



Consolidation in the Luxury Sector: Study of a merger between LVMH and Hermès

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Abstract

The current degree of globalization that characterizes most of the world's modern markets has created a fertile ground for the advent of focused, multinational groups of companies. The complexity of these entities presents itself both as a remarkable achievement in sociological terms but also gives way to new and challenging aspects that human rationality must explore, counting on its inherent curiosity. In this context, this thesis makes an attempt to tackle the problem of valuing multinational firms and providing a possible outcome to a hypothesized merger between two global players in the luxury sector: LVMH and Hermès.

The goal that this work proposes to achieve includes an analysis of both companies financial history, coupled with forecasted future performance and valuation as a means to infer on the potential synergetic effects that might arise from a merger. This is done by using methodologies that follow state of the art valuation approaches and are heavily supported by economic and financial theory, while still recognized by the top practitioners working in the areas of corporate finance and investment analysis.

The outcome of this study has yielded mainly two conclusions: the fact that, by the end of 2010, both Hermès and LVMH's stock seem to be overvalued by the market and that a merger would effectively give way to the creation of synergies, thus making it a sensible decision in economic and financial terms. In this sense, the share prices of LVMH and Hermès have been estimated at €118,83 and €126,26 per share, respectively, while the value of synergies was found to be approximately €10B.

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Glossary

€xxB	xx Billions of Euros (1B = 1.000M)
€xxM	xx Millions of Euros
APV	Adjusted Present Value
CAPM	Capital Asset Pricing Model
CFROI	Cash-flow return on investment
DCF	Discounted cash flow
EBIT	Earnings before interest and tax
EBITDA	Earnings before interest, tax, depreciation and amortization
EBT	Earnings before tax
EVA	Economic Value Added
Hermès	Hermès group of companies
IRR	Internal rate of return
KPI	Key performance indicators
LVMH	Louis Vuitton Moët Henessy group of companies
M&A	Mergers and acquisitions
MBO	Management buy-out
NPV	Net present value
p.p.	percentage points
WACC	Weighted Average Cost of Capital
xxk	xx thousands

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1. Introduction

The current economic environment among the developed nations, still living in the aftermath of an unprecedented financial crisis, and the emancipation of emerging economies, which are trying to become future economic powers, paints the scenery in which large multinational Groups such as LVMH and Hermès are navigating whilst in pursuit of their business goals. In this context, the objective of this thesis is to analytically study the effects of a possible merger between the two aforementioned companies in a financial perspective, while arriving at conclusive valuation values and other relevant findings along the way.

This work is divided in the following sections: literature review, companies' and industry overview, financial statement forecasts and assumptions, valuation results and conclusions and the analysis of the proposed acquisition.

In the literature review, modern valuation techniques will be presented and explored in order to highlight their advantages and disadvantages, whilst background on specific merger and acquisition theory will also be mentioned. In the following section, LVMH and Hermès will be qualitatively and quantitatively presented, focusing on their main business areas, market influence and past financial and market performance. This exercise helps to conduct the financial statements forecasting efforts made in the next section, which will also depend on inputs from external sources and a degree of macroeconomic examination and assumptions. Subsequently, using the results of each company forecasts, an attempt is made in order to achieve at an individual share price for each entity and to determine what differences in value arise from a merged entity without synergies versus one considering synergy effects. In the final section, particular transaction details will be discussed and an opinion formed on how to conduct the acquisition, pondering on whether to offer cash or stock and on how the payment medium will be financed.

2. Literature Review

2.1. Introduction to valuation

Why is “value” important? According to Luehrman (1997) how a company estimates value is a critical determinant of how it allocates resources. It comes without saying that proper resource allocation has a significant impact on a firm’s overall performance. In its turn, Damodaran (2002) states that every asset has a value, and the key to successfully investing and managing assets lies in understanding not only what the value is, but also its sources. As such, many modern valuation approaches aim at providing the best valuation estimates possible while also supplying some insight as to what drives that value, where it comes from and what can be done to maximize it, while minimizing risks. Following Damodaran (2005), there are four general approaches to valuation: discounted cash-flow valuations, liquidation and accounting valuation, relative valuation and contingent claim valuation. Moreover, every different variation of these approaches can be inclined to an equity or an enterprise perspective, where one tries to achieve a value for equity considerations and the other looks for an enterprise value for the company as a whole. While every one of these approaches values assets through a different lens, they are all bounded by underlying assumptions which can differ from approach to approach but that make each one best suited for a certain type of situation.

2.2. Discounted cash-flow valuations

Discounted cash flow (“DCF”) valuation relies on the assumption that an assets value resides in the ability it has to generate future benefits. In other words, its value comes from the expected cash-flows it generates. An important feature of this approach resides on the notion of present value, as first mentioned by Alfred Marshall and Eugen von Bohm-Bawerk (1907) and further explored by Irving Fisher (1907, 1930), whereby the time preference people have for capital now, and the investment opportunity principle that capital invested now will yield greater income in the future, is an important consideration in establishing the value of an asset. In broad terms, a DCF analysis considers that the value of a business equals its future expected cash-flows discounted to the present at an appropriate discount rate (Luehrman, 1997). Mathematically, this translates to:

$$PV = \sum_{t=0}^n \frac{E(CF)_t}{(1+k)^t}$$

where the Present Value (“PV”) is calculated by the sum of all expected future Cash Flows (“E(CF)”) for the period t divided by one plus the applicable discount rate k to the power of t . In this sense, the estimate of expected future cash flows is a crucial aspect of DCF analysis. As such, it will be estimated an “explicit period” of cash flows where particular effects on growth can be considered, which is particularly relevant in fast growing or young firms, and a “constant growth” period, which

assumes the firm has reached the end of its abnormal growth potential and will evolve at a constant pace from then on. Based on Jennergren (2008), the explicit period can be regarded as a period of transition, occurring during a turn-around or after a take-over, while the constant growth period is characterized by steady-state development. As far as the constant growth period is concerned, Koller, Goedhart and Wessels (2005) state that the explicit period should be long enough so that in the last year the company's growth rate is less than or equal to that of the economy. In this sense, they recommend 10 to 15 years of explicit period forecasts.

Fernandez (1999) states that the four most common DCF valuation approaches include the free cash-flow discounted at the weighted average cost of capital ("WACC"), cash flow to equity holders discounted at the return on the equity flows, capital cash flow discounted at the WACC before taxes, and Adjusted Present Value ("APV"). In line with modern trends in valuation models, Damodaran (2002) further distinguishes DCF models between total cash-flow and excess cash-flow whereby the former focuses on all cash-flows generated while the later considers that only cash-flows generated in excess of the required return are value creating cash-flows. Examples of mechanisms that rely on this type of model are Economic Value Added ("EVA") and cash flow return on investment ("CFROI"). As proposed by Bennett Stewart (1991), to calculate EVA operating profits must be netted from the cost of capital employed to produce those earnings and discounted in order to determine what excess return is being generated by current capital outlays. This methodology is faithful to the Net present value ("NPV") principle that states a project should be undertaken if it presents a positive NPV. CFROI however is based on the internal rate of return ("IRR") rationale but considers the gross investment and the life of the assets as the discounting horizon, therefore comprising past cash flows, serving also a useful tool to determine if a firm is deploying its assets well.

Due to the multinational, multibusiness nature of the companies considered in this paper, following Damodaran's (2009) suggestion, DCF methodologies will be used to determine the individual and joint values of both Hermès and LVMH, as these types of companies present the same variables that determine the value of any company (cash flows, the expected growth rate, how risky the assets are and the period of time before the firm becomes a stable growth firm). In this sense, the FCFE and APV methodologies will be used, given that the first is a well known and used methodology in the professional financial services industry and provides an estimate of value from an operational standpoint, while the second helps distinguish the contribution of side effects and financing options in the outcome (Myers, 1974). Additionally, relative valuation will also be applied in order to complement the other estimates and provide a market sourced perspective. It is also worth mentioning that being these companies large multinationals working in different sectors, due consideration must be given to the applicability of valuation methodologies to these situations.

2.3. Weighted Average Cost of Capital

The weighted average cost of capital (“WACC”) can be defined as the cost of different components of a firm’s financial structure weighted by their market value proportions (Damodaran, 2002). In other words, it is the company’s opportunity cost of funds as a whole, representing a blend of the returns required by the company’s debt and equity holders. It is one of the most used rates at which future cash flows are discounted to the present, in particular cash flows to the firm. The basic intuition for the use of this rate derives from the fact that free cash flows to the firm are available to all investors, thus they must comprise the risks borne by all of them (Koller, Goedhart and Wessels, 2005). A common definition of WACC is as follows:

$$WACC = \frac{D}{D+E} k_d (1-T) + \frac{E}{D+E} k_e$$

Hence, k_d constitutes the cost of debt which is then weighted by the proportion of debt D in the total value of the company $D+E$, while in similar terms k_e represents the cost of equity, in its turn also weighted by the amount of equity E in the firm’s total value. It is also assumed that the proportions of debt and equity are given in market values. Furthermore, note the term T , which refers to the marginal tax rate of the firm and serves to capture the positive effect of the tax shields deriving from debt financing, not accounted for in the determination of the free cash flows. According to the aforementioned authors, the effect of debt tax shielding is not directly considered in the free cash flow determination so that comparability of cash flows can be maintained between companies and a clearer focus on operating performance can be achieved.

In spite this WACC methodology is used by most companies as their workhorse valuation approach (Luehrman, 1997), there are a few drawbacks inherent to the formula presented which limit flexibility and ultimately can lead to significantly skewed results. First of all it assumes a target and constant debt to equity ratio, which is rather restrictive, as it is not the reality faced by many companies. Luehrman (1997) raises the issue that the WACC formula relies on the term $(1-T)$ to capture the entire effect of tax shields, thus comprising a big risk of error if their value is not perfectly estimated. In this sense, Fernandez (2007) also states that the correct calculation of the WACC rests on a correct valuation of the tax shields.

A lot of discussion concerning the correct definition and limitations of the WACC is present in theoretical literature. Farbera, Gilletb and Szafarz (2006) arrive at a general formula for the WACC that remains valid for any debt structure, either if we assume a constant debt level (implying that the required return of tax shields is equal to the return on debt k_d) as Modigliani and Miller first devised in their seminal paper, or if we assume a constant debt ratio, (implying that the required return of tax

shields is equal to the opportunity cost of capital k_a) as proposed by Miles and Ezzel (1980) and Harris and Pringle's (1985) models. On the other hand Fernandez (2007) argues that while the Farbera, Gilletb and Szafarz's general formula is correct in the event that the required returns are always constant, such as under the Modigliani and Miller assumption, it is not possible to derive a debt policy such that the appropriate discount rate for the tax shields equals k_a in all periods. Ultimately, the WACC formula could be reassessed every period to make up for a changing capital structure, but as Koller, Goedhart and Wessels (2005) suggest, in these cases an alternative method such as adjusted present value would be better.

Despite rather intuitive in nature, the WACC gives way to other problems of implementation, mostly linked to the distinction between book values and market values (Farber, Gillet, and Szafarz, 2006). For these and other reasons some authors might even go as far as saying that nowadays the WACC standard is obsolete (Luehrman, 1997) when compared to other tools that, with present computational capacity, provide better tailored approaches to the valuation of different types of assets.

2.4. Free Cash Flow to the Firm

The free cash flow to the firm ("FCFF") method uses the free cash flows generated by the firm, consisting in cash generated by its operations, after paying operational taxes, after expenditures for additional working capital and after capital expenditures (Jennergren, 2008). Thus, free cash flows are computed according to estimates of expected future earnings and the future cash flows principle, as described in section 2.2, is then applied, considering the WACC as the discount rate in order to obtain the present value of all cash flows. As the firm's operations are assumed to continue indefinitely, we must also account for cash flows not comprised in the explicit estimates and hence assume future operations will grow at a given rate. For this purpose, the Gordon growth model will be used, as the growth of both firms is assumed to stabilize after the explicit period:

$$TV = \frac{FCFF_1}{WACC - g}$$

Where the Terminal Value, TV , is the result of the $FCFF_1$ for the following year, divided by the difference between the discount rate, $WACC$, and the constant growth rate g .

The sum of explicit and constant growth periods' discounted cash flows results in the firm value. To this amount, debt must be deducted in order to conclude on a value for equity, as follows from the definition of firm value given by the sum of debt plus equity.

2.5. Adjusted Present Value

Adjusted Present Value (“APV”) while similar to WACC based methodologies because it also relies on valuing assets in place through future cash flows, intentionally separates financial strategies from operations and consequently adds the business fraction of the DCF analysis (Luehrman, 1997). This approach was first presented by Stewart Myers (1974) and proposes the valuation of the financial dimension separately from the business’ in an attempt to surpass the underlying assumptions and limitations inherent to a WACC approach, whilst providing clear information on what portion of that value comes from business or financial determinants. The first framework presented by Myers, however, stated only that the value of the levered firm equals the value of the company with no debt, plus the present value of tax saving (Fernandez, 1999). According to Damodaran (2002) this definition is incomplete as it discards the importance of bankruptcy costs, a detail also omitted by most practitioner of the APV methodology, in particular considering levels of debt where those costs are clearly different than zero. In this sense, a more formal definition of APV is then:

Present value of cash flows from operations:

$$PV_u = \sum_{t=0}^n \frac{E(FCFF)_t}{(1+k_u)^t} + \frac{TV_u}{(1+k_u)^n}, \text{ where } TV_u = \frac{E(FCFF)_{n+1}}{k_u - g_u}$$

With $E(FCFF)$ being the free cash flow to the firm, k_u the unlevered cost of equity and g_u the growth rate of free cash flows in perpetuity.

Present value of tax shields:

$$PV_{TS} = \sum_{t=0}^n \frac{D_t k_d t_c}{(1+k_d)^t} + \frac{TV_d}{(1+k_d)^n}, \text{ where } TV_d = \frac{D_t k_d t_c}{k_d - g_d}$$

D_t stands for the total amount of debt and is multiplied by the cost of debt, k_d , and the firm’s marginal tax rate t_c . Notice that the formula includes a component for the Terminal Value, TV_d , of the tax shields. This is a reasonable assumption if the tax shields are expected to grow at a rate g_d , requiring that the firm refinances its debt as its future cash flows grow (Luehrman, 1997).

Bankruptcy costs estimation:

$$PV_b = \pi_a BC$$

The present value of bankruptcy costs PV_b , is determined by the product of the probability of bankruptcy, π_a , and the total amount of those costs, BC . As abovementioned, under the present

framework bankruptcy costs must also be computed. Their calculation, however, presents a significant estimation problem. Damodaran (2002) suggests that the probability of bankruptcy can be determined by estimating a bond rating and using empirical probabilities of default for bonds with similar default probabilities. Bankruptcy costs on the other hand, are more subjective by nature, as they comprise direct and indirect effects. In this sense Damodaran cites a Warner study of railroad bankruptcies, where the direct costs amount to approximately 5% of firm value, while Brealey and Myers (2000) are supported by an Andrade and Kaplan (1998) study of a sample of troubled and highly leveraged firms, concluding on 10 to 20 percent of pre-distress market value estimated costs.

Another key aspect of APV valuation, and one that is not generally consensual in academia, is what discount rate to use for the tax shields (Copeland, Koller and Murrin, 2000). It can be argued that the company's ability to obtain the tax shields is mostly tied to the rate at which creditors are willing to lend money to the company, but concurrently the point can also be made that the unlevered cost of equity should be used, given the uncertainty of future shielding and the fact that tax shields are highly correlated with the firm's cash flows. Delving further in this issue, Fernandez (2007) builds on the defendants of the cost of debt approach such as Modigliani and Miller (1963), Myers (1974), Brealey and Myers (2000) and Damodaran (2006), as well as the proponents of the unlevered cost of equity, such as Harris and Pringle (1985) and Ruback (2002), to conclude that the value of tax shields depends on the debt policy of the firm, stating that when there is a fixed amount of debt, the cost of debt should be used, as opposed to when a leverage ratio is fixed at market value, which calls for a Miles and Ezzell (1985) perspective, discounting tax shields at the cost of debt for the first year and at the unlevered cost of equity from then on.

2.6. Risk parameters

In order to determine the price of an asset, fundamental economic theory provides the price setting model of supply and demand that serves as a foundation to all market based interaction between economic agents, the capital assets market being no exception. The current standard model for assessing an asset's risk and return relationship is the Capital Asset Pricing Model ("CAPM") (Damodaran, 2002) and as such this will be the model used in this thesis. Much of this model is accredited to Sharpe (1964) and Lintner (1965), in particular due to their contribution of introducing a riskless asset and its implications on the investment choices.

The general assumptions on which the CAPM relies are as follows: there are no transactions costs, all assets are traded, investments are infinitely divisible and there are no asymmetries of information (therefore no under or over-valued assets can be found). Consequently, the intuition of the CAPM comes from the fact that the ideal market portfolio would be a combination of all assets traded on the market. This is not a striking conclusion, knowing that with no transaction and monitoring costs, agents, while trying to diversify as much as they can in order to mitigate specific risk, will

eventually hold all assets available in the market. Another relevant aspect of the problem is investor's preference for risk. This factor is captured by the introduction of a riskless asset in which investors can allocate resources (such as a treasury bill with a certain return on investment) and also by the ability to borrow at that same riskless rate. Under these circumstances investors reflect their risk preferences in determining the proportion between the market portfolio and the riskless asset held.

In order to measure the risk of a particular asset, the model suggests measuring the risk that asset adds to the market portfolio. Hence, this approach will only capture the market risk component of the asset, while the specific risk will dilute to inexistence alongside the market portfolio. The logical conclusion follows that the amount of risk added to the overall portfolio must be equal to the market risk brought by the particular asset. Accordingly, this effect is captured by the covariance of the asset to the market portfolio, and the model requires a standardization of covariance in order to make that measure practically meaningful:

$$\beta = \frac{\sigma_{im}}{\sigma_m^2}$$

The name given to the result of the standardization procedure is the asset "beta". This equals the covariance between the asset and the market portfolio, σ_{im} , divided by the market variance, σ_m^2 . By this standard, assets which are riskier than the market will have betas above 1, while less risky assets will present betas below 1. Thus, an asset with a beta of zero is riskless in this sense. Beta, therefore, measures the marginal contribution of a stock to the risk of the market portfolio (Brealey and Meyers, 2003). As defined herein, beta is not independent of the underlying capital structure of an asset. Modigliani and Miller (1963) were among the first to hint the relationship between the unleveraged and leveraged beta, which is much alike their renowned Proposition II, but instead uses betas in the place of expected returns:

$$\beta_e = \beta_a + (\beta_a - \beta_d) D/E$$

The equity beta, β_e , is thus dependent on the difference between the asset and debt beta, $(\beta_a - \beta_d)$, weighted by the debt to equity ratio and finally added to the asset beta. The key implication of this relationship is that while financial leverage does not affect the risk or the expected return on the firm's assets, a rise in riskiness of equity is witnessed.

From this point on, the fact that the riskiness of an asset is linearly related to its beta allows for the expected return for an individual asset to be written as:

$$E(R_i) = R_f + \beta_i [E(R_m) - R_f]$$

where the expected return of asset i , $E(R_i)$, equals the risk free rate, R_f , added to the asset beta, β_i , times the market premium over the riskless rate, $E(R_m) - R_f$. In this formulation, three key inputs are necessary: i) the asset's beta, already defined above, and two other that are common to all companies in the same market, ii) the risk free rate and the iii) market premium.

i) The asset beta

The estimation of company betas is yet another topic of discussion among theorists and practitioners. Because betas cannot be directly observed in the market, regression models are often applied to historical data in order to estimate it. Koller, Goedhart and Wessels (2005) declare that the most common regression model relies on studying the stock's return against changes in the market return. Furthermore, the measurement interval of data to be used depends on the practitioner. Black, Jensen and Scholes (1972), advocate using five years of monthly data, while also suggesting grouping individual asset betas in order to estimate an unbiased beta of the portfolio. The five year period is also supported by Ross, Westerfield and Jaffe (2002) as accuracy of estimation is lost with too few observations, while a longer period might capture external effects on firms' activity (for example a shift in industry of activity). Brealey and Meyers, (2003) also sustain that estimation of betas of portfolios should be done as a whole, as errors tend to cancel out in this case. That is why financial managers often turn to industry betas.

ii) Risk free rate

The risk free rate is normally based on government long term, "risk free" bonds. In spite this being the industry standard, Koller, Goedhart and Wessels (2005) declare that ideally, each cash flow should be discounted using a similar maturity bond. Regarding the nature of cash-flows to be discounted, Damodaran (2002) proposes using a risk free rate that is denominated in the same currency of those cash-flows, as opposed to the risk free rate of the company's country of domicile. In the case of a non-existent government body which offers a risk free (i.e. no probability of default) bond, he provides three solutions: i) looking at the largest and safest firm in that market for its long-term borrowing rate and choosing a marginally lower value, ii) using interest rate parity equilibrium to determine the implied risk free rate if there are dollar denominated forward contracts on the country's original currency, and iii) adjust local government borrowing rate with the default spread implied in the country's rating.

iii) Market premium

The market premium is defined by the mark-up on the riskless rate that the market demands for a marginal increase in risk. Koller, Goedhart and Wessels (2005) state that it is seen as one of the most debated issues in finance and no particular model of estimation can claim widespread

acceptance. They do, however, put forward that by 2003, the market risk premium was marginally below 5 percent. Notwithstanding, there is consensus that the estimation of this mark-up should use historical data, although the values used by practitioners vary greatly, from 4 percent to 12 percent (Damodaran, 2002). Empirical studies have been made to the market risk premium, such as the ones conducted by Mehra and Prescott (1985) and Seigel (1998). In the first case, the authors have concluded with a surprisingly high rate of return of stocks versus short-term government securities, inferring that investors are very risk averse, while in the second case the author postulates that historical risk premiums may be significantly lower than what was previously thought, and closer to current practice for that matter, averaging about 5,3 percent for the 1802 to 1999 period.

Although widely used, the CAPM is still considered a rather imperfect model for determining prices in the capital market. Citing Kothari, Shanken and Sloan (1995), Fama and French (1996) advocate that size also contributes to the average return explanation provided by the asset beta. This is the case made by Brealey and Meyers (2003), when they compared value stocks with growth stocks (defined as stocks with a high and low ratio of book to market value respectively) concluding that former stocks have provided a higher long-run return than the later. This conclusion hints that the asset beta is not the only reason that justifies differences in expected returns. But then again, the two authors also allow room for the justification that by looking hard at past data on stock performance, it is probable that some strategy could be found which would have worked in the past, but would have disappeared as soon as it was discovered, as the market would correct for that inconsistency. This seems to be the case given that in recent years, growth and value stocks have under-performed approximately as often as they have over-performed.

Another criticism of the CAPM comes from the specific assumption that investors may borrow or lend any amounts of money at the riskless rate. Black (1972), states that this assumption is not a very good approximation for many investors and this would significantly change the model should it be relaxed. Furthermore, Roll (1977), adds that the CAPM cannot be tested empirically, as the market portfolio would need to contain every single possible available asset, (including stocks, bonds, commodities, real estate, etc.).

As a final note on the issue of estimating the cost of equity, two other models concurrent to the CAPM must be mentioned, the Arbitrage Pricing Model (APM), which stipulates that the return on an asset is totally encompassed in a set of factors and a random noise, and the Fama and French (1992) Three Factor Model, which uses a regression of a stock's excess returns on excess market returns, returns on small companies' stock over big stocks and the excess return of high over low book to market stocks.

2.7. Relative Valuation

Contrary to cash flow based valuation, which relies on a fundamental analysis of company historical financial statements in order to compute its intrinsic value, relative valuation uses comparable assets to establish benchmarks and through this way provide insight on whether a firm is under, or over, valued in relation to its peers. The general concept thus requires the definition of two critical factors: choosing the basis for comparison (in other words selecting the peer group which will serve as reference) and the normalization of a common proxy of price, often embodied by a ratio (multiple), in order to make the comparison with similar assets possible¹. The recourse to relative valuation is a common practice in the financial services industry. According to Damodaran (2002), almost all equity research and half of acquisition valuations use multiples. This is no surprise as a multiples approach can be completed far more quickly, and with fewer assumptions, than a DCF valuation. Additionally, multiples are easier to understand and therefore are more presentable to clients, also supported by the argument that they tend to reflect the current mood of the market.

Multiples used in relative valuation can be calculated from various sources, whether accounting measures, such as earnings and book values, or other values less related to book-keeping, such as revenue or sector specific multiples. The current practice in the financial services industry, however, tends to choose particular multiples in detriment of others. In this regard, a study carried out by Fernandez (2001) to the investment bank Morgan Stanley in Europe, concludes that the most used multiples are price to earnings ratios and EV/EBITDA.

