimekko will be able to take advantage of economies of scale. This will further decrease the COGS ratio.

**Employee expenses**

For employee expenses, the ratio to sales will remain the same in 2019 than in 2018. In 2020, it is estimated that the share of employee expenses to sales will grow by one percentage point to 24% and remain there till the end of the holding period. Based on literature, this is somewhat odd, as often after buyouts the case is that the employment first decreases and later on starts to increase. However, as it is expected that Marimekko will see a strong growth in its sales numbers, there will not be layoffs but instead more people will be hired, and this will prevent the employee expenses ratio from falling down. In addition, we estimate that the salaries for top executives will be lifted up and more managers will be included under the bonus plan in order to create better incentives. So, despite the strong growth, there will not be a decrease in employee expenses to sales over the holding period.

**Net operating expenses**

As Table 10 showcases, net operating expenses are expected to grow by five percentage points in 2019 compared to 2018. The sale and leaseback of the head office had an improving effect on the net operating expenses in 2018, as it increased the operating income. Thus, the forecast is based on the previous years' numbers, as the transaction was a one-time occurrence. However, the transaction is expected to increase Marimekko's expenses by one million euros at least in the mid-long term. Apart from the sale and leaseback we don't expect any other changes to take place in the company's net

operating expenses and therefore, the ratio is estimated to stay between 27-28% during the entire holding period.

**Table 10: Marimekko's expense projections**

| Expense projections | 2015 | 2016 | 2017 | 2018 | 2019F | 2020F | 2021F | 2022F | 2023F |
|---|---|---|---|---|---|---|---|---|---|
| COGS % of sales | -36% | -37% | -36% | -37% | -37% | -36% | -35% | -35% | -34% |
| Employee expenses % of sales | -27% | -26% | -24% | -23% | -23% | -24% | -24% | -24% | -24% |
| Net operating expenses % of sales | -30% | -27% | -28% | -22% | -27% | -28% | -28% | -27% | -27% |

Source: Forecasts by the writers, historical computations from Marimekko's financial statements

### 5.3.5. Operating margin

In the table below, operating margins have been calculated for Marimekko and its peer group for from 2014 to 2018 by dividing each company's EBIT by their sales. In 2018, Marimekko had the highest operating margin among its peers and the comparable operating profit was boosted by the increase in sales in almost all segments, particularly in Finland and Asia-Pacific, and by the reduced depreciation expense after the sale and leaseback of the company's headquarters. The capital gain from the sale of the company's head office was excluded from the calculation. On the other hand, increased fixed costs, especially in marketing, personnel and rental expenses had a negative impact on the operating profit. (Company.marimekko.com). 2018 was also a third consecutive year when Marimekko improved its operating margin, reaching a margin of 10.9% and beating their 10% operating margin target. For 2019, the company's long-term operating margin target was revised, and the new target is now set at 15% (Marimekko, 2018). It is also noteworthy that except 2018, Marimekko has had either second lowest or lowest operating margin among its peer group.

**Table 11: Operating margin comparison**

| Operating margin | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|
| Marimekko | 5.9% | 1.6% | 5.3% | 8.2% | *10.9% |
| Kappahl | 5.7% | 4.3% | 7.4% | 9.1% | 5.9% |
| H&M | 16.9% | 14.9% | 12.4% | 10.3% | 7.4% |
| MQ | 8.7% | 10.2% | 7.2% | 6.8% | 2.9% |

Source: Writers' computations from the peer group's financial statements

*Comparable EBIT margin excludes the sale and leaseback of headquarters

Best of the peer group companies, but behind Marimekko, was H&M whose operating margin was 7.4% in 2018. Last year was also a fourth year in a row for H&M when its operating margin declined. In 2014, which was the year H&M achieved its highest operating margin, its margin was 16.9%. Kappahl was behind H&M and its operating margin was 5.9% in 2018. Excluding 2018, its operating margin has followed Marimekko's operating margin quite accurately, but it has typically slightly beaten Marimekko's margin. Last one among the peer group companies was MQ, which margin was only 2.9%. Compared to previous years, the margin in 2018 was clearly its weakest margin during the whole observation period. From years 2014 to 2017, its operating margin has varied between 7% and 10%.

## 5.4. Acquisition price

Acquisition price determines the initial investment an LBO investor commits to when acquiring the target. The acquisition price can be determined by using either a valuation multiple or the implied enterprise value of the target, depending on whether the company is publicly traded or not. (Rosenbaum & Pearl, 2009) As Marimekko is a listed company, their purchase price can be established through their implied enterprise value on the acquisition date. The enterprise value is based on the targets market capitalization, which is first adjusted by adding the company's total interest-bearing debt to it, and then by subtracting their cash and cash equivalents from it. In an LBO scenario, the investor typically leaves some of the cash in the target for operating purposes, which reduces the amount of cash subtracted. To finally obtain the acquisition price, the investor adds an acquisition premium to the enterprise value to ensure that the shareholders of the target will render

their shares to the acquirer. (Rosenbaum & Pearl, 2009) In this section, we will present the different components of the calculation and finish it with a conclusive calculation of the items.

The hypothetical acquisition date is set as January 1st 2019, and therefore all the calculations used for determining the acquisition price are based on December 31st 2018 data. The choice of date was established due to data limitations on later dates, which we have discussed in the thesis delimitations.

### 5.4.1. Market capitalization

As previously stated, at the end of financial year 2018, Marimekko had 8,089,610 shares outstanding, out of which Marimekko Corporation held 20,000 of their own shares (0.25% of total shares). On the last trading day of 2018, the 28th of December, their closing share price was EUR 20.80, which adds up to a total market cap of EUR 167,847,888, excluding the shares held by the company. (Annual Report, 2018) Considering the historical development of Marimekko's share price, their end-of-year 2018 valuation is extremely high. As the market capitalization accounts for a majority of the acquisition price, an LBO investor would have to commit to a relatively high initial investment. However, the performance is largely due to the operational improvements Marimekko has gone through, which could justify the high valuation and even increase the company's attractiveness as an LBO investment.

### 5.4.2. Enterprise value

To obtain the acquisition price, it is first necessary to determine Marimekko's enterprise value. The enterprise value is composed of the company's market capitalization and interest-bearing debt, negative of their cash and cash equivalents. Throughout the observed historical 5-year period, Marimekko's financial liabilities have remained low. Their interest-bearing liabilities consisted only of finance lease liabilities, non-current debt that reduced from EUR 3.0m to a mere EUR 0.2m in 2018, and current liabilities of EUR 0.21m. The two items total to EUR 0.41m, that will be added to the market capitalization.

Normally, cash and cash equivalents are subtracted from the sum of equity and debt, when determining the enterprise value of a company. This is done because the cash balance itself does not

increase the value of a company, as it is not an operating asset. However, when establishing the acquisition price in an LBO, the cash is typically subtracted only partially from the enterprise value, because the investor leaves a small part of the cash to the target for operational activities. (Pignataro, 2014) End of fiscal year 2018, Marimekko had EUR 23.17m in cash and cash equivalents, whereas only a year before the same balance was EUR 6.21m. Among other factors, such as increased profit, the main contributor to the higher balance was the sale of the company's headquarters, which had a total cash impact of EUR 10.5m. While most of this cash will be used to reduce the acquisition price, we took the decision to leave a minimum amount of EUR 1.0m to Marimekko's balance sheet for operational purposes. This amount will be kept in the company's balance sheet throughout the holding period to provide cushion in case of financial distress. Therefore, the total amount of cash subtracted from the enterprise value will be EUR 22.17m.

These components form the enterprise value of Marimekko. By adding the interest-bearing debt to the market capitalization, and subtracting the cash and cash equivalents, we arrive to an enterprise value of EUR 146.88m.

### 5.4.3. Offer premium

Typically, in an LBO scenario, the acquisition price includes an offer or control premium, a predetermined percentage of the target's current market capitalization. The premium is the difference between the realized acquisition price and the estimated real value of the target company. The purpose behind adding the premium is to convince the current shareholders of the target to render their ownership to the acquirer. (Pignataro, 2014) As such, it is only applied in acquisitions of listed companies, and the amount of premium added is subject to the target's attractiveness and industry, market situation and the size of the acquisition (Rosenbaum & Pearl, 2009). Generally, the applied offer premiums have been approximately 20% (Bain & Company, 2019), and therefore we have decided to use 20% as a base for the offer premium for Marimekko.

As previously stated, Marimekko's previous CEO, Mika Ihamuotila, holds 16% of the company's shares, while majority of the shareholders have a less than a 3% holding of the company. If an acquisition took place, especially a hostile one, Ihamuotila would probably be the most reluctant shareholder to render his shares to an LBO investor. Because of this, we decided to add 1% to the

acquisition premium, to increase the probability of a successful takeover. If the largest shareholders would refuse to sell their ownership, it is also possible that Ihamuotila or some of the other major shareholders would remain as owners of Marimekko after the acquisition, and collaborate with the LBO investor in improving the company throughout the holding period.

### 5.4.4. Marimekko's acquisition price

As we have now established all the items of the acquisition price, we can sum them to obtain the final price. Table 12 details the different components of the calculation. After calculating Marimekko's market capitalization by multiplying their share price with the number of shares outstanding, we added their financial leverage to it and subtracted their cash and cash equivalents, excluding the EUR 1m left for operational purposes, from it. Based on this, we could conclude that Marimekko's enterprise value was EUR 146.08m at the end of 2018. To ensure a smoother acquisition process, 21% of the market capitalization was added, as a total premium of EUR 35.25m, on top of the enterprise value, to finally arrive to an acquisition price of EUR 181.33m.

**Table 12: Marimekko's acquisition price**

| **EUR (1,000)** | **31/12/2018** |
|---|---|
| Number of shares outstanding | 8,069,610 |
| Price per share EUR | 20.8 |
| **Market capitalization** | **167,848** |
| | |
| Short-term interest-bearing debt | 206 |
| Long-term interest-bearing debt | 202 |
| Cash and cash equivalents excluding EUR 1m | -22,174 |
| **Enterprise value of Marimekko** | **146,082** |
| | |
| Premium % of market capitalization | 21% |
| Absolute value of premium | 35,248 |
| **Acquisition price** | **181,330** |

Source: Writer's own calculations, Marimekko's Annual statement 2018

## 5.5. Funding structure

Funding structure determines how the LBO transaction is financed. In this section, we will first cover the debt structure of the acquisition, and based on that compute the equity contribution the investors need to make in order to pay the full acquisition price determined in the previous section. The structure will be portrayed in a 'sources and uses' table, which outlines the funding structure and how the financing has been spent. After that, we will discuss the interest expenses of the debt, in order to build a repayment schedule, that portrays the debt payments in interest expenses throughout the LBO holding period.

### 5.5.1. Debt structure

The maximum amount of LBO debt can be obtained using different methods. One of the most common determinants is a maximum debt to EBITDA multiple. According to Martin Larsen, the typical debt/EBITDA ratio for maximum leverage in fashion industry LBOs is approximately two. Following this method with Marimekko would have resulted in a maximum LBO debt of EUR 29.4m (= 2 x EUR 14.7m). Considering the acquisition price of EUR 181.3m, that was hiked up by the company's high market value, this would have resulted in an extremely low LBO leverage of 16%. Considering Marimekko's current stable financial situation and future expectations, it can be argued that their business can recover from a heavier debt burden in an LBO scenario.

Before the hypothetical LBO acquisition, Marimekko had very little debt, with long-term liabilities accounting for a mere 0.6% of their total assets. Thus, their total debt of 30% of assets constituted primarily of short-term liabilities. In their Annual Report 2018, the company set their own net debt to EBITDA ratio limit to maximum two, and they were far from reaching the limit by the end of the year. With the company's stable revenue stream, high equity ratio and positive future opportunities, its business could be considered a relatively safe investment. This plays a significant role when determining the LBO funding structure.

Looking at McKinsey and Company's histogram of global private equity deal multiples (Appendix 7), the average debt/EBITDA multiples have followed the market developments over the observed horizon. Before the 2008 financial crisis, the average ratio was 6.6x, but it halved in 2009. Since then,

it has been on a steady rise, to finally linger between 5.0x and 5.6x the past five years. On the other hand, S&P Global Market Intelligence (2019) estimated a 4.8x debt/EBITDA multiple for deals under EUR 200m in 2019. Based on both reports, Marimekko's current financial status and the acquisition price, we will apply a debt/EBITDA multiple of 5x to determine the maximum LBO leverage, resulting in a total LBO debt of EUR 73.5m (= 5 x EUR 14.7m). As a comparison, using a 4x debt to EBITDA on the company's unadjusted, actual EBITDA of EUR 20.2m would have increased the maximum debt to EUR 80.8m. As such, we applied a more conservative approach on the maximum leverage level.

As discussed earlier, the literature (see Pignataro, 2014; Rosenbaum & Pearl, 2009) often suggests a range of percentages for multiple different debt tranches, but in practice the debt typically consists of only two or three different tranches. The S&P Global Market Intelligence (Appendix 4) lists the European borrowers' sources on funding between 2018 and first quarter of 2019. The report shows that the debt composition of LBO transactions has changed significantly during the past ten years. Throughout the time horizon, financing LBOs with only senior loan or a bond has remained popular, and to this day, over half of LBOs are financed with senior loan alone. Back in 2008, a majority of LBO debt structures comprised of a combination of senior loan and mezzanine financing. Interestingly, after the financial crisis, the use of this combination plummeted, and decreased over the years, only to finally disappear completely in 2017. In turn, combining senior loans and bonds seems to have replaced the mezzanine combination after the crisis. Use of another combination, senior loan with second lien secured, has increased throughout the period, and it has gained significant popularity in 2018 and the beginning of 2019. The developments of the LBO funding structure indicate a shift in the total risk of LBO financing, as the financing as moved toward lower risk options after the crisis.

The LBO debt composition is highly subject to the current market situation and the riskiness of the target company. As we entered 2019, the European debt market was still extremely inexpensive due to the low interest rate environment (Financial Times, 2019). This enables the use of senior loan only, as it is easier to raise higher amounts of low risk debt from an inexpensive debt market. Additionally, Marimekko's low risk profile supports the use of less expensive leverage options. In our discussion with Martin Larsen, he recommended us to apply an LBO debt structure composed of senior debt only, divided into a term loan A (TLA) and a term loan B (TLB). The TLA will be a regular senior

loan, with a fixed even annual payment and a 5-year maturity, while the TLB is a 6-year bullet loan, where the interest payment will run throughout the holding period, and the principal will be paid back at maturity the latest.

