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M&A IN THE CONFECTIONERY INDUSTRY: THE EVALUATION OF A PROPOSED COMBINATION BETWEEN HERSHEY'S & FERRERO

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Resumo

A indústria de confeitaria tem ostentado uma considerável consolidação através das atividades de M&A, especulando-se a sua continuidade, atentando a atual inércia dos mercados desenvolvidos – e principais responsáveis pelo desenvolvimento da indústria -, bem como a inexistência de uma posição global verdadeiramente preponderante. Duas empresas particularmente embutidas neste paradigma são a cotada americana Hershey's – com a atividade centralizada nos EUA - e a empresa familiar italiana Ferrero – a atuar fundamentalmente na Europa. Com efeito, reconhecendo ambas as posições de liderança nos respetivos mercados de atuação e, simultaneamente, a necessidade de diversificação geográfica, cujo sucesso depende da experiência e conhecimentos regionais, é absolutamente percetível a complementaridade existente entre ambas. Adicionalmente, uma possível combinação permitiria a contestação da liderança global e, consequentemente, uma maior apropriação das oportunidades existentes. O presente projeto visa, portanto, deliberar e quantificar o potencial de criação de valor de uma eventual combinação entre as empresas Hershey's e Ferrero. A expurgação de resultados e conclusões relevantes baseia-se numa estrutura metodológica caracterizada pela valorização dos ativos *stand-alone* e da empresa resultante, seguindo uma abordagem DCF, bem como a estimativa das sinergias esperadas, recorrendo à prefiguração das atividades numa ótica de *stand-alone*. No caso vertente, conjetura-se uma criação de valor de c. € 7 mil milhões, respeitante a uma apreciação de 20%, maioritariamente justificada por ganhos operacionais. Embora o racional económico subjacente favoreça a realização da transação, existem outros fatores que poderão obstrui-la, nomeadamente a possível recusa dos atuais proprietários na partilha ou perda do controlo sobre o ativo atualmente detido.

Palavras-chave: avaliação de empresas, criação de valor, indústria de confeitaria e sinergias

Abstract

The confectionery industry has been subject to a notable consolidation through M&A activities. Such tendency is expected to persist, regarding industry maturity in developed markets – the main responsible for industry status –, along with the absence of a global player with a truly dominant market position. Two confectionery companies that fulfil these criteria are Hershey's – a listed American player with centralized operations in the US – and Ferrero – an Italian family-owned business essentially focused in Europe. In effect, the existing leadership positions of both players in their respective markets, along with their geographical diversification need – where the knowledge about regional markets is crucial – leads to a possible complementary strategy amongst both. Moreover, a business combination between them would allow to challenge the market leader, taking advantage of greater market opportunities. Therefore, the current project discusses and quantifies the value-creation potential associated with an M&A deal between Hershey's and Ferrero. In order to achieve consistent results and relevant conclusions, is it applied a methodology framework characterized by the stand-alone and combined companies valuations, considering income and market methodologies, as well synergies estimation, concerning stand-alone business performance forecasting. In accordance, the current business proposal is intended to create an economic value of about 7 billion euro, i.e. an appreciation of 20%, mostly due to operating gains through a combined performance improvement. Despite the economic rational supports the deal's attainment, there are other issues that could prevent it, namely the disallowance of the current shareholders to share, or even waste, the power controlled hitherto.

Keywords: confectionery industry, synergies, companies' valuation and value-creation

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List of Abbreviations

APV – Adjusted Present Value model

Bp – Basis points

CAGR – Compound Annual Growth Rate

CAPM – Capital Asset Pricing Model

CDS – Credit Default Swaps

Cloetta - Cloetta AB

Colian – Colian Holding SA

CRP – Country Risk Premium

D&A – Depreciation and Amortization

DCF – Discounted Cash Flows approach

DPS – Dividends per share

EBITDA – Earnings before Interest, Taxes, Depreciation and Amortization

EBIT – Profit from operations or Earnings before Interest and Taxes

EPS – Earnings per share

FCFE or FTE – Free Cash Flow to the Equity or Flow to Equity model

Ferrero – Ferrero International SA

Halloren – Halloren Schokoladenfabrik AG

Hershey’s – The Hershey Company

Josef Manner – Josef Manner & Co AG

LBOs – Leveraged Buyout

Lindt – Chocoladefabriken Lindt & Spruengli AG

M&A – Mergers and Acquisitions

Mars – Mars, Incorporated

MBOs – Management Buyout

Mondelēz – Mondelēz International Inc.

MRP – Market Risk Premium

Natra – Natra SA.

Nestle – Nestle SA

NewCo – Combined Company

NOPLAT – Total after-tax operating income generated by company’s invested capital, available to all financial investors

Nutresa – Grupo Nutresa SA

NYSE - New York Stock Exchange

Orkla – Orkla ASA

PP&E – Property, plant and equipment

R&D – Research and Development department

ROA – Return on Assets

ROIC – Return on Invested Capital

S,M&A – Selling, General and Administrative Expenses

UFCF – Unlevered Free Cash Flow

Ulker - Ulker Biskuvi Sanayi AS

WACC – Weighted Average of Cost of Capital

Wawel - Wawel SA

WC – Working Capital

YTD – Year-to-date

YYIIS or Inflation Swaps - Year-on-Year Inflation-Indexed Swap

Sumário Executivo

O presente projeto visa debater o potencial de criação de valor de uma possível transação entre as empresas chocolateiras Hershey's e Ferrero e, bem assim, mensurar a importância que lhe está subjacente. Adicionalmente, são abordadas outras razões não-económicas que poderão impulsionar (ou impedir) a realização da oportunidade detetada.

Com o intuito de alcançar os objetivos inicialmente propostos, torna-se imperativo analisar detalhadamente a indústria de confeitaria, na qual as empresas operam, bem como os perfis de ambas as empresas numa ótica de estratégia utilizada, bem como da evolução histórica operacional, económica e financeira. Julga-se igualmente crítica a aplicação de uma estrutura metodológica adequada à oportunidade em voga, através do emprego de modelos de avaliação corporativos, de forma a realizar uma apreciação financeiramente robusta.

A indústria de confeitaria, segmentada em chocolates, açucarados e pastilhas, tem exibido um crescimento relativamente maduro, em resultado de alguma inércia nos mercados desenvolvidos, nomeadamente os Europeu e Norte-americano, apenas impulsionada pelo dinamismo existente nos países em desenvolvimento. O facto de se verificar uma sólida correlação entre o crescimento da indústria e a economia explica, em parte, este comportamento, o qual se conjetura que continue nos anos vindouros.

Ainda que este seja um mercado tendencialmente robusto, devido à inexistência de um produto verdadeiramente substituto, a recente disposição da população para a preocupação com a saúde alimentar poderá vacilar a certeza da indústria. Para tal, torna-se crítico providenciar a indústria com produtos inovadores e, bem assim, modernizar os existentes de forma a reter os atuais e atrair novos consumidores.

Com base nos perfis e portfólios distintos da Hershey's e da Ferrero e, simultaneamente, a potencial complementaridade de ambas, atentando as tendências na indústria, acredita-se que haja uma oportunidade existente de M&A através de uma transação entre ambas.

A Hershey's é uma empresa de confeitaria americana cotada na bolsa de Nova Iorque e cujo portfólio é constituído por mais de 80 marcas, no qual a barra de chocolate Hershey's assume o maior relevo. Historicamente, esta tem exibido margens e retornos consideravelmente acima da indústria, possivelmente explicado por atuar, essencialmente, num país eficiente e sem risco, os Estados Unidos. Certamente que esta elevada concentração num mercado maduro e com tendência para produtos *premium*, no qual a empresa não está focada, conduz à necessidade de dispersar-se geograficamente.

Certamente que seria aliciante para a companhia americana operar no mercado europeu que, apesar de maduro, é nitidamente maior e mais rentável que os restantes. Como consequência figura a Ferrero, uma chocolateira italiana totalmente controlada pela família e reconhecida pelas marcas Ferrero, Nutella e Kinder. Historicamente tem exibido uma estimulante performance no mercado europeu, no qual está focada, com taxas de crescimento consideravelmente superiores à indústria. De notar que a empresa tem evidenciado um interesse notório para o crescimento fora da Europa, pelo que um acordo com a Hershey's seria estimulante.

A combinação das atividades de ambas conduziria, certamente, ao alcance de sinergias operacionais e financeiras, alcançadas maioritariamente através do aumento de vendas potenciais nos mercados onde exibem dificuldades em entrar isolados, dada a necessidade de *network* e *know-how* da indústria. Adicionalmente, é esperada uma redução de custos em resultado do aumento da eficiência operacional por parte da Ferrero, impulsionado pelas doutrinas da empresa americana. Os casos vertentes são ainda estimulados pelo maior poder subjacente à empresa resultante, aplicando-se tanto sobre clientes, como fornecedores, e o qual resulta num possível aumento do preço cobrado aos retalhistas e consumidores e, similarmente, num menor preço sobre bens operacionais, como as matérias-primas, sobretudo o cacau.

Depois de identificadas as principais motivações económicas que cobrem a realização de uma combinação de atividades das empresas mencionadas, importa quantificar a criação de valor subjacente à transação. Desta forma, consideram-se as bases metodológicas dos autores Damodaran (2010), Gaughan (2015) e Koller et al (2010), compreendendo quatro grandes parcelas: (i) em primeiro lugar, a valorização dos ativos e capitais próprios das partes envolvidas na transação numa ótica de *stand-alone*, nomeadamente as holdings Hershey's e Ferrero; (ii) em seguida, a estimativa de sinergias operacionais, financeiras e fiscais, líquidas de potenciais custos envoltos na transação; (iii) a valorização dos ativos e capitais próprios da combinação das atividades empresariais, com base nas sinergias estimadas; e (iv) a estimativa do potencial de criação de valor potencial de criação de valor decorrentes da diferença entre a combinação das atividades empresariais e a soma-das-partes sem qualquer acordo.

Os ativos *stand-alone* da Hershey's e da Ferrero e, bem assim, da empresa resultante da proposta são avaliados de acordo com a metodologia dos fluxos descontados (DCF). Objetivamente, optou-se pela execução de ensaios valorativos segundo as variantes (i) Present Value (cash-flows descontados ao custo médio ponderado do capital, i.e. WACC); (ii) Adjusted Present Value (cash-flows descontados ao custo de oportunidade do capital) e Flow to Equity (cash-flows descontados ao custo dos capitais próprios, segundo a abordagem internacional do

CAPM). De salientar que, a título complementar, os ativos são valorizados à luz da ótica de mercado, quer em termos de empresas comparáveis, quer em termos de transações similares. Contudo, dada a inexistência de empresas e transações verdadeiramente comparáveis, o presente relatório destaca a primeira metodologia.

Desta forma, os ensaios valorativos desenvolvidos numa ótica de *stand-alone* sustentam valorizações dos capitais próprios da Hershey's em torno de € 18,1 mil milhões (US$ 20,0 mil milhões) e da Ferrero na ordem dos € 17,6 mil milhões.

Adicionalmente, em resultado das sinergias operacionais e financeiras estimadas à luz das margens operacionais (*stand-alone*) e outros indicadores económico-financeiros, líquidas de custos de integração, apurou-se uma valorização dos capitais próprios combinados em torno de € 42,8 mil milhões.

No âmbito das valorizações e estimativas desenvolvidas, conjetura-se um potencial de criação de valor na ordem dos sete mil milhões de euros, respeitante a uma apreciação de 20% sobre o valor corrente das empresas, maioritariamente gerados pelos ganhos operacionais.

Por fim importa reter que, embora o racional económico subjacente favoreça a realização da operação, outros inúmeros fatores poderão contraria-lo, nomeadamente a possível recusa dos atuais proprietários na partilha, ou mesmo perda, do controlo sobre o ativo atualmente detido.

1. Introduction

Mergers and Acquisitions are an essential vehicle for value creation amongst the various business sectors. These activities are assuming an increasing importance over last decades, expressed by the year of 2015, which has attained the highest value of such arrangements since the financial crisis of 2008, reaching a global value of US$ 4,711 billion [40].

The confectionary industry, which is segmented in chocolates, sugar and gums, is a faultless example of this trend, being the target of a strong consolidation over last 10 years. With interest, given industry current maturity, M&A deals have been the main source of expansion, equilibrium and value creation of such industry.

Indeed, if it is true that the industry has been exhibiting some robustness, due to inexistence of a truly substitute product, it is not less true that the recent willingness of the population to the concern with health food may falter the industry assurance. It is thus expected low growth rates in the main geographic markets, namely the European and the North-American.

Therefore, this consolidation tendency is predictable in the future, taking into further consideration that the ten larger confectionery companies aggregate almost one half of the market, remaining more than 10,000 companies all over the world.

One of the most forceful companies behind these businesses arrangements is Hershey's – a listed confectionery company founded in the United States, which has acquired 3 minor companies over last 3 years [66]. Hershey's has an apparent important position worldwide through the sixth highest confectionery market share (i.e. about 4.0%). However, this position concerns almost entirely the United States confectionery market, which is considerably mature and recently tendentious for premium products – a market niche where Hershey's does not operate. Therefore, it would be interesting for Hershey's to get in the larger and more profitable confectionery market – the European. On such circumstances, a possible deal with a leader European company could emerge and overcome this failure.

Interestedly, by observing the global market shares, it is highlighted the Ferrero firm – an Italian chocolate player that holds the fourth position globally - as a plausible option to combine with Hershey's. Indeed, a deal between both would overtake Nestle and Mondelēz and might compete directly with the leader Mars. This first overview is strengthened by the geographic distribution of Ferrero's turnover, which is significantly focused in European countries. Thereby, it may also be attracted by entering more sorely in the United States market through a North-American firm with similar characteristics to Hershey's, which assumes a leading position in the market.

Consequently, and noting that mentioned firms are characterized by distinctive profiles and performances and, simultaneously, a great complementarity, it arises the present thesis "M&A in the confectionery industry: The evaluation of a proposed combination between Hershey's and Ferrero". The current study provides the exploration of educational contents in a business situation, through an evaluation of the viability of an M&A deal between Hershey's and Ferrero. Objectively, the current study discusses and quantifies the value-creation potential of a deal between the American and the Italian company. Additionally, it is addressed other non-economic reasons which may boost or prevent the realization of the established opportunity. In order to provide the right points to tackle these issues, a methodology framework is followed, based on a literature review carefully analysed.

In fact, according to Gaughan (2015) companies would enter in a deal if they could find in advance higher synergistic benefits relatively to expenses of the acquisition process and the premium required for their shareholders. Damodaran (2005) points out that it is possible to estimate the value of synergies through the following set of steps: (i) valuing the stand-alone firms involved in the merger; (ii) estimating the value of the combined firm with no synergy, simply adding the values obtained in the first step; (iii) building in the effects of synergy, net of transactions costs, with expected growth rates and cash flows, revaluing the combined firm; and (iv) estimating the value of expected synergies through the difference between the combined companies with synergy from the combined firm without synergy.

The tricky question is related with the valuation of stand-alone companies, as well the effects of synergies in order to revalue the combined company. Indeed, Hershey's and Ferrero, and consequently the NewCo, are valued according with the income and market approaches, as advised by Weston et al (2014).

However, because developed analysis suggests that there are no public companies truly comparable with Hershey's and Ferrero, it is given greater weight to the income than market approach. Therefore, considering income approach, the following issues should be highlighted:

(i) It is applied the DCF methodology, through Present Value (WACC), Adjusted Present Value (APV), and Flow to Equity (FTE) approaches;

(ii) The business performance forecasting comprises various issues, namely (a) revenues performance; (b) operating costs and other operating income; (c) income statement accomplishment; (d) invested capital performance; (e) balance sheet accomplishment; and (f) Cash flow and ROIC analysis;

(iii) The applied cost of capital depends on the followed approach, considering Koller et al (2010) advises, wherein: (a) the Present Value uses the WACC; (b) the FTE employees the levered cost of equity based on international CAPM (Damodaran, 2005); and (c) the implicit unlevered cost of equity, based on levered cost of capital, is applied in APV method.

On a different note, the estimated effects of synergies in order to revalue the combined company are the issue that is subject to a greater error. Indeed, Koller et al (2010) advises that the estimation the savings for each cost category should be based on the expertise of experienced line managers. Nonetheless, the author advises to develop a baseline for costs based on stand-alone companies' assumption and the comparison of the resulting aggregate improvements with margin and capital efficiency benchmarks for the industry, in order to judge whether the estimates are realistic given the industry economics.

Accordingly, the developed evaluations on a stand-alone basis support Hershey's and Ferrero equity valuations of around € 18.1 billion (i.e. US$ 20.0 billion) and € 17.6 billion, respectively. Additionally, as a result of operating and financial synergies estimated in the light of operating margins (stand-alone) and other economic and financial indicators, net of integration costs, it is estimated a combined equity value around € 42.8 billion.

In the scope of developed estimations and valuations, it is conjectured a potential value-creation of seven billion euros, which respects to an appreciation of around 20% over current stand-alone companies value, and which is essentially generated by operating gains.

Despite the economic rational supporting the deal's attainment, there are other issues that could prevent it, for instance the disallowance of the current shareholders to share, or even waste, the power controlled hitherto.

To conclude, considering the initial goal to provide the exploration of educational contents in a business situation, it is predictable that, after the current project be read, the reader should be able to: (i) identify complementary issues into two multinational companies that became truly successful despite have followed different strategy paths; (ii) understand the confectionery industry, both strategic and economic standpoints; (iii) recognize and apply different valuation approaches; and (iv) apprehend how potential synergies and costs are valued in order to quantify the value-creation potential in a M&A activity.

2. Literature review

2.1. Mergers and Acquisitions: the context

All over the world countless companies apply different adjustment processes in order to response to their internal and external increasingly changing environment (Weston & Weaver, 2001). M&A is the general expression related with these several forms of adjustment activities, which covers much more than mergers and takeovers, namely: (i) expansion and growth activities (e.g. mergers, tender offers, joint ventures and others); (ii) restructuring activities, which concern ups and downs in companies and management structures (e.g. equity carve-outs, spin-offs or divestures); (iii) financial engineering and changes in ownership structure (e.g. exchange offers, share repurchases or LBOs); and (iv) governance that includes compensation arrangements (e.g. proxy context, premium buybacks and takeover defences).

As mentioned above, mergers are inserted in expansion and growth activities, being defined as some transaction that creates a new economic unit as of, at least, two previous units (Weston& Weaver, 2001). These may assume different categories, through an economic standpoint – horizontal, vertical and conglomerate, or through other standpoints – the short-form and also reverse mergers (Weston et al, 2014).

According to Gaughan (2015), (i) while horizontal mergers occur between two or more companies that operate in similar businesses; (ii) vertical mergers ensue when the involved firms have different roles in the value chain; and (iii) conglomerate mergers are related with diversified activities, once the different parties do not have any kind of relationship.

The same author mentioned further that, while short-form merger is imposed when it is not necessary to be approved by their stockholders; reverse mergers occur when a private company may go public across the merger with an already public company. In this case, the private company could opt by going public across a reverse merger instead of a traditional IPO for several reasons, namely (i) issuing securities do not entails the same costs that are associated with an IPO; and (ii) it might take less time to be accomplished (Gaughan, 2015).

Alternatively, there are two main types of buyers, the strategic (operating companies) and the financial (private equity firms). Martos-Vila et al (2014) refers that while the strategic buyer has a current project that is considering to combine with the target; the financial evaluate the target as a stand-alone project.

2.2. M&A Activities Reasons

By the entire world, M&A have been passed for different waves during the last decades. Such waves are caused by change forces, such as economic, regulatory and technological shocks, according to Gaughan (2015). These movements may be related with strategic terms, allowing companies to expand rapidly in order to react to the growing demand in the economy (economic shocks). In contrast, when it appears some regulatory barriers that might avert corporate combinations, M&A arise with the purpose of removing them (regulatory shocks).

Moreover, Koller et al (2010) mentioned that acquisitions occur more frequently when stock prices are increasing and, consequently, the managers are optimistic, even knowing that it is recommended to make offers when prices are low in order to maximize the value of the transaction. Alternatively, with lower interest rates, M&A activities also tend to grow, namely acquisitions by leveraged companies. Moreover, when a large transaction occurs in some industry, other companies in the same industry tend to use M&A activities as well.

At an individual level, companies decide on to follow an adjustment activity depending on the strategic and economic goals they pretend to achieve, such as (i) fast growth; (ii) diversification; (iii) synergies with other companies; and (iv) horizontal and vertical integration are strategic and economic determinants for M&A deals (Gaughan, 2015). However, these are not always related with these improvements; it could be also in order to expand management, research and development, distribution, or for tax motives.

Growth motives

In line with Gaughan (2015), growth motives are one of the main fundamental reasons for M&A. When a firm is facing a mature industry or the demand is bigger than its own capacity, it is obligated to expand in order to face these goals. The main doubt they face is which type of growth they should choose, if for organic growth, if through mergers/ acquisitions.

Under the same author, the main disadvantage of internal growth when compared with external one is related with the time that it takes. In truth, when a firm aims to expand inside the same industry, internal growth could be scarce due to its slow process or a faster reaction by their peers across an M&A activity, taking market share and clearing the opportunity.

Diversification

On a different note, this kind of growth is related with companies that are in different industries, since an acquiring company might see the target company's industry as more profitable (Gaughan, 2015). Clearly these firms will face an uncertainty about this profitability benefit in the future, being vital to recognize if the industry has barriers to entry. Returns above industries' average would quickly wane if all companies had ease to get in.

Synergies

The other reason why companies decide to follow an M&A activity is for synergies – in mergers and acquisitions, this term refers to the ability of the new firm to be more profitable than the separate parts of the companies that were combined (Gaughan, 2015).

The key question in M&A is if the "risk-adjusted return from the deal is greater that what can be achieved with the best use of the invested capital" (Gaughan, 2015). Indeed, according to this author, companies would enter in a deal if they could find in advance higher synergistic benefits relatively to expenses of the acquisition process and the premium required for their shareholders:

$$NAV=[V_{AB}-(V_A+V_B)]-(P+E) \quad (1)$$

Wherein (i) NAV is the Net Acquisition Value; (ii) V_{AB} is the combined value of the two firms; (iii) $V_{A(B)}$ is the value of the firm A(B); (iv) P is the premium paid for the target; and (v) E is the expenses of the acquisition process.

Consequently, combined companies can find these effects in two different forms: (i) operating business, through revenue advance or efficiency gains and (ii) in financial terms, normally linked with a lower cost of capital (Gaughan, 2015).

Operating synergy comes on the form of possible gains resulting from the deal, increasing its revenues and/or lowering its costs (Gaughan, 2015). Damodaran (2005) presents different types of operating synergies: (i) greater pricing power; (ii) combination of different functional strengths; (iii) higher growth in new or existing markets; and (iv) economies of scale.

Firstly, when combined companies are inside the same business depending on their size, industry concentration degree and relevant geographic markets, these may lead to a greater pricing power. This type of operating synergy will allow to higher margins and higher operating incomes (Damodaran, 2015).

Moreover, when combined firms have different operating powers, they could compensate their weaknesses by combining different functional strengths, in vertical and horizontal situations (Gaughan, 2015). In the case of stand-alone companies having a buyer-seller relationship, companies might want to lower inventory costs by adopting just-in-time inventory management, or even to obtain specialized products that will be not supplier for other company, recovering to backward integration (Gaughan, 2015).

Indeed, when a company acquires a supplier, it will obtain a cost advantage since it no longer has to pay a margin to that supplier, as well as it has lower transaction costs. However, companies can also look forward in vertical integration in order to assure their dependable demand of supply, quality maintenance, and time delivery of their products, providing their own products on a reliable basis. Thus, companies look into mergers as a way to solve their distribution problem, since they may have a product, but do not ensure that it is reaching the ultimate consumer in a profitable way, since they do not have direct access to consumers and, therefore, need to develop channels (Gaughan, 2015).

Additionally, various authors refers the maturity in markets and companies, wherein is tough to increase or maintain the market share without investing significant amounts, reason why players decide to move into higher-growth new markets, such as emerging regions.

Even revenues improvement exhibit several arguments in favour of synergy factors, the main source of operating revenues is usually related with the reach of economies of scale (Gaughan, 2015). This allows companies to be more cost efficient and profitable, which is more likely to occur in horizontal mergers (Damodaran, 2005).

On a different note, depending on the extent to which financial strategy synergy exists in the acquiring (i.e. acquisitions) or combined firm (i.e. mergers), it may lead to a positive impact on the cost of capital and/or in cash flows (Gaughan, 2015 and Damodaran, 2005).

Damodran (2005) points out that debt capacity of the firm might increase considering that their earnings and cash flows may become less unstable and unpredictable. Undeniably, according to Gaughan (2015), suppliers of companies could see them as less risk, in the sense that, if cash flows of combined companies are not perfectly correlated, the risk will be lower, as well as the volatility, what promotes a lower bankruptcy risk.

Moreover, it is quite obvious for Gaughan (2015) that these kinds of operations would increase the size of companies. According to the general rule that states the bigger the company the lower the cost of issuing capital in the markets, combined firms may issue bonds offering a lower interest rate, as the ones issued by stand-alone companies.

On the other hand, Damodaran (2005) underlines that an higher value for the combined company can arise from the combination between a firm with excess cash but limited project opportunities and a firm with high return project but with no cash. This is more likely to occur when larger companies acquire smaller firms, or when public companies acquire private ones.

Finally tax benefits arise when a profitable company acquires an unprofitable one or when a combined firm is able to increase its depreciation charges.

Management, research and development and tax motives

First of all, according to Gaughan (2015) usually these motives are not enough by themselves to determine an enterprise combination, being only one among several factors in the acquirer's decision to make a bid.

M&A operations can be motivated by the conviction that management skills of the acquirer are better than the target, increasing the value of the target under their control. This is particularly true when larger companies acquire smaller ones.

Secondly, according to the same author, in some industries R&D is something critical in order to grow and to being prosperous on the market. Consequently, companies merge themselves in order to improve this department and have more advances in technology than their peers and have some competitive advantage.

2.3. Cross-border M&A

For a few years on, the world is attending a globalization phenomenon in several issues, to which industries and markets are not exceptions. Actually, M&A are being much more international due to the existing of more global markets and, consequently, the competition. Hence, when companies want to grow by entering other regions inside the same country or even in other countries, this can be done faster and with less risk across M&A rather than by internal enlargement (Weston et al, 2014). This is particularly true with external country expansion, since there are many characteristics necessary in order to be successful, such as nuances on the new market, recruiting new employees, and cultural barriers (language and custom). When organizations have a prosperous business, with a successful product or service, they may see cross-border acquisitions as a way to expand, achieving more revenues and increasing their profits. Reasons behind this could be to utilize the specific know-how of the acquirer inside that country, such as distribution networking or employees.

Zenner et al (2008) summarizes some important drivers to the cross-border waves taking into account different basis: long-term drivers (globalization, diversification and deregulation); short-terms catalysts (higher relative valuations, cheaper USD, sovereign wealth funds and reduced domestic competition); and forces hindering cross-border transactions (protectionist sentiments, tax complexities, cultural factors and equity flow-back).

Despite of the theoretical factors, in practical terms these cross-border deals face some challenges, exceeding them is crucial to being successful, such as language factors and physical distances, hindering not only the initial negotiations, but also in post-deal integration. Furthermore, exchange rates could also influence a deal, such as when the currency of a bidder appreciates relative to the target, so that they can afford to pay a higher premium, which the target may find difficult to refuse.

2.4. Value Creation

The analysis of the value creation is essential in order to guarantee that the correct price for the transaction will be paid. Indeed, if the acquirer does not pay excessively for the deal, some of the value will mount up to the acquirer's shareholders. Thereby, a key question for shareholders is the possibility for an M&A transaction being well-received in the short-term and, likewise, to create value to shareholders in the long-term (Zenner et al, 2008).

M&A activities create value when the cash flows of the combined company are bigger than the sum of the cash flows of the stand-alone companies (Koller et al, 2010). Some researches indicate that there are some specific factors in deals that allow to success of the acquirer's returns. It is mentioned by Zenner et al (2008) that (i) operators with earnings and share price growth above the industry average are more successful; (ii) the lower the transaction premiums, the higher the returns on announcements; (iii) and if the bidder is the only interested in the target company.

Contrariwise, Koller et al (2010) believe that there is a strategic rationale behind M&A activities in order to create value. Such strategies can be (i) the improvement of the target company's performance, where the company can reduce hugely the costs or improve the revenues and cash flows; (ii) to consolidate taking into account the excess capacity of the industry; (iii) to create market entrance to the products of the deal company; or (iv) acquire skills or technologies more quickly or at a lower cost than they could built by their own.

In addition, the same author refers that there are more strategies that can create value but are harder to occur, namely (i) consolidation in order to improve competitive behaviour; (ii) entering in a merger and transform the business, their products and mission; (iii) or buying the other company at a lower price than its intrinsic value, which opportunity is really infrequent.

Damodaran (2005) mentioned that it is more likely for a transaction to create value under the following conditions: (i) an acquisition of a smaller firm by a much larger firm tends to be more successful than the merger between companies with the same size, essentially due to cultural disputes; (ii) mergers with concrete and immediate cost savings are more likely to have a successful operation than that based on growth motivations; (iii) and also acquisition strategies based on buying small private business can have more success than acquiring publicly traded companies, due to the absence of a market price.

2.4.1. Cross-border Value Creation

Zennet et al (2004) concluded that cross-border acquirers tend to outperform domestic acquisitions, at least in the short term. Reasons behind this might be (Zenner et al, 2008): (i) the first is relatively more attractive than the latter due to the immediate market access and also the reduction in risk execution; (ii) as a result of high complexity in cross-border, it is expected that only meticulously examined transactions will be announced; (iii) in diversification terms, investors might appreciate more geographic diversification than industry diversification; (iv) finally, the market tends to prefer cash-financed transactions and the majority of this kind of transactions use cash-financed transactions.