Albeit much more immediate in nature, valuations using multiples present some drawbacks that require closer reflection. This is the case even with professionals in the finance industry, as some analysts are confused about what price-earnings ratios really mean and often use the ratios in odd ways (Brealey and Myers, 2003). In many cases, they use an industry average price to earnings ratio to compute a fair valuation according to a company's earnings. However, Koller, Goedhart and Wessels (2005), state that the use of the industry average overlooks expected growth rates, returns on invested capital, and capital structures. In this respect, a recommendation put forward by Kim and Ritter (1999) suggests that the use of forecasted earnings in computing multiples improves the valuation accuracy substantially. This conclusion comes from their analysis of 142 initial public offerings, according to which multiples based on this type of earnings outperformed those based on historical earnings. Another study carried out by Baker and Ruback (1999) compares the relative performance of some earnings and revenues-based multiples and provides theoretical and empirical evidence that absolute valuation errors are proportional to value. Even so, other problems can arise from the fact that

¹ Even though this describes the general approach, subsequent fine-tuning of the sample might be necessary in order to reconcile specific differences (e.g. different growth rates or capital structures) of each company so as to guarantee comparability.

multiples reflect the market mood which might be over, or under, valuing a particular industry for some reason. Furthermore, given that the underlying assumptions of multiples are often well hidden from investors, a partial financial advisor can feel more inclined to choose the multiples that better support his agenda.

Another feature that also makes multiples attractive is the complementary perspective they provide to DCF analysis. Kaplan and Ruback, (1996) conducted an empirical study of 51 highly leveraged transactions and concluded that the most reliable estimates for the market values at which they occurred were those obtained by using DCF and multiples together. In spite the fact that, in their paper, both authors concluded that multiples resulted in more variability than DCF results, they did provide some additional explanatory power and recommend using both approaches if possible. In this sense, Koller, Goedhart and Wessels (2005) propose that they can help test the plausibility of cash flow forecasts, explain performance mismatches between a company and its competitors, and support insightful discussions on whether the company is strategically positioned to create more value than other industry peers.

In conclusion, multiples can be helpful in aiding other types of valuation approaches (such as a DCF analysis) although knowledge of the potential pitfalls must be present while they are being calculated. If done right, they can even yield similar results to DCF models (Kaplan and Ruback, 1996).

2.8. Mergers and Acquisitions

Searching for alternative ways to generate value other than from organic, day to day operations, in recent decades the contemporary economic and regulatory environment has proven to be suitable for firms that seek opportunities through the acquisition of, or merger with, other companies.

Several reasons for the existence of mergers and acquisitions (“M&A”) activity in developed economies have been put forward. In a way, if the regulatory framework and financial culture present in the economy is suitable, often M&A is an answer to conflicts of interest between a company’s stakeholders, acting as a force of market discipline. In this sense it is an ever present concern for a company’s management, as such compelling decision-makers to behave and adopt sensible decisions or face an increased probability of takeover by a rival firm. The case can also be made if managing directors find that, due to their experience, value can be added by directly owning company shares themselves and thus controlling some or all voting rights (frequently these situations lead to management buy outs (“MBO’s”), which make up a portion of M&A activity). Some companies pursue acquisitions as a complementary strategy to their core business. Reasons for such behaviour can reside in depleted organic growth opportunities, access to valuable synergies and economies of

scale (Bradley, Desai and Kim, 1983), diversifying to reduce risk, strategic considerations such as market consolidation, possibly by forming monopolies or oligopolies (Andrade, Mitchell, and Stafford, 2001), or even as means to attain firm specific assets such as licenses, patents, etc. Other companies make the business of buying and selling shares their prime focus of activity. Such is the case of private equity firms, venture capitalist and even companies working in the financial services industry, which have specialized in helping other entities with M&A related issues.

However, not all the reasons abovementioned for the occurrence of mergers and acquisitions benefit from consensus in theoretical literature. Grossman and Hart (1980) refute the possibility that if a firm underperforms due to bad management, it is more vulnerable to takeover bids. They argue that shareholders can free ride on a raiding firm, effectively limiting its potential profit. In their turn, Ross, Westerfield and Jaffe (2002) consider diversification is a bad motive for M&A given that, by itself, no increase in value is produced. They support that even though only unsystematic risk can be diversified away, investor can diversify much more effectively than firms by purchasing stock in other entities. Although there are several reasons for the existence of M&A, Kaplan (2000) conducted an in-depth case study of a small number of mergers, verifying that a general patterns emerge: most M&A are associated with technological or regulatory shocks, a view that is also shared by Mitchell and Mulherin (1996).

According to Ross, Westerfield and Jaffe (2002), three legal procedures can be distinguished as ways a company can acquire another: i) merger or consolidation, ii) acquisition of stock and iii) acquisition of assets.

i) Merger or consolidation

In a merger the acquiring firm absorbs another company's assets and liabilities. In this case the acquirer's name and identity remain, as the target permanently ceases to exist as an independent entity. A merger must also be approved by the target's board of directors and consequently voted favourably by the target shareholders (Jensen and Ruback, 1983). In a consolidation, both the acquirer and the target merge and are deemed legally extinct in their previous configurations in order to create a newfound entity. In this situation, the stockholders of each firm receive stock of the new firm.

ii) Acquisition of stock

The direct acquisition of stock through a tender offer is yet another method of takeover, whether in exchange for cash, equity or other securities. A tender offer is a public offer to buy the outstanding stock of another firm at a specific price. In this sense, the acquirer seeks to publicise its intention directly to the target's shareholders, effectively bypassing its management and board of directors. For this reason, tender offers are used to carry out hostile takeovers (Damodaran, 2002). In these situations minority shareholder can sometimes refuse to tender thus preventing the target from

being completely absorbed. When this is not the case, however, many acquisitions of stock end up being a formal merger.

iii) Acquisition of assets

A final category of M&A consists in the acquisition of a firm's assets. By buying the assets, the acquiring firm does not need to deal with minority shareholders, even though transferring the title of assets can be costly.

Damodaran (2002) makes one more distinction of the types of M&A. He postulates that the firm can also be acquired by its management or a group of investors, sometimes changing from public to private hands. Acquisitions in this sense can be called management buy-outs if managers are involved, or leveraged buy-outs in case the funding comes from debt.²

Besides the types of acquisitions defined above, a classification can also be made in relation to the industry of both bidder and target, namely if it is a horizontal, vertical or conglomerate acquisition. If a firm acquires another in the same industry, effectively buying out a former competitor, the acquisition is said to be horizontal while if the target firm is in the same industry, but focuses on a different step of the production process, the acquisition is said to be vertical. If both firms are not related in terms of industry, the acquisition is reckoned as a conglomerate acquisition.

Concerning the specific case tackled in this thesis, which is to assess the financial implications arising from a possible combination between LVMH and Hermès, it must be mentioned that, by 31 December 2010, LVMH already owned 20.2% of Hermès share capital. This significant portion was acquired mostly through the settlement of equity linked swaps already in LVMH possession. Although relevant, based on past acquisitions the scenario studied herein will assume a tender offer for the remainder of Hermès' shares by LVMH.

2.9. M&A and value creation

A long-lasting topic of discussion amongst theorists is concerned with to which extent M&A processes create value as a whole (i.e. in aggregate terms). In this sense several empiric and analytical studies have been conducted in the past, each trying to shed some light on the value effects of M&A activity. Overall, conclusions brought by those studies still diverge significantly.

Moeller, Schlingemann, and Stulz (2003) examine a sample of 12.023 acquisitions by public firms from 1980 to 2001. They conclude that acquisitions announcements are associated with a

² Other types of takeover procedures exist that do not involve the direct acquisition of a company, such as proxy contests, where certain shareholders try to gain controlling seats on the board of directors by electing representatives through the help of proxies, which are sought from other shareholders and give the proxy holder the right to vote on their behalf in the shareholder's meeting.

decrease in aggregate shareholder wealth. However, this is only the case if a large firm is the acquirer, whereas considering only acquisitions by small firms, shareholders gain in the aggregate. In this sense, they propose that the most important variable in explaining variation in value creation is the size of the acquiring firm, stipulating that large firms tend to have more agency problems which lead them to make bad decisions. Andrade, Mitchell and Stafford (2001) on the other hand, look more closely to stock market responses to mergers and find that it is positive for the combined parties. Jarrell, Brickley, and Netter (1988), approach the issue from a possible redistribution effect of mergers. They question the assumption that gains to shareholders are mere wealth transfers from other stakeholders (bondholders, employees, etc.), and determine that is not the case, as almost no empirical evidence exist to sustain such hypothesis. Therefore, gains to shareholders must be real economic gains obtained from the efficient rearrangement of resources. Even if the aggregate balance of M&A is positive between bidder and seller, Jensen and Ruback (1983) say that evidence suggests the target's shareholders benefit from the transaction, while the acquirer's shareholders do not lose, a conclusion also supported by Mitchell and Lehn (1990). Concerning effective operational returns, Healy, Palepu, and Ruback (1992) examine post-merger operating performance for the 50 largest mergers between 1979 and 1984 and verify that merged entities witness improvements in asset productivity, conducting to higher operating cash flows than their industry peers. In the same sense, after surveying existing research on the area of M&A effectiveness, Bruner (2004) concludes that M&A clearly pay for the shareholders of target firms, while most studies on the combined result of bidder and target present a positive net value.

Although the studies abovementioned seek to ascertain the potential value creation of M&A, some authors propose post merger announcement returns may not be entirely related to the merger itself. Moeller, Schlingemann, and Stulz (2003), for instance, suggest the market can learn about a firm's internal growth opportunities and react negatively if more appealing organic growth prospects were expected. As a result, these types of effects might be enough to justify negative announcement returns even if a merger bears a positive net present value. Another consideration that must be mentioned is the type of payment used to complete a merger. Be it cash or stock, this factor was also found to be indicative of post-merger returns, as studied by Loughran and Vijh (1997). By looking at 947 acquisitions during 1970 and 1989, they concluded that cash based mergers have greater returns than mergers paid in stock.

2.10. Synergies

One major reason for the occurrence of M&A derives from the benefits brought by the synergies created. Synergy can be defined as the potential additional value that arises from combining two firms (Damodaran, 2002). Many times synergies justify the seemingly inflated premiums in corporate acquisitions. In their turn, the sources of synergies depend on the strategies and capabilities of a company (e.g. if an firm is the most efficient player in an industry, a merger with another

company will likely improve the second's return on invested capital, whilst if the strategy is to consolidate several small companies, cost reductions are the most immediate synergies to attain) (Ross, Westerfield and Jaffe, 2002).

According to academic literature, the potential additional value emerging from a combination of firms has to come from operational or financial sources. Within those areas, synergies can be divided in the following classifications: revenue enhancement, cost efficiency, tax benefits, and lower cost of capital. Revenue enhancement synergies refer to the advantages from sharing functional strengths (marketing capabilities for example can be shared in order to increase sales in a combined firm), from potential strategic benefits and from market power increases, resulting from reduced competition and higher market share. Cost efficiency is another probable benefit: economies of scale allow downsizing average production costs, complementary resources can be shared, or even increased efficiency can be reached from switching to more competent management. Tax benefits are somewhat more immediate synergies. They can be in the form of deductible tax losses, underused debt capacity or the employment of surplus funds. Debt capacity can increase due to more stability and predictability in operating cash-flows, while if a firm has surplus funding and is confronted with the choice of paying out dividends, buying back stock or acquiring another firm, the latter option often bears the less tax implications. Furthermore, on a financial point of view, a lower cost of capital can be reached as the cost of issuing securities (both debt and equity) is also subject to economies of scale. In addition to these types of synergies, the market attributes significant importance to other more questionable sources of synergetic advantages. These include earnings accretion and the diversification effects. Citing Sirower and Sahni (2006): “[...] short-term earnings accretion to the acquirer remains one of the most popular thresholds in judging whether or not to do a deal.” Earnings accretion basically means an increase of earnings per share of the acquiring firm that comes from the acquisition of firms with lower price to earnings ratios. As for the effects of diversifying to reduce risk, it is argued that more efficient diversification benefits can be gathered if investors individually diversify through traded stocks, as transaction costs are lower and price premiums are not weighing on stock prices.

In many past M&A processes very large premiums were paid on account of synergies. In this sense a key issue in analysing M&A opportunities resides on effectively estimating the value of those advantages. In practical terms, Damodaran (2005) recommends valuing the firms involved in the M&A process first as independent entities, then as a combined entity with no synergies and subsequently incorporate the expected impacts of synergies in a third valuation. Afterwards, according to Ross, Westerfield and Jaffe (2002), the reasoning behind overall estimation of synergies is the difference between the value of the combined firm V_{AB} and the sum of the values of the separate firms ($V_A + V_B$), such that:

$$\text{Synergy} = V_{AB} - (V_A + V_B)$$

As abovementioned, M&A history has witnessed large acquisition premiums being paid to selling shareholders. Since acquisition premiums are many times based on synergy potential, it is safe to assume that by paying a significant mark-up on the stock value of a company, bidders are effectively compensating sellers for synergies. The proposition made by Damodaran (2005) to think about the way synergy gains are shared acknowledges that they depend on specific attributes of both acquiring and target firms, and thus the division of synergy value must be tied to the uniqueness of the strengths the acquirer possesses and which are necessary to realize those synergies. It is this relationship that eventually determines the bargaining power of both parties in the negotiation process.

On a more practical note about synergies and their importance in the M&A market, there are a few common mistakes bidding firms make that lead them to overpaying in a transaction. Rock (1986) postulates a winners curse is present when a company overestimates potential synergies in a bidding process which leads it to offer the highest price. Since the offer price is inflated and is not based on value creation, the winning bid will be overstated. Grossman and Hart (1980) in their turn focus on a free-rider problem that exists in the presence of minority shareholders. When minority stakes cannot easily be bought-out after a takeover, those shareholders benefit from a combined entity with higher value if the price paid to shareholders who tendered did not comprise the whole value of synergies. This implies that shareholders will have no incentive to tender and, to convince them to sell, all synergy value must be paid. Finally, Roll (1986) looks at the human side of acquisitions and finds that often the acquirer's management overestimates its ability to generate and capture synergies and thus pay too much for their targets, a proposition he calls the "hubris hypothesis of corporate takeovers".

2.11. Payment methods

After synergies have been accounted for and an overall value has been settled, the last step of the bidding package relies on choosing the appropriate payment method. Industry standard methods are mainly cash or equity payments and choosing one over the other is an important decision given each presents advantages and disadvantages. Furthermore a combination of methods can also be used and cash can be raised by issuing debt or equity, hence providing a wider offer of forms of payment.

A review of studies concerning the impact of payment choice on market value of companies can provide some insight on the variables at play when making a payment decision. Faccio and Masulis (2005) study the European M&A market between 1997 and 2000 and realise that bidding shareholders with weak controlling positions in the acquiring company are more hesitant in using equity payments over cash. However they also find that stock financing is gradually more employed when measures of their own financial condition deteriorate. Martin (1996) examined the motives behind the choices of payment methods in M&A and concluded that stock payments are more likely if

the target firm presents more growth opportunities. While the same effect also happens with the increase in pre-acquisition stock returns of the acquiring firm, cash is more likely to be used when the acquirer has: i) more cash availability, ii) higher institutional shareholdings and blockholdings, and iii) in tender offers.

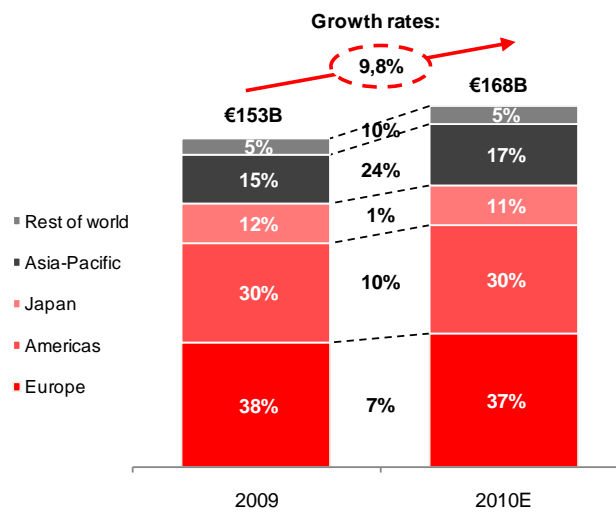
In theory, making the decision between cash or stock must also take into account the following considerations: the availability of cash in hand, the perceived value of stock and the tax implications that each method entails (Damodaran, 2002). For some companies, cash has been accumulated over the course of time, justifying its use as payment method. The perceived value of stock, however, might benefit the use of equity in order to raise cash or as direct payment, in particular if the buyer's management believes its own stock to be overvalued. In essence, the acquirer must weight if the risks and benefits of the deal should be shared with the target's shareholders (Koller, Goedhart and Wessels, 2005). If the acquirer desires target shareholders to remain involved in the company, a stock offer is best in transmitting that sentiment. On the contrary, a cash only payment withholds the future potential benefits of the merger in favour of the acquirers, given the target shareholders saw their interest in the company bought-out.

3. Company and Industry Overview

3.1. Luxury market analysis

Considering the current economic environment, in recent years the luxury goods industry has been clouded with uncertainty about its future. In theory, this effect is felt particularly in industries of this kind, bearing in mind the overall high income-price elasticity presented by consumers towards these types of products. Furthermore, according to a research report by Morgan Stanley, this industry is highly cyclical, as it is affected by consumer's discretionary spending patterns. In this sense, designer labels are making efforts to reduce seasonality by introducing inter-seasonal collections, hence bridging the classic Spring/Summer and Autumn/Winter collections in an effort to reduce sales fluctuations. According to Savigny Partners, these inter-seasonal collections tend to offer more commercial pieces than the main collections, often with more sensible price tags, and consequently now account for the bulk of sales of fashion brands.

Figure 1 - Luxury Goods Market by Region



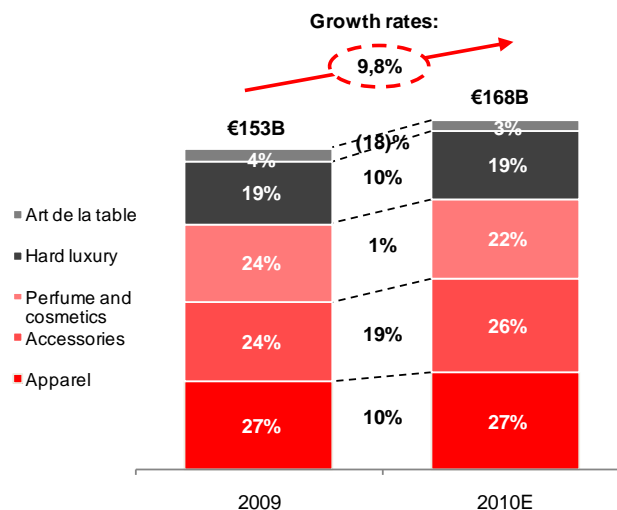
Source: Bain & Company

Concerning industry size and performance, by January 14, 2011, the bespoke luxury industry tracking index “Savigny Luxury Index”³, reported a total market capitalization by share value of € 182.120 M, whilst demonstrating a year-on-year price growth average of 62%. These values reflect various market forces and effects during 2010, explained by Savigny Partners as the result of strong sales growth across the sector, sustained benefits of cost control measures introduced during the crisis

³ The Savigny Luxury Index is an index promoted by the financial advisory company Savigny Partners, LLP which focuses on the luxury goods industry and tracks the stock of 14 major players: LVMH, Richemont, Swatch Group, PPR, Hermès, Coach, Luxottica, Ralph Lauren, Tiffany & Co, Burberry, Tod's Group, Bulgari, Ports and Safilo.

of the previous years and a fair amount of bid speculation. By that year's end, Bain and Company produced a report on the recent developments and trends in the luxury goods industry for Altagamma, Italy's trade association for the luxury industry. As can be witnessed in Figure 1, Bain & Co. estimates a 9,8% increase in market size from 2009 to 2010. In parallel, a relevant shift in weight by region is also seen, namely including a 2 p.p. increase of the Asia-Pacific markets, thanks to a 1 p.p. decrease in Japan and Europe. This trend is expected to continue, in particular with the prediction that China will become the third largest luxury market in the world within the next 5 years. As far as luxury categories are concerned, Figure 2 clearly shows 2 p.p increase of the Accessories segment, symmetric to the growth of the Perfume and cosmetics category. The remaining segments have retained their relative weights, thus allowing industry value to remain more or less well distributed between them. Another important distinction in this industry resides on the consumer gender distribution. In 2009, men accounted for about 38% of the market, while women remained the undisputed leaders in luxury spending with the remaining 62%. Overall, a general growth trend can be established in terms of regions and segments. The blooming economic development the Asia-Pacific region is currently experiencing and the deeper focus on already established luxury goods, such as bags and other accessories are the main drivers of the sector in the present moment.

Figure 2 - Worldwide Luxury Market by Category



Source: Bain & Company

Historically, however, the luxury goods market has witnessed a bumpy performance in the past few years. Based on EIU information, the early 2000's were disappointing, amidst terrorist attacks, a worldwide outbreak of SARS and the war in Iraq. Since 2004 until 2007, however, luxury customers regained the appetite for consumption, only to be again retracted by the financial crisis that surfaced a short distance down the road. This context made its way into 2009, when the market for luxury goods shrank by 8%. Only by the end of 2009 the industry started to regain its momentum,

which continued in 2010. Bain and Company's report estimates a 10% growth in the personal luxury goods sector for that year, making it the true year of recovery for the industry. As far as the future is concerned, emerging markets are currently driving much of the growth in the luxury business. Concurrently, Savigny Partners state that a watchful eye must be kept on menswear and internet sales, as men products are set to become a particularly interesting segment to explore in emerging countries, whilst the internet is simply not yet developed to its full potential in the fashion world.

In conclusion, 2011 promises moderate growth prospects in the European region: the aforementioned Bain report predicts 3% to 5% increase in sales, negatively influenced by a strong Euro and an expected increase in taxes within the Euro area, as most manufacturers are French or Italian and governments are faced with large budget deficits to deal with. On the other hand, another view expressed in a recent report by Goldman Sachs Global Investment Research shows that the high levels of cash balances typically held by luxury companies will allow solid growth strategies, mainly driven by investments in new stores, which translate into increased revenues, mergers and acquisitions and increased payout to shareholders. That research also emphasises the significant growth prospects in Asian countries (especially China and Japan), in particular regarding retail margins (up to 66,8% of gross margin in 2014) and share in total sales.

As this work was being written, relevant worldwide developments were underway which could bear significant impact on the luxury industry, such as the earthquake and subsequent tsunami that occurred in Japan. According to Reuters news agency, the stock of luxury goods companies has been severely hit by the tragedy, as fear of negative long-term effects on sales are haunting the sector. Company financial reports show that Japan accounts for approximately 9% and 19% of LVMH and Hermes' 2010 revenues, respectively, as a result contributing significantly to the overall performance of both companies.

Although 2010 was a good year for the luxury goods market, the future is more uncertain than ever given the impacts of unforeseen circumstances like the catastrophe in Japan and the feeble global economic recovery. The general consensus among industry insiders, however, rests on the belief that emerging markets are key to the continuous advance of the luxury lifestyle.

3.2. Company profile - LVMH

“The mission of the LVMH group is to represent the most refined qualities of Western “Art de Vivre” around the world.”

Bernard Arnault - Chairman & CEO

Headquartered in Paris, France, according to the EIU (2009) LVMH is the world’s largest luxury goods conglomerate acting in the retail sector. Its product portfolio includes over 60 brands, split into 5 categories: Wines & Spirits, Fashion & Leather Goods, Perfumes & Cosmetics, Watches & Jewellery and Selective retailing (please refer to Appendix 1 for a list of the main brands). The company presents itself as a very creative and high quality goods provider, counting on an established and notorious brand, one of its main differentiating assets. With its central focus on retail sales, by June 2010 the company had 2.468 directly controlled stores (up from 2.370 and 2.150 in June 2009 and 2008 respectively), and above 70.000 employees worldwide.

3.2.1. Product offerings

a. Wines & Spirits

The Wines & Spirits sector can be further divided in two branches: Champagne and Wines and the Cognac and Spirits branches. Included in the first division the Champagne wine denomination benefits from a Protected Designation of Origin (PDO) status, which is internationally accepted and grants this name only to wines produced with grapes from the French Champagne region. In this sense, champagne sales accounted for 83% of the 2009 revenues in this branch. LVMH is known for developing renowned high quality champagnes which, according to 2009 data, were produced in 1.675 hectares of self owned vineyards located in the Champagne region of France, providing a little more than one-fourth of the company’s annual needs, while the remaining stocks (mainly grapes and wines) are purchased from wine growers and cooperatives according to multi-year agreements. Due to the volatile nature of grape harvests each year, the company keeps significant bottle reserves in stock (as much as 4,6 years of sales by December 2009) and thus protects itself from lower harvest years, which can significantly impact sales for the following periods. Besides champagne production the company also develops and distributes quality still and sparkling wines from famous wine regions such as France, Spain, California, Argentina, Brazil, Australia and New Zealand. Regarding the Cognac and Spirits sub-segment, its contribution to the Wines and Spirits activity accounted for 50% of revenues in 2009. In this branch, LVMH offers a range of products from vodka to cognac and rum to baijiu (Chinese white liquor). As far as cognac is concerned, the company owns 179 hectares of vineyards, purchasing from a network of approximately 2.500 independent producers the remaining wines and “*eaux-de-vie*” necessary to meet production volumes.