The division between the two loans depends on the same factors as the overall debt availability. Naturally, the investors try to finance majority of the debt with the least expensive option, which is TLA. S&P Global Market Intelligence report portrays the average historical LBO deal composition in Europe (Appendix 5), and in recent years, 70% to 80% of senior debt financing has been financed with TLA, while TLB accounts for the remaining 20%-30%. Due to Marimekko's small asset base, it can be difficult to obtain TLA to account for the whole debt, because TLA is taken out against the company's assets and ability to generate free cash flows. Therefore, we assume that 75% of the debt would be financed with TLA and the remaining 25% with TLB.

#### 5.5.1.1. Cost of capital

As discussed earlier, each tranche of the LBO debt structure carries a different interest rate. In order to forecast interest rate expenses for the target after the acquisition, it was necessary to assign an interest rate for each debt instrument used to finance the transaction. As opposed to interest rate estimates provided by Pignataro (2014), the global interest rate developments during the past few years have taken a toll on interest rates on leverage. In the current market situation, interest rates have stayed historically low ever since the largest drop in 2016 (Ecb.europa.eu). This has naturally decreased the interest rates in the debt market, making leverage less expensive.

Finding the most up-to-date information on interest rates was difficult because the sources available to us offered typically either historical data or averages of current information. To obtain sufficient interest rates to apply in our analysis, we contacted Martin Anker Larsen, a Senior Analyst working in the Leveraged Finance department at Danske Bank. He works with private equity on daily basis, and was able to access and provide the most recent information on interest rates. He was offered information on the target, its size, industry and current financial situation, and the underlying assumptions of the analysis. He provided us an S&P Global Market Intelligence (2019) report, that reviewed the 2019 European leveraged loan market. From the report, we could obtain a January 2019 interest rate for term loan B, which was 4.28%. This rate consists of the floating EURIBOR rate and

an average margin requirement from the bank that provides the loan. As EURIBOR was below zero in the beginning of the year, it is assumed to be zero, and thus the whole 4.28% would be the margin requirement.

According to Martin Larsen, a suitable interest rate for term loan A is 50 basis points (bps) lower than for term loan B, considering this individual transaction. This also complies with the seniority of the loans, as discussed earlier. As the interest rate indicated by the report for term loan B is 4.28%, the corresponding interest rate for term loan A is 3.78%. Additionally, the bank usually requires an interest rate hedge of two thirds (2/3) of the interest expense. As proposed by Martin Larsen, we will use a 5-year EURIBOR swap as fixed rate that will be added to the interest rate. In December 2018, the swap rate was 198 bps, as can be seen from Appendix 6, and it will increase the interest rate for term loan A to 3.98%, and for term loan B to 4.48%. Therefore, these two rates will be applied in the valuation of our LBO investment.

### 5.5.2. Sources and uses table

Sources and uses of funds refers to how the LBO transaction has been financed, and where exactly this financing has been used. Basically, it shows how much actual money has moved.

Table 13 lays out the different items of Marimekko's LBO financing structure. The sources table lists the funding instruments used, the debt, equity contribution and excess cash. The amounts for TLA and TLB were calculated as a percentage of the total debt of EUR 73.5m, resulting in EUR 55.1m for TLA (75%) and EUR 18.4m for TLB (25%) The required equity contribution was computed from the difference between the acquisition price and the total LBO debt. With the acquisition price of EUR 181.3m, and total debt of EUR 73.5m, the equity contribution become EUR 107.8m. Therefore, the LBO transaction is approximately 40% levered. As discussed in the acquisition price section, majority of Marimekko's current cash balance was used for decreasing the acquisition price. EUR 1m was left on the company's balance sheet for operating activities, while the remaining EUR 22.2m was considered excess cash.

The uses of funds table portrays where the funding was used. Marimekko's market value on the acquisition date, the premium added to it and their interest bearing debt were determined in the

acquisition price section. Adding all of the items together, we get a total of EUR 203.5m of funds that have moved in the transaction.

**Table 13: Sources and uses of funds**

| **Sources of funds** | |
|---|---|
| Term loan A | 55,125 |
| Term loan B | 18,375 |
| Excess cash | 22,174 |
| Equity contribution | 107,830 |
| **Total** | **203,504** |
| **Uses of funds** | |
| Market capitalization | 167,848 |
| Premium | 35,248 |
| Interest bearing debt | 408 |
| **Total** | **203,504** |

Source: Computed by writers

### 5.5.3. Debt repayment schedule

The debt repayment schedule outlays the amount of debt repayments and interest expenses throughout the holding period. As the pace of the repayments is subject to the availability of free cash flows, we have used the forecasted cash flows from the financial statements. Because the projections and the repayment schedule are linked together, we decided to first introduce the schedule, as the debt payments and interest expenses will have an effect on the forecasted financial statements. Thus, the free cash flows in the repayment schedule are levered cash flows, as the debt has been taken into account in the projections.

Generally, in LBO transactions, all excess cash generated by the target during the holding period will be used to reduce the outstanding debt. This practice is also known as a "cash sweep", and it is fundamental in an LBO scenario. (Baldwin, C (A), 2001) With Marimekko, we assumed a small amount of cash to be retained for operational purposes, and thus kept in their balance sheet. All other cash flows generated by Marimekko during the transaction will be used to repay the LBO debt. As is

traditional in LBO transactions, the company is assumed to refrain from paying dividends during the holding period, in order to maximize the free cash flows for debt repayments.

Table 14 lays out the entire repayment schedule of the LBO transaction. First, we reintroduce the financing structure with the maximum debt, equity contribution and acquisition price, and both TLA and TLB are presented with their respective interest rates and maturities. As earlier discussed, the 5-year swap rate has been added to the interest rates as a hedging measure. For both loans, we have determined mandatory and optional repayments. As TLA has a fixed even annual payment, its principal has been divided into five even mandatory repayments until maturity. TLB is a bullet loan, so it does not have other mandatory repayments except its principal at maturity. For both loans, their interest is paid annually as a percentage of the beginning of the year balance, and the interest payments flow to the income statement projections. After mandatory repayments have been made, the remaining free cash flows will be used for optional repayments. As TLA is amortized first, the cash flows available after mandatory repayments will primarily flow into TLAs repayments. Once TLA is completely amortized, the remaining free cash flows will be used for TLBs repayments.

With the current forecast, Marimekko would repay TLA by 2022 and TLB by 2023, both loans before the LBO investor exits the target. The financial statement projections will shed light on the free cash flows used in this calculation. Table 14 portrays the repayment schedule in a “base case”, which is the scenario we have assumed in the financial statement projections as well. However, if the forecast was changed, it would have an immediate impact on how quickly the loans would be amortized. This will be discussed in the scenario analysis in further detail.

**Table 14: Debt structure and repayment schedule**

| LBO financing structure | EUR (1,000) |
|---|---|
| Debt/EBITDA multiple | 5x |
| EBITDA* | 14,700 |
| LBO leverage | 73,500 |
| Equity contribution | 107,830 |
| Acquistion price | 181,330 |

| Debt structure | EUR (1,000) | Share | Interest | Maturity |
|---|---|---|---|---|
| Term loan A (TLA) | 55,125 | 75% | 3.978% | 5 |
| Term loan B (TLB) | 18,375 | 25% | 4.478% | 6 |

| | |
|---|---|
| 5-year swap included in the interest rates | 0.198% |

| Repayment schedule | 2019F | 2020F | 2021F | 2022F | 2023F |
|---|---|---|---|---|---|
| **Free cash flow** | 14,835 | 12,157 | 14,841 | 18,594 | 19,606 |
| | | | | | |
| Cash available after mandatory repayments | 3,810 | 1,132 | 3,816 | 7,569 | 19,606 |
| Cash after optional repayments of TLA | | | | 5,302 | 19,606 |
| Cash after optional repayments of TLB | | | | | 6,533 |
| | | | | | |
| **Term loan A** | | | | | |
| Repayment schedule | 20% | 20% | 20% | 20% | 20% |
| Beginning of the year balance | 55,125 | 40,290 | 28,133 | 13,292 | 0 |
| Mandatory principal repayment | 11,025 | 11,025 | 11,025 | 11,025 | 0 |
| Optional principal repayment | 3,810 | 1,132 | 3,816 | 2,267 | 0 |
| End of the year balance | 40,290 | 28,133 | 13,292 | 0 | 0 |
| **TLA interest payment** | 2,193 | 1,603 | 1,119 | 529 | 0 |
| | | | | | |
| **Term loan B** | | | | | |
| Repayment schedule | 0% | 0% | 0% | 0% | 0% |
| Beginning of the year balance | 18,375 | 18,375 | 18,375 | 18,375 | 13,073 |
| Optional principal repayment (bullet) | 0 | 0 | 0 | 5,302 | 13,073 |
| End of the year balance | 18,375 | 18,375 | 18,375 | 13,073 | 0 |
| **TLB interest payment** | 823 | 823 | 823 | 823 | 585 |

Source: Forecasts and calculations by writers with inputs from Marimekko's financial statements, Martin Larsen and S&P Global Market Intelligence
*EBITDA excluding the sale and leaseback of headquarters

## 5.6. Forecasting of financial statements

In the forthcoming section, we will forecast Marimekko's financial statements in order to link them to the repayment schedule of the LBO debt and to finally establish an exit valuation of the company. First, we will establish a forecasting horizon, and then follow with the forecasted income statement, balance sheet, and free cash flow calculations. To finish the section, a scenario analysis will be presented to evaluate the consequences of overly optimistic or pessimistic projections.

### 5.6.1. Forecasting and investment horizon

When valuing an LBO investment, the investors typically forecast the cash flows for the amount of years they are planning to hold the target. In private equity, the forecasting horizons are typically shorter than with other investments, as the investor plans on exiting the company after a predetermined investment horizon. Petersen et al. (2006) examined the valuation issues with privately held companies through a field study, where they interviewed a range of investors from independent operators to private equity funds. They found that out of 64 participants, the average forecasting period was six years, while for private equity firms it was only 4.2 years due to the shorter investment period.

On the other hand, Gompers and Kaplan (2015) found in a private equity survey, that the most common holding period among PE investors is five years, and up to 96% of PE investors use a five-year forecasting period for cash flows, after which they determine the exit value of the target. Several investors reported they prefer using a fixed forecasting horizon because it allows comparisons between investments. Longer forecasting periods could also create issues with accuracy, and therefore the investors often keep to shorter projection horizons. Therefore, following the industry standard, we will establish a five-year holding period, and thus a forecast horizon of five years, with the initial acquisition on 1st of January 2019, and exit on 1st January 1st 2024. The forecasts will be made from the beginning of 2019 until the end of 2023.

### 5.6.2. Pro forma income statement

In the upcoming section, we will continue to forecasting Marimekko's income statement, balance sheet and free cash flows. The first projection, income statement, is an important part of an LBO valuation because the final year EBITDA will be used later for valuing the company's exit value, and furthermore, the forecasted NOPAT flows to the cash flow projections, which are used in the debt repayment schedule. The target's income has a major impact on their ability to cover the mandatory LBO loan payments, and overly optimistic forecasts can have detrimental consequences for the target. These will be further elaborated in the scenario analysis.

As discussed earlier, the sale and leaseback of Marimekko's headquarters had a significant impact on their 2018 financial statements. Therefore, we have calculated comparable items for 2018 to showcase the impact of the transaction. All projections in the income statement are based on these comparable values, as it was a one-time occurrence and would therefore distort the forecast. In the forecast analysis, we will explain the impact of the transaction on the separate items.

Most of the projections in Table 15 in are based on the financial drivers discussed in section 5.3., and the remaining projections will be explained here. To begin with, net sales are calculated according to the total growth rates projected in the 'Revenue forecast'. As explained in the forecast, the expected revenue growth is based on the company's ability to increase their sales in their different segments. To determine gross profit, costs of goods sold were subtracted from revenues. They were computed as a slightly decreasing percentage of revenue (see section 5.3.4.), as we expect Marimekko to benefit from economies of scale when their sales and revenues increase.

After obtaining gross profit, all operational expenses are deducted from it to determine EBITDA. Net operating expenses were calculated as a percentage of revenue, and they are expected to slightly increase due to the sale and leaseback of Marimekko's headquarters. After the transaction, Marimekko will keep paying lease payments for their headquarters, and they estimated an expense increase of EUR 1m annually from this, which has been taken into account in the projections (see section 5.3.4.). Similar development is forecasted for employee benefit expenses, which were also calculated as a percentage of revenue. Typically, employee related expenses increase slightly after LBO transactions, because the target's executive level might receive a better compensation as an

incentive, and the target's bonus plan is often extended to cover a larger part of the organization. Thus, we calculated a small increase to the annual employee benefit expenses. The sale and leaseback hiked up Marimekko's other operating income significantly, but this will be disregarded in the financial projections as it was a one-time event. As a result, other operating income has been calculated together with the operating expenses, and they were forecasted as net operating expenses projections (see section 5.3.4.).

**Table 15: Forecast of Marimekko's income statement**

| Income statement forecast | 2018 | 2019F | 2020F | 2021F | 2022F | 2023F |
|---|---|---|---|---|---|---|
| **(EUR 1,000)** | | | | | | |
| **Net sales** | **111,879** | **120,674** | **130,094** | **139,790** | **149,666** | **159,838** |
| Cost of goods sold (COGS) | -40,917 | -43,443 | -45,533 | -48,926 | -50,886 | -54,345 |
| **Gross profit** | **70,962** | **77,232** | **84,561** | **90,863** | **98,779** | **105,493** |
| Employee benefit expenses | -26,188 | -28,358 | -31,223 | -33,549 | -35,920 | -36,763 |
| Other operating income | 6,522 | | | | | |
| (Net) Other operating expenses | -31,075 | -33,789 | -36,426 | -37,743 | -40,410 | -43,156 |
| **EBITDA** | **20,221** | **15,084** | **16,912** | **19,571** | **22,450** | **25,574** |
| Comparable EBITDA* | 14,700 | | | | | |
| Depreciation and impairments | -2,501 | -2,000 | -1,500 | -1,250 | -1,250 | -1,250 |
| **EBIT** | **17,720** | **13,084** | **15,412** | **18,321** | **21,200** | **24,324** |
| Comparable EBIT* | 12,200 | | | | | |
| Tax rate | 22% | 20% | 20% | 20% | 20% | 20% |
| Tax on EBIT | -3,892 | -2,617 | -3,082 | -3,664 | -4,240 | -4,865 |
| **NOPAT** | **13,828** | **10,468** | **12,330** | **14,657** | **16,960** | **19,459** |
| Financial expenses, before tax | -168 | -3,016 | -2,426 | -1,942 | -1,352 | -585 |
| Tax shield (tax financial expenses) | 37 | 603 | 485 | 388 | 270 | 117 |
| **Net financial expenses** | **-131** | -2,413 | -1,940 | -1,554 | -1,081 | -468 |
| **Net profit of the year** | **13,697** | **8,055** | **10,389** | **13,103** | **15,879** | **18,991** |

Source: Marimekko's annual statement and writer's computations

*Comparable numbers exclude the sale and leaseback of headquarters

Marimekko's EBIT was computed by subtracting depreciation and impairments from EBITDA. Naturally, the sale and leaseback decreased the company's annual depreciation and impairments. In their Annual Report 2018, they estimated that the transaction will reduce the item EUR 0.5m annually, if they continue investments as before. We applied this to forecast for two years, and then kept depreciations stable at EUR 1.25m, assuming that Marimekko would continue some level of investment activities throughout the LBO holding period. To obtain NOPAT, we applied the current Finnish corporate tax rate of 20% on EBIT. After this, we calculated the net financial expenses by adding a tax shield to the financial expenses. As discussed before, these financial expenses create a link to the debt repayment schedule, as they comprise of the LBO loan interest payments, that can be also seen in Table 14 (Debt repayment table). The tax shield was calculated by applying the Finnish tax rate on the net financial expenses. Subsequently, the net financial expenses after tax were deducted from NOPAT to obtain the net profit of the year.