2.5. Valuation and its Alternative Methodologies

More recently, the importance of a systematic valuation process is been increasing in the sense that a superior valuation in M&A process is critical to have a successful transaction, once that a merger tends to fail when a bidder pays too much for its target (Gaughan, 2015). The methodological approaches in firm's valuation may be classified in (Koller et al, 2010):

(i) Market approach, namely the structuring of evaluative multiples with reference to comparable companies or transactions;

(ii) Income approach, which comprises essentially Discounted Cash Flows methods.

2.5.1. Comparable Companies Approach

Comparable companies approach compares the current trading level of a company to its peers. This analysis is an important aid to test the viability of cash-flows forecasting, explaining the differences between the company's performance and their main peers (Koller et al, 2010).

The comparison is done by determining how the market has valued the earnings, cash flows, net asset value, assets, among others, of similar companies (Weston et al, 2014). In order to apply correctly the current method, different authors present some advices in order to face it, such as Koller et al (2010) and Gaughan (2015), namely (i) the use of the right multiple; (ii) the estimation of the multiple in a consistent way and (iii) the use of the right peer group.

Indeed, the latter author mentions that the peer group should have similar growth and ROIC, what might be found across the choice of similar features, such as production methodology, distribution channels, and R&D (internal versus acquired). Moreover, Weston et al (2014) refers that peers might be selected by their size, similarity of products, age of company and recent trends, according to the same author.

According to JP Morgan (1998) they might be generalized as equity value multiples, which deal with cash flows to equity holders (Price to Earnings, Price to Book Value or Price to Operating

Cash Flows) and firm value multiples, which face cash flows to all investors (Firm Value to Revenues, Firm Value to EBIT or Firm Value to EBITDA). Be noted that Koller et al (2010) advises the enterprise value to EBITA, in comparison with multiples as Price to Earnings; EV to EBIT; or even EV to EBITDA. Additionally, according to Gaughan (2015), it is important to adapt the numerator and the dominator, wherein EV should incorporate only the value attributable to assets that generate EBITDA.

Evidently that this methodology has its own advantages and disadvantages. On the one hand, market efficiency denotes that trading values in theory should reflect industry trends, business risk and market growth, among others. On the other hand, shares not always reflect the fundamental value of the firm, namely poorly traded stock or small capitalization.

2.5.2. Comparable Transactions Approach

The second determinant in comparable transactions, which determine the value offered in past acquisitions of similar companies, determining the pricing of past deals as compared to the target's financial performance and pre-announcement market value. Indeed, this methodology is quite similar with the previous (i.e. it uses similar multiples/ ratios), with the slight detail that when looking at prior acquisitions it includes the premium being paid to gain control of a target company (Gaughan, 2015)

The usefulness of this method is related with that recent comparable transactions may reflect supply and demand for saleable assets and further for its realistic characteristic once past transactions were successfully completed at certain multiples or premiums. In contrast, as past transactions are rarely directly comparable, public data can be misleading or values obtained can vary in a wide range, those factors can make those multiples irrelevant (Gaughan, 2015).

2.5.3. The DCF Spreadsheet Methodology

The Discounted Cash Flow methodology is the soundest method of valuation in theoretical terms and it is centred on projecting the magnitude of the future monetary benefits that a business will produce (Gaughan, 2015).

This methodology incorporates different methods to value a company (Koller et al, 2010), namely (i) enterprise discounted cash flow (Present value – WACC); (ii) discounted economic profit; (iii) APV; (iv) capital cash flow; (v) equity cash flow. It is important to stress that the authors do not recommend the last two approaches once it is easy to get wrong valuations.

2.5.3.1. Enterprise DCF Model

In order to value the company's equity, Koller et al (2010) present a process with four steps: (i) first, discounting free cash flows at the WACC in order to value the company's operations; (ii) then, sum the value of assets that have positive market value but do not contribute to the generation of cash flows (non-operating assets), such as real estate assets, resulting in firm value; (iii) identify and value debt and other non-equity claims; and (iv) finally, subtract the third step to the enterprise value, arriving thereby to the company's equity.

2.5.3.1.1. Value the Company's Operations

In order to value a business across DCF approach, the valuation is made in a two-part process: the first part, known as discrete period, does the forecast for the number of years which it is possible to have comfortable forecasting (generally 5 years, according to Gaughan, 2015); in the second part, the continuing value, values the remaining cash flows as a perpetuity and it represents the value that the business could be expected to be sold for at the end of the specific forecast period (Weston et al, 2014):

$$\text{Value of Business}= \sum \frac{FCF_n}{(1+k)^n} + \frac{\frac{FCF_{n+1}}{(k\text{-}g)}}{(1+k)^n} \tag{2}$$

Hence (i) FCF_n is free cash flow in year n; (ii) FCF_{n+1} is the free cash flow in perpetuity; (iii) k is the expected cost of capital; and (iv) g is the expected growth in perpetuity.

According to Weston et al (2014), the NPV is the present value of all future cash flows discounted at cost of capital, but removing the cost of future investments compounded at the opportunity cost of funds. In order to arrive to the value of operations, it is critical to discount the free cash flow (the cash flow available to all investors, as equity and debt holders) at the weighted average cost of capital (the combined cost for all investors), says Koller et al (2010).

$$NPV= \sum \frac{CF_t}{(1+k)^t} \text{-}I_0 \tag{3}$$

Hence (i) NPV is the net present value; (ii) CF_t is the free cash flow, which is the cash inflow really generated by all assets employed in the business; (iii) k is the cost of capital unlevered and accrual to all providers of capital, both bondholders and shareholders. The cash flow from each year is calculated on the following basis:

$$FCF= EBITDA\text{-}Capital\ Expenditures\text{-}NWC\text{-}EBIT*t \tag{4}$$

Wherein (i) FCF is the unlevered free cash flow; (ii) NWC is the net working capital; (iii) EBIT is the operating profit; and (iv) t is the tax rate.

Koller et al (2010) mentioned that free cash flow projections are driven by revenue growth and ROIC. So, it is advised by the author that the analyses should start with forecasts of NOPLAT and invested capital. Interestingly, he provides different perspectives depending on the horizon timeline (recommending an explicit forecast period of 10-15 years): in the first few years (short term) each financial-statement line item should be predicted (5 to 7 years); in the medium term, the analyses should focus on the company's key value drivers (3 to 10 years) in the long term, it should be estimated the continuing-value.

The same author provides a process with several steps in order to predict the free cash flows: (i) Prepare and analyse historical financials; (ii) set up the revenue projection; (iii) forecast the income statement; (iv) forecast the balance sheet; (v) calculate ROIC and FCF.

After reorganizing the financial statements – separate operating items, non-operating items and financial structure in order to calculate invested capital and NOPLAT and, consequently, ROIC and FCF –, it is critical to analyse the firm's historical financial performance. Indeed, to understand the financial standard of the company, it is crucial to analyse its historical data – Koller et al (2010) mentioned to look back as far as possible (at least 10 years), such as balance sheet, income statements and cash-flow statements, across several important ratios (as the interest coverage ratio or payout ratio) (Koller et al, 2010 and Weston et al, 2014). Koller et al (2010) mentioned that the key drivers focus on ROIC, revenue growth and free cash flow. It is important to determine the sources of significant changes, such as M&A, currency effects or accounting changes. The same author mentioned also that past analyses will allow to whether the company has grown, whether it has created value and how it compares with its peers and, consequently, to make more reliable estimates of future cash flows.

Then, and considering the importance of revenues to the other items, their forecasting is quite important. According to Koller et al (2010), their estimation must be based in the *bottom up* approach – based on custom method, using company's own forecasts of demand, or *top down* approach - estimation starts by sizing the total market, market share and forecasting prices.

The importance of forecasting revenues goes further, given the dependence from revenues of several items in the income statement that also are being forecasted. Indeed, operating items, such as costs of goods sold, selling, general and administrative, might be forecasted in function of revenues. However, according to Koller et al (2010), depreciation forecasting can be a percentage of revenues or a percentage of property, plant and equipment. On the other hand, non-operating items should not be predicted across revenues estimations. The author advised that: non-operating income should be driven by appropriate non-operating assets; interest expense estimations based on debt of the previously year; and interest income as a function of excess cash of the previously year.

Similarly, the same author provides some typical forecast drivers for the Balance Sheet: accounts receivable, accrued expenses and net property, plant and equipment should be based on revenues; inventories and accounts payable grounded on costs of goods sold and goodwill on acquired revenues (usually, it is assumed a constant value).

The third part in the forecasting items is the continuing value. Relatively to it, Koller et al (2010) calculation is based on growth and ROIC, linking them directly to cash flows:

$$\text{Continuing Value}= \frac{\text{NOPLAT}_{t+1}\left(1-\frac{g}{\text{RONIC}}\right)}{\text{WACC-g}} \tag{5}$$

Wherein (i) $NOPLAT_{t+1}$ is the net operating profit less adjusted taxes in the first year after the forecast period; (ii) g is expected growth rate in perpetuity; (iii) RONIC is the expected rate of return on new invested capital; and (iv) WACC is the weighted average cost of capital.

Considering this equation, NOPLAT should be based on a normalized level of revenues and in a justifiable margin and ROIC; RONIC should be coherent with expected competitive conditions; the growth rate should be the sum between the long-term rate of consumption growth for the industry's products and the inflation, where it is advised a sensibility analysis; and the WACC should incorporate a sustainable capital structure and a business risk estimation consistent with expected industry conditions (Koller et al, 2010).

2.5.3.1.2. Discount Cash Flows

One of the most critical items in spreadsheet approach is accurately the suitable discount rate, since the riskier the investment, the higher the discount rate and the lower the present value of projected cash flows (Weston et al, 2014). Thus, this rate must reflect the perceived level of risk of the target company and the volatility of its cash flows has to be accessed.

The enterprise DCF model uses the weighted average cost of capital to reflect the time value of money and the riskiness of cash flows, once, regarding the importance of the consistency between cash flows and the discount factor, the enterprise value is available to all investors, as well the WACC (Koller et al, 2010).

In order to determine it, it is crucial to take into account the several forms of financing separately, such as equity, debt, preferred stocks and different forms of debt (secured bonds, unsecured debentures and bank loans), as well as the capital structure of the company (Weston et al, 2014). Actually, WACC equation shows its three critical components – (i) the cost of equity, (ii) the after-tax cost of debt and the (iii) target mix between the two securities:

$$\text{WACC}= \frac{D}{D+E}k_d(1\text{-}t)+\frac{E}{D+E}k_e \tag{6}$$

Where, according to Koller et al (2010), (i) D and E refers to the market value of debt and equity; (iii) k_d the cost of debt; (iv) t the marginal tax rate; and (v) k_e the expected cost of equity.

<u>The cost of equity</u>

In relation to the cost of equity, the most famous method in order to calculate it is the CAPM approach (Koller et al, 2010 and Weston et al, 2014), which is based on a risk free rate, a market risk premium and a company-specific risk adjustment (equation 8).

Moreover, Damodaran (2003), according to the Bludgeon approach, considers this specific risk as the country risk premium, suggesting the estimation for the cost of equity based on equation 9 (international CAPM).

Interestingly, Forchio & Surana (2014) studied the effect on liquidity on size premium, suggesting that, in the long term, company stocks tend to exhibit a rate of return inversely correlated with size, therefore tend to present a return in excess of its expected standard CAPM return. In this context, it is plausible to include a size premium in the international CAPM approach. However, this trend is more evident in small companies, not being so easily find a premium paid for stocks with high liquidity. Thereby this adjustment has no effect in larger companies.

$$k_e = r_f + \beta_e[E(r_m) - r_f] + \varepsilon \quad (7)$$

$$k_e = r_f + \beta_e ERP + CRP \quad (8)$$

Hence (i) k_e is the cost of equity; (ii) r_f is the expected return of risk-free assets; (iii) β_e is a company's beta or systematic risk of the business; (iv) ERP is the risk premium in a reference market; (v) ε is a company-specific risk adjustment; and (v) CRP is the country risk premium.

The risk free rate is usually estimated based on government default-free bonds. In a perfect situation, each cash flow should be discounted using the government bond with the same maturity. However, when this is not possible, given its complexity, it is advised to use the rate of a 10-year government bond (German in Europe and STRIPS in the Unites States) given its high liquidity and low credit risk.

The market risk premium is characterized by the difference between the expected return of the market and the risk-free rate. Koller et al (2010) provide a collection of methods to estimate this component: (a) estimating the future risk premium by measuring and extrapolating historical returns (relative to long-term government bonds, using the longest period possible and use an arithmetic average of longer-dated intervals); (b) use regression analyses to link current market variables (such as the aggregate dividend-to-price ratio); and (c) using DCF valuation or others forward-looking models, with estimates on ROIC and growth, to reverse the market's cost of capital.

Additionally, the measurement of beta starts with the measuring of a raw beta across a regression and, which must be calculated across the market model:

$$R_i = \alpha + \beta R_m + \varepsilon \qquad (9)$$

In which, (i) R_i is the stock's return; (ii) α is the regression intercept; (iii) β is the regression slope; (iv) R_m is the market's return; and (v) ε represents noise in the regression.

It should be noted that this equation regards at least 6 observations, based on monthly returns, since more frequent periods could lead to systematic bias, and it should be valued against a well-diversified market portfolio.

Then, in order to improve the beta precision, it is important to face it with industry comparable, considering that similar companies should present similar operating risks, or smoothing techniques. The first one follows the following steps: calculate the raw beta of different companies inside the same industry; unleverer each one after calculating the debt-to-equity ratio; calculate the average of betas of the several companies; lever the beta again using the industry beta but considering the company´s own debt-to-equity ratio. All this process, explained by Koller et al, 2010, demands the following equation:

$$\beta_e = \beta_u \left(1+\frac{D}{E}\right) \qquad (10)$$

In which, (i) β_e is the levered beta; (ii) β_u is the unlevered beta; and (iii) D/E is the ratio between debt and equity.

In contrast, financial platforms, as Bloomberg, use the adjusted beta (smoothing process):

$$\text{Adjusted beta} = 0.33+0.67(\text{Raw beta}) \qquad (11)$$

At least, according to Damodaran (2012), the country risk premium, i.e. the probability of default of a country, may be estimated considering three different approaches, namely: (a) the differential between sovereign debt and required rate of return of high credit rating (AAA) sovereign debt in the same currency (excluding a possible default risk associated with this country); (b) when regards outlying countries with illiquid sovereign debt instruments, it is used corporate bonds of companies in that country with high credit rating; and (c) also premiums for credit default swaps of each economy.

Some other authors present other models in order to arrive to the cost of equity, namely the Fama-_French Three Factor Model and APT (Arbitrage Pricing Theory).

The first model rejects one of the most important assumptions of CAPM, which is that average stock returns are positively related with market betas (Fama and French, 1992). The authors concluded that equity returns are negatively related with the size of the companies, but positively related with the firm's book-to-market ratio. Thus, with this model, the stock's excess returns are regressed on excess market returns (CAPM), the excess return of high book-to-market stocks over low book-to-market stocks (HML) and the excess returns of small stocks over big stocks (SMB).

The second alternative to estimate the cost of equity (APT) does a similar approach to the previous one. This model assumes that the actual returns of securities are generated by *k* factors and a random noise. Thus, APT theory specifies that the expected risk premium on a stock depends on the expected risk premium associated with each factor, while the sensitivity of the stock to each of the factors (Myers et al, 2011).

The theory is difficult to apply once it does not specify how many factors should be used, which factors should be used or how they should be measured (Koller et al, 2010). Nevertheless, Roll and Ross (1995) suggested four economic forces that influence the stock market, which are: (i) unanticipated inflation; (ii) changes in the expected level of industrial production; (iii) unanticipated shifts in risk premiums; and (iv) unanticipated movements in the shape of the term structure of interest rates.

<u>The after–tax cost of debt</u>

It is also important to find out the return required by bondholders, which can be determined in two different ways, namely (i) across publications of yields to maturity of debt issues by rating categories, issued by government agencies and investment banking firms; (ii) or taking a weighted average of the yield to maturity for all the firm's publicly traded bonds (Weston et al, 2014). Koller et al (2010) believes that cost of debt calculation depends on the rating of companies, wherein (i) investment-grade debt might use the yield-to-maturity of the companies' long term; and (ii) for below investment-grade, the author advised to use APV.

Note that the after-tax debt rate reflects the real cost of debt, given the fact that debt is a tax-deductible expense. Indeed, if DCF method covers taxes, its discounted rate should also feature taxes in order to guarantee the consistence, which in WACC case is valued across the reduction in cost of debt.

The cost of the other source of financing, preferred stocks, is defined as the promised dividend divided by its current market price, once these stocks have no maturity and tend to pay a fixed dividend. This cost may be higher than cost of debt because of its junior position, if it was not the fact that preferred stocks are not always subject to corporate taxes, which allows for a lower required yield.

<u>Capital structure</u>

As mentioned before, the capital structure is crucial to arrive into a final discount rate. In order to estimate it, Koller et al (2010) recommend the combination of the following approaches: (i)

calculate the company's current market-value capital structure; (ii) analyse the capital structure of similar companies to consolidate the results of the first step; and (iii) review management's approach to funding the business and its repercussion for the target capital structure.
Furthermore, it is recommended by the same author the use of APV approach when the company pretends to change its debt-to-value ratio.

2.5.3.2. Non-operating Assets and Non-equity Claims

Given the importance that some assets have to the value of the company, it is important to add them to the EV, which results in the firm value. Such assets might be excess cash, tradable securities, customer financing arms or nonconsolidated subsidiaries (equity investments).
Then, in order to arrive to the equity value, it is critical to discount to the firm value, the non-equity claims. According to Koller et al (2010), the most common non-equity claims are market value of all outstanding debt, operating leases, unfunded retirement liabilities, preferred stock, employee options and minority interests.

2.5.3.3. Adjusted Present Value

As already mentioned Koller et al (2010) recommends APV methodology when a company intends to change its capital structure. Luehrman (1997) goes further, mentioning that this model is a better tool than WACC approach, once it always works when WACC does and even sometimes it might work when WACC does not, considering that APV models need fewer assumptions. Furthermore, this model is less susceptible to serious errors and it can help managers to find how much an asset is worth, and also where the value comes from.
The fundamental idea of this model is the summing of the value of two separated operations: (i) the value of the operations as if the company were only financed by equity and (ii) the value of all financing side effects, as interest tax shields, costs of financial distress, subsidies, hedges, issue costs and other costs (Luherman, 1997).
The first component consists in the unlevered value of operations which is discounted at the unlevered cost of equity - the return that the investors of the firm expects to earn by investing in some other asset with the same riskiness if they were financed entirely with equity.
According to Koller et al (2010), it is possible to estimate the unlevered cost of capital based one on the following equations:

$$k_e = k_u + \frac{D}{E}(k_u - k_d) \tag{12}$$

$$k_e = k_u + (1 - T_m)\frac{D}{E}(k_u - k_d) \tag{13}$$

Where, according to Koller et al (2010), (i) D refers to the market value of debt; (ii) E to the market value of equity; (iii) k_d the cost of debt; (iv) t the marginal tax rate; and (v) k_e the expected cost of equity

While the first equation is appropriated when companies have relatively stable capital structures, the second one is suitable in periods of high debt.

The second part of the APV model is related with the forecast and discount capital structure side effects: if the company has low probably of default, Koller et al (2010) estimates the company's future interest tax shields using the company's promised yield to maturity and marginal tax rate; if company has significant leverage, it should model the expected tax shields reducing each promised tax shield by the cumulative probability of default.

Just as the first part of the model, the tax shields and the other financing side effects need to be discounted. Luherman (1997) refers that, on the one hand, there are some academics which suggests to discount them at the cost of debt, once in theory they have the same kind of uncertainty; on the other hand, other academics mentioned that tax shields risk is higher, whereby it should have a higher discount rate, usually recommending discounting them at the unlevered cost of equity.

2.5.3.4. Free Cash Flow to the Equity

Be noted that, according to Koller et al (2010), the equity cash flow model values equity directly by discounting cash flows to equity at the leveraged cost of equity, rather than at the WACC. This cash flow to equity simply considers the cash flow to the firm and the cash flow to the debt holders.

2.6. Synergies Valuation – Value Created and Added

One must note that the correct identification and measurement of the presented synergies are determinants at the valuation time. To value the synergy and determine how much to pay for it are the main issues related with synergies (Damodaran, 2005). The success of a merger or, in other words, the value creation across this strategy is directly related with the best estimations that will be made of the possible synergies (Koller, et al, 2010). As previously mentioned, these synergies can be operating, financial and dubious (Damodaran, 2005).

According with the latter, there are two methods to evaluate the existence of synergies, namely on a forward-looking basis, by looking at market reactions to acquisition notices and gauging what the expected synergy value is and who gets the gains. The latter is to track mergers after they occur and evaluate the success of firms in delivering synergy gains.

2.6.1. Operating Synergies

Damodaran (2005) points out that it is possible to estimate the value of operating synergies through three steps, namely: valuing the stand-alone firms involved in the merger; afterwards, estimating the value of the combined firm with no synergy, simply adding the values obtained in the first step; at last, building in the effects of synergy with expected growth rates and cash flows, revaluing the combined firm. Thus, the difference between combined companies with and without synergies provides the value of the expected synergies.

Koller et al (2010) present a methodology framework to estimate these synergies in operating perspectives, once they are the main source of value created through M&A. The estimation of cost savings takes into account the company's business system as a guide for the appraisal of prospective improvements. This should follow a set of steps: (i) Development of an industry business system: the appointment of each cost item of the target and each cost-saving and the selection of the cost savings of the bidder; (ii) development of a baseline for costs based on stand-alone companies' assumption: forecast the costs of both companies, the acquirer and the target; (iii) estimation the savings for each cost category based on the expertise of expert managers; and (iv) comparison of the resulting aggregate improvements with margin and capital efficiency benchmarks for the industry to judge whether the estimates are realistic.

Contrariwise, in order to estimate the revenue improvements, it is imperative to determine which are the types of sources of the revenue improvements, since they can be from (i) increasing the level of several product's peak sales, (ii) reaching the increased peak sales faster, (iii) extending each product's life, (iv) or adding new products (or features) that could not have been developed if the two companies had remained independent. It is important to note that the revenues projection should be done in absolute amounts or as a percentage of stand-alone revenues, rather than an increase in the revenue growth rate.

2.6.2. Financial Synergies

Damodaran (2005) also presents appraisals about financial synergies. Such sources of these synergies may be diversification, cash slacks, tax benefits or increase in debt capacity.

Diversification benefits occur with companies from different businesses, unless both companies are publicly traded and the investors can diversify by their own. The cost of equity or debt of the combined firm might be obtained across the weighted average of the individual firm's cost of equity and debt, respectively.

Cash slacks (when a large company acquires a small one), concern acquisitions by firms with excess cash, but no investment opportunities, for cash-poor companies with investment prospects. This may be a rationale to public companies that want to acquire private companies with capital constraints. Its computation is simply the computation of net present values of the projects that the cash-poor company would provide, and add them to the combined firm.

Tax benefits accrue from different sources, such as (i) If one of the companies has tax deductions that cannot be used because it is losing money, and the other one pays significant taxes on income, wherein the value of the synergy will be the present value of tax savings that result from the merger of these two companies; and (ii) The write up of depreciable assets of a target firm in an acquisition, what results in higher tax savings from depreciation.

Debt capacity benefits can only occur when the stand-alone companies are in their optimal debt capacity, once if they do not, they could have moved to the optimal by their own and increase their final value without an M&A activity. Such benefit can be the result of the decrease in variability of the cash flows of the combined firm – in result of the non-perfect correlation between the two firms.

2.6.3. Costs Incurred

It should be noted that M&A transactions bring costs that must also be identified and estimated, being discounted to these synergies, such as: the rebranding marketing campaigns that are needed, the retraining of employees, the costs to demolish a factory, the indemnity to employees, or integration costs for changed information technology systems.

2.6.4. Common Errors in the Synergies Valuation

As already mentioned, a lot of mergers fail due to an incorrect valuation of companies and measurement of possible synergies. Concerning this, Damodaran (2005) presents some common errors that analysts do in the synergies valuation and that should be avoided. First, they should not pay premiums to the stockholders of the target firm in some items where they do not have credits. Indeed, it is important to give to the acquirer's shareholders some of the incremental value of the synergy.

Other common error is related with one of the most important aspects in company's valuations – the discount rate. Usually, synergies are expected to happen for a certain period in the future, which demands the use of a discount rate – which should reflect the non-diversifiable risk in the cash flows. For these reason, the cash flows of synergies should be discounted at the cost of capital of the combined firm and not at the one of the stand-alone companies. In contrast, some analysts discount the tax savings as a consequence of the merger at a riskless rate, which is wrong once the cash flows caused by synergies are never risk free.

The last error that the author mentions is related with the confusion made between the control – which is related with the changes in the way of how a company is being run, and the value of synergies. If they mix the two, it might fall under the same previous error, applying the wrong discount rate to the cash flows. On the one hand, control just requires the valuation of the target firm, while the synergy involves both target and bidder. For this reason, it is vital to separate the two types of value, in which in the control case it is better to do a double valuation – one under the first management and then a valuation of how they expect that the company will be ran after the M&A.

2.7. Cross-border Valuation

Cross-border M&A involves various implications that are really important to take into account in terms of valuation in order to avoid several mistakes. This requires a special treatment for different specificities, such as which tax rates should be considered, the currencies that should be used and some special risks (foreign exchange and political factors).

At the valuation moment, it is important to consider each valuation method with their own pros and cons considering cross-border deals (Zenner et al, 2008): in the comparable methods (companies and transactions) there may have difficulties in finding comparable companies/ transactions in some regions and also some difficult to incorporate some details of synergies, risk and taxes associated with these transactions; besides the fact that the DCF is more flexible than relative valuation, it also can incorporate tax and accounting differences.

2.7.1. Forecasting Cash-flows

The main challenge associated with DCF is related with the projection of future cash flows. Concerning this, different authors as Zenner et al (2008) and Koller et al (2010) admit two different models in order to predict and discount foreign currency cash-flows, which both are recommended in order to verify the assumptions made (Zeller et al, 2008). On one hand, the *spot-rate method* uses the spot exchange rate to convert the foreign present value of cash flows into domestic one; the foreign present value is calculated across the projected cash-flows in the foreign currency, discounted at foreign cost of capital.

The forward-rate method projects the cash flows in the foreign currency, converting them immediately across the forward exchange rates. Then, discount the cash flows at the domestic cost of capital. Noteworthy that could be necessary to determine the forward exchange rates through interest rate (formula 14) or purchasing power parity theory (formula 15) (forward exchange rates are the spot exchange ratio multiplied by the respective interest rates or the ratio between the foreign inflation and the domestic inflation). Indeed, the difference between the cash flows converted at domestic currency and foreign currency should reflect the difference in the inflation rates between the two currencies.

$$FX_t^{EUR/USD} = FX_{t-1}^{EUR/USD} * \frac{(1+r_f^{EUR})}{(1+r_f^{USD})} \quad (14)$$

$$FX_t^{EUR/USD} = FX_{t-1}^{EUR/USD} * \frac{(1+i^{EUR})}{(1+i^{USD})} \quad (15)$$

In which (i) $FX_t^{EUR/USD}$ corresponds to the exchange rate of euros in relation to dollars in year t; (ii) $r_f^{EUR/USD}$ respects to the risk free rate in euros or in U.S. dollars in year t; (iii) $i^{EUR/USD}$ regards the expected inflation in euros or in US dollars in year t.

2.7.2. DiscountRrate

In what concerns the discount rate estimation in the first approach, the most important aspect is related with monetary assumptions (Koller et al, 2010): (i) the inflation that contributes to the foreign cash-flows estimation should be the same that is used in the WACC, across the risk-free rate estimation; and (ii) and both MRP and beta, due to the global phenomenon that the markets are facing, should be measured against a global market portfolio.

The same author considers it is not necessary to include an additional risk premium to the discount rate, once it is already incorporated in the spot exchange rate or forward exchange rate used in the projected cash flows.

Alternatively, Zenner et al (2008) mentioned that the vital question concerning the discount rate is if there is a CRP and whether and how to make an adjustment for sovereign risk.

2.8. Other M&A Determinants

An M&A transaction process involves more than the valuation of companies. Considering cross-border M&A, there are more determinants that are important to take into account in order to guarantee a successful transaction. According to Zenner et al (2008), such determinants might be: currency risk management and taxes.

Currency risk management

Risk management strategies are frequently required in major cross-border M&A transactions and with multinational companies, once they might generate substantial foreign exchange risk and influence negatively the economics of the transaction (Zenner et al, 2008).

These strategies should take into account the different risk phases of cross-border transactions, namely (i) "Pre-close" risk: hedge the purchase price, due to the FX fluctuations that could arise between deals' signing and the purchase of the target; (ii) "At-close" risk: hedge of inter-company loans or dividends, due to the risk that accrue from the target's capital structure at the close of the deal, and in the repatriation plans for the target's company's free cash flows; (iii) and "Post-close" risk: create a hedge strategy in order to manage the on-going risk, as a result of the continuing cross-border cash flow and cost versus revenue disparities.

Taxes

Zenner et al (2008) considers essential to hire internal and external tax experts, once regularly there is no examples or previously transactions to follow, whereby a personalized solution must be built in order to guarantee the parties' objectives.

Financing

One of the main reasons why an M&A tends to fail is when the bidder pays too much for its target (Weston et al, 2014). Even when companies follow the strategic rational in value creation section, if the acquirers pay too much for the transaction, it will not create value. Regarding this, it is really vital to the success of the transaction to analyse how the payment will be made: if it is with cash, stocks, a mix of cash and stocks, or «across an "earn out" contract that provides for higher pay-outs if the target assets perform better in the future» (Zenner et al, 2008). According to Koller et al (2010) there is some evidence that the acquirer's stock returns immediately after the acquisition announcement are higher with cash offers than with shares payment. Zenner et al (2008) refers that even when acquirers usually have a preference to use cash instead of stocks, when the future performance of the target is uncertain, they are more likely to prefer to use stocks. In opposite, the target company might prefer stock payment for tax reasons or in order to benefit from the upside value of the combined company.

Koller et al (2010) mention the key issues that should influence the payment decision are the possibility of the target and/or the bidder being overvalued or undervalued, once in a bubble people are more inclined to pay in shares. Furthermore, the confidence of people involved in the process about the ability of the deal to create value (the more confidence, the more the inclination to pay in cash) is other issue that influences payment decision. On the other hand, the perspective of what will be the optimal capital structure is also decisive at the payment decision time. If the combined company is at their maximum debt level, the payment should then be made in securities (at least, partially).