The distribution of Wines & Spirits is primarily made through network of international subsidiaries, some of which are joint ventures with the spirits group Diageo.

b. Fashion & Leather Goods

The luxury Fashion & Leather Goods sector comprehends a group of mainly French brands but also includes Spanish, Italian, British and American companies, all of which rely on quality, authenticity and originality of design to be successful. One of the most recognized brands in this sector, Louis Vuitton, offers travelling bags, trunks, luggage items and accessories with leather as a material of choice for many creations. On the other hand, Fendi is another flagship brand focused on furs, but also presenting items in leather goods, accessories and ready-to-wear fashion. Other brands owned by the Group include Donna Karan, with ready-to wear lines, DKNY, with more casual clothing, Loewe, with very high quality leather work and other ready-to-wear items, Marc Jacobs, the brand name of Louis Vuitton's creative director engaged in fashion for men and women, Kenzo, with ready-to-wear clothing for men and women, fashion accessories, leather goods and home furnishings (its perfumes are covered in the Perfumes & Cosmetics business group), as well as many other brands specialized in ready-to-wear fashion, haute couture and footwear (please refer to Appendix 1 for a detail of company brands).

Depending on the brand, the Group uses a mixture of self-owned production facilities scattered between several countries and third parties, as a means to supplement production and achieve increased flexibility. One very important aspect of this business unit relies on the distribution network as it is crucial for the maintenance of distribution margins, close control of brand image and as point of contact with costumers. According to company data, overall, the use of subcontractors for Fashion & Leather goods made up approximately 32% of the cost of sales in 2009. In terms of raw materials, there is a strong dependence on outside suppliers, although the designers and style departments of each brand guarantee that production does not generally depend on patents or exclusive expertise owned by third parties.

c. Perfumes & Cosmetics

Major brands in the Perfumes & Cosmetics sector include Christian Dior, Guerlain, Givenchy, Kenzo, Acqua di Parma, Parfums Loewe, Make Up For Ever, Benefit Cosmetics and others, many of which combine perfumes, cosmetics, skincare and beauty products in their product offerings while others focus more on one a single product line. The fact that the Group possesses a significant number of brands allows for relevant synergies in this sector and constitutes a relational advantage, as this business unit relies heavily on design and advertising for its success. Furthermore, the use of shared services by subsidiary companies makes the support functions more effective and facilitates the

growth of more recent brands. Another key factor in Perfume & Cosmetics operations resides on research and development, necessary due to the fast product lifecycle, which also has been increasing in recent years, with new products being introduced faster in the market. For this matter, the LVMH Recherche was established, a consortium bringing together the various research entities of the Group's brands. The production of Perfumes & Cosmetics is predominantly done by in-house facilities for most of the French brands, while newer American companies, Loewe perfumes and Acqua di Parma subcontract most of their products' manufacture. In this context, in 2009 only around 5% of this business unit's cost of sales can be attributed to manufacture subcontracting. On the other hand, raw and subsidiary materials are acquired from external suppliers, whilst the product formulas are predominantly developed within the Group, in spite the ability for external purchases if necessary.

d. Watches & Jewellery

As the most recent business unit in the Group's core businesses, the Watches & Jewellery sector houses several high quality watches and jewellery brands like TAG Heuer, with its luxury sports watches and chronographs, Zenith, an upscale watchmaker, Montres Dior, which offers collections inspired by the designs of the fashion house with the same name, Chaumet, the prestigious historic jeweller from Paris, Fred, a designer more inclined to contemporary jewellery pieces, De Beers Diamond Jewellers, a joint venture formed in July 2001 aimed at the diamond jewellery segment, and Hublot, a young high-end watches brand, acquired in 2008. As far as production is concerned, the designs for the pieces are predominantly done in-house, though third parties can be used on occasion. Additionally, due to very high quality requirements, the components assembled are obtained from a limited number of suppliers, primarily Swiss, with the exception of the leather for the watch bands. The assembly is almost entirely made in the company's five Swiss workshops, with total subcontracting costs amounting to 4% of the cost of sales in 2009. In this sense, like in other business units this branch has also adopted a shared resources structure, thus taking advantage of prototype design, sharing the best investment practices, improving productivity and leveraging its position to attain better purchasing terms from suppliers.

In line with the Group's strategy the Watches & Jewellery is highly internationalized with presence in all European and American markets, northern Asia, Japan, and the Asia-Pacific region, although in spite of constituting an independent business unit in its own right, the branch accounted for only 4% of the total LVMH revenue in 2009.

e. Selective Retailing

The Selective Retailing segment is composed of specialized boutiques and serves a double purpose. Besides constituting another point of sale with a direct connection to the final consumer, it also serves to provide a suitable environment to showcase the group's luxury brands. In this sense, this branch is subdivided into two segments, namely travel retail and selective retail.

As the name suggests, the travel retail subdivision aims at providing luxury products to international travellers. This activity is linked and depends on tourism flows and as such presents a high degree of seasonality. DFS is a major player in this segment. It is an American group that pioneered the sale of luxury goods to travellers, particularly in the Asia-Pacific region, having started with airport duty-free concessions. Nowadays, the chain's strategy relies on voluptuous city centre "Galleria" stores, positioned in major airline destinations, which offer three complementary commercial spaces including general luxury products (perfumes, fashion and accessories, etc.), luxury boutiques (Louis Vuitton, Hermès and others) and a recreational and souvenir area. In spite that most of this chains' revenue comes from the Galleria stores, the maintenance of its approximately twenty airport store concessions in the Asian-Pacific, United States and Japanese regions is still deemed strategically relevant. Miami Cruiseline is another American brand working under the travel retail subgroup. As publicized by LVMH, it constitutes the world leader in the sale of duty-free luxury items on board cruise lines, with presence in over 80 ships. LVMH acquired this company in 2000 as an addition to the travel retail subgroup, from then on working to expand its geographic presence which was primarily Asian and now extends to American and European customers.

As previously introduced, the other subgroup of the Selective Retail branch bears that same designation. In this area there are also two chains of stores: Sephora and Le Bon Marché. The Sephora concept has evolved over the years to a perfume and beauty store format focused on direct access and customer assistance. Its current reputation enables Sephora stores to sell a number of selective perfume and cosmetic brands, while also offering products under its own name. In 2009 Sephora had 639 stores in Europe, 234 in the United States, 20 in Canada, 76 in Asia and 17 in the Middle-East, plus its online website. Le Bon Marché is a landmark department store located in Paris that was established in 1852 and bought by LVMH in 1998, with an upscale product offering.

As a final note, according to company data, in 2009 Selective Retail businesses accounted for 27% of total LVMH revenues.

f. Other activities

LVMH's activities that do not fall in the categories above presented tap other sectors of the economy. These include media communications, through the financial newspaper and website *Les Echos*, owned by the Les Echos group which was acquired by the Company in 2007, the literature publisher "Arléa" and the French radio station "Radio Classique". The Group also owns "La Samaritaine" riverside real estate complex, located in central Paris, and the "Royal Van Lent", a Dutch builder of luxury yachts, marketed under the "Feadship" brand, that manufactures vessels according to customers specifications, many measuring 50 meters or more.

3.2.2. KPI's

The past three years have been unpredictable for LVMH in terms of revenue evolution. In particular, 2009 witnessed a loss of sales momentum, much due to the effects of worldwide economic crisis. Consequently, from 2008 to that year a 0,8% decrease in sales was reported. On the other hand, in 2010 sales grew a staggering 19,2%, effectively reaching €20.320M by 31 December. Income from operational activity, as measured by EBITDA, had a similar behaviour and grew at 6,4% CAGR in the three year period considered, despite the 6,1% year-on-year decrease between 2008 and 2009. As far as EBITDA margins are concerned, an average margin of 23,6% is computed for the three years, although in 2010 it has improved to 24,4%.

Table 1 - LVMH Key performance indicators

LVMH - Key performance indicators				
€M	2008	2009	2010	CAGR
Turnover	17.193	17.053	20.320	5,7%
Gross margin	11.181	10.889	13.136	5,5%
<i>Gross margin (%)</i>	<i>65,0%</i>	<i>63,9%</i>	<i>64,6%</i>	
EBITDA ⁽¹⁾	4.113	3.862	4.954	6,4%
<i>EBITDA margin</i>	<i>23,9%</i>	<i>22,6%</i>	<i>24,4%</i>	
Operating profit	3.485	3.161	4.169	6,2%
Net profit	2.026	1.755	3.032	14,4%
Net debt ⁽²⁾	4.572	3.339	2.974	-13,4%
<i>Net debt / EBITDA</i>	<i>111,2%</i>	<i>86,5%</i>	<i>60,0%</i>	
Total assets	31.483	32.106	37.164	5,7%
Equity ⁽³⁾	12.804	13.796	17.198	10,3%
Closing share price in Dec. 31 (€)	47,77	78,38	123,10	37,1%
Earnings per share (€)	4,28	3,71	6,36	14,1%
Number of employees ⁽⁴⁾	77.087	77.302	83.542	2,7%

⁽¹⁾ EBITDA was computed by adding amortization expenses to operating profit.

⁽²⁾ Net debt comprises non-current loans and deposits, cash and cash equivalents and non-current and current borrowings and debt.

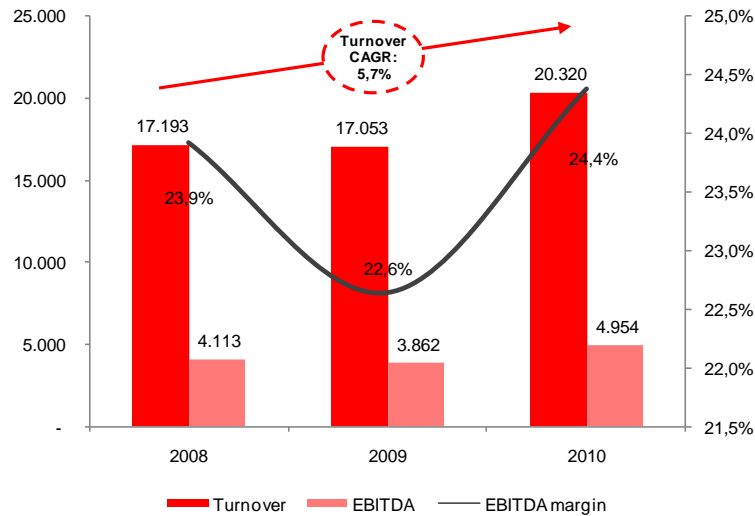
⁽³⁾ excluding minority interest.

⁽⁴⁾ including part-time workers.

Source: Company annual reports for 2009 and 2010 and Bloomberg.

Regarding book net debt values, a downward trend can be observed, much due to increasing holdings of cash and cash equivalents, but mainly given a contraction of non-current borrowings and debt from 2009 (€4.077M) to 2010 (€3.432M). As such, the net debt/EBITDA ratio has declined sharply from 111,2% in 2008 to 60,0% in 2010. In the stock market, the Group's share value evolution has been remarkable, considering a price per share of €47,77 by the end of 2008 and the €123,10 per share by the end of 2010 (a 37,1% CAGR). This behaviour is believed to be connected with solid results attained throughout the year, a delicate, yet positive, economic recovery and a fair amount of speculation over a possible merger with Hermès toward the year's end.

Figure 3 - Turnover & EBITDA evolution

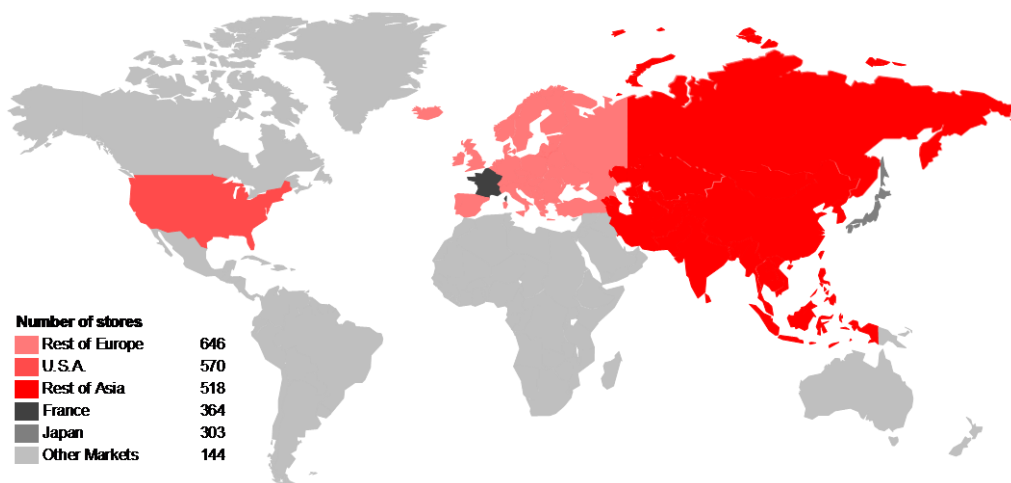


Source: Annual reports for 2009 and 2010.

LVMH enjoys direct worldwide presence through its network of retail stores, as illustrated in Figure 4. It can be seen that western developed countries have the strongest presence, namely the U.S.A., which alone accounts for 22% of the total number of stores, and Europe (including France), with a total of 1.010 locations (40% of the total).

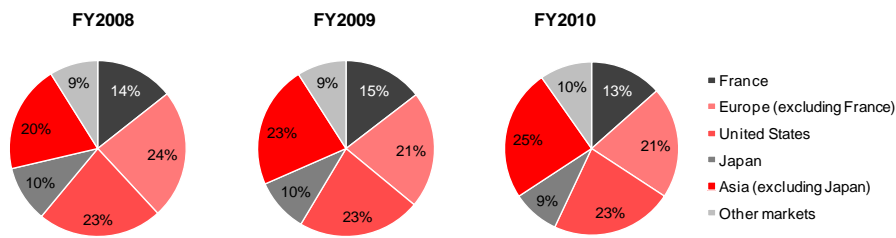
Notwithstanding, Japan also reveals a significant network with 303 stores, while other Asian countries, even though with only 20% of the total, are witnessing a significant increase in the company’s network in the past years. In this sense, according to Morgan Stanley Research’s estimates, this exposure to high-growth emerging markets will drive the company’s supernormal growth in the next five years.

Figure 4 - Store network at December 31, 2010



Source: LVMH Annual Report for 2010.

Figure 5 - Revenue by geographic region

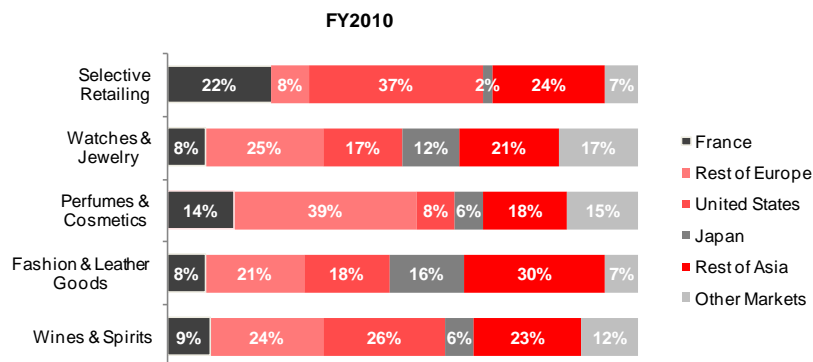


Source: LVMH Annual Report for 2010.

Looking at Figure 5, the distribution of revenue by region has clearly evolved from the Rest of Europe and Japan to the remaining Asian countries whilst France and the United States managed to keep their share in total revenues.

The revenue distribution shown in Figure 6 reflects the importance of regional inclinations to a particular sector. As such, Asian countries (excluding Japan) constitute a significant proportion of the Fashion & Leather and Wines and Spirits sectors, while Perfumes & Cosmetics are deemed more relevant in Europe, as Selective Retail is in the United States.

Figure 6 - Revenue by geographic region and sector



Source: LVMH Annual Report for 2010.

3.3. Company profile - Hermès

Founded in 1837 Paris by Thierry Hermès, a harness-maker, nowadays Hermès is still a closely held family business focused in the luxury goods industry. Since its inception, the company has managed to bolster its reputation as a fine leather goods and luggage maker and reach out to new markets, effectively turning into a multinational, multi-business group. In the present days the company is involved in fourteen different sectors: Leather Goods, Scarves, Ties, Men's and Women's Ready-to-Wear, Perfumes, Watches, Diaries, Hats, Footwear, Gloves, Enamel, Art of Living, Tableware and Jewellery. Much like other luxury players, Hermès relies heavily on its own distribution network to sell its products. By the end of 2009, the group had 304 exclusive stores and 21 other retail outlets around the world, with some products, such as watches, perfumes and tableware also being sold through networks of specialised stores, in airport duty-free stores and on board aircraft.

3.3.1. Product offerings

a. Leather Goods and Saddlery

Leather Goods and Saddlery has always been the core segment of Hermès' operations, a statement that holds true even today, accounting for 49% of Sales in 2009. Some of its products include handbags, luggage, diaries, small leather goods and equestrian items, craftily produced and designed by 2.000 leather workers in some ten workshops in Paris, Pantin and other parts of France.

b. Ready-To-Wear & Accessories

As the Group's second segment, Ready-To-Wear & Accessories represented 19% of consolidated revenues in 2009. This area can be subsequently divided into women's and men's ready-to-wear. In the women department, the renowned designer Jean-Paul Gaultier has been the creator of collections for Hermès' since 2004. In its turn, the accessories division offers a diversified selection of enamel and leather jewellery, shoes, belts, gloves and hats, all of which complement the Leather and Ready-To-Wear product offerings.

c. Silk and Textiles

The third sector in Hermès business divisions is called Silk and Textiles, accounting for 12% of 2009 revenue. The types of products present in this area include the world famous carrés (square scarves), ties as well as other scarf models produced in cashmere and silk.

d. Other areas

Although in a more residual proportion, Hermès also does business in other sectors that allow it to have a broader presence in the luxury consumer goods market. Areas such as Jewellery, with a particular emphasis in silver pieces, and the Art of Living segment, aiming at the luxury household,

with products for every room in the house from textile lines, decorative objects, baby gifts and toys, are starting to constitute another bastion of the Hermès lifestyle.

e. Products Distributed Through Specialised Retail Networks

In addition to the aforementioned segments where the products are sold through the Group's specialized distribution network, there are a number of other products bearing the Hermès brand that instead are distributed through specialised retail networks, namely Perfumes, Watches and Tableware. In the Perfumes area, the Group is known for its indomitable creativity and ongoing efforts to add exciting and beautifully made new products. In its turn, the Watches division is still young, however already being reckoned by costumers as an alternative to other famous names in the watches industry. Much like the Art of Living segment, Tableware again brings Hermès to the household through La Table Hermès, Les Cristalleries de Saint-Louis and Puiforcat collections, with products such as porcelain services, glasses, crafted crystal for bar and table, and silver pieces, from cutlery to highly sophisticated silver tea and coffee services.

f. Other Group Brands and Products

While the Hermès brand sits at the centre of the Group's reputation and business, there are also other brands and products under the Hermès world that nonetheless are fully aligned with the Group's identity. These include brands such as John Lobb Bootmaker, a Paris based high quality bootmaker, to products and services offered to third parties which rely on the experience and capacity Hermès possesses, such as Textile operations (design, colour and dye works, engraving, printing, weaving and fabrication), Tanning (specialized in purchasing, tanning, dyeing and finishing precious skins for high-end markets) and Interior Design. This last segment is committed to satisfy custom orders and establish partnerships, such as the project *Hélicoptère par Hermès* in 2009, which saw Hermès and Eurocopter (a French based Helicopter manufacturing company) work together to build a new vision of luxury helicopter travelling by means of innovations in interior and exterior design. Finally, Hermès also promotes the creation of partnerships with other affiliate brands from the luxury market, as for example Jean-Paul Gaultier in the *haut couture* market (in which the Group holds a stake of 45%), Les Tissages Perrin with weaving services for several purposes, the watchmaker Vaucher Manufacture Fleurier and WHY (Wally Hermès Yachts), which is the name of the partnership between Hermès and the Wally group.

3.3.2. KPI's

Hermès' business has seen solid turnover growth in the years comprehended between 2008 and 2010. In spite of the delicate economic context felt mostly during 2009, revenues achieved a year-on-year growth rate of 8,5%, reaching a whopping 25,4% in 2010. These results can be thus condensed in a 10,8% turnover CAGR for the three year period. An even better performance was seen at EBITDA level, as reflected by the 13,6% CAGR. EBITDA margins however slipped from 29,1% in 2008 to 27,9% in 2009, albeit a recovery to 31,4% in 2010. A particular feature of Hermès balance sheet structure resides on its net cash surplus condition. While this balance is positive throughout the period considered, in 2010 the surplus has nearly doubled to €824M when compared to €410M and €486M in 2008 and 2009 respectively. In this regard, the Group admittedly seeks an immediate and positive net cash surplus so that its development strategies can be pursued with total independence. Concerning Hermès' shares performance, 2010 was a positive year for the Group, bearing in mind the share price of €156,75 by yearend, in contrast with €93,31 in 2009 (which represented a negative evolution from €100 in 2008).

Table 2 - Hermès key performance indicators

Hermès - Key performance indicators				
€M	2008	2009	2010	CAGR
Turnover	1.765	1.914	2.401	10,8%
Gross margin	1.140	1.213	1.586	11,6%
<i>Gross margin (%)</i>	64,6%	63,3%	66,1%	
EBITDA ⁽¹⁾	514	534	753	13,6%
<i>EBITDA margin</i>	29,1%	27,9%	31,4%	
Operating profit	449	463	668	14,2%
Net profit	290	289	422	13,3%
Net cash surplus ⁽²⁾	390	465	800	
Total assets	2.326	2.441	2.919	7,9%
Equity ⁽³⁾	1.588	1.790	2.151	10,6%
Closing share price in Dec. 31 (€)	100,00	93,31	156,75	16,2%
Earnings per share (€)	2,76	2,75	4,01	13,3%
Number of employees	7.894	8.057	8.366	2,0%

⁽¹⁾ EBITDA was computed by adding amortization expenses to operating profit.

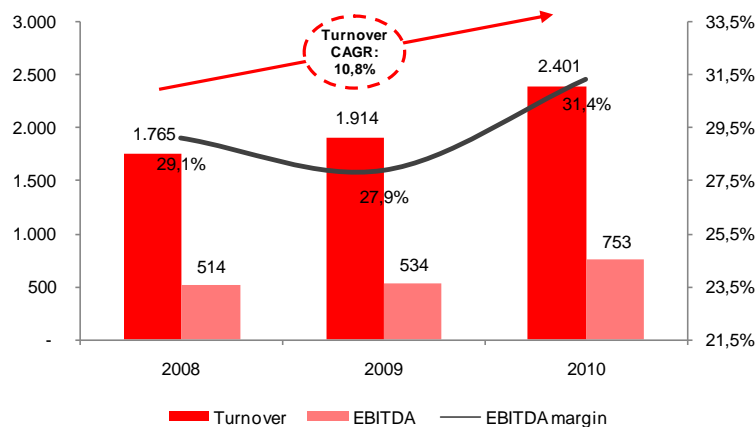
⁽²⁾ Net cash surplus comprises cash and cash equivalents and non-current and current borrowings and debt.

⁽³⁾ excluding minority interest.

Source: Company annual reports for 2009 and 2010.

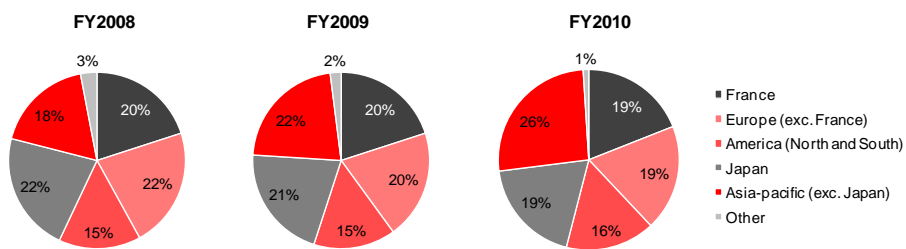
Focusing on the origin of revenues, much like LVMH, Asian countries other than Japan are rapidly gaining relevance, representing 18% in total revenue for 2008 while rocketing to 26% by 2010. Much of this behaviour is attributed to the vibrant economic growth in emerging Asian countries and strong investment in that region, with six new branches opened throughout the year. Continuing on a positive note, North and South America also managed to grow slightly in the Group’s total revenue, with 16% coming from this region in 2010 (1 p.p. increase from 2008). In contrast, home markets such as France and the rest of Europe have declined 1 p.p. and 3 p.p., from 2008 to 2010, respectively.

Figure 7 - Turnover & EBITDA evolution



Whilst absolute revenue carried on a constructive trend in this last year, the evolution was not enough to hold back other emerging regions from claiming a bigger slice of the pie.

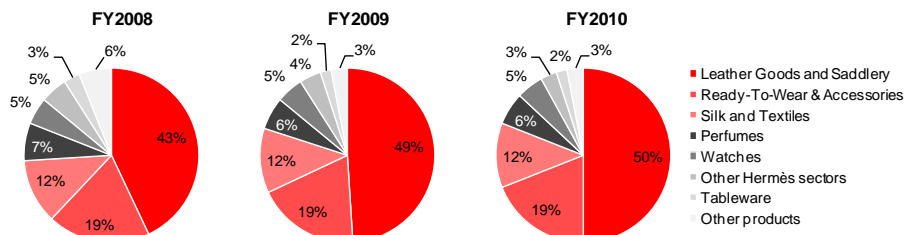
Figure 8 - Revenue by geographic region



Source: Annual reports for 2009 and 2010.