### 5.6.3. Pro forma balance sheet

Next, we will continue to forecasting Marimekko's balance sheet. In an LBO scenario, the balance sheet projection is extremely important, as the different components of the acquisition price appear there, and the repayments of the LBO debt decrease the outstanding debt in the balance sheet. In this section, we will cover the key components of the projections thoroughly, and link the forecast to what we have covered earlier in the present thesis.

Table 16 portrays Marimekko's forecasted balance sheet. The first element to be noted is the arrangement of the columns. The first values column, 2018, has the ending balance sheet of 2018, prior to the acquisition. The next column, 2019B, is the beginning balance sheet of 2019, right after the acquisition presumably takes place. Most of the items are still from 2018, but the new capital structure has been applied in this column, thus the goodwill appears there, the debt composition changes, majority of cash has been used and the investors equity contribution replaces the old equity. These changes will be discussed in the upcoming paragraphs. The columns 2019F–2023F showcase the projections over the holding period.

The balance sheet projections have been divided into operating and financial assets, as is custom in the analytical form. The first item in operating assets, the forecasted intangible and tangible assets

were calculated by deducting the forecasted depreciation and impairments (See 'Pro forma income statement') and capital expenditures (see 5.3.3.) from the previous year's intangible and tangible assets. After this, goodwill from the acquisition was added to the long-term operating assets. The goodwill appears in the statement after the acquisition, as the investors presumably pay a higher price of the company than the company's book value. Goodwill was computed after all other items were forecasted, as it was calculated as the difference between invested capital, and the sum of operating liabilities, short-term operating assets and intangible and tangible assets, thus it is only a nominal value.

As discussed in 'Forecasting Marimekko's net working capital', inventories, trade and other receivables and trade payables were calculated as a percentage of revenue (see section 5.3.2.2.). Trade payables are forecasted as a stable percentage of revenue, as there was no need to improve the item because Marimekko was performing relatively well in comparison to its peer group. With inventories and trade receivables, Marimekko had some room to improve in comparison to its competitors, so both items were forecasted to reduce slightly in relation to revenues over the holding period. Regarding other payables, Marimekko had 8% of its revenue's worth of other payables in 2018. We forecasted the ratio to remain the same over the holding period, as the item comprises of expenses related to employee benefits and other accrued liabilities. Additionally, we assumed the current tax liabilities remain as zero over the forecasting horizon. Finally, by deducting the total operating liabilities from the total operating assets, we obtained the net operating assets.

**Table 16: Forecast of Marimekko's balance sheet**

| **Balance sheet forecast** | **2018** | **2019B** | **2019F** | **2020F** | **2021F** | **2022F** | **2023F** |
|---|---|---|---|---|---|---|---|
| **(EUR 1,000)** | | | | | | | |
| **Intangible and tangible assets** | **4,780** | **4,780** | **4,590** | **5,042** | **5,189** | **5,436** | **5,784** |
| Goodwill | | 163,206 | 163,206 | 163,206 | 163,206 | 163,206 | 163,206 |
| Deferred tax assets | 114 | | | | | | |
| **Non-current operating assets** | **4,894** | **167,986** | **167,796** | **168,247** | **168,395** | **168,642** | **168,990** |
| Inventories | 22,114 | 22,114 | 22,928 | 23,417 | 23,764 | 23,947 | 23,976 |
| Trade and other receivables | 6,916 | 6,916 | 3,620 | 3,903 | 4,194 | 2,993 | 3,197 |
| **Current operating assets** | **29,030** | **29,030** | **26,548** | **27,320** | **27,958** | **26,940** | **27,172** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Total operating assets** | **33,924** | **33,924** | **194,344** | **195,567** | **196,353** | **195,582** | **196,163** |
| | | | | | | | |
| Trade payables | 6,148 | 6,148 | 7,240 | 7,806 | 8,387 | 8,980 | 9,590 |
| Other payables | 9,426 | 9,426 | 9,654 | 10,408 | 11,183 | 11,973 | 12,787 |
| **Current operating liabilities** | **16,702** | **16,702** | **16,894** | **18,213** | **19,571** | **20,953** | **22,377** |
| | | | | | | | |
| **Total operating liabilities** | **16,702** | **16,702** | **16,894** | **18,213** | **19,571** | **20,953** | **22,377** |
| | | | | | | | |
| **Net operating assets** | **17,222** | **17,222** | **177,450** | **177,354** | **176,783** | **174,629** | **173,786** |
| | | | | | | | |
| Share capital | 8,040 | 107,830 | 119,801 | 131,862 | 146,132 | 162,572 | 174,802 |
| Reserve for invested non-restricted equity | 502 | | | | | | |
| Treasury shares | -315 | | | | | | |
| Translation differences | -49 | | | | | | |
| Retained earnings | 31827 | | | | | | 6,533 |
| **Total shareholders' equity** | **40,005** | **107,830** | **119,801** | **131,862** | **146,132** | **162,572** | **181,335** |
| | | | | | | | |
| Term loan A | | 55,125 | 40,290 | 28,133 | 13,292 | 0 | 0 |
| Term loan B | | 18,375 | 18,375 | 18,375 | 18,375 | 13,073 | 0 |
| Finance lease liabilities | 202 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Non-current financial liabilities** | **202** | **73,500** | **58,665** | **46,508** | **31,667** | **13,073** | **0** |
| | | | | | | | |
| Finance lease liabilities | 206 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Current financial liabilities** | **206** | **0** | **0** | **0** | **0** | **0** | **0** |
| | | | | | | | |
| **Total financial liabilities** | **408** | **73,500** | **58,665** | **46,508** | **31,667** | **13,073** | **0** |
| | | | | | | | |
| Cash and cash equivalents | 23,174 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 7,533 |
| **Current financial assets** | **23,174** | **1,000** | **1,000** | **1,000** | **1,000** | **1,000** | **7,533** |
| | | | | | | | |
| Available-for-sale financial assets | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| **Non-current financial assets** | **16** | **16** | **16** | **16** | **16** | **16** | **16** |
| | | | | | | | |
| **Total financial assets** | **23,190** | **1,016** | **1,016** | **1,016** | **1,016** | **1,016** | **7,549** |
| | | | | | | | |
| **Invested capital** | **17,223** | **17,223** | **177,450** | **177,354** | **176,783** | **174,629** | **173,786** |

Source: Marimekko's annual statement and writers' computations

The next section in the balance sheet consists of the financial assets and liabilities and shareholders' equity, items that are primarily derived from the acquisition price. The first item in the section, shareholder's equity, was replaced by the equity contribution made by the LBO investors (see section 'Sources and uses table') and it increases during the holding period in connection to the debt repayment schedule. As the LBO leverage is amortized annually, the change appears in the shareholder's equity as an increase. When it comes to financial liabilities, Marimekko's new financial liabilities constitute of term loans A and B (TLA and TLB), that replace the company's debt liabilities prior to the acquisition. Thus, both short- and long-term finance lease liabilities have been paid off by the LBO investors. The beginning balances for TLA and TLB are presented in the 2019 forecast, after which they are amortized according to the repayment schedule in section 5.5.3.

After the acquisition, Marimekko's financial assets reduce significantly. Majority of their cash and cash equivalents in 2018 are used for reducing the acquisition price, and the remaining EUR 1.0m is left to the cash balance for operational activities, as explained in the 'Acquisition price' section. Available-for-sale financial assets were kept the same, as they had remained consistent over Marimekko's observed historical period as well (see Appendix 8).

To conclude, we calculated the invested capital by subtracting total financial assets from the sum of total shareholder's equity and total financial liabilities, and made sure it equals the net operating assets calculated earlier.

### 5.6.4. Free cash flow forecast

The final piece in the projections is the cash flow forecast. It includes items from both the forecasted income statement and balance sheet, and indirectly from the debt repayment schedule. All of the forecasts are linked together by the cash flow forecast and the debt repayment schedule because the interest expenses of the debt decrease the amount of free cash flows, while free cash flows determine how long it takes to amortize the loans. The interest expenses from the debt repayments flow into the income statement as financial expenses, while inputs from income statement and balance sheet are used to project the free cash flows. The free cash flows flow into the debt repayment schedule where they are used for repayments. Finally, the debt repayments reduce the outstanding debt in the balance

sheet. If the cash flows were not sufficient enough to cover the mandatory repayments, the target would likely default on its loans.

**Table 17: Forecast of Marimekko's free cash flows**

| Cash flow forecast | 2018 | 2019F | 2020F | 2021F | 2022F | 2023F |
|---|---|---|---|---|---|---|
| **(EUR 1,000)** | | | | | | |
| **NOPAT** | **13,828** | **10,468** | **12,330** | **14,657** | **16,960** | **19,459** |
| Tax shield | 37 | 603 | 485 | 388 | 270 | 117 |
| Depreciation and impairments | 2,501 | 2,000 | 1,500 | 1,250 | 1,250 | 1,250 |
| Change in net working capital | 1,549 | 3,574 | -206 | -56 | 1,611 | 378 |
| CAPEX | -1,073 | -1,810 | -1,951 | -1,398 | -1,497 | -1,598 |
| **Levered free cash flows** | **16,842** | **14,835** | **12,157** | **14,841** | **18,594** | **19,606** |

Source: Marimekko's annual statement and writer's computations

Table 17 outlines Marimekko's forecasted cash flows. The first items in the cash flow projection are from the forecasted income statement. To start with, NOPAT is adjusted by adding the tax shield to it, in order to capture the impact of the increase in financial expenses from the LBO leverage. The increase has a positive effect on the tax shield, and therefore the free cash flows. Next, depreciations and impairments are added back to the cash flows, as they do not have an actual cash flow effect. They were subtracted from NOPAT in the income statement, because they are deductible in taxes.

After this, we move on to the items from the forecasted balance sheet. The change in net working capital has a positive impact on the cash flows when it is negative, and vice versa. Marimekko's forecasted change in net working capital is negative on the first year and two last years of the acquisition period, and is thus added to the cash flows. The opposite procedure is done in 2020 and 2021. Finally, previously forecasted capital expenditures (see section 5.3.3.) are deducted from the cash flows, as they are not taken into account in the income statement. The derived cash flows are 'levered' because the interest expenses from the LBO leverage are visible in the tax shield. These cash flows were used in the debt repayment schedule in 5.5.3.

### 5.6.5. Covenant

Covenants are typically introduced for senior loans, as their purpose is to hedge the loan issuer against the decrease in the borrower's ability to repay their debt. Senior loans typically carry stricter covenants than their higher risk alternatives because the covenants increase the security of these less expensive debt instruments. Usually, the covenant obligates the borrower to comply to a set of terms, refrain from or to complete certain actions, or to maintain a predetermined credit profile. If the borrower fails to follow the conditions of the covenant, it can cause the termination of the loan or acceleration of the repayment schedule, which in turn, can cause the borrower, or in this case, the LBO target, to go bankrupt. (Rosenbaum & Pearl, 2009)

The most common covenants used in traditional bank loans are financial maintenance covenants. They are often set as a requirement for the borrower to sustain a certain level of credit, or to decrease the borrower's ability to take actions that could financially hurt the lender. (Rosenbaum & Pearl, 2009) As our LBO funding structure consists of only senior loans and equity, it is necessary to apply a covenant for the loan. Marimekko's ability to keep with their debt repayment schedule is highly dependent on their free cash flow generation, and thus EBITDA. Therefore, we decided to apply a maximum total debt ratio, which limits the total Debt/EBITDA ratio from exceeding a predetermined level. A set margin will be added to the forecasted multiple to determine the maximum debt to EBITDA the borrower can carry under the covenant. A tighter margin means the borrower would quickly hit the covenant if their EBITDA decreased from the forecast, while a higher margin naturally increases the risk for the lender.

**Table 18: Covenant calculation**

| **Debt/EBITDA covenant** | **2019B** | **2019F** | **2020F** | **2021F** | **2022F** | **2023F** |
|---|---|---|---|---|---|---|
| Covenant margin | 20% | 20% | 20% | 20% | 20% | 20% |
| EBITDA | 14,700 | 15,084 | 16,912 | 19,571 | 22,450 | 25,574 |
| End of year financial liabilities according to the payment schedule | 73,500 | 62,475 | 51,450 | 40,425 | 29,400 | 18,375 |
| Debt/EBITDA multiple | 5 | 4.25 | 3.50 | 2.75 | 2.00 | 1.25 |
| **Covenant** | **6.00** | **5.10** | **4.20** | **3.30** | **2.40** | **1.50** |

Source: Writers' computations

Table 18 details the calculation of the covenant based on Marimekko's initial EBITDA in the beginning of the LBO holding period and end of year financial liabilities. The financial liabilities were calculated according the original debt repayment plan of amortizing 20% of TLA throughout the holding period and finally TLB a year after the LBO investor has exited the target. We assume this would be a realistic measure a bank would use to evaluate the covenant, as they would expect the target to amortize the loan according to the schedule. The EBITDA used in the calculation remains as the initial EBITDA of the target, as it would be unrealistic to expect the target to reach their forecasted EBITDA if they would struggle keeping in the repayment schedule, as it would most probably be due to a decrease in their free cash flows, and thus EBITDA.

A covenant margin is added to the forecasted debt/EBITDA multiple to obtain a covenant for each year during the holding period. We assumed a 20% covenant margin for Marimekko because it limits the company's debt taking, while giving some leeway during financially unstable times. As a reference, in the buyout of Thule in 2007 (Becker & Strömberg, 2013) the target's debt/EBITDA multiple was 8.7 and the covenant was set at a multiple of 10, which implies a covenant margin of 15%. We took a more conservative approach compared to this because the Thule acquisition took place in the peak of an LBO wave, where the debt/EBITDA ratios were significantly higher than now. In Marimekko's case, the leverage level is lower, and thus the covenant can be slightly less restrictive. The covenant will be applied in the scenario analysis to examine the impact of a decreasing EBITDA.

