



Mergers & Acquisitions

The case of LVMH and BVLGARI

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Abstract

LVMH Moët Hennessy - Louis Vuitton, the biggest player on the luxury industry, has announced on March 2011 a further step on its consolidation strategy. LVMH announced the acquisition of Bulgari, a company owned majorly by the Bulgari family.

This thesis aims to analyse the value creation potential of this acquisition. The data of the valuation exercise is prior to the acquisition, aiming to understand the deal from an *ex-ante* point of view.

The valuation exercise is based on the valuation literature and on the analysis of the luxury industry players, structure, profitability and expected growth.

Bulgari, pre-deal, is considered to be overvalued. The company is failing to keep up with the high growth rate of the luxury industry.

The synergies are estimated at 96% of the company's pre-deal estimated price and around 60% of its market capitalization.

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1. INTRODUCTION

In the Luxury Industry, a trend of consolidation is observed over the last years.

The purpose, here, is to evaluate one of the major M&A deals in the luxury industry – the acquisition of Bulgari by LVMH. The deal is considered, however, small for LVMH.

It starts by the literature review, describing valuation methods, while focusing on the methods that will be, latter, applied on the valuation exercise. The literature review provides the theoretical framework that supports the valuation process. It begins with the Valuation literature, followed by the Mergers and Acquisitions literature review.

A description of each company is made, subsequently the luxury industry is described and analysed. Both companies are then, individually, valued. Afterwards, the valuation of the consolidated entity is carried out, with particular emphasis on the synergies potential.

2. LITERTURE REVIEW

2.1. Company Valuation

The objective of this thesis is to evaluate the acquisition of Bulgari by LVMH Moët Hennessy - Louis Vuitton. The valuation will be made from an ex ante perspective.

The focus of the exercise is, mainly, the value created by the merger deal and its distribution between acquire shareholders and target shareholders.

The acquisition deal will be assessed through the valuation of three entities: acquire, target and consolidated (with and without the potential synergies). The valuation exercise must be supported by a prior review of the academic literature on the valuation topic. Secondly, a review of the Mergers & Acquisitions literature provides the theoretical framework to the valuation of the merged entity and its specific topics (e.g. synergies).

2.1.1. Discounted Cash Flow valuation – Equity

The value of an asset is its future expected cash flows, discounted at an appropriate discount rate, reflecting the opportunity cost. Following the same rationale, the value of a firm is the value of its expected future cash flows discounted at an appropriate discount rate.

As such, the valuation exercise will be done via the discount of the future expected cash flows. The exercise will be, then, complemented with the Relative valuation.

The DFC valuation can be done via numerous methods. Fernandez (2009) presents ten methods to compute it based on nine theories, ranging from Modigliani & Miller and Harris & Pringle to Damodaran and practitioners' models. In essence, it's the cash flow and the discount rate that change. The Discounted Cash Flow methods can be synthesized in three major groups: equity valuation, company valuation (whole firm) and Adjusted Present Value (Damodaran 2002).

Equity valuation is made either through the estimation of the present value of future expected Free Cash Flows to the Equity, either through the estimation of the Present

value of the future expected dividend payments. Despite of the cash flow applied, whether FCFE or Dividend, the proper discounted rate is the cost of levered equity.

Free Cash Flows fro the Equity (FCFE)

The FCFE can be defined as the cash flow available, after conforming with all the obligations, to be distributed to shareholders.

(2.1) Free Cash Flow for the Equity = Net Income – (Capital Expenditures – Depreciation) – (Change in noncash working capital) + (New debt issued – Debt repayments)

(2.2) Value = $FCFE_1 / (Ke - g)$

$FCFE_1$ = Free Cash Flow to Equity next year

Ke = Cost of equity (levered)

g = Growth rate in dividends forever

It's appropriate to use FCFE Model when the firm doesn't pay dividends or these are considerably different from the FCFE.

Dividend Discount Model (DDM)

The Dividend Discount Model defines the equity price as the discounted value of the future expected stream of dividends to be received on the shares (perpetually).

(2.3) Value of Stock = $DPS_1 / (Ke - g)$

DPS_1 = Expected Dividend next year

Ke = Cost of equity (levered)

g = Growth rate in dividends forever

The model is “extremely sensitive” to the growth rate. A small change on the latter has an enormous impact on the value of the stock (Damodaran 2002). In addition, the author recommends the DDM valuation to be limited to:

- Firms having a growth rate less, or equal, to the nominal growth of the economy;
- Firms which have, and are expected to maintain, a stable dividend payout policy.

Berk and Demarzo (2007) also stress the sensitiveness of DDM model to the growth rate. Furthermore, attention is drawn to the “tremendous amount of uncertainty” on the estimation of future dividends, as this means forecasting the dividend payout rate, number of shares (in the future) and firm’s earnings. Earnings depend on interest expense, which will depend on the debt; dividend payout rate and the number of shares will depend if the firm uses its earnings to repurchase its shares.

2.1.2. Discounted Cash Flow valuation - All firm

To evaluate the entire firm (i.e. equity plus debt), the appropriate cash flow is the Free Cash Flow for the Firm. The FCFF represents all the cash flow available to all claimholders.

$$(2.4) \quad \text{Free cash flow for the firm} = \text{EBIT} (1 - \text{Tax rate}) + \text{Depreciation} - \text{Capital Expenditures} - \text{Variations in Net working Capital}$$

The tax rate above mentioned is the company’s marginal tax rate (DePamphilis 2011). The FCFF is then discounted at a rate reflecting the opportunity cost of the invested amount. The opportunity cost reflects both the time value of money and the risk of the investment.

There are two alternative ways of estimating the value of the company. The WACC takes the FCFF and discounts it at the weighted average cost of capital. The APV discounts FCFF at an unlevered cost of equity and then the value created by the financial decision is added.

2.1.2.1. WACC

WACC method discounts the expected free cash flows for the firm at a weighted average cost of capital. The weighted average of capital is both a weighted average of cost and a return (Fernandez 2010). WACC can be seen as the cost of capital or as the

required return on the firm's total capital. In practice, WACC is the average of the cost of equity (weighted by the proportion of equity on the capital structure at market value) and the cost of debt (weighted by the proportion of debt on the capital structure at market value). It's computed as follows:

$$(2.5) \quad WACC = (E / V) * Re + (D / V) * Rd * (1 - Tc)$$

E/V = % of capital accounted by Equity, on the firm's total capital, at market value

D/V = % of capital accounted by Debt, on the firm's total capital, at market value

Re = Cost of equity

Rd = Cost of Debt

Tc = Corporate tax rate

V = Market value of the company (sum of equity and debt)

WACC assumes that the structure of capital can add value to the firm. Modigliani and Miller proposition I states that under a perfect market (with no taxes), the value of the firm isn't affected by its capital structure. However in a taxed world, the interest paid on the debt increases the tax deductible costs of the firm, thus allowing a lower taxation.

Hence, WACC considers that the financing and investment decisions are interrelated. The decision of how to finance, will impact the tax savings that can be achieved on the investment. This impact is materialized in WACC via a lower cost of debt, which generates a lower discount rate (WACC).

The WACC requires the capital structure of the company to remain stable (Brealey et al. 2008), otherwise the weights of debt and equity will change. Hence, the company is required to rebalance its structure, continuously, to maintain the debt and equity ratios constant (in market values). In practice, this isn't workable.

For a company, which isn't expected to shift its capital structure significantly, it's enough to assume a capital structure, stable in the long run, achieved using gradual but constant adjustments. For a company expected to change its structure materially, APV is more appropriated.

Copeland et al (2002) proposed a three steps methodology for the WACC exercise (Figure 1):

Figure 1: WACC methodology



2.1.2.2. APV

APV results from the sum of two cash flows: the present value of the investment decision effect and the Present value of the financing decision (Miles and Ezzell 1980).

The APV formula is the following (Berk and Demarzo 2007):

$$(2.6) \quad APV = V^U + PV(\text{Interest Tax Shield}) - PV(\text{Financial distress, Agency and Issuance Costs})$$

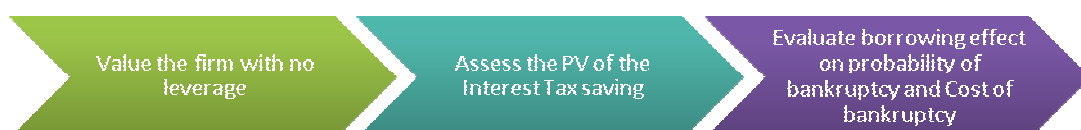
APV = Value of the levered firm

V^U = Value of unlevered firm (the value of the firm without debt, also referred as base-case)

In practice, the firm is, firstly, valued as if financed exclusively by equity. Then, the value added by the financing decision is estimated (e.g. interest tax shield, subsidized loan), allowing to understand the value added by each component to the firm. The APV method appears also as a solution for the WACC capital structure change limitation above described.

Damodaran (2002) defines a three steps process in the APV method (Figure 2):

Figure 2: APV methodology



The value of the firm base case is computed, by discounting the Cash flows at the opportunity cost of capital (unlevered cost of equity). The unlevered cost of equity can be defined as the opportunity cost for an investor to invest on a similar, but entirely equity financed, company.

The inputs of the tax savings valuation are the debt interest rate and the corporate tax rate (marginal tax rate). The tax savings are usually discounted at the debt discount rate, implying that the debt interest has the same risk as the tax savings.

The inputs of expected Bankruptcy cost present value are: probability of bankruptcy and bankruptcy costs. The probability of bankruptcy can be extrapolated from the default probability associated to a determined bond. The PV of bankruptcy cost includes both direct costs (e.g. lawyer fees, trustees' fees) and indirect costs (e.g. profit not incurred).

2.1.2.3. APV vs. WACC

Luerman (1997) considers WACC, the rule method for valuation in the past, as being currently “obsolete” and surpassed by APV. The author’s arguments are that:

- APV works always when WACC does and also when it doesn't;
- WACC is more propitious to incur on major errors than APV;
- The information provided by APV to the valuation allows understanding the contribution of each component to the overall value (being this major advantage of the method).

Froot (1997) denotes specific cases where WACC isn't reliable, namely: capital structures that are expected to change, subsidized or local financing available, particular benefits or costs associated with financing exist, concluding that in these cases, APV should be used.

Meyers (1974) when presenting the APV also highlighted the information provided by the model as “perhaps the greatest advantage of APV”, allowing to guide manager towards the different decisions comprised on the project (e.g. subsidized loan, borrow versus lease and lease versus buy decisions).

Ciccola and Pecatti (2003) seem to be in accordance as they consider APV a method of higher performance when valuing a leveraged investment, but admit that, in practice; it

is WACC the most commonly used method. The survey carried out by Harvey and Graham (2001) shows that only 10.78% of CEO uses always or almost always APV technique when deciding which project or acquisition to take whereas 75.7% states that use always or almost always NPV when taking that decision. The survey includes other techniques such as: APV, Internal Rate of Return, Net present Value, Real options, among others. Summing up, the literature seems to consider APV as superior. Nonetheless, evidence is found that in practice; APV is still not that widespread, being the use of WACC more conventional

For a firm having an optimal or target debt ratio, the APV adds little if anything to WACC valuation (Booth, 2007).

Sabal (2010) argues that for practical purposes, whenever the debt ratio is stable on the long term, WACC might be a good approximation. Moreover, the author stresses an important advantage of WACC vis-à-vis APV. If the firm aims to have a stable ratio of debt, then the amount of debt will change depending of the value of the firm (to make the ratio constant), WACC by taking in consideration only the ratio, will automatically resolve this issue.

Copeland et al. (2002) stresses that if both are done correctly and with the same underlying assumptions, they would yield the same valuation values.

Because WACC is the most conventional method and because this valuation doesn't fall on any of the cases where APV is found to have a superior insight, WACC will be used on this valuation exercise.

2.1.3. Discount rates

The above described valuation methods are made via the discount of the described cash flows at the proper discount rate. For the three methods, the necessary discount rates are: cost of levered equity (DDM, FCFE and WACC), cost of unlevered equity (APV), and cost of debt (WACC and APV).

2.1.3.1. Cost of equity

There are two methods to estimate the cost of equity: CAPM and APT. The three factor model, a variation of APT, will also be presented.

Capital pricing Asset Model (CAPM)

CAPM grounds on the basis that the security expected risk premium is proportional to the beta of the stock. The beta is the measure of the relation between the stock return and the market's return.

$$(2.7) \quad K_e = r_f + \beta (r_m - r_f)$$

K_e = Cost of equity

R_f = Risk-free rate

β = Beta

R_m = Market risk

The two main ideas of the model are that investors require extra return for risk exposure and they are, particularly concerned, with the risk that can't be cancelled by the risk of the portfolio, the specific risk. The model, also, assumes that the investors borrowing and lending activity is done at the same interest rate and that US treasury bills are risk free. These aren't exactly true as treasury bills do not provide protection against inflation risk and borrowing interest rate is, usually, above lending interest rate (Brealey et al. 2008).

CAPM Parameters

The **risk free rate** can be defined as the expected return of a riskless asset. Hence, this asset provides a secure known return. According to Damodaran (2008), the risk free asset is distinguished by an expected return that has no variance, being its real return equal to its expected return.

The author point out that, to be considered risk free, an asset must meet two conditions: there can be no default risk and no reinvestment risk.

This excludes, in this order, other than government bonds and coupon-paying bonds. The government bonds interest rates although protected against default risk, do not have, generally, protection against inflation, and are, hence, nominal rates. In order to have the real rate, inflation must be deducted from the Government interest rate. The exception, Inflation-Linked Bonds aren't usually issued in high inflation countries (i.e. Emerging markets) were the use of nominal risk free rates is more problematic. Still, under the principle of free flow of capital, the USD risk free rate can be used in any market. If the latest isn't applied, then the real return is the real growth of economy.

As per the maturity of the government bond, Damodaran recommends a 10- year coupon bond. Copeland et al. (2000) agree on this maturity based on the following arguments:

- A 10-year rate, typically, matches the duration of the cash flows in question;
- A 10-year rate, approximates the duration of the market portfolio (e.g. S&P 500) and hence it will be consistent with the other market portfolio parameters;
- A 10-year rate is less prone than to have inflation problems and its liquidity premium may also be inferior (as compared to a longer maturity rate); these two issues, even if negligible, also play in favour of a 10-year rate.

Both LVMH and Bulgari have EUR cash flows (or translated to EUR if they are in other currency), hence an EURO-bond will be used. As France has a low interest rate, the French 10- year coupon bond interest rate will be used as the proxy for the risk free rate. Bulgari is an Italian company. If we use Italy 10- year coupon bond interest rate, the risk free rate will be overvalued because Italy is facing sovereign debt issues and the company, from a sales perspective can be viewed as a pan-European company. Hence, to overcome this issue and average of the EUR 10- year coupon bond interest rate will be used.

The **beta** can be defined as a measure of the systematic risk. It measures the sensitiveness of the stock to the market portfolio (or other benchmark). Kaplan and Ruback (1996) have tested the accuracy of three different betas (company, industry and market) in estimating the transaction value: company equity betas, unlevered industry equity betas and market betas (market-based measure) through their compressed APV technique (i.e. consists of discounting capital cash flows at the unlevered cost of equity). Their findings indicate that the median and mean of the valuation errors of market beta are closer to zero than the results of both firm and industry beta. This, in practice means, that by using market beta the estimated transaction value will be more accurate.

$$(2.8) \quad \beta_i = \sigma_{im} / \sigma_m^2$$

β_i = Beta of asset i

σ_{im} = Covariance of asset i with market portfolio

σ_m^2 = Variance of the market portfolio

The **risk premium** is the return above the risk free rate expected by investors to compensate them for the incurred risk (Berk and Demarzo 2007). There are two alternative approaches to estimate it: based on historical risk premium, under the assumption that the future will be similar to the past or forward looking. Both have supporters and opponents (Copeland et al. 2000).

Arbitrage Pricing Theory (APT)

The arbitrage pricing theory was proposed by Ross, formally in 1976. It was presented as an alternative method to the mean average CAPM model developed by Treynor, Sharpe and Litner (Ross 1976). It lies on the idea that the expected stock return depends on the stock sensibility to several factors. The idea of the model is that there are two types of risk: specific to the security that can be diversified and hence doesn't restrict the investors' choice and the market risk that can't be diversified.

In APT the factors are macroeconomic. However, the models don't pre-define any factors, these must be chosen in particular for each security, their risk premiums must be estimated and finally it's necessary to measure the sensitivity of the sock to the macroeconomic factors.

(2.9) Expected risk premium = stock sensitivity to the factor 1 * risk premium of factor 1 + stock sensitivity to the factor 2 * risk premium of factor 2 + ...

The vital argument of the theory is that the same market risk must be rewarded with the same expected return otherwise there would be room for arbitrage.

Fama and French (1992) tested the relation between stocks average returns and several variables, concluding that the book-to-market equity variable is superior in explaining the average returns behaviour. The variable showed reliable in both the sub-periods studied (from 1963 to 1976 and from 1977 to 1990) with a positive premium (the regression average slope for the period 1963-1990 was 0.35).

Additionally, evidence was found that the variables size also explains the stock's average returns with a negative premium (the regression average slope for the period 1963-1990 was -0.11) even if less expressively than the variable book-to-market equity. In a subsequent study (1993), the authors, structured the two above risk factors with a market factor, creating the Three factor Model.

CAPM vs. APT

The CAPM can be seen as a particular case of APT where there is unique risk factor, the market. The CAPM is advantageous as it has a unique, pre-defined, risk factor. However, Paavola (2006) argues that despite being simpler to compute than APT, CAPM will logically underperform APT in a statistical sense. The rationale behind this is that:

- APT has more variables to explain the returns, hence the R^2 has to improve (goodness of fit of the regression);
- APT factor is estimated to best fit data; naturally it yields a higher explanatory power.

In addition, the author argues that the lack of identification of the factors as the most disappointing aspect of APT model.

APT factors depend of the economic condition, being particular, to each country, making the model less used, even if more efficient than CAPM (Homsud et al. 2009). Here, the CAPM will be used.

2.1.3.2. Cost of unlevered equity

The cost of unlevered equity is the cost of equity for a firm all-equity financed.

$$(2.10) \quad K_u = r_f + \beta_u (r_m - r_f)$$

K_u = Cost of unlevered equity

r_f = Risk-free rate

β_u = Unlevered Beta

r_m = Market risk

The unlevered beta can be estimated through the following equation:

$$(2.11) \quad \beta_A = \beta_D * (D/V) + \beta_E (E/V)$$

β_A = Asset beta (i.e. the same as equity beta for the unlevered firm)

Luehrman (1997) proposes the use of the cost of equity of a similar company without debt.

2.1.3.3. Cost of debt

The cost of debt represents the cost incurred by the firm to borrow funds (to finance investments). If it's an investment graded company, the risk of default is low and the cost of debt can be inferred via the Yield-to-Maturity (Copeland et al 2000).

In the case where the company has bonds outstanding but not regularly traded, the debt cost can be inferred through the rating and the associated default spread (Damodaran 2002).

2.1.4. Terminal value

In practice, one can't forecast the earnings forever; the earnings are estimated for three or five years. For the rest of the timeline, two methods are used. The first method is to compute the liquidation value of the assets at the end of the forecasted period.

Alternatively, the company is assumed to grow at a constant growth rate (usually it will be near the economy growth rate) and value is estimated (assuming a going concern). In this case, the terminal value is computed as follows (Bruner 2004):

$$(2.12) \quad \text{Terminal value} = [CF * (1 + g)] / (K - g_{\infty})$$

CF = Cash flow of the final year of the financial forecast

K = cost of capital

g_{∞} = compounded average growth rate of the cash flows to infinite.

The author presents two alternatives for g estimation (2.13 and 2.14).

$$(2.13) \quad g = ROE * (1 - DPO)$$

ROE = Return on Equity

DPO = Dividend payout ratio

The underlying idea is that the company's growth is limited to its equity return less the dividends distributed.

$$(2.14) g^{\circ}\text{Nominal} = [(1 + g^{\circ}\text{Units}) * (1 + g^{\circ}\text{Inflation})] - 1$$

g Nominal = Nominal growth rate

g Inflation = Rate of inflation

g Units = “real” rate of growth.

The above is rooted on the economics vision of growth, as per which the real growth rate adjusted to inflation will yield the nominal growth rate of the business.

Long term growth rates exceeding the expected real growth rate of GDP are to be faced apprehensively (Berk and Demarzo 2007).

Young et al. (1999) highlighted the impact of the terminal value on the overall valuation (terminal value in addition to specific forecast). Through a theoretical sensitive analyses, the authors determined that the terminal value contributes 75% to the market value of the company, in the case of forecasts made for ten years (usually, they are made for three or five years) and a cost of capital of 8%.