Figure 9 illustrates which sectors were the most significant in the Group's performance during the three year period from 2008 to 2010. Without doubt, the Leather Goods and Saddlery segment emerges as a clear winner in this case, with a strong performance leading it to account for 50% of total revenues in 2010, comparing to 43% in 2008. Regarding the remaining areas, the Ready to Wear, Silk and Textiles and Watches segments have managed to keep stable, whereas Perfumes, Other sectors, Tableware and Other products have all declined in relative terms to overall turnover in the period.

Figure 9 - Revenue by sector

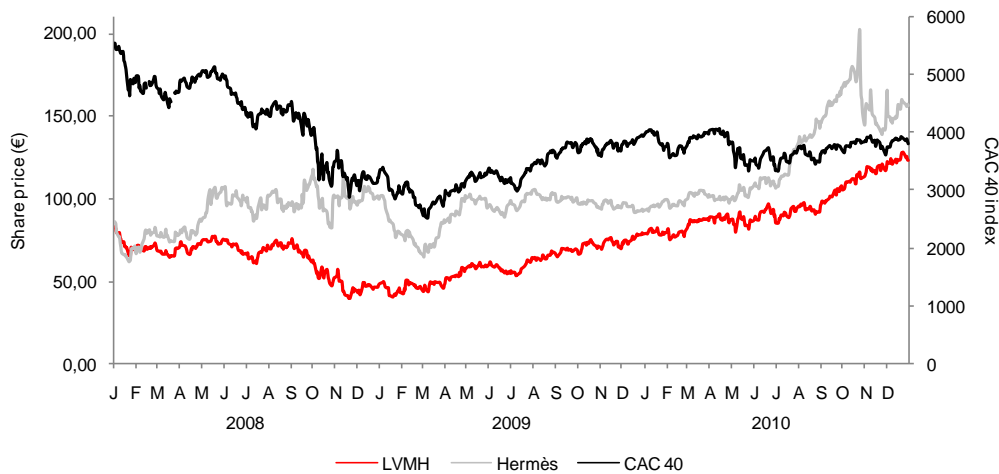


Source: Annual reports for 2009 and 2010.

3.4. Share price evolution

LVMH and Hermès are both quoted in the Euronext Paris stock exchange (Bloomberg tickers MC:FP and RMS:FP, respectively). Furthermore, LVMH is also present in the CAC 40, a French index that aggregates 40 of the most prominent companies listed in that country. The evolution of the two companies' closing share prices against the CAC 40 for the period between the 1st of January of 2008 and the 31st of December 2010 can be seen in Figure 10.

Figure 10 - Evolution of stock prices vs. CAC 40 index



Source: Yahoo finance.

One of the first striking aspects observed in the chart is the overall downward tendency of the CAC 40 index. On the contrary, the Groups performed well in this context, presenting a general upward slope. Between the two, Hermès attained the best performance, with 81% increase in price in the three years (22% CAGR), while LVMH achieved 49% (14% CAGR).

During 2008, the CAC 40 suffered a relevant decline as a consequence of the global financial crisis, reaching its lowest in March 2009 and timidly recovering from then onwards. During this period, LVMH and Hermès were also affected by the events that resonated throughout the developed economies, as a result also registering significant depressions in November 2008 and March 2009, respectively. Notwithstanding, from that point on, the stock performance of both Groups started to recover, with a particularly sustained ascent witnessed in the case of LVMH. By midyear 2010, the luxury sector was emerging as a strong contender for a fast recovery and future growth, especially in emerging markets. Accordingly, at that time, companies such as LVMH and Hermès were well positioned for strong performances in these regions, counting with a significant exposure and further potential to increase their presence. This is related to the fact that in these countries the luxury customer base recovered quickly from the crisis and has been increasing ever since. Around October 2010, the announcement that LVMH had accumulated up to 17,1% of Hermès' share capital through derivatives and direct stock acquisitions sparked rumours of a potential merger. This event is crucial in explaining the sudden peak observed in Hermès' stock price at the end of the year, as well as, to some extent, the more prominent slope seen in the case of LVMH.

In conclusion, LVMH and Hermès closing stock price at 31st December 2010 amounted to €123,10 and €156,75. Overall, both Groups' stock clearly managed to outperform the CAC by a considerable difference, noting that the index experienced a negative 12% CAGR for the three years.

4. Forecasts and valuation

4.1. Inflation

In order to determine the inflation rate to be used, according to Damodaran (2009), once a currency choice has been made, all estimates have to be consistent with that choice (including cash-flows forecasts). Thus, since the financial information for both firms are in Euros, it is reasonable to assume a measure of inflation directly related to that currency. For that purpose, inflation forecast data from the Economist Intelligence Unit was used up to 2015. From then onwards, 2% inflation for each year was assumed, closely corresponding to the value observed for 2015, as well as constituting the European Central Bank's target inflation rate.

4.2. LVMH

4.2.1. Revenue Growth

a. Wines & Spirits:

The Wines & Spirits segment accounted for 16% of revenues in 2010, which amounted to €3.261M (following a 12% drop from 2008 to 2009 and subsequent recovery of 19% in 2010). In 2010, the main markets for this business unit were the USA with 26% of revenue, followed by Europe (exc. France) and Asia (exc. Japan) with 24% and 23% respectively. In spite of the modest growth observed in the past three years (CAGR of 1,4%), this segment's exposure in these key regions will be enough to sustain a 9% CAGR expansion in sales until 2013, which will slowly stabilize to 3% in 2020. It is expected that emerging markets, including China, will play an increasingly important role in this segment, as consumers get more familiar with western lifestyle and drinks and the customer base expands⁴. According to LVMH's Annual Report for 2010, the growth strategy followed by this business unit will reside on a strong ability to innovate and substantial media and marketing efforts.

b. Fashion and Leather Goods:

Representing the biggest share of total revenue in the past three years (35% in 2008 and 37% in 2009 and 2010), the Fashion and Leather Goods segment is bound to remain strong and a key driver of global revenues. From 2008 to 2010, Asian countries (exc. Japan) have gained a 5 p.p. increase in this segment's relative weight, up to 30% making up the largest market for Fashion & Leather goods, followed by Europe with 21% and the USA with 18%. This trend is expected to continue and Asian sales should make up more of the segments share in the future. Retail sales have also increased in

⁴ In this respect, LVMH already has plans to plant its first vineyard in China, a project to be carried with a local state-owned company, and thus produce the first made in China high-end sparkling wine, to be sold locally under the Moët & Chandon label. (O'Connor, 2011)

relative terms to wholesale and licences and will continue to do so, in particular driven by economic recovery in the west and growth in emerging markets, accompanied by investment in new stores, production capacity and marketing efforts. A Morgan Stanley research suggests a CAGR of 10% until 2013, but Goldman Sachs estimates show that significant increases in urban population and addressable markets in China are expected, suggesting a global 16% revenue CAGR through to 2014. Nonetheless, current uncertainty on China's ability to sustain growth rates, supported on a low currency value, demands a more cautious approach. In this sense, a 14% overall CAGR until 2013 will be used, down to 5% in 2020.

c. Selective Retailing:

Selective Retailing operations rely heavily on high-end tourism routes. In this sense, the upcoming of new wealthy customers from emerging market has led to an increase in tourism, particularly in East Asian regions, such as Macao, Hawaii, Singapore and Okinawa, but also in the west, with more and more wealthy tourists coming in from Asian countries. Asian tourism flows, especially Chinese, will also play their part in the European market performance (Bain & Company, 2011). Moreover, brands comprised in this segment are investing heavily, with new Sephora stores being opened and the modernization of existing facilities as well as new and larger cruise ships that will benefit Miami Cruise Lines. DFS is also renovating several gallerias and has plans to open new stores in the South Asian region. The Selective Retailing unit is more prominent in the United States, with 37% of revenues in 2010, but Asian countries (exc. Japan) have become more important in the segment's performance, accounting for 24% of the segment's revenue in 2010 (an increase of 5 p.p. from 2008 to 2010). Also worth noting the Asian countries explosive growth of 42% from 2009 to 2010, a significant difference from the average 12% growth witnessed in other regions. Overall, this segment is expected to grow 10% in 2011, 9% in 2012, and 8% in the two following years, continuing to gradually decrease from then onward, with growth starting to stabilize by 2018.

d. Perfumes and Cosmetics:

Although the Perfumes and Cosmetics segment only represents 15% of total revenue in 2010, a 1 p.p. decrease from 2009, it registered a 12% growth in the same period. In this context the business unit was able to regain momentum and hold its position against other competitors in 2010, which put considerable investment in media and promotional activity. Notwithstanding, the short-term future will be characterized by strong competition and a very dynamic environment, with new fragrances and cosmetic formulas constantly being introduced in the market. In 2010, 39% of revenue from this segment came from Europe, the region that most likely will be dominant in the short future, but the emergence of Asia (exc. Japan), with an increase in 4 p.p. in revenue share from 2008 up to 18% in 2010, will probably keep realizing a larger cut of revenues, in particular with the growth of conscious and wealthy consumers and hefty investments in infra-structures, store networks and communication

in those regions. All considering, this segment will progress at relatively modest rates of 6% until 2015, mostly due to a relatively fragile market position of LVMH brands while facing strong competition from big high-end players such as L’Oreal, and Estée Lauder.

e. Watches and Jewellery and Other:

The remaining business units include the Watches and Jewellery and Other segments, which account for an average of 6,5% of total revenues in the past three years. The Watches and Jewellery unit grew a respectful 29% from 2009 to 2010, with 25% of revenue coming from Europe and Asia (exc. Japan) in second place with 21% (a 5 p.p. leap in relative weight in revenues from 2008). In this sense this unit expects to make serious investments in Chinese Asia and consolidate its position on the principal continents. Significant development is expected from some young watch brands such as Hublot, while the De Beers diamond brand also has strong potential for growth. In light of abnormal conditions that made the extraordinary growth in 2010 possible, the Watches and Jewellery and Other segments are assumed to witness a 7% CAGR until 2015.

4.2.2. Operating Margin

a. Wines & Spirits:

Operating margin for the Wines & Spirits unit posted a 1 p.p. from 2009 to 2010. According to LVMH’s Annual Report, this result was mainly due to a volume effect from sales. Concurrently, advertising and promotional expenses also increased, deriving from a greater focus on strategic markets, but were offset by tighter control of costs and a positive impact of exchange rate fluctuations. While some effects cannot be expected to endure in the future, such as the influence of exchange rates, operating margin is expected to recover a bit more from the 2009 low, up to 29% in 2011. From 2013 onward, a further 2 p.p. increase is possible from a consolidating position of several Wines & Spirits brands in emerging markets, thereby allowing for additional rationalization of operating expenses.

b. Fashion and Leather Goods:

In 2010, the Fashion and Leather Goods segment presents the highest operating margin in the last three years, an impressive 2 p.p. increase from 2009. Once again exchange rate impacts contributed to the better margin attained. Nonetheless, the Louis Vuitton brand enjoys a very strong position particularly in emerging markets, being considered Best Overall Luxury Brand in China by the “Hurun Report 2010 Best of the Best Survey”, a status assumed to be maintained in the future. Based on Morgan Stanley estimates, considering this brand alone represents about half of the segment’s operating profit and projects very high margins (in the order of 40% or more), overall sales

volume growth will support a 34% operating margin, which is believed to reach 35% for 2014 and after.

c. Selective Retailing:

In the past year, the Selective Retailing segment benefited from continued growth in Asian tourism and the positive impact of exchange rates, thus permitting a 1,5 p.p. increase in operating margin to 10%. This business unit is very dependent on luxury tourist consumers and strong investments being made in Asian tourism hubs will likely pay off from rising flows of wealthy Asian tourists. One other dimension of this segment is Sephora, which is investing heavily to remain a leader in developed countries and has ambitious growth prospects in emerging markets. Minding the effects of exchange rates in past years, operating margins in this segment will be of 10% in 2011, reaching the long term value of 11% in 2013.

d. Perfumes and Cosmetics:

In spite of a strong momentum originating from several brands within this business unit, such as Parfums Christian Dior, Guerlain, and Parfums Givenchy, a strong competitive environment will probably force operating margins to gravitate around the 12% level. This is a conservative approach when considering possible scale effects from larger distribution networks expected in the future, but some segment brands still have to consolidate their position and acquire more volume, especially in emerging markets.

e. Watches and Jewellery and Other:

With the acquisition of Hublot in 2008, the Watches and Jewellery unit added a premium brand to its portfolio, thus increasing exposure to higher price and higher margin products. Much of this effect helped the segment to bounce back to 13% operating margin in 2010. The Group's future strategy in this area is strongly focused on the two main luxury brands, Hublot and Tag Heuer, with intense investment in production, network expansion and marketing efforts. This posture will hopefully have a positive impact on operating margin, which is expected to rise to 15% in 2013, a performance also contingent to a successful expansion into emerging markets. The remaining areas of the Group's activity, comprised in Other, reported a negative margin of 35% in 2010, which will be used as reference for future years.

4.2.3. Capex and depreciation/amortization expenses

Historically, net book values for Property, plant and equipment have weighted an average of 34,8% of total revenues. While revenues are expected to continue growing at solid rates in the future, they are highly dependent on an appropriate fixed asset infra-structure. In spite of some economies of scale due to size, it is assumed they are too theoretical to quantify, and thus the ratio of fixed assets to revenue has been kept constant in the forecast period. Concurrently, average Depreciation and

amortization expenditures of fixed tangible and intangible assets recorder respectively 10,3% and 3,2% of total fixed assets in the past and therefore these ratios will be used to assess depreciation and amortization costs.

4.2.4. Debt and Financial Expenses

In order to estimate the forecasted capital structure for the company, the industry Debt / Equity was deduced from a set of industry peer companies. For this purpose, information including Debt / Equity ratios was collected from the Thomson ONE Banker database (results presented in Table 3).

Table 3 – Industry debt to equity ratio

	Debt / Equity
LVMH	30,2%
Hermes International	2,0%
Compagnie Financiere Richemont SA	11,3%
PPR SA	51,5%
Burberry Group PLC	23,6%
Bulgari	27,5%
Tod's Spa	12,3%
Tiffany & Co	31,6%
Polo Ralph Lauren Corp.	10,1%
Mean	21,2%
Median	18,0%

Source: Thomson ONE Banker

It is noteworthy that debt / equity ratios in the peer group vary widely, from a minimum of 2% in Hermès to 52% in PPR SA. Looking at the mean and median of the sample however, yields a close range between 21% and 18%. Hence the target capital structure will be 20% in the long run, starting from 30% in 2011, when a lot of investment is due to take place, and gradually reducing in the future. Concerning financial expenses for the year, the Group managed a slight decrease of cost of debt in 2010 comparing to the two previous years (from 5,6% in 2008 and 2009 to 5,1% in 2010) so 5,1% will be the applicable rate in the forecast. Given the solid balance sheet the Group is expected to have in the future, the interest coverage ratio will always remain above the 28x observed in 2010 and therefore no aggravation in debt costs is expected.

4.2.5. Income Tax Expenses

Historical Income Tax expenses for LVMH has averaged 30% of EBT in the 2008 to 2010 period, with a minimum of 27,8% in 2008 and a maximum of 30,7% in 2010. While the French statutory tax rate is 34,4%, the Group's annual report justifies the difference due to differences in rates for foreign group companies. For the purpose of this valuation, however, it is assumed that in the long term all income will be subject to the French tax rate, where the headquarters of the Group is located.

4.2.6. Net Working Capital

Net Working Capital was calculated including Trade Accounts Receivable, Other Current Assets, Inventories, Trade Accounts Payable and Other Current Liabilities. For each item a historical trend was established in order to assume a similar behaviour in the future. For Trade Accounts Receivable 31 days of receivables outstanding was used, while for Inventories an average historical Cost of Sales margin was estimated at 35,5% and then used to determine the total value of Cost of Sales for each year. The average days of inventories outstanding in the past three years was calculated at 330, which served as a basis for projecting future Inventory holdings. In the case of Trade Accounts Payable, the amount of days outstanding was derived using historical Operating Costs, yielding 55 days of Trade Accounts Payable which were used for the entire forecast period.

4.2.7. Cash and equivalents and dividend payout

LVMH's past dividend policy relied on steady distribution of dividends. In the past three years, the Group paid fixed dividends per share amounting to €1,60, €1,65 and €2,10 in 2008, 2009 and 2010 respectively. Dividend payments are also forecasted in the future. Nonetheless, fast growth rates will require a lot of investment, and because cash levels will be maintained around 10% of revenues (corresponding to the last three years' historical average) this is expected to impact dividend distribution. In other words, dividend payout will be driven by end-of-year cash reserves, and will be of 15% in 2011, progressively increasing to 70% in 2016 and eventually 80% in 2020.

4.3. Hermès

4.3.1. Revenue Growth

a. Leather Goods and Saddlery:

With astonishing 16,5% CAGR in the 2008-2010 period, the Leather Goods and Saddlery segment was the top performer of Hermès' segments in both 2009 and 2010, while also accounting for the largest portion of total revenues (50% in 2010). Solid sales environment in China, Macao and Hong Kong was responsible for an important share of this performance, with several new stores opened in these locations in 2010 (4 in China). Research estimates from the French bank Natixis suggest a 12% and 9% sales growth for the years 2011 and 2012. These are seemingly reasonable forecasts, although somewhat conservative given past performance and untapped opportunities in emerging markets. In this respect, Hermès' exposure to Asian counties (exc. Japan) accounts only for 26% of sales in 2010, contrasting with 30% for LVMH, indicative of underpenetration in those markets. In these conditions, around 12% growth is estimated until 2015, when momentum will start to cool off and growth to slide to 3% in 2020.

b. Ready-to-Wear & Accessories:

The second most important source of revenues for the Group (19% of total turnover in 2010), Ready-to-Wear & Accessories reported a healthy 24% growth in 2010, up from 7% in 2009. This business unit is believed to be strongly correlated to the Leather Goods and Saddlery segment, and thus is expected to have similar, albeit slightly inferior, growth estimates of 12% in 2011 reducing to 9% until 2015 and slowly decreasing every year, stabilizing at 3% from 2020 onwards.

c. Silk & Textiles:

Although representing only 11% worth of revenues in the 2008-2010 period, Silk & Textiles revealed solid growth in 2010 of approximately 25%. In spite of representing a less significant unit in the Group's portfolio, this segment is also important in future growth. The aforementioned Natixis forecasted estimates foresee around 12% yearly growth in this unit from 2009 to 2013, which was the value adopted in this case and is believed to continue until 2015, slowly decreasing afterwards.

d. Specialised distribution networks:

Products that carry Hermès' brands but are sold through distribution networks other than the Group's own boutiques accounted for 12% of revenue in 2010, following a decreasing trend since representing 15% in 2008. This segments' performance from 2008 to 2009 also observed a setback with a negative 9% evolution of sales, although recovering to 21% growth in 2010. This segment comprises the Perfumes, Watches and Tableware product lines, each with distinct growth potential. Watches in particular is expected to report stronger growth than Perfumes and Tableware, notwithstanding the fact that all three areas are still in their early development stages. In this sense, future growth rates are predicted to achieve 10% in 2011 to 2012, falling to 9% in 2013 and losing momentum from 2016 onwards.

e. Other Hermès Sectors and Other Products:

With only 7% weight in revenues, Other Hermès Sectors and Other Products were hit badly in 2009, a consequence of a 21% drop in sales, but managed to regain some ground in 2010, growing approximately 16%. Future revenue growth is expected to be positive, in particular if these segments' strategy efficiently leverages Hermès' reputation and aspires to increase brand recognition (an attitude already witnessed in John Lobb Bootmaker during 2010). Consequently, turnover is expected to grow at a solid 7% in 2011, starting to decline in 2015.

4.3.2. Operating Costs

The Group does not provide segment or regional information on Operating Costs and thus a segmented analysis is not possible. However, the nature of Operating Costs allows some confidence in forecasting these captions at a firm wide level.

a. Cost of sales:

Cost of Sales includes all sales commission, inventory impairments and losses, as well as the portion of depreciation directly allocated to production cost of goods sold. In this context it was assumed that the Group will consolidate a decreasing trend of cost of sales, witnessed in past years, in the order of 33% of revenue by 2011. From thereon out, no significant changes in the structure of Cost of Goods sold will occur.

b. Selling, Marketing and Administrative Expenses:

In the past three years, Marketing and Administrative Expenses gravitated around 34%. While marketing and sales support is critical to business performance, future performance in emerging markets is not believed to require an increase in the ratio that these types of costs represent in total revenue. Moreover, in future years, a volume effect will bring some economies of scale carrying significant impact on costs of this nature. Therefore, in order to include this effect, forecast values will drop 1 p.p. to 33% in 2011, reducing 1 p.p. more starting in 2014.

c. Other Income and Expense:

Other Income and Expense comprehends unspecified income and expense, cost of defined-benefit plans, net change in recurring provisions and other impairment losses. In total, these represented a meagre 1% of revenues in 2010 and thus will be kept constant at this rate.

4.3.3. Capex and depreciation/amortization expenses

By the end of 2010, Hermès had a worldwide network of 317 exclusive stores and other 21 retail outlets. This total evolved from 304 stores in 2009, representing a 4% increase. According to the Group's 2010 Annual Report, investments for that year were mainly aimed at developing the distribution network and expanding production capacity.

Much like the case of LVMH, future investments expenditures are critical to support the expected revenue growth rates. Historical fixed tangible and intangible assets represented an average 39% of revenue in the last three years and this ratio will be maintained in the upcoming periods. Concerning depreciation and amortizations expenses, future years consider past weight on tangible and intangible assets, which gravitated around 9%.

4.3.4. Debt and Financial Expenses

Hermès capital structure is characterized by a negative net debt situation. This means that the Group's cash in hand more than covers all outstanding financial debt liabilities. According to the 2010 annual report, the Group pursues a conservative treasury management, favouring high liquidity to adapt quickly to strategic factors. In this context, in 2010 the Group's book debt to equity ratio amounted only to 4,9%. Simultaneously, information available on past debt expenses does not allow

for an accurate assessment of the Group's cost of debt since it is presented netted from the effect of hedging instruments, which were responsible for a positive net financial result in the last three years. Consequently, in order to estimate future debt expenses, the effect of hedging instruments will be ignored and a synthetic rating approach will be used. Since the Group's cash covers all debt, its rating, mostly measured by the interest coverage ratio, will be the highest possible. From information based on Standard and Poor's ratings collected from Professor Damodaran's database (please refer to Appendix 2), Hermès' rating is AAA, thus implying an interest spread over the risk-free rate of 0,5%. Given that a large portion of revenues come from European countries (42% in 2010), the German Government's 10 year bond is used as a proxy to determine the base risk-free rate. According to the European Central Bank, by December 2010 this interest rate was of 2,91% and consequently the financial debt interest rate for Hermès is around 3,41%.

Regarding future debt, as mentioned before, because maintaining very low ratios of debt is an explicit strategic posture decision of the Group and a distinctive feature of management differentiation from the rest of the industry, the level of book debt / equity for 2010 (2%) will be maintained in the future.

4.3.5. Income Tax Expenses

Past effective tax rates for the Hermès Group have been very close to the French statutory tax rate of 34,4%. According to the 2010 Annual Report, the difference in rates is mainly justified by differences related to foreign taxes and permanent timing differences and transactions taxed at a reduced rate. As a conservative approach, starting in 2011 the tax rate used will be the French corporate income tax rate as stated.

4.3.6. Net Working Capital

Future Net Working Capital items, such as Trade Accounts and Other Receivables, Inventories, Trade Accounts Payable and Other Current Liabilities have been computed in the same as in LVMH's case. Hence, Trade Accounts Receivable were estimated at 27 days of revenue, while Trade Accounts Payable resulted in 48 days of operating costs. For Inventories and Work in Progress, 256 days of Cost of Sales was used. In its turn, Cost of Sales was based on the averages historical weight on revenues of 35%.

4.3.7. Cash and equivalents and dividend payout

In the years from 2008 to 2010, Hermès has paid an increasing dividend per share, from approximately €1 in 2008 to €1,5 in 2010. Accordingly, the payout ratio has been kept around 38% of the Group's share of net profit. At the same time, considering the aforementioned strategic decision to hold a considerable amount of cash in hand, past cash balances range from 27,5% to 35,2% of revenues in 2008 and 2010, respectively. As a reference to future dividend payout, cash balances will

be able to oscillate between 25% and 40% of revenues, allowing for a steady growth of the payout ratio. As a result dividend payout will be of 40% in 2011, increasing by 5 p.p. every year until 2019 when it will stabilize around 80% of net profit

4.4. Valuation assumptions and output

With the computation of the projected free cash-flows to the firm finally established, as explained in the literature review an appropriate discount rate was estimated to factor in the effect of the time value of money. In general terms, concerning the two cash-flow approaches adopted, namely the free cash-flow to the firm and the Adjusted Present Value (“APV”), the operating cash-flows were discounted according to the WACC and the equity cost of capital respectively, thus yielding the firm value. Afterwards, the Net Debt and Minority Interest were subtracted from the firm value in order to arrive at the Equity value.