Financing cross-border transactions

Following Zenner et al (2008) ideas, there are some factors in the financing transactions that are important to consider when the firms involved in the process are from different countries.

Although the decision behind cash or securities is similar between domestic and non-domestic transactions, it will have impact on ratings and capital structure of companies. On the one hand, cross-border transactions might increase the credit ratings due to the geographic diversification;

and alternatively, these presents cultural, political and other risks which might be unfavourable for rating agencies.

Furthermore, concerning the payment decision, it is vital to consider how it will be funded. Usually, companies recur to new debt to fund cash payment (Zenner et al, 2008), which raises various questions related with cross-border transactions. Firstly, the determination of at which currency the debt will be issued is vital, being recommended that it should be in the currency of the target's cash flows, since it is expected that those cash flows will support the increased leverage. Then, it is suggested that the foreign target should be the borrower, once the debt should be located nearest to the assets and cash flows that support it. This process can be done in two different ways: borrowing directly at the new acquired subsidiary or via borrowing at the parent company and "pushing down" debt across inter-company loans. Even that these aspects are in favour of the target borrowing, it is advised that the debt should be issued in high-tax jurisdictions in order to maximize the tax shield from interest expenses deductions. Furthermore, their cash flows may restrict the amount of debt and its currency debt market could be liquidity limited.

3. Industry Landscape

3.1. Confectionery Industry Overview

The confectionery industry was described by Warren Buffet – considered the most successful investor in the world – after the acquisition of a confectionery company in 1972 – See's Candy – as a "dream business" due to its "capability of greatly increase its profits without needing much new capital" [34].

Being inserted in a larger group – the packaged food that also comprises baby food, biscuits and snack bars, breakfast cereals or dairy products, amongst others – it has generated worldwide revenues of US$ 183.4 billion in 2015 [58]. Given confectionery characteristics, it is possible to segment the industry in two different perspectives, either by product or by geography.

On a product segmentation standpoint, this industry may be divided in three main categories: (i) chocolate; (ii) sugar (or candy); and (iii) gum [16]. Chocolate confectionery is the most representative one, with about 55.1% of the industry's total value in 2015 [58]. Noteworthy, this segment presents a great range of sub-segments and variants, being essentially characterized by the trade-off between price and volume, such as ultra-premium, premium, mass-premium and mass. Moreover, based on Barry Callebaut, its production is a complex process, with the upstream value chain being characterized by (i) cocoa production; (ii) cocoa processing; (iii) its manufacturing; and (iv) final chocolate distribution and commercialization [1]. Please notice figure 1, which exhibits the business sections that generate greater value creation in this industry.

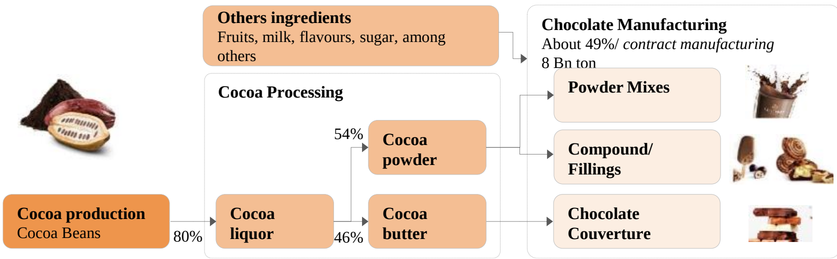

Figure 1 Chocolate confectionery value chain [1]

The other two confectionery segments have less relevance in the market, namely: (i) sugar (or candy) confectionery, which can be split into hard candy and soft candy, representing circa 32.5% of its total value in 2015; and (iii) gum confectionery that may be divided into chewing gum and bubble gum, accounting for 12.4% of global market in 2015 [58]. According to Association of Chocolate, Biscuits and Confectionery (CAOBISCO), sugar and gum manufacturing requires essentially sugar and *savoir faire*, being a simpler process than chocolate production [5].

From a geographic distribution standpoint, Western Europe is undoubtedly the most representative region of confectionery industry, exhibiting 28.6% of 2015 global sales. Furthermore, Asia Pacific is increasing its representativeness, being nowadays the second major (21.1%) and surpassing North America (19.6%). Segment information by region and product segment in 2015 can be observed in chart 1 and with more detail in appendix A [58].

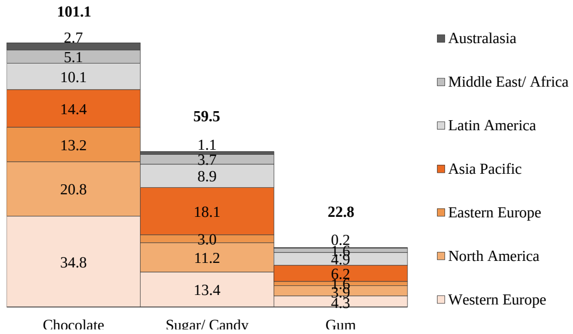

Chart 1 Confectionery global market, per region and segment, (US$ Bn), 2015 [58]

3.2. Industry Macro and Consumer Drivers

According to Candy Industry Magazine [57], the confectionery industry behaviour is being driven by several issues, namely (i) the rising in disposable income; (ii) the growing in retail markets; (iii) a rise in gifting confectionery items; (iv) increasing population; (v) increasing urbanization; (vi) hectic lifestyles; and (vii) more women in the work force.

However, based on Euromonitor research, demand drivers for chocolate products vary among countries. While GDP per capita accounts for 50% of China expected growth, in Brazil the main driver is the prospect about population increase [18]. Developed countries, namely the USA, Japan and the UK are currently affected by soft drivers, such as marketing activity, product innovation and changes in consumer tastes/lifestyles. Other indicators may be demographics, habit persistence, market situation, product price and socio-economic trends [18].

The cited industry drivers are extracted from industry's behaviour over time. In reality, according to Candy Industry, the market value raised at a constant average growth rate of 2.3% from 2011 to 2014, at current prices [58, 57, 52-55]. However, it exhibited a significant decrease in 2015 that may be explained by the appreciation of the USD in relation to other currencies. Indeed, if exchange rates were fixed in 2015, the market grew 6.6% in 2015, instead of -7.6%. Despite exchange rates effect, it is still true that the general regulation and the concerns about harmful effects of sugar on health are limiting, or even penalizing, the industry growth on developed countries. In contrast, mostly in development countries, there is a strong correlation between consumption expansion and output growth. Accurately, there is a strong correlation between the global value of confectionery industry (at current exchange rates) and gross domestic product at current prices [41], statically significant, as observable in appendix B.[1]

Because confectionery products are bought by impulse, with 80% of purchasing decisions being made at the point of sale [6], its consumption is affected by global events. Indeed, the years of 2013 and 2014 were characterized by the deceleration of global growth rates due to: (i) an economic slowdown in China, and in Asia overall, which along with an increase in candy prices caused a slowdown in the confectionery sales growth verified in the previous years; (ii) an impact of global events, as the Ukrainian and Russian border conflict, which led to a decline in all segments of the Eastern Europe market in 2014; and (iii) a drop in commodities prices, such as oil, copper and iron ore, which has affected Middle East, Africa and Latin America regions, leading to a decrease in almost all their segments [57].

On a product segmentation view, chocolate has been the most dynamic, with a resilient growth over last 10 years (there was a single contraction in volume, verified in 2009), exhibiting a constant average growth of 1.8% [1]. Interestingly, some consumers indicated that they are eating less chocolate because it is too costly to eat often [54]. Though, even clients give great importance to other factors apart from price, such as flavour, quality and curiosity about new products; price remains with high weight in buying decision [7].

This general increase in prices is the result of the pronounced resilience of the macroeconomic environment and raw materials high volatility [1] (please observe chart 2). Because raw materials are the most serious costs to confectionery players, namely cocoa, sugar, milk derivatives and some nuts (hazelnuts, walnuts) commodities and also packaging materials, this volatility led to prices increase [27].

Cocoa, as the main raw material of chocolate segment, makes the segment really dependent of countries such as Ivory Cost (responsible for 42.7% of the total harvest in 2014/15) [39]. Due to its properties, its production (primary activity) is naturally dependent upon climatic conditions and, consequently, tropical climates regions where the risk of natural disasters is high, can reduce the number of suppliers quickly and dramatically at any time. This is a strong constraint to chocolate players.

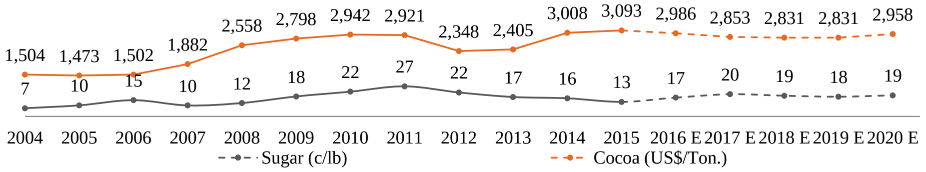

Chart 2 Cocoa (US$/Ton) and Sugar (c/lb) prices evolution, 2004-20E [76]

[1] R^2 of 98.7%, with 18 observations (1998-2015), being statistically significant (p-value lower than 0.05)

3.3. Industry Trends and Market Prospective

Because the direct threat of replacing chocolates with substitute products is low, along with its consumption being associated with emotional situations, the confectionery market is quite stable [8]. However, last trends can lead consumers (i) to use other flavours as a substitute for chocolate (e.g. vanilla); (ii) to elect other snacks instead, such as potato chips or ice cream; and (iii) to change to other gift substitutes for gift-giving holidays. Then, in order to ensure future growth and even boost the industry, it is crucial to provide the market with innovative products, and to develop and modernise the existing ones to retain and attract new consumers [9].

Besides, given the concern with health and the consequent trend related with healthy food, it is predictable that: (i) the seasonality of demand will face a strong growth in both premium and mass segment chocolate, since special occasions are treated by clients as a proper time to indulge [58]; (ii) snack products will rise due to the recent trend of snacking in-between meals and the increasing need to eat out-of-home; and (iii) premium healthy products will raise, with the increasing use of pure raw materials, such as cocoa butter and seeds [7, 8]. Additionally, the increasing use of media advertising, social media and e-commerce is also expected [8].

Because these trends are difficult to quantify, the regional and global market were predicted based on previously mentioned industry drivers, following the next steps:

(i) Analysis and use of confectionery industry data estimations from 2016 to 2020 issued by National Confectionery Industry [51];

(ii) Regional predictions were based on the weight of those available countries in relation to the corresponding regional market value in 2015 [58], because these estimates are presented by country;

(iii) For the United States it was used Candy Industry Magazine forecasting data, since NCA does not have available information such country [58];

(iv) CAGR of regional market from 2015 to 2020 was predicted based on NCA [51] and inflation expected rates for each country, weighted by the corresponding importance in the region, assuming that NCA rates are at constant prices;

(v) Inflation estimations are based on: (a) FMI data projections issued in April 2016 for most countries; and (b) USD and EUR inflation swaps, from one to ten years (more detailed in risk-free estimation) , for the US (North America) and Western Europe, respectively;

(vi) From 2021 to 2025 it was assumed, for convenience, the convergence towards 2025 to the CAGR verified during the 2009-2020 period, for the reason that there are no available data about global economic prospects after 2021.

About the line regression equation previously estimated it is important to highlight that (i) this was required to triangulate estimations results in global terms for 2015-2020 data; and (ii) that there is in fact a lower dispersion between two methods applied, as observable in chart 3.

Therefore confectionery global market are expected to grow 4.9% per year, raising up to US$ 231.6 and US$ 288.6 billion in 2020 and 2025, respectively, with distinguished trends. While development regions such as Asia Pacific, Latina America, and Middle East/ Africa are improving significantly their growth rates; developed regions, namely Eastern Europe and North America, are exhibiting lower growth rates, due to both markets being considerably mature. Please observe appendix C for more detail.

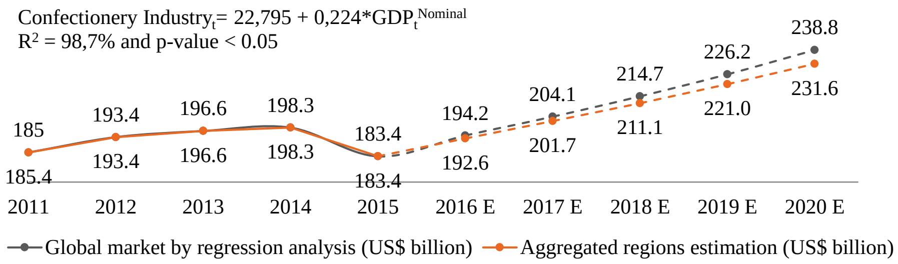

Chart 3 Industry global value based on two different analysis (US$ billion), 2011-20E

Asia Pacific confectionery industry expects a general increase characterized by growth rates below those verified historically, regarding (i) the low confectionery consumption *per capita* (mature markets have an average chocolate consumption between 5 to 12 kg, while China and India population only consume 12 and 120 grams on average, respectively) [57]; (ii) the resilient growth in middle class (particularly in China) [57]; and (iii) positive trends being offset by an economic slowdown in these regions [41].

For Latin America it is expected a similar trend, that is balanced between (a) a more modest growth in nominal terms due to an economic and political crisis in both Brazil and Venezuela countries [58]; and (b) high expectations about inflation rates.

Middle East/ Africa displayed the biggest CAGR from 2011 to 2015. This trend is expected to be extended until 2025, which will attain 9.6% of global market value (upgrade from 5.2% in 2011). Though there are war conflicts in some countries, the consumption is increasing significantly and it is expected to be prolonged, because of the existence of wealth citizens and several immigrants working in more stable markets, namely in Saudi Arabia [58].

On the opposite is North America, which includes the United States (chart 4) – the largest country confectionery market – and Canada. This region expects a slight growth, rising about 1.8% per year at constant prices during 2015-2020 period, with chocolate segment being the main prompter (expected growth of 2.1%) [58]. Indeed, the chocolate segment that accounts for almost 60% of the American market is verifying a new trend, with premium chocolates gaining 15.6% in 2015, which will be a new driver for many companies [58]. The gum segment, which represents 11.3% of sales in the country, has low prospective just like in past (-6.5% per year between 2011 and 2014), due to "lack of interest amongst young consumers" and the "strong competition from more effective power mints" (Euromonitor, October 2015) [17].

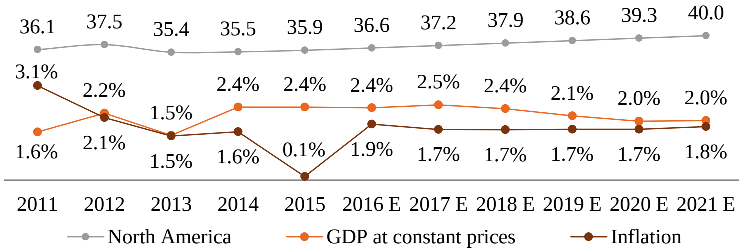

Chart 4 North America market (US$ billion), GDP growth at constant prices and inflation (%), 2011-21E

Despite Western Europe being the main market of confectionery industry and responsible for the main innovative launches of products, the market expects a slight growth of less than 1% and constant prices (chart 5) [51]. This is essentially due to the degree of saturation and maturation of the region [58]. However, it is expected that chocolate and candy segments, which represent 66.3% and 25.5% of the market in 2015, keep as the target of a strong innovation, in flavour and texture, with dark chocolate winning more enthusiasts [57].

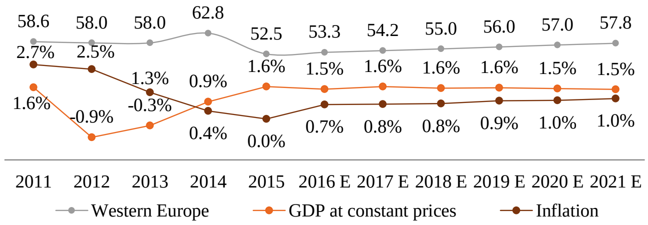

Chart 5 Western Europe market (US$ billion), GDP growth at constant prices and inflation (%), 2011-21E

Ultimately, Eastern Europe, which is represented by Russia and Ukraine, is the only region that expects a decline in growth rate (-1.2%) at constant prices. These is explained by negative expectations about Russia and Ukraine recovery of their economic recession, as the consequence of the Russian-Ukrainian conflict and the great decline in oil prices, as well as the rub deterioration in relation to strong currencies [58]. However, at current prices, this regions expects positive growth rates, due to high inflation expectations.

3.4. Competition

The revision of the ten largest players in global confectionery industry indicates that most adopt a multi-business model, being present in the three main segments [60]. Among the most diversified are Mars, Mondelēz and Nestlé, while Ferrero, Hershey and Lindt are mainly focused on chocolate confectionery, even exhibiting some presence in candy and gum segments. Most companies with great dimension are proper multinationals, participating actively in the industry consolidation and benefiting from strong brands nowadays.

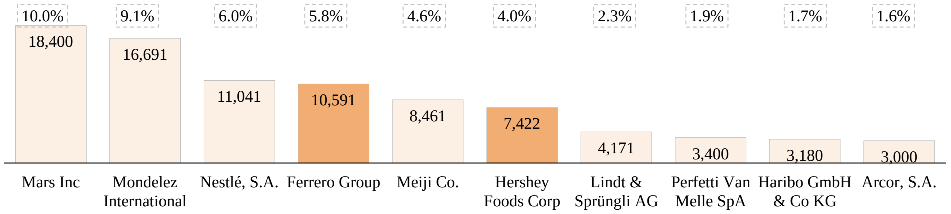

Chart 6 Revenues (US$ billion) and market share (%) of top 10 confectionery players, 2015 [58, 60]

The chart above evidences that the industry has some potential to consolidate, since the ten largest companies aggregate less than half of the market. Mars has a strong and consolidated position, standing as the market leader for some years. However the competition between Mars and the challenger (Mondelēz) is increasing, which may be explained by the dispersion in geographic exposure and the resulting exchange rates fluctuations [62].

Truthfully geographic exposure amid market leaders is really scattered (see chart 7) [63]. While Mars distributes its sales amongst North America (c. 35%), Western Europe (26%) and Asia Pacific (18%); Mondelēz is mainly focused on Western Europe (34%) and Latin America (23%). Nestlé, which is the third largest with 6.0% of the market in 2015, is the one that has its sales more dispersed. Contrariwise are both Ferrero and Hershey with a focused geographic exposure. While the former, which has 5.8% of the industry, sells mainly in Europe (Western and Eastern Europe with 51% and 20%, in that order); the latter is quite concentrated on North America (86%), representing 4.0% of the global market value in 2015.

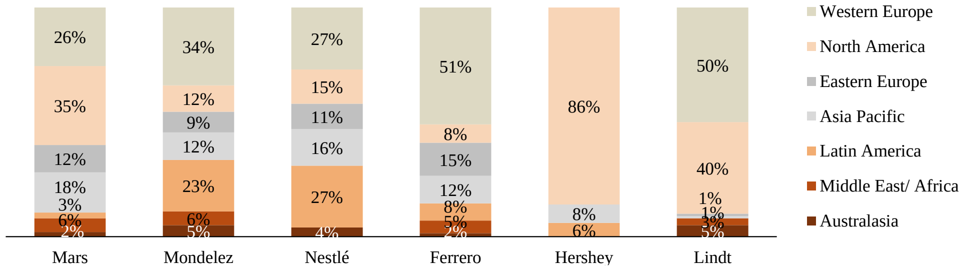

Chart 7 Geographical exposure of the largest confectionery players (%), 2015 [63]

Because there is geographic dispersion in terms of sales display, as well as a slight disaggregation of the industry, market shares within regions exhibit distinct behaviours. North American confectionery market is quite concentrated, being dominated by Hershey and Mars, with about one third of its total value [65]. From 2011 to 2015, Hershey has increased its market share by 1.7 pp (percentage points), while Mars and Cadbury (Mondelēz) have downsized its market share [65].

European market is quite different from the American, since no player has a great position across European markets, due to strong positions of local brands, as stated by Cloetta [9]. Even so, most valuable European countries are led by largest companies worldwide, namely Germany (Ferrero and Mondelēz); the United Kingdom (Mondelēz, through Cadbury); France (Ferrero); Italy (Ferrero and Nestlé); Spain (Nestlé); Poland (Mondelēz); Netherlands (Mondelēz); and Switzerland (Lind and Migros) [4, 16, 64]

For the reason that there is a long history connected with chocolate products, the most valuable markets are considerably mature and players have a relatively settled position on their main markets. This wellbeing is intensified by the low likelihood of new entrants, due to the existence of high entry barriers in the downstream section of the value chain. Some examples are the complex supply chain, some capital intensity need, the importance of economies of scale, investment needs in marketing and distribution, significant capacity of innovation and adaption and a huge level of regulation [1].

In order to increase the market share organically, players need to get more space in retail stores, given their fairly significance to sell products, accomplished through local connections, well-known brands and a continuous flow of attractive new products [7]. Indeed, even though buyer bargaining power is decreasing as a consequence of the increasing number of buyers to negotiate it remains relatively high. Besides buyers' low capacity of backward integration and confectionery differentiation product, there are fairly high switching costs. Therefore, characteristics as product development, quality, awareness, communication and visibility are essential to determine consumer loyalty and preferences among costumers [7].

Therefore, it is expected that the ten largest companies keep gaining market value, through:

(i) Inorganic actions, considering consolidation industry potential;

(ii) Organic actions, given new trends observed in the market, namely: (a) innovation, being expected an investment improvement from the most powerful companies in such area; and (b) investment in development regions, considering that these regions are the main potential driver to the prospect confectionery market, as it is already implied in strategy changes of main players [55].

Still within confectionery industry is expected an increase of companies with a solid presence in the chocolate segment, namely Ferrero, Hershey, Mars and Lindt, given great expectations about the intensification of chocolate weight in the global market.

In terms of geography, while in United States a market share gain from premium and snacks companies is expected, namely Lindt, regarding the trend for new product launches, premium and shareable products [58]; in Europe, it is expected an increase of chocolate major players, to the detriment of gum and sugar segments [58].

3.4.1. Confectionery Transactions

The confectionary industry is being the target of a strong consolidation during the last ten years. Based on Mergermarket, within the one hundred largest companies in 2002, among 50 do not exist as independent firms nowadays [47]. Nevertheless, even the fact that the eight largest industry players aggregate almost one half of the market, there are still more than 10,000 companies in the entire world [47]. The transactions with greater relevance were the acquisition of Cadbury by Mondelēz International for about € 15.3 billion in 2010, as well as the acquisition of Wrigley by Mars for a similar value in 2008.

With Mars exception, the generality of companies has promoted the consolidation of the industry based on two different perspectives: (i) strategic rational, namely product complementarity, *in-market* logical, the entry in new markets and market position defence; and (ii) economic rational, mainly linked to synergies, such as *sourcing*, distribution channels, I&D, *marketing*, central services consolidation, optimization of productive capacity or *cross-selling*. Looking ahead in the confectionery industry, it is evident the existence of some potential to consolidate, regarding that the 10 largest companies aggregate less than half of the market. Furthermore, because the standard return of the industry is notably heteronomous, both geographically and product segmentation, it is expected the future creation of larger players and the consequent dilution of the smaller. Actually, based on an own analysis of 55 companies by the entire world[2], the distribution of ROIC's exhibits the possible existence of two different groups with distinct returns levels:

(i) The great multinationals, which benefit from economies of scale in almost all business functions and also from a leadership position in several markets, present an average ROIC of around 15.2% and EBITDA margin of 16.8%[3] (non-exhaustive own analysis);

(ii) And the remaining firms, some of them with leadership positions in a national or regional context, presenting an average ROIC of about 10.9% and EBITDA margins around 9.1%.

[2] Data from companies

[3] Estimated ROIC includes *goodwill* and intangible assets what limits the comparability of results in companies as Mondelez, which had grown essentially across acquisitions (14.7% without *goodwill* and 7.8% with *goodwill)*

4. Companies' Overview

4.1. The Hershey Company

The Hershey Company, which was founded in 1894 by Milton Hershey, is an American confectionery company listed in the NYSE since 1927, being a great reference by the entire world. Currently headquartered in Pennsylvania (US), Hershey's is constantly launching new products and looking for new opportunities in the market in order to continue with its global strategy. The figure bellow exhibits more facts about the company history since 1894.

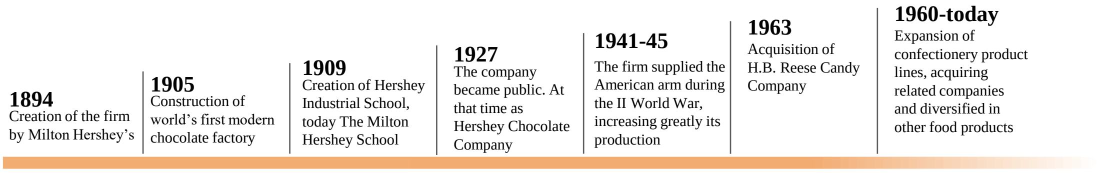

Figure 2 Hershey's main history highlights, 1894-today [69]

Besides its main activity, the production of chocolate and non-chocolate confectionery and grocery products, the company is also present in the downstream activities of the value chain, marketing, selling and distributing its portfolio products mainly in North America. Additionally the company is present in the leisure industry through Hershey, PA, a destination with a theme park, Hersheypark, luxurious accommodations, dozens of restaurants, shops, and more [68].

4.1.1. Main Business Areas

Hershey's business areas are segmented considering a geographical point of view, both North America and International. According to the company, this segmentation is established in this way to ensure the continued focus on North America, as well as accelerating the growth in the international businesses, which includes (i) the manufacture, import, marketing, sale and distribution of confectionery products in regions outside North America; (ii) the global retail operations, including the Hershey's Chocolate World stores in the US, Dubai and Singapore; and (iii) operations associated with licensing agreements to use certain trademarks and products to third parties around the world, such as the Cadbury in the US [68].

Despite the company selling to several geographies, the North America segment is its main source of revenues, with the US accounting for 82.8% of total revenues as exhibited in chart 8, which represents an increase of 2 pp in relation to 2014.

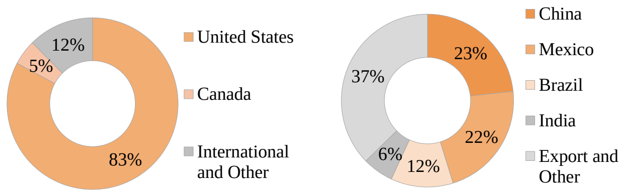

Chart 8 Revenues segmentation by geography and within International segment (%), 2015

4.1.2. Products and Services

The Hershey Company, whose most famous product is the chocolate bar Hershey's launched in 1900, has a wide portfolio range that comprises more than 80 brands. Be noted that the current portfolio ensures the clients satisfaction in various market segments, namely the American portfolio, which is divided amongst [68]: (i) Chocolate brands (Reese's, Hershey's and Kisses); (ii) Chocolate and sugar brands, which includes Kit Kat right uses*;* (iii) Premium chocolate brands; (iv) Refreshment brands; and (v) Pantry and snack products.

Moreover, with the exception of pantry and snack products, Hershey's also trades these brands in countries outside of North America. Additionally, the group sells products that are marketed regionally, namely in China, Mexico, Brazil and India.

4.1.3. Strategy

On the whole by analysing the company's history, it is quite reasonable to admit that the company combines both cost leadership and differentiation strategies. Because the company manufactures and has agreements with companies in cheaper countries, such as Brazil, China, India and Mexico, it guarantees costs cutting. In contrast, Hershey's is able to differentiate its products by investing significantly in R&D department, being present in the chocolate, sugar and gum confectionery segments. This model was intensified by an arrangement with Barry Callebaut in 2007 in order to "partner on a wide range of research and development activities with a focus on driving innovation in new chocolate taste experiences, premium chocolate, health and wellness, ingredient research and optimization." (Hershey's Fact Book May 2016).

Additionally, Hershey's has started an acquisition process in 1963, with the chocolate firm H.B. Reese Candy Co., doing thereafter more than 67 acquisitions/agreements, namely: (i) inside the same business (confectionery industry); (ii) in different business with the diversification aim; and (iii) with cocoa suppliers (vertical integration). However, amongst all these acquired firm/ agreements, about 47 were divested, currently staying firms with a similar business.

Therefore, although Hershey's has already been present in almost all the activities in chocolate value chain [70], currently it is not assisting cocoa production. On the one hand, Hershey's manufactures its products in (i) North America, namely in the US, Canada and Mexico, where it owns 13 confectionery manufacturing plants, both plants and regional distribution centres, which are responsible for North America segment supply; (ii) China and Malaysia facilities, responsible for international segment supply; and (iii) other minor facilities in Brazil and India.

On the other hand, the company through its different stores, both physical and online, adopts a partial forward vertical integration, which is not total because its portfolio is distributed by other channels, namely retail stores [68, 70]

4.1.4. Share Analysis

As already mentioned, Hershey’s is listed in the New York Stock Exchange (NYSE) since 1927. Currently the company has its equity divided into common stock, which is owned by many different institutional and non-institutional investors, and class B common stock:

(i) Common stock is mostly owned by institutional investors (about 75%), namely (a) Hershey Trust Co (8%); (b) BlackRock (6%); and (c) Vanguard Group (5%)[50, 61];

(ii) Class B common stock is 99.9% owned by Hershey Trust Company [61].

Interestingly, the Hershey’s share has improved significantly over last years as observed in chart 9, being important to highlight:

(i) Since 2010, while the price per share appreciated more than 213%, from US$ 30.5 for US$ 95.5; the market capitalization appreciated c. 156.9% (the difference amongst both are related with number of shares outstanding);

(ii) During 2016, the share price improved 8.9% from US$ 87.6 in January for US$ 95.5 in the beginning of September, corresponding to 6.0% in market capitalization terms;

(iii) The maximum share price ever occurred was in August 2016 (US$ 113.0), being explained by the attempted takeover from Mondelēz to Hershey’s in the end of June and then the expectations about a second offer after a first refuse by Hershey’s [37, 38];

(iv) Meanwhile, the values decreased immediately after the definitive abandon by Mondelēz in the end of August, returning to the standard values of 2016 [35].