2.1.5. Cross border specifications on valuation

Froot (1997) brings attention to particular aspects of the cross border deals. The author distinguishes them in aspects pertinent to WACC and aspects pertinent to APV method. As this valuation will be done via WACC and since both the acquiring and the target express their results in EUR, currency issues as well as APV specifications won't be handled here.

Taxes

There are two forms of accounting taxes in cross-border deals. In case of a worldwide “tax credit” system (on which the headquarters country is due to receive taxes on all the foreign income), it's recommended the use of the higher of the corporate tax, even if conservative.

In case of a territorial “tax exemption system”, the headquarters country exempts the foreign source of paying taxes if these were already paid in the income source country (to not have a double taxation). Here, the foreign country's corporate tax rate should be used.

Earned versus remitted cash flows

The cash flows returned on a foreign company investment may, or may not be forward to the foreign company (i.e. reinvestment). Still, the cash flows should be accounted. First, there's still an ownership claim by the shareholders. Secondly, for the valuation in question, the income source country, Italy, is an industrialized nation, therefore there's no risk of local blocking of funds transference.

Discount rate

The discount rate is the opportunity cost vis-à-vis other projects with similar risk and duration. Hence, the discount rate will depend of the investments opportunities of its investors (considered home-based for s simplicity purpose).

Beta

The Beta is expected to be lower if a global market portfolio is used as the country specific risks will be diversified. Here, Italy's country risk is higher than France, however the company has its sales well geographically diversified, hence it isn't extensively exposed to its country risk.

2.1.6. Relative Valuation

The widespread utilization of the multiples is explained by their easiness to be computed, to be understood and to be explained (as opposed to the other valuation methods). Moreover, they incorporate the market atmosphere, reflecting higher prices if the shares are bull and lower if the shares are bear. Kaplan and Ruback (1996) support that both methods, comparables and discounted cash flows, should be applied in a complementary form. Multiples can be used for valuing equity (Price multiples) or they can be used to value the total value of the company (enterprise value multiples).

The below multiples will be calculated with goal of incorporating the atmosphere of the luxury industry on the valuation process (Figure 3).

Figure 3: Multiples calculation

Multiple	Calculation method
Price-Earnings	$P_0 / \text{EPS}_1 = \text{Peer P/E} * \text{Firm EPS}$
Enterprise value to EBITDA	$V_0 / \text{EBITDA}_1 = [(\text{Peer EV/EBITDA} * \text{Firm EBITDA}) - \text{Debt}] / \text{qty of shares}$
Value-to-sales ratio	$V_0 / \text{Revenues}$

The price-earnings multiple (ratio between price per share and earnings per share) is the most generally used and misused equity multiple (Damodaran 2002). Suozo et al. (2001) argue that it should be calculated with the adjusted earnings (before exceptional items and goodwill amortization). Several types of earnings per share can be used on the ratio which will, unsurprisingly, create an issue on the comparison exercise (Damodaran 2002).

Goedhart, Koller and Wessels (2005) confirm that the multiples improve the forecast of DCF Valuation parameters, increasing the accuracy of the DCF valuation itself. In addition, attention is drawn to particular matters that will improve the multiples application:

- Company peers must have similar scenarios of growth and Return on investment Capital, hence finding the industry competitors it's just the starting point;
- The multiples ought to be forward looking, as research shows that these are more accurate than historical multiples in value estimation;
- The multiples should be enterprise-value, with the aim of becoming insensitive to the capital structure;
- The enterprise-value-to-EBITDA multiple should be amended for non-operating items (e.g. excess cash should be removed, non-operating assets are to be evaluated independently).

Liu (2000) confirm that forward earnings are superior in explaining stock price as opposed to historical earnings.

2.2. Mergers & Acquisition

A merger is a deal through which two or more firms combine into a single, independent firm (Colb and Rodriguez). It can take several forms. On a Merger, the target is incorporated on the acquiring firm, ceasing its existence.

A Consolidation is when the target and the acquirer will, both, cease and create a new combined entity. In a tender offer, the acquirer purchases a minor position; the target will continue to exist. At last, the acquiring company can purchase the assets of the target, which will remain in existence, however in due course the target will be ceased.

According to Bringham and Gapenski (1996), mergers can be categorized in four economic types. Mergers are classified as horizontal when the target firm operates in the same business line as the acquiring firm.

They are defined as vertical if the target firm operates in the value chain as the acquiring firm (e.g. supplier, distributor). They are characterized as congeneric if the target and the acquiring firm are related, except that they do not share the business line and they do not have a value chain connection. At last, they are typified as conglomerate when the target firm and the acquiring firm do not relate.

2.2.1. Arguments for a merger

Mergers can create value, if their driver is something that will benefit the new consolidated entity. Kolb and Rodríguez (1996) presented three motivations that justify a merger.

Brealey, Myers and Allen (2008) present a more detailed list of reliable merger arguments; however, in essence, these fall in agreement with the previous ones (Figure 4).

Figure 4: Arguments for a merger

Valid	Invalid
Economies of scale - access to cheaper raw materials (or increase cost efficiency), makes sense on a horizontal merger	Diversification - void in terms of shareholder value as the investor can diversify if he wishes to do so
Access to new resources - the new entity will integrate a part of the production chain (e.g. distribution, sales force)	EPS increase - consolidated number of shares lower than the sum of the acquiring old shares with the target old shares - no value creation
Tax considerations - new entity can benefit from a tax-loss carried forward by the target entity, in order to decrease the tax to be paid on future income	Lower financing costs - Economies of scale in issuing new securities and the probability of financial distress decrease for a company that seeks tax shield benefit (<i>ceteris paribus</i>). Still the lower financing cost due to lower interest rate is made at the expense of higher guarantee from the stock holders (as both companies guarantee the debt of each other).

Source: Brealey, Myers and Allen (2008) and Kolb and Rodríguez (1996)

Goedhart, Koller and Wessels (2010) present five main strategies that underlie a successful acquisition by creating real value for the entity:

- Enhancement of performance of the acquired firm can be achieved via reduction of cost or revenue growth;
- Fusion aiming to remove surplus capacity from the market is more recurrent on mature companies;
- Hastened market access to acquired or acquirer products is the case when mature companies acquire small companies with innovative products and also when the two companies have different geographic presence;
- Underlying acquisition of skills faster or at lower prices than if developed in-house;
- Selection of winners to support the business development requires early investments on the business, to invest in several businesses, and to have the ability to develop them.

2.2.2. Payment: Cash vs. Securities

When the acquiring company is paying the deal via equity, it can do it either through cash balance; issuing new stock to get cash (capital increase) or it can offer stock to the target as the payment of the deal (Damodaran 2002). The determination of the means of payment is made based on three factors: cash availability, perceived value of the stock and tax considerations.

The cash consideration is quite straightforward; a company can use cash only if it has it. Concerning the perceived value of the stock, if the company perceives its stock as undervalued, it will end by paying more for the deal than it wishes.

De La Bruslerie (2010) agrees, by referring that companies with high stock value are more likely to finance the deal via equity. The potential tax deferring on the capital gain of the shares received by the target shareholders can also play an important role of the payment means.

According to De La Bruslerie (2010) the means of payment can't be evaluated separately from the premium paid to target. In his study, having as object a sample of European M&A from the 2000-2010 decade, the author concludes that cross border deals, competitive transaction and absolute size of target will support a cash deal.

2.2.3. Value creation

The price paid relative to the intrinsic value of the target (standalone value) and the degree of accomplished synergies are the value drivers - creation, maintenance or destruction (Stahl et al. 2005).

Bruner (2004) starts by defining the possible outcomes of the deal as value destruction (returns lower than required by investors), creation (returns above the required by investors) and preservation (returns required by investors).

The author then argues that M&A deals being, generally, labelled as a failure (as it creates not value but rather destroys it) happens because the studies incorporate not only the M&A contribution but also the other remaining factors that affect the firms performance. There is no accurate definition of what is M&A failure (i.e. a penny of share decline can be considered a failure) and the studies cover major big deals (i.e. more regulatory issues).

Subsequently, it concludes that target companies shareholders' receive positive returns on M&A deals. The shareholders' of the acquiring company have their value preserved (if not created) on 67% of the deals. The combined net value creation for acquiring and target shareholders is positive. The article also highlights some deal features that are likely to create market value for the acquiring firm shareholders, namely: acquiring interrelated businesses, merger of equals, target being private business, credible synergies or pay with cash, among others.

Sirower and Sahni (2006) denote that the market has, generally, a negative reaction to M&A deals. According to the authors, such a reaction is explained by the upfront full payment (as compared with other investments), by the expected performance improvements already reflected on the share price, by the investments necessary to make the synergy and, at last, because it's expensive to handle an M&A deal that goes wrong. The authors developed a graphic model that shows the necessary combination of cost and synergies level that justify, for instance, a premium of 35% and an EBIT margin of 18%.

2.2.4. Type of synergies and their ability to create value

Synergy is the value creation of the entity that exceed the sum of value of the two entities individually and that can't be achieved if the two entities don't combine. It can be represented by the following condition:

$$V (\text{combined entity}) > V (\text{Acquirer}) + V (\text{Target}).$$

Damodaran (2005) classifies the different synergies as Operational or Financial and provides a comprehensive framework with regards to the valuation of these synergies. Operational synergies can assume the forms of economies of scale, pricing power, combination of functional strength and high growth in new / existing market.

These synergies are expected to be reflected in the performance of the company through the increase of operating income from the firms' resources, growth or both. The Financial synergies, on the other hand, can take the forms of diversification (for private firms only), increase of debt capacity forms, tax benefit and combination of cash-slack with high-return project firms.

The valuation exercise is due to begin with an individual valuation of each firm. They should then, be valued as a combined entity without synergy effect and, finally, as a combined entity with synergy effect. The synergy effect will depend on the nature of the

synergy and will affect, at least, an input of the valuation process: cash flows, cost of capital, growth rate or growth period.

Fee and Thomas (2004) found, on their study on horizontal mergers, that the merging firms have positive abnormal returns at the merger announcement. On the same study, they also found that several subsamples of merging firms significantly increase their post-merger cash flows and decrease the cost of goods sold.

In the case of financial synergies, diversification synergy takes the form of increased debt capacity. Diversification, if it contributes to the decrease of variability of the cash flows, will increase the firm's debt capacity, hence, creating value. The value created by the cash slack firm that acquires a firm with high value project is the value of the undertaken projects (which otherwise the target wouldn't be able to implement). The tax benefit value is computed through the Present value of the tax reduction. At last, the debt capacity can add value through an increase of the debt capacity (admitting that the new entity will have decreased variability cash flows as compared with the former company) and / or diminished default risk.

Sirower and Sahni (2006) developed a matrix that aims to classify the target relatedness with acquiring in terms of business skills and market access with the final goal of assessing the potential. The scale of assessment ranges between same capabilities or market assess, better capabilities or market access and new capabilities or market assess. The goal is to provide insight for potential sources of value creation.

2.2.5. Who benefits from value creation

Value creation can be measured via two approaches. Forward looking method is based on the reaction of the market to the deal. The other method relies on post merger studies, aiming to assess the synergies gains.

The beneficiary of the value created by the merger depends of the contribution each provides to that synergy and it will also be determinate by the nature of the synergy (Damodaran 2005).

A cost synergy, based on target exclusive savings will benefit mostly the target itself. More general savings are expected to deliver value to the target. A growth synergy driven by acquiring specific skills will deliver a larger slice of value to the acquiring firm.

The value creation of an increased debt capacity is shared equally by both acquiring and target as there is no unique skill underlying it. The value created by a Cash Slack synergy will be captured mainly by the acquiring in an emerging economy; the target is more likely to receive its share in the context of a developed economy.

At last, the value created by the tax benefit can result from higher deductions or a lower tax rate, the strength brought into the synergy will determine who will get the biggest slice of value.

Damodaran (2005) points out that the acquiring paying more than the value of the synergies results in little or no value creation for itself. The author suggests that this overpayment of synergies is explained by a biased evaluation of the deal, managerial pride and also due to lack of synergy planning.

Christofferson et al. (2004) argues that when two companies merge, most of the shareholder value created is likely to go to the seller. In average, the buyer receives all the value created via premium payment of 10-35% of the target's deal pre-announcement value.

2.2.6. Motivation and barriers for cross border deals

Cross Border deals represented 4% of the M&A deals in 2007. Zanner et al (2008) presented manifold reasons that drive the cross border deals (long and short term). Globalization is one of the Long term drivers. Firms have realized, in the search for scale, growth, and lower production costs that cross border expansion is more economical than countrywide expansion.

In the same scope, geographic diversification is key on the emerging markets firm growth strategy, as it allows to reduce expropriation risk and to diversify raw materials supply. In addition, there is a growing deregulation trend, in the direction of the free flow of capital and goods.

One of the short term drivers the authors presented was the high relative valuations. The authors argue that there is propensity for firms to be further acquisitive when their stock price is high, because high stock prices point toward growth and profit, facilitate the liquidity access and make P/E higher. However, with the last sub-prime and sovereign-debt crisis, the market capitalization of firms has been significantly damaged; hence there are doubts that this argument remains valid.

The Currency shifts / Cheap USD (as opposed to emerging markets currency appreciation) are also pointed as a short term driver. Sovereign wealth funds are also expected to acquire illiquid foreign assets, as this is consistent with the sovereign wealth funds long-term, geographic diversified strategy. The political implications of this strategy provoke that these sovereign wealth funds are likely to acquire minority or non-controlling stakes. The reduced competition from financial sponsors and from strategic domestic buyers, resulting from a difficult access to leverage, leaves more room for strategic buyers' deals.

There are also encumbering reasons to cross border M&A activity. The above described short term catalyst, are likely, to dissipate. In addition, the protectionist sentiments of some countries in relation to foreign acquisitions of "national champions" or strategic industries are likely to block cross-border deals.

2.2.7. M&A market and trends

In 2010, around 7000 M&A deals were announced with a global value of \$2.7 trillion (Cogman and Sivertsen 2011). The authors confirm that acquiring companies are more committed in capturing the value created then before.

The geographical trends on M&A activity are also highlighted. An increasing activity was noted on the Asia-pacific region. Latin America experienced its highest M&A activity. A general increase of cross-border activity took place as a result of major deals and small numerous deals. Other than these, an increase of activity was also perceive on the Private equity industry

Concerning the M&A on the Luxury Goods Sector, the industry didn't see many M&A activity. However, small acquisitions aiming the vertical integration are frequent. Bellow, a summary of the M&A deals on the luxury industry is presented (figure 5).

Figure 5: Acquisition on the Luxury goods sector

Date	Acquirer	Target	EV (In €mn)	EV / Sales	EV / EBITDA
13-Jan-98	HdP	Valentino	255	3.1 x	14.6 x
13-Jan-99	LVMH	Gucci	3,581	4.0 x	15.0 x
31-Aug-99	Prada	Jil Sander	210	1.9 x	17.6 x
09-Sep-99	Prada	Church's	165	1.3 x	13.7 x
09-Sep-99	LVMH	Thomas Pink	67	1.7 x	15.3 x
18-Nov-99	Gucci	Sergio Rossi	133	2.3 x	17.5 x
01-Dec-99	LVMH	Tag Heuer	721	2.8 x	15.2 x
20-Jul-00	Richemont	LMH	2,000	8.8 x	38.3 x
01-Apr-01	LVMH	Donna Karan	326	0.4 x	7.2 x
01-May-01	P&G	Clairet	\$ 4,950	3.1 x	14.9 x
09-Sep-01	PPR	Gucci	9,254	3.6 x	17.4 x
01-Dec-02	PVH	Calvin Klein	\$ 700	0.6 x	
12-Jan-04	Gucci	Sergio Rossi	137	1.5 x	13.4 x
01-Mar-04	PPR	Gucci	9,012	2.8 x	19.9 x
01-Jul-05	Kao	Molton Brown	\$ 284	3.1 x	17.8 x
01-Feb-07	Towerbrook Capital	Jimmy Choo	\$ 185	2.8 x	
01-Jun-07	Permira	Hugo Boss	3,393	2.2 x	13.8 x
01-Jun-07	Permira	Valentino	4,456	2.2 x	14.4 x
01-Jun-08	L'Oreal	YSL (Beaute)	\$ 1,674	1.7 x	
01-Jul-08	Courtin-Clarins family	Clarins	\$ 3,033	1.8 x	12.5 x
01-Oct-08	Onward Holdings	Jil Sander	167	4.1 x	27.4 x
15-Mar-10	PVH	Tommy Hilfiger	\$ 3,100	1.4 x	8.2 x
15-Mar-10	Richemont	Net a Porter	£ 350	2.0 x	34.0 x
Average				2.6 x	17.3 x

Source: Goldman Sachs

3. COMPANY AND INDUSTRY ANALYSIS

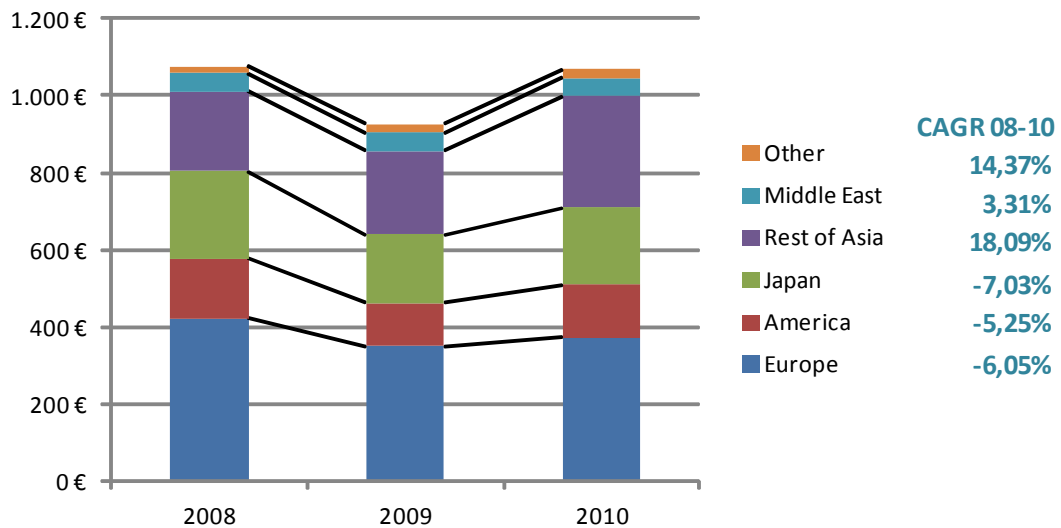
3.1. Company profiles

3.1.1. Bulgari

Bulgari has annual revenue of EUR 1,069 million (2010 figures). The company is present on six business lines: Jewels, Watches, Perfumes, Skincare, Accessories and Hotels. The company, before the merger with LVMH, was 51% owned by the Bulgari family, being the rest of the stock floating.

Bulgari S.p.A. is the parent company; it manages the brand and coordinates the several areas (e.g. finance, human resources). The group has 41 companies (all under Bulgari brand name) in 21 countries and 3815 employees (2010). The distribution network consists of 295 stores, of which, 174 are owned by Bulgari (2010).

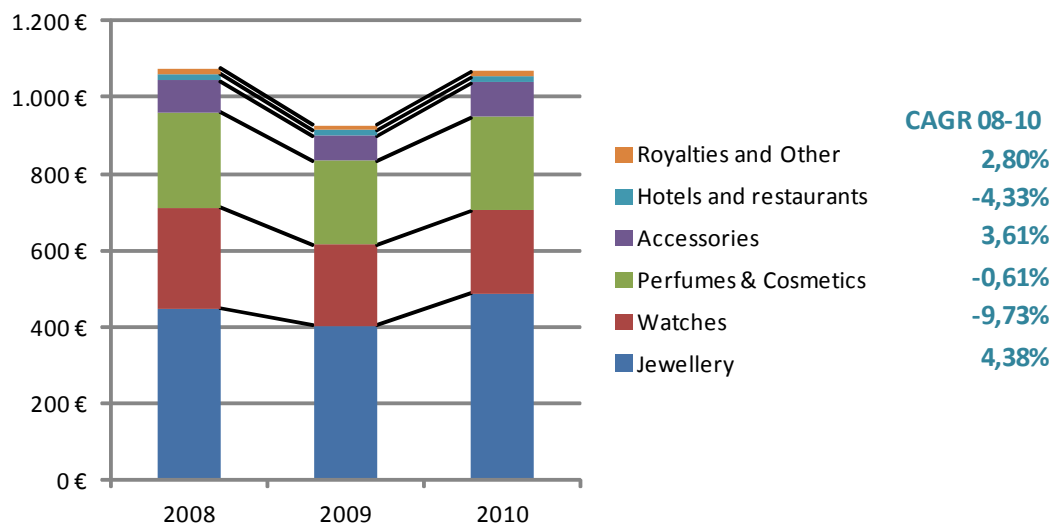
Figure 6: Bulgari Sales geographical breakdown (2008-2010)



Bulgari history started in the 19th century with the opening of the first store, focusing on precious silver objects. In the early 20th century, the brand developed an interest in precious stones, jewellery and watches under a renaissance style that conquered the jet set figures. In the 70's the company had a significant international expansion. The first watch was launched in 1977.