Starting with the free cash-flow to the firm methodology, in order to compute the unlevered cost of equity deemed appropriate for the consequent calculation of the WACC, the Capital-Asset Pricing Model was employed. Initially, a set of levered betas for comparable players doing business in the luxury goods industry was collected from the Thomson ONE Banker database (for the samples collected please refer to Appendix 3). Because the peer companies’ betas included the effect of financial leverage, they had to be unlevered using the following formula:

$$\beta_u = \frac{\beta_l}{1 + (1-t) D/E}$$

where the unlevered beta β_u is a function of the levered beta β_l , the marginal corporate tax rate t and the debt to equity ratio of the company D/E . The resulting average for all unlevered beta’s was then found to be 1,012. Hence, this was the unlevered beta value adopted for all cash-flow valuations performed.

Other common valuation inputs used for both companies were the corporate tax rate, the market premium, the risk free rate and the terminal growth rate. In line with what was mentioned in the cash-flow assumptions for the projections, since Hermès and LVMH are considered French companies for tax purposes, the French statutory tax rate of 34,4% was used. Regarding the market premium, in the literature review it was already suggested this is a somewhat controversial topic, in spite relative consensus that it should be calculated based on historical data. That said, a market premium rate of 5% was considered a sensible estimate for this input, which is fundamental in the calculation of the cost of equity through the CAPM. Turning to the selection of a suitable risk free rate, following the reasoning advocated by Damodaran (2002) in the literature review, this rate should respect the base currency in which the cash-flows are denominated. For this effect, the German

Government's 10 year bond was selected and its yield of 2,91% for December of 2010 was obtained from the European Central Bank website. Finally, in order to determine the future cash-flows after the explicit period, the Gordon growth model considered a 3% constant growth rate, comprising a steady 2% increase in inflation assumed from 2020 onwards and an additional 1% real growth.

As far as the APV method is concerned, the inputs that weighted in its calculation, and were common to both companies, included the unlevered cost of equity, the cost of debt, the terminal growth rate, the probability of default and an estimate of the bankruptcy costs. Starting with the operating cash-flows to the firm, a terminal value for the years after 2020 was reached assuming the denominator as the difference between the unlevered cost of equity (8,4%) and the constant growth rate (3%). As theory requires, the operating cash-flows calculated where then discounted at the unlevered cost of equity. Afterwards, the tax shields were figured out by multiplying the interest expenses with the tax rate. Tax deductible interest expenses were also considered in the future, and are expected to grow in similar terms to the Group's long term growth rate of 3%. As for the selection of an appropriate discount rate for the tax shields, in the literature review it has been argued this is a widely debated issue. The approach assumed for the present valuation has taken into account that capital structure is fixed in any given year, meaning the amount of debt is rebalanced in each period in order to follow changes in the value of equity. According to Brealey and Myers (2003), in this situation interest tax shields are dependent on the firm's business risk and consequently, at first sight, the cost of equity should be used to discount them. By taking a closer look on how interest is computed, however, it is noticeable that in every given year, when the debt level is established, the following year's interest tax shield is fixed. This implies using the approach defended by Miles and Ezzell (1985), whereby the cost of debt is used to discount the first year of interest tax shields while using the cost of equity for the remaining years. In this context, Brealey and Myers (2003) suggest discounting all tax shields using the cost of equity and afterwards correcting for the effect of a different discount rate for the first year by multiplying with the equation:

$$\frac{(1 + k_u)}{(1 + k_d)}$$

where k_u is the unlevered cost of equity and k_d is the cost of debt. The final step in computing the APV involves assuming an estimate for the cost of financial distress. Based on the literature review, a 10% of total firm value has been assumed in case of default, with a probability of default of 0,5% arising from both firm's debt rating.

With the main valuation frameworks described, the next step deals with each company's specific valuation details and its results.

4.4.1. LVMH

a. Free cash-flow to the firm

As opposed to Hermès, LVMH makes debt a significant source of capital. When computing the individual firm's cost of equity, the 20% debt to equity ratio derived before was used, resulting in a levered beta of 1,23 and a levered cost of equity of 9,08%. Observing LVMH's past financial statements, the cost of net financial debt over net debt always gravitated around 5,5%, dropping to 5,1% in 2010. For that reason, due to the consistency of the implicit interest rates, the 5,1% cost of debt is assumed as reasonable to calculate the WACC, which was found to be 8,12% (respecting the same capital structure). It is important to note, however, that LVMH does not achieve the target debt to equity ratio of 20% already in 2011, as it was postulated the company's capital structure changes until 2014 to reach that level. In this sense, the correct procedure in order to value the company should involve the calculation of a WACC rate for every year the capital structure changes. For the sake of simplicity in this valuation, however, the change in capital structure throughout the years is not deemed to be significant enough as to severely impact the final results in case only the target WACC is used.

Combining all the pieces, discounting the operating cash-flow of LVMH at the WACC reveals an enterprise value of €60,6B, to which the net debt of €2,9B and minority interest of €1B is deducted. The resulting equity value is thus €56,6B corresponding to €118,83 per share, with approximately 476,8M shares outstanding at the end of 2010. Comparing with the market price of €123,10, according to this valuation there is a potential downside of 3,5% at that time.

b. APV

The adjusted present value results vaguely differ from the results obtained in the free cash-flow to the firm valuation because of the use of a single WACC rate in that case. When applying the APV approach, the main parameters were adopted as described before. As such, the total value of the tax shields is €500M, which together with €30M of projected costs with financial distress and €57,4B of operating cash-flows discounted at the unlevered cost of equity indicates a price per share of €112,69 (€53,7B of equity value). With the market price of €123,10, the downside potential in this case is 8,5%.

4.4.2. Hermès

a. Free cash-flow to the firm

The case of Hermès is more specific because the company has no net debt and is not likely to contract debt in the future, at least while it is working with the current management philosophy. In this situation, a valuation using the WACC is equivalent to valuating the company's operating cash-flows at the cost of the unlevered equity. Hence, the resulting enterprise value from the free cash-flow to the firm approach amounts to €12,5B, which must be adjusted by the net cash balance of €801M and deduced by €13M of minority interest to arrive at €13,3B (€126,26 per share, based on about 105M shares by the end of 2010). By the end of December 2010, the market valued each Hermès share at €157,75, thus resulting in a 19,5% downside potential considering this valuation.

b. APV

The purpose of the APV approach is to separate the operational effects that impact a firm's value from the financial considerations. With Hermès, this approach is rendered useless in the sense it is reduced to the free cash-flow to the firm methodology because the company has no net debt.

On a final note about the individual valuations of LVMH and Hermès, the current share market prices clearly seem to be overvalued when compared with the results obtained in this work. One possible explanation for this fact has to do with a lot of speculation over a possible acquisition of Hermès by LVMH in the end of 2010, inflating both Group's share prices.

4.5. Valuation of the Merged Entity without synergies

In theory, the Merged Entity without synergies is a simple combination of both LVMH and Hermès. In practical terms, a line by line aggregation of both companies' financial statements is done in order to build the basis for the cash-flow statement of the new entity. In this process, the risk of double counting some financial items (such as sales and accounts receivable/payable) is always present, in particular if both companies do a lot of business with each other. Given this context, these so-called "intra-company transactions" should be eliminated, as they would be generated internally in case of a merger and therefore would influence the overall performance of the consolidated entity. An applicability problem occurs when, in the real world, information on these types of transactions is not available, which is the reality in this case. As a consequence, intra-company transactions are normally ignored, and that was the posture adopted in the present analysis.

As could be expected, the addition of each company's financial statements produced the aggregate operational cash-flows of each individual cash-flow statement. In order to determine the WACC, some inputs are common to the individual valuations, namely the unlevered equity beta (1,09), the unlevered cost of equity (8,4%), the risk free rate (2,91%), the market premium (5%), the

tax rate (34,4%) and the terminal growth rate (3% including inflation). Regarding the cost of debt, a method borrowed from Damodaran (2005) was used, involving an average of each firm's cost of debt weighted by the enterprise value amount they represent in the aggregate scenario, turning out to be 4,8%. The debt to equity structure of 16% also derives directly from each firm's values, and consequently the levered beta was estimated at 1,2, yielding a levered cost of equity of 8,94%. The WACC is then 8,13%, giving way to a free cash-flow to the firm valuation of €74B (enterprise value), down to €70B of equity value. Again, the APV valuation was slightly below the free cash-flow to the firm approach, revealing €70B of enterprise value, meaning a total equity amount of €67B.

4.6. Valuation of the Merged Entity with synergies

4.6.1. Operating synergies

a. Pricing power

The combination of Hermès and LVMH will create the largest player ever to participate in the luxury goods industry. Morgan Stanley (2010) comments on the importance of size in the luxury business by stressing that: "Big is becoming more beautiful." and "[...] size will become a dominant theme within luxury over the next five years.". In this sense, they support that, more than just aggregating both Groups' market shares, a larger Group is expected to boost brand awareness and promote tighter pricing policies, effectively exerting more influence on the market. As far as pricing is concerned, LVMH's experience and close relationship with the customer, facilitated by its self-owned retail network, made a tighter control of prices possible and enabled brand-wide pricing decisions to be coherently implemented in the past, resulting in greater pricing power (as an example, during the financial crisis of 2008-2009, Louis Vuitton did not offer promotions in order to clear stock, contrary to many industry players). While Hermès also monitors closely its pricing positioning, it is expected that a concerted, Group-wide pricing strategy will bring more consistency and allow more market power in this sense, translating into a 0,25% increase in margins of Profit from recurring operations.

b. Expansion into emerging markets

In the Luxury Market Analysis (see section 3.1) the point was already made that emerging markets (especially China) were very important to the industry's development strategies in the upcoming years. Regarding strategic focus and store base expansion, Hermès is still trying to catch up with the Chinese consumer base and is well positioned to witness strong growth in this market (J. P. Morgan Cazenove, 2011). With the advent of a merged Group, joint efforts made in order to tackle emerging markets will prove more successful. Consequently, the process of opening new stores will happen quicker. Market analysis, searching for local partners, scouting, preparing and acquiring new prime venues will be activities performed with much more efficiency. As investments in new stores

will happen quicker, projected growth rates will be a little higher, assumed to happen sooner and be present for a longer period, while capital expenditures will also increase in order to follow that rhythm and maintain the same fixed assets to revenue ratio. This will happen not only in China but also in other high-potential emerging markets, such as the rest of Asian and Latin America. In practical terms, increases of 0,2% and 0,3% are anticipated in 2012 and from 2013 to 2017, respectively.

c. Cost reductions related to store networks

By 2010, LVMH had 1.188 stores around the world dedicated to Fashion and Leather Goods, while Hermès had 317 (193 branches and 124 concessionaires). A very important dimension of luxury retail is the ability to be present in prime locations, something both Hermès and LVMH were able to do in the past. Even so, synchronized efforts can be made if both Groups work together in this aspect, gaining bargaining leverage when renting or acquiring new locations and in renegotiating current contracts. As an example, in certain countries where LVMH does business, leases for stores are contingent on the payment of minimum amounts in addition to a variable amount (in particular for stores with lease payments indexed to revenue). Of course benefits arising from better bargaining power and contract renegotiations will only be fruitful in situations where the landlord has contracts in effect, or the owner has potential buyers, in relation to both Hermès and some other brand of the LVMH Group. Even so, the Group can rent or acquire bigger properties with the idea of adding complementary brand stores adjacent to one another (in accordance with this reasoning, top luxury boutiques have the tendency of gathering in the same street or within a certain radius of a given metropolitan area). Additionally, LVMH's DFS galleries already have Hermès stores in their premises, but significant cost reduction with rents and common distribution channels can be attained in this case. For the reasons presented, it is projected that the impact on costs emerging from these effects will increase margins from recurring operation by 0,25%, starting in the second year after the merger (2013).

Another idea for potential sources of synergy when considering store networks is the possibility that some stores might be closed down or adapted to work with different Group brands other than the originally intended to function there (for example, an Hermès store that is thought to be unnecessary in a particular location due to cannibalistic competition with other Group entities). With the merger, it is assumed that LVMH will preserve the Hermès brand and its identity, as well as its store network. While it is true that there is competition between Louis Vuitton and Hermès for the same customers, a much better strategy would be to keep both brands working as they are now, thus crowding the marketplace and functioning as a deterrent to new entrants while profiting from the already established brand projection Hermès possesses. Notwithstanding, some adjustments to store locations, and an occasional reduction of stores in a certain area is understood to generate some cost reductions, which are already contemplated in the 0,25% margin increase abovementioned.

d. Production and distribution synergies

Concerning LVMH brands, Louis Vuitton's own production facilities enable it to respond to almost all production needs internally, relying on third parties for flexibility, while Fendi and Loewe are more dependent on subcontractors (located in France, Italy and Spain). As such, subcontractors for the Fashion and Leather Goods segment represented 43% of the cost of sales in 2010. In relation to Hermès, the Group expanded its production capacity for the Leather Goods and Saddlery segment in 2010. Being the most important segments in both entities, joint procurement and production efforts and sharing of know how and techniques will have a positive impact on production costs. Bargaining power over suppliers for quality leathers and hides in particular (an important concern in the fashion industry) is also anticipated to increase (in order to illustrate this problem, in 2010 the top leathers supplier in LVMH represented 38% of the total leather purchase in that year).

Looking at the Perfumes and Cosmetics businesses, LVMH is clearly more experienced in these markets, with Hermès only selling perfumes on a smaller scale (6% of Group revenue in 2010). On the contrary, LVMH has five french production centers that provide almost all production for french brands (Givenchy, Guerlain, Parfums Christian Dior, etc.). Hence, the perfumes division of Hermès, while not necessarily surrendering its identity, would be integrated in LVMH's infrastructure. Furthermore, research efforts in perfumes and cosmetics will occur in the LVMH's centralized laboratory in France, where more than 270 researchers (scientists, physicians, chemists, etc.) work.

In the Watches and Jewellery division, LVMH does most of the production in-house (external supplies represented only 5% of cost of sales in 2010). In similar terms, model designs are mostly done in self-owned studios. According to Morgan Stanley (2010): "LVMH lacks scale in this division and is investing in watch manufacturing and the expansion of brands, particularly Hublot (acquired in 2008) and Tag Heuer." Therefore a merger with Hermès will improve the margins in this segment due to economies of scale, while Hermès' watches division will also benefit from interaction with LVMH's brands and expertise.

Adding the expected production and distribution synergies stated above, the merged entity will achieve a further 0,5% increase in margin from recurring operations.

e. Marketing, administrative and labour expenses

Of the most anticipated synergies that derive from the merger of LVMH and Hermès, general costs with marketing and administrative expenses are on top. This has already been suggested by Mr. Arnault, who said in February 2011 that: "[...] LVMH could develop synergies with Hermès in areas including store development and advertising." (even though the idea was rejected by Mr. Thomas at the time). In this context, joint marketing efforts are believed to help reduce costs with these fundamental dimensions of the luxury business. In 2010 alone LVMH reported 35% of revenues as

costs with marketing and selling expenses, with advertising and promotion accounting for 11% of this value. In this sense, Advertising and promotion expenses mainly consist of media campaigns and point-of-sale advertising and also include personnel costs dedicated to this function. Concurrently, the centralization and pooling of common management services (such as administration, human resources, IT, etc.) will definitely allow cost reductions related to General and Administrative expenses, thus improving operating margins. As for labour costs, further rationalization is expected to emerge from merging common company functions, the limited restructuring of store networks and increased efficiency in production and distribution, as mentioned before. In reality, the impact these synergies will have on the margin from recurring operations is relevant and estimated to be 0,3%, starting at 0,15% in 2012.

f. Working capital requirements

Table 4 shows the historical cash conversion cycle for both LVMH and Hermès. The first characteristic that stands out when looking at the table is the decreasing cash conversion cycles for both Groups over the years.

Table 4 - Cash conversion cycle

LVMH and Hermès cash conversion cycle					
	Year	DRO ⁽¹⁾	DPO ⁽²⁾	DIO ⁽³⁾	Conversion cycle
Hermès	2008	32	54	305	283
	2009	25	46	253	232
	2010	24	45	210	189
LVMH	2008	35	62	350	323
	2009	31	51	334	314
	2010	28	52	304	280

⁽¹⁾ Days receivables outstanding
⁽²⁾ Days payables outstanding
⁽³⁾ Days inventories outstanding

While no information on these values could be collected so as to explain this performance, it is believed this was the result of continuous improvement of distribution channels and tighter supervision of suppliers and customers, in particular during the slow growth period between 2008 and 2009. Another distinguishing feature is the fact that Hermès presents lower cash conversion cycles in comparison with LVMH, much due to less time inventory items spend in the Group's possession. Again, no information that was available successfully explained the behaviour of the days inventory outstanding, but it is reasonable to assume that the merged entity with synergies will somehow have a better cash conversion cycle than the merged entity without synergies. This will be possible mostly given a stronger bargaining power towards suppliers and customers alike, as well as with both Groups sharing the best practices on third parties' supervision and inventory control. In the end, the amount of days outstanding for receivables, payables and inventories in the merged entity with synergies will be of 30, 50 and 290 respectively, with most of the impact of this synergy focused on inventories.

4.6.2. Financial synergies

Regarding potential financial synergies, it is relevant to assess each Group's approach to financial and capital sources as they were before the merger.

Being a large group, run by talented profit-driven professionals with significant experience in financial and operating management, LVMH makes use of its size to source investment capital from banks, bonds, stock and other instruments. These are means to finance business expansion and maintenance, such as opening new stores or refurbish existing locations, to develop new products and to grant some degree of flexibility in daily operations. On the other hand, Hermès is still family owned and management guidelines, while still focused on making a profit, are more conservative in maintaining liquidity and minimizing risk. Furthermore, the Group assumes an independent position in order to be able to make quick strategic changes as it sees fit. As a consequence, this translates into a large net cash surplus held by Hermès, easily compensating for very low debt in the Group's balance sheet. In addition, both companies make use of derivatives to hedge currency fluctuations, as much of their business is done in foreign markets. One other common feature found in both Groups is their credit rating, estimated to be the top possible level, according to information made available by Standard and Poor's (see Appendix 2). This aspect eliminates the possibility of synergies related to an increase in debt capacity. However, assuming LVMH's strategic posture will influence Hermès after the merger, rising debt levels to industry standards will result in a lower cost of capital, and thus an higher valuation. As it is, this debt increase would purely serve to harness the tax benefits from financial leverage, considering a top notch credit rating would be preserved.

Regarding other sources of financial synergies put forward in the literature review, tax benefits with the restructuring process, deductible tax losses, and the possible diversification effect of mergers are not considered. Even the reasoning behind the combination of a company with good investment opportunities, but low on cash, with another company with lots of cash, and limited opportunities, cannot be applied in this case. Both firms are believed to pursue any opportunities they find appealing with almost no financing constraints.

4.6.3. Costs related to the merger

According to a 2010 study published by PwC: "Most organisations overlook the cost of integration during the deal closure". Even though the merger of LVMH and Hermès is likely to create valuable synergies which will increase the amount the combined firm is worth, a transaction process such as the one envisaged and the subsequent restructuring of operational factors (required in order to fully achieve the synergies proposed) must also be taken into account.

Beginning with the transaction itself, transferring the property and control of a large company to another player requires the involvement of investment bankers, lawyers, accountants and a whole

other assortment of consultants in order to plan for the many aspects of the transaction. Legal and tax frameworks, the definition of strategic and financial considerations, operational and market studies, etc. are all things that fall into this category. These are somewhat direct costs with the transaction, which are materialized through the payment of fees, commissions, taxes and duties, but are also indicative of other costs, which include the opportunity costs related to the amount of time the transaction takes to complete (and occasional delays), as well as the decreasing focus in normal business operations, often giving way to missed opportunities and lagging business performance.

On the other hand, the implementation of synergies also does not come without charge. In order to attain costs savings related to the integration of store networks, the renegotiation of lease contracts and relocation of stores implies disbursing additional fees. In similar terms, reorganising production facilities, processes and distribution channels, so as to make them more efficient, also requires ad-hoc studies and the services of specialists, which many times are subcontracted. The same reasoning applies to synergies expected from joint marketing efforts and restructuring common Group divisions, which will most likely involve dismissing former employees and hiring new ones. Another important aspect in this comprehends the costs emerging from the harmonization of IT systems and information channels, which are crucial for management effectiveness, especially in large organizations.

While acknowledging the existence of costs related to the proposed merger and its synergies, their estimation poses a more challenging issue. Given no theoretic literature on the subject of integration costs was found to provide a satisfactory approach at estimating them in this case, an amount of 20% of total synergy value was considered. In this sense, integration costs are defined as a function of the attainable synergies. Moreover, these costs will be spread by the following two years after the transaction (until 2013).

4.6.4. Results on the valuation of the merged entity with synergies

While the valuation principles used in this case were identical to the merged entity without synergies, the computed leveraged cost of equity comprehends a different capital structure, leading inevitably to a distinct WACC rate of 8,09%.

The impact of each synergy on the firm value can be seen in Table 5. Factoring in the influence of synergies, the Merged Entity enjoys higher revenue growth rates, wider operating margins, better working capital conditions and a lower WACC, emerging from a higher recourse to debt versus the Merged Entity without synergies.

Table 5 - Value of synergies

Synergies		
€M	Value	% of total
Equity Value of Merged Entity without synergies	70.349	
Profit from recurring operations margin	1.565	16%
Expansion into emerging markets	1.374	14%
Cost reductions related to store networks	1.506	15%
Production and distribution synergies	2.965	30%
Marketing, administrative and labour expenses	1.843	18%
Working capital	797	8%
Financial synergies	775	8%
Integration costs	-1.947	-20%
Synergy feedback	1.087	11%
Total value of synergies	9.964	100%
Equity Value of Merged Entity with synergies	80.314	

As presented, the total value of synergies amounts to approximately €9,7B. In this value, the synergetic effect with the most impact is related to the rationalization of production and distribution activities, with 30% of the total synergy calculated. Several other items also have an important role in overall synergy gains such as: the lower marketing, administrative and labour expenses assumed, the cost reductions related to store networks, the increased margin in profit from recurring operations and more efficiency in the expansion to emerging markets. The last item on the list, called “Synergy feedback” captures the circular effect that the interaction of some synergies have with one another. In particular, synergies such as the increase in revenue growth rates, resulting from a faster expansion into emerging markets, are more evident the higher the increase in profit margin deriving from lower marketing, administrative and labour expenses.

In conclusion, based on all the assumptions aforementioned, according to the free cash-flow to the firm approach, the Enterprise Value of the Merged Entity with synergies is €83,5B, implying €80,3B of Equity Value. In case the APV methodology is used, the Enterprise Value and Equity Value were found to be €78,9B and €75,7B, respectively.

4.7. Sensitivity analysis to the individual company valuations

In order to test the robustness of a valuation exercise and as a way to illustrate its limitations, a sensitivity analysis has been performed. In essence, this analysis questions some of the most important assumptions underlying the valuation, thus creating alternative scenarios according to hypothesised inputs. With this in mind, the assumptions subject to a sensitivity analysis were the WACC, the terminal growth rate and the revenue growth rate. By varying these inputs, the price per share was then recorded according to the FCFF approach.

In the case of LVMH (Figure 11), looking at the impact of a 0,5% variation in the WACC, there is a significant change in the price per share. Furthermore, the lower the WACC is, the more impact a 0,5% change causes in the share price. In its turn, a similar change of the terminal growth rate also represents a considerable change in the share price, although not as pronounced as in the case of the WACC.

Figure 11 - LVMH sensitivity analysis

LVMH - Price per share

		WACC				
		7,11%	7,61%	8,11%	8,61%	9,11%
Terminal growth rate	2,0%	129,13	114,57	102,45	92,22	83,49
	2,5%	140,93	123,87	109,91	98,30	88,50
	3,0%	155,60	135,18	118,83	105,46	94,33
	3,5%	174,31	149,24	129,68	114,01	101,20
	4,0%	199,03	167,19	143,17	124,42	109,41

		WACC				
		7,11%	7,61%	8,11%	8,61%	9,11%
Change in revenue growth rate	-1,0%	154,91	134,83	118,74	105,58	94,62
	-0,5%	155,36	135,10	118,87	105,59	94,54
	0,0%	155,60	135,18	118,83	105,46	94,33
	0,5%	155,60	135,06	118,61	105,16	93,97
	1,0%	155,36	134,72	118,19	104,68	93,45

Now observing the impact of an absolute change in the growth rate of revenues, it is evident that this assumption has much less significance in the final share price (in the order of some cents).

Turning to Hermès (Figure 12), the price per share is also very sensitive to variations of the WACC. Concerning the terminal growth rate, some impact is also witnessed, notwithstanding having a smaller influence in relation to the WACC.