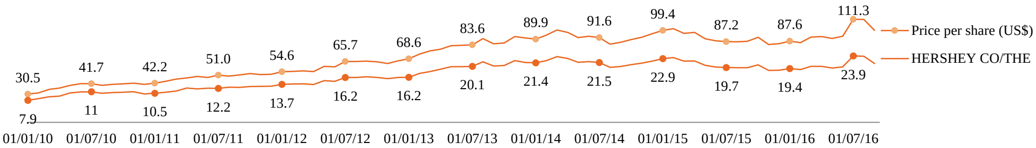

Chart 9 Hershey's share price (US$) and market capitalization (US$ billion), 2010-16 [76]

4.2. Ferrero Group

Ferrero is an Italian confectionery company that was officially founded in 1946 by Pietro Ferrero in Alba. Due to its products quality, which has started with *Pasta Gianduza*, as well the effective sales organized by Giovanni Ferrero, the firm quickly raised the triumph in Italy [29]. Following this success, in 1956 was created the first plant abroad, starting its internationalization process in Europe and then by the entire world. Nowadays, Ferrero International (holding of Ferrero Group) is headquartered in Luxembourg and has 74 subsidiaries in about 53 countries, of which 30 are headquartered in Europe – Ferrero's main market. Its product line, focused on chocolate confectionery (even with some candy products) and manufactured in 20 plants, is delivered for more than 160 countries throughout the world. Curiously, even with a historic international success, being one of the largest confectionery players worldwide, the company remains private, being totally owned by family members. Most important milestones about Ferrero are detailed in figure 3.

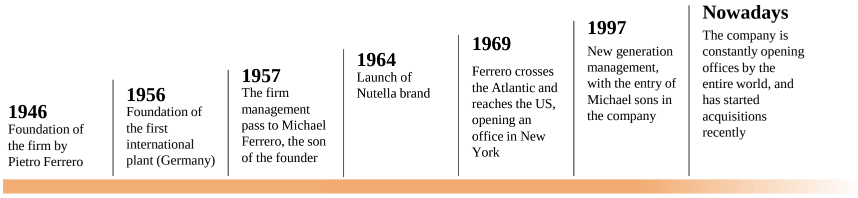

Figure 3 Ferrero's main history highlights, 1946-2016

4.2.1. Main Business Areas

Taking into consideration the product breakdown of Ferrero, it is suitable to segment the business by geography. Therefore geographic segmentation is characterized as of [32]:

(i) Europe, which comprises essentially Belgium, France, Germany, the Iberian Peninsula, Italy, Luxembourg, the Netherlands, Poland, Russia and the United Kingdom;

(ii) Americas, which mainly comprises Argentina, Brazil, Canada, Mexico and the US;

(iii) Others that are related with Australia, Asia (mainly China and India) and South Africa.

Despite the Italian company selling to several geographies, Europe is its main source of revenues, contrasting totally with Hershey's, which accounts for 76.2% of total revenues in 2014, representing less 297 basis points than the one verified in 2012 [26, 27].

4.2.2. Products and Services

Ferrero is globally known for Nutella brand, a sweetened hazelnut cocoa spread created in 1963 for everyone, selling about 365,000 tons a year [56]. However, its portfolio, which is compounded by four brands, including Nutella, has a great recognition by the entire world due to the use of hazelnuts – a common ingredient to almost all Ferrero products, and considerably distinguishes from all peers. These main brands totalize more than twenty confectionery products, being adapted to different markets/ segments, such as (i) Ferrero, which comprised chocolate bonbons, considered as the premium brand of the company and more appropriated for adults; (ii) Kinder that was conceived for children and teenagers; and (iii) Tic Tac, a refreshment brand targeted to the general population. Additionally, the group has been producing small-portioned products in order to meet the various nutritional needs of consumers.

It should be noted that Ferrero separates strategically its products by regions, selling some products only in some countries. An example is the USA, where there is no Kinder brand and none of its sub-brands, while in India only exist the *Kinder Joy* and *Ferrero Rocher*, within *Ferrero* [33]. Interestingly, there are rumours that some products suffer modifications regarding ingredients and quantities used, in order to be adjusted to consumer taste of different regions, such as Nutella in the United States in relation to Europe [72].

4.2.3. Strategy

Overall Ferrero uses differentiation in order to create a sustainable strategy in the long run. On the one hand, the group is using intensive marketing and advertising in order to promote the portfolio brands. On the other hand, according to Candy Industry Magazine, the company is focused on innovation, developing "completely original products that can create new market niches featuring exclusive ingredients, obtained using highly complex technological production processes", offering "more and more innovative products" [56].

On a different note, until 2014 the company grew essentially organically, with the establishment of commercial offices and production centers in several countries. However, Ferrero has recently started a new era of growth through acquisition activities, namely: (i) inside its current business, through the deal with Thorntons in 2015, a Britain chocolate company; and (ii) aiming vertical integration, it has acquired Oltan Gida in 2014, a producer of hazelnuts [27, 31].

Indeed, the acquisition of this important player in collecting, roasting and trading hazelnuts in Turkey led to the start of a vertical integration process. This has promoted the start of an upstream vertical integration, since hazelnuts are a very important raw material to the Ferrero's chocolate products. Moreover the company is betting in the development of energy production and its commercialization in order to satisfy the group's energy needs [28].

Nonetheless, this partial integration is still in the beginning, with the group having outsourced some activities, such as: (i) the packaging of promotional and/or specific products, which results in 25-30% of the Group's production volume; (ii) commercial/distribution activities for some specific products that account for 10-15% of the production volume; (iii) certain administrative/accounting services; and (iv) some IT services [28].

4.3. Companies' Economic and Financial Performance

Aforementioned, Ferrero, with a turnover of € 9.5 billion, has a stronger market position than Hershey's, which exhibited € 6.7 billion ($US 7.4 billion)[4]in revenue. This difference between

[4] Considering an average exchange rate of euros in relation to dollars of c. 1.11 in 2015 [76]

them increased significantly in 2015, given Ferrero's brilliant performance and Hershey's revenues decrease. Indeed, revenues behaviour over last years is being quite different between companies, besides both verified interesting improvements overall, as observed in chart 10.

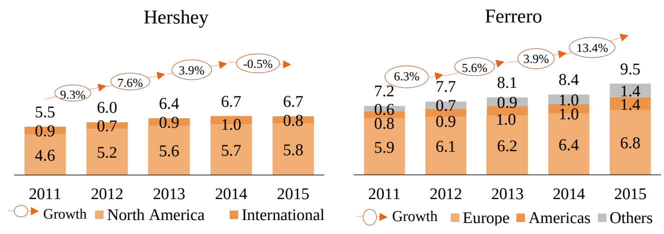

Chart 10 Hershey's and Ferrero revenues by geography (€ billion), 2011-15[5] [6]

Until 2014, Hershey's exhibited higher growth rates than Ferrero, displaying in 2015 of the first decline for a long time (-0.5%), essentially owing to the International segment (-14.1%), in terms of volume (-9.1%), price (-4.0%) and exchange rates (-6.1%), partially offset by the SGM acquisition (5.1%) and a slight growth in the US segment (2.0%) [67].

Nevertheless, the American company exhibited a general improvement in its operational revenue over last 5 years, with an average annual growth rate of 4.0%, raising US$ 7.4 billion in 2015 [67]. This growth is characterized by (i) North America segment improvement of 3.5%, regarding a strong growth in volume, and also in price and acquisitions, partial offset by exchange rates fluctuations with Canada currency; and (ii) an average growth of 7.7% in the International segment, comprised by a significant volume growth, which was partially offset by prices and currency exchange rates negative effects, as exhibited in chart 11.

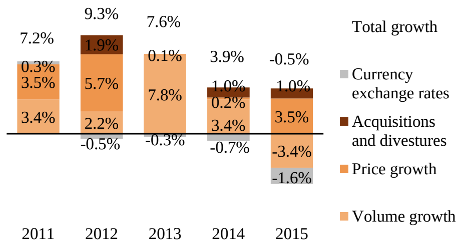

Chart 11 Hershey's type of growth (%), 2011-15 [67]

Ferrero has performed quite better, exhibiting an accumulated appreciation in revenues of about 32.2% from 2011 to 2015 (CAGR of 5.7%). The growth peak occurred in 2015, when the company recorded a growth of 13.4% versus 2014, raising € 9.5 billion [30]. Besides the negative performance in some countries, this positive trend is applicable to segments overall, namely to (i) European markets, such as Germany, the UK and Poland countries, partially offset by the stabilization in Italy and a decrease in Russia; (ii) Asia, Middle East and Australia regions; and (iii) a slight improvement in the US, Mexico and Canada countries [26, 27, 30].

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[5] Hershey's revenues at fixed EUR/USD exchange rates of 2015
[6] Ferrero's geographic segmentation values in 2015 are estimated, based on overall performance

The operating profitability exhibited the opposite trend of turnover behaviour, where Ferrero is healthier than Hershey's. Interestingly companies' size regarding EBITDA is very similar, with Ferrero displaying an EBITDA only 1.03x higher than Hershey's in 2015. Because Ferrero's operating efficiency is in line with industry average, Hershey's interesting performance may be explained by the geographic majority focus in the USA, being subjected to lower costs than those with geographically dispersed sales.

Indeed, Hershey's EBITDA is growing slightly faster than the revenue, which is due to an increase in the gross profit margin (cost of sales reported comprises costs of raw materials and supplies, as well as personnel costs). Interestingly, this difference could be more pronounced if the selling, marketing and administrative costs did not increase substantially (CAGR of 12.2% from 2011 to 2015). However, in 2015 when Hershey's decreased its revenues by 50 basis points, gross profit margin still raised 120 basis points but EBITDA margin decreased 60 basis points to 21.2%. This is essentially related with restructuring costs from last acquisitions. Even so the cash flow margin and the return on sales keep roughly at the same level.

Contrariwise is Ferrero's EBITDA, which grew at a lower constant annual rate during 2012-15 period than turnover (4.1% versus 5.6%). This performance lead to a decrease in EBITDA margin, which may be explained by the reduction in gross profit margin, and intensified by an increase in cost of services (6.3%) and personnel costs (7.0%). Even so, return on sales presented a lower decrease than EBITDA margin, which was positively impacted by D&A.

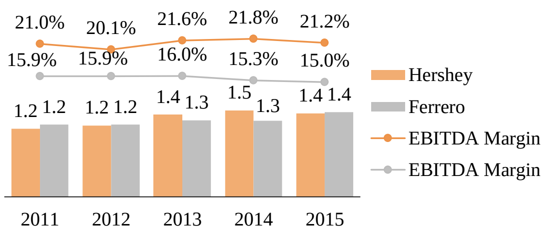

Chart 12 Hershey's and Ferrero's EBITDA (€ billion) and EBITDA margin (%), 2011-15

Because Hershey's exhibits a better operating profitability than Ferrero, it is expected a similar trend in economic and financial ratios, wherein (observe in more detail in chart 13):

(i) The exhibition of a better ROA of Hershey's (17.9% vs 11.5% in 2015), due to higher Hershey's asset turnover, evidencing that the company is using more efficiently the assets in order to generate sales than Ferrero (thus both are not capital intensive companies);

(ii) A better allocation of capital under its control leads to more profitable investments being made by Hershey's, since it presents significantly higher ROIC rates than Ferrero during the analysed years (21.0% versus 15.6% in 2015);

(iii) A better financial profitability measured by higher Hershey's return on equity than Ferrero and industry's average, even with a negative trend over last 5 years, decreasing about 23 pp to 49.0% (Ferrero decreased it about 5.2 pp from 2012 to 2015 to 23.0%).

Be aware that Hershey's exhibited a significant decrease in ratios in the year of 2015, because of the write-down of all the goodwill resulting from SGM acquisition. Thus, if this exceptional cost was excluded, all these ratios would be in line with prior years, as indicated in chart 13.

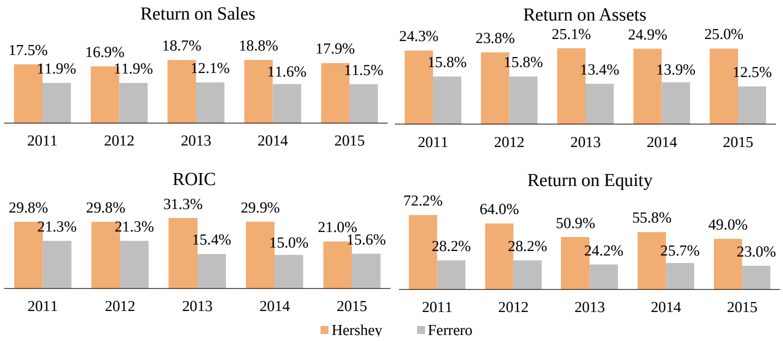

Chart 13 Hershey's and Ferrero's profitability ratios, 2011-15[7]

Interestingly, also in profits' distribution, these two companies exhibit different behaviours that may be explained by the equity distribution characterization differences. On the one hand, even Hershey's recorded lower profits in 2015, the dividend paid per share increased. Indeed, from 2011 to 2014, the company has a pay-out ratio very similar to its plow-back ratio, which oscillated between 48% and 52% during this period. Even though DPS are growing faster than EPS, which may be not sustainable forever; the sustainable rate of the American company is being really well above the growth in sales. Therefore the company is able to grow even at a faster pace, but should adjust its pay-out ratio accordingly.

On the other hand, from 2012 to 2014, despite the sales improvement, Ferrero has reduced its pay-out ratio, with EPS growing faster than DPS. This trend may be related with the capacity to have more internally generated funds to finance recent acquisitions, as a safety action.

Besides a better operating performance, Hershey's is financing its business with more debt than Ferrero, presenting a lower solvency ratio. Indeed, while Hershey's capital structure was 20% in 2015 – significantly bellow the safety recommended ratio of 50% for American firms –, the Ferrero was about 35.1% (2014), which is in line with the suggested ratio of 40% for European firms. Interestedly, this difference has been intensified over analysed years by (i) Hershey's levered structure increase, given assets growth being higher than equity growth; and (ii) Ferrero's levered structure decrease, given equity growth rate being higher than assets.

[7] Ferrero's ratios in 2015 are estimated and Hershey's ratios are normalized, excluding exceptional items

It should be noted that Hershey's has a capital structure in market values of more than 85% in 2015, which contrasts considerably with 20% in accounting values. This is a common situation in the industry, which may be explained by the high value of confectionery players' brands that generate high operating profits, but are not fairly evaluated in accounting terms. This can be verified with a ratio between net debt and EBITDA lower than 2.0x for both firms.

Additionally, it is important to highlight assets and liabilities composition:

(i) Hershey's and Ferrero have its total assets mainly comprised by fixed assets (41.9% and 49.9% in 2015, respectively), inventories (14.1% and 23.0%), and accounts receivable (11.2% and 14.4%); however, Hershey's has an additional item of goodwill, given M&A history, which represented about 12.8% of total assets in 2015;

(ii) In terms of liabilities, the biggest weight belongs to short and long term debt, but with significant differences amid them, considering that (a) most of the Ferrero's debt is characterized by interest bearing convertible subordinated debt and subordinated debt owed to shareholders, reducing significantly the financial risk exposure in real terms; while (b) Hershey's debt is characterized by corporate bonds issued with some regularity.

Moreover, both players presented lower liquidity than the recommended for respective geographic regions, measured across the current and quick ratios (ratio between current assets, without inventories in quick standpoint, and liabilities). Hershey's low liquidity (both ratios are bellow the recommended for the USA) is a recent situation and expected to be exceptional, given recent cash reduction in order to face capital expenditures related with (i) the support of capacity expansion, innovation and cost savings; (ii) business acquisitions; (iii) the repurchase of common stock to offset the dilutive impact of treasury shares issued under equity compensation plans; and (iv) the payment of dividends. Moreover, Ferrero's ratios have been quite stable, with ratios slightly below the recommended for Europe.

Besides this apparently negative behaviour regarding liquidity, the coverage capacity of both firms - measured by debt service and interest coverage ratios – is exhibiting an impeccable behaviour. Firstly, until 2014 both companies exhibited ratios above 12.5, having a synthetic AAA rating, based on Damodaran rating classification [14]. However, in 2015, Hershey's has decreased its Times Interest Earned leading to a synthetic A+ rating, due to the impairment of the business in India. Nevertheless, Moody's and Standard & Poor's rate the American firm with A1 and A, respectively. Reasons behind this apparently undervaluation is "the company's limited scale and diversification relative to global competitors", considering that "86% of the company's sales are generated in the United States" (Moody's website, 2015) [49]. Be noted that Ferrero's debt is not rated.

5. The Merger

5.1. Merger Fundamentals Overview

Hershey's and Ferrero are proposed to merge based on several robust fundamentals that rely on a successful deal between them. Reasons behind this proposal were determined considering industry overview and companies' operating and financial profile, leading to (i) growth motivations; (ii) operating and financial synergies; and (iii) other considerations, namely innovative products, expectations about exchange rates and contribution to the society.

Considering growth motivations, a deal between the American and the Italian players would allow companies to grow quite faster, becoming the second largest player of the confectionery industry, really close to Mars, enjoying greater market opportunities easily. This rationale is based on the following set of considerations:

(i) Companies' market focus is mature, namely in America and Europe, which have been exhibiting stable growth rates, only potentiated by the progress of exiting strong brands;

(ii) Companies are relatively stagnant in terms of organic growth, namely (a) Hershey's is a mature company as a result of about 80% of its revenues are coming from the United States; (b) Ferrero is presenting sales growth above industry average in new markets, but is relatively stagnant in Europe, which represents more than 70% of its revenues;

(iii) Companies' strategy, wherein (a) Hershey's is acquiring small companies in order to diversify, both portfolio and geographic dispersion; and (b) Ferrero has also recently started acquisitions to integrate vertically upstream and to diversify geographically;

(iv) Some dispersion of the global confectionery market, which is headed by Mars (10.0%), Mondelēz (9.1%), Nestlé (6.0%), Ferrero (5.8%), Meiji (4.6%) and Hershey's (4.0%).

Secondly, considering companies' performance, it is expected the existence of operating and financial synergies. On the one hand, operating synergies emerge from the combination of different functional strengths and a great pricing power, resulting in (i) revenues improvement, considering geographic exposure; (ii) cost of sales savings; (iii) OPEX reduction; and (iv) lower investments needs in working capital.

Indeed there are expected gains in sales based on exogenous and endogenous factors, namely:

(i) Hershey's and Ferrero interest in Europe and in the US, respectively, given (a) the current geographic exposure of both; (b) that mature markets are greater and more profitable, though emergent regions exhibit higher growth rates; and (c) depreciation of euro in relation to USD, being likely that European players operate outside of Europe [62];

(ii) Current confectionery drivers, such as (a) availability and product placement; (b) important requisites in order to be an attractive supplier for food retailers, such as local connections, well-known brands and continuous attractive products; and (c) consumer taste standards vary amongst geographic region;

(iii) It makes perfect sense that Hershey's and Ferrero's brands are kept untouched, given their notoriety in the market. However, it is expected to adapt the current portfolio to each specific market, and eventually create more products with a new combined brand.

Therefore, it is expected revenue synergies in regions where at least one party has a strong position, namely Hershey in the US and Ferrero in Europe, taking advantage of (a) the great network in those markets, which are determinants to put the products of the other party on points of sale – geographic diversification; and (b) specific know-how, capable to adapt the portfolio of the other party to each region specific trends – product diversification. Besides, with this merger, the combined company will have a greater bargaining power amongst retail customers, increasing expected prices and, consequently, improving revenues.

Furthermore, it is not expected the existence of market cannibalization because (a) portfolio scope is distinctive and simultaneously complementary between both companies, since they serve different market niches; and (b) it is expected a market share gain from multinational competitors, considering that markets are slightly dispersed, with local brands having some importance, and further well-known brands and innovation are some of the market drivers.

On a side note, this transaction has a lower probability associated with the appearance of remedies. Generally, M&A deals are needed to be approved by legal entities from countries where parties involved operate simultaneously, because when such deal leads to a quite significant market share in that region, one of the parties is obligated to sell assets in order to decrease its representativeness and avoid monopoly in the market. Considering that Hershey's and Ferrero do not have a considerable combined market share in any market, it is quite reasonable to assume that it won't be necessary to sell any asset.

On a different note, it may appear costs of sales synergies through Hershey's and Ferrero merger, considering that (i) the combined company will be a more powerful company, with greater pricing power, as a result of the greater bargaining power vis a vis suppliers, such as cocoa producers - the main operational cost -, possibly reducing related costs; and (ii) operating efficiency differences between both companies, with Hershey's being more efficient, having capacity to transfer its know-how to Ferrero and optimize its production process.

Moreover, there are possible synergies related with OPEX based on endogenous factors, namely: (i) possible centralization of administrative costs within those locations where both companies are, namely in the United States, Canada, Mexico, Brazil and China; and (ii) with the possibility to create new products based on a new brand, in complementarity with the current ones, it is likely more costs in the start, being then optimized.

Interestingly, possibly there would be no CAPEX synergies, because of:

(i) Both companies are operating at their full capacity, being necessary more investments in order to increase sales and, consequently, improve revenues;

(ii) And there are a little overlap of plants, thereby instead of plants reduction, it is expected a complementary strategy, with (a) American plants of both companies being responsible for American distribution; and (b) European Ferrero plants being responsible for Ferrero and Hershey's products distribution in Europe.

Besides operating synergies, also financial synergies are arguments in favour of the current merger, such as (i) lower cost of capital as a result of a lower risk profile; (ii) and tax advantages, considering companies' headquarters and fiscal differences amongst them, with the chance to overcome some taxes. Thus it would be expected that Hershey's transfers its headquarters from the US – federal tax rate of 35% and statutory flat tax in Pennsylvania of c. 6% - to Luxembourg – tax rate of 29.22% -, where Ferrero has its holding. However, considering recent transactions involving American companies, the US government has disallowed these headquarters relocations to other countries (e.g. the acquisition of Pfizer by Alergan in April 2016 [2]).

In contrast, a possible deal would create more resources and knowledge to invest in R&D in order to keep innovating and respond properly to market novelty needs, since (i) consumer loyalty is guided by product development, quality, awareness, communication and visibility; and (ii) the incessant launch of new flavours and products will be vital to gain market share.

From a global point of view, this proposed merger has other advantages for the various concerned parties – the stockholders –, improving different aspects of society, such as those related with (i) employees, through potential multiculturalism; (ii) suppliers and lenders, given more stable cash flows and a more robust capital structure, generating more certainty about future payments; (iii) final consumers, given the introduction of more and different products and the possibility of lower prices; (iv) government/country, expressed by higher taxes due to more expected profits, as well as more investment in the region; and (iv) environmental, keeping and even improving current environmental contribution.

5.2. Merger Valuation

After considering reasons behind a possible arrangement between Hershey's and Ferrero, it is important to understand if proposed transaction makes sense in financial terms. Indeed, this deal possibly would only occur if current shareholders perceive possible economic gains related with it. Therefore in order to validate this issue, the following steps were followed: (i) valuation of stand-alone companies, based on market and income approaches; (ii) estimation of possible operating and financial synergies, and costs related with the transaction, amongst other more detailed ahead; (iii) valuation of combined company based on previous steps; and (iv) estimation of overall value-creation and the economic gains for Hershey's and Ferrero's shareholders, considering several assumptions related with the transaction.

Furthermore, it is important to consider that the transaction is assumed to occur in December 31, 2015; thereby both stand-alone and combined company valuations are valued at this date.

5.2.1. Stand-alone Companies

Stand-alone valuation perimeter comprises the holding companies of Hershey's and Ferrero. In order to determine their final value, two methodologies were followed, both market and income approaches. In relation to the former, it was estimated (i) market ratios multiples; and (ii) firm value/ enterprise value multiples for both comparable companies and transactions. Concerning income approach, it is used (i) the Present Value (WACC); (ii) the APV; (iii) the FTE; and also (iv) the Economic Profit - a variation from Present Value approach.

Be noted that because developed analysis suggests that there are no public companies truly comparable with Hershey's and Ferrero, it is given greater weight to the income approach. Although, market approach is the determinant input in some income considerations, such as (i) the estimation of market capital structure of Ferrero; and (ii) the estimation of industry beta based on Hershey's and Ferrero's peers. The developed analysis is detailed on appendix D.

The methodological basis of evaluative income approach obeyed the following principles: (i) it assumes the continuity of current operations; (ii) it considers historical financial statement analysis for individual companies, market estimates and forecasts, components provided by both companies; as well as financial and economic assumptions obtained from reliable sources, such as IMF; (iii) it regards an explicit forecast period for 10 years (from 2016 until 2025), following Koller et al (2010) advise; (iv) in short, medium and long term each financial-statement line item was predicted; and given the necessity of detail in a merger valuation, the advice to focus only on the company's key value drivers in medium and long term was not followed; (v) in perpetuity, which starts in 2026, the continuing value was estimated based on the Gordon model; and finally (vi) Hershey's and Ferrero equity valuation reflects a set of adjustments to EV, such as non-operating assets, net debt, debt equivalents and hybrid claims.

5.2.1.1. Estimating the Cost of Capital

The cost of capital used depends on the valuation approach followed, wherein: (i) the Present Value uses the WACC; (ii) the FTE employees the levered cost of equity; and (iii) in APV model is applied the unlevered cost of equity. Generally, there are three important inputs, namely capital structure, cost of debt and cost of equity. Additionally, it is considered interest tax shields in order to approximate APV model to the remaining approaches.

5.2.1.1.1. Capital Structure

Despite liabilities being the main sources of fund for both companies at book value, this scenario changes considerably regarding market values. Considering that, on the one hand, Hershey's equity is listed and its debt is publicly traded, and, on the other hand, Ferrero is completely private, the capital structure appraisal method changes between them.

<u>Hershey's</u>

Hershey's capital structure is determined by:

(i) Current market capitalization, based on number of shares outstanding and current share price, which is valued at c. US$ 20.5 billion at 23/09/16 (US$ 19.6 billion at 31/12/15);

(ii) Market capitalization is expected to grow with (a) the share price that grows 1,5% annually in forecasted period; and (b) the number of shares outstanding, which is the differential between shares issued and shares treasury;

(iii) Considering that all debt instruments are truly liquid, the current market debt is based on the most recent price, weighted by the amount issued of each bond instrument;

(iv) Debt estimation reflects the book value, due to its historical similarity with market values.

Be noted that debt estimations are not truly relevant to the cost of capital estimation, regarding the low weight of market debt on enterprise value. Nevertheless, leverage structure is expected to remain in a range between 12.5 and 13.0%.

<u>Ferrero</u>

Regarding Ferrero's capital structure, its estimation is based on a more conservative approach, since neither equity, neither debt are publicity traded. Consequently, it is adopted the following process (i) in order to determine expected market capitalization, it is applied the comparable multiple equity/net income_{2016} to the equity of 2016 estimated in appendix Dii, and in the remaining years it was assumed for convenience that equity will grow 2.5% per year; (ii) current and estimated debt are valued at book values, given industry similarity between market and book values; (iii) EV is then estimated through the sum between estimated equity and debt at book values. Hence, capital market structure of Ferrero is very similar to Hershey's, with a market leverage between 13.6% and 14.4%, being 14.4% in long term.

5.2.1.1.2. Cost of Equity

Regarding companies features, namely risk exposure, it was chosen international CAPM in order to estimate cost of equity of both companies. Therefore, it is critical to estimate (i) risk-free rate; (ii) country risk premium; (iii) market risk premium; and (iv) beta levered.

Considering that Hershey's and Ferrero have large market caps (higher than US$ 9 billion), according to Effect on Liquidity on Size Premium [71], the size premium would be around minus 0.16%. Therefore, this variable is not considered, since this adjustment is usually used only in really low firms, in order to increase its risk on a conservative approach.

Risk-free rate

Concerning the risk-free rate used in CAPM, it is important to analyse a set of features related with it, such as risk-free issuers, time structure of interest rates and reference currency, wherein:

(i) While (a) Hershey's considers USD nominal risk-free rates; (b) Ferrero's valuation considers euro nominal risk-free rates, regarding the currency of estimated cash flows;

(ii) While (a) in the US, an entity truly or tendentiously risk-free is the American government debt issuer; (b) in the Eurozone this title is applied to the German government debt issuer;

(iii) Be noted that nominal risk-free rates are considered as the 10-year government yields, although excluding a possible default risk premium that is contemplated in these yields, where (a) German default risk premium is measured by the last price of CDS associated with these instruments [76]; while (b) the US economy does not have default risk associated, thereby its government bonds are truly risk-free;

(iv) Indeed, both U.S. dollar and euro risk-free rates are based on 10-year emissions, because of (a) cash flows projections period (10-year period, from 2016 to 2025); and (b) these instruments are considered as the most liquid instruments.

Therefore, U.S. dollar and euro risk-free rates are estimated on the following steps:

(i) Nominal risk-free rates are based on real risk-free rates and estimated 10-year inflation;

(ii) Real risk-free rates forecasting comprises (a) in the USA, a convergence towards 2022 to the 10-year historical average real risk-free rates over 2005-2016_{YTD} period (c. 0.605%); (b) in Eurozone, a convergence towards 2022 to the average of the Accommodative Monetary Policy established over the 2009-2011 period (c. 0.283%), becoming constant thereafter; wherein (c) historical real risk-free rates are determined by the historical nominal 10-year risk-free rates and expected 10-year inflation based on inflation swaps between 1 and 10 years (estimated through YYIIS in dollars and euros, respectively) [76]. Therefore, considering differences amongst real risk-free rates and inflation, as observed in appendix F and chart 14, it is expected higher USD rates over forward-looking period.