## 5.7. Exit valuation

The final component in Marimekko's LBO valuation is determining the exit price for the investment and deriving the return of the transaction. As stated earlier, the assumption is that the investor will exit the company on 1st of January, 2024. First, we will establish the exit price, that will be based on an entry multiple calculated at the time of acquisition. After this, we will continue to obtaining the internal return and money-back multiple of the investment.

### 5.7.1. Exit value

As discussed earlier, the exit valuation can be determined by discounting the target's future cash flows, or by using the multiples method. The DCF method is popular in research, but practitioners

rely on it less often due to the estimation problems it carries. The more common methods used are comparable companies' analysis and comparable transactions analysis, both of which require the use of multiples. (Gompers et al., 2016) For Marimekko, we decided to apply the comparable company analysis by calculating the entry EV/EBITDA ratios for Marimekko and its peer group. The enterprise value was calculated as a sum of each company's market valuation on 31st of December, 2018 and their interest-bearing debt. Thus, the multiple was calculated as follows:

$$\frac{\text{EV}}{\text{EBITDA}} = \frac{\text{Market capitalization} + \text{Interest bearing debt}}{\text{EBITDA at entry}}$$

Table 19 showcases each company's EV/EBITDA multiples at entry. For Marimekko, we used the comparable EBITDA of EUR 14.7m, as it excludes the impact of the sale and leaseback of their headquarters. As can be seen from the table, Marimekko already had a significantly higher EV/EBITDA multiple than its respective peer group. This is primarily due to their extremely high market capitalization at entry, which could hike up the multiple. Both Kappahl and MQ had much lower multiples than Marimekko and H&M, which could be due to a smaller asset base or higher EBITDA in comparison to the one's of Marimekko and H&M. This difference could indicate that MQ and Kappahl are not optimal comparable companies for Marimekko, whereas H&M offers a better comparison in this regard. When it comes to H&M's EV/EBITDA multiple, their their market capitalization has decreased over the past five years (Bloomberg.com), while their financial liabilities have increased significantly and their EBITDA has decreased over the same horizon (see Appendix 3). Therefore, it can be argued that their multiple is currently at a high level in comparison to its historical development.

**Table 19: Comparable companies' EV/EBITDA at entry**

| EV/EBITA multiple | 31/12/2018 |
|---|---|
| Marimekko | 11.446 |
| Kappahl | 3.893 |
| H&M | 9.075 |
| MQ | 3.884 |

Source: Computed from peer group's financial statements and Bloomberg data

Based on the whole group's EV/EBITDA multiples, Marimekko is valued relatively high, mostly due to their market capitalization developments (see share price) and changes in their financials. Their EBITDA has increased over the past five years accordingly, and their financial liabilities have only decreased over the same horizon (see Appendix 1) There is no reason to believe that this development would not continue, and the financial projections of thesis are built on that assumption. Naturally the acquisition will change their enterprise value during the holding period but we expect the company to amortize the liabilities before the exit would take place. We are not expecting 'multiple expansion' to take place due to the already high multiple value. Therefore, it is conservatively assumed that Marimekko's exit value is based on their entry multiple.

**Table 20: Valuation components**

| **Exit valuation** | **EUR (1,000)** |
|---|---|
| Acquisition date | 01/01/2019 |
| **Entry EBITDA*** | **14,700** |
| Market capitalization at entry | 167,848 |
| Interest-bearing debt | 408 |
| **Entry EV** | **168,256** |
| **Entry multiple** | **11.446** |
| | |
| Exit date | 01/01/2024 |
| **Exit EBITDA** | **25,574** |
| **Exit EV** | **292,721** |

Source: Writers' computations, Marimekko's financial statements and Bloomberg data

Table 20 outlays Marimekko's exit valuation. The components of the entry multiple are presented, and they result in an entry multiple of 11.45. When this multiple is applied to the company's exit EBITDA of EUR 25.57m, the enterprise value at exit is established as EUR 292.72m.

### 5.7.2. Return on equity

The return of Marimekko's LBO investor is obtained by using two metrics, the internal rate of return (IRR) and money-back multiple. IRR is the primary metric used in valuing the attractiveness of

possible LBO targets, and the success of current targets under a PE fund's holding. IRR determines the return the investor makes on the equity share they contributed to the target. The primary factors affecting IRR are the target's forecasted financials, the acquisition price, the funding structure, and the applied exit multiple. Naturally a smaller equity contribution has a positive effect on the obtained IRR. The IRR is calculated as follows (Rosenbaum & Pearl, 2009):

$$\text{IRR} = \left(\frac{\text{Value of equity at exit}}{\text{Value of equity at entry}}\right)^{\frac{1}{n}} - 1$$

In Marimekko's case, this yields

$$\text{IRR} = \left(\frac{181.34\text{m}}{107.83\text{m}}\right)^{\frac{1}{5}} - 1 = 10.96\%.$$

This is significantly lower than what Pearl and Rosenbaum (2009) state as a sufficient rate of return for majority of PE investors. As a rule of thumb, a greater than 20% IRR is considered as a threshold for a good investment.

Another metric, money-back multiple is calculated to assess the absolute money expansion the LBO investment offers to the investor. Money-back multiple for Marimekko is calculated as follows (Gilligan & Wright, 2015):

$$\text{Money back multiple} = \frac{\text{Value of equity at exit}}{\text{Value of equity at entry}} = \frac{181.34\text{m}}{107.83\text{m}} = 1.682$$

For money-back multiple, Macabacus (2013) estimates that most of the LBO investments return at least two times the invested capital back. If we therefore suggest that money-back multiple of 2.0 would be the lowest acceptable return, the result of our analysis does not fulfill the acceptable return threshold.

## 5.8. Scenario analysis

In the forthcoming section, a scenario analysis will be presented as an alternative for the analysis provided on Marimekko's LBO valuation. Forecasts are always dependent on the individual

assessor's subjective views, and thus they are predisposed to inaccuracies. The purpose of a scenario analysis is to shed light to the consequences of too optimistic or too pessimistic forecasts. One would easily think that a pessimistic forecast is good because the realized return is higher, but pessimistic forecasting risks the investor paying too much for the target. On the other hand, too optimistic forecast could risk the target not being able to handle the increased leverage from the LBO transaction. Therefore, two scenarios, a good one and a bad one, will be established next by alternating two items in the forecast, revenue growth and cost of goods sold. In order to keep the scenario analysis relevant and simple, we chose not to change other items forecast, as they are already linked to the revenue projections, and will thus change accordingly in both scenarios.

### 5.8.1. Good case scenario

In a good case scenario, it is expected that external conditions are more favorable than expected but still realistic for Marimekko. From the LBO investors point of view, this is less harmful than overly optimistic forecasts, but it would still corrupt their valuation of the target. If the target is acquired based on their market capitalization, naturally the consequences of the underestimation are primarily positive, as it inherently increases the return of the investment.

In this section, Marimekko's original forecasts will be slightly modified upwards, in order to assess the implications of an underestimation in the forecast. Firstly, the annual revenue is altered so that it grows 2.5% more than in the base case, by simply adding 2.5% to each year's forecasted growth rate. As Marimekko is focusing their investment efforts in omnichannel operations and internationalization in Asia, it is possible that the larger revenues would be primarily led by reaching a stronger foothold in China's advanced online markets. In addition, if Marimekko's partner-led retail in Asia proceeded without any major issues, and new stores were opened at the same rate as in 2018, when 12 stores in total were opened, out of which 9 in Asia, this would have a major impact on Marimekko's revenue. Furthermore, in a good case scenario the company's sales growth in Finland could continue at the 2018 level, when they had a 14% growth only in their home markets. The growth in Finland would be supported by Marimekko's new store concept, as well as by the newly renovated Marimekko House, which has already attracted more than 100,000 visitors last year.

On the other hand, if the share of the company's online sales would increase, it would also have a decreasing effect on Marimekko's cost of goods sold. This happens because facilitating retail sales ties more costs due to the sales personnel and rental expenses. If Marimekko would shift towards more online sales from retail sales, they could make significant cost savings. Additionally, it can be assumed that increased sales would enable benefitting from economies of scale, as the production would increase accordingly. As stated earlier, Marimekko's COGS was originally forecasted as a percentage of revenue. In order to determine the impact of decreased costs in the good case scenario, 2% was deducted from the forecast in the base case scenario.

These changes would have an enhancing effect on Marimekko's profitability over the holding period. The altered financial statements, debt repayment schedule and the covenant calculation can be observed in Appendix 12. Firstly, the company's final year EBITDA would increase by 26% compared to the base case, and NOPAT would change accordingly. Change in NOPAT reflects in the generated free cash flows, and as free cash flows are primarily used for debt repayments, the change hikes up the repayment pace. In the good scenario, both TLA and TLB would be paid back on the 4$^{th}$ and 5$^{th}$ year, just as in the base scenario, but the quicker amortization shows up in the financial expenses. Compared to the original forecast, the interest expenses decrease by 11% in absolute values during the holding period. This naturally has a positive effect on the levered free cash flows.

As said, the changes improve Marimekko's profitability, and thus the return of the LBO investment. The shareholder's equity balance will increase to EUR 197.9m at the end of the holding period, in comparison to the base case scenario where it was EUR 181.3m. Due to the increased equity balance, both the IRR and money-back multiple will be up from the original forecast. The IRR from the good case scenario is 12.91% and the money-back multiple increases to 1.835. From this can be concluded that, despite the favorable developments in revenue and GOGS, the return for the PE fund would still probably not be satisfactory, as PE investors typically aim for an IRR of at least 20%.

### 5.8.2. Bad case scenario

In a bad case scenario, the forecasts made in the financial projections are too high. The severity of the misjudgment depends on how far the reality is from the forecast. In the worst case scenario, the target is not able to cover the interest payments of the debt, nor recover from their debt liabilities.

This is typically the case when the target reaches the covenant set by the lender, the bank in this case. This would mean the lender, could force the target to liquidate their assets to pay for the debt, and this could be detrimental for the target's business.

In order to valuate the impact of an overstated forecast, Marimekko's financial projections are altered so that their annual revenue is less than originally projected and their cost of goods sold increase from the base case. In the bad case, each year the annual revenue is expected to grow, but 2% less than in the original projections. The calculation was made by simply deducting 2% from the forecasted revenue growth rates. This significantly slower growth could be due to multiple factors, as Marimekko's sales could be impacted in one their segments or all segments at the same time. Their major investments in the Asia-Pacific region could turn out unsuccessful, or their sales in Finland could decline because of increased competition or a change in customer behavior. Additionally, Marimekko's business is highly reliant on the world markets, and if the economy would start declining suddenly, demand for higher-end fashion and textile would most probably decrease, as they are not necessities.

The other change made in the financial projections is the COGS. In contrast to the good case scenario, 1.5% was now added to the original forecast to increase the COGS relation to revenue to display the effect of underestimated costs. This kind of development is highly possible, as the fashion industry has seen COGS expenses increase significantly in recent years. During the last five years, COGS in relation to revenue have increased by 0.5% for 43% of companies in McKinsey's Global Fashion Index, and over 2% for a quarter of companies in the index, typically because of markdown pressure. (McKinsey & Company, 2019) Other possibilities for the increase in COGS could be increase in the price of materials used or distribution costs. Both of these costs are partly dependent on oil price movements, which is also difficult, if not impossible to predict.

After establishing the forecast changes, the section continues to analyzing the impact of these changes. As in the good case scenario, the modified calculations can be found from Appendix 13. The first and very significant change is in the income statement, as the sales have decreased, while the COGS have remained close to the original forecast in absolute values. EBIT still grows but significantly slower, reaching an EBIT margin of 12.6% by the end of the holding period, in comparison to the 15.2% in the original forecast. This decrease has a direct impact on the cash flows

the target would generate in this scenario, as NOPAT is the first item in the cash flow forecast. In the bad case scenario, Marimekko's free cash flows decrease by 22% on the last forecasted year, 2023. As these cash flows are used for the debt repayments, the negative changes hinder the pace of repayments. As a result, the company is unable to cover the entire planned repayment of TLA in 2020. This brings their realized debt/EBITDA multiple close to the covenant, but it does not reach it, so Marimekko would still be able to continue operating as such. Because the debt repayments are slower, the company cannot amortize TLB by the end of the holding period. The remainder of TLA outstanding flows into the balance sheet for 2023, and it would have to be refinanced or paid off, if Marimekko was sold to another company by the LBO investor.

The aforementioned developments have a direct impact on the profitability of the investment. As the shareholder's equity decreases from EUR 181.34m in the original forecast to EUR 164.89m, the IRR of the investment becomes 8.87%. This happens because the LBO debt is not paid off completely, and it decreases the return on equity. The money-back multiple decreases from 1.68 to 1.53, which indicates that the actual money paid back to the investors decreases by 9%. Therefore, the seemingly small percent changes in revenue and COGS have a major impact on the investor's return from the LBO. If the changes were larger, Marimekko would hit the covenant of their debt repayment, and they would need to negotiate the consequences with the bank, depending on the agreement regarding the covenant. If they were unable to recover from the debt repayments for an extended period, the bank would most probably force them to liquidate assets or provide other coverage for the leverage.

# 6. Discussion

In this section of the thesis, we will assess the decisions taken in the analysis and provide remarks on them. The purpose is to also evaluate other possibilities regarding the analysis and discuss further research opportunities.

The first matter to evaluate is the choice of the target company, Marimekko. The company has relatively stable revenues, they have very few financial liabilities, and they have grown significantly over the past few years. While the company's financials do support an LBO acquisition to some extent, Marimekko would probably not offer an optimal target for a possible LBO investor. This is primarily due to their stock price development during 2018, where it basically doubled in one year. This has increased the company's market capitalization considerably and an LBO investor would be unlikely to approach such a highly valued target. Furthermore, the company's EBITDA has not increased with the market capitalization, which has hiked up their EV/EBITDA multiple, thus making it difficult to improve the ratio. Marimekko had already sold their headquarters in a sale and leaseback transaction, which is something the PE investors typically would apply themselves on a target. Of course it is possible to argue that the transaction is beneficial for the investors as it was already done for their benefit. After the company's new CEO assumed office in 2016, she improved the company's cost management, and many of the drivers analyzed the thesis have already improved since. The problem with that is that PE funds generally avoid paying for improvements that have already been implemented, as it decreases their expected return.

Another aspect to assess is the profitability of this investment. The return obtained from the investment based on the forecasted scenario is below what LBO investors usually expect from their investments, which is approximately 20% or more. In the base case, the return from Marimekko would be 10.96%, which is significantly below the general expectation, and thus most probably insufficient from an LBO investors perspective. Moreover, the 12.91% IRR obtained in the good case scenario was not a huge improvement to the original forecast. The exit price was based on Marimekko's entry multiple, which was a conservative assumption considering that sometimes LBO investors aim to increase the multiple during the holding period. As stated earlier, the company's EV/EBITDA multiple was already high in the beginning of the forecasting period, so it seemed unreasonable to expect it to increase even more. The exit valuation naturally depends on the chosen

exit strategy. If Marimekko was exited through an IPO or a strategic buyer, the LBO return could be much higher. However, in the time of the acquisition it is extremely difficult to determine how the target will be excited, as the investor does not know how successful the investment will be. Highly successful LBOs are often excited through an IPO, and Marimekko would probably have difficulties fulfilling the requirement.