Latter, Bulgari founded a company to manage the conception and manufacturing of watches. In 1993, the company begins expanding its product portfolio, through luxury perfumes. The company went public in 1995. The textiles, eyewear and accessories were introduced and developed in the 90's. The expansion into Hotels sector took place in 2004 with the opening of its first hotel in a partnership with Marriott. This last decade was marked by a vertical integration strategy, particularly in watches but also on leather goods.

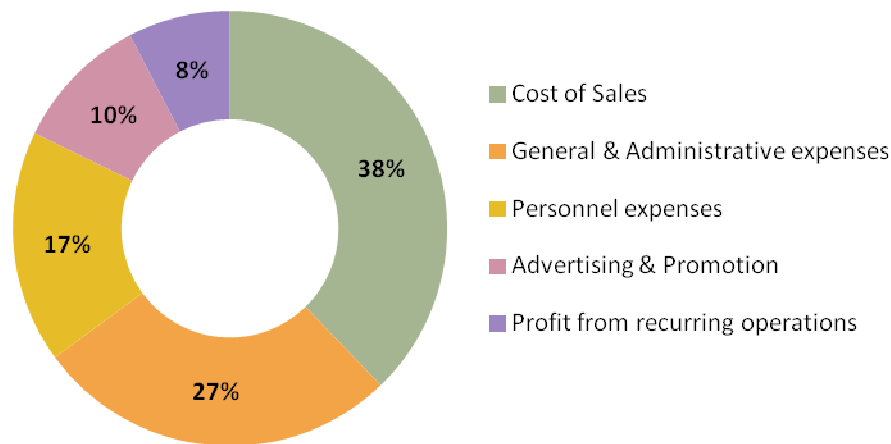
Figure 7: Bulgari Sales segment breakdown (2008-2010)



Costs

The company has a high cost of production due, partially, to its core segment. Hard luxury (i.e. watches and jewellery) is more costly than soft luxury (i.e. leather, fashion, accessories, and perfumes). For instance, hard luxury is subject to gold and silver price risks. The general and administrative costs are about 27% of sales and as per the press info the company is engaged in decreasing them. The company has made huge investments on vertical integration, which is expected to have a positive effect on the cost of production and on the general and administrative costs. Variable selling expenses are, per definition, dependent of the sales level. Personnel expenses has decreased and apparently the company profit from the current crisis to reorganize, it had 3847 employees in 2008 and it 3677 in 2010. Advertising & promotion expenses are around 10.2% of sales, but have been slightly cut in 2010. Like to LVMH, Bulgari is expected to bear high selling and marketing costs due to its high end positioning.

Figure 8: Bulgari costs breakdown as % of sales Revenues (2010)



Jewels and Watches

Jewellery and watches represent the core segment of Bulgari, presenting net revenue of EUR 491.7 million. Bulgari is the third largest player on the jewellery sector. The company integrated Crova, one of its main suppliers in late 2003. Bulgari owns its production facilities in Italy and Switzerland.

Since 2000, Bulgari has pursued a “verticalization” strategy on the watches division. The company has integrated several Suisse companies specialized in watch component manufacturing. As a result, the company is now able to manufacture its watch, which highly improved Bulgari exposure to the sector.

Perfumes and Skincare

Through Bulgari Parfums, Bulgari manages directly all the live of its perfumes: creation, production and distribution. In addition, the range of products includes bath and female skincare products.

Accessories

Bulgari produces a broad range of accessories: ties, scarves and stoles, bags in leather and prestigious fabrics, Sunglasses and eyeglasses (partnership with Luxottica), travel bags and suitcases for work and leisure. The product offering includes a range of writing instruments, key-rings and silver and leather goods, particularly focused on gifts.

The distribution of accessories is carried through a network of well-located exclusive stores, recently enhanced.

Hotels and Catering activities

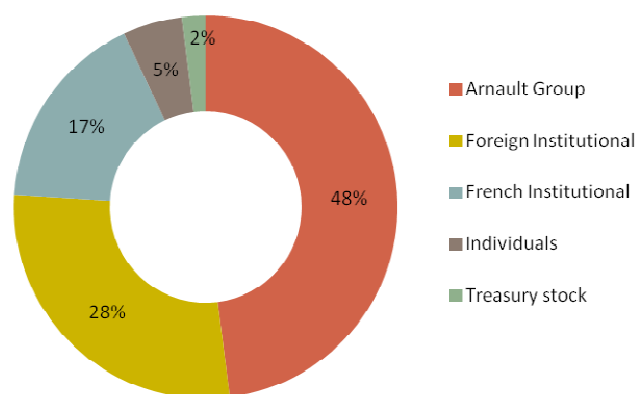
The Bulgari Hotels & Resorts project was motivated by the brand visibility it provides. A joint venture with the luxury division of Marriott International made easy the entrance into this new sector. The first hotel unit was opened in 2004. Presently, it has a luxury unit in Milan, another in Bali. In Tokyo, Bulgari has a café and a restaurant. The London unit is expected to open in 2012 spring.

The company doesn't disclose intra-segment revenues or profits information.

3.1.1. LVMH

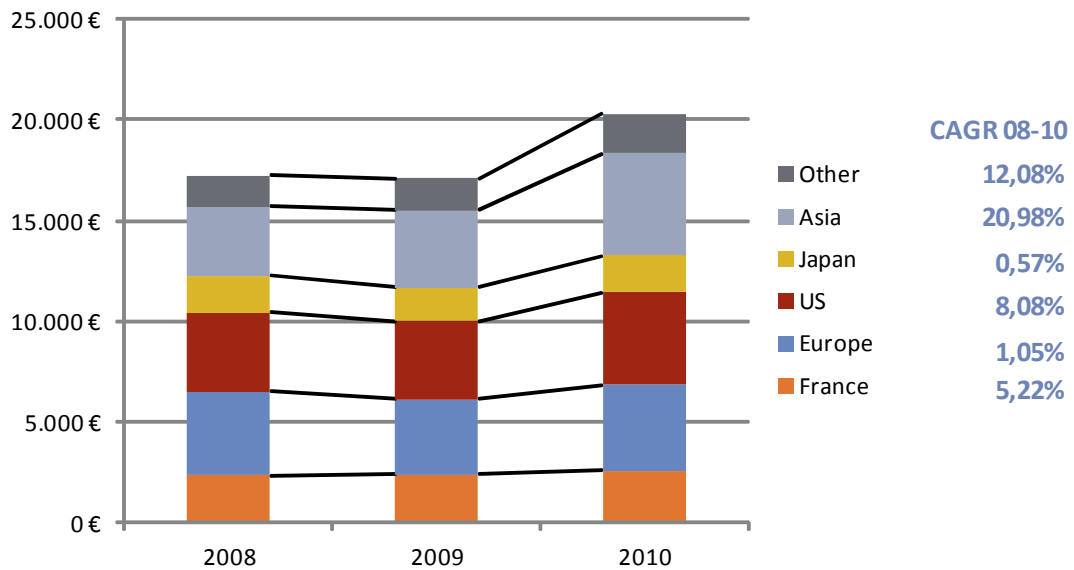
LVMH is the world largest luxury goods manufacturer, having presented revenues of \$20 billion (2010). The company manages a portfolio of around sixty brands distributed over five product types. LVMH has more than 88,000 employees, 77% of which are based outside France (2010 figures). The group is majorly owned by Arnault group

Figure 9: LVMH Capital Structure



LVMH has around 2500 stores, spread worldwide, around 55% of which are located in US and Asia (particularly in Japan), thus confirming the global character of the company.

Figure 10: LVMH Sales geographical breakdown (2008-2010)



Louis Vuitton started with the store opening of high quality luggage artisan in 19th Century. Following a period of high growth (end of the 19th and beginning of 20th centuries), the company went public on the New York and Paris Stock Exchange in 1984.

Moët history begins in the middle of the 18th century with a producer and seller of wine. In 1971, Moët merged with James Hennessy, creating Moët-Hennessy. In 1987, Moët-Hennessy, (three times bigger than Louis Vuitton) merged with LV in a \$4 billion deal.

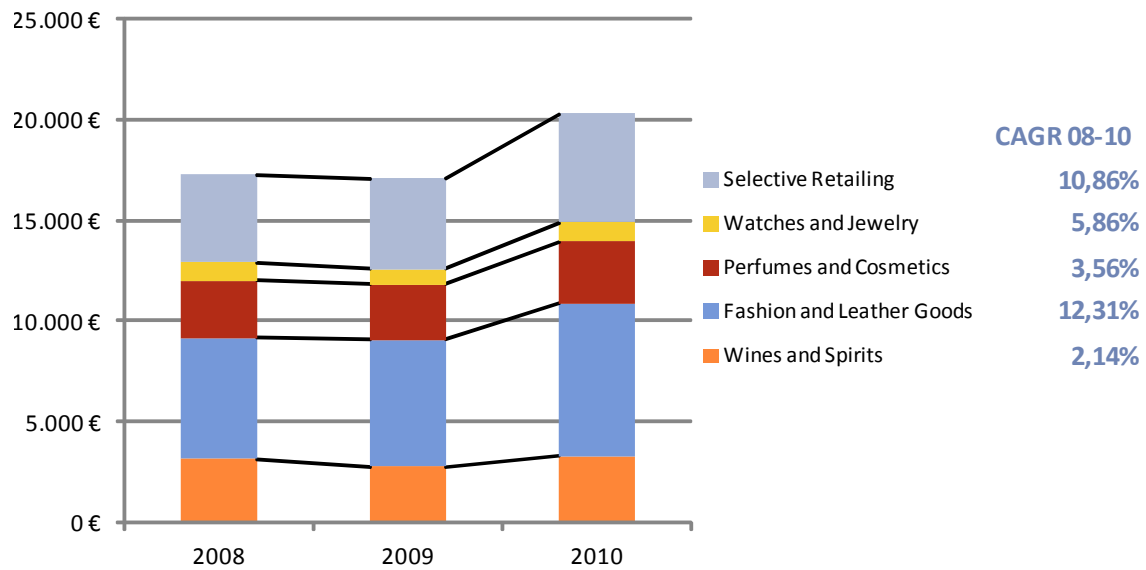
The company made several acquisitions in the 90's. Recently, in 2010, the company acquired a 20.2% share in Hermès International.

Strategy

LMHV business model is characterized by the full control of retail (LVMH owned stores) and by a no-discount price policy. LVMH geographic strategy focuses on capturing the developing countries, while continue to investing in richer countries.

A LVMH executive assumes that the company puts its effort on product, distribution and communication, so that people forget about price. The firm's growth strategy lies in the organic growth and acquisitions.

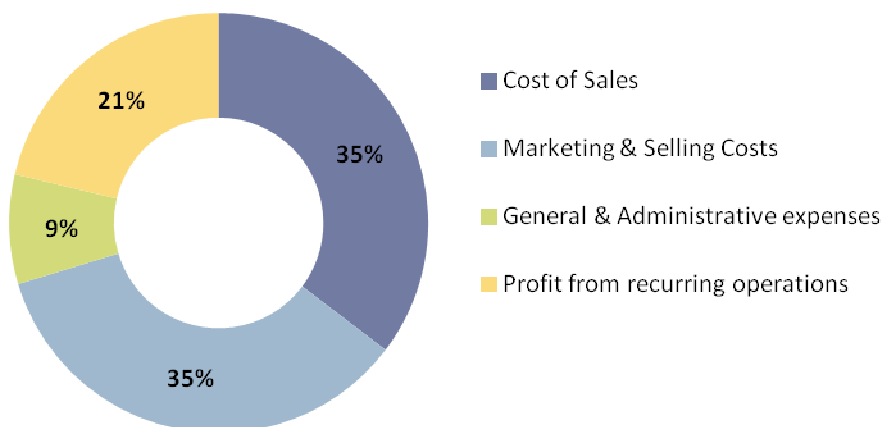
Figure 11: LVMH Sales segment breakdown (2008-2010)



Costs

The company doesn't disclose information about cost efficiency improvement, only mentions, generally, that controls tightly the costs. LVMH factories use other industries techniques (e.g. car making) aiming to lower costs. This also allows to more easily assigning workers to products, to face demand flows. LVMH also has a tight quality control policy. The costs breakdown allows easy understanding that the Marketing and sale costs have the same weight as the cost of sales. Due to its high-end positioning, LVMH bears high costs of marketing. Included on Marketing and selling costs, Advertising and promotion expenses represent 11% of sales.

Figure 12: Bulgari costs breakdown as % of sales Revenues (2010)



Wine and Spirits

Champagne and wines division contributed 51% to the segment revenues of EUR 3 billion (2010 figures); through brands like Moët & Chandon, Veuve Clicquot and Krug. LVMH is the world leader in champagne. The vineyards owned by LVMH cover 15% of the necessary grapes and wines, beyond that, the supply is made by other wine growers and cooperatives. Most of its cellars were acquired in 19th and 20th centuries.

The Cognac & Spirits division, which owns brands such as Hennessy and Belvedere, contributed 49%. Hennessy liquor makes LVMH the cognac world leader. The LVMH Wines and Spirits distribution on global markets is assured mainly by a network of international subsidiaries. The spirits group Diageo, is included in this network, through a joint-venture deal; 28% of the sales of champagne and cognac were made through this channel (2010 figures).

Fashion and Leather goods

Fashion and leather goods division which produces, mainly bags, shoes and cloths, presented revenues of EUR 7.5 billion (2010 figures). The segment manages some of the industry most known brands such as Louis Vuitton, Fendi, Marc Jacobs and Givenchy.

LVMH controls the distribution of Fashion and leather goods in order to preserve good margins, manage the brand's image and to keep itself close from clients in order to assure a high quality service. The production capacity and outsourcing varies along the several brands, representing 43% of the cost of goods sold (2010 figures). The raw materials (e.g. leather) are supplied outside of LVMH. The group portfolio performance is highly dependent of Louis Vuitton brand.

Perfumes and Cosmetics

The division achieved revenue of EUR 3 billion (2010 figures), for which perfumes division contributed 48%, Cosmetics 34% and Skincare products 18%. The segment portfolio includes well known brands such as Parfums Christian Dior, Guerlain, Parfums Givenchy and Parfums Kenzo.

The research and development is made via LVMH Recherche allowing benefiting from synergies in the research and development of new formulas. The production is outsourced for the American firms (i.e. Benefit Cosmetics and Fresh); L'Oréal parfums and Acqua di Parma also sub-contract most of their production. The out-sourcing represents 6% of the cost of sales, plus around EUR 10 million on logistical outsourcing.

LMVH wide portfolio of brands generates synergies: the company is able to acquire publicity at lower fares and to negotiate better locations on department stores (selective distribution).

Watches and Jewellery

Watches and Jewellery presented revenue of EUR 985 million (2010 figures). The Company manages watches brands such as: TAG Heuer and Hublot. The jewellery division comprehends brands such as Dior Jewellery, Chaumet and De Beers Jewellery (joint venture).

Industrial Coordination was implemented to benefit from the utilization of common resources, such as prototype design capacity and best practices sharing (e.g. raw materials negotiation with suppliers). The manufacturing of the products is made, mostly, inside LVMH; sub-contracted production represents less than 5% of the cost of goods sold. The raw materials are procured to a limited number of Suisse suppliers, except bracelets leather.

Selective Retailing

The Selective retailing and other activities segments contributed with revenue of EUR 5.3 billion (2010 figures). LVMH operates in two segments: travel retail (DFS and Miami Cruiseline) and selective retailing (Sephora and Le Bon Marché).

DFS is an American company specialized in the distribution of luxury products to international travellers, present in the Asia-Pacific region, United States and Japan. Miami Cruiseline is the world leader on the sale of luxury products on cruisers, present in about 80 cruisers.

Sephora business comprise perfumes, make-up and skincare. Sephora also sells make-up and skincare products under Sephora brand. Le Bon Marché is a very exclusive department store located in Paris.

Other activities

LVMH owns Les Echos, a media group. The group is present in the press, having several business, finance, culture and arts publications, on the radio, on the internet, and on the literature through an editor.

La Samaritaine is a Paris department store, closed since 2005, owned by LVMH. LVMH intends to redesign it into a combination of hotel, apartments, offices and a minor retail component, with a re-opening forecasted to 2013.

At last, LVMH owns Royal Van Lent, the Dutch manufacturer of the luxury yacht brand Feadship.

3.2. Sector Overview

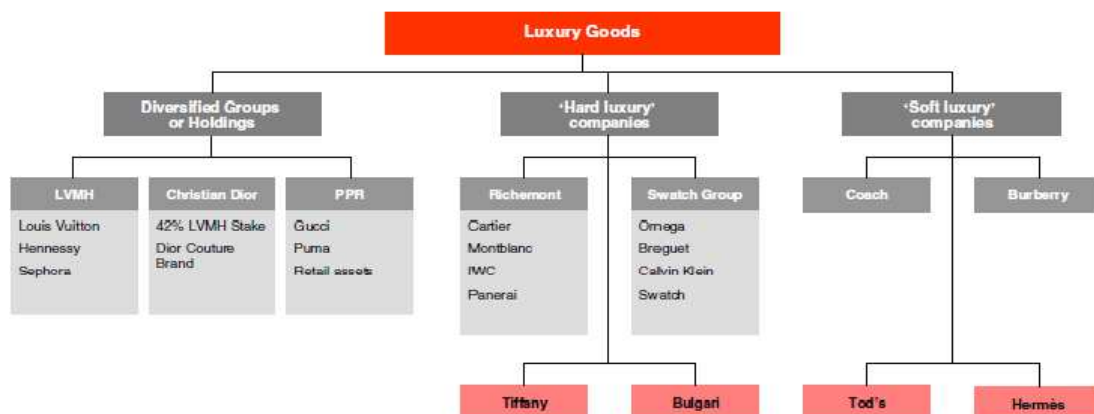
The sector overview aims to describe the luxury industry in terms of players, structure, margins, profitability and perspectives of growth.

Definition, Structure and Players

The Luxury goods sector comprehends five main categories: Fashion and clothing, Watches, jewellery, Leather goods and accessories, Cosmetics and fragrances. There are a few large players (i.e. LVMH, PPR and Richemont) and a large number of small players. The sector can be segmented as:

- The Diversified Groups / Holdings segment: luxury goods firms that are diversified along several business lines in both hard and soft luxury
- Hard luxury segment: includes jewellery, watches and pens. The larger player on the jewellery category is Cartier, followed by Tiffany. Bulgari is the third on this segment.
- Soft Luxury segment: designer handbags, accessories, leather goods, and clothing.

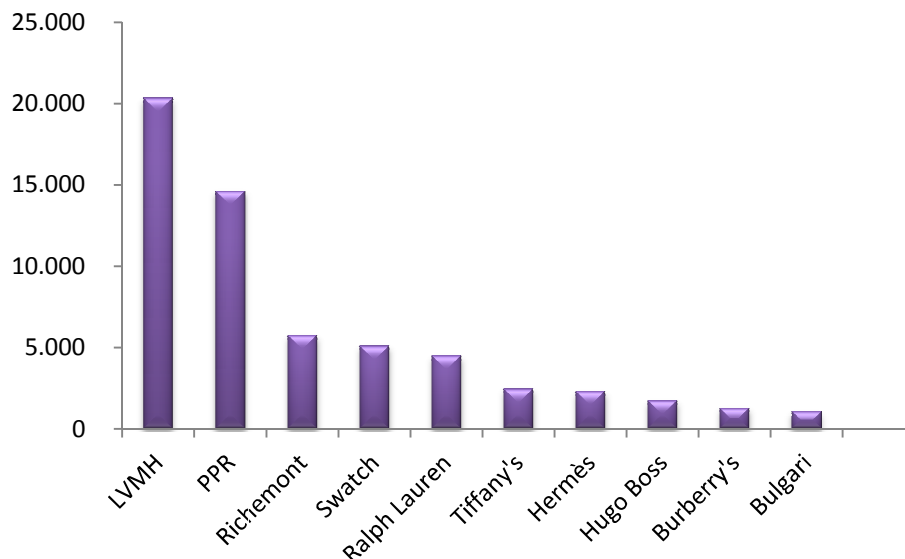
Figure 13: Luxury Goods Sector players



Source: HSBC

LVMH is the biggest industry player followed by PPR. Both companies are luxury conglomerates. The remaining players are more focused on particular luxury segments. Swatch, Bulgary's, Tiffany's and Richemont are focused in the Hard luxury. Hard luxury is mainly about watches and jewellery. Coach, Burberry's, Hermès, Hugo Boss, and Ralph Lauren are positioned on the soft luxury. These companies are mainly dedicated to accessories, fashion and leather. In addition, almost all of these companies are also players on the perfumes segment.