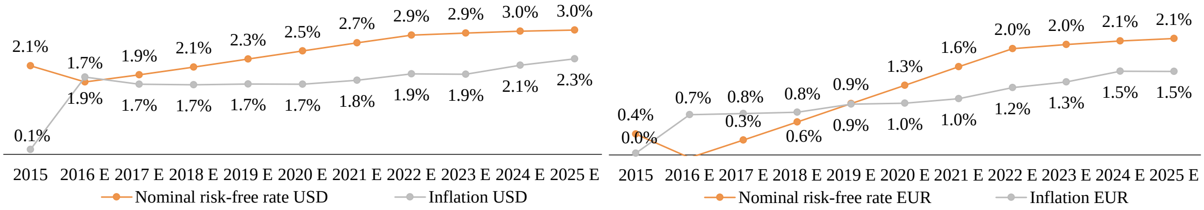

Chart 14 USD and EUR nominal risk-free and inflation rates, 2015-2025E

On a different note, these estimations, besides being required for the cost of equity, are also the basis to predict exchange rates. Indeed, considering that both firms are valuated in different currencies and Ferrero's has a greater EBITDA in euros in 2015, it is selected as the strong currency the euro, resulting in the conversion of Hershey's items to the strong currency. The estimation of exchange rates are based on (i) the interest-rate parity theory in short-medium term; and (ii) in the purchasing power parity in long-term (from 2021 to 2025).

Thus considering previously estimations, it is expected a slight appreciation of the EUR against the USD due to an expected higher inflation and risk-free rates in the US than in the Eurozone.

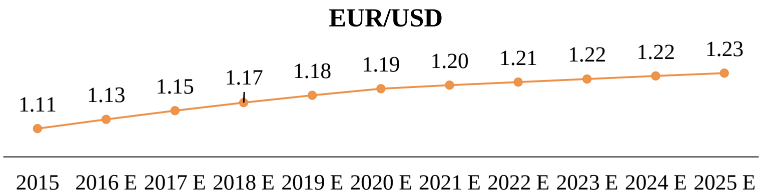

Chart 15 Exchange rate evolution of euros in relation to USD, 2015-2025E

<u>Country Risk Premium</u>

Taking into account the confectionery market trends and, consequently, the increasing exposure to risky countries by Hershey's and Ferrero, it is important to incorporate a country risk premium. The CRP measurement is based on geographic revenue exposure, by assuming that country risk exposure tends to be the result of where cash flow comes from.

Its estimation is applied similarly to Hershey's and Ferrero. However, when countries are considered instead of global regions, Ferrero has a significant geographic dispersion; while Hershey's is focused in the US and therefore exposed to some risk. The CRP, i.e. the probability of default of a country, is estimated according with (i) the differential between sovereign debt and required rate of return of high credit rating (AAA) sovereign debt in the same currency (excluding a possible default risk associated with this country); (ii) or regarding outlying countries with illiquid sovereign debt instruments, it is used corporate bonds of companies in that country with high credit rating; and (iii) also premiums for CDS of each economy. While in most Eurozone countries is applied the first method, in countries without instruments denominated in USD or EUR it is applied the third approach.

Therefore, taking into account these estimations, while Hershey's exhibits a derisive CRP of 20.6 basis points, Ferrero has a CRP of 104.2 basis points, based on the currently exposure to various countries. Be noted that both are assumed to be constant over the forward-period. In appendix G, there is more detailed information on that subject.

Market Risk Premium

Considering that the European and the American markets are the most proxy of a global market benchmark, the MSCI ACWI and the S&P500 diversified indexes were selected. MRP estimation is then based on three different analyses:

(i) The implicit market risk premium regards data collected from Bloomberg, based on the arithmetic mean of daily values observed over last 6 years (between 22/08/10-22/08/16);

(ii) Historical MRP is based on (a) the simple mean of both Dimson, Marsh and Staunton ("DMS") and Damodaran data; (b) wherein the former estimates the risk premium based on annualized differential between portfolio stock return and treasury bills or bonds for a period of 111 years (1900-2011) [15] and 116 years [43];

(iii) Professional surveys, which are based on Pablo Fernandez researches [20-25] held annually from 2011 to 2016, questioning professionals from the academic and professional world about the MRP they use to apply in order to estimate the cost of equity.

Regarding these approaches and, as observed in chart 16, the MRP regards an interval between 5.0% and 10.7%. As the implicit MRP is considerably above the remaining values, and considering that Koller et al (2010) refers an MRP between 4.5% and 5.5%, this approach was not considered into final result. Therefore, the MRP is within the range 5.0%-5.9% and regarding current market conditions and a conservative approach, it is reasonable to present a value near its average.

Concluding, the average between historical MRP and professional surveys is robust enough. In this context, considering presented fundamentals, it was considered a MRP of 5.5%.

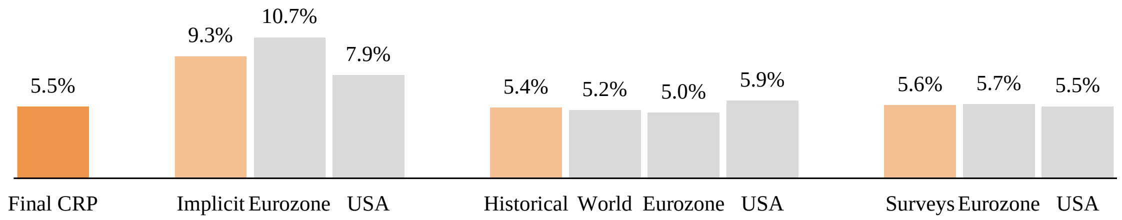

Chart 16 Market Risk Premium Approaches

Beta estimation

Because the beta appraisal process is imprecise, it is critical to ponder a set of issues, namely:

(i) Reference market: MSCI ACWI, in U.S. dollars and in euros, and S&P500 diversified indexes are the selected, regarding that it is critical to consider diversified assets portfolios that represents quite well global, European or American markets;

(ii) Frequency and time horizon measurement: it was considered weekly and monthly data, based on 104 (end at 10/09/2016) and 60 observations (end at 31/08/2016), respectively;

(iii) Comparative individual betas versus betas of an industry portfolio.

Therefore, based on Hershey's and Ferrero peers (discriminated in appendix D), beta estimation process regards the following set of steps:

(i) While (a) weekly and monthly levered individual betas are estimated against each market reference, being selected the market with greater R-squared; (b) weekly and monthly portfolio betas are only estimated against MSCI ACWI, in U.S. dollars, considering that peers are from different geographical regions;

(ii) The Blume adjustment factor is then applied to individual and portfolio levered betas, leading to 0.85 (weighted average) and 0.78, respectively;

(iii) Be noted that (a) weekly beta is the selected for the next step, since it exhibits a considerably higher explanatory power than monthly data (higher correlation and R-squared); and (b) even that weighted average individual betas present a lower R-squared than the portfolio (0.34 versus 0.45), both are analysed and used.

Considering that the beta systematic risk reflects not only business risk, but also financial risk, it is important to deleverage beta regarding capital structure effects, in which:

(i) Beta of debt is assumed to be zero, due to the inconclusive regression estimated based on the most liquid instruments of investment-grade peers against market references (see appendix H for more detail);

(ii) Considering the null beta of debt and assuming a risk of tax shields similar to operating assets risk, (a) unlevered beta based on the weighted average is 0.79 (simple mean of 0.73); and (b) portfolio unlevered beta is near from 0.72.

Levered betas of Hershey's and Ferrero are finally estimated based on the industry unlevered beta of 0.75 (middle point between individual and portfolio betas); (ii) the previously estimated capital structure; (iii) beta of debt null, considering no risk associated; and (iv) tax shields with the same risk as operating assets, leading to:

(i) Hershey's levered beta between 0.86 and 0.87 from 2016 to 2025;

(ii) An increasing Ferrero's levered beta, ranging from 0.87 to 0.88, over the same period.

<u>Cost of Equity Conclusions</u>

Regarding levered cost of equity of both Hershey's and Ferrero, which are estimated in the light of CAPM model and based on previously presented fundamentals, it is expected the behaviour exhibited in chart 17-18 (both estimations prefiguration are displayed in appendix I and J):

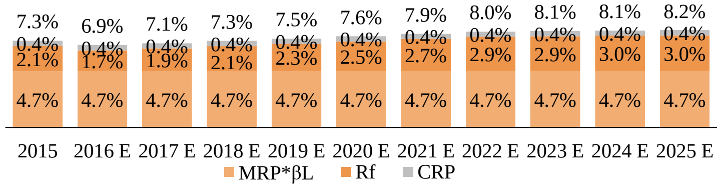

Chart 17 Hershey's Cost of Equity Distribution and Aggregated (%), 2015-2025E

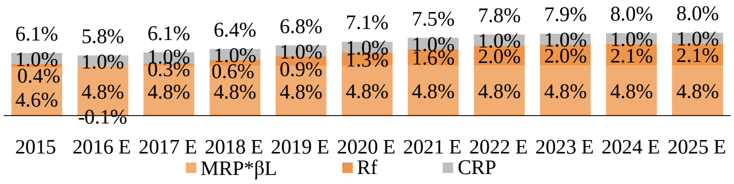

Chart 18 Ferrero's Cost of Equity Distribution and Aggregated (%), 2015-2025E

Be noted that cost of equity has two different purposes in the present valuation, namely (i) as an input for WACC, being weighted by the importance of capital structure; (ii) as an input to the unleveraged cost of equity used in APV approach; and (iii) in order to discount free cash flows to equity in FTE method.

Indeed, aiming the unlevered cost of equity estimation, it is used the formula in which tax shields exhibit a similar risk with operating assets and debt risk is constant (be noted that it could be estimated through the CAPM method, which is not followed), leading to an overall increase over forecasted period for both companies as exhibited in the following chart:

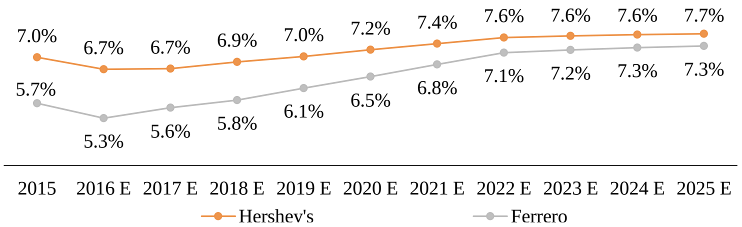

Chart 19 Hershey's and Ferrero's Unlevered Cost of Equity (%), 2015-2025E

5.2.1.1.3. Cost of Debt

The cost of debt determination differs substantially amongst Hershey's and Ferrero, taking into consideration that (i) their debt is denominated in different currencies, namely in U.S. dollars and in euros, respectively; and (ii) while Hershey's issues corporate bonds; Ferrero has its debt distributed into banks, financial loans and debt owed to shareholders.

The cost of debt of Ferrero and Hershey's is weighted by three features, namely (i) the cost of debt associated with existing debt (cost of previous year); (ii) the evolution of the U.S. dollar and euro risk-free rates pattern; and (iii) the evolution of debt spread, in order to be added to the risk-free rate, leading to the cost of debt associated with new debt.

Be noted that the cost of debt has two different purposes, such as (i) input to WACC estimation; and (ii) the base to calculate financial expenses in income statements.

<u>Hershey's Cost of Debt</u>

At this point, considering that (i) the cost of existing debt felt on about 5.0% in 2015; and (ii) Hershey's valuation considers U.S. dollar risk-free rates, which were previously determined, it remains the debt spread estimation, which is determined by the following set of steps:

(i) In 2016 is assumed the spread of the most recent instrument issued (HSY 2.3 08/15/2026) with a maturity of 10 years , which verifies a spread of 80 basis points;

(ii) However, this spread seems to be undervalued considering the difference between credit rating of Hershey's (which is A by S&P) and the synthetic rating of Damodaran (spread of 1.80%), which may be explained by the recent interest of Mondelēz in the company;

(iii) Consequently, for the period after 2016, it is considered the instrument issued in 2015 (HSY 3.375 08/15/2046) with a 10-year maturity and a spread of 105 bp, assuming the convergence towards 2021 to this spread, becoming constant thereafter.

Thus, after weighing existing debt and new debt with respective expected costs, it is estimated a cost of debt stabilizing in 423 basis points in the long-term, as may be observed in chart 20.

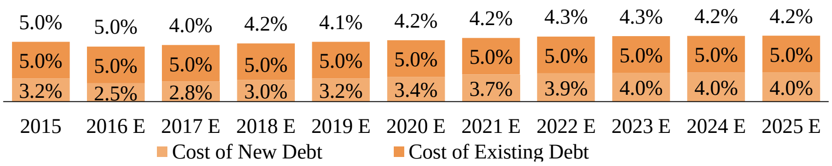

Chart 20 Hershey's Cost of Debt (%), 2015-2025E

<u>Ferrero's Cost of Debt</u>

Ferrero's cost of debt expects an increasing behaviour as observed in chart x, wherein (i) the cost of existing debt felt on about 3.7% in 2014; (ii) Ferrero valuation considers euro risk-free rates, which were previously determined; and (iii) on a conservative approach, Ferrero debt spread is based on a synthetic credit rating of AA, which corresponds to a constant synthetic spread of 100 points (even its interest coverage ratio fell to 8.5 in 2014, which corresponds to the credit rating AAA, it is selected the credit rating AA given the overall industry rating).

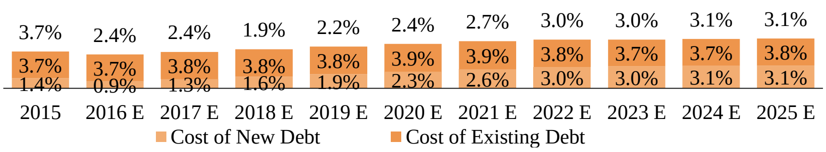

Chart 21 Ferrero's Cost of Debt (%), 2015-2025E

5.2.1.1.4. Conclusions about Cost of Capital

Based on companies' features, it was considered WACC in order to discount FCFF. Considering current and provisional market capital structure of Hershey's and Ferrero, the cost of equity is more determinant than the cost of debt in WACC estimation. It should be noted that the WACC was adjusted by tax shields, which has a really slight impact in the final WACC value (about 0.0005% in the WACC of both Hershey's and Ferrero).

Consequently, it is expected a behaviour and rates value that are near to the cost of equity for both companies, as presented in the following chart:

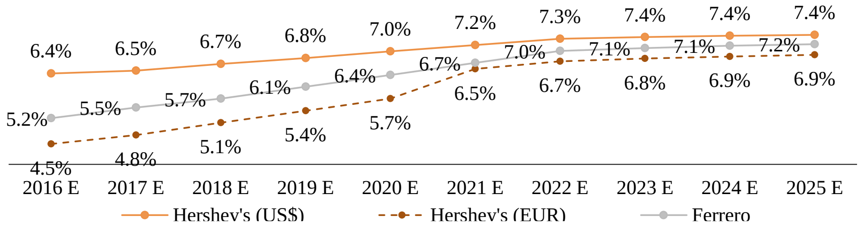

Chart 22 Hershey's and Ferrero WACC, 2015-25E

5.2.1.2. Business Performance Forecasting

Hershey's and Ferrero business forecasting regards two essential assumptions, namely (i) the business continuity for all the current group's subsidiaries; and (ii) the extension of current strategic placement and operating model.

Business performance forecasting comprises the following issues: (i) revenues performance; (ii) operating costs and other operating income; (iii) income statement accomplishment; (iv) invested capital performance; (v) balance sheet feat; and (vi) Cash flow and ROIC analysis.

Revenue' forecasting followed different approaches regarding Hershey's and Ferrero own issues (more detailed information is provided in the corresponding section of this report):

(i) Hershey's revenues estimation essentially regards (a) volume forecasting in each geographic segment, based on expected performance of confectionery market volume, as well as expected market share in volume terms in those regions; (b) price forecasting, based on inflation predicted on each geographical segment; (c) acquisitions; and (d) currency exchange rates;

(ii) Ferrero's revenues forecasting takes into account (a) the expected performance of confectionery market value in each region; and (b) the expected market share in value terms of each company in the correspondent region.

On a side note, (i) while operating costs are estimated based on revenues forecasting, considering historical ratios of these costs as a percentage of sales; (ii) other operating costs/income are based on own growth, only applied in Ferrero's valuation. More detailed information is provided in the corresponding section of this report.

After having forecasted revenues and operating costs, the estimation of the other items in income statements is relatively straightforward (in order to observe complete income statements, please see appendixes M-R, wherein:

(i) Because there is no available information about equipment purchases and depreciation schedules, it is not practicable to build formal depreciations tables, therefore (a) depreciations are predicted based on future net property, plant and equipment (PP&E), considering the ratio between depreciation of last available year in relation to prior year PP&E; and (b) amortizations are the reflection of amortized intangible assets;

(ii) Interest expenses are estimated through (a) the cost of debt in last year applied to the existing debt (using interest expense of last year divided by debt of prior year); and (b) the current cost of debt – detailed in cost of capital section – applied to the new debt;

(iii) Interest income forecasting considers interest income rate of last year, as a percentage of the sum between cash and cash equivalents and short-term investments of prior year;

(iv) Provisions for income taxes is estimated in appendix N and Q, wherein (a) Hershey's marginal and operating tax rates are 39.2% and 35.6%, respectively; and (b) Ferrero's marginal and operating tax rates are 27.4% and 29.7%, respectively;

(v) Minority interests shares are based on last year ratio between it and the net income;

(vi) Dividends are calculated based on the dividend pay-out ratio of each company on a conservative approach considering historical trends, assuming that it will converge to 70% and 85% in Hershey's and Ferrero's forecasting, respectively, towards 2025.

Still about operating performance estimation, invested capital considers:

(i) Working capital forecasting is based on revenues, with the exception of inventories and accounts payable items, which consider cost of sales;

(ii) Fixed assets that comprises (a) PP&E and intangible assets, estimated as a percentage of sales, because both companies are operating at full capacity; and (b) goodwill will be constant, concerning the maintenance of the current companies' structure and strategy;

(iii) Each operating balance sheet item is then estimated based on the convergence to the historical average ratios (in relation to revenues or its cost) towards 2025.

On a side note, balance sheet forecasting is detailed in appendix K.

5.2.1.2.1. Hershey's Business Forecasting

<u>Hershey's Revenues</u>

Hershey's business performance is structured by geographic segment, wherein:

(i) North America is the core segment and the one with more solid fundamentals, being divided between (a) the United States; and (b) Canada;

(ii) International segment is essentially related with Hershey's presence in emerging markets, namely Brazil, China, India and Mexico; it also includes Europe, Middle East and Africa, which are not considered in current analysis due to their insignificance in total turnover.

Essentially, the business growth estimation comprises three distinct phases: (i) in the short term, a negative impact caused by unfavourable currency exchange rates, due to an appreciation of U.S. dollar in relation to other currencies; (ii) a fast recovery in the medium term based on volume and price improvement, mainly in emergent markets; and (iii) the stability of revenues in the medium-long term, due to the long-standing presence in the industry.

In order to obtain Hershey's offer, it is considered a set of variants that has been influencing the revenues growth in each segment, namely volume, price, acquisitions/divestures and exchange rates variations. Moreover, it is important to clarify that Hershey's is followed by two business analysts, from Credit Suisse and Goldman Sachs. Consequently their opinions and analysis are well thought-out.

First of all, in the US segment is expected some stability in terms of market shares and industry growth, due to its maturity. Moreover, this country expects an increase in the premium segment, where the American company is not included. Besides, the company has a lot of experience and importance in the region. Therefore, its business forecasting follows the following issues:

(i) After observing and analysing historical market shares, which are based on Hershey's revenues and current market value, it is assumed (a) the convergence towards 2021 of the market share that occurred in 2014 (i.e. 17.7%); and then (b) an improvement of 1 basis point per year until 2025, raising 17.8%;

(ii) Each item in the short-run (2016) is estimated based on a growth equally weighted by both the growth rate occurred in the first six months of 2016 (c. minus 0.2% according to the first half accounts) and the growth rate estimated by Credit Suisse (0.5%);

(iii) In medium and long-term, it was assumed (a) a volume growth that comprehends market share evolution and the US market growth at constant prices (i.e. 1.6% in long term); (b) a price growth similar to the expected inflation in the US, wherein after 2021, for convenience, it is assumed the average price growth rate occurred between 2016 and 2021 (c. 1.7% in long term); and (c) there is no growth related with exchange rates and acquisition/divestures, with the exception of 2017, where is assumed the growth rate provided by Credit Suisse analysis in acquisitions/divestures item (c. 0.2%).

Therefore, after a gradual decline in the US growth rate, it is expected a volume growth higher than price growth, due to the recovery of market shares, with prices being in line with expected inflation, and a reduction in the US segment weight in the American group's revenues (from 82.8% in 2015 to 78.13% in 2025), due to a greater expected bet in emerging markets.

The Canada segment is exhibiting lower historical importance in Hershey's revenues, which is expected to continue, thereby:

(i) For convenience, after observing previous market shares based on Hershey's revenues and current market value, it is assumed (a) for 2021 a reduction of 50 basis points in market share of 2015 to 9.8%; and (b) a soft recovery of 1 basis points in the next years;

(ii) In the short term (2016), the forecast is supported by (a) a volume growth rate equally weighted between market share growth and Credit Suisse analysis (c. 0.0%); (b) a price growth rate equally weighted between the US price growth, due to its similarity with Canada market, and Credit Suisse analysis (c. 3.6%); (c) and both acquisitions/divestures and currency exchange growth are based on Credit Suisse (-0.2% and 6.8%, respectively);

(iii) In the medium-long term, it was assumed (a) a volume growth based on market share growth (c. 1.9% after 2021); (b) a price growth based on expected inflation (c. 1.7% after 2021); and (c) no growth in the other two variables, except for 2017, which was considered Credit Suisse estimations for acquisitions/divestures (i.e. 0.2%).

To close, the International segment, after verifying an incredible performance, expects the continuation of this trend, however with a growth in volume higher than in price, due to the need to expand in emergent markets, even with more competitive prices, wherein:

(i) In the short term (2016 and 2017), the assumptions used are (a) a volume growth equally weighted by the expected industry growth in Brazil, China, India and Mexico (at constant prices), which is weighted by the importance of each country weight in the segment, and the Credit Suisse estimations (c. 2.1%); (b) a price growth rate based on the projected inflation for each country, which is weighted by each country weight on the segment, and the Credit Suisse estimations (c. 3.7%); and (c) an acquisitions/divestures and currency exchange growth rates based on the Credit Suisse analysis (c. minus 0.2% and minus 7.1%, respectively);

(ii) In the medium-long run it is expected (a) a volume growth equally weighted by industry growth in Brazil, China, India and Mexico at constant prices, weighted by the weight of each country weight in the segment in 2015 (about 4.2% after 2021); (b) a price growth based on inflation for each country (about 3.4% after 2021); and (c) no growth rates in the two other variables.

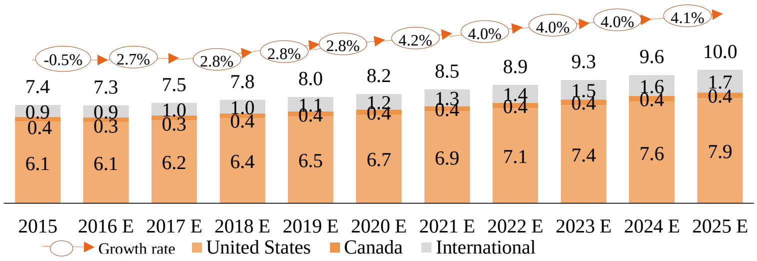

Chart 23 Hershey's forecasting revenues (US$ billion), 2015-2025E

As observed in chart 23, on a side note, in general terms is expected (i) a recovery in the domestic market and its growth rate consistency in medium-long term, being expected that it continues to represent the main source of profits to the American company (78.6% in 2025); (ii) a slight decrease in Canada importance; and (iii) a dynamism in the international segment, with growth higher than in the others, with an increasing significance in Hershey’s turnover.

<u>Hershey’s operating costs</u>

Concerning Hershey’s operating costs, the following set of issues should be highlighted:

(i) Gross margin is expected to exhibit a contrasting behaviour over the forecasted period, that is: (a) a general decline in short-medium term, as a consequence of global business competitiveness improvement, regarding that international segment has operating profit margins 10 times lower than the North American (as reported by the company); and (b) the reaching of the best historical margin in long term, through the fast achievement of economies of scale in those regions, considering Hershey’s maturity and, consequently, its great market experience;

(ii) EBITDA margin is expected to follow a similar trend as gross profit, as a result of operating costs structure and gross profit behaviour, being also impacted by (a) a gradual improvement in S,M&A expenses, given the gradual dilution of restructuring costs related with recent acquisitions; and (b) contrariwise, an increase in costs incurred with advertisement, as a strategy to get more global market share.

Consequently and for convenience, it was assumed that (i) the cost of sales will converge to the higher cost of sales/revenues ratio occurred historically towards 2021 (i.e. 54.3%), and thereafter towards 2025 it will converge to the best (i.e. lower) historical ratio (c. 51.8%); (ii) S,M&A will converge to the historical average ratio as a percentage of sales in the direction of 2021, and thereafter its maintenance; and (iii) advertising costs will improve gradually, based on an advertising/revenues ratio that will converge to the historical average ratio towards 2025.

Therefore, in terms of OPEX, it is important to highlight:

(i) The costs structure is expected to remain similar, with (a) cost of sales remaining the main source of profit dilution (51.5% in 2015); (b) S,M&A being the second (18.4%) and (c) advertising being the third (7.6%);

(ii) The gross margin will exhibit a slight decrease of c. 20 basis points over the next 10-years; and EBITDA margin should exhibit a slight decline in 2021, achieving 19.8%, and then a recovery to 22.2% in 2025, as observed in chart 24.

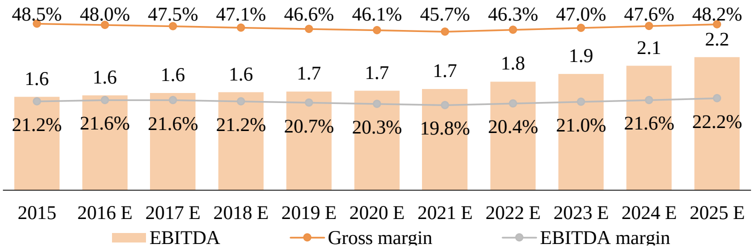

Chart 24 Hershey's EBITDA (US$ bn), EBITDA and Gross margin (%), 2015-25 E

Hershey's Invested Capital Forecasting

About invested capital, it is expected a slight evolution over the forecast period, wherein:

(i) The immateriality of working capital in Hershey's business (c. 13.1% of IC in 2016);

(ii) The great significance of fixed assets, which represents c. 85% of invested capital (including goodwill); goodwill represents c. 20% of invested capital in 2016 and might influence negatively ROIC;

(iii) Therefore, it will be expected general investments in invested capital in order to respond appropriately to the demand and consequent sales improvement, as exhibited in chart 25, representing about 3.9%-7.3% of revenues during the forecasted years.

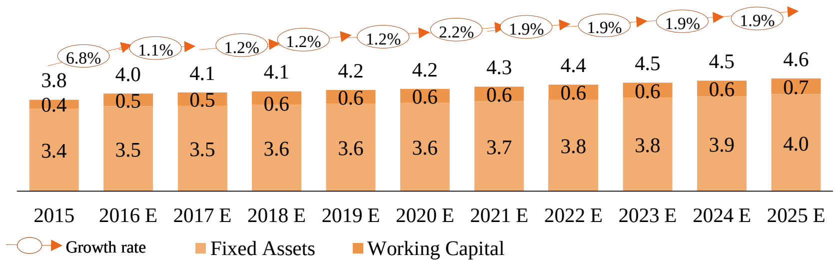

Chart 25 Hershey's invested capital (US$ billion) and growth (%), 2015-25E

Capital Structure Evolution

With the aim of ensuring a consistent capital structure and considering that balance sheet is balanced with excess cash or short-term debt, it is critical to analyse historical and prospective capital structure. Indeed, it is expected that the capital structure keeps quite constant in the long-term, with liabilities representing about 80% of the total sources of funds in the long term.

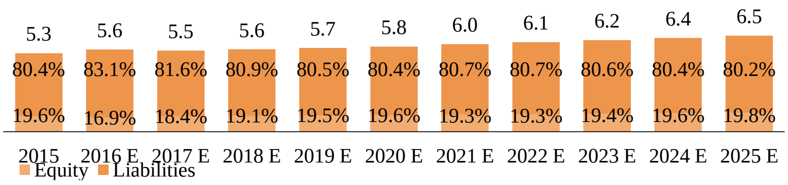

Chart 26 Hershey's assets (US$ billion) and capital structure (%), 2015-25E

5.2.1.2.2. Ferrero's Business Forecasting

Ferrero's Revenues

Ferrero's business performance is also structured by geographic segment as Hershey's, however with a different organization due to reported information needs, namely:

(i) Europe, which comprises essentially Belgium, France, Germany, the Iberian Peninsula, Italy, Luxembourg, the Netherlands, Poland, Russia and the United Kingdom;

(ii) Americas, which mainly embraces Argentina, Brazil, Canada, Mexico and the US;

(iii) Others that are related with Australia, Asia (mainly China and India) and South Africa.

Essentially, the business forecast comprises three distinct phases namely (i) short term revenues that are positively impacted by the last acquisitions; (ii) medium term (until 2020) revenues, with an expressive growth due to market shares improvement, caused by recent acquisitions and consequent synergies possibly achieved in this period; (iii) long term revenues with a gradual and stable growth, due to the long-standing presence in the chocolate confectionery industry, as well as the aim to double the revenues by 2025 versus 2015, with an expected revenues increase coming mainly from the markets outside of Europe [48].

In order to obtain Ferrero's offer, predicted market share are applied to predicted regional market in order to obtain expected revenues in the respective segment. Be noted that previous market shares within each segment are estimated based on global regions, wherein (a) Europe segment takes into account Eastern and Western Europe regions; (b) Americas segment is weighted by North and Latin Americas regions; and (c) Others segment is equally weighted by Middle East/ Africa, Australasia and Asia Pacific;

Therefore, in the European segment and given European market matureness, it is expected a representativeness reduction in group's revenues, essentially related with the new focus on non-European markets, as well as an increasing growth rate until 2021 with the expected synergies achievements with last acquisitions, wherein:

(i) In 2016 is expected an increase in market share (from 10.7% to 11.1%) due to the acquisition of Thorntons - a company in the UK with a turnover around € 300 million, according to Ferrero website;

(ii) Market share is assumed to increase 100 basis points (1 pp) in absolute terms from 2016 to 2021, with a gradual increase until this date, achieving 11.7%;

(iii) From 2021 to 2025, it is implicit a market share stability, raising more 10 basis points in 2026 than in 2021, reaching 11.8% of the European confectionery market.