Figure 12 - Hermès sensitivity analysis

Hermès - Price per share

		WACC				
		7,40%	7,90%	8,40%	8,90%	9,40%
Terminal growth rate	2,0%	135,53	123,03	112,54	103,63	95,95
	2,5%	145,28	130,79	118,82	108,77	100,22
	3,0%	157,28	140,15	126,26	114,78	105,15
	3,5%	172,38	151,65	135,24	121,93	110,92
	4,0%	191,97	166,13	146,27	130,54	117,78

		WACC				
		7,40%	7,90%	8,40%	8,90%	9,40%
Change in revenue growth rate	-1,0%	149,55	133,45	120,38	109,58	100,51
	-0,5%	153,37	136,76	123,29	112,16	102,81
	0,0%	157,28	140,15	126,26	114,78	105,15
	0,5%	161,26	143,60	129,29	117,46	107,54
	1,0%	165,33	147,13	132,38	120,20	109,97

Finally, for the variables considered, it is confirmed that the absolute change in the growth rate of sales bears the least impact on the share price. Even so, Hermès' share price seems to be more sensitive to a 0,5% change of revenue growth rate than LVMH.

Overall, it is clear that the correct estimation of both the WACC and the terminal growth rates is very important in finding a final share price. On the other hand, that is not so much the case of changes in the growth rate of revenues. As demonstrated, the sensitivity analysis gives a clear picture of the relevance of each assumption in the final result, thus helping put the current methodologies of valuation modelling in perspective.

4.8. Relative valuation of LVMH and Hermès

In line with what was mentioned in the literature review, relative valuation provides a quick and insightful perspective of a company's position in relation to its peers, while shedding some light on possible areas of comparative advantage or opportunity. The fact that LVMH and Hermès are both large multinationals with several business segments poses a challenge in the process of selecting peer companies. With this issue in mind, a set of industry comparables was chosen in an attempt to find overlapping business segments between them, in addition to other specific and important characteristics, such as brand projection, size, geographical presence, growth prospects, etc.

Table 6 - Peer group information

Peer Group Multiples Valuation									
EM	Country	Share price (€)	Market Cap.	EV	EV/EBITDA	EV/EBIT	P/Book	P/Sales	P/E
Financial information as of 31 December 2010									
LVMH	France	123,10	58.703	65.141	11,4x	13,2x	3,5x	2,9x	20,0x
Compagnie Financiere Richemont SA	Switzerland	43,99	22.543	20.589	13,6x	16,9x	3,2x	3,2x	19,9x
The Swatch Group AG	Switzerland	333,33	18.024	16.619	12,8x	14,8x	3,1x	3,6x	20,0x
Hermès International	France	156,75	16.484	21.754	29,4x	33,1x	10,6x	6,9x	54,1x
PPR SA	France	119,00	15.083	19.610	11,8x	14,9x	1,4x	1,0x	17,8x
Polo Ralph Lauren Corp.	United States	82,68	n.a.	8.269	11,2x	13,8x	3,5x	n.a.	21,8x
Burberry Group PLC	United Kingdom	13,12	5.775	6.772	16,7x	19,9x	8,3x	3,4x	28,5x
Tiffany & Co	United States	46,42	5.767	6.966	12,7x	15,9x	4,4x	2,6x	25,2x
Bulgari	Italy	8,09	2.444	3.833	29,1x	61,6x	3,9x	2,3x	93,5x
Tod's Spa	Italy	73,90	2.262	2.747	14,0x	16,7x	4,3x	2,9x	24,2x
Industry estimates (exc. LVMH and Hermès)			Market Cap.	EV	EV/EBITDA ⁽¹⁾	EV/EBIT ⁽¹⁾	P/Book ⁽²⁾	P/Sales ⁽³⁾	P/E ⁽¹⁾
Mean			10.271	10.676	13,3x	16,1x	3,4x	2,7x	22,5x
Median			5.775	7.618	12,8x	15,9x	3,5x	2,9x	21,8x
Standard deviation			8.163	7.150	1,8x	2,0x	1,0x	0,9x	3,7x
Minimum			2.262	2.747	11,2x	13,8x	1,4x	1,0x	17,8x
Maximum			22.543	20.589	29,1x	61,6x	8,3x	3,6x	93,5x

⁽¹⁾ Mean, Median and Standard deviation estimates excluding Bulgari.

⁽²⁾ Mean, Median and Standard deviation estimates excluding Burberry.

⁽³⁾ Mean, Median and Standard deviation estimates excluding Polo Ralph Lauren.

Note: Some data for LVMH and Hermès differs slightly from the information presented in the financial statements used in this thesis. Because Thomson ONE Banker uses specific methods for estimating particular financial data, information from that source was kept unchanged in order to preserve comparative value.
Source: Thomson ONE Banker.

Source: Thomson ONE Banker

The table above summarizes the results obtained from the selected peer companies. Concerning the selection of multiples, according to Fernandez (2001), the ratios most analysts use for valuing companies in the retail and consumer goods industry are the price to earnings, EV/EBITDA and price to sales ratios. As such, these were computed along with the price to book and EV/EBIT multiples. Note that in the process of estimating some of the standard industry ratios (shown in the small table), a few companies were excluded from the sample. This measure was applied mainly because those particular values were considered outliers and thus would significantly distort the resulting ratio estimate. According to Damodaran (2002), this practice is common in many services that report average data for multiples (while also constituting one more reason for the median to be used instead). Another striking feature in the comparables' table is that Richemont and Swatch both have an estimated Enterprise Value (EV) that is inferior to the Market Capitalization. This apparently inconsistent result derives mainly from the large amounts of cash and equivalents these companies hold, which are more than enough to repay outstanding debt. A further notice must be made relating to the point in time the data presented refers to, in particular concerning LVMH and Hermès. By the end

of 2010, a lot of speculation on a possible takeover of Hermès by LVMH agitated the market, driving stock prices up to inflated levels, which in turn is reflected in market multiples for these two companies (a situation clearly visible in the case of Hermès).

Table 7 - LVMH relative valuation results

LVMH - Price per share					
€	EV/EBITDA	EV/EBIT	P/Book	P/Sales	P/E
Mean	148,58	156,44	118,50	115,80	138,66
Median	142,98	153,69	121,51	122,39	134,74
Minimum	124,08	132,16	48,47	43,96	109,54
Maximum	338,84	628,22	289,91	153,98	577,09

Looking at LVMH, its Market Capitalization is the highest of the peer group. Concerning the relative position of the Group as measured by the EV/EBITDA and EV/EBIT ratios, it is slightly below the comparables' mean and median. This reports to the greater necessity for a portion of earnings to be reinvested in order to generate growth. As to the price to book ratio, it is a useful benchmark mainly because it is not as volatile as market-based measurements and can be directly compared with other firms, if accounting practices are consistent. On the other hand, if accounting methodologies are not very similar, this ratio can be the source of significant error. In LVMH, price to book value is very much like the peer group's mean and median values. This suggest that the company is correctly valued in relation to its peers, as can be seen in Table 7, with an estimated €121,51 using the median, comparing to the real stock price of €123,10. In similar terms, the Group's price to sales ratio of 2,9x places the company on the median measurement, suggesting a €122,39 stock price. This ratio, though, must be used with caution, as it implicitly reflects a company's capital structure in the numerator whereas the denominator does not account for this element. Finally, the price to earnings (P/E) ratio was also employed in order to comparatively position LVMH within its peer group. The P/E ratio is widely accepted in the financial world and gives some indication of a possible under, or over, valuation of a company's share price versus its current and future potential (measured through earnings). In LVMH's case, yet again we see that the company is relatively consistent with industry standards (P/E of 20x for the company vs. industry median of 21,8x), although yielding a slightly higher market price per share of €134,74 comparing with the current price of €123,10.

Table 8 - Hermès relative valuation results

Hermès - Price per share					
€	EV/EBITDA	EV/EBIT	P/Book	P/Sales	P/E
Mean	93,04	100,25	50,22	62,04	65,10
Median	89,76	98,59	51,50	65,57	63,26
Minimum	78,68	85,64	20,54	23,55	51,43
Maximum	204,55	384,08	122,87	82,50	270,95

As beforementioned, the case of Hermès is somewhat peculiar given the inflated market metrics due to takeover speculation. Its EV/EBITDA (29,4x) and EV/EBIT (33,1x) multiplies are

considerably above industry levels of around 13x and 16x, respectively. The same effects can be seen in the other ratios, with the price to book, price to sales and P/E multiples also higher vis-a-vis comparable companies. Using industry values, Hermès' share price estimates are expectedly much lower than the current price of €156,75. The most pessimistic result obtained comes from the price to book ratio, with a median of only €51,50 per share (a staggering 68% erosion of the original value). A less shocking estimate of €98,59 was achieved with the EV/EBIT ratio, whereby the company demonstrates its operating margin efficiency.

Financial analysts' consensus estimate the Hermès' share price to underperform in 2011. As an example, JP Morgan forecasts the target price for the company to be around €134, taking into account very attractive operating margins and, above all, strong cash flow generation capacity. Another report by Natixis, issued at the end of 2010, recommends a target price of €120. While also indicative that the Group's share will underperform, Natixis proposes this price target (which deviates significantly from the peer group's multiples analysis) is supported by sturdy growth prospects.

5. The transaction

With the value of synergies established and considering the assumptions adopted, the conclusion can be made that the merged entity with synergy creates value as a whole. All that remains now is to define how the transaction of the shareholdings will process.

First and foremost, the transaction envisaged in this work was inspired by real events that developed in the end of 2010 and are still in motion as of mid 2011. LVMH being considered the world's largest luxury group of companies has an extensive track record of M&A activity and is known to owe a significant part of its growth to acquisitions, in parallel to organic expansion. In this context, by October 2010 the Group had accumulated a 17,1% interest in Hermès by settling equity linked swaps it owned, in a move widely publicized by international press. By yearend, LVMH's stake in Hermès was further increased to 20,21% through open market share purchases. Facing a threat of possible takeover by a large multinational competitor, on the 6th of January 2011 the family owned Hermès obtained the clearance necessary from the *Autorité des Marchés Financiers* (French market commission) to create a holding company which would gather 50,2% of share capital, without the obligation of a takeover bid for the remaining 40,8%. This action prevents each family member from acting on their own and also grants the new holding entity a priority right to buy the remaining shares, held by the Hermès family group, that are not in the holding company (12,6%). In this way, the Hermès family is sending an obvious message to LVMH and the market stating it does not want to be part of a big player like LVMH and feels confident that the current shareholder structure is united in pursuing the business strategy they see fit. Concerning the present work, the past events exposed above are valuable in establishing two positions: (i) if a transaction does happen, it will be LVMH acquiring Hermès and merging it with its Group (for the current purpose the acquisition is assumed to be for 100% of Hermès' capital) and, (ii) there is significant animosity between both parties which already translated into effective defensive tactics.

That said, it is important to study a practical way through which LVMH could ultimately control Hermès. Looking closely at the family structure of Hermès, it already was suggested that “[the] fact that they took the pain to create this holding company in the first place is an indication that the family is less unified than they want us to believe” (Solca, 2011)⁵. Taking into account that there are some 72 adult family members with a participation in the Group, some are bound to be more open-minded in relation to a possible takeover bid. This assumption hints a way LVMH can start cracking the Hermès' hard core, while simultaneously implying a fraction of the transaction must be made with cash (serving as an exit for family members who desire to opt-out of the future company).

⁵ Analyst at Sanford C. Bernstein, quoted by Bloomberg over a phone interview in January 2011.

In order to analyse the bargaining power of LVMH and Hermès, due consideration must be given to each player's motives. Firstly, it is believed that LVMH is very interested in acquiring Hermès, as it is a major competitor particularly in the Fashion and Leather Goods segment and boasts very solid future prospects. Hermès, in its turn, does not seem to be open to such a dialogue and feels the potential synergy is unsatisfactory. While synergies alone would help both Groups, and was put forward as a major reason towards a merger, they are seen as either too ethereal or short of making up for the fact the company is a personal accomplishment and follows a particular vision which would change in case of a merger. Regarding other players which could emerge in this scene and modify the bargaining power of a given party, no outside company can easily fit as a potential second bidder for Hermès, in particular facing the position LVMH already has. Overall, it seems that Hermès is in advantage regarding negotiating power.

On the subject of synergies, in the literature review the idea was proposed that synergy value (that is to say, a significant part of the price premium in the acquisition), must be tied to the uniqueness of the strengths each party brings to the table in realizing those synergies. For this reason, each synergy has been attributed a percentage of "ownership" which reflects the contribution of each party in its materialization. Table 9 reflects this distribution:

Table 9 - Detail and distribution of synergies

Synergies €M	Value	Allocated to LVMH	
		%	value
Equity Value of Merged Entity without synergies	70.349		
Profit from recurring operations margin	1.565	70%	1.095
Expansion into emerging markets	1.374	40%	550
Cost reductions related to store networks	1.506	80%	1.205
Production and distribution synergies	2.965	70%	2.075
Marketing, administrative and labour expenses	1.843	50%	921
Working capital	797	40%	319
Financial synergies	775	10%	77
Integration costs	-1.947	50%	-974
Synergy feedback	1.087	50%	544
Total value of synergies	9.964	58%	5.813

The total value of synergies considered to be sourced from LVMH is then €5,8B (representing some 58% of total synergy value). The fact that Hermès is in a better negotiating position, as aforementioned, has already been taken into account in this result.

Breaking down the value of synergies according to the merit of each player was done synergy by synergy. Starting with the "profit from recurring operations margin", it was mainly attributable to LVMH because the key factor in this case is size. While Hermès has a respectable brand projection, it is LVMH that is the largest player in the industry and, without it, Hermès could never reach the full potential of this synergy. The stronger revenue growth coming from the "expansion into emerging markets" is mostly due to Hermès because the opportunity resides within it, even if LVMH will

facilitate the expansion. Regarding “cost reductions related to store networks”, they mostly come from LVMH’s global presence and vast store network which grant it a better bargaining position. Because most of the productive experience and capacity that integrates the “production and distribution synergies” also come from LVMH, it should have the bigger share in this case, while the “marketing, administrative and labour expenses” synergy is assumed to surface equally from both parties. As far as the “working capital” and the “financial synergies” are concerned, Hermès should be credited with most of the value because, in the first case, it is the company which presents the lowest cash conversion cycle and thus can pass relevant experience to LVMH in that field and, in the second case, the opportunity to raise debt lies in Hermès, in spite the fact that LVMH is very experienced in using debt efficiently. Finally, due to their less direct nature, the “integration costs” and “synergy feedback” are understood to emerge from both entities in the same proportion.

Table 10 - Valuation results and transaction summary

Transaction Summary	
€M	
Valuation results	
LVMH equity value without synergies	56.666
<i>Price per share (€)</i>	118,83
Hermès equity value without synergies	13.278
<i>Price per share (€)</i>	126,26
LVMH equity value with synergies	62.479
<i>Price per share (€)</i>	131,02
Hermès equity value with synergies	17.429
<i>Price per share (€)</i>	165,74
Offer	
Value of synergies	9.964
<i>LVMH's share in synergies</i>	5.813
<i>Hermès' share in synergies</i>	4.151
Cash offer	5.000
Share offer	12.429
<i>No. of shares</i>	94.867.022
<i>Price per share (€)</i>	131,02
Premium offered over valuation results	31,3%
Premium offered over market price @ 31 Dec 2010	5,7%

When thinking about the final price, considering all the calculations made, LVMH should establish a maximum offer of €17,4B. This value comprehends the synergies attributable to Hermès (€4B) in addition to its Equity Value (€13,3B). As can be seen in Table 10, this offer represents a 31% premium over the enterprise value of Hermès resulting from the valuation, while it only represents a 6% premium over the share market price as of 31 December 2010. This modest premium is believed to derive from the fact that a speculative mark-up concerning a possible takeover is already comprehended in the share price of Hermès. It is also important to clarify that the computed Equity Value should serve as a guideline in order to determine a top bracket for the transaction price, above which LVMH’s shareholders start to overpay in benefit of the target’s shareholders. In reality, the transaction price will be subject to other forces and will be particularly influenced by how the negotiations evolve.

In relation to the method of payment, all important aspects described before must be weighted. A small portion should be paid in cash in order to satisfy the shareholders who want to sell. Consequently, the maximum cash offer that LVMH can make is €6,6B, considering it must keep its cash balance around 10% of revenues and cannot contract more debt than necessary to preserve at least 8,5 times the interest coverage ratio, which grants it AAA status.

Again, it is also important for LVMH to conquer some key people from Hermès to its cause and keep them involved in the new entity, as they possess invaluable experience and are necessary to fully realize the synergies. This should be done with the issuance of new LVMH shares, which should be traded in exchange for old Hermès' shares. At this point it is relevant to look at LVMH *modus operandi* for paying for transaction. By the 7th of March 2011, LVMH announced through a press release that Bulgari would be joining forces with its group. The transaction refers to a 50,4% stake held by the Bulgari family, valued at €1,86B, to be paid in stock, and a further tender offer for the remaining participation, which would result in Bulgari being de-listed from the Italian Stock Exchange. The announced acquisition price per share also considers a 60% premium to Bulgari's average share price in the 20 days before the announcement. Considering this is the most recent, and a very significant, transaction for LVMH, the effort in keeping the Bulgari family in the business must also be noted (in this sense, Paolo and Nicola Bulgari will remain Chairman and Vice Chairman of Bulgari's Board of Directors, respectively). Therefore, based on this recent experience and the current position of Hermès' shareholders, LVMH will pay mostly in stock.

An essential side effect that paying in stock will trigger is a change in market stock price. Because LVMH stock was found to be overpriced, the Group will benefit from issuing new shares. The market, however, will understand this as a sign that the company believes its own stock to be above fair price and adjust accordingly. Hence, LVMH can try to ease this effect by stressing that new stock was issued not because it was a good source of capital, but because of the strategic importance in sharing future benefits with Hermès' shareholders in order for everybody to gain through synergies.

In conclusion, the final offer should be limited to €5B cash and €12,4B worth of LVMH shares. This corresponds to the issuance of 94.867k shares at the estimated stock price of €131,02 per share. The stock price already includes the full effect of LVMH's portion in total synergies, which is the best estimate of the stock price after a merger has been announced. The cash portion offered is a reasonable amount in order to satisfy the shareholders that want to sell, while granting some space for LVMH to keep above its present debt rating requirements.

Lastly, while this work has focused on a possible merger between two significant players doing business in the luxury goods industry, in reality, however, if the Hermès family members maintain their current posture towards a possible merger, the operation is not very likely to happen.

Even if it did, the outcome of the synergies contemplated could be seriously compromised by an unfriendly acculturation process.

6. Conclusion

Overall, the luxury goods industry is well positioned to be a top performer in the upcoming years. In the market analysis section it was explained that, while economic and financial instability is still a concern in old markets, the increase of purchase power that consumers in emerging markets are experiencing offers untapped opportunities for expansion.

In the perspective of LVMH and Hermès as individual players in the industry, the use of forecasted financial statements was useful in determining which factors will impact future performance. At the moment, each Group faces the challenge of successfully conducting its expansion strategy towards young markets, a factor that will be fundamental in reaching encouraging growth rates in the medium term. However, this will also be important in establishing each player's positioning in the eyes of new customers, a status that is believed to bear great implications for medium to long-term success.

Concerning the financial markets perception of the two Groups analysed, in relation to the DCF and APV analysis both entities appear to be overpriced. Reasons for this point of view are probably related to optimistic growth assumptions for the near future but also because of some speculative beliefs of concentration between the participants.

Hypothesising a possible merger between LVMH and Hermès, the difference in size and experience between both Groups makes it reasonable to assume that, should a transaction take place, it is Hermès that will be the target of the acquisition. In this sense, Hermès will then be subject to integration into LVMH's structure. Furthermore, the microeconomic and financial analysis of such an operation indicates that positive synergies could be achieved. These would increase market power through superior pricing capabilities, create cost synergies which help make the business more efficient, allow for faster and higher growth of revenues, concede more bargaining power towards third parties such as suppliers and customers alike, and magnify the benefits of financial leverage on the Group's financial robustness and overall business risk.

Finally, the case is made that the transaction envisaged should be paid partly in cash and equity. This effort will require an immediate layout of cash from LVMH's balances while new shares will also be issued in order to complete the payment package.

In conclusion, while this work finds a merger a rational option generally speaking, real events have shown that individual interests and business philosophies have prevented it from happening until now and will remain an important factor in the future of both Groups.

7. Appendices

Appendix 1 - Main brands

Table 11 - LVMH main brands

LVMH - Main brands

Wines and Spirits	Fashion and Leather Goods	Perfumes and Cosmetics	Watches and Jewelry	Selective Retailing	Other Activities
10 Cane	Berluti	Acqua di Parma	Chaumet	DFS	Les Echos
Ardbeg	Céline	Benefit Cosmetics	De Beers Diamond Jewellers	Le Bon Marché	Royal Van Lent
Belvedere	Donna Karan	Fendi	Fred	Miami Cruiseline	Samaritaine
Cape Mentelle	Fendi	Fresh	Hublot.	Sephora	
Chandon	Givenchy	Guerlain	Montres Dior		
Château Cheval Blanc	Kenzo	La Brosse et Dupont	TAG Heuer		
Château d'Yquem	Loewe	Make Up For Ever	Zenith		
Chopin	Louis Vuitton	Parfums Christian Dior			
Cloudy Bay	Marc Jacobs	Parfums Givenchy			
Dom Pérignon	Pucci	Parfums Kenzo			
Glenmorangie	Rossimoda	Parfums Loewe			
Green Point	Thomas Pink	Pucci			
Hennessy					
Krug					
Mercier					
Moët & Chandon					
Montaudon					
Newton					
Ruinart					
Veuve Clicquot Ponsardin					

Source: Yahoo finance.

Contrary to LVMH, Hermès' activity revolves around a single brand with the same name, offering a wide range of products.

Appendix 2 – Standard & Poor's debt rating and interest spreads

Table 12 - Standard & Poor's rating and interest spread

If interest coverage ratio is			
>	=< to	Rating is	Spread is
8,50	100.000	AAA	0,50%
6,50	8,50	AA	0,65%
5,50	6,50	A+	0,85%
4,25	5,50	A	1,00%
3,00	4,25	A-	1,10%
2,50	3,00	BBB	1,60%
2,25	2,50	BB+	3,00%
2,00	2,25	BB	3,35%
1,75	2,00	B+	3,75%
1,50	1,75	B	5,00%
1,25	1,50	B-	5,25%
0,80	1,25	CCC	8,00%
0,65	0,80	CC	10,00%
0,20	0,65	C	12,00%
(100.000)	0,20	D	15,00%

Source: Damodaran's website.

*Appendix 3 - Peer group levered and unlevered betas***Table 13 - Peer Group Betas**

	Country	Beta (L)	Beta (U)
Financial information as of 31 December 2010			
LVMH	France	1,06	1,00
Compagnie Financiere Richemont SA	Switzerland	1,42	1,38
The Swatch Group AG	Switzerland	1,41	1,40
Hermès International	France	0,57	0,57
PPR SA	France	1,20	0,95
Polo Ralph Lauren Corp.	United States	1,61	n.a.
Burberry Group PLC	United Kingdom	1,33	n.a.
Tiffany & Co	United States	1,70	1,61
Bulgari	Italy	0,66	0,61
Tod's Spa	Italy	0,58	0,56
Industry estimates (exc. LVMH and Hermès)			
<i>Mean</i>			1,087
<i>Median</i>			1,169
<i>Standard deviation</i>			0,442
<i>Minimum</i>			0,562
<i>Maximum</i>			1,606

Source: Thomson ONE Banker.