Partly, the low return on equity was caused by the relatively small LBO leverage. As is custom in the fashion industry, Marimekko has a small asset base, which decreases the leverage they are able to obtain. The funding structure had a large impact on the valuation. Because the maximum leverage was determined using a 5xEBITDA multiple, the maximum leverage accounted for only 40% of the acquisition price. Thus, the equity contribution was significant, which decreases the return potential of the investment. Considering Marimekko's current financial status and the forecasted cash flows, they could have carried a slightly larger debt, but it would have increased the risk of hitting the covenant in the down scenario.

Based on the recent stock price developments of Marimekko, it can be argued that the acquisition time was less than optimal. If the acquisition had taken place only a year before, the results obtained would likely be very different. Alternatively, the PE fund could try to wait and see if the valuation decreases in the near future. Naturally, predicting market developments is impossible, and also Marimekko's value could continue its rise in the upcoming years.

The chosen peer group was probably not the best suited comparison for Marimekko, and another group could have offered a better reference for Marimekko's performance. They varied in size, structure and even in their operations. The obtained ratios were often so different to the one's of Marimekko, that it was difficult to draw conclusions from them. To gather a better peer group, one would have to look into privately held companies, as Marimekko had very few comparable companies that were publicly traded. Broadening the peer group selection to private companies could help with the comparability of the companies, and therefore improve the reliability of the conducted research.

An LBO investor could also introduce a new or a different strategy for Marimekko. We chose to follow Marimekko's original strategy for the short-term, as their recent strategy moves have been very successful. Marimekko is investing largely in their Asia-Pacific segment, and the actual high

growth expectations on the market support the decision. Additionally, Marimekko's investments in Finland can be explained as Finland still serves as the company's largest segment revenue wise. The company was also expected to continue focusing on digitalization, which has been a megatrend for a long time now. Therefore, it is possible that an LBO investor would follow Marimekko's original strategy orientation after the acquisition. On the other hand, the investor could have decided to expand their operations more, for example to the EMEA segment, as Marimekko has had high growth there throughout the observed historical period, while they only have one store in the segment. All other sales are generated through the other parts of their omnichannels. Partnering with local businesses would be an option for this expansion, following Marimekko's success with partnering in Asia.

The natural consequence of forecasting is that each forecast is subject to the assessor's opinions. It can be argued that the forecasts were either too optimistic or too conservative. In 2018, Marimekko stated that their own revenue growth expectation is 10% annually, but this was extremely optimistic from our point of view, and thus we forecasted a slightly lower return for them. As was seen in the scenario analysis, even small changes in the forecasts can have a significant impact on the profitability of the investment. Same criticism can be pointed towards the scenario analysis, that was based on changing only two variables. A more detailed scenario analysis could have provided a clearer picture of the impact of changes in the forecast.

In order to improve the reliability of the conducted research, the valuation method used could have been extended by presenting an alternative method for valuing the target's acquisition price. The present thesis leaned entirely on the market value of Marimekko's assets, while another method could have provided more insight to the valuation, considering that Marimekko's market capitalization hiked up the acquisition price. Another method could have either supported this analysis, or offered an alternative value. Of course, if the alternative value was lower, it can be argued that acquiring the company would be difficult for anything below their market value.

# 7. Concluding remarks

This thesis was written to examine, how attractive of an LBO target would Marimekko be for a private equity fund in terms of the return achieved. Further, in this section, we will summarize and discuss on the results our analysis has unfolded

In the strategic analysis part, we determined three strategic and two supporting factors for Marimekko. The chosen strategic factors are 1) maximizing sales by building omnichannel ecosystems, 2) appealing to a broader global target audience and 3) approaching key markets through key cities. The supporting factors are 4) sustainability and 5) empowering women. While the strategic factors are essential for Marimekko in order to succeed in their growth and internationalization strategy, the supporting factors are in the background enabling the achievement of the goals set in the strategy. The factors are a key for Marimekko's future success, but they all contain some risks, such as intellectual property right infringements, the brand losing its "authenticity", investing in strategically non-key cities, ethical or environmental errors and failures in the supply chain and forgetting the diversity aspect.

The market areas where Marimekko is currently present where analysed as well. Those market areas are Finland, Scandinavia, Asia-Pacific, North America and EMEA. Of those five markets, Asia-Pacific is an integral part in the implementation of the strategy as digitalization is one of the megatrends affecting the fashion industry and China is one of the most advanced and fastest developing online sales hubs in the world. Furthermore, as Marimekko already has a comprehensive store network in Japan, it is easier to continue expansion in the region. In addition, the growth in the fashion market will primarily be derived from emerging and luxury segments in Asia. Finland is also a really important market for Marimekko as it is their home market and over half of their revenues are generated there. In 2018, Marimekko signed a sale and leaseback contract for their headquarters in Finland to release cash for investments in digital business and growth in Asia. Also, a new store concept is already applied in Finland and the number of visitors in Marimekko house is expected to grow from 2018 numbers when the house attracted more than 100,000 visitors. The other three markets are of lesser importance as over three quarters of Marimekko's revenues are derived from Finland and Asia-Pacific.

In the financial analysis part, it was found that when comparing the Net working capital/sales ratios and the components of which the ratio is derived from years 2014 to 2018, Marimekko had room for improvements especially in its days of receivables and days of inventory on hand. In these items Marimekko was the last one among its peer group which consisted of H&M, MQ and Kappahl. Therefore, improvements in receivables and inventories were estimated to happen in the projections over the holding period.

Regarding the acquisition price, it was determined to be at EUR 181.3 million and a control premium of 21% was added on top of the market cap when the acquisition price was determined. The acquisition price also set the frames for the funding structure. As the Fashion industry is not a capital intensive industry, the debt burden cannot be as massive as in some other industries. Therefore, based on Marimekko's financial statements, its ability to generate free cash flows and a weak asset base, it was determined that the debt will be 5x comparable EBITDA from the year 2018 financial statements. This resulted in a debt of EUR 73.5 million which was divided into a term loan A and term loan B. The term loan A was an amortized loan and the term loan B was a bullet loan. Finally, after five years, the exit value on 31.12.2023 was EUR 292.7 million, and it was determined by multiplying the entry EV/EBITDA multiple by the year 2023 EBITDA. This resulted in an IRR of 10.96% and a Money-Back multiple of 1.68. Both measures are below the level what PE firms would typically consider as an acceptable return from a similar investment. The reasons for the weak return were concluded to be due to a low debt level and a high acquisition price which was boosted by Marimekko's excellent year in the stock markets in 2018. Based on the results derived from our analysis, we do not think a PE firm would be interested to conduct an LBO for Marimekko.

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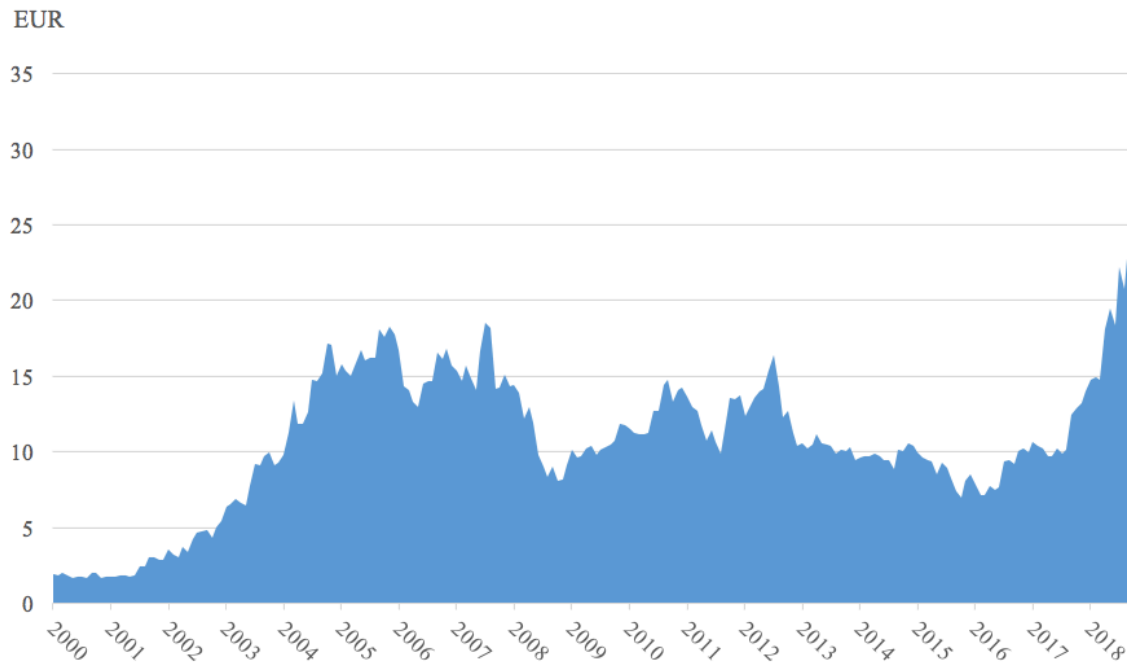
# Appendix

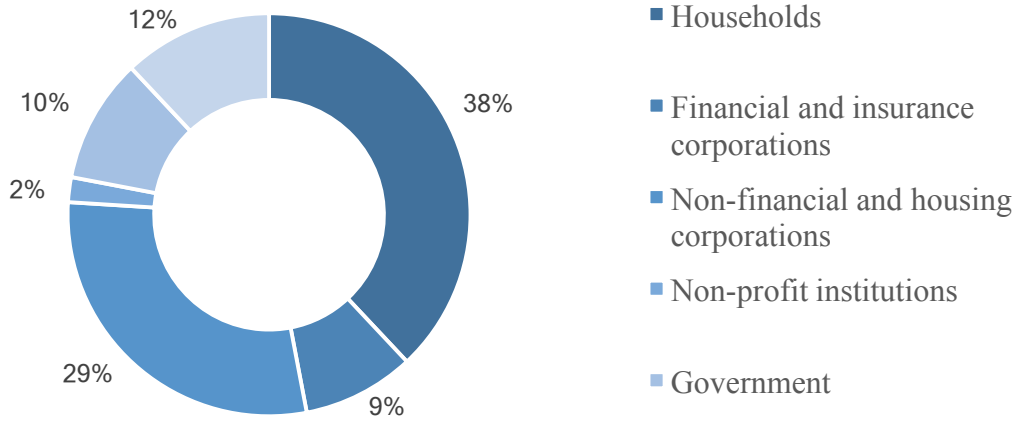
### Appendix 1 – Stock performance of Marimekko

Share price of Marimekko (MMO1V.HE) in EUR, 2000-2018




Source: Bloomberg

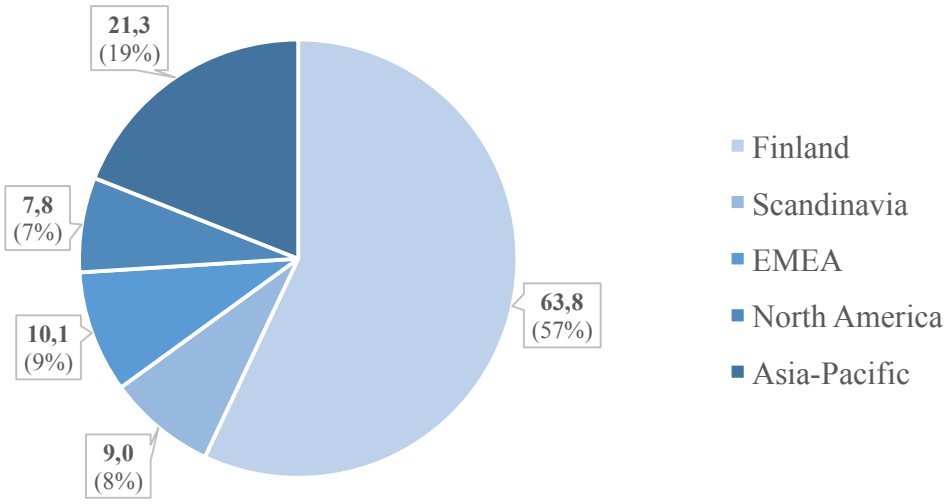
### Appendix 2 – Ownership by sector, 31 December 2018



Source: Company.marimekko.com

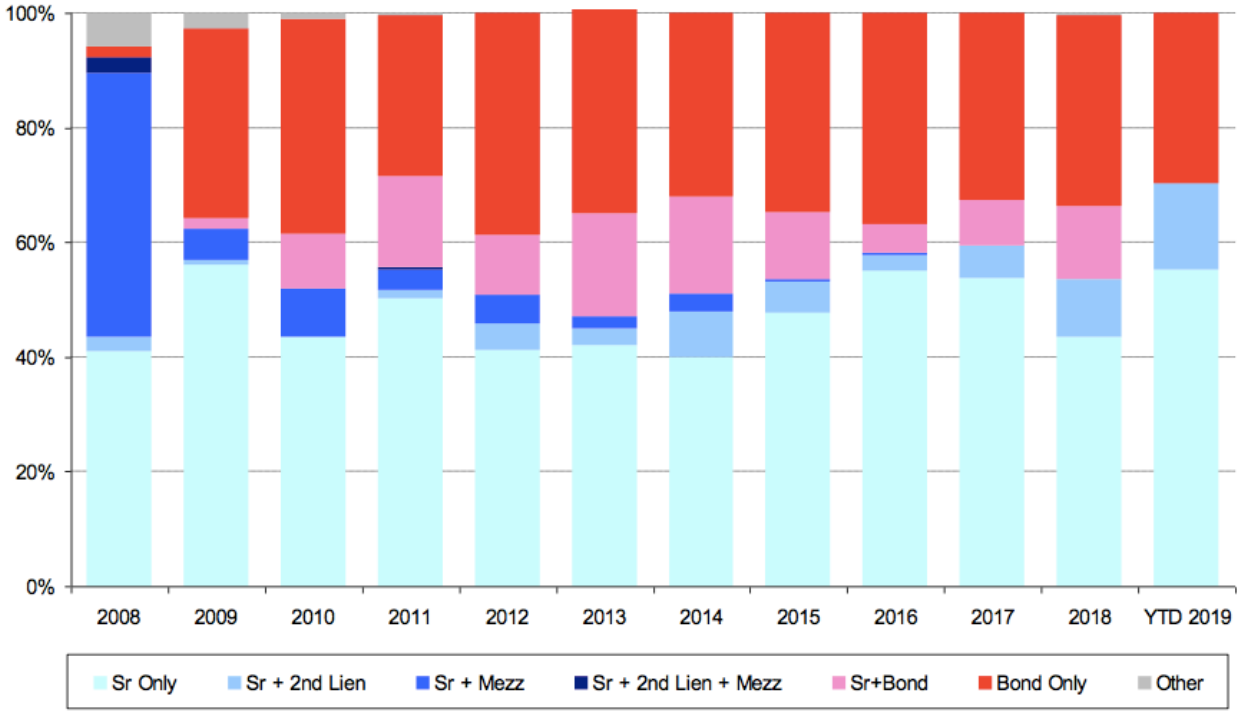
**Appendix 3 – Net sales by market area**