On the other hand, Americas segment has interesting prospects given significantly improvement over the last years in market shares, with a slight increase of its importance in group's revenues, still remaining minor, wherein:

(i) It is assumed a constant annual growth rate of the market shares occurred from 2012 to 2015 (half of this growth, i.e. 6.3%) until 2021, achieving 3.7%;

(ii) Thereafter, Ferrero's market share will converge towards 2025 for a market share 10 points higher than the one occurred in 2021 (i.e. 3.8% of American market).

On a side note, in the Others segment, considering industry perspectives, as well as the Ferrero's strategy to exploit these regions, it is assumed, for convenience, that:

(i) Market share will converge towards 2021 to a market share 2 pp higher than the one occurred in 2015 (i.e. 4.9% versus 2.9%);

(ii) Thereafter, this will increase 20 basis points per year, reaching 5.1% in 2025.

Consequently, based on Ferrero's CEO pronouncement to the Wall Street Journal that mentioned the aim to double revenues in 10 years, coming mainly from non-European countries, as exhibited in chart 27, it is therefore predicted (i) the market dynamism of non-European regions; (ii) the continuous expansion of the Americas segment, with a weightiness near from one sixth over projection period (17.4%); (iii) the European segment constant growth after raising expected synergies in 2021, related with European business acquisitions.

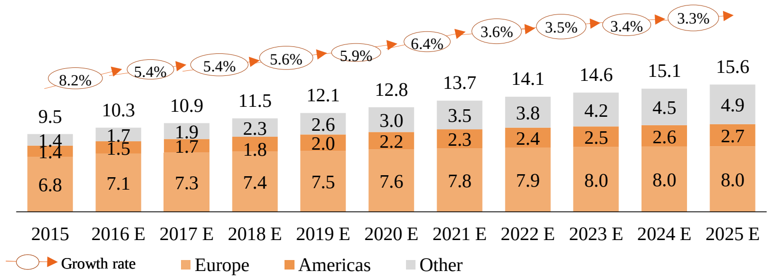

Chart 27 Ferrero's forecasting revenues (€ billion), 2015-25E

Ferrero's operating costs

In relation to Ferrero's operating costs evolution, it is highlighted the following set of issues:

(i) Gross margin will exhibit a slight recovery over the expansion period due to (a) the integration of Oltan Group, with potential to reduce raw material costs; (b) positive expectations about raw materials prices (cocoa and sugar), considered as the main reason for margin reduction over last years; and (c) no negative impact from geographical dispersion, given its global practice and business structure, which is characterized by subsidiaries and factories installed in various regions (contrary to Hershey's);

(ii) EBITDA margin exhibits various trends over the forecasted period, with (a) a possible reduction in the short term (2015 and 2016) as a consequence of integrations costs related with the recent acquisitions of Thorntons and Oltan Group; (b) a robust improvement in medium term, reaching expected synergies related with these acquisitions by 2021; and (c) the EBITDA margin maintenance in the long run, due to the expected stability in raw materials prices and inflation.

Consequently, it is assumed for convenience cost of revenues, cost of services, personnel costs and other operating costs are predicted as a percentage of sales and other operating costs ratio has more 0.2% in 2015 and 2016 (assuming 7.5% of Thorntons revenues), becoming constant thereafter. Thus, regarding operating profits it is important to highlight:

(i) Costs structure is expected to remain relatively constant, in which (a) cost of sales, without personnel costs, is the main source of profit dilution (40.6% of revenues in 2015); personnel costs (16.8%); and (a) cost of services (31.2%);

(ii) Gross margin exhibits a slight increase of c. 40 basis points in 10-year period, as exhibits chart 28, and EBITDA margin is expected to experience a slight increase of c. 40 bp.

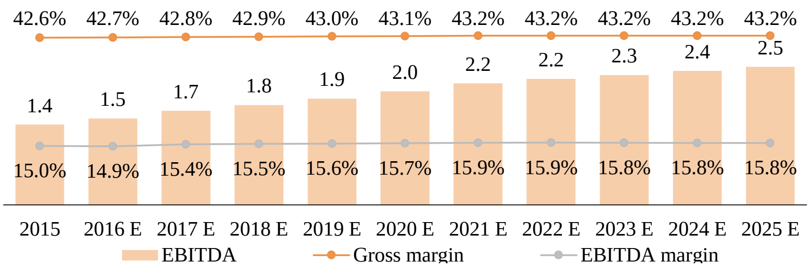

Chart 28 Ferrero's EBITDA (€ billion), EBITDA and Gross margin (%), 2015-25 E

<u>Invested Capital Forecasting</u>

Invested capital is expected to show a significant evolution in forecasted period, as observed in chart 29, wherein it should be highlighted:

(i) The bigger materiality of WC compared to Hershey's (c. 35% of invested capital in 2025), with a pronounced increase as a result of turnover growth;

(ii) Fixed assets represent the biggest portion of invested capital (about one third), being expected to grow with sales, since Ferrero is operating at full capacity (annual reports mention that Ferrero is expanding its capacity constantly);

(iii) Therefore, it will be expected general investments in invested capital in order to respond appropriately to the demand and consequent sales improvement, representing about 5.7%-8.2% of revenues during forecasted period.

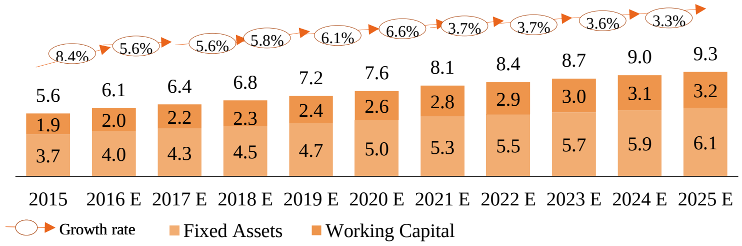

Chart 29 Ferrero's invested capital (€ billion) and growth (%), 2015-2025E

<u>Capital Structure Evolution</u>

Ferrero's capital structure is not expected to change significantly in the long-term, with liabilities representing about 58% of total sources of funds in long term (2025), due to a greater growth in equity than in liabilities, as exhibited in the chart 30.

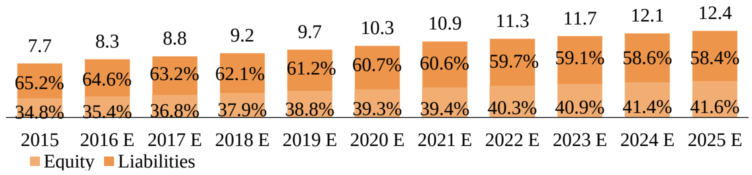

Chart 30 Ferrero's assets (€ billion) and capital structure (%), 2015-2025E

5.2.1.3. Perpetuity Value

The dominating practice in order to estimate perpetuity value is the application of a growth rate to normalized cash flows. In order to estimate perpetuity growth rates it is imperative to consider that (i) there is a high correlation between global confectionery market value and nominal GDP; and (ii) confectionery growth drivers differ depending on the market region.

In consequence, perpetuity growth rates of both companies, which are applied to 2026 forward, are based on (i) the expected real GDP growth within each relevant market; (ii) the inflation in the same markets; and (iii) an industry adjustment factor in relation to those markets (please observe equation 16):

$$\left(1+\text{GDP}_{\text{Expected}}^{\text{Real}}+\text{Industry adjustment factor}\right)*\left(1+\text{Inflation}_{\text{Expected}}\right)-1 \qquad (16)$$

Therefore, considering current geographic exposure of Hershey's and Ferrero and the significant difficulty faced in the measurement of emerging economies indicators within 10 years:

(i) While (a) Hershey's perpetuity growth considers the United States region; (b) Ferrero's perpetuity growth takes into account Europe and Americas regions, being weighted by current revenues distribution;

(ii) About regional economic indicators in perpetuity, it is important to highlight that (a) real GDP is based on IMF data for 2021, assuming its stability thereafter; (b) for the US it is considered the inflation rate previously estimated based on inflation swaps; (c) the Americas regards the weighted average of real GDP between Latin America and the US market, and, for convenience, an inflation based on U.S. dollars inflation swaps; and (d) the Europe comprises the expected real GDP in European Union, and an expected inflation based on euro inflation swaps;

(iii) Lastly, the industry adjustment factor was estimated based on the average of the differential occurred from one year to prior year from 2011 to 2021, in the ratio between confectionery market value and the corresponding nominal GDP ratio on a particular region/country, wherein (a) Europe contemplates Western and Eastern Europe for confectionery market value, while nominal GDP regards European Union; (b) Americas considers North and Latin America for confectionery market value, while nominal GDP regards the United States and Latin America regions.

Consequently, as observed in chart 31, considering that the adjustment factor for both industries is minimal and with little impact in financial valuation due to a great similarity amongst the ratios over analysed period, it is expected similar rates for both companies:

(i) Hershey's expects a perpetuity growth rate of 4.3% in U.S. dollars (i.e. 3.5% in euros);

(ii) Ferrero exhibits a perpetuity growth rate of 3.5% in domestic currency, in which Europe and Americas segments accounts for 86.6% and 13.4% of perpetuity growth.

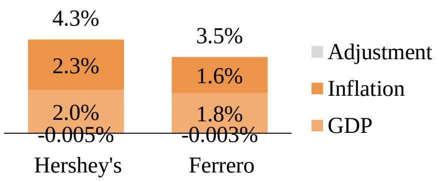

Chart 31 Growth segmentation in perpetuity of Hershey's and Ferrero (%)

5.2.1.4. Companies' Valuation Income Approach

5.2.1.4.1. Hershey's

Considering the business activity and operating balance sheet items forecasting, the standard evolution of unlevered free cash flows reflects a solid evolution in revenues. This verifies a considerable improvement in 2017 due to a lower investment in invested capital. Considering historical ROIC and sustainable advantage of Hershey's in relation to its peers, evolution of ROIC assumed a recovery towards 2025, after a great decline in 2015 (observe chart 32).

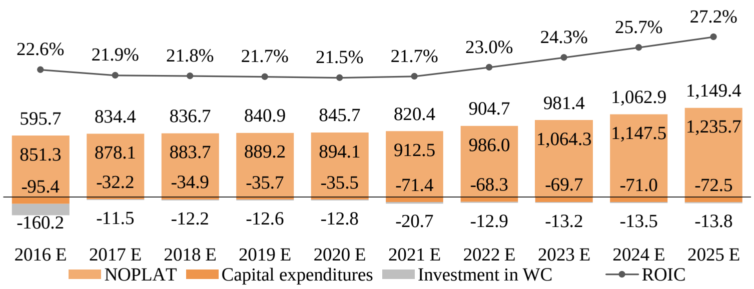

Chart 32 Hershey's UFCF by item (US$ million) and ROIC (%), 2016-25E

Moreover, interest tax shields are expected to follow a standard evolution, varying between about US$ 41 and US$ 46 million over the forecasted period. Be noted that there is expected a considerable reduction in 2017 as a consequence of high debt reduction in prior year (chart 33).

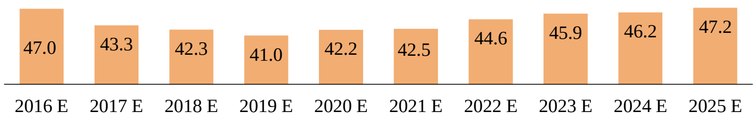

Chart 33 Hershey's tax shields (US$ million), 2016-25E

On the other hand, cash flows for the equity reflect some irregularity in cash flow going to debt holders. Indeed, the highest reduction in cash flows occurs in 2017, due to a considerable reduction in debt. Therefore, it is expected a variation between US$ 643 and US$ 1,128 million over the forecasting period, as exhibited in chart 34.

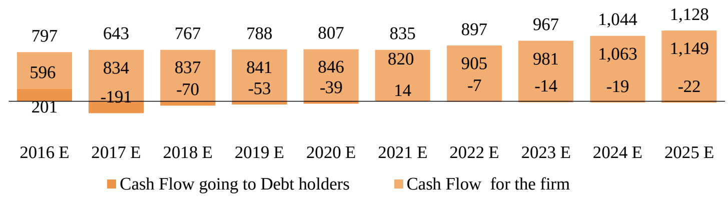

Chart 34 Hershey's FCFE (US$ million), 2016-25E

Therefore, the present valuation points out to an enterprise value around US$ 23.4 billion (i.e. € 20.8 billion), based on a simple mean among the different income valuation approaches, as observed in chart 35. Be noted that in order to estimate Hershey's value in euros, it was considered the two approaches mentioned in the literature review (spot and forward rate method). Please, in order to see this in detail, observe appendix R.

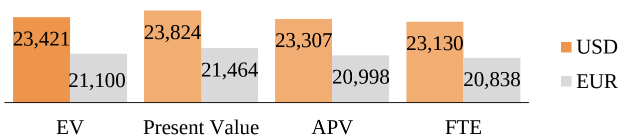

Chart 35 Hershey's EV based on income approaches (US$ and € million)

Adjustments to Enterprise Value

After having all operating items estimated, it is crucial to determine those items which are not part of operating activity, namely non-operating assets, debt, debt equivalents and hybrid claims. These are important adjustments to the enterprise value, which are reported at December 31, 2015, in order to arrive to Hershey's equity value, namely:

(i) Non-operating assets (US$ 186 or € 165 million) are those items (net) which Hershey's business activity is not dependent, such as excess cash and net capitalized software;

(ii) Debt (US$ 2,557 or € 2,304 million) comprises the financial short and long-term debt, essentially related with corporate bonds;

(iii) Debt equivalents (US$ 372 or € 329 million) are Hershey's obligations and other elements that are comparable with financial debt, namely post-retirement benefits after taxes, pension benefits after taxes, accrued liabilities due to SGM shareholder, net deferred non-operational income taxes, and other non-operating liabilities;

(iv) Hybrid claims (US$ 696 or € 616 million) are related with equity equivalents, namely stock options, based on options outstanding and average exercise price, non-controlling interests, and deferred operational income taxes.

Equity Value

Regarding Hershey's enterprise value and its adjustments, it is expected an equity value around US$ 20.4 billion, which corresponds to € 18.5 billion, as observed in chart 36, in which (i) the PV approach presents an equity value of $US 20.9 billion (i.e. € 18.8 billion); (ii) the APV with an equity of about $US 20.4 billion (i.e. € 18.4 billion); and (iii) the FCFE leads to an equity value about US$ 20.2 billion (i.e. € 18.2 billion). Moreover, based on the 214.1 million shares outstanding, it is expected a price per share of US$ 95.7 or € 86.2.

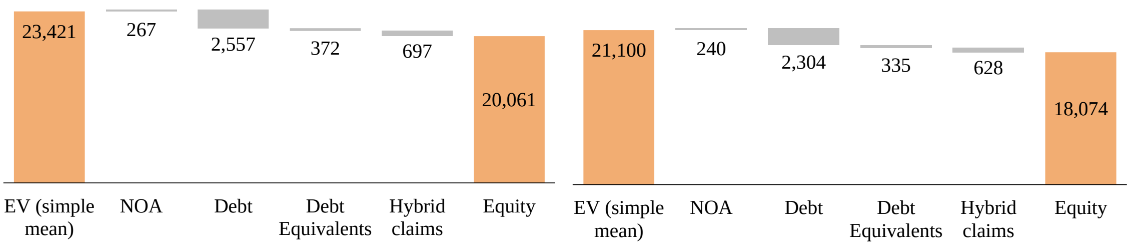

Chart 36 Hershey's Valuation based on approaches mean (US$ and € million, respectively)

5.2.1.4.2. Ferrero

The standard evolution of unlevered free cash flows admits a considerable improvement, as the result of significant increase in revenues, as well as in operating margins. Therefore, it is expected an investment in invested capital relatively constant over forecasted period, wherein investment in fixed assets is expected to represent about 65%. UFCF details may be observed in chart 37 and in appendix U. Considering historical ROIC, it is expected that it remains roughly in the same level (between 14.6% and 15.4%), which is in line with industry average.

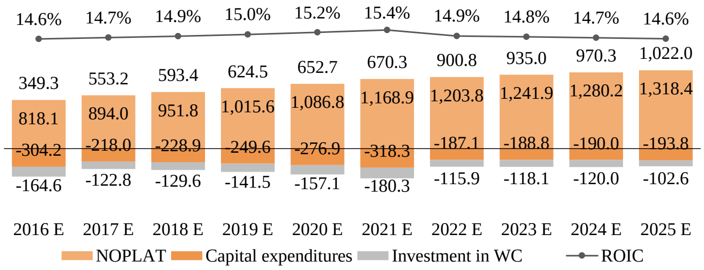

Chart 37 Ferrero's UFCF (€ million) and ROIC (%), 2016-25E

On the other hand, as detailed in chart 38, interest tax shields are expected to show an overall increasing evolution, even though with a slight variation over first forecasted years. Be noted that interest tax shields have a low significance in the financial valuation, which is totally expected considering the low leverage structure, being positioned between € 7 and € 19 million.

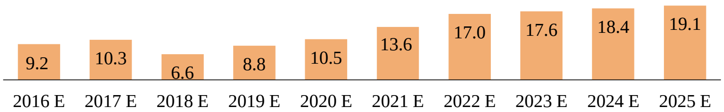

Chart 38 Ferrero's tax shields (€ million), 2016-25E

Additionally, cash flows for the equity exhibit an increasing behaviour very similar to unlevered free cash flows, considering that the cash flows going to debt holders are relatively insignificant. Indeed, the greatest contrast in cash flows occurs in 2017, due to a considerable reduction in debt, as displayed in chart 39:

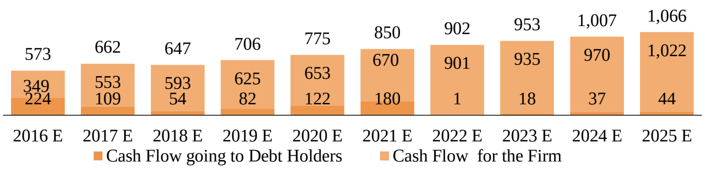

Chart 39 Ferrero's FCFE (€ million), 2016-25E

Consequently, it is expected a Ferrero's assets value, at December 31, 2015, around € 20.4 billion, based on a simple average amongst the different income valuation approaches, which may be observed in chart 40.

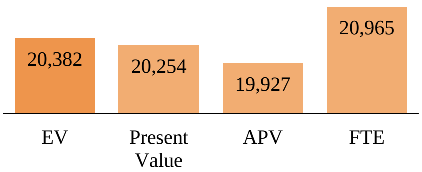

Chart 40 Ferrero's EV based on Income approaches (€ million)

Adjustments to Enterprise Value

Similarly to Hershey's, also adjustments to Ferrero's enterprise value comprise non-operating assets, financial debt, debt equivalents and hybrid claims in December 31, 2015 (which were forecasted, given last available accounts of 2014), in which:

(i) Non-operating assets (€ 305 million) are those items which Hershey's business activity is not dependent, such as excess cash (null at this date), short term investments, other current financial assets, investments and securities, which comprises essentially a participation of 0.66% in Mediobanca S.pA., and other non-current financial assets;

(ii) Debt (€ 2,436 million) comprises the financial short and long-term debt, which is essentially related with debt owed to shareholders (subordinated debt, c. 60%) and banks and financial loans (c. 40%);

(iii) Debt equivalents (€ 380 million) are obligations and other elements comparable with financial debt, namely employee benefit plan after taxes and long-term provisions;

(iv) Hybrid claims (€ 265 million) include convertible subordinated debt, non-controlling interests, and deferred operational income taxes.

Equity Value

After Ferrero's enterprise value and its adjustments being estimated, it is quite simple to value its equity. Therefore, Ferrero's equity is expected to be around € 18.0 billion, as observed in chart 41, in which (i) the PV approach presents an equity value of € 17.9 billion; (ii) the APV exhibits an equity value around € 17.5 billion; and (iii) the Equity Cash Flow arrives to an equity of € 18.5 billion. Moreover, based on the 3 million shares (not publicly traded), it is expected a price per share of € 5,989 in December 31, 2015.

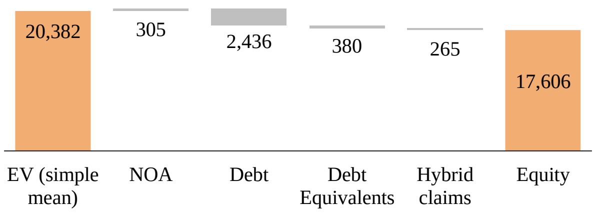

Chart 41 Ferrero's Valuation based on average approaches (€ million)

5.2.2. Sum-of-Parts Valuation

The enterprise value of the combined company, considering previously stand-alone valuations and not assuming synergies or other costs, is expected to be around € 41.5 billion, which is the average of all approaches, as observed in chart 42.

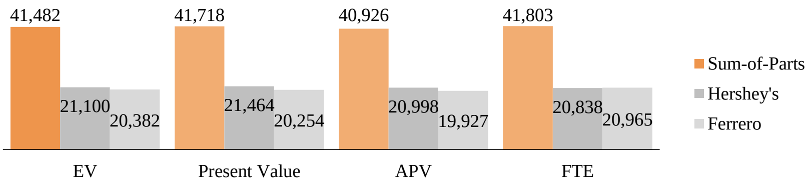

Chart 42 Sum-of-parts' EV based on Income approaches (€ million)

Additionally, based on enterprise value adjustments of both companies, by assuming their simple sum-of-parts, the combined company's equity is expected to be around € 35.7 billion, as observed in chart 43, in which (i) the PV approach presents an equity value of € 36.7 billion; (ii) the APV exhibits an equity value around € 35.9 billion; and (iii) the FCFE arrives to an equity of € 36.7 billion.

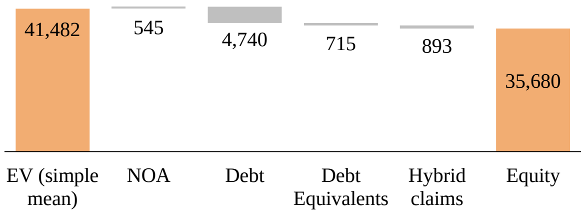

Chart 43 Sum-of-parts' valuation based on approaches mean (€ million)

5.2.3. Synergies and Other Features

Expected synergies are one of the main reasons behind M&A deals, even that its estimation is quite controversial. Indeed, synergies are usually estimated by professionals with expertise in the industry. On the other hand, as all that glitters is not gold, a deal with this dimension also expects some considerable costs. Therefore, concerning Hershey's and Ferrero expected synergies, net of costs related with the transaction, it should be highlighted:

(i) Most synergies are expected to start in 2017, considering that the deal is closed at the end of 2015, and the year of 2016 is saved for other considerations;

(ii) Selected synergies comprise (a) operating features, namely revenues, cost of sales and WC; and (b) financial features, namely the improvement of the risk profile and tax gains;

(iii) Some synergies have impact in other items (e.g. the greater the revenues, the greater the fixed assets needed);

(iv) Incurred expenses related with the deal embrace (a) transaction costs (advisor and legal entities); and (b) costs related with integration programs (corporate restructuring);

(v) Moreover, comparable transactions are considered (detailed in appendix E), namely the takeover of Cadbury by Mondelēz in 2011[8], in order to determine which synergies and other variants are expected to occur and their quantification;

(vi) Equity Research analysis and other transactions in manufacturing industry are also considered, in order to guarantee the robustness of the different assumptions realized;

(vii) Be noted that considering that both stand-alone companies are performing above or in line with the industry, the comparison with the industry to judge whether the estimates are realistic given the industry economics is obviously not considered.

5.2.3.1. Expected Synergies Measurement

[8] Selected deals were conditioned by available information about deal and its pro-forma

<u>Revenue synergies</u>

The measurement of revenue synergies covers a set of important issues, namely:

(i) The achievement of synergies expects (a) a resilient increase up to 2021, regarding comparable transactions in which synergies emerge between 3 to 5 years after the transaction occur; and (b) a slight improvement thereafter considering the time required to attract food retailers and, consequently, final consumers;

(ii) Their estimation procedure comprises (a) expected market value in each region, which is detailed in industry overview; (b) expected market share of both companies in each selected geography without synergies; and (c) expected market share with synergies, based on its historical trend and regarding their market share without synergies;

(iii) The occurrence of revenue synergies regards European, North American and Australasian markets, considering that these are the regions where at least one party has a strong position (i.e. a significant market share);

(iv) Therefore, for convenience it was assumed that Hershey's and Ferrero remain with the same expected market share in North American and European markets, respectively, wherein (a) Hershey's will increase by 75% the European market share occurred in 2015, reaching 0.5% of the European market value in 2021, which corresponds to more 10% than the improvement occurred between 2015 and 2011, and more 0.15 pp in relation to the expected market share without synergies; (b) Ferrero will increase by 70% the American market share occurred in 2015, reaching 4.0% of North American market value in 2021, which corresponds to more 35% than the improvement occurred between 2015 and 2011, and more 0.09 pp in relation to the expected market share of 3.5% without synergies; and (c) in medium-long term (2022-2025), the ratio between synergic and stand-alone revenues occurred in 2021 expects a slight improvement over the forecasted period;

(v) Given the solid position of Ferrero (4.9% in 2015) and no presence of Hershey's in Australasia, it is expected a first market share of 0.1% in 2021, increasing it gradually up to 2025, reaching 0.6% in 2025.

Therefore, revenue synergies are expected to increase substantially until 2021, when they reach € 281 million, which represents about 1.3% of stand-alone aggregated revenues. Moreover, they expect a more modest growth in medium-long term, reaching € 321 million in 2025, which represents 1.5% of stand-alone revenues. Be noted that both companies contribute almost equally to achieving synergies, where in:

(i) About € 102 million and € 23 million correspond to Hershey's revenues in Europe and Australasia in 2021, respectively;

(ii) Roughly € 156 million corresponds to Ferrero's improvement in North America.

Be noted that these revenues are estimated on a conservative approach – expected ratio of 1.7% between revenue synergies (2021) and sum-of-parts revenues (in 2015) – considering Mondelēz and Cadbury ratio of 2.8% between revenue synergies (2013) and the sum of their stand-alone turnover (2011).

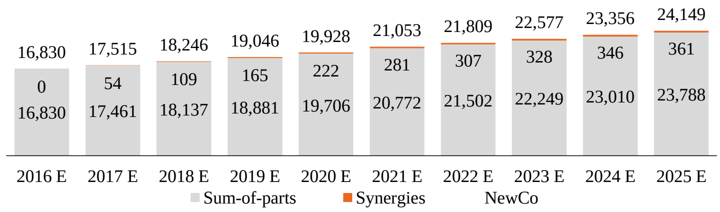

Chart 44 Revenue Synergies (€ million), 2016-25E

<u>Cost of sales synergies</u>

On a side note are cost of sales synergies, which comprise raw materials and personnel costs. About their determination it is important to highlight:

(i) Such as revenues, also cost of sales synergies will verify a resilient increase up to 2021, since operational costs from comparable transactions usually arise between 3 and 5 years after the occurrence of the deal;

(ii) Their estimation regards the expected gross profit margin of each stand-alone party and, consequently, the expected gross profit margin of the combined company without synergies associated;

(iii) Accordingly, while (a) Ferrero's gross margin will increase gradually to the simple average of stand-alone margins in 2021 (44.4%); (b) Hershey's gross margin remains with no change (45.7% in 2021);

(iv) Be noted that it is imperative to consider the impact in cost of sales of the estimated revenue synergies, being applied the ratio of the combined company without synergies until 2021;

(v) After being integrated the costs incurred with revenue synergies, it is assumed a slight increase in the ratio of 2021 amid the expected cost of sales gains, which are impacted by the costs of sales synergies, and the pro-forma sales (0.08% in 2021).

Objectively, it is expected € 172 million in cost savings in 2021, which represents 1.5% of stand–alone aggregated cost of sales. As previously observed, in medium-long term it is expected a slight growth, growing about 6.4% annually, raising about € 220 million in 2025. Be noted that these amounts are impacted by cost of revenues synergies, diluting the result to € 17 million in 2021, and € 25 million in 2025, as displayed in chart 45.

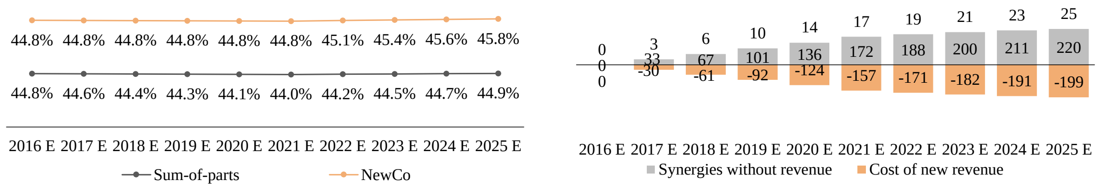

Chart 45 Gross Margin with and without synergies (%) and expected synergies achieved (€ million), 2016-25E

<u>OPEX synergies</u>

Similarly with the gains occurred in the cost of sales, OPEX synergies of pro-forma Company are based on the following issues:

(i) S,G&A synergies will verify a resilient increase up to 2021, since operating costs from comparable transactions usually arise between 3-5 years after the occurrence of the deal;

(ii) OPEX synergies considers the expected ratio of OPEX as a percentage of sales of each stand-alone party and, consequently, the expected pro-forma ratio without synergies;

(iii) For convenience, it was assumed that (a) while Ferrero's ratio will increase gradually up to 2021 towards the ratio weighted by ¾ of its stand-alone quotient and ¼ of Hershey's one; (b) Hershey's OPEX weight remains with no change in relation to its performance before the deal occur;

(iv) In the long term remains the synergic gain occurred in 2021, which is assumed to be the ratio between the gains occurred in relation to pro-forma revenue, weighted by revenue in the respective year.

Thus based on listed assumptions, it is expected considerable gains from OPEX synergies. In 2021, the combined company will reach € 130 million, representing about 2.1% of stand-alone OPEX and an improvement of 1.0% in combined ratio.