Figure 14: Luxury Goods companies Sales, 2010 (€ mn)



Source: Bloomberg

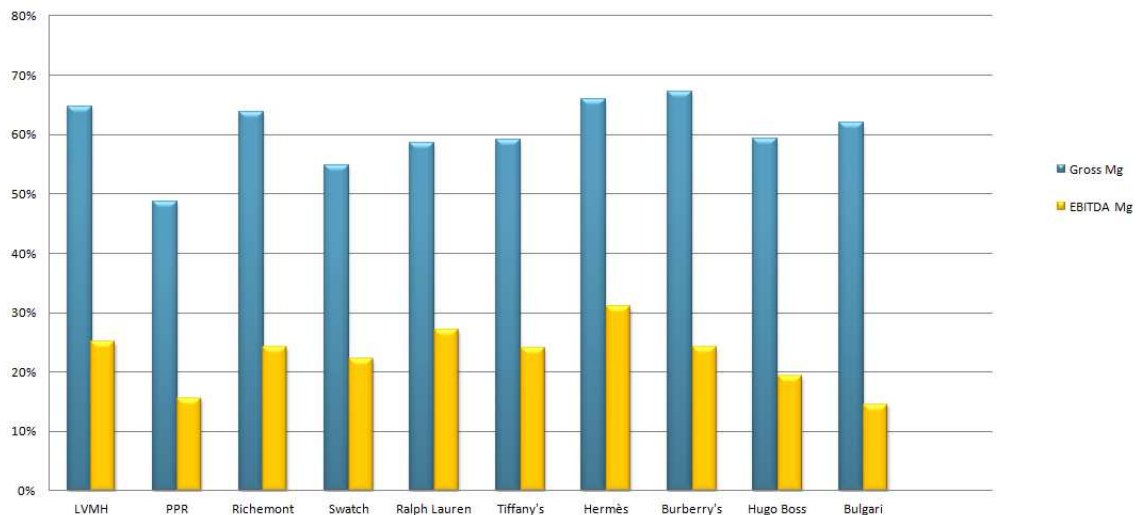
It's also important to notice that in the luxury industry, high-end watches are one of the most cyclical product categories. In addition the monitoring of this type of products performance is more difficult as they are mainly distributed by the wholesale channel.

In terms of costs the average gross margin of the above companies is 57.7%. The two conglomerates, LVMH and PPR have an average gross margin, of 64.7% and 48.8%. The hard luxury has a gross margin of 59.9% were as the soft luxury gross margin is 62.8%.

The soft luxury is characterized by having better margins than the hard luxury. The reason for this is that hard luxury (i.e. Jewellery and watches) involves very expensive raw materials (e.g. Gold, Silver, precious stones, crystals).

The EBITDA margin is a more complete measure of the firm's profitability. LVMH and PPR have an average gross margin of 25.1% and 15.6%. The hard luxury EBITDA margin is of 21.3% whereas soft luxury presents a better profitability on this ratio, 25.5%.

Figure 15: Luxury industry profitability, 2010 (€ m)



Source: Bloomberg

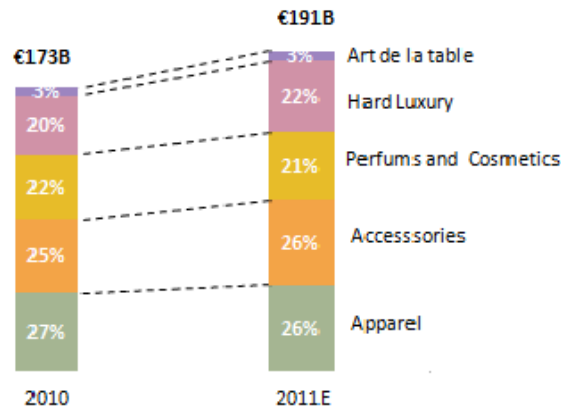
Size

Several figures are available regarding the value of the Luxury industry. BCG values the luxury market in EUR 960 billion (2010). However, its luxury industry definition is broader. It includes Fashion and clothing, Watches and jewellery, Leather goods and accessories, Cosmetics and fragrances, Alcohol and food, travel and hotels, technology, Furniture and decorations, luxury cars and others.

According to the same research, generally, the sector is valued from EUR 150 to EUR 180 billion. The scope of this thesis is narrower considering the lower range of products involved (Watches, jewellery, Perfumes, Cosmetics, Leather, accessories, Wines).

Bean & Company estimate the value of the industry in EUR 191 billion (2011), a growth of 10% when compared to 2010.

Figure 16: Worldwide Luxury Market sales by Category



Source: Bain & Company

Industry general Considerations

Luxury industry doesn't compete on price, but rather on design, desirability and brand name.

The distribution of soft-luxury goods is frequently made through the direct-owned stores. On the contrary, hard-luxury products are typically sold by third-party retailers. The latter distribution channel makes more difficult for manufactures to marketing their products.

The use of direct-owned stores limits the potential synergies on the luxury Mergers & Acquisitions. In the M&A here analyzed, LVMH can't sell Bulgari's products on its direct-owned stores.

This industry is also characterized by high barriers to entry. Brands need to be well established and to have some tradition in order for consumers to gain brand awareness, which can be seen as a slow process.

Moreover, consumer are more willing to buy products from the brand core product Consumers recognize the brand superior skills in their traditional products / segment (e.g. Burberry's trench coats, Dior dresses, Louis Vuitton bags) than products out of the core segment (e.g. LVMH watches).

Trends:

The industry is driven by **vertical integration**. There are two goals in doing so:

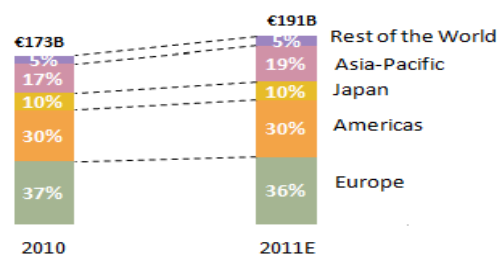
- assuring the access to exquisite raw materials;
- guarantee the high level in-house quality in the all manufacturing process.

Bulgari acquired, over the 2005-2008 period, three well-regarded Swiss workshops (Cadrens Designs, Prestige d'Or and Finger) to manufacture dials, steel and precious metal bracelets, and assemble the complex watch cases. Tiffany, in 1999, acquired a 14.6% stake in a diamond supplier – ABEY Diamond Corporation; in 2000, on the other side of the value chain, it started expanding its stores network. Since 2009, Hermès owns some Australian farms where crocodiles are raised in order to meet Hermès bags demand.

The **Geographical breakdown** of the luxury industry is getting more focused on Asia-Pacific. Japan accounts for 10% of the market (this percentage depends on the luxury industry segments considered by the research).

China is quickly gaining visibility; in 2025 it is expected to become the largest luxury goods market, which is also due to an increase on the Chinese domestic tourism. The BRIC consumer will continue to be regarded as the growth driver of the Global Luxury goods. In the period, 2010-2015 BRIC is expected to be responsible for 70% of the growth, where Europeans will contribute with 3%.

Figure 17: Worldwide Luxury Market by Area



Source: Bain & Company

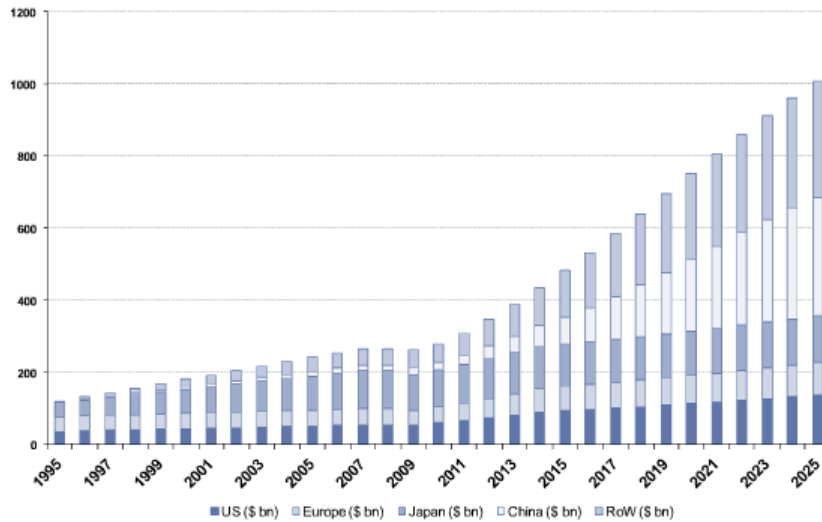
The **travel channel** has played a key role on the luxury sales growth. In Europe, around 50% of the luxury goods sale is made to travellers, which makes it the most travellers-exposed luxury market. Asia-Pacific is Europe's luxury goods primary client. The Chinese account for a share of 18% whereas Japanese account for a 15% share. LVMH, in Europe, has around 66% of its sales generated by travellers. Goldman Sachs

estimates that by 2015 travelling will be responsible for 75% of the Luxury European sales (estimates of growth in Europe of 10%).

Growth

The luxury market is expected to worth near 1 trillion dollars in 2025.

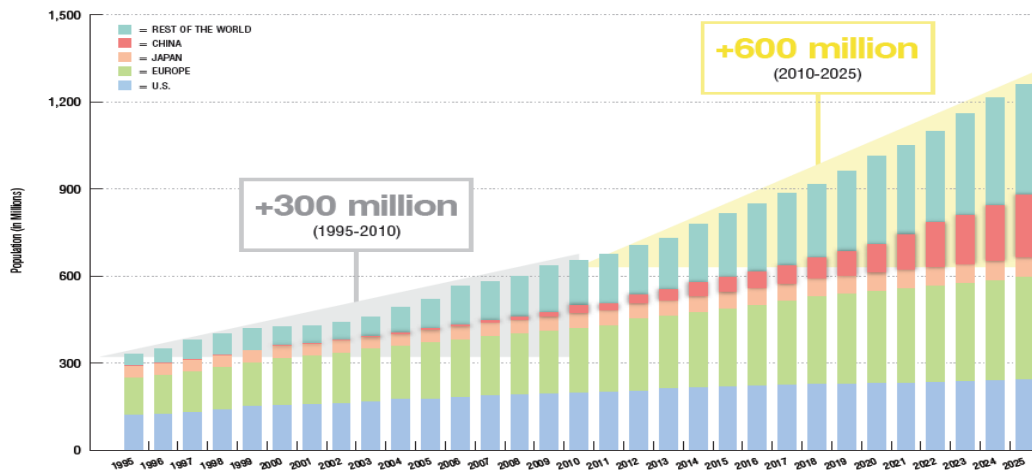
Figure 18: Global Luxury market sales growth 1995-2025 (USD billion)



Source: Goldman Sachs

The above figure allows to identify two distinct periods: 1995—2010 and 2011-2025. These periods are distinguished by the increase in the luxury industry addressable market. The addressable market of the luxury industry are people with a net income above USD 30 000 p.a. The first period is characterized by an increase of 300 million people with addressable income (>\$30 000 p.a.) whereas on the second period it's expected an increase of 600 million people with addressable income. A close relation is estimated between these two variables, addressable market and luxury goods sale.

Figure 19: Addressable market for luxury brands 1995-2025 (USD billion)



Source: Goldman Sachs

Additionally, the growth of the luxury industry it's closely linked to the forecasted growth of High Net worth Individuals. A High Net Worth Individual is someone with more than \$ 1 million in liquid financial assets. The number of HNWI in the US Increased 8.3% in 2010 as compared to 2009 and it increased 12% in China.

China is expected to become the number one in the luxury sector. The value of the Chinese Luxury market diverges along the several reports consulted. However, there's a common agreement that China will have a significant high growth and determinant on the Luxury industry development.

China is expected to account for 32.8% of this market, overcoming Japan in 2018. The latter, is expected to grow at a 1.3% p.a., accounting for 13% of the Luxury goods sales in 2025.

Nevertheless, some concerns start to be raised about China's ability to accomplish the high level of consumption forecasted. This concern is largely justified by the high taxes on the luxury goods in mainland China. For instance a Vuitton bag can cost 45 or 47% more in China than in Europe. In the end, Chinese are increasing their consumption outside of China. In addition, the prices are 30% higher in Asia (as compared to Europe) also reflecting the logistics costs.

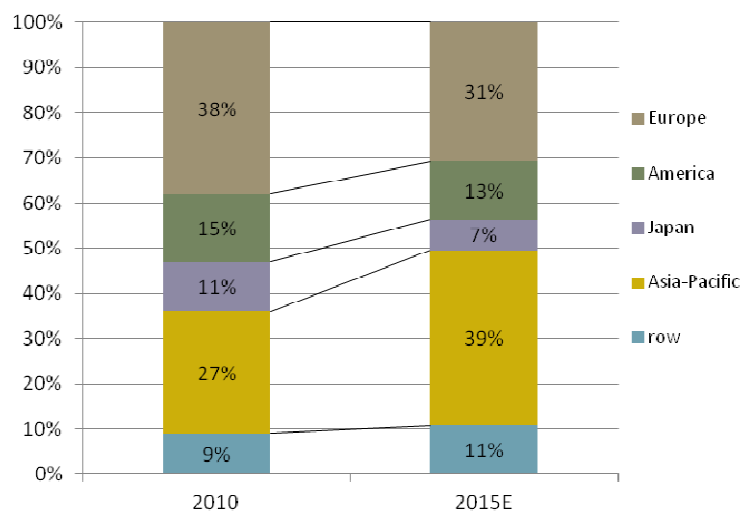
Bain & Company 2011 research considers Greater China as the third largest-market, behind US and Japan. In addition, the report highlights that more than 50% of the Chinese luxury market sales of EUR 17.7 billion in 2010 was made outside of Mainland China (i.e. overseas, Hong Kong and Macau). The sales volume of EUR 17.7 billion represents a 36% increase compared to 2009 figures.

CEBM China Research reports that China had a domestic luxury market of \$10.7 billion as of March 2011, becoming the second-largest luxury goods market (behind Japan). The same research forecasts a luxury goods sales volume of \$14.6 billion in 2012.

China accounts for 15% of LVMH sales (The Economist February, 2011). The Chinese have become LVMH top clients overcoming the Japanese, Americans and Koreans (CM-CIC research).

Goldman Sachs research also provides the breakdown per region for 2015E (figure19). Asia-Pacific region will increase from 26 to 31%. The figure at a first sight can see lower, hence it's necessary to highlight that a high part of the Chinese consumption is made abroad; this tendency is expected to remain.

Figure 20: 2015 Estimated Luxury sales breakdown



Source: Goldman Sachs

In terms of growth per segment, Spirits & Champagne are regarded as the segment with the highest growth potential. The expected growth rate is of 9.7% from 2010 to 2025, following an annual growth of 5.7% in the period 1995-2009. Fragrances and cosmetics are expected to have a growth of 9.6% p.a. Leather goods are expected to grow 9.4% p.a. whereas Ready-to-wear is expected to grow 9.2% p.a. Watches and Jewellery are expected to grow, respectively, 8% and 6.8% p.a.

4. STANDALONE VALUATION

4.1. Bulgari

Bulgari valuation was made by discounting future expected Cash flows at the weighted cost of capital.

The analysis is made in EUR even if the company manages revenues in other currencies. In addition, Bulgari doesn't disclose the revenues per currency only states that the currency risk comes mainly from JPY and USD. This risk is managed via "derivatives contracts (mainly forward contracts and, to a lesser extent, options contracts)" (source: Company's report).

The analysis is supported on Goldman Sachs research (GS), CA Cheuvreux research (CA) and Bank of America research (BoA). This research was published pre-deal. In addition the analysis is also based on some information release by Bulgari CEO.

4.1.1. DCF

Revenue and Growth

The sales CAGR in the 2008-2010 period is of **-0.29%** p.a. This growth rate is due, mainly, to the low watch segment CAGR of -9.73%. The watch segment underperformance was explained in 2009 due to the reduction of stocks by third party channel (i.e. wholesales).

Bulgari is said to take longer than peers to recover from crisis.

The sales growth rate of Bulgari's other core segments (97% of revenues) range between -4.33% p.a. and 4.38% per year. The company discloses the revenues per region and per segment; but doesn't release the data concerning regional sales per segment.

Research from several banks and consulting offices show expected high growth rates in the luxury industry, particularly driven by the Asian market. It's not possible to constrain Bulgari's sales projections to its Historical sales growth rate (2008-2010 period) as this is inconsistent with the growth forecasted for the industry.

Bank of America estimates Bulgari sales growth rate at **8.5%** p.a. on the 2011-2015 period, but doesn't disclose the growth rate per segment or per region.

Goldman Sachs provides the luxury industry growth rates per region from 2011 until 2015. The luxury industry growth rate per year is of **11.45%**.

GS values luxury industry sales in USD 280 billion (2010) and is estimated to grow to USD 485 billion in 2015.

The research also provides the geographic breakdown of 2010 sales and the expected one for 2015, allowing calculating the underlying annual luxury market growth rates per region for the 2010-2015 period.

The regional annual growth rates of Goldman Sachs Global luxury report were applied to the Bulgari's own regional breakdown.

For Instance, GS research shows that Asia-Pacific accounts for 17.2% (on a market of USD 280 billion) in 2010 and will account for 31% (on a market of USD 485 billion) in 2015. This means that GS estimates a sales growth rate of around 25% p.a. on this region. As 27% of Bulgari sales come from this region, then 27% of Bulgari sales will grow at 25% p.a.

The underlying assumption is that if GS assumed a growth rate in a certain region, Bulgari will naturally follow the luxury industry growth on that region.

Figure 21: Bulgari estimated sales growth per region 2011-2015E

Region	2010* Sales per region	2015E* Sales per region	Bulgari 2010 Revenues per region (as % of Total sales) **	CAGR 11-15E***
ROW	9%	11%	7%	1,05%
Asia-Pacific	27%	39%	27%	5,35%
Japan	11%	7%	19%	0,23%
America	15%	13%	13%	1,03%
Europe	38%	31%	35%	2,39%
Total value EUR billion	282,0	484,9	Bulgari sales growth per region 2011-2015E	10,05%

* Source: Goldman Sachs

** Source: Bulgari 2010 Report

*** Calculated (weighted average)

The above computation results in an estimate of Bulgari sales growth rate of 10.05% p.a. for the 2011-2015 period.

Previously, it was mentioned that during the period 2010-2015, only 3% of the growth would be due to Europeans, whereas 70% would be originated by BRIC citizens. At a

first glance this can seem somehow inconsistent with the growth rates above presented. Hence, it's important to highlight the difference between origin of the buyer and place of purchase. This is extremely important in the luxury market as much of the sales are made in the travel channel, for instance 50% Luxury European sales are made to tourists. In 2015, tourists are expected to account for 75% of the European luxury sales. Summing up, the European sales are highly supported by tourists, which explain how Europe can have such a high rate when Europeans account for only 3% of the growth in this period.

Goldman Sachs provides the expected sales growth rates per segment. These were applied to Bulgari sales breakdown per segment, and a sales growth rate of 9.4% p.a. was obtained.

Figure 21: Bulgari estimated sales growth per segment 2011-2015E

Segment	% Revenues Contribution*	Expected Growth per segment**
Jewellery	45,69%	8,00%
Watches	20,10%	6,80%
Perfumes & Cosmetics	22,95%	9,60%
Accessories	8,34%	9,30%
Hotels and restaurants	1,52%	0,89%
Royalties and Other	1%	N/A
Bulgari sales growth per segment 2011-2015E***		9,4089%

* Source: Bulgari 2010 Report

** Source: Goldmand Sachs

*** Calculated (weighted average)

Goldman Sachs research doesn't provide estimates for the Hotel / tourism segment. CA CHEVREUX estimates a sales growth rate for 2011 and 2012 of 6.11% p.a.

This segment aims to enhance brand perception. It isn't as focused on revenues as the remaining segments. For this reason, a steady growth will be assumed: the average of CAGR 08-10 and CA CHEVREUX expected growth rate for 2011/2012, which is 0.89% p.a. We finally arrive to Bulgari revenues growth rate per segment for 2011-2015 of 9.4%.

The Hotel segment estimated sales growth has almost no impact on the final sales growth rate of 9.4%. The difference between a Hotels sales growth rate of 0.89% and no growth at all is of around 3 b.p. on the on Bulgari sales growth rate of 9.4%.

Bulgari's growth rate for the 2011-2015 period is an average of:

- Segment growth rates from Goldman Sachs weighted to reflect Bulgari sales breakdown;
- Regional growth rates estimated by Goldman Sachs weighted to reflect Bulgari sales breakdown;
- Bulgari's sales growth rate estimated by Bank of America.