Marimekko's net sales by market area in mEUR, 2018



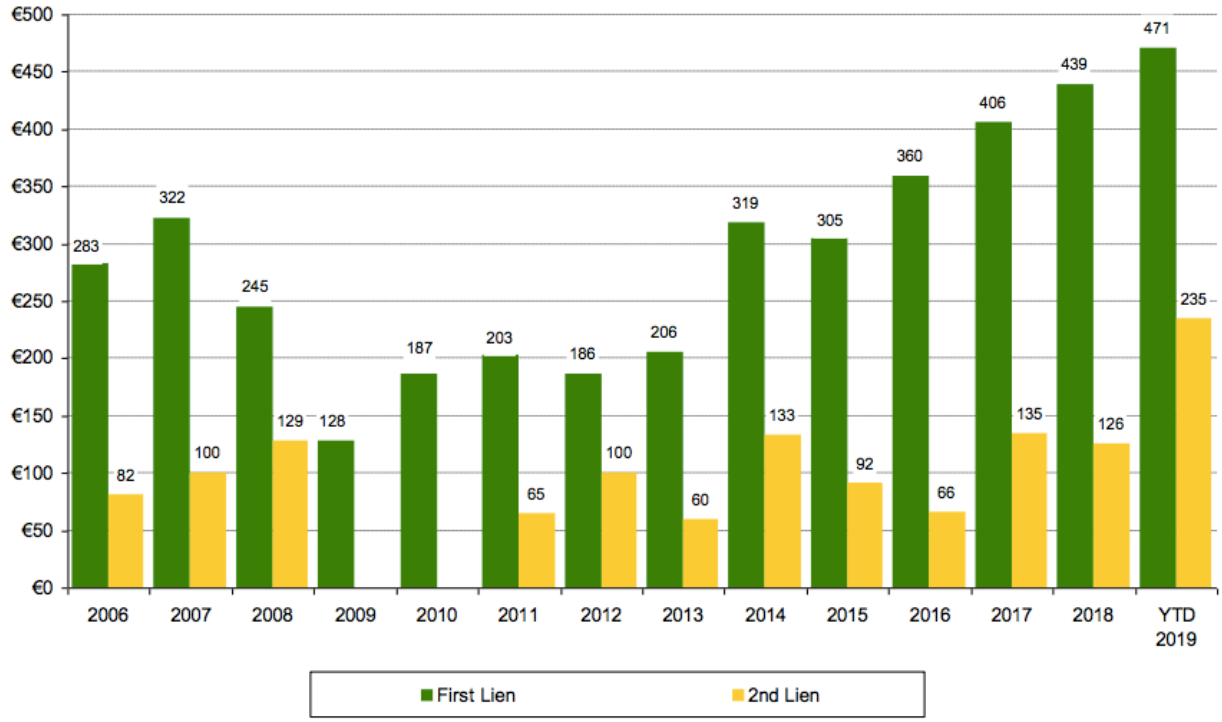

Source: Annual Report, 2018

**Appendix 4 – European borrowers' sources of funding**




Source: S&P Global Market Intelligence

**Appendix 5 – Average Institutional Deal Size (EURm)**




Source: S&P Global Market Intelligence

**Appendix 6 – 5-year swap rates for EURIBOR**


Source: Bloomberg

## Appendix 7 – Private equity deal multiples


Source: McKinsey & Company

## Appendix 8 – Marimekko's analytical financial statements

| Analytical income statement | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|
| **(EUR 1,000)** | | | | | |
| **Net sales** | **94,150** | **95,652** | **99,614** | **102,324** | **111,879** |
| Cost of goods sold (COGS) | -33,459 | -34,841 | -37,239 | -37,107 | -40,917 |
| **Gross profit** | **60,691** | **60,811** | **62,375** | **65,217** | **70,962** |
| Employee benefit expenses | -25,543 | -26,232 | -25,671 | -24,543 | -26,188 |
| Other operating income | 230 | 335 | 376 | 406 | 6,522 |
| Other operating expenses | -25,503 | -28,861 | -27,716 | -29,413 | -31,075 |
| **EBITDA** | **9,875** | **6,053** | **9,364** | **11,667** | **20,221** |
| Comparable EBITDA* | | | | | 14,700 |

| | | | | | |
|---|---|---|---|---|---|
| Depreciation and impairments | -4,283 | -4,511 | -4,114 | -3,308 | -2,501 |
| **EBIT** | **5,592** | **1,542** | **5,250** | **8,359** | **17,720** |
| **Comparable EBIT*** | | | | | 12,200 |
| Tax rate | 25.0% | 37.9% | 22.0% | 20.6% | 22.0% |
| Tax on EBIT | -1,397 | -585 | -1,155 | -1,724 | -3,892 |
| **NOPAT** | **4,195** | **957** | **4,095** | **6,636** | **13,828** |
| Net financial expenses, before tax | -108 | -248 | -79 | -1,230 | -168 |
| Tax shield (tax financial expenses) | 27 | 94 | 17 | 254 | 37 |
| **Net financial expenses** | **-81** | **-154** | **-62** | **-976** | **-131** |
| **Net profit of the year** | **4,114** | **803** | **4,033** | **5,659** | **13,697** |

| **Analytical balance sheet** | **2014** | **2015** | **2016** | **2017** | **2018** |
|---|---|---|---|---|---|
| **(EUR 1,000)** | | | | | |
| **Intangible and tangible assets** | **18,263** | **17,342** | **15,395** | **13,252** | **4,780** |
| Goodwill | | | | | |
| Deferred tax assets | 0 | 0 | 222 | 66 | 114 |
| **Non-current operating assets** | **18,263** | **17,342** | **15,617** | **13,318** | **4,894** |
| Inventories | 17,558 | 18,488 | 21,357 | 20,921 | 22,114 |
| Trade and other receivables | 7,286 | 5,966 | 8,020 | 6,647 | 6,916 |
| Current tax assets | 0 | 0 | 0 | 0 | 0 |
| **Current operating assets** | **24,844** | **24,454** | **29,377** | **27,568** | **29,030** |
| **Total operating assets** | **43,107** | **41,796** | **44,994** | **40,886** | **33,924** |
| Deferred tax liabilities | 4 | 9 | 0 | 0 | 0 |
| Provisions | 190 | 190 | 71 | 0 | 0 |
| **Non-current operating liabilities** | **194** | **199** | **71** | **0** | **0** |
| Trade payables | 3,863 | 5,342 | 5,018 | 5,554 | 6,148 |
| Other payables | 6,190 | 5,847 | 8,138 | 6,965 | 9,426 |
| Current tax liabilities | 778 | 226 | 945 | 552 | 1,128 |
| Provisions | 0 | 0 | 26 | 32 | 0 |

| | | | | | |
|---|---|---|---|---|---|
| **Current operating liabilities** | **10,831** | **11,415** | **14,127** | **13,103** | **16,702** |
| **Total operating liabilities** | **11,025** | **11,614** | **14,198** | **13,103** | **16,702** |
| **Net operating assets** | **32,082** | **30,182** | **30,796** | **27,783** | **17,222** |
| Share capital | 8,040 | 8,040 | 8,040 | 8,040 | 8,040 |
| Reserve for invested non-restricted equity | 502 | 502 | 502 | 502 | 502 |
| Treasury shares | 0 | 0 | 0 | 0 | -315 |
| Translation differences | -74 | 38 | 24 | -47 | -49 |
| Retained earnings | 20,577 | 18,549 | 19,751 | 22,175 | 31,827 |
| **Total shareholders' equity** | **29,045** | **27,129** | **28,317** | **30,670** | **40,005** |
| Financial liabilities | 3,696 | 3,834 | 2,594 | 0 | 0 |
| Senior loan | | | | | |
| Second lien secured loan | | | | | |
| Finance lease liabilities | 3,261 | 3,231 | 3,171 | 3,097 | 202 |
| **Non-current financial liabilities** | **6,957** | **7,065** | **5,765** | **3,097** | **202** |
| Finance lease liabilities | 176 | 253 | 214 | 244 | 206 |
| **Current financial liabilities** | **176** | **253** | **214** | **244** | **206** |
| **Total financial liabilities** | **7,133** | **7,318** | **5,979** | **3,341** | **408** |
| Cash and cash equivalents | 4,079 | 4,249 | 3,482 | 6,212 | 23,174 |
| **Current financial assets** | **4,079** | **4,249** | **3,482** | **6,212** | **23,174** |
| Available-for-sale financial assets | 16 | 16 | 16 | 16 | 16 |
| **Non-current financial assets** | **16** | **16** | **16** | **16** | **16** |
| **Total financial assets** | **4,095** | **4,265** | **3,498** | **6,228** | **23,190** |
| **Invested capital** | **32,083** | **30,182** | **30,798** | **27,783** | **17,223** |

## Appendix 9 – Kappahl's analytical financial statements

| **Analytical income statement (SEK 1,000,000)** | **2014** | **2015** | **2016** | **2017** | **2018** |
|---|---|---|---|---|---|
| **Net sales** | **4,743** | **4,588** | **4,724** | **4,916** | **4,760** |
| Cost of goods sold | -1,857 | -1,832 | -1,806 | -1,860 | -1,818 |
| **Gross profit** | **2,886** | **2,756** | **2,917** | **3,056** | **2,942** |
| Selling expensees | -2,340 | -2,250 | -2,224 | -2,272 | -2,280 |
| Administrative expenses | -145 | -174 | -212 | -205 | -228 |
| **EBITDA** | **401** | **333** | **482** | **579** | **434** |
| Depreciation and impairments | -129 | -135 | -132 | -131 | -152 |
| **EBIT** | **272** | **198** | **349** | **449** | **282** |
| Tax on EBIT | -100 | -73 | -98 | -67 | -58 |
| **NOPAT** | **172** | **125** | **251** | **382** | **224** |
| Net financial expenses, before tax | -68 | -21 | -9 | -21 | 0 |
| Tax shield (tax net financial expenses) | 25 | 8 | 2 | 3 | 0 |
| **Net financial expenses** | -43 | -13 | -6 | -18 | 0 |
| **Net profit of the year** | **129** | **111** | **245** | **364** | **224** |

| **Analytical balance sheet (SEK 1,000,000)** | **2014** | **2015** | **2016** | **2017** | **2018** |
|---|---|---|---|---|---|
| Intangible assets | 1,342 | 1,349 | 1,351 | 1,369 | 1,405 |
| Tangible assets | 412 | 459 | 429 | 436 | 424 |
| Deferred tax assets | 22 | 11 | 30 | 57 | 60 |
| Other long-term receivables | 0 | 0 | 1 | 0 | 0 |
| **Non-current operating assets** | **1,776** | **1,819** | **1,811** | **1,863** | **1,890** |
| Inventories | 733 | 725 | 820 | 726 | 764 |
| Trade receivables | 5 | 2 | 19 | 4 | 1 |
| Current tax assets | 9 | 10 | 7 | 0 | 0 |
| Prepaid expenses and accrued income | 96 | 102 | 112 | 112 | 119 |

| | | | | | |
|---|---|---|---|---|---|
| Other receivables | 32 | 25 | 25 | 85 | 50 |
| **Current operating assets** | 875 | 863 | 983 | 926 | 934 |
| | | | | | |
| **Total operating assets** | **2,651** | **2,682** | **2,794** | **2,789** | **2,824** |
| | | | | | |
| Deferred tax liabilities | 29 | 89 | 151 | 148 | 151 |
| Provisions | 54 | 48 | 48 | 45 | 57 |
| **Non-current operating liabilities** | **83** | **137** | **200** | **193** | **208** |
| | | | | | |
| Trade payables | 234 | 259 | 195 | 175 | 178 |
| Current tax liabilities | 6 | 8 | 45 | 121 | 36 |
| Other liabilities | 122 | 124 | 135 | 214 | 161 |
| Accrued expenses and deferred income | 291 | 296 | 320 | 257 | 278 |
| **Current operating liabilities** | **653** | **686** | **694** | **768** | **652** |
| | | | | | |
| **Total operating liabilities** | **735** | **823** | **893** | **961** | **860** |
| | | | | | |
| **Net operating assets** | **1,916** | **1,859** | **1,901** | **1,829** | **1,963** |
| | | | | | |
| Share capital | 64 | 66 | 66 | 66 | 66 |
| Other contributed capital | 1,111 | 1,161 | 1,161 | 1,161 | 1,161 |
| Reserves | -5 | -13 | -14 | -21 | 12 |
| Retained earnings including profit of the year | 340 | 411 | 592 | 837 | 408 |
| **Total shareholders' equity** | **1,510** | **1,625** | **1,805** | **2,042** | **1,647** |
| | | | | | |
| Other interest-bearing liabilities | 0 | 400 | 400 | 0 | 0 |
| **Non-current financial liabilities** | **0** | **400** | **400** | **0** | **0** |
| | | | | | |
| Interest-bearing liabilities | 449 | 22 | 10 | 25 | 353 |
| **Current financial liabilities** | **449** | **22** | **10** | **25** | **353** |
| | | | | | |
| **Total financial liabilities** | **449** | **422** | **410** | **25** | **353** |
| | | | | | |
| Cash and cash equivalents | 43 | 188 | 314 | 239 | 36 |
| **Current financial assets** | **43** | **188** | **314** | **239** | **36** |
| | | | | | |
| **Total financial assets** | 43 | 188 | 314 | 239 | 36 |

| **Invested capital** | **1,916** | **1,859** | **1,901** | **1,829** | **1,963** |
|---|---|---|---|---|---|