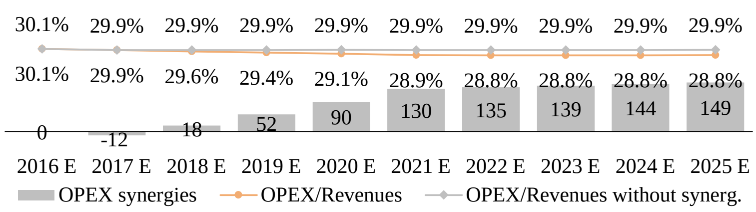

Chart 46 OPEX synergies expected, 2016-25E

Be noted that cost of sales and OPEX synergies are estimated on a conservative approach – expected ratio of 1.8% between costs synergies (in 2021) and the sum-of-parts revenues (in 2015) – concerning Mondelēz and Cadbury ratio of 2.3% between costs synergies (2013) and the sum of their stand-alone turnover (2011).

Essentially, it is expected a slight improvement in EBITDA and EBITDA margins regarding expected synergies, as observed in chart 47. In 2021 it is expected an EBITDA margin of 19.0%, which is more 1.8% than the expected margin of combined company without synergies.

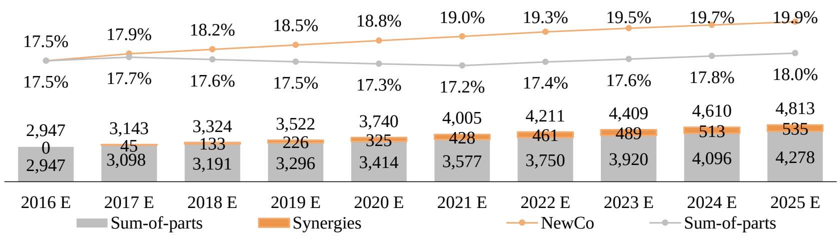

Chart 47 Expected synergies, EBITDA (€ million) and EBITDA margins (%), 2016-25E

Working Capital Synergies

On a different note, considering the expected improvement in the bargaining power of Hershey's and Ferrero after the merger, in both suppliers and clients, it is expected enhancements in the treasury robustness, wherein:

(i) Operational accounts receivable (clients) will decrease by assuming that days receivable outstanding of combined company will decrease gradually from 39 to 30 days (the equivalent to one month) in 2021;

(ii) Operational accounts payable (suppliers) will increase, being expected an ongoing growth in the days payable outstanding from 56 to 60 days in 2021 (equivalent to two months).

Based on these improvements in working capital estimation, it is expected a synergy value of € 648 million in 2021, representing about 19.9% of stand-alone working capital. Therefore, in is expected a lower investment in working capital (i.e. less 63.7% in 2021) and, consequently, higher cash flows.

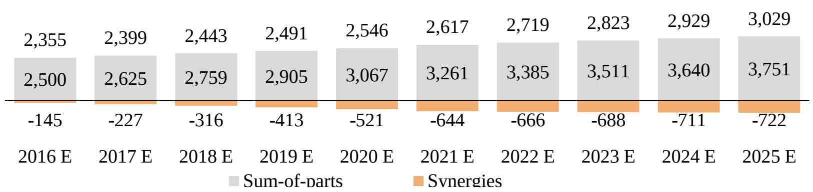

Chart 48 Working Capital with and without synergies, 2016-25E

Risk profile

After estimating operating synergies, it is important to analyse the possibility of improvements or deteriorations related with the discount rate of NewCo, based on a new risk profile, wherein:

(i) Changes in risk profile of the company are expected to occur in 2016, being assumed its stagnation thereafter;

(ii) Cost of new debt will decrease, due to (i) the combined spread decrease, as a consequence of more stable cash-flows and a revaluation rating from A and AA (Hershey's and Ferrero, respectively) to AAA in both (i.e. implicit spread of 0.75% based on synthetic rating of Damodaran);

(iii) Capital structure will exhibit a trivial change with a reduction in its leverage (from 13.8% to 12.0% in long term), considering that even debt remains unchanged (no debt involved in the deal), there are expected synergies that increase slightly the enterprise value (assumption of 15% improvement);

(iv) Moreover, beta levered is expected to be slightly lower due to the previous presented reasons (from 0.88 to 0.86).

Consequently, it is expected a trivial improvement in discount rate due to (i) the debt with low significance to both businesses; and (ii) transaction deal type is a simple stock exchange, with no more debt involved. Therefore, it is expected the changes verified in chart 49.

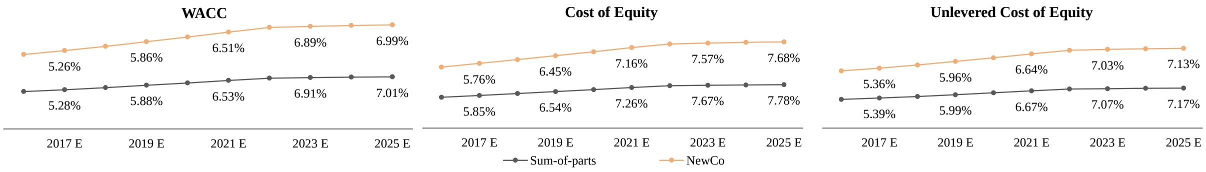

Chart 49 Expected synergies in Cost of Capital by various approaches, 2016-25E

<u>Fiscal gains</u>

It is mentioned above that it is unlikely a change in the headquarters of Hershey's to Luxembourg in order to pay less taxes. However, it is totally reasonable to consider a slight improvement in weighted tax of the combined company, since there are several ways to get fiscal gains. Therefore instead of 35.1%, it was applied a marginal tax rate of 34.6% (less 0.5 pp), which has impact in the cost of capital and in the projected cash flows.

5.2.3.2. Other Considerations

An M&A deal requires the involvement of several parties, such as legal and financial advisors entities, which is intensified by a deal with the current dimension. Therefore, there are costs that have to be considered in valuation of the combined company, since they will undoubtedly occur in a deal transaction even when there are no synergies, namely:

(i) Transactions costs, related with financial and legal advisories, among others;

(ii) And integration costs, namely severance payments, IT and transaction related expenses.

In order to evaluate these costs, the next set of steps was followed:

(i) A group of recent transactions - in any particular industry – are analysed in order to predict transactions costs, leading to a range between 0.2% and 0.5% of transaction costs weight in the value of each stand-alone company involved in the deal (i.e. both companies require these entities services, thereby there are transactions costs associated with both);

(ii) It is applied the middle point of the estimated interval, i.e. 0.35%, to the combined company value without synergies, resulting in € 171 million (only considered in 2016);

(iii) On a different note, a group of comparable arrangements were analysed in order to predict costs related with integration costs, resulting in a ratio of 4% between the costs related with integration programs and stand-alone aggregated revenues in the base year, distributed over first four years;

(iv) Therefore, it is considered integration costs of 4% in relation to the sum-of-parts revenues (in 2015), which are divided amongst first four years (with 50% in 2016, 30% in 2017, 15% in 2018 and 5% in 2019), representing about € 673 million in total.

5.2.4. Combined Company (NewCo) Valuation

The estimation of combined company comprises the previous chapters, namely stand-alone valuation and estimated synergies. Moreover, multiples of transactions are used in order to validate income approach results, as exhibited in appendix E.

Concerning estimated operating synergies, NewCo cash flows expects an increasing appreciation over sum-of-parts' cash flows until 2021, reaching about 30%, when it is expected the achievement of mostly synergies. This appreciation tends to stabilize in 20% in long-term, as observed in charts x and y. Be noted that with costs transaction diluting, the NOPLAT importance in such appreciation increases in forward-looking period. Moreover, while in combined company without synergies the ROIC tends to be quite stable; in the NewCo this assumes an increasing behaviour, approaching from Hershey's brilliant levels.

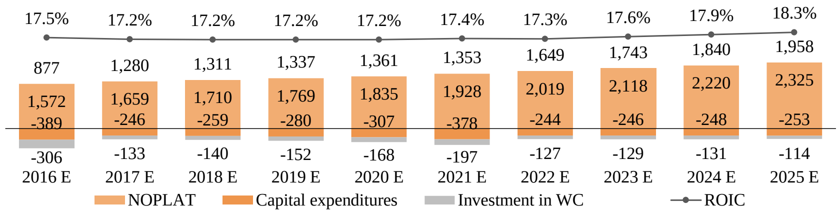

Chart 50 Sum-of-parts' UFCF by item (€ million) and ROIC (%), 2016-25E

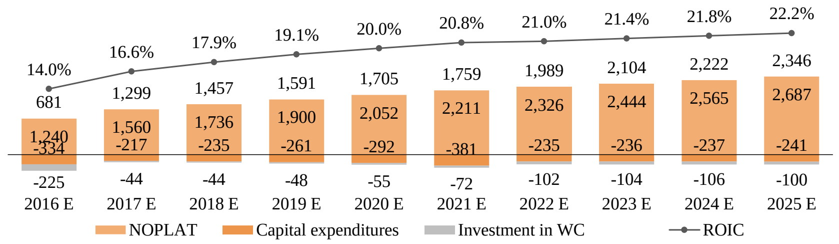

Chart 51 NewCo's UFCF by item (€ million) and ROIC (%), 2016-25E

The current scenario – and the most probable – based on income approach reflects a combined value, post-synergies and costs, of € 48.6 billion, which represents an appreciation of 17.1% over stand-alone companies, based on the simple mean amongst the different income valuation approaches, as observed in chart 52.

Moreover, in what concerns equity value, it is expected an average of € 42.7 billion (i.e. an appreciation of 19.8%), based on three previous approaches. This value considers EV adjustments of stand-alone companies at 31/12/2015, since the deal transaction is assumed to be a simple stock exchange process, without more debt involved.

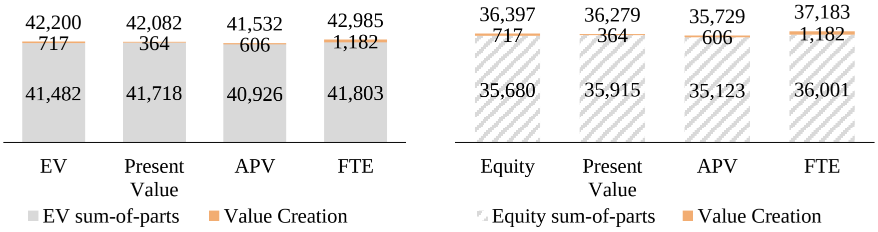

Chart 52 Expected EV and Equity of NewCo (€ million)

It should be strengthened that market researches and comparable transactions point out synergic appreciations of 14-20% of EV (e.g. 17.7% in Mondelēz's offer by Hershey's), which is in line with what was predicted.

5.2.5. Value-Creation

Objectively, based on combined company and stand-alone valuations concerning income approaches, it is possible to estimate the value-creation in a global standpoint at December 31, 2015. Therefore, by the difference and assuming that there are no premiums involved in the transaction (since it is a mere share exchange deal) , the expected value creation is around € 7.1 billion (average of the three income approaches), wherein:

(i) Operating synergies are responsible for € 6.9 billion (i.e. 97.3%);

(ii) Financial and fiscal synergies exhibit € 0.7 billion (i.e. 10.1%);

(iii) And the costs related with the transaction dilute the result in € 0.5 billion (i.e. -7.4%).

The chart below exhibits the expected value-creation by type (including the dilution of costs related with the transaction) and by followed approach.

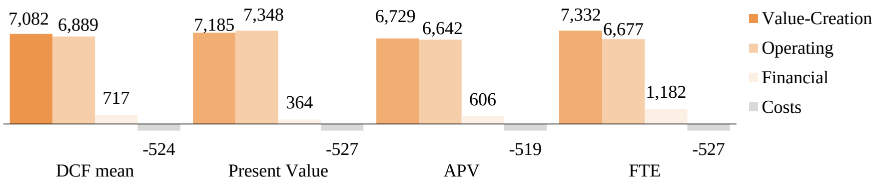

Chart 53 Value Creation by type and model (€ million)

Additionally, considering the different options to finance the deal, it was elected the share exchange (stock-for-stock merger) to close the deal (at equity level), based on the next items:

(i) Similar companies' valuation, leading to an effective merger as the best option;

(ii) Historical capital structure of stand-alone companies, exhibiting low recurrence to debt in order to fund their assets, in which debt financing would lead to a truly greater leverage structure and, therefore, considerably above industry average (about 8%);

(iii) The payment in cash would require the payment of a premium, which is very often associated with failure transactions;

(iv) Historical mergers with companies inside the same business (i.e. horizontal deal) usually appeal to shares exchanges.

In a current share exchange deal, the merging parties (Hershey’s and Ferrero) will negotiate a fixed number of the acquirer shares (Hershey’s) that will be exchanged for each target share (Ferrero). About this deal it is important to highlight:

(i) As Hershey’s is currently listed and presents a slight higher value in equity, it is considered the acquirer;

(ii) Price per share of each company is defined by the sum between company’s value and synergies expected for each one;

(iii) Considering current shareholder’s structure, synergies will be divided amongst Hershey’s and Ferrero in order to both end with equal positions in the merged company (50.0%);

(iv) Values presented are based on the average values of all the models presented.

Therefore, the fixed-exchange ratio is defined by 1/71 (i.e. for each Ferrero’s share, will be issued 71 shares of Hershey’s), totalizing 214,114 new shares issued, based on (i) Hershey’s equity of € 18.5 billion, an advantage of 46.6% of synergies and 214 million shares outstanding; and (ii) Ferrero’s equity of € 18.0 billion, a benefit of 53.4% of synergies and 3 million shares. Consequently, the economic gains, based on the average of the different income approaches used, is more intense for Ferrero’s family, considering synergies distribution for both parties, wherein (i) Hershey’s owners gain is € 3.31 billion (i.e. 18.3% above current Hershey’s equity); while (ii) Ferrero’s family gains € 3.77 billion (i.e. 21.4% above current Ferrero’s equity).

5.2.6. Sensitivity Analysis

With the aim to estimate the sensitivity of evaluative frameworks to individual fluctuations and combined with other critical variables, it was structured a sensitivity analyses to individual variables, on a ceteris paribus basis.

The most important variables are considered in such analysis, namely (i) industry growth; (ii) market share of Hershey’s; (iii) market share of Ferrero; (iv) perpetuity growth rates of both companies; (v) cost of equity; and (vi) risk-free rate (in euros and in dollars). Be noted that values presented comprise only the Present Value (WACC) method, to simplify the analysis.

The developed analysis concludes that the present valuation is more sensitive to the cost of equity rates, mainly the cost of equity of Ferrero. Accordingly, sensitivity analysis realised – excluding cost of equity sensitivity - exhibits: (i) Hershey’s EV around € 18.3 billion and € 27.0

billion; and (ii) Ferrero's EV around € 18.5 and € 22.8 billion. Consequently, the combined company value varies between € 44.5 and € 54.4 billion (i.e. value creation between € 4.6 and € 10.4 billion).

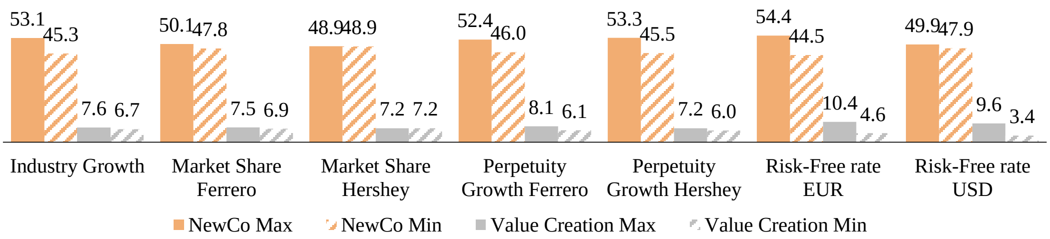

Chart 54 Sensibility analysis to the EV of NewCo and synergies (€ billion), according to the main variables

6. Conclusion

The current thesis “M&A in the confectionery industry: The evaluation of a proposed combination between Hershey's and Ferrero” provided the assessment of educational contents in a business landscape, by studying the viability of a deal between Hershey’s and Ferrero. The former is an experienced American confectionery company listed in the NYSE, owning a portfolio range composed by more than 80 brands, in which the chocolate bar Hershey’s is the one with greater recognition. The latter is a family owned chocolate company, founded in Italy and globally recognized for Nutella, Kinder and Ferrero brands.

Objectively, the current project discussed and measured the potential value-creation of the current identified opportunity. In order to achieve this project’s goal, it was vital to (i) examine in detail the confectionery industry in which Hershey’s and Ferrero run; (ii) analyse in advance both companies’ profile in strategy, economic and financial standpoints; and (iii) apply the best valuation practices to ensure the robustness of the results, through a methodology framework.

Accordingly, the developed valuation concludes that the proposed firm is economically viable, creating a considerable value for Hershey's and Ferrero's shareholders. Indeed, it is projected a considerable value creation of about 20% over stand-alone parties, corresponding to an absolute value of about 7 billion euro. Accordingly operating synergies are the main responsible for the value creation exhibited, despite some financial and fiscal gains. Be noted that there are costs related with the transaction which slightly destroy the maximum potential value.

Indeed, with the analyses over companies and confectionery industry, it was concluded that there are several reasons for the merger between both companies. First of all, considering the confectionery market stagnation in North America and Europe, wherein Hershey's and Ferrero are focused, as well their current global market shares, a deal between them would allow both companies to grow quite faster than by their own and challenge the industry global leadership, being able to enjoy greater market opportunities more easily.

On the other hand, a possible deal would create more resources and knowledge to invest in R&D in order to keep innovating and respond in the best way to market novelty needs, considering that consumer loyalty is guided by product development, quality, awareness, communication and visibility, and the continuous launch of new flavours and products is critical to gain market share, given current market maturity.

Then, considering companies' profiles and forecasted performance, it is expected considerable operating synergies, which arise in the form of revenues, operating costs reduction and, consequently, operating margins improvement, as well as a more robust working capital.

Revenue gains are the combination between Hershey's and Ferrero's volume sales increase in European and American markets, respectively, by taking advantage of each firm's network and industry's know-how in their particular markets, and higher general prices due to a greater bargaining power amongst retail customers. Indeed, revenue synergies are considered as the main expected source of value and, therefore, the main advantage in a deal both companies.

Additionally, Hershey's has exhibited operating margins and returns considerably above the industry and simultaneously above Ferrero. Therefore, Hershey's is available to transfer its know-how and larger operating efficiency to the other party, optimizing the Ferrero's production process. Furthermore, as a consequence of the greater power inherent to the combined company it is expected a greater bargaining power amongst suppliers, with the possibility to reduce the costs related with sales. This mentioned greater power even may allow a higher robustness in working capital, by increasing the average payment period and decreasing the average collection period.

Furthermore, it is not expected the existence of market cannibalization because (a) portfolio scope is distinctive and simultaneously complementary amongst both companies, since they serve different market niches; and (b) it is expected a market share gain from multinational competitors, considering that markets are slight dispersed, with local brands having some importance, and further well-known brands and innovation are some of the market drivers.

On a side note, this transaction has a lower probability associated with the appearance of remedies. Generally, M&A deals are needed to be approved by legal entities from countries where parties involved operate simultaneously, because when such deal leads to a quite significant market share in that region, one of the parties is obligated to sell assets in order to decrease its representativeness and avoid monopoly in the market. Considering that Hershey's and Ferrero do not have a considerable combined market share in any market, it is quite reasonable to assume that it won't be necessary to sell any asset.

On a different note, a deal between both would allow the improvement in risk profile of both companies, considering the positive effect of the proposed merger amongst financial and operating lenders. Moreover, considering companies' headquarters and fiscal differences amongst both, it is expected some gains in fiscal terms. However, this difference turns out to be small due to the low relevance of the cost of debt in the cost of capital.

Despite the economic rational supporting the deal's attainment, with the deal generating value to Hershey's and Ferrero shareholders, there are other complex issues which may restrict or enhancement an arrangement. It is the case of a possible disallowance of both Hershey's and Ferrero's shareholders to share equally, or even loose, the power hitherto controlled. This is evidenced by the recent rejection of Hershey's shareholders in relation to the attempts realized by Mondelēz in July and August 2016 with a considerably premium over share price. On the one hand, Hershey's family has the control over the company in terms of decision-making (not in value) through Hershey Trust Co vehicle. On the other hand, Ferrero's family was responsible for all the wealth generated by the Italian company, which has grown essentially with equity and internally generated funds. Nevertheless, recent Ferrero's founder and CEO decease, along with the possibility of publicly trade more cheaply with Hershey's than by its own, increase the odds for a possible deal arrangement from Ferrero's side.

Oppositely, Hershey's might be more interested in the deal than Ferrero, considering its greater difficulty to get in Europe than Ferrero in the United States. Moreover, it could arise some cultural difficulties in a mutual agreement, due to the obvious differences between a European (i.e. Italian) and an American company. Alternatively, as points out by Koller et al (2010), M&A deals tend to be intensified when interest rates are lower; thereby it is an interest moment to negotiate, considering the low interest rates that are currently in vogue in the market.

On a different note, regarding the goal initially proposed, the present project attempts to apply theoretical frameworks to a real situation, by presenting to the readers their application to the role of business companies, which face and look every day into related issues. Moreover, through the applied approach, this thesis aims to guide financial students and professionals in the synergies estimation process, taking into account it is a highly subjectivity.

It should be noted that the current project has own limitations that are important to consider and which were mentioned throughout the report. Firstly, companies' business forecasting is subject to a considerable margin of error, due to the occlusion of inside information for both companies, namely the current projects in terms of products and geographies. Be noted that to realize the greatest projections, it would be essential to have group's business plan over the forecast period. Moreover, in order to realize an imperative valuation, subsidiaries should also be valued as individual parts and not the holding companies as a whole.

Last but not least, in order to improve the current results, it would be considerably interesting that professionals with expertise in confectionery industry or with access to Hershey's and Ferrero's inside information, could review some of the assumptions used in both companies' performance forecasting and estimated synergies, which is usually realized by professionals with expertise in confectionery industry. Indeed, only the access to inside information ensures the robustness of the presented results.

7. Bibliography

[1] Barry Callebaut. 2015. ***9-month Key Sales Figures FY 2014/15 - Roadshow Presentation***, Zürich.

[2] Bradshow, J. (The Telegraph), Pfizer and Allergan terminate $160bn merger following US tax crack-down, http://www.telegraph.co.uk/business/2016/04/06/pfizer-to-terminate-160bn-merger-with-allergan/, 02/08/2016.

[3] Brealey, A. R., Myers, S. C. & Allen, F. 2011. ***Principals of corporate finance*** (10th ed.). New York: The McGraw-Hill Companies.

[4] Candyking; Market overview, About Candyking, http://group.candyking.com/en/about-candyking/market-overview/, 28/03/2016.

[5] CAOBISCO; How confectioneries are made, http://caobisco.eu/caobisco-chocolate-biscuits-confectionery-europe-page-40-How-confectioneries-are-made.html#.V--WavArLIU, 05/03/2016.

[6] Cloetta; Consumption patterns, Market overview, http://www.cloetta.com/en/about-cloetta/market-overview/consumption-patterns/, 15/03/2016.

[7] Cloetta; Drivers in the surrounding world, Market overview, http://www.cloetta.com/en/about-cloetta/market-overview/drivers-in-the-surrounding-world/, 15/03/2016.

[8] Cloetta; Macro and consumer trends, Market overview, http://www.cloetta.com/en/about-cloetta/market-overview/macro-and-consumer-trends/, 15/03/2016.

[9] Cloetta; Market overview, Market overview, http://www.cloetta.com/en/about-cloetta/market-overview/, 15/03/2016.

[10] Damodaran, A., 2003. ***Measuring Company Exposure to Country Risk: Theory and Practice***. Working paper, Stern School of Business, New York.

[11] Damodaran, A., 2005. ***The Value of Synergy***. Working paper, Stern School of Business, New York.

[12] Damodaran, A., 2008. ***What is the riskfree rate? A Search for the Basic Building Block***. working paper, Stern School of Business, New York.

[13] Damodaran, A. 2012. ***Investment valuation: Tools and techniques for determining the value of any asset*** (3rd ed.). New Jersey: John Wiley & Sons.

[14] Damodaran; Estimating a synthetic rating and cost of debt, http://pages.stern.nyu.edu/~adamodar/New_Home_Page/valquestions/syntrating.htm, 13/06/2016.

[15] Dimson E., Marsh, P. & Staunton, M. 2011. Equity premiums around the world. ***Rethinking the World Equity Premium***, 1 (4): 32-52

[16] Euromonitor; Confectionery, http://www.euromonitor.com/confectionery, 05/03/2016.

[17] Euromonitor; Confectionery in the US, http://www.euromonitor.com/confectionery-in-the-us/report, 18/03/2016.

[18] Euromonitor; Measuring brand performance by price positioning – new research in chocolate confectionery, http://blog.euromonitor.com/2015/10/measuring-brand-performance-by-price-positioning-new-research-in-chocolate-confectionery.html, 15/03/2016.

[19] Fama, E. F. & French, K. R. 2012. The cross-section of expected stock returns. ***The Journal of Finance***, 47 (2): 427-465.

[20] Fernandez, P., Aguirreamalloa, J. & Corres, L.. 2011. ***Market Risk Premium used in 56 countries in 2011: a survey with 6,014 answers***, Working paper May 2011, IESE Business School, Madrid.

[21] Fernandez, P., Aguirreamalloa, J. & Corres, L.. 2013. ***Market Risk Premium used in 82 countries in 2012: a survey with 7,192 answers***, Working paper January 2013, IESE Business School, Madrid.

[22] Fernandez, P., Aguirreamalloa, J. & Linares, P. 2013. ***Market Risk Premium and Risk Free Rate used for 51 countries in 2013: a survey with 6,237 answers***, Working paper June 2013, IESE Business School, Madrid.

[23] Fernandez, P., Ortiz, A., Acín, I. F. 2014. ***Market Risk Premium used in 88 countries in 2014: a survey with 8,228 answers***, Working paper June 2014, IESE Business School, Madrid.

[24] Fernandez, P., Ortiz, A., Acín, I. F. 2015. ***Market Risk Premium and Risk-Free Rate used for 41 countries in 2015***, Working paper April 2015, IESE Business School, Madrid.

[25] Fernandez, P., Ortiz, A., Acín, I. F. 2016. ***Market Risk Premium used in 71 countries in 2016: a survey with 6,932 answers***, Working paper May 2016, IESE Business School, Madrid.

[26] Ferrero. 2013. ***Ferrero International S.A. – Consolidated Financial Statements,*** Luxembourg.

[27] Ferrero. 2014. ***Ferrero International S.A. – Consolidated Financial Statements***, Luxembourg.

[28] Ferrero. 2015. ***Corporate Social Responsibility Report***, Luxembourg.

[29] Ferrero; A story of a family, The group, https://www.ferrero.com/the-ferrero-group/a-family-story, 30/05/2016.

[30] Ferrero; Business key figures, https://www.ferrero.com/the-ferrero-group/business/key-figures, 25/05/2016.

[31] Ferrero; Completion of Thorntons acquisition, https://www.ferrero.co.uk/news/Completion-of-Thorntons-acquisition, 25/05/2016.

[32] Ferrero; Ferrero in the world, https://www.ferrero.com/the-ferrero-group/ferrero-worldwide, 25/05/2016.

[33] Ferrero; Ferrero worldwide, The Ferrero Group, https://www.ferrero.com/the-ferrero-group/ferrero-worldwide, 30/05/2016

[34] Fortune; The secrets of See's Candies, http://fortune.com/2012/08/22/the-secrets-of-sees-candies/, 05/03/2016.

[35] Gasparro, A. & Cimilluca, D. (The Wall Street Journal); Mondelez Drops Offer for Hershey, http://www.wsj.com/articles/snack-maker-mondelez-drops-pursuit-of-hershey-1472503081, 30/08/2015

[36] Gaughan, P. A. 2015. ***Mergers, acquisitions and corporate manufacturing*** (6th ed.). New Jersey: John Wiley & Sons.

[37] Hirsch, L. (Reuters); Hershey rejects $23 billion Mondelez takeover offer, http://www.reuters.com/article/us-hershey-m-a-mondelez-intl-idUSKCN0ZG24O, 18/08/2016.

[38] Hoffman, L., Mattioli, D. & Cimilluca D. (The Wall Street Journal); Snack Giant Mondelez Makes $23 Billion Takeover Bid for Hershey, http://www.wsj.com/articles/mondelez-makes-takeover-bid-for-hershey-1467297248, 18/08/2016.

[39] ICCO. 2015. ***Quarterly Bulletin of Cocoa Statistics*** (Vol. 41, No. 4). London: International Cocoa Organization.

8. [40] IMAA Institute for Mergers; Acquisitions and Alliances, Number and Value and Largest M&A Transactions by Region, M&A Statistics, https://imaa-institute.org/statistics-mergers-acquisitions/, 20/10/2016.

[41] International Monetary Fund. 2016. Too Slow for Too Long, World Economic Outlook (April). Washington: IMF.

[42] J.P. Morgan. J.P. Morgan M&A reference manual; http://www.thecmlink.com/wordpress/wp-content/uploads/2013/10/2007-December-JP-Morgan-MA-Reference-Manual.pdf. 1998.

[43] Keating, G. & Natella, S. (Credit Suisse Research). 2016. Country Profiles, ***Credit Suisse Global Investment Returns Yearbook 2016***: 37-64. Luxembourg: Credit Suisse.

[44] Koller, T., Goedhart, M., Wessels, D. (McKinsey Company.). 2010. ***Valuation: Measuring and managing the value of companies*** (5th ed.). New Jersey: John Wiley & Sons.

[45] Luehrman, T.A. 1997. Using APV: A better tool for valuing operations. ***Harvard Business Review***, 75 (3): 145-154.

[46] Martos-Villa, M., Rhodes-Kropf, M., Harford, J. 2014. ***Financial vs. Strategic Buyers***. Working Paper No. 12-098, Harvard Business School, Cambridge, Massachusetts.

[47] Mergermarket; Confectionery Industry, Deals, https://www.mergermarket.com/homepage; 14/04/2016.