Appendix 4 - Historical and forecasted financial statements – LVMH
LVMH - Income statement

€M	FY2008 H	FY2009 H	FY2010 H	FY2011 F	FY2012 F	FY2013 F	FY2014 F	FY2015 F	FY2016 F	FY2017 F	FY2018 F	FY2019 F	FY2020 F
Revenue	17.193	17.053	20.320	22.466	24.787	27.305	29.953	32.679	35.255	37.561	39.639	41.580	43.265
Operating costs	13.565	13.701	15.999	17.542	19.512	21.169	23.093	25.111	27.011	28.717	30.250	31.690	32.927
Profit from recurring operations	3.628	3.352	4.321	4.923	5.275	6.136	6.860	7.569	8.245	8.845	9.389	9.889	10.337
<i>Profit from recurring operations margin (%)</i>	21,1%	19,7%	21,3%	21,9%	21,3%	22,5%	22,9%	23,2%	23,4%	23,5%	23,7%	23,8%	23,9%
Other operating income and expenses	485	510	633	670	740	815	894	975	1.052	1.121	1.183	1.241	1.291
EBITDA	4.113	3.862	4.954	5.594	6.015	6.951	7.753	8.544	9.296	9.965	10.571	11.130	11.628
<i>EBITDA margin (%)</i>	23,9%	22,6%	24,4%	24,9%	24,3%	25,5%	25,9%	26,1%	26,4%	26,5%	26,7%	26,8%	26,9%
Depreciation and amortization expense	628	701	785	810	893	984	1.079	1.178	1.270	1.354	1.428	1.498	1.559
EBIT	3.485	3.161	4.169	4.784	5.122	5.967	6.674	7.366	8.026	8.612	9.143	9.631	10.069
<i>EBIT margin (%)</i>	20,3%	18,5%	20,5%	21,3%	20,7%	21,9%	22,3%	22,5%	22,8%	22,9%	23,1%	23,2%	23,3%
Net financial income (expense)	(257)	(187)	(151)	(151)	(156)	(129)	(91)	(52)	(36)	(55)	(59)	(78)	(90)
Other financial income and expenses	(17)	(152)	770	0	0	0	0	0	0	0	0	0	0
Earnings before tax (EBT)	3.211	2.822	4.788	4.633	4.966	5.838	6.583	7.314	7.990	8.556	9.084	9.553	9.979
Income taxes	893	849	1.469	1.483	1.708	2.008	2.264	2.516	2.749	2.943	3.125	3.286	3.433
Net profit before minority interests	2.318	1.973	3.319	3.150	3.258	3.830	4.318	4.798	5.242	5.613	5.959	6.267	6.546
Minority interests	292	218	287	272	282	331	373	415	453	485	515	542	566
Net profit (Group share)	2.026	1.755	3.032	2.878	2.976	3.498	3.945	4.383	4.788	5.128	5.444	5.725	5.980
<i>Net profit margin (%)</i>	11,8%	10,3%	14,9%	12,8%	12,0%	12,8%	13,2%	13,4%	13,6%	13,7%	13,7%	13,8%	13,8%
Basic Group share of earnings per share (€)	4,28	3,71	6,36	6,04	6,24	7,34	8,27	9,19	10,04	10,75	11,42	12,00	12,54
Number of shares on which the calculation is based	473.554.813	473.597.075	476.870.920	476.870.920	476.870.920	476.870.920	476.870.920	476.870.920	476.870.920	476.870.920	476.870.920	476.870.920	476.870.920
Diluted Group share of earnings per share (€)	4,26	3,70	6,32	6,00	6,20	7,29	8,22	9,14	9,98	10,69	11,35	11,93	12,47
Number of shares on which the calculation is based	475.610.672	474.838.025	479.739.697	479.739.697	479.739.697	479.739.697	479.739.697	479.739.697	479.739.697	479.739.697	479.739.697	479.739.697	479.739.697

LVMH - Cash-flow statement

€M	FY2009 H	FY2010 H	FY2011 F	FY2012 F	FY2013 F	FY2014 F	FY2015 F	FY2016 F	FY2017 F	FY2018 F	FY2019 F	FY2020 F
EBIT	3.161	4.169	4.784	5.122	5.967	6.674	7.366	8.026	8.612	9.143	9.631	10.069
Income taxes	849	1.469	1.483	1.708	2.008	2.264	2.516	2.749	2.943	3.125	3.286	3.433
Depreciation and amortization expense	701	785	810	893	984	1.079	1.178	1.270	1.354	1.428	1.498	1.559
Capex	843	1.354	2.864	2.742	2.989	3.188	3.349	3.322	3.190	3.083	3.044	2.901
Financial investments	9	4.118	-	-	-	-	-	-	-	-	-	-
Changes in working capital	(356)	(503)	1.041	456	536	553	571	542	488	439	410	357
Operating cash flow	2.517	(1.484)	205	1.109	1.417	1.748	2.107	2.684	3.343	3.924	4.389	4.937
Other non-current assets	(149)	147	-	-	-	-	-	-	-	-	-	-
Changes in provisions	47	182	187	175	190	199	205	194	174	157	146	127
Other non-current liabilities	(160)	1.095	281	437	474	498	513	485	434	391	365	317
Total cash-flow	2.553	(354)	673	1.720	2.081	2.445	2.826	3.362	3.951	4.472	4.901	5.381
Shareholder funds	(763)	387	(345)	(751)	(883)	(1.206)	(2.042)	(3.254)	(3.485)	(4.281)	(4.502)	(4.703)
Minority Interest	(218)	(287)	(272)	(282)	(331)	(373)	(415)	(453)	(485)	(515)	(542)	(566)
Changes in borrowings	200	(519)	102	160	(526)	(231)	434	410	367	331	309	268
Net financial income (expense)	(339)	619	(151)	(156)	(129)	(91)	(52)	(36)	(55)	(59)	(78)	(90)
Cash-flow after changes in sources of capital	1.433	(154)	6	692	212	544	751	30	293	(52)	88	291
Opening cash balance	1.013	2.446	2.292	2.298	2.990	3.202	3.746	4.498	4.527	4.821	4.768	4.856
Closing cash balance	2.446	2.292	2.298	2.990	3.202	3.746	4.498	4.527	4.821	4.768	4.856	5.147

Consolidation in the Luxury Sector: Study of a merger between LVMH and Hermès

LVMH - Balance sheet

€M	FY2008 H	FY2009 H	FY2010 H	FY2011 F	FY2012 F	FY2013 F	FY2014 F	FY2015 F	FY2016 F	FY2017 F	FY2018 F	FY2019 F	FY2020 F
Brands and other intangible assets (net)	8.523	8.697	9.104	10.065	11.105	12.234	13.420	14.641	15.795	16.829	17.760	18.629	19.384
Goodwill (net)	4.423	4.270	5.027	5.027	5.027	5.027	5.027	5.027	5.027	5.027	5.027	5.027	5.027
Property, plant and equipment (net)	6.081	6.140	6.733	7.826	8.635	9.512	10.434	11.384	12.282	13.085	13.809	14.485	15.072
Investments in associates	216	213	223	223	223	223	223	223	223	223	223	223	223
Non-current available for sale financial assets	375	540	3.891	3.891	3.891	3.891	3.891	3.891	3.891	3.891	3.891	3.891	3.891
Other non-current assets	841	750	319	319	319	319	319	319	319	319	319	319	319
Deferred tax	670	521	668	668	668	668	668	668	668	668	668	668	668
Non-current assets	21.129	21.131	25.965	28.020	29.868	31.874	33.982	36.154	38.205	40.042	41.696	43.242	44.584
Inventories and work in progress	5.764	5.644	5.991	7.198	7.941	8.748	9.596	10.470	11.295	12.034	12.700	13.322	13.861
Trade accounts receivable	1.650	1.455	1.565	1.730	1.909	2.103	2.307	2.517	2.715	2.893	3.053	3.202	3.332
Other current assets	1.927	1.430	1.351	1.680	1.811	1.968	2.123	2.283	2.436	2.570	2.693	2.805	2.905
Fair value of financial instruments	0	0	0	0	0	0	0	0	0	0	0	0	0
Cash and cash equivalents	1.013	2.446	2.292	2.298	2.990	3.202	3.746	4.498	4.527	4.821	4.768	4.856	5.147
Current assets	10.354	10.975	11.199	12.906	14.651	16.021	17.772	19.768	20.973	22.318	23.214	24.185	25.245
Total assets	31.483	32.106	37.164	40.925	44.519	47.895	51.754	55.922	59.178	62.360	64.910	67.427	69.828
Share Capital and Other Instruments	1.719	1.852	2.566	2.566	2.566	2.566	2.566	2.566	2.566	2.566	2.566	2.566	2.566
Share capital	147	147	147	147	147	147	147	147	147	147	147	147	147
Share premium account	1.737	1.763	1.782	1.782	1.782	1.782	1.782	1.782	1.782	1.782	1.782	1.782	1.782
Other shares and share settled derivatives	(983)	(929)	(607)	(607)	(607)	(607)	(607)	(607)	(607)	(607)	(607)	(607)	(607)
Revaluation reserves	818	871	1.244	1.244	1.244	1.244	1.244	1.244	1.244	1.244	1.244	1.244	1.244
Other reserves (retained earnings)	9.430	10.684	11.370	13.970	15.956	17.882	20.000	21.753	22.784	23.983	24.756	25.620	26.560
Cumulative translation adjustment	(371)	(495)	230	-	-	-	-	-	-	-	-	-	-
Net profit (Group share)	2.026	1.755	3.032	2.878	2.976	3.498	3.945	4.383	4.788	5.128	5.444	5.725	5.980
Equity, Group share	12.804	13.796	17.198	19.414	21.497	23.946	26.510	28.702	30.138	31.677	32.766	33.910	35.107
Minority interests	989	989	1.006	1.323	1.465	1.631	1.806	1.955	2.053	2.158	2.232	2.310	2.392
Total equity	13.793	14.785	18.204	20.737	22.962	25.578	28.317	30.657	32.192	33.835	34.998	36.221	37.498
Long term borrowings	3.738	4.077	3.432	3.498	3.602	3.260	3.109	3.392	3.660	3.899	4.115	4.316	4.491
Provisions	971	990	1.167	1.288	1.421	1.565	1.717	1.873	2.021	2.153	2.272	2.383	2.480
Deferred tax	3.113	3.117	3.354	3.354	3.354	3.354	3.354	3.354	3.354	3.354	3.354	3.354	3.354
Other non-current liabilities	3.253	3.089	3.947	4.228	4.665	5.139	5.637	6.150	6.635	7.069	7.460	7.825	8.142
Non-current liabilities	11.075	11.273	11.900	12.368	13.042	13.317	13.817	14.770	15.669	16.475	17.201	17.879	18.467
Short term borrowings	1.847	1.708	1.834	1.869	1.925	1.742	1.662	1.813	1.956	2.084	2.199	2.307	2.400
Trade accounts payable	2.292	1.911	2.298	2.644	2.940	3.190	3.480	3.784	4.070	4.327	4.558	4.776	4.962
Income taxes	304	221	446	448	517	607	685	761	831	890	945	994	1.038
Provisions	306	334	339	405	447	492	540	589	635	677	714	749	780
Other current liabilities	1.866	1.874	2.143	2.454	2.687	2.968	3.255	3.548	3.825	4.072	4.294	4.502	4.683
Current liabilities	6.615	6.048	7.060	7.821	8.515	9.000	9.621	10.494	11.317	12.050	12.711	13.327	13.863
Total liabilities	17.690	17.321	18.960	20.188	21.557	22.317	23.438	25.264	26.987	28.525	29.912	31.206	32.330
Total liabilities and equity	31.483	32.106	37.164	40.925	44.519	47.895	51.754	55.922	59.178	62.360	64.910	67.427	69.828

Appendix 5 - Historical and forecasted financial statements – Hermès
Hermès - Income statement

€M	FY2008 H	FY2009 H	FY2010 H	FY2011 F	FY2012 F	FY2013 F	FY2014 F	FY2015 F	FY2016 F	FY2017 F	FY2018 F	FY2019 F	FY2020 F
Revenue	1.765	1.914	2.401	2.670	2.970	3.293	3.651	4.044	4.438	4.805	5.117	5.359	5.519
Operating costs	1.251	1.381	1.648	1.789	1.990	2.206	2.410	2.669	2.929	3.171	3.377	3.537	3.643
Profit from recurring operations	514	534	753	881	980	1.087	1.241	1.375	1.509	1.634	1.740	1.822	1.877
Profit from recurring operations margin (%)	29,1%	27,9%	31,4%	33,0%	33,0%	33,0%	34,0%	34,0%	34,0%	34,0%	34,0%	34,0%	34,0%
Other operating income and expenses	-	-	-	-	-	-	-	-	-	-	-	-	-
EBITDA	514	534	753	881	980	1.087	1.241	1.375	1.509	1.634	1.740	1.822	1.877
EBITDA margin (%)	29,1%	27,9%	31,4%	33,0%	33,0%	33,0%	34,0%	34,0%	34,0%	34,0%	34,0%	34,0%	34,0%
Depreciation and amortization expense	65	71	85	91	101	112	124	138	151	164	174	183	188
EBIT	449	463	668	790	879	974	1.117	1.237	1.358	1.470	1.565	1.639	1.689
EBIT margin (%)	25,5%	24,2%	27,8%	29,6%	29,6%	29,6%	30,6%	30,6%	30,6%	30,6%	30,6%	30,6%	30,6%
Net financial income (expense)	18	(13)	(13)	4	6	6	6	7	7	7	7	7	8
Other financial income and expenses	(11)	(7)	(3)	0	0	0	0	0	0	0	0	0	0
Earnings before tax (EBT)	455	444	653	794	885	981	1.123	1.244	1.365	1.477	1.573	1.647	1.696
Income taxes	160	148	221	273	304	337	386	428	469	508	541	567	584
Net profit before minority interests	295	296	432	521	580	643	737	816	895	969	1.032	1.080	1.113
Minority interests	5	7	10	12	13	15	17	19	21	22	24	25	26
Net profit (Group share)	290	289	422	509	567	628	720	797	874	946	1.008	1.055	1.087
Net profit margin (%)	16,4%	15,1%	17,6%	19,1%	19,1%	19,1%	19,7%	19,7%	19,7%	19,7%	19,7%	19,7%	19,7%
Basic Group share of earnings per share (€)	2,76	2,75	4,01	4,84	5,39	5,98	6,85	7,58	8,32	9,00	9,58	10,04	10,34
Number of shares on which the calculation is based	105.074.019	105.128.870	105.162.445	105.162.445	105.162.445	105.162.445	105.162.445	105.162.445	105.162.445	105.162.445	105.162.445	105.162.445	105.162.445
Diluted Group share of earnings per share (€)	2,76	2,74	4,00	4,83	5,38	5,96	6,83	7,56	8,29	8,98	9,56	10,01	10,31
Number of shares on which the calculation is based	105.174.244	105.211.224	105.428.153	105.428.153	105.428.153	105.428.153	105.428.153	105.428.153	105.428.153	105.428.153	105.428.153	105.428.153	105.428.153

Hermès - Cash-flow statement

€M	FY2009 H	FY2010 H	FY2011 F	FY2012 F	FY2013 F	FY2014 F	FY2015 F	FY2016 F	FY2017 F	FY2018 F	FY2019 F	FY2020 F
EBIT	463	668	790	879	974	1.117	1.237	1.358	1.470	1.565	1.639	1.689
Income taxes	148	221	273	304	337	386	428	469	508	541	567	584
Depreciation and amortization expense	71	85	91	101	112	124	138	151	164	174	183	188
Capex	93	191	269	217	236	262	289	303	305	295	276	250
Financial investments	153	38	-	-	-	-	-	-	-	-	-	-
Changes in working capital	(38)	(121)	217	56	61	69	74	75	69	59	46	30
Operating cash flow	178	424	122	403	452	524	584	662	752	845	934	1.013
Other non-current assets	2	35	-	-	-	-	-	-	-	-	-	-
Changes in provisions	4	24	(10)	4	4	5	5	5	5	4	3	2
Other non-current liabilities	8	10	-	-	-	-	-	-	-	-	-	-
Total cash-flow	188	423	112	407	456	528	589	667	756	849	937	1.015
Shareholder funds	(87)	(62)	(241)	(253)	(312)	(394)	(476)	(566)	(660)	(754)	(843)	(868)
Minority Interest	(7)	(10)	(12)	(13)	(15)	(17)	(19)	(21)	(22)	(24)	(25)	(26)
Changes in borrowings	(31)	(21)	(23)	2	2	3	3	3	3	2	2	1
Net financial income (expense)	(19)	(16)	4	6	6	6	7	7	7	7	7	8
Cash-flow after changes in sources of capital	44	315	(161)	149	138	127	104	90	83	81	79	130
Opening cash balance	485	529	844	683	832	970	1.097	1.201	1.291	1.375	1.456	1.535
Closing cash balance	529	844	683	832	970	1.097	1.201	1.291	1.375	1.456	1.535	1.665

Consolidation in the Luxury Sector: Study of a merger between LVMH and Hermès

Hermès - Balance sheet

€M	FY2008 H	FY2009 H	FY2010 H	FY2011 F	FY2012 F	FY2013 F	FY2014 F	FY2015 F	FY2016 F	FY2017 F	FY2018 F	FY2019 F	FY2020 F
Brands and other intangible assets (net)	53	61	75	91	101	112	124	138	151	164	174	183	188
Goodwill (net)	36	35	37	37	37	37	37	37	37	37	37	37	37
Property, plant and equipment (net)	672	685	774	937	1,042	1,155	1,281	1,419	1,557	1,686	1,795	1,880	1,936
Investments in associates	16	15	14	14	14	14	14	14	14	14	14	14	14
Non-current available for sale financial assets	60	214	250	250	250	250	250	250	250	250	250	250	250
Other non-current assets	21	23	26	26	26	26	26	26	26	26	26	26	26
Deferred tax	141	143	178	178	178	178	178	178	178	178	178	178	178
Non-current assets	999	1,176	1,355	1,533	1,648	1,773	1,911	2,062	2,214	2,355	2,475	2,568	2,630
Inventories and work in progress	522	486	469	661	735	815	904	1,001	1,099	1,190	1,267	1,327	1,367
Trade accounts receivable	153	132	159	198	220	244	271	300	329	356	379	397	409
Other current assets	71	59	71	71	71	71	71	71	71	71	71	71	71
Fair value of financial instruments	95	58	22	22	22	22	22	22	22	22	22	22	22
Cash and cash equivalents	485	529	844	683	832	970	1,097	1,201	1,291	1,375	1,456	1,535	1,665
Current assets	1,326	1,265	1,564	1,634	1,879	2,121	2,364	2,594	2,811	3,013	3,194	3,351	3,533
Total assets	2,325	2,441	2,919	3,167	3,528	3,894	4,275	4,656	5,025	5,367	5,669	5,919	6,163
Share Capital and Other Instruments	51	81	65	65	65	65	65	65	65	65	65	65	65
Share capital	54	54	54	54	54	54	54	54	54	54	54	54	54
Share premium account	49	50	50	50	50	50	50	50	50	50	50	50	50
Other shares and share settled derivatives	(52)	(23)	(39)	(39)	(39)	(39)	(39)	(39)	(39)	(39)	(39)	(39)	(39)
Revaluation reserves	-	-	-	-	-	-	-	-	-	-	-	-	-
Other reserves (retained earnings)	1,273	1,452	1,621	1,839	2,093	2,346	2,578	2,820	3,049	3,260	3,451	3,615	3,800
Cumulative translation adjustment	(26)	(31)	43	-	-	-	-	-	-	-	-	-	-
Net profit (Group share)	290	289	422	509	567	628	720	797	874	946	1,008	1,055	1,087
Equity, Group share	1,588	1,790	2,151	2,413	2,725	3,039	3,363	3,682	3,988	4,272	4,524	4,735	4,952
Minority interests	14	14	13	18	20	22	25	27	30	32	33	35	37
Total equity	1,602	1,804	2,163	2,431	2,745	3,062	3,388	3,709	4,017	4,303	4,557	4,770	4,989
Long term borrowings	24	19	18	8	9	10	11	13	14	15	16	17	17
Provisions	3	8	14	10	11	13	14	16	17	18	20	21	21
Deferred tax	10	10	12	12	12	12	12	12	12	12	12	12	12
Other non-current liabilities	71	79	86	86	86	86	86	86	86	86	86	86	86
Non-current liabilities	108	115	131	117	119	121	124	127	129	132	134	136	137
Short term borrowings	71	45	26	12	14	15	17	18	20	22	23	24	25
Trade accounts payable	211	198	235	272	303	336	368	407	447	484	515	540	556
Income taxes	45	39	76	83	92	102	117	129	142	154	164	171	177
Provisions	15	14	31	25	28	31	35	39	42	46	49	51	53
Other current liabilities	274	224	257	227	227	227	227	227	227	227	227	227	227
Current liabilities	615	521	624	619	664	711	763	820	878	932	978	1,013	1,037
Total liabilities	723	637	755	736	783	832	887	947	1,008	1,064	1,112	1,149	1,174
Total liabilities and equity	2,325	2,441	2,919	3,167	3,528	3,894	4,275	4,656	5,025	5,367	5,669	5,919	6,163

Appendix 6 - Historical and forecasted financial statements – Merged entity without synergies
Merged Entity - Income statement

€M	FY2008 H	FY2009 H	FY2010 H	FY2011 F	FY2012 F	FY2013 F	FY2014 F	FY2015 F	FY2016 F	FY2017 F	FY2018 F	FY2019 F	FY2020 F
Revenue	18.958	18.967	22.721	25.136	27.757	30.598	33.604	36.723	39.694	42.366	44.756	46.938	48.784
Operating costs	14.816	15.082	17.647	19.331	21.501	23.375	25.503	27.780	29.940	31.888	33.628	35.227	36.570
Profit from recurring operations	4.142	3.886	5.074	5.804	6.255	7.223	8.101	8.943	9.754	10.478	11.128	11.711	12.214
<i>Profit from recurring operations margin (%)</i>	21,8%	20,5%	22,3%	23,1%	22,5%	23,6%	24,1%	24,4%	24,6%	24,7%	24,9%	25,0%	25,0%
Other operating income and expenses	485	510	633	670	740	815	894	975	1.052	1.121	1.183	1.241	1.291
EBITDA	4.627	4.396	5.707	6.475	6.995	8.037	8.995	9.918	10.806	11.599	12.311	12.952	13.505
<i>EBITDA margin (%)</i>	24,4%	23,2%	25,1%	25,8%	25,2%	26,3%	26,8%	27,0%	27,2%	27,4%	27,5%	27,6%	27,7%
Depreciation and amortization expense	693	772	870	901	994	1.096	1.204	1.315	1.422	1.517	1.603	1.681	1.747
EBIT	3.934	3.624	4.837	5.574	6.000	6.941	7.791	8.603	9.384	10.082	10.708	11.271	11.758
<i>EBIT margin (%)</i>	20,8%	19,1%	21,3%	22,2%	21,6%	22,7%	23,2%	23,4%	23,6%	23,8%	23,9%	24,0%	24,1%
Net financial income (expense)	(239)	(200)	(164)	(147)	(150)	(123)	(85)	(45)	(29)	(48)	(52)	(71)	(82)
Other financial income and expenses	(28)	(159)	767	0	0	0	0	0	0	0	0	0	0
Earnings before tax (EBT)	3.666	3.266	5.441	5.427	5.851	6.818	7.706	8.558	9.355	10.033	10.657	11.200	11.676
Income taxes	1.053	997	1.690	1.756	2.013	2.346	2.651	2.944	3.218	3.451	3.666	3.853	4.016
Net profit before minority interests	2.613	2.269	3.751	3.671	3.838	4.473	5.055	5.614	6.137	6.582	6.991	7.347	7.659
Minority interests	297	225	297	284	295	346	390	434	474	508	539	567	592
Net profit (Group share)	2.316	2.044	3.454	3.387	3.543	4.127	4.665	5.180	5.663	6.074	6.452	6.780	7.067
<i>Net profit margin (%)</i>	12,2%	10,8%	15,2%	13,5%	12,8%	13,5%	13,9%	14,1%	14,3%	14,3%	14,4%	14,4%	14,5%

Merged Entity - Cash-flow statement

€M	FY2009 H	FY2010 H	FY2011 F	FY2012 F	FY2013 F	FY2014 F	FY2015 F	FY2016 F	FY2017 F	FY2018 F	FY2019 F	FY2020 F	
EBIT	3.624	4.837	5.574	6.000	6.941	7.791	8.603	9.384	10.082	10.708	11.271	11.758	
Income taxes	997	1.690	1.756	2.013	2.346	2.651	2.944	3.218	3.451	3.666	3.853	4.016	
Depreciation and amortization expense	772	870	901	994	1.096	1.204	1.315	1.422	1.517	1.603	1.681	1.747	
Capex	936	1.545	3.133	2.958	3.226	3.450	3.638	3.625	3.495	3.378	3.319	3.151	
Financial investments	162	4.156	-	-	-	-	-	-	-	-	-	-	
Changes in working capital	(394)	(624)	1.259	513	597	622	645	617	558	498	456	388	
Operating cash flow	2.695	(1.060)	327	1.511	1.869	2.271	2.692	3.345	4.095	4.769	5.324	5.950	
Other non-current assets	(147)	182	-	-	-	-	-	-	-	-	-	-	
Changes in provisions	51	206	177	179	194	204	211	199	179	161	149	129	
Other non-current liabilities	(152)	1.105	281	437	474	498	513	485	434	391	365	317	
Total cash-flow	2.741	69	785	2.127	2.537	2.974	3.415	4.030	4.708	5.321	5.838	6.396	
Shareholder funds	(850)	325	(586)	(1.004)	(1.195)	(1.600)	(2.518)	(3.820)	(4.145)	(5.035)	(5.345)	(5.571)	
Minority interest	(225)	(297)	(284)	(295)	(346)	(390)	(434)	(474)	(508)	(539)	(567)	(592)	
Changes in borrowings	169	(540)	78	162	(523)	(228)	437	413	370	333	311	270	
Net financial income (expense)	(358)	603	(147)	(150)	(123)	(85)	(45)	(29)	(48)	(52)	(71)	(82)	
Cash-flow after changes in sources of capital	1.477	161	(155)	840	350	671	856	120	377	29	167	421	
Opening cash balance	1.498	2.975	3.136	2.981	3.822	4.172	4.843	5.699	5.818	6.195	6.224	6.391	6.391
Closing cash balance	2.975	3.136	2.981	3.822	4.172	4.843	5.699	5.818	6.195	6.224	6.391	6.811	6.811