## Appendix 10 – H&M's analytical financial statements

| **Analytical income statement (SEK 1,000,000)** | **2014** | **2015** | **2016** | **2017** | **2018** |
|---|---|---|---|---|---|
| **Net sales** | **151,419** | **180,861** | **192,267** | **200,004** | **210,400** |
| Cost of goods sols | -62,367 | -77,694 | -86,090 | -91,914 | -99,513 |
| **Gross Profit** | **89,052** | **103,167** | **106,177** | **108,090** | **110,887** |
| Selling expenses | -53,480 | -63,893 | -68,124 | -71,939 | -77,841 |
| Administrative expenses | -4,944 | -5,933 | -6,625 | -7,094 | -7,882 |
| **EBITDA** | **30,628** | **33,341** | **31,428** | **29,057** | **25,164** |
| Depreciation and impairments | -5,045 | -6,399 | -7,605 | -8,488 | -9,671 |
| **EBIT** | 25,583 | 26,942 | 23,823 | 20,569 | 15,493 |
| Tax on EBIT | -5,848 | -6,274 | -5,354 | -4,572 | -2,959 |
| **NOPAT** | **19,735** | **20,668** | **18,469** | **15,997** | **12,534** |
| Net financial expenses, before tax | 312 | 300 | 216 | 240 | 146 |
| Tax shield (tax net financial expenses) | -71 | -70 | -49 | -53 | -28 |
| **Net financial expenses** | **241** | **230** | **167** | **187** | **118** |
| **Net profit of the year** | **19,976** | **20,898** | **18,636** | **16,184** | **12,652** |

| **Analytical balance sheet (SEK 1,000,000)** | **2014** | **2015** | **2016** | **2017** | **2018** |
|---|---|---|---|---|---|
| Intangible assets | 2,962 | 4,115 | 5,347 | 7,043 | 9,618 |
| Tangible assets | 26,948 | 32,962 | 38,693 | 39,818 | 42,439 |
| Non-current receivables | 709 | 862 | 1,014 | 1,039 | 1,363 |
| Deferred tax receivables | 2,237 | 2,338 | 2,862 | 2,916 | 3,794 |

| | | | | | |
|---|---|---|---|---|---|
| **Non-current operating assets** | **32,856** | **40,277** | **47,916** | **50,816** | **57,214** |
| | | | | | |
| Stock-in-trade | 19,403 | 24,833 | 31,732 | 33,712 | 37,721 |
| Accounts receivable | 3,659 | 4,021 | 4,881 | 5,297 | 6,329 |
| Tax receivables | - | 379 | - | 2,375 | 1,448 |
| Other receivables | 1,470 | 1,469 | 2,533 | 1,874 | 1,607 |
| Prepaid expenses | 1,516 | 1,884 | 2,071 | 2,770 | 2,881 |
| **Current operating assets** | **26,048** | **32,586** | **41,217** | **46,028** | **49,986** |
| | | | | | |
| **Total operating assets** | **58,904** | **72,863** | **89,133** | **96,844** | **107,200** |
| | | | | | |
| Deferred tax liabilities | 3,287 | 4,378 | 4,898 | 5,331 | 5,088 |
| Provisions | 451 | 449 | 527 | 445 | 445 |
| **Non-current operating liabilities** | **3,738** | **4,827** | **5,425** | **5,776** | **5,533** |
| | | | | | |
| Accounts payable | 5,520 | 6,000 | 7,262 | 7,215 | 6,800 |
| Current tax liabilities | 1,154 | - | 434 | 918 | 1,163 |
| Other liabilites | 2,947 | 3,192 | 5,036 | 3,672 | 3,800 |
| Accrued expenses and prepaid income | 10,682 | 13,745 | 16,846 | 19,048 | 23,167 |
| **Current operating liabilities** | **20,303** | **22,937** | **29,578** | **30,853** | **34,930** |
| | | | | | |
| **Total operating liabilities** | **24,041** | **27,764** | **35,003** | **36,629** | **40,463** |
| | | | | | |
| **Net operating assets** | **34,863** | **45,099** | **54,130** | **60,215** | **66,737** |
| | | | | | |
| Share capital | 207 | 207 | 207 | 207 | 207 |
| Reserves | 204 | 1,904 | 2,651 | 1,015 | 3,322 |
| Retained earnings | 51,145 | 55,938 | 58,378 | 58,491 | 55,017 |
| **Total shareholders' equity** | **51,556** | **58,049** | **61,236** | **59,713** | **58,546** |
| | | | | | |
| Liabilities to credit institutions | - | - | - | - | 10,170 |
| Other interest-bearing liabilities | - | - | 213 | 350 | 322 |
| **Non-current financial liabilities** | **0** | **0** | **213** | **350** | **10,492** |
| | | | | | |
| Liabilities to credit institutions | - | - | 2,068 | 9,745 | 9,153 |
| Interest bearing liabilities | - | - | 59 | 125 | 136 |
| **Current financial liabilities** | **0** | **0** | **2,127** | **9,870** | **9,289** |

| | | | | | |
|---|---|---|---|---|---|
| **Total financial liabilities** | **0** | **0** | **2,340** | **10,220** | **19,781** |
| Short-term investments | 2,602 | - | - | - | - |
| Cash and cash equivalents | 14,091 | 12,950 | 9,446 | 9,718 | 11,590 |
| **Current financial assets** | **16,693** | **12,950** | **9,446** | **9,718** | **11,590** |
| **Total financial assets** | **16,693** | **12,950** | **9,446** | **9,718** | **11,590** |
| **Invested capital** | **34,863** | **45,099** | **54,130** | **60,215** | **66,737** |

## Appendix 11 – MQ's analytical financial statements

| **Analytical income statement (SEK 1,000,000)** | **2014** | **2015** | **2016** | **2017** | **2018** |
|---|---|---|---|---|---|
| **Net sales** | **1,520** | **1,557** | **1,681** | **1,821** | **1,735** |
| Cost of goods sold | -666 | -689 | -773 | -781 | -771 |
| **Gross profit** | **854** | **869** | **908** | **1,040** | **964** |
| Other operating income | 5 | 13 | 9 | 16 | 7 |
| Other external costs | -356 | -356 | -389 | -443 | -435 |
| Employee benefit expenses | -338 | -339 | -382 | -457 | -457 |
| Other operating expenses | -1 | -2 | -1 | -3 | -1 |
| **EBITDA** | **164** | **185** | **145** | **153** | **79** |
| Depreciation and amortisation | -31 | -26 | -24 | -29 | -28 |
| **EBIT** | **132** | **158** | **121** | **124** | **51** |
| Tax on EBIT | -29 | -35 | -24 | -28 | -12 |
| **NOPAT** | **103** | **123** | **97** | **96** | **39** |
| Net financial expenses, before tax | -9 | -4 | -2 | -3 | 3 |
| Tax shield (tax net financial expenses) | 2 | 1 | 0 | 1 | -1 |
| **Net financial expenses** | **-7** | **-3** | **-2** | **-2** | **2** |
| **Net profit of the year** | **96** | **120** | **95** | **94** | **41** |

| **Analytical balance sheet (SEK 1,000,000)** | **2014** | **2015** | **2016** | **2017** | **2018** |
|---|---|---|---|---|---|
| Intangible assets | 1,203 | 1,204 | 1,273 | 1,273 | 1,272 |
| Tangible assets | 56 | 46 | 68 | 68 | 69 |
| **Non-current operating assets** | **1,259** | **1,250** | **1,341** | **1,341** | **1,341** |
| Inventories | 250 | 286 | 341 | 342 | 333 |
| Accounts receivable | 1 | 3 | 1 | 1 | 1 |
| Current tax assets | 0 | 0 | 1 | 3 | 3 |
| Prepaid expenses and accrued income | 81 | 93 | 86 | 78 | 72 |
| Other receivables | 19 | 8 | 9 | 2 | 23 |
| **Current operating assets** | **350** | **391** | **438** | **425** | **433** |
| **Total operating assets** | **1,610** | **1,641** | **1,779** | **1,766** | **1,774** |
| Provisions for deferred tax | 182 | 190 | 202 | 202 | 210 |
| **Non-current operating liabilities** | **182** | **190** | **202** | **202** | **210** |
| Accounts payables | 133 | 149 | 159 | 174 | 166 |
| Current tax liabilities | 13 | 26 | 0 | 0 | 0 |
| Overdraft facility | 1 | 5 | 71 | 94 | 129 |
| Other liabilities | 15 | 14 | 30 | 39 | 25 |
| Accrued expenses and deferred income | 94 | 89 | 108 | 78 | 84 |
| Provisions | 29 | 24 | 27 | 26 | 24 |
| **Current operating liabilities** | 285 | 307 | 395 | 410 | 428 |
| **Total operating liabilities** | **467** | **497** | **597** | **613** | **638** |
| **Net operating assets** | **1,142** | **1,145** | **1,182** | **1,153** | **1,136** |
| Share capital | 4 | 4 | 4 | 4 | 4 |
| Other contributed capital | 595 | 595 | 595 | 595 | 595 |
| Reserves | 2 | 1 | 3 | -19 | 8 |
| Profit brought forward including profit for the year | 355 | 443 | 476 | 509 | 488 |

| | | | | | |
|---|---|---|---|---|---|
| **Total shareholders' equity** | **956** | **1,043** | **1,078** | **1,089** | **1,096** |
| Long-term interest-bearing liabilities | 175 | 84 | 83 | 35 | 26 |
| **Non-current financial liabilities** | **175** | **84** | **83** | **35** | **26** |
| Current interest-bearing liabilities | 52 | 41 | 48 | 49 | 26 |
| **Current financial liabilities** | **52** | **41** | **48** | **49** | **26** |
| **Total financial liabilities** | **227** | **125** | **131** | **83** | **52** |
| Cash and cash equivalents | 40 | 23 | 28 | 19 | 11 |
| **Current financial assets** | **40** | **23** | **28** | **19** | **11** |
| **Total financial assets** | **40** | **23** | **28** | **19** | **11** |
| **Invested capital** | **1,142** | **1,145** | **1,182** | **1,153** | **1,136** |

## Appendix 12 – Good case scenario

| **Income statement forecast** | **2018** | **2019F** | **2020F** | **2021F** | **2022F** | **2023F** |
|---|---|---|---|---|---|---|
| **(EUR 1,000)** | | | | | | |
| **Net sales** | **111,879** | **123,471** | **136,196** | **149,751** | **164,075** | **179,329** |
| Cost of goods sold (COGS) | -40,917 | -41,980 | -44,945 | -49,418 | -52,504 | -57,385 |
| **Gross profit** | **70,962** | **81,491** | **91,251** | **100,333** | **111,571** | **121,944** |
| Employee benefit expenses | -26,188 | -29,016 | -32,687 | -35,940 | -39,378 | -41,246 |
| Other operating income | 6522 | | | | | |
| Other operating expenses | -31,075 | -34,572 | -38,135 | -40,433 | -44,300 | -48,419 |
| **EBITDA** | **20,221** | **17,903** | **20,429** | **23,960** | **27,893** | **32,279** |
| Comparable EBITDA* | **14,700** | | | | | |
| Depreciation and impairments | -2,501 | -2,000 | -1,500 | -1,250 | -1,250 | -1,250 |
| **EBIT** | **17,720** | **15,903** | **18,929** | **22,710** | **26,643** | **31,029** |
| **Comparable EBIT*** | **12,200** | | | | | |
| Tax rate | 22% | 20% | 20% | 20% | 20% | 20% |
| Tax on EBIT | -3,892 | -3,181 | -3,786 | -4,542 | -5,329 | -6,206 |

| | | | | | | |
|---|---|---|---|---|---|---|
| **NOPAT** | **13,828** | **12,723** | **15,144** | **18,168** | **21,314** | **24,824** |
| Net financial expenses, before tax | -168 | -3,016 | -2,355 | -1,783 | -1,077 | -105 |
| Tax shield (tax financial expenses) | 37 | 603 | 471 | 357 | 215 | 21 |
| **Net financial expenses** | -131 | -2,413 | -1,884 | -1,426 | -861 | -84 |
| **Net profit of the year** | **13,697** | **10,310** | **13,259** | **16,742** | **20,453** | **24,740** |

| **Balance sheet forecast** | **2018** | **2019B** | **2019F** | **2020F** | **2021F** | **2022F** | **2023F** |
|---|---|---|---|---|---|---|---|
| **(EUR 1,000)** | | | | | | | |
| **Intangible and tangible assets** | **4,780** | **4,780** | **4,632** | **5,175** | **5,423** | **5,813** | **6,357** |
| Goodwill | | 163,206 | 163,206 | 163,206 | 163,206 | 163,206 | 163,206 |
| Deferred tax assets | 114 | | | | | | |
| **Non-current operating assets** | **4,894** | **167,986** | **167,838** | **168,381** | **168,628** | **169,019** | **169,563** |
| Inventories | 22,114 | 22,114 | 23,460 | 24,515 | 25,458 | 26,252 | 26,899 |
| Trade and other receivables | 6,916 | 6,916 | 3,704 | 4,086 | 4,493 | 3,282 | 3,587 |
| Current tax assets | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Current operating assets** | **29,030** | **29,030** | **27,164** | **28,601** | **29,950** | **29,534** | **30,486** |
| **Total operating assets** | **33,924** | **33,924** | **195,002** | **196,982** | **198,579** | **198,553** | **200,048** |
| Trade payables | 6,148 | 6,148 | 7,408 | 8,172 | 8,985 | 9,845 | 10,760 |
| Other payables | 9,426 | 9,426 | 9,878 | 10,896 | 11,980 | 13,126 | 14,346 |
| Current tax liabilities | 1128 | 1,128 | 0 | 0 | 0 | 0 | 0 |
| Provisions | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Current operating liabilities** | **16,702** | **16,702** | **17,286** | **19,067** | **20,965** | **22,971** | **25,106** |
| **Total operating liabilities** | **16,702** | **16,702** | **17,286** | **19,067** | **20,965** | **22,971** | **25,106** |
| **Net operating assets** | **17,222** | **17,222** | **177,716** | **177,915** | **177,614** | **175,582** | **174,942** |
| Share capital | 8,040 | 107,830 | 121,832 | 136,429 | 153,870 | 174,253 | 175,958 |
| Reserve for invested non-restricted equity | 502 | | | | | | |
| Treasury shares | -315 | | | | | | |
| Translation differences | -49 | | | | | | |
| Retained earnings | 31827 | | | | | | 21,919 |
| **Total shareholders' equity** | **40,005** | **107,830** | **121,832** | **136,429** | **153,870** | **174,253** | **197,878** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Term loan A | | 55,125 | 38,524 | 24,127 | 6,385 | 0 | 0 |
| Term loan B | | 18,375 | 18,375 | 18,375 | 18,375 | 2,345 | 0 |
| Finance lease liabilities | 202 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Non-current financial liabilities** | **202** | **73,500** | **56,899** | **42,502** | **24,760** | **2,345** | **0** |
| Finance lease liabilities | 206 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Current financial liabilities** | **206** | **0** | **0** | **0** | **0** | **0** | **0** |
| **Total financial liabilities** | **408** | **73,500** | **56,899** | **42,502** | **24,760** | **2,345** | **0** |
| Cash and cash equivalents | 23,174 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 22,919 |
| **Current financial assets** | **23,174** | **1,000** | **1,000** | **1,000** | **1,000** | **1,000** | **22,919** |
| Available-for-sale financial assets | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| **Non-current financial assets** | **16** | **16** | **16** | **16** | **16** | **16** | **16** |
| **Total financial assets** | **23,190** | **1,016** | **1,016** | **1,016** | **1,016** | **1,016** | **22,935** |
| **Invested capital** | **17,223** | **17,223** | **177,716** | **177,915** | **177,614** | **175,582** | **174,942** |