Bulgari revenues will be projected with a growth rate of 9.3194% p.a. during the 2011-2015 period.

Figure 22: Summary of the considered rates

Growth per Segment	2010 Revenues contribution (%)	Source	Growth per Geographic Region					Total
			Europe	America	Japan	Asia	Othr	
			35%	13%	19%	27%	7%	100%
Jewellery	46%	CAGR 08-10						4,38%
		CA CHEV 11-12						7,84%
		GS Segment 11-15						8,00%
Watches	20%	CAGR 08-10						-9,73%
		CA CHEV 11-12						9,27%
		GS Segment 11-15						6,80%
Perfumes & Cosmetics	23%	CAGR 08-10						-0,61%
		CA CHEV 11-12						6,10%
		GS Segment 11-15						9,60%
Accessories	8%	CAGR 08-10						3,61%
		CA CHEV 11-12						7,52%
		GS Segment 11-15						9,30%
Hotels and restaurants	2%	CAGR 08-10						-4,33%
		CA CHEV 11-12						6,11%
		GS Segment 11-15						2,00%
Royalties and Other	1%	CAGR 08-10						2,80%
		CA CHEV 11-12						0,00%
		GS Segment 11-15						N/A
Total	100%	CAGR 08-10	-4,50%	-7,72%	-5,09%	13,43%	7,32%	-0,293%
		CA CHEV 11-12	7,32%	9,17%	3,10%	10,99%	4,79%	7,62%
		GS Region 11-15	6,86%	7,97%	1,23%	19,83%	15,59%	10,05%
		GS Segment 11-15						9,41%
		BoA 11-15						8,50%
		GS 11-15	6,95%	9,26%	3,45%	21,65%	8,81%	11,45%
Bulgari's growth rate 11-15*			* Average of the bold values					9.3194%

Costs

The cost of sales averaged 38.13% of the sales (2008-2010), hence the gross margin is of 61.87%.

In 2009, the cost of sales included EUR 18.5 million of the restructuring process. The item was considered exceptional and, as such, wasn't taken in consideration for costs forecast purpose. The cost of sales considered is of 37.48%.

Bulgari revenues came mainly from hard luxury (66%). This makes pressure on its gross margin as this segment is much more expensive in terms of raw materials (e.g. Gold, silver and precious stones), consequently limiting its gross margin potential.

According to the information released, at a pre-deal stage, Bulgari was engaged in achieving a gross margin of 63% in 2010, particularly via SG&A costs decrease (including the SG&A included on the cost production).

Bulgari's vertical integration strategy allows it to have a greater part of its production in-house, which would be expected to decrease its production costs. So, the currently gross margin of 62.2% is expected to be improved (2010 figures). The prices of gold and precious metals can somehow constrain this improvement. However, Goldman Sachs estimates that Gold and other precious metals represent only 15% of Bulgari cost of sales. Cost of production is targeted at 36% of sales for 2015; consequently gross margin is targeted at 66% for 2015.

The evolution of a gross margin of 62.19% (2010 figures) in to 64% will be made gradually over the 2011-2015 period. The underlying idea is to challenge the company's efficiency (as compared with its peers); the company still has some margin to optimize its production process and that would be able to accomplish a higher gross margin (e.g. negotiation of raw materials price, production general expenses, optimization of manufacturing, raw materials stock management).

The company targets a 63% gross margin, which is, here, accomplished in 2012. In addition, we target a decrease of 100 b.p., aiming to achieve a cost of production of 36% and a consequent gross margin of 64% by the end of the explicit period (2015).

It's important to notice that in terms of gross margin, Bulgari's is above the industry average of 61%. Its close peers in terms of business, namely Richemont, Tiffany's, and Swatch, range between 54.9% and 63.8%. However, Bulgari has an exposition of around 33% of its sales revenues to soft luxury, characterized by lower raw materials costs. That said, the 64% gross margin is assumed to be challenging but possible as per the peer group information.

The costs with personnel have decreased, on average, 1% p.a. in the 2008-2010 period whereas the number of employees decreased 2.2% p.a. CA Cheuvreux uses a 5% increase in personnel costs, half for new employees (e.g. store opening) and the other half for salary increase. This seems appropriate as the company announced that they currently (pre-deal) have the right store mix and no store opening is forecasted except in China.

The variable costs are per definition a percentage of sales. They averaged 4.384% of sales on the 2008-2010 period. This value is assumed to be maintained on the explicit period.

Bulgari advertising and promotion expenses averaged 10.6% of sales revenues on the 2008-2010 period.

Advertising and promotion expenses are particularly important in the Soft segment (perfumes and accessories). Soft luxury isn't the core segment of Bulgari. There is a trend for Luxury consumers to target luxury companies on their core products. Hence for Bulgari to sustain its recovery on this sector, it's not possible to assume any cost efficiency here. A target of Advertising and promotion expenses of 10.6% of sales is purposed. The Advertising and promotion expenses target is the average of the 2008-2010 and it's consistent with the industry practices.

General and administrative expenses averaged 22.77% of the sales during the 2008-2010 period. It covers broad items such as legal disputes, travelling, Information, technology and communication. It's public that the company is committed in decreasing these costs. Hence, a SG&A costs restructuring is assumed aiming to decrease it into 19% of sales value is target in 2015. In order to arrive at the target level of general and administrative costs, the company will decrease this item gradually during the explicit period.

The decrease of the general and administrative expense is challenging however these costs explain, mainly, why Bulgari underperforms the industry in terms of costs efficiency. This could be achieved, for instance, via lower utilities expense, lower travelling budgets. Bulgari has a quite low EBITDA margin as compared with its peers, but its gross margin is above average (even if an improvement is purposed).

The decrease of the general and administrative costs is necessary in order for Bulgari to be competitive on the industry; otherwise, its performance will be constrained by its cost structure.

Following the above costs decrease, Bulgari would have an EBITDA margin of around 22.9% in 2015 (end of the explicit period). On a pre-deal stage, Bulgari EBITDA

margin was of 14%, quite below the Industry average of 22.8% and the Hard luxury average of 21.3%. Even with this challenging decrease of General & administrative costs, the company will be in line with the luxury industry average EBITDA margin by 2015.

Net Interest

All the financial expense was taken in consideration: Interest Income, Interest Expense, and Other financial income (expense) items. Net interest & financial expense was of EUR 15 million in 2010, however the company achieved values of net financial debt of, roughly, 50% of the levels of net financial debt of the 3 previous years. Therefore, as of 2011 the financial expense was reduced to half of the 2010 value and will be maintained for the all explicit period.

Taxes

Italy corporate tax (IRES) is 27.5%. It necessary to add the local tax (IRAP) of 3.9%.. We then arrive to a corporate tax rate of 31.4%

Net working Capital

Bulgari's Net working capital variation averaged 1.14% of sales on the 2008-2010 but it varies from EUR 128 million to - EUR 146 million. Such a range doesn't allow the use of the average. BAO calculates NWK variation as 3% of sales revenues for 2011 and 2012. CA Cheuvreux uses around 3.55% of the sales for the same period (2011 and 2012). The average of the former two values, 3.275% of Bulgari's sales revenues, will be assumed for the all explicit period.

Depreciation and Capex

Bulgari Capital expenditures are highly made on retail networks, either for store re-modelling or new store opening.

As per CA Cheuvreux information, Bulgari had a store opening program from 2003-2008 of 15 new stores p.a. Bulgari. On a pre-deal stage, the company wasn't planning major opening of stores except in China. Bulgari, was planning to open 15-20 stores in China for the next 3-4 years, making 5 new stores p.a. (source: Reuters 2010). Even other emerging market seemed to be out of focus:

“Importing into Brazil is impossible because with import duties and luxury taxes, the cost [to the customer] almost doubles, and the lack of infrastructure in India makes it

hard to find locations for new stores... Bulgari will focus on trying to sell perfumes in those markets”

Bulgari CEO, Wall Street Journal August 2010

The company has a current capex of EUR 50 million, representing 4.71% of sales revenues (2010 figures). However the average capex on the 2008-2010 period was 6.99% of sales. Bank of America research estimates capex at 6.6% of sales for 2011 and 2012. CA Cheuvreux estimates a capex of EUR 65 Million for the 2011 and 2012. Goldman Sachs presents an average capex of 6.2% of sales for the 2011-2014 period.

When describing the market and its development it was highlighted that much of the luxury market growth would be supported by China. A quite important increase of Asia pacific sales was assumed based on this prerequisite. At this stage, it's necessary to increase capex in order to, consistently, finance the China store opening. A capex of 7.5% of sales will be assumed on the explicit period.

On the period 2008-2010, Depreciation averaged 94.91% of capex and 6.17% of sales. Here, the depreciation will be assumed to remain at 94.91% of capex.

Terminal value

Sales will be assumed to grow at the same pace as world GDP. OECD forecast an annual average real GDP growth rate of 3.5% during the 2010-2050 period. The Cost of goods sold are maintained as 36% of sales. Personnel expenses will continue to grow at 3.5% p.a. for salary increase, we assume that no new employees will be necessary as by then the company will have already the necessary store network. Variable selling and Other SG&A, expenses will remain, respectively at 4.384% and 18%. Advertising and promotion costs will remain as 10.6% of sales. Net interest will be maintained at EUR 7.5 million.

The corporate tax rate considered is of 31.4%. No major store opening is expected on the terminal value. China network will be improved on the explicit period. However, stores need to be attractive, hence continuous refurbishing and redecoration is necessary, which, having in mind the luxury consumer, is still considerable expensive. Hence, a capex of 6% of sales is targeted assuming the company has already improved its presence on the Asian market. Per definition, capex shall be equal to depreciation on the terminal period and hence depreciation is target at 100% of capex. Finally, the NWK variation will remain at 3.275% of sales.

4.1.2. WACC

Risk free rate

The risk free rate corresponds to the German 10 year bonds yield (Source: ECB, March 2011).

Cost of debt

Bulgari isn't rated by any of the known Rating agencies.

Net financial debt is of EUR 135.278 million and the interest / financial expense is of EUR 15 million. However in 2010 the company cut its net financial debt by half. Consequently a proportional change in the financial expense is expected. We target a financial expense of EUR 7.5 million per year. By dividing Net interest by net debt, a debt cost of 5.54% is achieved.

Beta

Having in mind the business of Bulgari (luxury goods, high priced goods), the beta is higher (as compared to low priced goods). Damodaran provides beta data for several segments. Jewellery and watches account for 66% of Bulgari's sales, however for this segment specifically there is no beta by Damodaran. And giving the weight of it on the global sales, it would be imprudent to use a proxy. In this case the beta was taken from CA Cheuvreux, which provides a beta of 1.2.

Market premium

Bulgari is a luxury company mainly focused on jewellery and watches, these products represent 66% of its global sales. The company is geographically diversified; still Europe's sales represent 38% of its total sales. For a matter of consistency with the risk free rate the German risk premium will be used and Italy spread will be added aiming to reflect the risk of investing in a countries with risky sovereign debt.

Damodaran risk premium for Germany is 5%. In addition, there was a survey carried out on the market premiums used in 2011 by professors', analysts and companies. The median value for Germany was 5%. I found interesting to highlight that analyst's use on average a rate of 5.7% for German market whereas companies use 4.8%. The market premium of 5% was applied has it doesn't highly diverge from the practice (Fernandez 2010).

German 10 year's bonds yield is 3.21% (Source: ECB, March 2011). Italy 10 year's bonds yield is 4.88% (Source: ECB, March 2011). Hence, the Italian bonds default spread is of 1.67. We finally arrive to a market premium of 6.67%.

Debt and Equity ratios

Due to circular reasoning, it's necessary to define a targeted debt to equity ratio before achieving the WACC results. The company has a Net financial debt of EUR 135.3 million (book value). We will assume that the debt will be fully paid, and hence the debt book value will be taken as a proxy of the debt market value. The company has a market capitalization of around 2.4 billion (Source: Bloomberg 2010). A Debt-to-equity ratio of around 6% can be roughly estimated. The Company's structure here targeted is a Debt-to-equity of 10%, in line with the industry values.

A WACC of 10.42% was obtained.

This WACC is considered to be slightly higher than expected; this is due to Italy 10 years bond yield added to the German market premium.

The enterprise value obtained is of EUR 1.43 billion.

The equity is valued at EUR 1.26 billion, around 45% below the market capitalization of Bulgari in a pre-merger stage.

It's important to notice that the valuation exercise refers to a pre-deal situation in March 2011. Currently the sovereign debt long terms yields rates have changed significantly. German 10 year's yield has decreased whereas the 10 years yield of the southern Europe countries have dangerously increased. The impact of the risk free rate and market premium will be covered latter on the sensitive analysis that will be performed on both standalone valuations.

Here, for a matter of valuation technique, a second WACC was calculated in order to assess the impact of Bulgari default spread. The company is assessed as a pan-European company due to its geographic diversified sales.

In order to reflect this, the risk free rate was calculated as an average of the EURO long-term interest rates for 10 years maturity (data from March 2011). The countries with sovereignty debt issues were excluded from the average. Italy interest rate was, still, taken into account in order to reflect the exposure of the company to the its internal country demand. A risk free rate of 3.93% was obtained.

In addition, the market premium considered was updated to reflect the pan-European company (covering roughly the same EUR countries that were used on the risk free rate).

The practical survey carried out on the market premiums used in 2011 by professors', analysts and companies yielded an average of 5.75% (for the countries considered). Damodaran risk premium for the European countries considered is of 5.44%

A WACC of 9.74% was obtained.

The enterprise value obtained is of EUR 1.6 billion. After deducting net debt and minority interests, equity is valued at EUR 1.47 billion.

Bulgari valuation to be considered is this second one as the WACC parameters used are more in line with the company business risk.

4.1.3. Multiples

Three multiples were calculated to assess the LVMH equity value. The considered peer group is below presented. The aim here is to study the luxury industry, so the peer group are public companies that are present on the following segments: jewellery, watches, leather accessories and fashion, Accessories and Perfumes and Cosmetics.

Figure 23: Peer group multiples

Company	Country	Price	EV	Market Cap.	EV / EBITDA	V / S	P / E
Richemont*	Switezland	40,82 CHF	18731,48	21309,48	11,27	2,72	20,65
PPR	France	119,00 EUR	20185,28	15074,78	11,77	1,83	21,23
Hermès	France	71,35 EUR	15697,27	16484,26	20,41	6,54	39,09
Burberry's*	U.K.	11,74 GBP	4838,63	5116,43	13,3	3,22	23,81
Hugo Boss	Germany	49,03 EUR	3383,86	3628,71	10,84	2,1	18,23
Tiffany's**	U.S.A.	58,13 USD	7380,71	7328,08	9,87	2,38	19,84
Ralph Lauren***	U.S.A.	126,63 USD	11211,54	11966,54	10,74	1,98	21,87
Swatch	Switezland	CHF126.63	20332,29	22578,29	12,26	3,33	20,56
Average					12,56	3,01	23,16

Source: Bloomberg (31/12/2010)

* Data from 31/03/2011

** Data from 31/01/2011

*** Data from 02/04/2011

Bulgari equity value was calculated via the average EV / EBITDA, V/S and P/E of the considered peer group. The P/E calculated is based on the expected earnings of 2011.

Figure 24: Bulgari Valuation results

Multiple	Bulgari Equity value € M	Share price €
EV / EBITDA	1.800	5,96
V / S	3.085	10,22
P / E	1.312	4,35
DCF	1.436	4,76

The multiples valuation provided an equity value between EUR 1.3 billion and 3.08 billion EUR. The stock price ranges between EUR 4.35 and EUR 10.22. The highest valuation was obtained with Bulgari sales value. It's probable that Bulgari's market capitalization, pre-merger, is based on Bulgari's sales level. The lowest valuation is the result of P/E multiple, it's linked to 2011 low earnings. The EV/EBITDA also yielded a low value (compared with the market capitalization) due to its underperforming EBITDA margin.

4.2. LVMH

LVMH valuation was made by discounting future expected Cash flows for the Firm at the weighted cost of capital.

LVMH valuation exercise is made in EUR even if only 28% of revenue is in EUR. LVMH exposure to foreign currency risk (sales but also substantial assets mainly in US and Swiss francs) is actively managed via hedging (e.g. forward sales and options, borrowings or financial futures in the underlying asset currency).

4.2.1. DCF

Revenue and Growth

The CAGR for the 2008-2010 period is of 8.71% p.a. This growth rate is driven by a good performance of all segments. LVMH segments sales growth rate range from 2.14% to 10.86%. LVMH is assessed as a good performer on its peer group.

HSBC provides sales estimates for the 2011-2013 period. The underlying CAGR is of **7.7%** p.a.

Based on Goldman Sachs Global luxury report, LMH expected sales growth rate was also calculated. The process followed was the same as for Bulgari. The Luxury market value for 2010 and 2015 is provided, as well as the breakdown per region, by Goldman Sachs. Based on it, the underlying CAGR of luxury sales per region was calculated, just like it was done on Bulgari standalone valuation. This growth rates per region were then was applied to LVMH regional sales mix.

Figure 25: LVMH expected sales growth 2011-2015 GS regional estimates

Segment	% Revenues Contribution*	Expected Growth per Region**
Europe	33,68%	6,86%
US	22,72%	7,97%
Japan	8,95%	1,23%
Rest of Asia	24,98%	19,83%
Other	9,48%	15,59%
LVMH sales growth per Region 2011-2015E***		10,6647%

* Source: LVMH 2010 Report

** Source: Goldman Sachs

*** Calculated (weighted average)

The underlying assumption is that the company sales per region will follow the region luxury market growth. This yielded a sales growth rate of **10.6647%**.

The same exercise was made on LVMH segment breakdown, based on Goldman Sachs expected growth rates per segment.

In the segments of Wines & Spirits, Fashion & Leather Goods and Perfumes & Cosmetics the exercise was quite straight forward as Goldman Sachs provides growth rates for it, respectively, 9.7%, 9.3% (the average growth rate of ready-to wear and leather goods) and 9.6%.

Goldman Sachs forecasts a sales growth of 8% and 6.8% on the watches and jewellery segment. LVMH financial report doesn't disclose the weight of watches and jewellery separately, just the global watches and jewellery segment revenue. A weight of 50% each was assumed on the grounds that if a disparity of weights existed it would be reported. A growth rate of 7.4% was obtained (through the weighted average of watches and jewellery growth rate).

Selective retailing activity includes DSF, Sephora, Le bon Marché and Miami Cruiseline, for which Goldman Sachs doesn't provide any growth forecasts. The segment is quite miscellaneous in terms of products. The selective retailing includes mainly Fashion and Leather Goods, Perfumes & Cosmetics. The average of these segments was calculated. A sales growth rate of 8.73% p.a. was obtained on the Selective retailing segment.

The category "Other" reports mainly headquarters expenses, the results of the media division and the yacht builder company. From 2006-2010, this category average EUR 39.6 million, having a positive value for the first time in 2010. The weight of this segment on the overall sales revenues is negligible. Hence, this segment will be disregarded on LVMH sales projections.

A sales growth rate of **8.84%** was obtained for the period of 2011-2015 based on the calculations per segment. LVMH

Figure 26: LVMH sales growth per segment 2011-2015E

Segment	% Revenues Contribution*	Expected Growth per segment**
Wines and Spirits	16,05%	9,70%
Fashion and Leather Goods	37,31%	9,30%
Perfumes & Cosmetics	15,14%	9,60%
Watches and Jewelry	4,85%	7,40%
Selective Retailing	26,47%	8,77%
LVMH sales growth per segment 2011-2015E***		9,1585%

* Source: LVMH 2010 Report

** Source: Goldman Sachs

*** Calculated (weighted average)

The result so far are four sales growth rates: 8.71% (2008-2010 CAGR), 7.71% (HSBC 2011-2013), 9.16% (Goldman Sachs Weighted Segment) and 10.66% (Goldman Sachs Weighted Regional).

The rates are quite similar expect for the rate obtained when applying the Goldman Sachs regional estimates to LVMH geographical sales breakdown. The average of the four rates was assumed for 2011-2015 period 9.06%.