Consolidation in the Luxury Sector: Study of a merger between LVMH and Hermès

Merged Entity - Balance sheet

€M	FY2008 H	FY2009 H	FY2010 H	FY2011 F	FY2012 F	FY2013 F	FY2014 F	FY2015 F	FY2016 F	FY2017 F	FY2018 F	FY2019 F	FY2020 F
Brands and other intangible assets (net)	8.576	8.758	9.179	10.156	11.207	12.346	13.544	14.779	15.947	16.992	17.934	18.812	19.572
Goodwill (net)	4.459	4.305	5.064	5.064	5.064	5.064	5.064	5.064	5.064	5.064	5.064	5.064	5.064
Property, plant and equipment (net)	6.753	6.825	7.507	8.763	9.677	10.667	11.715	12.803	13.839	14.771	15.604	16.365	17.008
Investments in associates	232	228	237	237	237	237	237	237	237	237	237	237	237
Non-current available for sale financial assets	435	754	4.141	4.141	4.141	4.141	4.141	4.141	4.141	4.141	4.141	4.141	4.141
Other non-current assets	862	773	345	345	345	345	345	345	345	345	345	345	345
Deferred tax	811	664	846	846	846	846	846	846	846	846	846	846	846
Non-current assets	22.128	22.307	27.320	29.553	31.517	33.646	35.893	38.215	40.419	42.396	44.171	45.810	47.213
Inventories and work in progress	6.286	6.130	6.460	7.859	8.677	9.564	10.501	11.471	12.394	13.224	13.967	14.649	15.228
Trade accounts receivable	1.803	1.587	1.724	1.928	2.129	2.347	2.577	2.816	3.044	3.249	3.432	3.599	3.741
Other current assets	1.998	1.489	1.422	1.750	1.882	2.038	2.193	2.354	2.506	2.641	2.763	2.876	2.975
Fair value of financial instruments	95	58	22	22	22	22	22	22	22	22	22	22	22
Cash and cash equivalents	1.498	2.975	3.136	2.981	3.822	4.172	4.843	5.699	5.818	6.195	6.224	6.391	6.811
Current assets	11.680	12.240	12.763	14.540	16.531	18.143	20.136	22.362	23.785	25.331	26.408	27.536	28.778
Total assets	33.808	34.547	40.083	44.093	48.047	51.789	56.029	60.578	64.203	67.727	70.579	73.346	75.991
Share Capital and Other Instruments	1.770	1.933	2.631	2.631	2.631	2.631	2.631	2.631	2.631	2.631	2.631	2.631	2.631
Share capital	201	201	201	201	201	201	201	201	201	201	201	201	201
Share premium account	1.786	1.813	1.832	1.832	1.832	1.832	1.832	1.832	1.832	1.832	1.832	1.832	1.832
Other shares and share settled derivatives	(1.035)	(952)	(646)	(646)	(646)	(646)	(646)	(646)	(646)	(646)	(646)	(646)	(646)
Revaluation reserves	818	871	1.244	1.244	1.244	1.244	1.244	1.244	1.244	1.244	1.244	1.244	1.244
Other reserves (retained earnings)	10.703	12.136	12.991	15.810	18.049	20.228	22.578	24.573	25.833	27.244	28.207	29.234	30.361
Cumulative translation adjustment	(397)	(526)	273	-	-	-	-	-	-	-	-	-	-
Net profit (Group share)	2.316	2.044	3.454	3.387	3.543	4.127	4.665	5.180	5.663	6.074	6.452	6.780	7.067
Equity, Group share	14.392	15.586	19.349	21.827	24.222	26.985	29.874	32.384	34.126	35.949	37.289	38.645	40.059
Minority interests	1.003	1.003	1.019	1.341	1.485	1.654	1.831	1.983	2.083	2.190	2.266	2.345	2.428
Total equity	15.395	16.589	20.367	23.168	25.707	28.639	31.705	34.367	36.209	38.138	39.555	40.991	42.487
Long term borrowings	3.762	4.096	3.450	3.507	3.612	3.270	3.121	3.405	3.674	3.914	4.131	4.333	4.509
Provisions	974	998	1.181	1.298	1.432	1.578	1.731	1.889	2.038	2.171	2.292	2.404	2.501
Deferred tax	3.123	3.127	3.366	3.366	3.366	3.366	3.366	3.366	3.366	3.366	3.366	3.366	3.366
Other non-current liabilities	3.324	3.168	4.033	4.314	4.751	5.225	5.723	6.237	6.721	7.155	7.546	7.912	8.229
Non-current liabilities	11.183	11.388	12.031	12.485	13.161	13.439	13.941	14.896	15.799	16.607	17.335	18.015	18.604
Short term borrowings	1.918	1.753	1.860	1.882	1.939	1.757	1.678	1.831	1.976	2.105	2.222	2.331	2.425
Trade accounts payable	2.503	2.109	2.533	2.916	3.243	3.526	3.848	4.191	4.517	4.811	5.074	5.315	5.518
Income taxes	349	260	522	531	609	709	802	890	973	1.044	1.109	1.165	1.215
Provisions	321	348	370	430	475	524	575	628	678	723	763	800	832
Other current liabilities	2.140	2.098	2.400	2.681	2.913	3.195	3.481	3.774	4.051	4.298	4.521	4.728	4.909
Current liabilities	7.230	6.569	7.684	8.440	9.179	9.710	10.383	11.315	12.195	12.981	13.689	14.340	14.899
Total liabilities	18.413	17.958	19.715	20.925	22.340	23.149	24.324	26.211	27.994	29.589	31.024	32.355	33.504
Total liabilities and equity	33.808	34.547	40.083	44.093	48.047	51.789	56.029	60.578	64.203	67.727	70.579	73.346	75.991

Appendix 7 - Historical and forecasted financial statements – Merged entity with synergies
Merged Entity (w/ synergies) - Income statement

€M	FY2008 H	FY2009 H	FY2010 H	FY2011 F	FY2012 F	FY2013 F	FY2014 F	FY2015 F	FY2016 F	FY2017 F	FY2018 F	FY2019 F	FY2020 F
Revenue	18.958	18.967	22.721	25.136	27.807	30.736	33.849	37.092	40.204	42.991	45.459	47.630	49.503
Operating costs	14.816	15.082	17.647	19.331	21.429	23.143	25.249	27.576	29.802	31.799	33.565	35.127	36.466
Profit from recurring operations	4.142	3.886	5.074	5.804	6.378	7.593	8.600	9.515	10.402	11.192	11.894	12.503	13.038
<i>Profit from recurring operations margin (%)</i>	21,8%	20,5%	22,3%	23,1%	22,9%	24,7%	25,4%	25,7%	25,9%	26,0%	26,2%	26,3%	26,3%
Other operating income and expenses	485	510	633	670	(234)	(159)	894	975	1.052	1.121	1.183	1.241	1.291
EBITDA	4.627	4.396	5.707	6.475	6.144	7.435	9.494	10.490	11.454	12.312	13.077	13.744	14.328
<i>EBITDA margin (%)</i>	24,4%	23,2%	25,1%	25,8%	22,1%	24,2%	28,0%	28,3%	28,5%	28,6%	28,8%	28,9%	28,9%
Depreciation and amortization expense	693	772	870	901	994	1.096	1.204	1.315	1.422	1.517	1.603	1.681	1.747
EBIT	3.934	3.624	4.837	5.574	5.149	6.338	8.290	9.175	10.032	10.795	11.474	12.063	12.581
<i>EBIT margin (%)</i>	20,8%	19,1%	21,3%	22,2%	18,5%	20,6%	24,5%	24,7%	25,0%	25,1%	25,2%	25,3%	25,4%
Net financial income (expense)	(239)	(200)	(164)	(147)	(150)	(123)	(90)	(48)	(31)	(52)	(56)	(76)	(88)
Other financial income and expenses	(28)	(159)	767	0	0	0	0	0	0	0	0	0	0
Earnings before tax (EBT)	3.666	3.266	5.441	5.427	4.999	6.215	8.200	9.127	10.001	10.743	11.419	11.987	12.493
Income taxes	1.053	997	1.690	1.756	2.013	2.346	2.651	2.944	3.218	3.451	3.666	3.853	4.016
Net profit before minority interests	2.613	2.269	3.751	3.671	2.987	3.870	5.549	6.183	6.783	7.292	7.753	8.134	8.477
Minority interests	297	225	297	284	295	346	390	434	474	508	539	567	592
Net profit (Group share)	2.316	2.044	3.454	3.387	2.692	3.524	5.159	5.749	6.309	6.784	7.214	7.567	7.885
<i>Net profit margin (%)</i>	12,2%	10,8%	15,2%	13,5%	9,7%	11,5%	15,2%	15,5%	15,7%	15,8%	15,9%	15,9%	15,9%

Merged Entity (w/ synergies) - Cash-flow statement

€M	FY2009 H	FY2010 H	FY2011 F	FY2012 F	FY2013 F	FY2014 F	FY2015 F	FY2016 F	FY2017 F	FY2018 F	FY2019 F	FY2020 F
EBIT	3.624	4.837	5.574	5.149	6.338	8.290	9.175	10.032	10.795	11.474	12.063	12.581
Income taxes	997	1.690	1.756	2.013	2.346	2.651	2.944	3.218	3.451	3.666	3.853	4.016
Depreciation and amortization expense	772	870	901	994	1.096	1.204	1.315	1.422	1.517	1.603	1.681	1.747
Capex	936	1.545	3.133	2.997	3.293	3.531	3.732	3.732	3.581	3.436	3.311	3.171
Financial investments	162	4.156	-	-	-	-	-	-	-	-	-	-
Changes in working capital	(394)	(624)	1.259	137	606	621	640	620	558	491	425	367
Operating cash flow	2.695	(1.060)	327	998	1.189	2.691	3.174	3.884	4.721	5.483	6.155	6.773
Other non-current assets	(147)	182	-	-	-	-	-	-	-	-	-	-
Changes in provisions	51	206	177	179	194	204	211	199	179	161	149	129
Other non-current liabilities	(152)	1.105	281	437	474	498	513	485	434	391	365	317
Total cash-flow	2.741	69	785	1.614	1.857	3.394	3.898	4.568	5.334	6.035	6.670	7.219
Shareholder funds	(850)	325	(586)	(152)	(591)	(2.093)	(3.087)	(4.466)	(4.855)	(5.797)	(6.131)	(6.389)
Minority Interest	(225)	(297)	(284)	(295)	(346)	(390)	(434)	(474)	(508)	(539)	(567)	(592)
Changes in borrowings	169	(540)	78	172	(510)	39	483	462	413	367	326	285
Net financial income (expense)	(358)	603	(147)	(150)	(123)	(90)	(48)	(31)	(52)	(56)	(76)	(88)
Cash-flow after changes in sources of capital	1.477	160	(155)	1.188	286	859	812	58	332	10	222	436
Opening cash balance	1.498	2.975	3.136	2.981	4.169	4.455	5.314	6.126	6.184	6.517	6.527	6.749
Closing cash balance	2.975	3.136	2.981	4.169	4.455	5.314	6.126	6.184	6.517	6.527	6.749	7.185

Consolidation in the Luxury Sector: Study of a merger between LVMH and Hermès

Merged Entity (w/ synergies) - Balance sheet

€M	FY2008 H	FY2009 H	FY2010 H	FY2011 F	FY2012 F	FY2013 F	FY2014 F	FY2015 F	FY2016 F	FY2017 F	FY2018 F	FY2019 F	FY2020 F
Brands and other intangible assets (net)	8.576	8.758	9.179	10.156	11.227	12.402	13.643	14.928	16.152	17.243	18.216	19.089	19.860
Goodwill (net)	4.459	4.305	5.064	5.064	5.064	5.064	5.064	5.064	5.064	5.064	5.064	5.064	5.064
Property, plant and equipment (net)	6.753	6.825	7.507	8.763	9.694	10.716	11.801	12.932	14.017	14.988	15.849	16.606	17.259
Investments in associates	232	228	237	237	237	237	237	237	237	237	237	237	237
Non-current available for sale financial assets	435	754	4.141	4.141	4.141	4.141	4.141	4.141	4.141	4.141	4.141	4.141	4.141
Other non-current assets	862	773	345	345	345	346	347	348	349	350	350	350	350
Deferred tax	811	664	846	846	846	846	846	846	846	846	846	846	846
Non-current assets	22.128	22.307	27.320	29.553	31.555	33.752	36.079	38.496	40.806	42.870	44.704	46.333	47.758
Inventories and work in progress	6.286	6.130	6.460	7.859	7.836	8.662	9.539	10.453	11.330	12.116	12.811	13.423	13.951
Trade accounts receivable	1.803	1.587	1.724	1.928	2.285	2.526	2.782	3.049	3.304	3.533	3.736	3.915	4.069
Other current assets	1.998	1.489	1.422	1.750	1.882	2.038	2.193	2.354	2.506	2.641	2.763	2.876	2.975
Fair value of financial instruments	95	58	22	22	22	22	22	22	22	22	22	22	22
Cash and cash equivalents	1.498	2.975	3.136	2.981	4.169	4.455	5.314	6.126	6.184	6.517	6.527	6.749	7.185
Current assets	11.680	12.240	12.763	14.540	16.194	17.704	19.851	22.003	23.347	24.828	25.859	26.984	28.201
Total assets	33.808	34.547	40.083	44.093	47.749	51.456	55.930	60.499	64.153	67.698	70.563	73.317	75.959
Share Capital and Other Instruments	1.770	1.933	2.631	2.631	2.631	2.631	2.631	2.631	2.631	2.631	2.631	2.631	2.631
Share capital	201	201	201	201	201	201	201	201	201	201	201	201	201
Share premium account	1.786	1.813	1.832	1.832	1.832	1.832	1.832	1.832	1.832	1.832	1.832	1.832	1.832
Other shares and share settled derivatives	(1.035)	(952)	(646)	(646)	(646)	(646)	(646)	(646)	(646)	(646)	(646)	(646)	(646)
Revaluation reserves	818	871	1.244	1.244	1.244	1.244	1.244	1.244	1.244	1.244	1.244	1.244	1.244
Other reserves (retained earnings)	10.703	12.136	12.991	15.810	18.049	20.228	22.578	24.573	25.833	27.244	28.207	29.234	30.361
Cumulative translation adjustment	(397)	(526)	273	-	-	-	-	-	-	-	-	-	-
Net profit (Group share)	2.316	2.044	3.454	3.387	3.543	4.127	4.665	5.180	5.663	6.074	6.452	6.780	7.067
Equity, Group share	14.392	15.586	19.349	21.827	24.222	26.985	29.874	32.384	34.126	35.949	37.289	38.645	40.059
Minority interests	1.003	1.003	1.019	1.341	1.485	1.654	1.831	1.983	2.083	2.190	2.266	2.345	2.428
Total equity	15.395	16.589	20.367	23.168	25.707	28.639	31.705	34.367	36.209	38.138	39.555	40.991	42.487
Long term borrowings	3.762	4.096	3.450	3.501	3.613	3.281	3.306	3.620	3.920	4.188	4.427	4.638	4.823
Provisions	974	998	1.181	1.298	1.432	1.578	1.731	1.889	2.038	2.171	2.292	2.404	2.501
Deferred tax	3.123	3.127	3.366	3.366	3.366	3.366	3.366	3.366	3.366	3.366	3.366	3.366	3.366
Other non-current liabilities	3.324	3.168	4.033	4.314	4.751	5.225	5.723	6.237	6.721	7.155	7.546	7.912	8.229
Non-current liabilities	11.183	11.388	12.031	12.479	13.162	13.450	14.127	15.111	16.045	16.881	17.631	18.320	18.919
Short term borrowings	1.918	1.753	1.860	1.887	1.948	1.769	1.782	1.952	2.113	2.258	2.386	2.501	2.600
Trade accounts payable	2.503	2.109	2.533	2.916	2.935	3.170	3.459	3.778	4.082	4.356	4.598	4.812	4.995
Income taxes	349	260	522	531	609	709	802	890	973	1.044	1.109	1.165	1.215
Provisions	321	348	370	430	475	524	575	628	678	723	763	800	832
Other current liabilities	2.140	2.098	2.400	2.681	2.913	3.195	3.481	3.774	4.051	4.298	4.521	4.728	4.909
Current liabilities	7.230	6.569	7.684	8.446	8.880	9.367	10.099	11.021	11.898	12.679	13.377	14.007	14.552
Total liabilities	18.413	17.958	19.715	20.925	22.042	22.817	24.225	26.133	27.943	29.560	31.008	32.327	33.472
Total liabilities and equity	33.808	34.547	40.083	44.093	47.749	51.456	55.930	60.499	64.153	67.698	70.563	73.317	75.959

Appendix 8 - FCFF valuation results

DCF Valuation results												
LVMH - FCFF	FY2009 H	FY2010 H	FY2011 F	FY2012 F	FY2013 F	FY2014 F	FY2015 F	FY2016 F	FY2017 F	FY2018 F	FY2019 F	FY2020 F
FCFF			205	1.109	1.417	1.748	2.107	2.684	3.343	3.924	4.389	4.937
Terminal value												99.365
Discount factor			1,081	1,169	1,264	1,366	1,477	1,597	1,727	1,867	2,019	2,183
Present value of FCFF and Terminal value			190	948	1.121	1.279	1.427	1.680	1.936	2.102	2.174	47.789
Entreprise value	60.646											
Net debt	2.974											
Minority interest	1.006											
Equity value	56.666											
Number of shares	476.870.920											
Price per share (€)	118,83											
Hermès - FCFF	FY2009 H	FY2010 H	FY2011 F	FY2012 F	FY2013 F	FY2014 F	FY2015 F	FY2016 F	FY2017 F	FY2018 F	FY2019 F	FY2020 F
FCFF			122	403	452	524	584	662	752	845	934	1.013
Terminal value												19.463
Discount factor			1,084	1,174	1,272	1,379	1,494	1,619	1,754	1,901	2,060	2,232
Present value of FCFF and Terminal value			112	343	355	380	391	409	428	445	454	9.174
Entreprise value	12.490											
Net debt (cash)	(801)											
Minority interest	13											
Equity value	13.278											
Number of shares	105.162.445											
Price per share (€)	126,26											
Merged (no syn) - FCFF	FY2009 H	FY2010 H	FY2011 F	FY2012 F	FY2013 F	FY2014 F	FY2015 F	FY2016 F	FY2017 F	FY2018 F	FY2019 F	FY2020 F
FCFF			327	1.511	1.869	2.271	2.692	3.345	4.095	4.769	5.324	5.950
Terminal value												119.381
Discount factor			1,081	1,169	1,264	1,367	1,478	1,599	1,729	1,869	2,021	2,186
Present value of FCFF and Terminal value			302	1.292	1.478	1.661	1.821	2.093	2.369	2.551	2.634	57.340
Entreprise value	73.542		302	1.291	1.476	1.659	1.818	2.089	2.364	2.546	2.628	56.963
Net debt	2.174											
Minority interest	1.019											
Equity value	70.349											
Merged (syn) - FCFF	FY2009 H	FY2010 H	FY2011 F	FY2012 F	FY2013 F	FY2014 F	FY2015 F	FY2016 F	FY2017 F	FY2018 F	FY2019 F	FY2020 F
FCFF			327	998	1.189	2.691	3.174	3.884	4.721	5.483	6.155	6.773
Terminal value												137.118
Discount factor			1,081	1,168	1,263	1,365	1,475	1,595	1,724	1,863	2,014	2,177
Present value of FCFF and Terminal value			303	854	942	1.972	2.151	2.435	2.739	2.943	3.057	66.110
Entreprise value	83.507											
Net debt	2.174											
Minority interest	1.019											
Equity value	80.314											

Appendix 9 - APV valuation results

LVMH - APV	FY2009 H	FY2010 H	FY2011 F	FY2012 F	FY2013 F	FY2014 F	FY2015 F	FY2016 F	FY2017 F	FY2018 F	FY2019 F	FY2020 F
Enterprise value	57.873											
Net debt	3.130											
Minority interest	1.006											
Equity value	53.737											
Number of shares	476.870.920											
Price per share (€)	112,69											
Operating cash flow												
FCFF			205	1.109	1.417	1.748	2.107	2.684	3.343	3.924	4.389	4.937
Terminal value												94.872
Discount factor			1,084	1,174	1,272	1,379	1,494	1,619	1,754	1,901	2,060	2,232
Present value of FCFF and Terminal value			190	944	1.114	1.268	1.411	1.658	1.906	2.064	2.131	44.718
PV of FCFF	57.403											
Tax shields												
Net financial expense			151	156	129	91	52	36	55	59	78	90
Tax rate			34,4%	34,4%	34,4%	34,4%	34,4%	34,4%	34,4%	34,4%	34,4%	34,4%
Terminal value												593
Tax shield			52	54	44	31	18	12	19	20	27	31
Discount factor			1,084	1,174	1,272	1,379	1,494	1,619	1,754	1,901	2,060	2,232
Discounted tax shields			48	46	35	23	12	8	11	11	13	280
PV of tax shields	485											
Constant capital structure ratio adjustment	1,031											
Total PV of tax shields	500											
Financial distress												
Probability of default	0,50%											
Expected bankruptcy costs (% of firm value)	10,0%											
Expected bankruptcy costs	6.065											
Cost of financial distress	30											

Hermès - APV	FY2009 H	FY2010 H	FY2011 F	FY2012 F	FY2013 F	FY2014 F	FY2015 F	FY2016 F	FY2017 F	FY2018 F	FY2019 F	FY2020 F
Enterprise value	12.484											
Net debt	(801)											
Minority interest	13											
Equity value	13.272											
Number of shares	105.162.445											
Price per share (€)	126,20											
Operating cash flow												
FCFF			122	403	452	524	584	662	752	845	934	1.013
Terminal value												19.463
Discount factor			1,084	1,174	1,272	1,379	1,494	1,619	1,754	1,901	2,060	2,232
Present value of FCFF and Terminal value			112	343	355	380	391	409	428	445	454	9.174
PV of FCFF	12.490											
Financial distress												
Probability of default	0,50%											
Expected bankruptcy costs (% of firm value)	10,0%											
Expected bankruptcy costs	1.249											
Cost of financial distress	6											

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Merged (no syn) - APV	FY2009 H	FY2010 H	FY2011 F	FY2012 F	FY2013 F	FY2014 F	FY2015 F	FY2016 F	FY2017 F	FY2018 F	FY2019 F	FY2020 F
Enterprise value	70.321											
Net debt	2.174											
Minority interest	1.019											
Equity value	67.129											
Operating cash flow												
FCFF			327	1.511	1.869	2.271	2.692	3.345	4.095	4.769	5.324	5.950
Terminal value												114.335
Discount factor			1,084	1,174	1,272	1,379	1,494	1,619	1,754	1,901	2,060	2,232
Present value of FCFF and Terminal value			302	1.287	1.469	1.647	1.802	2.067	2.334	2.509	2.585	53.892
PV of FCFF	69.893											
Tax shields												
Net financial expense			147	150	123	85	45	29	48	52	71	82
Tax rate			34,4%	34,4%	34,4%	34,4%	34,4%	34,4%	34,4%	34,4%	34,4%	34,4%
Terminal value												543
Tax shield			51	52	42	29	16	10	17	18	24	28
Discount factor			1,084	1,174	1,272	1,379	1,494	1,619	1,754	1,901	2,060	2,232
Discounted tax shields			47	44	33	21	10	6	9	9	12	256
PV of tax shields	448											
Constant capital structure ratio adjustment	1,034											
Total PV of tax shields	463											
Financial distress												
Probability of default	0,50%											
Expected bankruptcy costs (% of firm value)	10,0%											
Expected bankruptcy costs	6.989											
Cost of financial distress	35											

Consolidation in the Luxury Sector: Study of a merger between LVMH and Hermès

Merged (syn) - APV	FY2009 H	FY2010 H	FY2011 F	FY2012 F	FY2013 F	FY2014 F	FY2015 F	FY2016 F	FY2017 F	FY2018 F	FY2019 F	FY2020 F
Enterprise value	78.922											
Net debt	2.174											
Minority interest	1.019											
Equity value	75.729											
Operating cash flow												
FCFF			327	998	1.189	2.691	3.174	3.884	4.721	5.483	6.155	6.773
Terminal value												130.154
Discount factor			1,084	1,174	1,272	1,379	1,494	1,619	1,754	1,901	2,060	2,232
Present value of FCFF and Terminal value			302	850	935	1.952	2.125	2.399	2.691	2.885	2.988	61.348
PV of FCFF	78.475											
Tax shields												
Net financial expense			147	150	123	90	48	31	52	56	76	88
Tax rate			34,4%	34,4%	34,4%	34,4%	34,4%	34,4%	34,4%	34,4%	34,4%	34,4%
Terminal value												581
Tax shield			51	52	42	31	17	11	18	19	26	30
Discount factor			1,084	1,174	1,272	1,379	1,494	1,619	1,754	1,901	2,060	2,232
Discounted tax shields			47	44	33	22	11	7	10	10	13	274
PV of tax shields	471											
Constant capital structure ratio adjustment	1,034											
Total PV of tax shields	487											
Financial distress												
Probability of default	0,50%											
Expected bankruptcy costs (% of firm value)	10,0%											
Expected bankruptcy costs	7.847											
Cost of financial distress	39											

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