| **Cash flow forecast** | **2018** | **2019F** | **2020F** | **2021F** | **2022F** | **2023F** |
|---|---|---|---|---|---|---|
| **(EUR 1,000)** | | | | | | |
| NOPAT | 13,828 | 12,723 | 15,144 | 18,168 | 21,314 | 24,824 |
| Tax shield | 37 | 603 | 471 | 357 | 215 | 21 |
| Depreciation and impairments | 2,501 | 2,000 | 1,500 | 1,250 | 1,250 | 1,250 |
| Change in net working capital | 1,549 | 3,127 | -674 | -536 | 1,276 | -37 |
| CAPEX | -1,073 | -1,852 | -2,043 | -1,498 | -1,641 | -1,793 |
| **Free cash flows to firm (FCFF)** | **16,842** | **16,601** | **14,398** | **17,742** | **22,415** | **24,264** |

| **LBO financing structure** | **EUR (1,000)** |
|---|---|
| Debt/EBITDA multiple | 5x |
| EBITDA* | 14,700 |
| LBO leverage | 73,500 |
| Equity contribution | 107,830 |
| Acquistion price | 181,330 |

| **Debt structure** | **EUR (1,000)** | **Share** | **Interest** | **Maturity** |
|---|---|---|---|---|
| Term loan A (TLA) | 55,125 | 75% | 3.978% | 5 |

| | | | | |
|---|---|---|---|---|
| Term loan B (TLB) | 18,375 | 25% | 4.478% | 6 |

| | |
|---|---|
| 5-year swap included in the interest rates | 0.198% |

| **Repayment schedule** | **2019F** | **2020F** | **2021F** | **2022F** | **2023F** |
|---|---|---|---|---|---|
| **Free cash flow** | 16,601 | 14,398 | 17,742 | 22,415 | 24,264 |
| Cash available after mandatory repayments | 5,576 | 3,373 | 6,717 | 16,030 | 24,264 |
| Cash after optional repayments of TLA | | | | 16,030 | 24,264 |
| Cash after optional repayments of TLB | | | | | 21,919 |
| **Term loan A** | | | | | |
| Repayment schedule | 20% | 20% | 20% | 20% | 20% |
| Beginning of the year balance | 55,125 | 38,524 | 24,127 | 6,385 | 0 |
| Mandatory principal repayment | 11,025 | 11,025 | 11,025 | 6,385 | 0 |
| Optional principal repayment | 5,576 | 3,373 | 6,717 | 0 | 0 |
| End of the year balance | 38,524 | 24,127 | 6,385 | 0 | 0 |
| **TLA interest payment** | 2,193 | 1,533 | 960 | 254 | 0 |
| **Term loan B** | | | | | |
| Repayment schedule | 0% | 0% | 0% | 0% | 0% |
| Beginning of the year balance | 18,375 | 18,375 | 18,375 | 18,375 | 2,345 |
| Optional principal repayment (bullet) | 0 | 0 | 0 | 16,030 | 2,345 |
| End of the year balance | 18,375 | 18,375 | 18,375 | 2,345 | 0 |
| **TLB interest payment** | 823 | 823 | 823 | 823 | 105 |

| **Debt/EBITDA covenant** | **2019B** | **2019F** | **2020F** | **2021F** | **2022F** | **2023F** |
|---|---|---|---|---|---|---|
| Covenant margin | 20% | 20% | 20% | 20% | 20% | 20% |
| EBITDA | 14,700 | 17,903 | 20,429 | 23,960 | 27,893 | 32,279 |
| End of financial liabilities | 73,500 | 56,899 | 42,502 | 24,760 | 2,345 | 0 |
| Realized Debt/EBITDA multiple | 5 | 3.18 | 2.08 | 1.03 | 0.08 | 0.00 |
| **Covenant** | **6.00** | **5.10** | **4.20** | **3.30** | **2.40** | **1.50** |

| **Acquisition date** | **01/01/2019** |
|---|---|
| **Entry EBITDA*** | **14,700** |
| Market capitalization at entry | 167,848 |
| Interst-bearing debt | 408 |

| | |
|---|---|
| **Entry EV** | **168,256** |
| **Entry multiple** | **11.446** |
| **Exit date** | **01/01/2024** |
| Exit EBITDA | 32,279 |
| **Exit EV** | **369,467** |

| **Investment return** | |
|---|---|
| IRR | 12.91% |
| Money-back multiple | 1.835 |

## Appendix 13 – Bad case scenario

| **Income statement forecast** | **2018** | **2019F** | **2020F** | **2021F** | **2022F** | **2023F** |
|---|---|---|---|---|---|---|
| **(EUR 1,000)** | | | | | | |
| **Net sales** | **111,879** | **118,437** | **125,313** | **132,146** | **138,839** | **145,499** |
| Cost of goods sold (COGS) | -40,917 | -45,092 | -47,710 | -49,555 | -50,676 | -53,107 |
| **Gross profit** | **70,962** | **73,345** | **77,603** | **82,591** | **88,163** | **92,392** |
| Employee benefit expenses | -26,188 | -27,833 | -30,075 | -31,715 | -33,321 | -33,465 |
| Other operating income | 6522 | | | | | |
| Other operating expenses | -31,075 | -33,162 | -35,088 | -35,679 | -37,487 | -39,285 |
| **EBITDA** | **20,221** | **12,350** | **12,440** | **15,197** | **17,355** | **19,642** |
| Comparable EBITDA* | **14,700** | | | | | |
| Depreciation and impairments | -2,501 | -2,000 | -1,500 | -1,250 | -1,250 | -1,250 |
| **EBIT** | **17,720** | **10,350** | **10,940** | **13,947** | **16,105** | **18,392** |
| **Comparable EBIT*** | **12,200** | | | | | |
| Tax rate | 22% | 20% | 20% | 20% | 20% | 20% |
| Tax on EBIT | -3,892 | -2,070 | -2,188 | -2,789 | -3,221 | -3,678 |
| **NOPAT** | **13,828** | **8,280** | **8,753** | **11,158** | **12,884** | **14,714** |
| Net financial expenses, before tax | -168 | -3,016 | -2,497 | -2,138 | -1,668 | -1,075 |
| Tax shield (tax financial expenses) | 37 | 603 | 499 | 428 | 334 | 215 |
| **Net financial expenses** | -131 | -2,413 | -1,998 | -1,710 | -1,335 | -860 |
| **Net profit of the year** | **13,697** | **5,868** | **6,755** | **9,447** | **11,550** | **13,854** |

| Balance sheet forecast | 2018 | 2019B | 2019F | 2020F | 2021F | 2022F | 2023F |
|---|---|---|---|---|---|---|---|
| **(EUR 1,000)** | | | | | | | |
| **Intangible and tangible assets** | **4,780** | **4,780** | **4,557** | **4,936** | **5,008** | **5,146** | **5,351** |
| Goodwill | | 163,206 | 163,206 | 163,206 | 163,206 | 163,206 | 163,206 |
| Deferred tax assets | 114 | | | | | | |
| **Non-current operating assets** | **4,894** | **167,986** | **167,762** | **168,142** | **168,214** | **168,352** | **168,557** |
| Inventories | 22,114 | 22,114 | 22,503 | 22,556 | 22,465 | 22,214 | 21,825 |
| Trade and other receivables | 6,916 | 6,916 | 3,553 | 3,759 | 3,964 | 2,777 | 2,910 |
| Current tax assets | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Current operating assets** | **29,030** | **29,030** | **26,056** | **26,316** | **26,429** | **24,991** | **24,735** |
| **Total operating assets** | **33,924** | **33,924** | **193,819** | **194,458** | **194,643** | **193,343** | **193,292** |
| Trade payables | 6,148 | 6,148 | 7,106 | 7,519 | 7,929 | 8,330 | 8,730 |
| Other payables | 9,426 | 9,426 | 9,475 | 10,025 | 10,572 | 11,107 | 11,640 |
| Current tax liabilities | 1128 | 1,128 | 0 | 0 | 0 | 0 | 0 |
| **Current operating liabilities** | **16,702** | **16,702** | **16,581** | **17,544** | **18,500** | **19,437** | **20,370** |
| **Total operating liabilities** | **16,702** | **16,702** | **16,581** | **17,544** | **18,500** | **19,437** | **20,370** |
| **Net operating assets** | **17,222** | **17,222** | **177,237** | **176,914** | **176,142** | **173,906** | **172,922** |
| Share capital | 8,040 | 107,830 | 117,792 | 126,494 | 137,533 | 150,215 | 164,890 |
| Reserve for invested non-restricted equity | 502 | | | | | | |
| Treasury shares | -315 | | | | | | |
| Translation differences | -49 | | | | | | |
| Retained earnings | 31827 | | | | | | |
| **Total shareholders' equity** | **40,005** | **107,830** | **117,792** | **126,494** | **137,533** | **150,215** | **164,890** |
| Term loan A | | 55,125 | 42,086 | 33,061 | 21,251 | 6,332 | 0 |
| Term loan B | | 18,375 | 18,375 | 18,375 | 18,375 | 18,375 | 9,048 |
| Finance lease liabilities | 202 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Non-current financial liabilities** | **202** | **73,500** | **60,461** | **51,436** | **39,626** | **24,707** | **9,048** |
| Finance lease liabilities | 206 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Current financial liabilities** | **206** | **0** | **0** | **0** | **0** | **0** | **0** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Total financial liabilities** | **408** | **73,500** | **60,461** | **51,436** | **39,626** | **24,707** | **9,048** |
| Cash and cash equivalents | 23,174 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 722 |
| **Current financial assets** | **23,174** | **1,000** | **1,000** | **1,000** | **1,000** | **1,000** | **722** |
| Available-for-sale financial assets | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| **Non-current financial assets** | **16** | **16** | **16** | **16** | **16** | **16** | **16** |
| **Total financial assets** | **23,190** | **1,016** | **1,016** | **1,016** | **1,016** | **1,016** | **738** |
| **Invested capital** | **17,223** | **17,223** | **177,237** | **176,914** | **176,142** | **173,906** | **173,200** |

| **Cash flow forecast** | **2018** | **2019F** | **2020F** | **2021F** | **2022F** | **2023F** |
|---|---|---|---|---|---|---|
| **(EUR 1,000)** | | | | | | |
| NOPAT | 13,828 | 8,280 | 8,753 | 11,158 | 12,884 | 14,714 |
| Tax shield | 37 | 603 | 499 | 428 | 334 | 215 |
| Depreciation and impairments | 2,501 | 2,000 | 1,500 | 1,250 | 1,250 | 1,250 |
| Change in net working capital | 1,549 | 3,932 | 153 | 296 | 1,840 | 656 |
| CAPEX | -1,073 | -1,777 | -1,880 | -1,321 | -1,388 | -1,455 |
| **Free cash flows to firm (FCFF)** | **16,842** | **13,039** | **9,025** | **11,810** | **14,919** | **15,380** |

| **LBO financing structure** | **EUR (1,000)** |
|---|---|
| Debt/EBITDA multiple | 5x |
| EBITDA* | 14,700 |
| LBO leverage | 73,500 |
| Equity contribution | 107,830 |
| Acquistion price | 181,330 |

| **Debt structure** | **EUR (1,000)** | **Share** | **Interest** | **Maturity** |
|---|---|---|---|---|
| Term loan A (TLA) | 55,125 | 75% | 3.978% | 5 |
| Term loan B (TLB) | 18,375 | 25% | 4.478% | 6 |

| | |
|---|---|
| 5-year swap included in the interest rates | 0.198% |

| **Repayment schedule** | **2019F** | **2020F** | **2021F** | **2022F** | **2023F** |
|---|---|---|---|---|---|
| **Free cash flow** | 13,039 | 9,025 | 11,810 | 14,919 | 15,380 |
| Cash available after mandatory repayments | 2,014 | 0 | 785 | 3,894 | 9,048 |

| | | | | | |
|---|---|---|---|---|---|
| Cash after optional repayments of TLA | | | | 0 | 9,048 |
| Cash after optional repayments of TLB | | | | | 0 |
| | | | | | |
| **Term loan A** | | | | | |
| Repayment schedule | 20% | 20% | 20% | 20% | 20% |
| Beginning of the year balance | 55,125 | 42,086 | 33,061 | 21,251 | 6,332 |
| Mandatory principal repayment | 11,025 | 9,025 | 11,025 | 11,025 | 6,332 |
| Optional principal repayment | 2,014 | 0 | 785 | 3,894 | 0 |
| End of the year balance | 42,086 | 33,061 | 21,251 | 6,332 | 0 |
| **TLA interest payment** | 2,193 | 1,674 | 1,315 | 845 | 252 |
| | | | | | |
| **Term loan B** | | | | | |
| Repayment schedule | 0% | 0% | 0% | 0% | 0% |
| Beginning of the year balance | 18,375 | 18,375 | 18,375 | 18,375 | 18,375 |
| Optional principal repayment (bullet) | 0 | 0 | 0 | 0 | 9,327 |
| End of the year balance | 18,375 | 18,375 | 18,375 | 18,375 | 9,048 |
| **TLB interest payment** | 823 | 823 | 823 | 823 | 823 |

| **Debt/EBITDA covenant** | **2019B** | **2019F** | **2020F** | **2021F** | **2022F** | **2023F** |
|---|---|---|---|---|---|---|
| Covenant margin | 20% | 20% | 20% | 20% | 20% | 20% |
| EBITDA | 14,700 | 12,350 | 12,440 | 15,197 | 17,355 | 19,642 |
| End of financial liabilities | 73,500 | 60,461 | 51,436 | 39,626 | 24,707 | 9,048 |
| Realized Debt/EBITDA multiple | 5 | 4.90 | 4.13 | 2.61 | 1.42 | 0.46 |
| **Covenant** | **6.00** | **5.10** | **4.20** | **3.30** | **2.40** | **1.50** |

| **Acquisition date** | **01/01/2019** |
|---|---|
| **Entry EBITDA*** | **14,700** |
| Market capitalization at entry | 167,848 |
| Interst-bearing debt | 408 |
| **Entry EV** | **168,256** |
| **Entry multiple** | **11.446** |
| | |
| **Exit date** | **01/01/2024** |
| Exit EBITDA | 19,642 |
| **Exit EV** | **224,826** |

| **Investment return** | |
|---|---|
| IRR | 8.87% |
| Money-back multiple | 1.529 |