Figure 27: Summary of LVMH rates

Growth per Segment	2010 Revenues contribution (%)	Source	Growth per Geographical Region					Total
			Europe	US	Japan	Rest of Asia	Othr	
			34%	23%	9%	25%	9%	
Wines and Spirits	16%	CAGR 08-10						2,14%
		GS Segment 11-15						9,70%
Fashion and Leather Goods	37%	CAGR 08-10						12,31%
		GS Segment 11-15						9,30%
Perfumes & Cosmetics	15,14%	CAGR 08-10						3,56%
		GS Segment 11-15						9,60%
Watches and Jewelry	5%	CAGR 08-10						5,86%
		GS Segment 11-15						7,40%
Selective Retailing	26%	CAGR 08-10						10,86%
		GS Segment 11-15						8,77%
Total	100%	CAGR 08-10	2,57%	8,08%	0,57%	20,94%	12,08%	8,71%
		HSBC 11-13						7,71%
		GS Region 11-15	6,86%	7,97%	1,23%	19,83%	15,59%	10,66%
		GS Segment 11-15						9,16%
LVMH's growth rate 11-15*			* Average of the bold values					9,0612%

Costs

The cost of sales is around 35.49% of the sales (2008-2010 average), hence LVMH has a gross margin of 64.51%, which is above the industry average of 60.4%. The company underperforms only when compared to Hermès or Burberry's. Consequently, LVMH historical gross margins is assumed on the cost projections.

Marketing and selling cost averaged 35.31% of sales revenues on the 2008-2010 period. Advertising and promotion included in the latter represent 11% of sales. These expenses include mainly: advertising campaigns (e.g. new products), public relations and promotional events (e.g. New York fashion week). The costs incurred by marketing teams in charge for all of these activities are also included. The weight of marketing on the costs is in line with LVMH strategy as the company assumes that the LVMH growth is based on innovation, media and marketing.

It's also important to highlight that the marketing selling cost even if having the same weight as cost of sales, grew at a slower rate than the sales. For the period of 2010-2012, Sales growth rate as 8.71% and Marketing growth rate was 7.84%.

Their values are roughly stable for the 2008-2010 period, consequently the costs as percentage of sales in 2010 were applied, to LVMH forecast, as of 2011.

General and Administrative expenses averaged 8.53% of sales revenues on the 2008-2010 period; this historical averaged will be assumed on LVMH cash flows forecast.

Taxes

France corporate tax is 33.33%. Considering the company's financial reports, it's evident that the company doesn't pay such a high rate. So even if used, this rate is considered conservative.

Net working Capital

LVMH Net working capital change, in the period of 2008-2010, averaged 1.88% of sales revenue. The net working capital variation ranged between 0.4% and 4.7% of sales. Given this high volatility, the average of 2005-2010 was calculated and assumed on the valuation estimates.

The net working capital of 2008 was abnormally higher than the rest due to an increase of EUR 1000 million on Inventories and work in progress. Hence, 2008 NWK value was disregarded as the company justified it, partially, with the acquisitions made.

A Net working capital rate of 0.76% of sales revenue is assumed on LVMH valuation.

Depreciation and Capex

LVMH Capital expenditures are highly made on retail networks, either for store re-modelling or store opening. In wine and spirits segment, capex is mainly due to investments in industrial equipment.

LVMH capex averaged 5.12% of sales on the 2008-2010 period. The 2008-2010 Capex (as % of sales) will be assumed on the explicit period, reflecting a more stable phase of stores opening and also the necessary investments.

The depreciation during the 2008-2010 period is of 85.32% of capex and of 4.25% of sales.

The depreciation rate in terms of capex during the 2008-2010 period is assumed on the explicit period.

Terminal value

Sales are assumed to grow at the same pace as world GDP. The Cost of goods sold and Marketing & Selling expenses will maintain the same levels assumed on the explicit period in the continuing period (as percentage of sales). Other general and administrative expenses will remain at 8.45% of sales. Net interest will remain at EUR 151 million.

The corporate tax rate will remain at 33.33%.

No major store opening is expected on the stable growth period. China network will be improved on the explicit period. However, stores need to be attractive, hence continuous refurbishing and redecoration is necessary, which, having in mind the luxury consumer, is still considerable expensive. Hence, a capex of 4.5% of sales is targeted. Capex should be equal to depreciation on the terminal period and hence depreciation is target at 100% of capex.

4.2.2. WACC

Risk free rate

The risk free rate corresponds to the French 10 year bonds yield. This is explained due to the low bond yield; France isn't included on the European countries with sovereignty debt issues. The value of 3.61% (source: IMF, March, 2011).

Cost of debt

The company has Net financial debt of EUR 2.678 million. The company has a cost of financial debt of EUR 150. By dividing Net interest by net debt, a debt cost of 5.6% is obtained.

Beta

Having in mind the business of LVMH (luxury goods, high priced goods), the beta is higher (as compared to low priced goods). Damodaran provides the beta data for several segments, which were taken as proxies even if the sectors aren't exactly the same as LVMH sectors. For instance the beta of Retail (Special Lines) was applied to LVMH leather and accessories segments as the apparel beta was too low for a high priced company.

A weighted average of unlevered beta per segment sales was computed (Appendix 3). An unlevered beta of 0.99 was achieved. The beta was then re-levered to reflect LVMH capital structure. The LVMH levered beta is 1.06, which is actually quite close of the

sector beta provided by HSBC research and is exactly the beta provided by Reuters. For the business of Cosmetics & Fragrances, the beta of Toiletries/Cosmetics for the US was taken since for the other pertinent markets weren't available.

Market premium

LVMH is a diversified luxury company as it is present in several business segments. The company is as previously mentioned geographically diversified. The French premium rate will be used in order to be consistent with the risk free rate.

Damodaran provides data on the market premiums of most countries. The French market premium is of 5%.

A survey was carried out on the market premiums having the goal of understanding which market premiums were being used by the finance community in 2011 (i.e. professors, analysts and companies) (Fernandez et al. 2011). The average value for France was 6%.

Hence, on the current LVMH valuation a market premium of 5.5% (the average of the above two values) will be used.

Debt and Equity ratios

Due to circular reasoning one theoretical needs to evaluate the company to after calculate the ratios of debt and equity to obtain WACC. The company has a Net debt of EUR 2678 million, which is expected to be fully paid; hence the debt book value is used as a proxy for the debt market value (very low default probability). The company has a market capitalization of around 60 billion (end 2010). The Company's structure target is a D/V of 10% for simplicity purposes.

A WACC of 8.87% was obtained.

An enterprise value of EUR 62.6 billion is obtained.

After deducting the net debt and minority interest from LVMH enterprise value, an equity value of EUR 58.9 billion is obtained.

4.2.3. Multiples

Three multiples will be calculated to assess the LVMH equity value. The LVMH peer group is the same previously used to value Bulgari (**Figure 23: Peer group multiples**).

LVMH equity value was calculated via the average EV / EBITDA, V/S and P/E of the considered peer group.

Figure 28: LVMH valuation results

Multiple	LVMH Equity value €M	Share price €
EV / EBITDA	58.526	119,28
V / S	57.530	117,25
P / E	70.221	143,12
DCF	58.937	120,12

The multiples valuation provided an equity valuation between 57.5 and 58.9 billion EUR. The share price ranges from EUR 117.25 and EUR 121.33 in line with the results obtained on the DCF valuation.

The P/E multiple is inconsistent with the other values. This is due to extraordinary revenue, resulting from exceptional amount of Net gain (loss) related to available for sale financial assets and other financial instruments, included in Other financial income and expenses. Hence, the P/E was calculated based on the expected 2011 earnings. The equity calculated via P/E is now EUR 60.3 billion and the share price is of EUR 122.89

The valuation has a quite narrow range of prices, between EUR 117.25 and EUR 122.89.

Figure 29: LVMH valuation results (corrected for P/E)

Multiple	LVMH Equity value €M	Share price €
EV / EBITDA	58.526	119,28
V / S	57.530	117,25
P / E	60.296	122,89
DCF	58.937	120,12

4.2. Sensitive analysis

The sensitive analysis was performed in order to know the price sensitivity to the variation of the assumed sales growth rates for both Bulgari and LVMH.

The analysis of the sensitivity of the Stock price to the Sales growth rate assumed on the explicit period also allows understanding the impact on the price of WACC.

The WACC also plays an important role. Being one of its inputs the risk free rate and because this is something that has been quite volatile, the sensitive analysis also gives an idea of the risk parameters impact on the price.

4.2.1. Bulgari

The analysis of the sensitivity of the Stock price to variation of Sales growth rate assumed on the explicit period provided a broad range of stock prices. The maximum price resulting from this was EUR 6.52 whereas the minimum was EUR 3.52.

The same analysis on the Sales growth rate assumed on the terminal values also provided a broad range of stock prices even if narrower. The maximum price resulting from this was EUR 7.29 whereas the minimum was EUR 3.46. This analysis is particularly interesting as research provides high growth rates on luxury as of 2015 (not at the same pace as expected real GDP growth).

Figure 30: Bulgari Sensitive analysis

WACC	Sales growth Explicit period (% p.a.)					
	8,32%	8,82%	9,32%	9,82%	10,32%	
8,74%	5,23	5,54	5,86	6,19	6,52	
9,24%	4,69	4,97	5,26	5,56	5,86	
9,74%	4,23	4,39	4,76	5,03	5,30	
10,24%	3,85	4,09	4,33	4,58	4,83	
10,74%	3,52	3,74	3,96	4,19	4,42	

WACC	Sales growth Terminal value (% p.a.)					
	2,5	3	3,5	4	4,5	
8,74%	4,89	5,33	5,86	6,50	7,29	
9,24%	4,45	4,82	5,26	5,78	6,42	
9,74%	4,07	4,39	4,76	5,18	5,71	
10,24%	3,74	4,02	4,33	4,69	5,12	
10,74%	3,46	3,69	3,96	4,27	4,63	

4.3.2. LVMH

The analysis of LVMH stock price sensitivity to the sales growth rates also yielded broad ranges of stock prices.

The stock price varies between EUR 95.08 and EUR 157.17 with changes of the Sales growth assumed on explicit period from -100 b.p. into 100 b.p.

The stock price varies between EUR 87.55 and EUR 191.14 with changes of the Sales growth assumed on Terminal period from -100 b.p. into 100 b.p.

Figure 31: LVMH Sensitive analysis

WACC	Sales growth Explicit period (% p.a.)					
	8,06%	8,56%	9,06%	9,56%	10,06%	
7,87%	143,63	146,93	150,28	153,69	157,17	
8,37%	127,74	127,04	133,65	136,68	139,77	
8,87%	114,82	117,45	120,12	122,84	125,61	
9,37%	106,49	104,11	108,91	111,37	113,88	
9,87%	95,08	97,25	99,46	101,71	104,00	

WACC	Sales growth Terminal value (% p.a.)					
	2,5	3	3,5	4	4,5	
7,87%	124,64	136,14	155,28	168,07	191,14	
8,37%	112,98	122,35	133,65	147,53	164,99	
8,87%	103,17	110,92	120,12	131,21	144,84	
9,37%	94,79	101,30	108,91	117,94	128,33	
9,87%	87,55	93,08	99,46	106,94	115,81	

5. VALUATION OF THE MERGED ENTITY

5.1. Valuation of the merged entity without synergies

FCFF

The value of the consolidated entity without synergies was obtained by summing up the estimated Cash flows from the two firms (previously estimated on the context of the standalone valuation).

The currency valuation of the consolidated entity is EUR. It's the currency on which both companies report financial information and represents the 28 % of LVMH sales and an unknown percentage of Bulgari's sales.

Revenues and cost of goods sold were obtained by summing up the Revenues and cost of goods sold of Bulgari and LVMH.

Marketing and selling expenses result from the sum of Variable selling expenses plus Advertising and Promotion Expenses from Bulgari and Marketing and Selling expenses from LVMH.

General & Administrative expenses results from the sum of General and administrative expenses and Personnel expense from Bulgari plus General & Administrative expenses from LVMH.

Other operating income and expenses, and all the other items of the free cash flows map of the merged entity (without synergies) are the result of the sum of the exactly same items from Bulgari and LVMH.

Depreciation, capex and Δ NWK of the merged entity were obtained by simply summing up the amounts assumed on both standalone valuations.

WACC

Bulgari' Annual business revenue is of around 5% of LVMH Annual business volume which shows that for LVMH the deal is considered small (having in mind its on dimension).

The valuation is made having this in mind. In practice, Bulgari will be integrated on LVMH valuation and the merged entity will highly reflect the risk parameters previous

applied to LVMH valuation (i.e. standalone valuation). LVMH risk parameters differ from Bulgari mainly in terms of country risk due to Italy's sovereign debt issue.

In terms of business risk, the companies are quite similar as both:

- Can be regarded as pan-European;
- Have their revenues expressed in EUR;
- Are diversified in several luxury segments;
- Have similar geographic sales mix (even Bulgari is more exposed to Italians national demand).

The risk free rate of the merged entity will be the above logic, and a rate of 3.63% was obtained.

The D/E of 10% was maintained. The cost of debt was obtained by aggregating both companies debt and by summing up the net interest paid by each. A cost of debt of 5.56% was obtained.

The beta of 1.07 was obtained by weighting the betas of LVMH and Bulgari having in mind their 2010 sales. The market premium of 5.5% was maintained. A cost of equity of 9.49% was obtained.

The tax rate applied is the French corporate tax rate (33.33%). The rationale for it is the fact that the French tax rate is higher than the Italian one, constituting a more conservative assumption.

The growth rate for the terminal period is based on the GDP real growth rate and as such, remains at 3.5% p.a.

We, finally, end up with a WACC of 8.92%.

The valuation of the merged entity without synergies yielded an Enterprise value of EUR 63.8 billion and equity to EUR 60 billion.

Compared to the simple sum up of the two standalone entities the value of the merged entity is lower. This is explained, partially, by the application of a higher tax rate to Bulgari cash flows (the French corporate tax rate of 33.33% instead of the initial Italian corporate tax rate of 31.4%).

5.2. Valuation of the merged entity with synergies

If synergies exist when two entities are merging than these must be possible to be materialized on the consolidated entity cash flows. The consolidated entity cash flows will then reflect the potential synergies in terms of the expected increase of revenues cash flows (i.e. revenues synergies) and in terms of the expected decrease of costs (i.e. revenues synergies).

“Our entrance into LVMH will allow Bulgari to reinforce its worldwide growth and to realise noteworthy synergies, in particular in the areas of purchasing and distribution”

Francesco Trapani, Chief Executive Officer of Bulgari S.p.A.

It's above highlighted that from Bulgari's point of view the deal value lies especially on:

- Economies of scale is expected to reduce current costs
- LVMH financial position will ease Bulgari store opening.

Additionally, Analysts were concentrating the expected synergies in three major fields: media buying, retail network and procurement power.

5.2.1. Operating Synergies

Cost synergies

The Cost synergies will be assessed in terms of decrease of costs (as compared to the current costs situation).

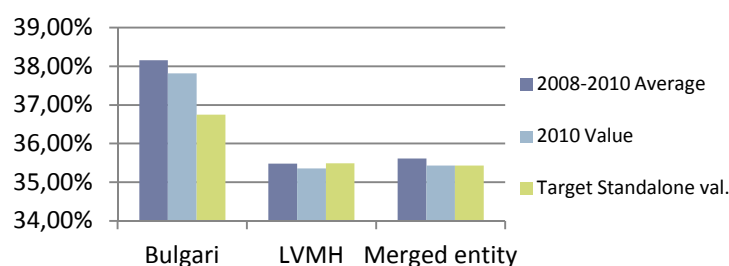
The potential costs reductions are mainly linked to the scale of the consolidated entity. However LVMH is buying a company (Bulgari) with 5% of its size, which in practice, means that LVMH will not increase its size that much. It will be mostly Bulgari that will benefit from the scale of the new merged entity.

Cost Synergies on the luxury industry are limited by brands exclusivity. The products manufacturing ought to remain distinct in order to not destruct the brand awareness and value. Moreover, cross selling in directed owned stores is not possible at all (i.e. it makes no sense to sell Bulgari bags in an LVMH store).

Procurement and Manufacturing

Both Bulgari and LVMH disclose the amount of production cost, which includes procurement and Manufacturing. No disclosure is made in terms of costs of production per segment.

Figure 32: Cost of production (in % of sales)



Bulgari's production cost (this includes raw materials, production and production personnel costs) is about 38.13% of its sales, being the gross margin of 61.87%. The Luxury goods sector average gross margin is 66.8%. LVMH gross margin is 64.523%.

The merged entity presents an historic production cost of 35.62% (2008-2010 average) and an estimated average of 35.56% for the explicit period to be achieved gradually in 2015 due to the gradually costs restructuring forecasted on Bulgari's standalone valuation.

The gross margin synergies will result from the fashion and leather goods, accessories, perfumes & cosmetics and watches & jewellery segments. The remaining segments from the two companies (e.g. wines and spirits, hotels) aren't expected to be sources of potential synergies.

Fashion, Accessories and Leather Goods

Figure 33: Segment weight on Merged entity Revenues

Leather, Fashion & Accessories	LVMH	Bulgari
Segment Revenues (2010)	7.518 €	86 €
Segment Revenues (as % of sales)	37%	8%
Total revenues (2010)	20.320 €	1.069 €

Fashion and Leather segment accounts for 36% and 8% of, respectively, LVMH and Bulgari revenues.

Fashion and Leather (i.e. accessories) creation and manufacturing must remain exclusive to each brand as these are designer goods. Accessories segment is lighter in terms of raw materials costs; the segment is expected to account for a lower percentage of cost of goods sold (as compared to Watches and jewellery).

The potential source of cost synergy is in the acquisition of raw materials (e.g. leather, silks,) through pooled purchasing.

LVMH suppliers of fabrics are mainly Italian, which would facilitate the pooled purchasing having in mind that Bulgari is based in Italy.

It's important to notice that the merged entity accounts for EUR 7.6 billion sales in this segment whereas LVMH by itself accounted with EUR 7.5 billion, hence it will not gain that much negotiating power. Bulgari, on the other hand, by merging with LVMH, will highly benefit from the new entity dimension.

This potential synergy, decrease of raw materials cost, is expected to be reflected on a decrease of the merged entity cost of goods sold of 5 b.p.

It would be necessary to reorganize the procurement department of the merged entity in order to accomplish this synergy, as such, they would be expect to be in place only as of 2013.

Watches and Jewellery:

Figure 34: Segment weight on Merged entity Revenues

Watches and Jewellery	LVMH	Bulgari
Segment Revenues (2010)	1.016 €	706 €
Segment Revenues (as % of sales)	5%	66%
Total revenues (2010)	20.320 €	1.069 €

The consolidated entity will have a Watch & Jewellery segment with almost the double of LVMH watch and jewellery segment. Watches & Jewellery segment are Bulgari's core business and the main deal driver.

Hard luxury (i.e. jewellery and watches) is associated to heavier procurement costs, mostly due to gold and precious stones. Here, significant cost synergies are forecasted in raw materials procurement. By almost doubling its size, the merged entity will highly profit from an increased negotiation power.

The procurement of raw materials for this segment is particularly expensive as it includes precious stones and gold. For gold, in particular, Bulgari has in place a centralized hedge management procedure to mitigate the volatility of margins.

Even if LVMH doesn't disclose it on its financial report, it's likely to have a similar procedure in place aiming to mitigate gold's volatility. The acquisition of metals and precious stones if combined is a potential source of synergies.

The potential synergy in terms of raw material acquisition (reduction of their price and unique purchase process for both companies) is expected also to decrease its cost of goods sold by 50 b.p.

Due to the reorganization efforts and time necessary to accomplish this cost synergy these synergies are expected to become effective in 2013.

Both companies have production sites in Switzerland where their watches are manufactured. LVMH outsources only a small part of its watches manufacturing. The outsource accounts for 5% of cost of sales. Hence, LVMH potential synergies from Bulgari "Verticalized" manufacturing process are negligible.

LVMH is expected to profit from the transference of Know-how of Bulgari's Jewellery and watches division. However, this will be handled on the revenue synergies.

Perfumes and Cosmetics

Figure 35: Segment weight on Merged entity Revenues

Perfumes & Cosmetics	LVMH	Bulgari
Segment Revenues (2010)	3.048 €	246 €
Segment Revenues (as % of sales)	15%	23%
Total revenues (2010)	20.320 €	1.069 €

Perfumes and cosmetics Research & development are expected to be maintained separately. However the manufacturing can be merged. Consequently, some cost savings are expected.

A potential source of synergy is the pooled purchasing of the necessary ingredients involved on the production of the Perfumes and Cosmetics. In addition, packaging materials (e.g. perfume bottles) can also be purchased via pooled purchasing.

A cost reduction of 10 b.p. is estimated.

Due to the reorganization necessary to accomplish this cost synergy as well as the time it take for the transference of knowhow, these synergies are expected to become effective in 2013

The manufacturing process, more specifically, the purchase of raw materials is expected to impact the cost of goods sold in 65 b.p. All, the above synergies, require a restructuring the procurement organization. The latter is expected to be carried out in 2012 and hence the synergies will be fully implemented in beginning 2013.

General & Administrative expenses

General and administrative expenses represent around 10% of sales of the merged entity without synergies (2008-2010 period). The rate decreases on the explicit period due to Bulgari General and administrative costs restructuring assumed earlier the standalone valuation.

LVMH and Bulgari even if merged will continue as two different companies (head offices in France and in Italy). Even so, it's possible to reduce and eliminate several administrative costs.

Bulgari's investors' relations department will cease to exist due to the companies delisting. The consolidated entity is expected to have economies of scale in some support services as Counterfeit, Legal department and Finance / Accounting (i.e. a part of the services will have to remain such as local account / finance for local salaries / taxes).

Bulgari reports a salary charge (i.e. related to selling and administrative functions) of 17.36% of sales revenues. 13% of the number of employees included in this charge is executives and middle management. This expense is expected to be reduced particularly in terms of executives.

Bulgari has a very High charge of general and administrative costs when compared to LVMH. It's also expected that the target company can make some benchmarking in order to improve its General and administrative costs.

The impact of the salary charge reduction (i.e. investors department, the reduction of executives) and the merger of some back office services are estimated to reduce the G&A costs in 10 b.p.

In order to allow the executive staff re-organization, this synergy is expected to become effective on the second semester of 2012 (leaving one year to the restructuring).

Marketing, Selling and Distribution

Distribution

Even if LVMH can't distribute Bulgari's products under Own brand stores, a margin for synergies still exists on distribution.

It's important to highlight that the companies have some similarities in their geographic sales mix.

The first potential synergy is the warehouse sharing. Given the similar geographic sales, the companies are expected to benefit from the sharing of warehouses, particularly in Asia where LVMH has a warehouse (i.e. Singapore logistics platform) aiming to supply customers in Asia Pacific, United States and Canada.

The second potential synergy is the transport of products. Shared transport can decrease the transportations fares, specially having in mind that the two companies geographic sales mix have some similarities.

The watches are distributed by wholesalers, hence there a significant potential in terms of distribution synergies.

The warehouse and transport synergies imply a reorganization of the distribution stocking and routes, hence they will be effective on in 2013.

The distribution synergy is materialized on a reduction of 10 b p. of the merged entity marketing and selling costs. This synergy is expected to become effective as off beginning 2013.

Advertising

Luxury sector is very sensitive to brand awareness. The brands must be managed and communicated separately. This means that advertising campaigns and cross selling *per se* will not be a source of cost reduction (i.e. no merging of costs). However, both companies are expected to have access to lower media fees. Both companies target, roughly, the same target consumers. Consequently, both companies will use the same media channels to advertise their brands and to communicate new products (e.g. Vogue, Marie Claire, TV generalist channels for perfumes advertising). So by combining the purchase of media, they will have a higher bargaining power that is expected to translate in significant lower fees.

LVMH and Bulgari disclose only advertising and promotion expenses (not media costs in particular). Both companies have similar advertising costs (in terms of sales percentage). Advertising and promotion costs averaged around 11.2% and 10.6% of LVMH and Bulgari revenues, respectively, on the period 2008-2010.

Advertising and promotion costs synergy from the lower media fares is estimated at a 20 b.p. decrease on this expense and to become effective as off beginning 2012.

Revenues synergies

Cosmetics and perfumes represent around 15.4% of the merged entity sales revenues.

Bulgari can benefit also from LVMH selective and travel retailing (e.g. Sephora, Le bon Marche and DSF) by having more visibility at the point of sale which would boost its cosmetics and perfumes sales. For this reason, an increase of 25 b.p on Bulgari Perfumes and cosmetics revenue is forecasted. Given the low weight of Bulgari's cosmetics and perfumes on the merged entity total sales, the impact of this synergy comes to an increase of 2 b.p. of the merged entity sales.

The cosmetics and perfumes Revenues depend only on the training and communication being provided by LVMH to its employees (i.e. sales force), hence it's expected to be in place as off beginning 2012.

A second potential source of revenue synergies is LVMH watches and Jewellery division. This segment of business is Bulgari core segment (66% of sales revenues) and the deal main driver, but accounts only for 5% of LVMH sales. The merged entity watches and Jewellery will account for 8.05%.

LVMH is expected to profit from LVMH expertise and know how on this business and to boost its design and creation.

LVMH sales are expected to increase 125 b.p , which represents a growth of 6 b.p. of the merged entity sales. This synergy is expected to have an impact on sales as off the beginning of 2013.

5.2.2. Financial Synergies

Cash Slack

By integrating LVMH, Bulgari will have access to the capital it need to expand itself, particularly on Asia, where the company still has a high potential to increase its presence. LVMH can support Bulgari store-opening in Asia, both financially and in terms of know-how, where the brand presence is, still, under expectations.

“The luxury-goods giant will help Bulgari open stores in Asia, where the jeweller has been slow to develop”

In Wall street journal, March 8th 2012

The capex from the standalone valuation is of 7.5% of sales in order to finance the Asia store opening program (of 5 stores p.a.) that Bulgari had already planned before the deal. With the financial capacity of LVMH, Bulgari will be able to reinforce its capex even more on a 3 years period (from 2013-2015) in order to consolidate its position in Asia and be able to profit from the market with the highest expected growth. Thus an 8% capex is assumed for the Bulgari stores from 2012 to 2015.

The impact of it on the sales revenues would be an increase of Bulgari expected sales revenues of 20 b.p. This sales growth would come mainly from Asia, the target of capex investment.

This capex additional investment would be in place from 2012 until 2015. As off this stage, Bulgari Asian market would be expected to be correctly covered in terms of store positioning. The impact on the sales revenues would start in beginning 2013.

5.2.3. The Value of Synergies

When considering the above synergies, the merged entity has an Enterprise value of EUR 65.16 billion. By deducting the merged entity net debt, an equity value of EUR 61.34 billion is obtained.

The synergies amount to EUR 2125. However, with higher cash flows the tax charge will also be impacted. In addition the revenues increase is, partially, financed by an additional investment in capex. The synergies are, hence, valued in EUR 1.376 billion.

Figure 36: Sources of synergy

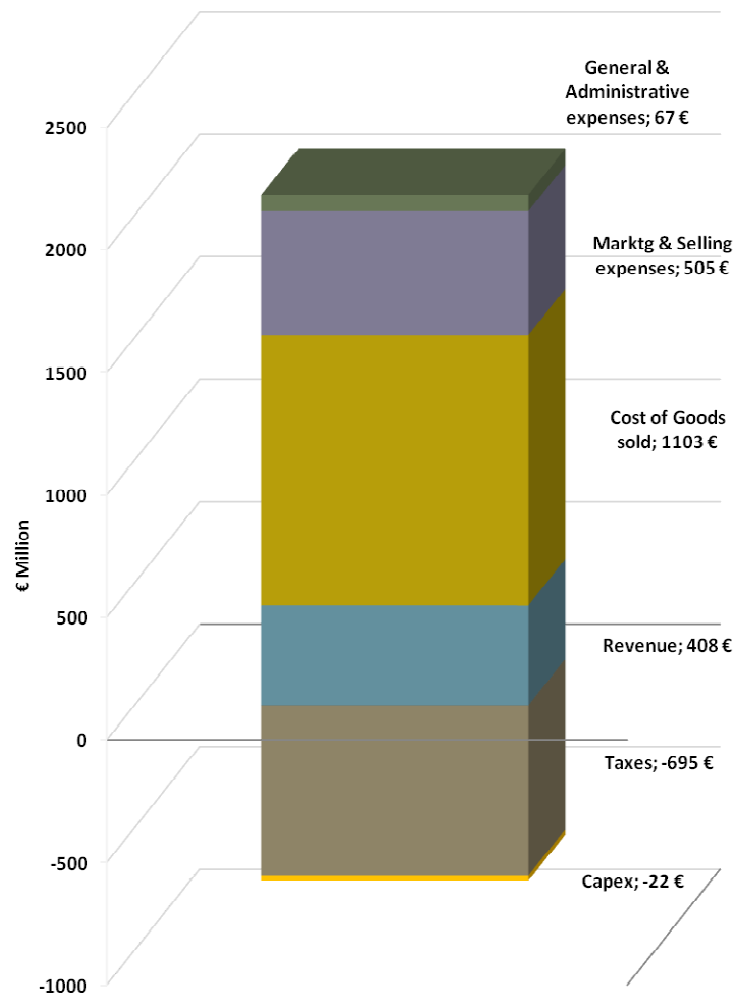


Figure 37: Synergy sharing between LVMH and Bulgari

	Synergies Source	LVMH	Bulgari
% of Total Synergies	Revenues	65%	35%
	Cost of Goods sold	55%	45%
	Marketing & Selling expenses	60%	40%
	General & Administrative expenses	100%	0%
	Synergies Source	LVMH	Bulgari
€ Million	Revenue	290 €	156 €
	Cost of Goods sold	604 €	495 €
	Markt & Selling expenses	303 €	202 €
	General & Administrative expenses	48 €	0 €

Revenues will be improved via capex investment in Bulgari made by LVMH. Increase of sales from Watches & jewellery segment is expected resulting from Bulgari knowhow. LVMH is expected to profit from the target's expertise, which will be materialized on greater segment revenues.

Additionally, Bulgari perfumes and cosmetics sales are expected to improve motivated by LVMH selective retailing segment.

Cost of goods sold synergies arrive when Bulgari, with its small scale, joins such a huge company like LVMH, profiting from significant economies of scale in raw materials purchase (Leather, fashion, accessories, cosmetics, perfumes). However, Bulgari will significantly contribute to this synergy given the pre-size deal of its watches & jewellery segment.

The synergies on the watches and jewellery segment are shared by the two companies, through the gross margin improvement (i.e. improvement of sales revenues, cost of production and distribution cost reduction). On a pre-deal stage, both companies have high segment sales. LVMH has around 60% of the merged entity watches and jewellery sales. However Bulgari will bring its expertise to the new merged entity as it is its core segment.

Marketing and selling expenses synergies result mainly from the already existing scale at LVMH. Media purchasing is more frequent in the cosmetics and perfumes segment, where Bulgari holds a small position in terms of absolute value if compared with LVMH. Bulgari, again will add value to the potential synergies via its watches and jewellery segment mainly in distribution channel.

The company General & administrative costs will be reduced via a restructuring made by LVMH.

The general idea here is that Bulgari will profit mainly from the scale of the new entity. The scale is provided by the significant dimension of LVMH operations. LVMH will also profit from this, but the deal is small for its size, hence there will be a minor impact. LVMH will win a reinforced position on the watches and jewellery segment, being in a better position to compete with other luxury conglomerates as Swatch and Richemont. This segment is particular, is Bulgari who is given value to the new merged entity, its high scale and its knowhow.

Bulgari accounts for 40% of the gross synergies.

6. THE DEAL

6.1. Target price

On a pre-stage deal, Bulgari share price was of EUR 7.66 (average 1 month preceding the deal announcement).

The valuation however revealed a much lower range of prices. DCF valuation revealed a stock price of EUR 4.76. The multiples calculated provided a stock price that ranged between EUR 4.35 and EUR 10.22. In practice, this disparity is due to the company's cost efficiency. If valued considering only its sales, Bulgari yields a high share price. However, once the cost structure is brought into the valuation, the stock price decreases.

This clearly reflects the company's inefficient cost structure.

Figure 24: Bulgari Valuation results

Multiple	Bulgari Equity value € M	Share price €
EV / EBITDA	1.800	5,96
V / S	3.085	10,22
P / E	1.312	4,35
DCF	1.436	4,76

The market valuation however is much more related to Bulgari sales than to its cost structure. The company has a stock price of EUR 7.66 (average 1 month preceding the deal announcement). The sensitive analysis shows that in order to be near this value, WACC should be decreased in 100 b.p. whereas the growth rate on the continuing period would have to be 4.5 p.a.. The average of the above values is about EUR 6.32.

In addition, because research estimates luxury industry growth rates until 2020 quite above the real GDP growth, the DCF valuation might underestimate the company growth potential. So the price is targeted at EUR 6.4, 20% below the market price.

LVMH valuation provides quite homogeneous share prices, once the P/E was corrected. On a pre-stage deal, LVMH share price value ranges from EUR 117.25 and 122.89. The LVMH share price to be considered, pre-deal, is of EUR 119.89, the average of the below four valuation results values.

Figure 29: LVMH valuation results (corrected for P/E)

Multiple	LVMH Equity value €M	Share price €
EV / EBITDA	58.526	119,28
V / S	57.530	117,25
P / E	60.296	122,89
DCF	58.937	120,12

The merged entity without synergies is valued at EUR 60 billion. The value moves to EUR 61.34 when synergies are taken into account. The synergies have a net value of EUR 1.376 billion. The merged entity will have a value of EUR 125.027.

The deal would increase LVMH equity value in around EUR 2.4 billion.

If the synergies were completely provided by Bulgari than the target price would be restated with an increase of EUR 4.56. However the cost synergies are, mostly provided by LVMH. With the exception of the Watch scale and expertise which is shared by both companies. Bulgari accounts for 40% of the gross synergies. If we consider this on Bulgari share price, then the stock price should be restated with an increase of EUR 1.82. Hence, Bulgari stock price for this deal would be EUR 8.14.

6.2. Financing Cash vs. stock

In order to acquire Bulgari, LVMH would have always to choose between debt or equity issuance as the money it holds would barely cover the transaction amount.

Bulgari is a family owned company. For this reason, doubts exist that the deal would take place if the purchase was made solely in cash. By making the purchase in stock, LVMH is allowing Bulgari family to continue to actively participate on the company's future. The latter is seen as pre-requisite for the deal to happen.

The valuation of LVMH provides a stock price of EUR 119.89. On the context of the payment of Bulgari with stock, the shares were valued at EUR 113. So theoretically, as the shares are considered to be undervalued it would make sense to make the deal in cash.

6.3. The offer

The acquisition of Bulgari by LVMH was announced by the acquirer on March 7th 2011.

LVMH has been consolidating its position as a luxury giant through acquisitions. Before the acquisition of Bulgari, LVMH had recently acquired a 20% stake on Hermès capital. After Bulgari purchase, Tiffany's is seen as the probable next target.

Bulgari is a family-managed company. The deal stated by the purchase of 50.43% family stake and was followed by a mandatory tender offer on the remaining shares.

The controlling stake of 50.43% (152.5 million Bulgari shares) was bought via newly issued 16.5 million LVMH securities. The ratio of this is 0.108407 new LVMH shares for each Bulgari share.

The deal with the family was estimated in EUR 1.9 billion. This valuation is based on a Bulgari share price of EUR 12.25 and a LVMH share price of EUR 113.00 (share prices from the March 2011). This made Bulgari family, the second biggest LVMH shareholder.

The second part of deal is to buy the remaining Bulgari shares via a tender offer with a price of EUR 12.25. This purchase was estimated in EUR 1.9 billion Bulgari price of 12.25 included control premium of around 59%.

The transaction would have a value of EUR 4.3 billion; 44% in cash and 56% in stock.

7. CONCLUSION

The deal motivation from LVMH point of view results mainly from the Watches and Jewellery division. Following the merger, LVMH will consolidate its position on this segment, by almost duplicating its sales level on watches and jewellery. Being this segment more cyclical, and due to its distribution channel (i.e. wholesale) more difficult to monitoring (in terms of sales results), the entrance into a conglomerate will also bring more stability into Bulgari.

In addition, by being part of a conglomerate, Bulgari will improve its exposure to the Asian market. Additionally, the company will also profit from LVMH expertise (e.g. superior cost efficiency) Moreover, the companies have some common segments (i.e. Perfumes & cosmetics, leather, fashion and accessories) that even if bringing added value to the deal are considered secondary (as opposed to watches and jewellery segment).

LVMH has the good purpose to acquire Bulgari: The enhancement of its performance (i.e. cost reduction) and acquisition of skills (i.e. watch segment).

The Bulgari family assuming an executive role on the merged entity will likely smooth the integration issues. Additionally the two brands will continue to be managed separately.

In Bulgari standalone valuation, the only measure that yielded a significantly high valuation is based on Bulgari's sales. This has consequences on the acquisition price purposed. The acquisition price (average of the four valuation measures) of EUR 6.32 plus the synergy added value per share EUR 1.82 provides an acquisition price of EUR 8.13.

In reality the company acquisition price was calculated with a base price of EUR 7.6 and a premium of 60% was paid. The acquisition price was of EUR12.25.

8. APPENDICES

Appendix 1: Bulgari WACC calculation

WACC			
Net financial debt	135 €	RFR	3,21%
Net interest	7 €	Beta	1,2
Kd	4,80%	Market premium	6,67%
Tax	31,34%	Ke	11,21%
D/V	10,00%	E/V	90,00%
WACC	10,42%	g	3,50%

Appendix 2: Pan-European WACC calculation

WACC			
Net financial debt	135 €	RFR	3,93%
Net interest	7 €	Beta	1,2
Kd	4,80%	Market premium	5,44%
Tax	31,34%	Ke	10,46%
D/V	10,00%	E/V	90,00%
WACC	9,74%	g	3,50%

Appendix 3: LVMH beta per segment

Industry Name	Unlevered Beta	LVMH Segment
Retail (Special Lines) - World	0,99	Fashion and Leather Goods
Beverage World World	0,70	Wines and Spirits
Precious Metals World	1,43	Watches and Jewelry
Retail (Special Lines) - World	0,99	Selective Retailing
Toiletries/Cosmetics US	1,13	Perfumes and Cosmetics

Source: Damodaran

Appendix 4: LVMH WACC calculation

WACC			
Net financial deb	2.678 €	RFR	3,61%
Net interest	150 €	Beta	1,06
Kd	5,60%	Market premium	5,50%
Tax	33,33%	Ke	9,44%
D/E	10,00%	E/V	90,00%
WACC	8,87%	g	3,5%

Appendix 5: WACC calculation for the merged entity without synergies

WACC			
Net financial debt	2.813 €	RFR	3,63%
Net interest	157 €	Beta	1,07
Kd	5,56%	Market premium	5,50%
Tax	33,33%	Ke	9,49%
D/E	10,00%	E/V	90,00%
WACC	8,92%	g	3,50%

Appendix 6: LVMH Income statement (Standalone valuation)

EM	FY2008 H	FY2009 H	FY2010 H	FY2011 F	FY2012 F	FY2013 F	FY2014 F	FY2015 F	TV
Revenue	17193	17053	20320	22161	24169	26359	28748	31353	32450
Cost of sales	-6012	-6164	-7184	-7867	-8580	-9358	-10205	-11130	-11520
Net Contribution Margin	11181	10889	13136	14294	15589	17002	18542	20222	20930
Gross margin (%)	65,0%	63,9%	64,6%	64,5%	64,5%	64,5%	64,5%	64,5%	64,5%
Marketing and selling expenses	-6104	-6051	-7098	-7825	-8534	-9307	-10151	-11071	-11458
General and administrative expenses	-1449	-1486	-1717	-1890	-2062	-2248	-2452	-2674	-2768
Profit from recurring operations	3628	3352	4321	4579	4993	5446	5939	6477	6704
Profit from recurring operations margin (%)	21,1%	19,7%	21,3%	20,7%	20,7%	20,7%	20,7%	20,7%	20,7%
Other operating income and expenses	485	510	633	879	959	1046	1141	1244	1330
EBITDA	4113	3862	4954	5458	5953	6492	7080	7722	8035
EBITDA margin (%)	23,9%	22,6%	24,4%	24,6%	24,6%	24,6%	24,6%	24,6%	24,8%
Depreciaton & Amortization expense	-628	-701	-785	-968	-1056	-1151	-1256	-1370	-1460
EBIT	3485	3161	4169	4490	4897	5340	5824	6352	6574
EBIT margin (%)	20,3%	18,5%	20,5%	20,3%	20,3%	20,3%	20,3%	20,3%	20,3%
Total Financial expense	-257	-187	-151	-151	-151	-151	-151	-151	-151
Other financial income and expenses	-17	-152	-95	0	0	0	0	0	0
EBT	3211	2822	3923	4339	4746	5189	5673	6201	6423
Income taxes	-893	-849	-1469	-1446	-1582	-1730	-1891	-2067	-2141
NET PROFIT BEFORE MINORITY INTERESTS	2318	1973	2454	2893	3164	3460	3782	4134	4282
Minority interests	-292	-218	-287	-289	-316	-346	-378	-413	-428
NET PROFIT, GROUP SHARE	2026	1755	2167	2603	2848	3114	3404	3721	3854
Net profit margin (%)	11,8%	10,3%	10,7%	11,7%	11,8%	11,8%	11,8%	11,9%	11,9%
BASIC GROUP SHARE OF NET PROFIT PER SHARE (€)	4,28	3,71	4,54	5,46	5,97	6,53	7,14	7,80	8,08
Number of shares on which the calculation is based	473554813	473597075	476870920	476870920	476870920	476870920	476870920	476870920	476870920
DILUTED GROUP SHARE OF NET PROFIT PER SHARE (€)	4,26	3,70	4,52	5,43	5,94	6,49	7,10	7,76	8,03
Number of shares on which the calculation is based	475610672	474838025	479739697	479739697	479739697	479739697	479739697	479739697	479739697

Appendix 7: LVMH Cash flow analysis (Standalone valuation)

EM	FY2008 H	FY2009 H	FY2010 H	FY2011 F	FY2012 F	FY2013 F	FY2014 F	FY2015 F	TV
EBIT (1-t)	2592	2312	2700	2993	3265	3560	3883	4235	4383
CAPEX	(1039)	(748)	(1002)	(1135)	(1237)	(1350)	(1472)	(1605)	(1460)
Depreciation & Amortization	628	701	785	968	1056	1151	1256	1370	1460
Change in Net working capital	(813)	(66)	(70)	(168)	(184)	(200)	(218)	(240)	(247)
Free Cash to the Firm	1368,0	2199	2413	2658	2899	3162	3449	3759	4137
Discount factor				1,089	1,185	1,290	1,405	1,529	1,665

Valuation Parameters	
Target D/E	10%
Corporate Tax rate	33,3%
Rd	5,6%
Re	9%
Rf	3,61%
Levered beta	1,06
Market premium	5,50%
WACC	8,87%
CAGR 11-2015	9,0612%
g (as of 2015)	3,50%

Valuation Results	
EV beginning 2011	62.621
Net financial debt	2.678
Minority Interests	1.006
Equity	58.937
Number of shares	490.642.232
Price per share (€)	120,12

Appendix 8: Bulgari Income statement (Standalone valuation)

€M	FY2008 H	FY2009 H	FY2010 H	FY2011 F	FY2012 F	FY2013 F	FY2014 F	FY2015 F	TV
Revenue	1075	927	1069	1169	1278	1397	1527	1669	1727
Cost of sales	(384)	(379)	(404)	(437)	(474)	(513)	(555)	(601)	(622)
Net Contribution Margin	691	548	665	731	804	884	972	1068	1106
Gross margin (%)	64,3%	59,1%	62,2%	62,6%	62,9%	63,3%	63,6%	64,0%	64,0%
Personnel expense	(190)	(183)	(186)	(195)	(205)	(215)	(226)	(237)	(245)
Variable selling expenses	(48)	(42)	(45)	(51)	(56)	(61)	(67)	(73)	(76)
Advertising and Promotion Expenses	(121)	(96)	(109)	(124)	(135)	(148)	(162)	(177)	(183)
General and administrative expenses	(221)	(230)	(245)	(258)	(272)	(287)	(302)	(317)	(328)
Profit from recurring operations	111	(3)	81	103	135	173	215	264	273
Profit from recurring operations margin (%)	10,3%	-0,3%	7,6%	8,8%	10,6%	12,4%	14,1%	15,8%	15,8%
Other operating income and expenses	54	49	73	83	91	99	109	119	98
EBITDA	165	46	154	186	226	272	324	383	372
EBITDA margin (%)	15,3%	5,0%	14,4%	15,9%	17,7%	19,5%	21,2%	22,9%	21,5%
Depreciation & Amortization expense	(54)	(65)	(69)	(83)	(91)	(99)	(109)	(119)	(98)
EBIT	111	-19	85	103	135	173	215	264	273
EBIT margin (%)	10,3%	-2,0%	8,0%	8,8%	10,6%	12,4%	14,1%	15,8%	15,8%
Total Financial expense	(15)	(15)	(13)	(7)	(7)	(7)	(7)	(7)	(7)
Other financial income and expenses	(7)	(13)	(25)	(15)	(15)	(15)	(15)	(15)	(15)
EBT	89	(47)	47	81	113	151	193	242	251
Income taxes	(7)	(347)	(9)	(25)	(36)	(47)	(61)	(76)	(79)
NET PROFIT BEFORE MINORITY INTERESTS	82	(47)	38	56	78	103	133	166	172
Minority interests	0,00	0,00	0,14	0,15	0,15	0,16	0,17	0,18	0,19
NET PROFIT, GROUP SHARE	82	(47)	38	56	78	104	133	166	173
Net profit margin (%)	7,6%	-5,0%	#VALOR!	4,8%	6,1%	7,4%	8,7%	10,0%	10,0%
BASIC GROUP SHARE OF NET PROFIT PER SHARE (€)	0,17	(,155)	0,13	0,18	0,26	0,34	0,44	0,55	0,57
Number of shares on which the calculation is based	473554813	300969435	301827361	301827362	301827363	301827364	301827365	301827366	301827367
DILUTED GROUP SHARE OF NET PROFIT PER SHARE (€)	0,17	()	0,12	0,18	0,25	0,34	0,43	0,54	0,56
Number of shares on which the calculation is based	475610672	302938343	306357356	306357357	306357358	306357359	306357360	306357361	306357362

Appendix 9: Bulgari Cash flow analysis (Standalone valuation)

€M	FY2008 H	FY2009 H	FY2010 H	FY2011 F	FY2012 F	FY2013 F	FY2014 F	FY2015 F	TV
EBIT (1-t)	104	-19	76	71	93	118	148	181	188
CAPEX	(85)	(78)	(50)	(88)	(96)	(105)	(115)	(125)	(104)
Depreciation & Amortization	54	65	69	83	91	99	109	119	104
Change in Net working capital	(146)	128	(39)	(38)	(42)	(46)	(50)	(55)	(57)
Free Cash to the Firm	(73)	97	56	28	46	67	92	120	131
Discount factor				1,097	1,204	1,322	1,450	1,592	1,747

Valuation Parameters	
Target D/E	10%
Corporate Tax rate	31,4%
Rd	4,8%
Re	10%
Rf	3,93%
Levered beta	1,2
Market premium	5,44%
WACC	9,74%
CAGR 11-2015	9,3194%
g (as of 2015)	3,50%

Valuation Results	
EV beginning 2011	1.572
Net financial debt	135
Minority Interests	1
Equity	1.436
Number of shares	301.827.361
Price per share (€)	4,76

Appendix 10: Merged entity Income statement (without synergies)

€M	FY2008 H	FY2009 H	FY2010 H	FY2011 F	FY2012 F	FY2013 F	FY2014 F	FY2015 F	TV
Revenue	18268	17980	21389	23330	25447	27756	30275	33022	34177
Cost of sales	-6396	-6543	-7588	-8305	-9054	-9870	-10761	-11731	-12142
Net Contribution Margin	11872	11437	13801	15025	16393	17886	19514	21291	22036
Gross margin (%)	65,0%	63,6%	64,5%	64,4%	64,4%	64,4%	64,5%	64,5%	64,5%
Marketing and selling expenses	-6273	-6189	-7252	-8000	-8726	-9517	-10380	-11321	-11717
General and administrative expenses	-1860	-1899	-2147	-2343	-2539	-2750	-2980	-3228	-3341
Profit from recurring operations	3739	3349	4402	4681	5129	5619	6155	6742	6978
Profit from recurring operations margin (%)	20,5%	18,6%	20,6%	20,1%	20,2%	20,2%	20,3%	20,4%	20,4%
Other operating income and expenses	539	559	706	963	1050	1145	1250	1363	1429
EBITDA	4278	3908	5108	5644	6179	6764	7404	8105	8406
EBITDA margin (%)	23,4%	21,7%	23,9%	24,2%	24,3%	24,4%	24,5%	24,5%	24,6%
Depreciation & Amortization expense	-682	-766	-854	-1051	-1147	-1251	-1364	-1488	-1559
EBIT	3596	3142	4254	4593	5032	5513	6040	6616	6848
EBIT margin (%)	19,7%	17,5%	19,9%	19,7%	19,8%	19,9%	19,9%	20,0%	20,0%
Total Financial expense	-272	-202	-164	-158	-158	-158	-158	-158	-158
Other financial income and expenses	-24	-165	-120	-15	-15	-15	-15	-15	-15
EBT	3300	2775	3970	4420	4859	5340	5867	6443	6675
Income taxes	-900	-849	-1478	-1473	-1620	-1780	-1955	-2148	-2225
NET PROFIT BEFORE MINORITY INTERESTS	2400	1926	2492	2947	3240	3560	3911	4296	4450
Minority interests	-292	-218	-287	-289	-316	-346	-378	-413	-428
NET PROFIT, GROUP SHARE	2108	1708	2205	2658	2923	3214	3533	3882	4022
Net profit margin (%)	11,5%	9,5%	10,3%	11,4%	11,5%	11,6%	11,7%	11,8%	11,8%
BASIC GROUP SHARE OF NET PROFIT PER SHARE (€)	4,45	3,61	4,62	5,57	6,13	6,74	7,41	8,14	8,43
Number of shares on which the calculation is based	473554813	473597075	476870920	476870920	476870920	476870920	476870920	476870920	476870920
DILUTED GROUP SHARE OF NET PROFIT PER SHARE (€)	4,43	3,60	4,60	5,54	6,09	6,70	7,36	8,09	8,38
Number of shares on which the calculation is based	475610672	474838025	479739697	479739697	479739697	479739697	479739697	479739697	479739697

Appendix 11: Merged entity Cash flow analysis (without synergies)

€M	FY2008 H	FY2009 H	FY2010 H	FY2011 F	FY2012 F	FY2013 F	FY2014 F	FY2015 F	TV
EBIT (1-t)	2696	2293	2776	3062	3355	3676	4027	4411	4565
CAPEX	(1124)	(826)	(1052)	(1222)	(1333)	(1454)	(1586)	(1730)	(1564)
Depreciation & Amortization	682	766	854	1051	1147	1251	1364	1488	1564
Change in Net working capital	(959)	62,0	(109)	(207)	(226)	(246)	(268)	(295)	(303)
Free Cash to the Firm	1295,071	2296	2469	2684	2943	3226	3536	3874	4262
Discount factor				1,089	1,186	1,292	1,407	1,533	1,670

Valuation Parameters	
Target D/E	11%
Corporate Tax rate	33,3%
Rd	5,563%
Re	9%
Rf	3,63%
Levered beta	1,067
Market premium	5,50%
WACC	8,92%
CAGR 11-2015	9,07%
g (as of 2015)	3,50%

Valuation Results	
EV beginning 2011	63.784
Net financial debt	2813
Minority Interests	1.007
Equity	59.964
Number of shares	490.642.232
Price per share (€)	122,22

Appendix 12: Merged entity Income statement (with synergies)

€M	FY2008 H	FY2009 H	FY2010 H	FY2011 F	FY2012 F	FY2013 F	FY2014 F	FY2015 F	TV
Revenue	18268	17980	21389	23330	25467	27781	30302	33051	34208
Cost of sales	-6396	-6543	-7588	-8305	-9054	-9806	-10691	-11655	-12063
Net Contribution Margin	11872	11437	13801	15025	16413	17975	19611	21397	22146
Gross margin (%)	65,0%	63,6%	64,5%	64,4%	64,4%	64,7%	64,7%	64,7%	64,7%
Marketing and selling expenses	-6273	-6189	-7252	-8000	-8708	-9488	-10348	-11287	-11682
General and administrative expenses	-1860	-1899	-2147	-2343	-2537	-2748	-2977	-3225	-3338
Profit from recurring operations	3739	3349	4402	4681	5168	5739	6286	6885	7126
Profit from recurring operations margin (%)	20,5%	18,6%	20,6%	20,1%	20,3%	20,7%	20,7%	20,8%	20,8%
Other operating income and expenses	539	559	706	963	1050	1145	1250	1363	1429
EBITDA	4278	3908	5108	5644	6218	6884	7536	8248	8555
EBITDA margin (%)	23,4%	21,7%	23,9%	24,2%	24,4%	24,8%	24,9%	25,0%	25,0%
Depreciation & Amortization expense	-682	-766	-854	-1051	-1147	-1251	-1364	-1488	-1564
EBIT	3596	3142	4254	4593	5071	5634	6171	6759	6996
EBIT margin (%)	19,7%	17,5%	19,9%	19,7%	19,9%	20,3%	20,4%	20,5%	20,5%
Total Financial expense	-272	-202	-164	-158	-158	-158	-158	-158	-158
Other financial income and expenses	-24	-165	-120	-15	-15	-15	-15	-15	-15
EBT	3300	2775	3970	4420	4898	5461	5998	6586	6823
Income taxes	-900	-849	-1478	-1473	-1633	-1820	-1999	-2195	-2274
NET PROFIT BEFORE MINORITY INTERESTS	2400	1926	2492	2947	3265	3641	3999	4391	4549
Minority interests	-292	-218	-287	-289	-316	-346	-378	-413	-428
NET PROFIT, GROUP SHARE	2108	1708	2205	2658	2949	3295	3621	3978	4121
Net profit margin (%)	11,5%	9,5%	10,3%	11,4%	11,6%	11,9%	11,9%	12,0%	12,0%
BASIC GROUP SHARE OF NET PROFIT PER SHARE (€)	4,45	3,61	4,62	5,57	6,18	6,91	7,59	8,34	8,64
Number of shares on which the calculation is based	473554813	473597075	476870920	476870920	476870920	476870920	476870920	476870920	476870920
DILUTED GROUP SHARE OF NET PROFIT PER SHARE (€)	4,43	3,60	4,60	5,54	6,15	6,87	7,55	8,29	8,59
Number of shares on which the calculation is based	475610672	474838025	479739697	479739697	479739697	479739697	479739697	479739697	479739697

Appendix 13: Merged entity Cash flow analysis (with synergies)

€M	FY2008 H	FY2009 H	FY2010 H	FY2011 F	FY2012 F	FY2013 F	FY2014 F	FY2015 F	TV
EBIT (1-t)	2696	2293	2776	3062	3381	3756	4114	4506	4664
CAPEX	(1124)	(826)	(1052)	(1222)	(1340)	(1461)	(1594)	(1739)	(1564)
Depreciation & Amortization	682	766	854	1051	1147	1251	1364	1488	1564
Change in Net working capital	(959)	62,0	(109)	(207)	(226)	(246)	(268)	(295)	(303)
Free Cash to the Firm	1295,071	2296	2469	2684	2963	3299	3616	3961	4361
Discount factor				1,089	1,186	1,292	1,407	1,533	1,670

Valuation Parameters	
Target D/E	11%
Corporate Tax rate	33,3%
Rd	5,563%
Re	9%
Rf	3,63%
Levered beta	1,067
Market premium	5,50%
WACC	8,92%
CAGR 11-2015	9,0740%
g (as of 2015)	3,50%

Valuation Results	
EV beginning 2011	65.161
Net financial debt	2813
Minority Interests	1.007
Equity	61.341
Number of shares	490.642.232
Price per share (€)	125,02

9. BIBLIOGRAPHY

- Berk, J., DeMarzo, P., 2007. *Corporate Finance*, Pearson International Edition.
- Brealey, R. and Myers, S., Allen, F. 2008. *Principles of Corporate Finance*, 8th ed., The McGraw-Hill.
- Bruner. F., R., 2004. *Applied Mergers & Acquisitions*, University edition, Wiley Finance.
- Bruner, R., 2004. "Where M&A Pays and Where It Strays: A Survey of the Research", *Journal of Applied Corporate Finance*, 16(4), pp 63-76.
- Cigola, M. and Peccati, L., 2003. "On the comparison between the APV and the NPV", *European Journal of Operational Research*, 161, pp 377–385.
- Copeland, T., Koller, T. and Murrin, J., 2000. *Valuation: Measuring and Managing the Value of Companies*, 3rd ed., John Wiley & Sons.
- Damodaran, A., 2008. "What is the riskfree rate? A Search for the Basic Building Block", *Stern School of Business working paper*.
- Damodaran, A., 2005. "The Value of Synergy", *Stern School of Business working paper*.
- Damodaran, A., 2002. *Investment Valuation*, 2nd ed., New York: John Wiley & Sons.
- De La Bruslerie H., 2010. Crossing Takeover Premiums and Mix of Payment: Empirical Test of Contractual Setting in M&A Transactions (December 27, 2010). *International Conference of the French Finance Association (AFFI)*, May 11-13, 2011.
- Brigham, F. E. and Gapenski, C., 1997. *Financial Management: Theory and Practice*, 8th edition, The Dryden Press.
- Fama, E. F., and K. R. French. 1992. The cross-section of expected returns. *Journal of Finance*, 47, pp 427-465.
- Fama, E. and French, K., 1993. "Common Risk Factors in the Returns on Stocks and Bonds", *Journal of Financial Economics*, 33(1), pp 3–56.

Fee, c., E., and Thomas, S., 2004. “Sources of gains in horizontal mergers: evidence from customer, supplier, and rival firms”, *Journal of Financial Economics*, 74, pp 423–460.

Fernandez, P., 2002. Valuing Companies by Cash Flow Discounting: Ten Methods and Nine Theories. *IESE, University of Navarra, Barcelona working paper*.

Fernandez, P., Aguirreamalloa, J., Corres, L., 2011. Market risk premium used in 56 countries in 2011: a survey with 6014 answers, *IESE, University of Navarra, Barcelona working paper*.

Froot, K., 1997. “Cross-Border Valuation”, HBS No 9-295-100.

Goedhart, M., Koller, T., and Wessels, D., 2010. “The five types of successful acquisitions”, *Mckinsey on Finance*, 36, pp 2-7.

Graham, J. and Harvey, C., 2001. “The theory and practice of corporate finance: evidence from the field”, *Journal of Financial Economics*, 60, pp 187-243.

Stahl, K., G., and Mendenhall, E., M., 2005. *Mergers and acquisitions: managing culture and human resources*, Stanford University Press.

Homsud, N., Wasunsakul, J., Phuangnark, S., Joongpong, J., 2009. “A Study of Fama and French Three Factors Model and Capital Asset Pricing Model in the Stock Exchange of Thailand”, *International Research Journal of Finance and Economics*, 25, pp 31-40

Kaplan, S. and Ruback, R., 1996. “The Market Pricing of Cash Flow forecasts: Discounted Cash Flow VS. The Method of Comparables”, *Journal of Applied Corporate Finance*, 8(4), pp 45-60.

Kolb, W., R., Rodríguez, J., R., 1996. *Financial management*, Blackwell Publishers, Inc.

Liu, J., Nissim, D. and Thomas, J., 2000. “Equity valuation using multiples”, *Journal of Accounting Research*, 40(1).

Luehrman, T., 1997. “Using AVP: A Better Tool for Valuing Operations”, *Harvard Business Review*, 75(3).

Goedhart, M., Koller, T. and Wessels, D., 2005. “The right role for multiples in valuation”, *The McKinsey Quarterly, Web exclusive, March 2005*.

Miles, A., J., Ezzell, R., J.1980. “The weighted average cost of capital, Perfect capital markets and project life: a clarification”, *Journal of Financial and Quantitative analysis*, XV(3), pp 719-730.

Paavola,M., 2006. “Tests of the Arbitrage Pricing Theory Using Macroeconomic Variables in the Russian Equity Market”, *Lappeenranta University of Technology, Department of Business Administration Section of Accounting and Finance, working paper*.

Sabal, J. 2007. WACC or APV? *Journal of Business Valuation and Economic Loss Analysis* 2(2), Article 1.

Sirower, M. and Sahni, S., 2006. “Avoiding the “Synergy Trap”: Practical Guidance on M&A Decisions for CEOs and Boards”, *Journal of Applied Corporate Finance*, 18(3), pp 83-94.

Suozzo, P., Cooper, S., Sutherland, G., Deng, Z., 2001.”Valuation Multiples: A Primer” *Global Equity Research, UBSWarburg*.

Young, M., Sullivan, P., Nokhasteh, A. and Holt, W., 1999. “All Roads Lead to Rome”, *Goldman Sachs Investment Research*.

Official WebPages (main sources)

www.bloomberg.com

www.bulgari.com

www.ecb.int

www.imf.com

www.lvmh.com

<http://pages.stern.nyu.edu/~adamodar/>

Other sources of information

LVMH Annual Reports for 2008, 2009 and 2010

Bulgari Annual Reports for 2008 and 2010

Goldman Sachs Equity Research: Luxury goods: A trillion dollar industry by 2025?, (June 2nd, 2010).

Goldman Sachs Equity Research - Europe: Branded Consumer Goods: Luxury Goods (March 4th, 2011).

HSBC Global research - Consumer Brands & Retail Global Luxury Goods – Equity: Global Luxury Goods (June 24th, 2011).

HSBC Global research - Consumer Brands & Retail Global Luxury Goods – Equity: Greater China watches and jewellery: No “hard luxury” landing (September, 2011).

Mackinsey & Company: Consumer & Shopper Insights December 2010 Five Trends that Will Shape the Global Luxury Market (December, 2010).

The Boston consulting Group: The new world of luxury. Caught between growing momentum and lasting change (December, 2010).

Bank of America- Merrill Lynch: Equity Research - Bulgari (March 14, 2011).

Cheuvreux – Crédit Agricole Group – Bulgari (November 2010).