[48] Mesco, M. (The Wall Street Journal); Mais ágil, Ferrero quer crescer sem perder autonomia, http://br.wsj.com/articles/SB12770344623875593767304582241953720998054, 23/06/2016.

[49] Moody's; Moody's assigns A1 to Hershey's new $600 million unsecured notes; outlook stable, Rating Action, https://www.moodys.com/research/Moodys-assigns-A1-to-Hersheys-new-600-million-unsecured-notes--PR_332778, 13/06/2016.

[50] NASDAQ; Hershey Company (The) Institutional Ownership, http://www.nasdaq.com/symbol/hsy/institutional-holdings, 15/09/2016.

[51] National Confectionery Association; NCA global compass & Insights, http://www.candyusa.com/global-compass-and-insights/, 25/03/2016.

[52] Pacyniak, B. 2011. Global state of the industry. ***Candy Industry Magazine***, 176 (6): 14-20.

[53] Pacyniak, B. 2012. Global state of the industry. ***Candy Industry Magazine***, 177 (6): 22-26.

[54] Pacyniak, B. 2013. Global state of the industry. ***Candy Industry Magazine***, 178 (6): 24-28.

[55] Pacyniak, B. 2014. Global state of the industry. ***Candy Industry Magazine***, 179 (6): 26-31.

[56] Pacyniak, B. 2015. Focused on Ferrero. ***Candy Industry Magazine***, 180 (1): 32-41.

[57] Pacyniak, B. 2015. Global state of the industry. ***Candy Industry Magazine***, 180 (6): 24-27.

[58] Pacyniak, B. 2016. Global state of the industry. ***Candy Industry Magazine***, 181 (6): 17-22.

[59] Ross, S. A. & Roll, R. 1995. The arbitrage pricing theory approach to strategic portfolio planning. ***Financial Analysts Journal***, 51: 1975-1984

[60] Scully, C. Z. 2016. Global top 100. ***Candy Industry Magazine***, 181 (1): 38-43.

[61] Securities Exchange Act; ***The Hershey Company***, Proxy Statement Pursuant to Section 14(a) of the Securities Exchange Act of 1934, Washington, D.C.

[62] Skelly, J. 2015. Geography, positioning affect global growth. ***Candy Industry Magazine***, 180 (9): 10.

[63] Skelly, J.; Packaged Food 2015: What's New in Confectionery?, http://blog.euromonitor.com/2015/06/packaged-food-2015-whats-new-in-confectionery.html, 28/03/2016.

[64] Statista; Sales value of confectionery in selected European countries as of 2nd quarter 2015, by country (in million euros), http://www.statista.com/statistics/343245/market-sales-value-confectionery-products-europe/, 28/03/2016.

[65] The Hershey Company. 2013-2015. ***The Hershey Company Fact Book***, Pennsylvania.

[66] The Hershey Company. 2016. ***The Hershey Company Fact Book***, Pennsylvania.

[67] The Hershey Company. 2016. ***2015 Annual Report to Stockholders***, Notice of 2016 annual meeting and proxy statement, Pennsylvania.

[68] The Hershey Company; Experience Hershey, http://www.hersheypa.com/index.php, 15/05/2016

[69] The Hershey Company; Milton Hershey, This is Hershey, https://www.thehersheycompany.com/en_us/this-is-hershey/milton-hershey.html, 15/05/2016.

[70] The Hershey Company. 2016. ***The Hershey Company Fact Book***, Pennsylvania.

[71] Torchio, F. & Surana, S. 2014. Effect of liquidity on size premium and its implications for financial valuations. ***Journal of Business Valuation and Economic Loss Analysis***, 9: 55-85.

[72] Webster, J. (The Washington Post); Nutella, imported vs. domestic: Is there a difference?, https://www.washingtonpost.com/lifestyle/food/nutella-imported-vs-domestic-is-there-a-difference/2014/05/30/3fe79e68-e5bb-11e3-8f90-73e071f3d637_story.html, 28/05/2016.

[73] Weston, F. J. & Weaver, C. W. 2001. ***Mergers and acquisitions***. New York: The McGraw-Hill Companies.

[74] Weston, Mitchell & Mulherin. 2014. ***Takeovers, restructuring, and corporate governance*** (4th ed.). London: Pearson Education Limited.

[75] Zenner, M., Matthews, M., Marks, J., Mago, N. 2008. The Era of Cross-Border M&A: How Current Market Dynamics are Changing the M&A Landscape, ***Journal of Applied Corporate Finance***, 20 (2): 84-96.

Platforms:

[76] Bloomberg Platform/Portal

[77] Credit Suisse Hershey's Financial Model, at 30 June, 2016 taken from https://research-and-analytics.csfb.com/research-and-analytics/login.fcc?TARGET=-SM-HTTP%3a%2f%2fresearch--and--analytics%2ecsfb%2ecom%2f%3fACTION%3dAUTOLOGINFAIL

[77] Goldman Sachs, Hershey Co. Financial Model, by Jason English at 30 June, 2016 taken from https://login.gs.com/vpn/index.html

9. Annexes

A. Confectionery Market Value (US$ billion)

Confectionery Market Value |Billions of dollars (US$) | Current Val

	2011	2012	2013	2014	2015
Global market	185.4	193.4	196.6	198.3	183.4
Chocolate	102.2	107.2	110.1	111.1	101.1
Sugar	57.5	59.4	61.3	62.6	59.5
Gum	25.7	26.8	25.2	24.6	22.8
Western Europe	58.6	58.0	58.0	62.8	52.5
Chocolate	37.8	37.9	38.1	41.5	34.8
Sugar	15.1	14.7	14.8	16.0	13.4
Gum	5.7	5.4	5.1	5.3	4.3
North America	36.1	37.5	35.4	35.5	35.9
Chocolate	20.7	22.0	20.2	20.4	20.8
Sugar	10.5	10.9	11.0	11.1	11.2
Gum	4.9	4.6	4.2	4.0	3.9
Eastern Europe	21.5	22.7	25.2	24.0	17.8
Chocolate	15.3	15.8	18.3	17.4	13.2
Sugar	4.3	4.3	4.5	4.2	3.0
Gum	1.9	2.6	2.4	2.4	1.6
Asia Pacific	31.9	36.1	36.5	37.3	38.7
Chocolate	11.6	13.0	13.3	13.7	14.4
Sugar	14.2	16.4	17.1	17.5	18.1
Gum	6.1	6.7	6.1	6.1	6.2
Latin America	24.9	25.2	26.2	24.4	23.9
Chocolate	10.3	11.4	12.1	10.4	10.1
Sugar	9.2	8.5	8.8	8.9	8.9
Gum	5.4	5.3	5.3	5.1	4.9
Middle East/ Africa	8.0	9.2	10.5	9.9	10.4
Chocolate	3.7	4.3	4.9	4.7	5.1
Sugar	3.0	3.4	3.8	3.7	3.7
Gum	1.3	1.5	1.8	1.5	1.6
Australasia	4.4	4.7	4.8	4.5	4.1
Chocolate	2.8	2.8	3.2	3.0	2.7
Sugar	1.2	1.2	1.3	1.2	1.1
Gum	0.4	0.7	0.3	0.3	0.2

B. Confectionery Industry Estimated Regression

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.993556311
R Square	0.987154144
Adjusted R Sc	0.986351278
Standard Erro	4.52480273
Observations	18

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	25173.36049	25173.36	1229.53783	1.46453E-16
Residual	16	327.5814359	20.47384		
Total	17	25500.94193			

	Coefficients	*tandard Erro*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*wer 95,0*	*pper 95,0*
Intercept	22.79508032	3.58757507	6.3538964	9.5699E-06	15.18976092	30.40039972	15.19	30.4
GDP current	0.224568544	0.006404393	35.064766	1.46453E-16	0.210991837	0.238145251	0.211	0.2381

C. Confectionery Market Value (US$ billion)

Main Market Value (US$ th billion)

Years	2011	2012	2013	2014	2015	2016 E	2017 E	2018 E	2019 E	2020 E	2021 E	2022 E	2023 E	2024 E	2025 E
Western Europe	58.6	58.0	58.0	62.8	52.5	53.3	54.2	55.0	56.0	57.0	57.8	58.5	59.0	59.3	59.4
Growth		4.3%	1.7%	0.9%	1.6%	5.1%	4.7%	4.6%	4.7%	4.8%	4.5%	4.2%	3.9%	3.6%	3.3%
Eastern Europe	21.5	22.7	25.2	24.0	17.8	19.1	20.1	20.8	21.4	22.0	22.5	23.0	23.5	23.9	24.3
Growth		3.9%	-5.6%	0.3%	8.6%	1.8%	1.8%	1.8%	1.8%	1.8%	1.7%	1.6%	1.5%	1.5%	1.4%
Latin America	24.9	25.2	26.2	24.4	23.9	26.1	28.1	30.2	32.3	34.4	36.5	38.8	41.1	43.4	45.8
Growth		13.2%	1.1%	2.2%	22.0%	7.3%	7.5%	7.7%	8.0%	8.3%	8.2%	8.0%	7.8%	7.7%	7.5%
North America	36.1	37.5	35.4	35.5	35.9	36.6	37.2	37.9	38.6	39.3	40.0	40.6	41.2	41.8	42.4
Growth		-1.0%	0.0%	8.3%	3.0%	1.5%	1.6%	1.6%	1.7%	1.8%	1.5%	1.2%	0.9%	0.6%	0.3%
Middle East/ Africa	8.0	9.2	10.5	9.9	10.4	11.7	13.0	14.4	15.9	17.6	19.3	21.2	23.3	25.5	27.9
Growth		1.2%	4.0%	-7.1%	11.0%	9.3%	7.6%	7.3%	6.9%	6.5%	6.3%	6.1%	5.9%	5.7%	5.5%
Australasia	4.4	4.7	4.8	4.5	4.1	4.3	4.5	4.7	5.0	5.2	5.5	5.8	6.0	6.3	6.6
Growth		15.0%	14.1%	-5.7%	1.4%	12.5%	11.0%	10.5%	10.4%	10.3%	10.1%	9.9%	9.7%	9.5%	9.3%
Asia Pacific	31.9	36.1	36.5	37.3	38.7	41.5	44.7	48.1	52.0	56.3	60.9	65.8	70.9	76.4	82.1
Growth		5.6%	11.0%	-4.8%	7.5%	7.1%	5.2%	3.7%	2.8%	2.8%	2.5%	2.3%	2.1%	1.8%	1.6%
Global		193.4	196.6	198.3	183.4	192.6	201.7	211.1	221.0	231.6	242.5	253.7	265.1	276.7	288.6

Market Value ($US billion)															
Years	**2011**	**2012**	**2013**	**2014**	**2015**	**2016 E**	**2017 E**	**2018 E**	**2019 E**	**2020 E**	**2021 E**	**2022 E**	**2023 E**	**2024 E**	**2025 E**
United States		22.5	23.1	23.5	24.1										
Total Confectionery	32.4	32.7	33.6	33.9	34.9	34.9	34.9	35.0	35.0	35.1	35.6	36.2	36.8	37.4	38.0
Chocolate	18.1	19.9	20.6	20.5	21.1	21.1	21.2	21.3	21.4	21.5	21.8	22.2	22.5	22.9	23.3
Non-Chocolate	9.9	9.9	10.3	10.3	10.7	10.7	10.7	10.7	10.7	10.7	10.9	11.0	11.2	11.4	11.6
Gum	4.4	2.9	2.7	3.1	3.1	3.1	3.0	3.0	2.9	2.9	3.0	3.0	3.0	3.1	3.1
USA Confectionery E		0.9%	2.8%	0.8%	3.1%	0.0%	0.1%	0.2%	0.1%	0.1%	1.6%	1.6%	1.6%	1.6%	1.6%
USA Inflation	3.1%	2.1%	1.5%	1.6%	0.1%	1.9%	1.7%	1.7%	1.7%	1.7%	1.8%	1.9%	1.9%	2.1%	2.3%
USA GDP (real, constant)	1.6%	2.2%	1.5%	2.4%	2.4%	2.4%	2.5%	2.4%	2.1%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Canada															
Total Confectionery	3.0	3.1	3.1	3.3	3.4	3.5	3.5	3.6	3.6	3.7	3.8	3.8	3.9	4.0	4.1
Chocolate	2.1	2.2	2.2	2.4	2.5	2.6	2.6	2.7	2.7	2.8	2.8	2.9	2.9	3.0	3.0
Non-Chocolate	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Gum	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5
Canada Confectionery E		3.3%	0.0%	6.5%	3.0%	1.6%	1.6%	1.6%	1.6%	1.6%	2.0%	2.0%	2.0%	2.0%	2.0%
Canada Inflation	2.9%	1.5%	0.9%	1.9%	1.1%	1.3%	1.9%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Canada GDP (real, constant)	3.1%	1.7%	2.2%	2.5%	1.2%	1.5%	1.9%	2.1%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
China															
Total Confectionery	11.8	12.9	14.2	15.4	16.6	17.4	18.2	19.1	20.0	21.0	22.0	23.3	24.6	26.0	27.5
China		9.3%	10.1%	8.5%	7.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	5.9%	5.8%	5.6%	5.5%
China Inflation	5.4%	2.6%	2.6%	2.0%	1.4%	1.8%	2.0%	2.2%	2.6%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
China GDP	9.5%	7.7%	7.7%	7.3%	6.9%	6.5%	6.2%	6.0%	6.0%	6.0%	6.0%	5.9%	5.8%	5.6%	5.5%
Mexico															
Total Confectionery	3.5	3.6	3.7	3.9	4.1	4.1	4.2	4.2	4.3	4.4	4.5	4.7	4.8	4.9	5.1
Mexico Inflation	3.4%	4.1%	3.8%	4.0%	2.7%	2.9%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Mexico GDP	4.0%	4.0%	1.3%	2.3%	2.5%	2.4%	2.6%	2.8%	2.9%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%
Brazil															
Total Confectionery	6.7	7.1	7.4	7.8	8.4	8.7	9.0	9.3	9.6	9.8	10.0	10.2	10.4	10.7	10.9
Brazil		6.0%	4.2%	5.4%	7.7%	3.5%	3.5%	3.5%	3.5%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Brazil Inflation	6.6%	5.4%	6.2%	6.3%	9.0%	8.7%	6.1%	5.7%	5.2%	4.7%	4.5%	4.4%	4.4%	4.4%	4.3%
Brazil GDP	3.9%	1.9%	3.0%	0.1%	-3.8%	-3.8%	0.0%	1.1%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
India															
Total Confectionery	1.6	1.9	2.5	3.0	3.7	4.1	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.1	8.7
India		18.8%	31.6%	20.0%	23.3%	10.2%	10.2%	10.2%	10.2%	10.2%	7.8%	7.8%	7.8%	7.8%	7.8%
India Inflation	9.5%	9.9%	9.4%	5.9%	4.9%	5.3%	5.3%	5.5%	5.3%	5.0%	4.9%	4.9%	4.9%	4.9%	4.9%
India GDP	6.6%	5.6%	6.6%	7.2%	7.3%	7.5%	7.5%	7.6%	7.7%	7.7%	7.8%	7.8%	7.8%	7.8%	7.8%

D. Multiples Approach – Comparable Companies

Market approach tends to exhibit a greater degree of acceptance amongst listed companies. The methodological basis of comparable companies comprises (i) the analysis of a set of comparable listed companies and the selection of those that present the most similar characteristics with Hershey's and Ferrero; and (ii) the structuring of valuation multiples based on market capitalization and fundamental trends, taking into account consensus of equity research analysts (based on Bloomberg analysis).

In order to have a trustworthy analysis, the most comparable companies were selected based on the following issues:

(i) It was selected a sample of 26 companies regarding the Global Top 100 Confectionery Companies published by Candy Industry Magazine (edition of January 2016), and based on those that are listed and have some presence in the chocolate segment - the focus of Hershey's and Ferrero;

(ii) Then, given the difference occurred in operating terms between developed and emergent markets, two groups were formed, (a) a group with the European, American and Latin companies; and (b) the other with the Asiatic players;

(iii) Based on a first analysis and after verifying that multiples from the first group are quite different from the second group, it was selected the former.

Amongst this former group, it was verified that (i) most companies have a significant presence in other packaged food segments, namely snack and cookies products; and (ii) most revenues come from the regions where they are based, even with products being distributed over the entire world.

Therefore, at this point, there were selected two peers groups, one for each Hershey's and Ferrero, based on each peer configuration in terms of activities segment, size (i.e. market cap above €100 million, with liquid stocks[9]), geographical exposure and profitability and growth fundamentals profile (namely the ROIC metric) [76].

<u>Comparable companies of Hershey's</u>

In relation to the Hershey's comparable companies, it was concluded that:

(i) The main peer is Mars considering its concentrated geographical presence and its products portfolio; however it is not listed, thereby there are no available information about the company,

(ii) Consequently, there are no listed companies with truly similar features to the American;

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[9] Measured by a significant amount of traded securities

(iii) Despite that, there were selected the closest companies considering mentioned criteria, namely Nestlé, Mondelēz, Lindt, Nutresa, Ulker Biskuvi, Cloetta, and Wawel.

Multiples Valuation of Hershey's

The present analysis is structured with reference to current market conditions and considering from one up to two-years forward. Median values were considered regarding that the median value is the most accurate methodology to use since it smooths outlier effects, according to JP Morgan.

With reference to companies with characteristics near to Hershey's and given the dispersion degree in relation to the median[10] for each multiple, it was selected the Market Cap/Net $Income_{2016}$ of 23.6x and an $EV/EBITDA_{2016}$ of 13.9x.

Therefore, the developed analysis supports (i) an enterprise value of US$ 22.0 billion (i.e. € 19.9 billion, using the average of EUR/USD in 2015); and (ii) an equity value of US$ 18.3 billion (i.e. € 16.5 billion). Be noted that the processes in order to estimate the EBITDA and the exchange rates are detailed in the income approach section.

Comparable companies of Ferrero

About the Ferrero's comparable companies it is important to highlight:

(i) There are no direct comparable peers in terms of product portfolio, once its product is not inserted in pure chocolate segment (e.g. there are no chocolate bars);

(ii) However, given other criteria, like geographical exposure, there were selected the following set of companies: Mondelēz, Hershey's, Lindt, Orkla, Ulker Biskuvi, Cloetta, Wawel, Colian, Josef Manner, Halloren, and Natra.

Multiples Valuation of Ferrero

Market multiples with reference to companies with characteristics near from Ferrero exhibit similar values to Hershey's peers. Also in this analysis, it was selected the Market Cap/Net $Income_{2016}$ of 22.8x and an $EV/EBITDA_{2016}$ of 13.9x. Therefore, developed analysis supports (i) an enterprise value of € 21.4 billion; and (ii) an equity of € 18.1 billion.

[10] The ratio between standard deviation of the sample and the sample median

(i) Hershey's Multiples Valuation

INPUTS

Comparable Companies	Market Cap	Net Debt	Adjustments	Adj. Net Debt	EV	Book Value	Revenues			EBITDA			EBIT			Interest Expense			Net Income			Invested Capital	FCFF		
							2015	2016 E	2017 E	2015	2016 E	2017 E	2015	2016 E	2017 E	2013	2014	2015	2015	2016 E	2017 E	2015	2015	2016 E	2017 E
Companies Developed Regions																									
Nestle SA	225,602	21,813	-1,290	20,523	246,124	58,751	82,095	82,999	86,273	14,810	15,894	16,781	11,901	12,828	13,628	533	478	663	7,941	9,561	10,257	79,845	10,473	8,364	9,233
Mondelez International Inc	61,441	15,647	-13,816	1,830	63,272	24,987	23,982	23,409	23,967	8,403	4,308	4,728	7,652	3,490	3,918	904	692	542	6,718	2,589	2,866	40,959	1,926	2,109	2,446
Lindt & Spruengli AG	13,947	-284	-103	-387	13,560	3,204	3,439	3,610	3,862	609	646	702	484	523	569	3	5	10	357	384	420	4,596	153	259	309
Grupo Nutresa SA	3,716	967	0	967	4,683	2,492	2,660	2,772	2,938	356	343	370	260	278	297	30	33	73	133	132	160	3,597	46	79	121
Ulker Biskuvi Sanayi AS	2,260	-34	0	-34	2,226	497	1,054	1,204	1,361	152	160	185	132	140	165	13	12	19	100	99	120	1,014	39	33	105
Cloetta AB	923	304	0	304	1,227	457	597	616	629	97	101	110	73	78	85	15	17	14	41	48	55	828	83	47	61
Wawel SA	321	-30	0	-30	291	114	148	154	169	28	30	34	23	24	28	0	0	0	20	21	23	116	2	-	-

Market Cap

Comparable Companies	Revenues			Book Value	Net Income		
	2015	2016 E	2017 E	2015	2015	2016 E	2017 E
Companies Developed Regions							
Nestle SA	2.7 x	2.7 x	2.6 x	3.8 x	28.4 x	23.6 x	22.0 x
Mondelez International Inc	2.6 x	2.6 x	2.6 x	2.5 x	9.1 x	23.7 x	21.4 x
Lindt & Spruengli AG	4.1 x	3.9 x	3.6 x	4.4 x	39.1 x	36.3 x	33.2 x
Grupo Nutresa SA	1.4 x	1.3 x	1.3 x	1.5 x	27.9 x	28.1 x	23.2 x
Ulker Biskuvi Sanayi AS	2.1 x	1.9 x	1.7 x	4.5 x	22.6 x	22.8 x	18.8 x
Cloetta AB	1.5 x	1.5 x	1.5 x	2.0 x	22.7 x	19.4 x	16.9 x
Wawel SA	2.2 x	2.1 x	1.9 x	2.8 x	16.1 x	15.5 x	13.7 x
Average	2.4 x	2.3 x	2.2 x	3.1 x	23.7 x	24.2 x	21.3 x
Weighted Average	2.7 x	2.7 x	2.6 x	3.5 x	24.6 x	24.1 x	22.2 x
Median	2.2 x	2.1 x	1.9 x	2.8 x	22.7 x	23.6 x	21.4 x
Standard Dev./Median	41.0%	41.6%	43.4%	42.0%	42.1%	28.1%	28.8%
Hershey valuation (€ th.)	14,417,127	13,546,877	12,489,582	2,615,847	4,238,051	16,227,185	15,118,013

Firm Value (Enterprise Value)

Comparable Companies	Revenues			EBITDA			EBIT			IC
	2015	2016 E	2017 E	2015	2016 E	2017 E	2015	2016 E	2017 E	2015
Companies Developed Regions										
Nestle SA	3.0 x	3.0 x	2.9 x	16.6 x	15.5 x	14.7 x	20.7 x	19.2 x	18.1 x	3.1 x
Mondelez International Inc	2.6 x	2.7 x	2.6 x	7.5 x	14.7 x	13.4 x	8.3 x	18.1 x	16.2 x	1.5 x
Lindt & Spruengli AG	3.9 x	3.8 x	3.5 x	22.3 x	21.0 x	19.3 x	28.0 x	25.9 x	23.8 x	3.0 x
Grupo Nutresa SA	1.8 x	1.7 x	1.6 x	13.2 x	13.7 x	12.7 x	18.0 x	16.9 x	15.8 x	1.3 x
Ulker Biskuvi Sanayi AS	2.1 x	1.8 x	1.6 x	14.6 x	13.9 x	12.0 x	16.9 x	15.9 x	13.5 x	2.2 x
Cloetta AB	2.1 x	2.0 x	2.0 x	12.6 x	12.1 x	11.1 x	16.9 x	15.8 x	14.4 x	1.5 x
Wawel SA	2.0 x	1.9 x	1.7 x	10.5 x	9.7 x	8.6 x	12.8 x	12.0 x	10.6 x	2.5 x
Average	2.5 x	2.4 x	2.3 x	13.9 x	14.4 x	13.1 x	17.4 x	17.7 x	16.0 x	2.2 x
Weighted Average	2.9 x	2.9 x	2.8 x	14.7 x	15.4 x	14.4 x	18.2 x	19.1 x	17.7 x	2.7 x
Median	2.1 x	2.0 x	2.0 x	13.2 x	13.9 x	12.7 x	16.9 x	16.9 x	15.8 x	2.2 x
Standard Dev./Median	36.3%	38.3%	37.9%	35.6%	25.1%	26.4%	36.6%	25.5%	26.4%	33.1%
Hershey valuation (€ th.)	14,046,607	12,958,098	12,833,333	18,555,684	19,539,184	17,981,833	20,096,663	19,734,884	18,727,226	7,429,951

(ii) Ferrero's Multiples Valuation

INPUTS																											
Comparable Companies	Market Cap	Net Debt	Adjustments	Adj. Net Debt	EV	Book Value	Revenues			EBITDA			EBIT			Interest Expense			Net Income			Invested Capital	FCFF		
							2015	2016 E	2017 E	2015	2016 E	2017 E	2015	2016 E	2017 E	2013	2014	2015	2015	2016 E	2017 E	2015	2015	2016 E	2017 E
Mondelez International Inc	61,441	15,647	-13,816	1,830	63,272	24,987	23,982	23,409	23,967	8,403	4,308	4,728	7,652	3,490	3,918	904	692	542	6,718	2,589	2,866	40,959	1,926	2,109	2,446
Hershey Co/The	18,917	2,700	-5,409	-2,709	16,208	931	6,524	6,619	6,785	1,362	1,570	1,640	1,110	1,332	1,382	81	78	97	662	815	861	3,119	701	790	871
Lindt & Spruengli AG	13,947	-284	-103	-387	13,560	3,204	3,439	3,610	3,862	609	646	702	484	523	569	3	5	10	357	384	420	4,596	153	259	309
Orkla ASA	8,619	1,306	0	1,306	9,925	3,674	3,919	4,144	4,287	498	578	622	377	461	500	45	36	31	399	460	468	4,805	250	268	368
Ulker Biskuvi Sanayi AS	2,260	-34	0	-34	2,226	497	1,054	1,204	1,361	152	160	185	132	140	165	13	12	19	100	99	120	1,014	39	33	105
Cloetta AB	923	304	0	304	1,227	457	597	616	629	97	101	110	73	78	85	15	17	14	41	48	55	828	83	47	61
Wawel SA	321	-30	0	-30	291	114	148	154	169	28	30	34	23	24	28	0	0	0	20	21	23	116	2	-	-

	Market Cap							Firm Value (Enterprise Value)										
Comparable Companies	Revenues			Book Value	Net Income			Revenues			EBITDA			EBIT			IC
	2015	2016 E	2017 E	2015	2015	2016 E	2017 E	2015	2016 E	2017 E	2015	2016 E	2017 E	2015	2016 E	2017 E	2015
Mondelez International Inc	2.6 x	2.6 x	2.6 x	2.5 x	9.1 x	23.7 x	21.4 x	2.6 x	2.7 x	2.6 x	7.5 x	14.7 x	13.4 x	8.3 x	18.1 x	16.2 x	1.5 x
Hershey Co/The	2.9 x	2.9 x	2.8 x	20.3 x	28.6 x	23.2 x	22.0 x	2.5 x	2.4 x	2.4 x	11.9 x	10.3 x	9.9 x	14.6 x	12.2 x	11.7 x	5.2 x
Lindt & Spruengli AG	4.1 x	3.9 x	3.6 x	4.4 x	39.1 x	36.3 x	33.2 x	3.9 x	3.8 x	3.5 x	22.3 x	21.0 x	19.3 x	28.0 x	25.9 x	23.8 x	3.0 x
Orkla ASA	2.2 x	2.1 x	2.0 x	2.3 x	21.6 x	18.7 x	18.4 x	2.5 x	2.4 x	2.3 x	19.9 x	17.2 x	16.0 x	26.3 x	21.5 x	19.8 x	2.1 x
Ulker Biskuvi Sanayi AS	2.1 x	1.9 x	1.7 x	4.5 x	22.6 x	22.8 x	18.8 x	2.1 x	1.8 x	1.6 x	14.6 x	13.9 x	12.0 x	16.9 x	15.9 x	13.5 x	2.2 x
Cloetta AB	1.5 x	1.5 x	1.5 x	2.0 x	22.7 x	19.4 x	16.9 x	2.1 x	2.0 x	2.0 x	12.6 x	12.1 x	11.1 x	16.9 x	15.8 x	14.4 x	1.5 x
Wawel SA	2.2 x	2.1 x	1.9 x	2.8 x	16.1 x	15.5 x	13.7 x	2.0 x	1.9 x	1.7 x	10.5 x	9.7 x	8.6 x	12.8 x	12.0 x	10.6 x	2.5 x
Average	2.5 x	2.4 x	2.3 x	5.6 x	22.8 x	22.8 x	20.6 x	2.5 x	2.4 x	2.3 x	14.2 x	14.1 x	12.9 x	17.7 x	17.3 x	15.7 x	2.6 x
Weighted Average	2.7 x	2.7 x	2.6 x	5.6 x	16.8 x	24.1 x	22.1 x	2.7 x	2.7 x	2.6 x	11.0 x	14.7 x	13.5 x	13.2 x	18.0 x	16.3 x	2.3 x
Median	2.2 x	2.1 x	2.0 x	2.8 x	22.6 x	22.8 x	18.8 x	2.5 x	2.4 x	2.3 x	12.6 x	13.9 x	12.0 x	16.9 x	15.9 x	14.4 x	2.2 x
Standard Dev./Median	36.3%	37.7%	37.3%	233.3%	41.7%	29.2%	32.9%	27.1%	27.8%	27.8%	41.5%	28.6%	30.9%	42.2%	31.8%	32.7%	57.9%
Ferrero valuation (€ th.)	20,988,114	21,501,823	21,888,401	7,599,275	13,980,527	18,068,093	16,314,999	23,707,851	24,727,585	25,204,046	18,059,664	21,400,980	20,189,656	10,464,346	12,585,438	12,442,745	12,285,921

E. Multiples Approach – Comparable Transactions

On a different note, in order to confirm the proposed merger, the methodological basis of comparable transactions approach comprises: (i) multiple valuation analyses of a M&A sample based on the key drivers related with the twelve months before the transaction has occurred; (ii) the revision on valuation premiums over companies values before transactions (only for listed companies); and (iii) deal premiums analysis, based on available information. Be noted that these comparable transactions are collected from the Mergermarket website, which information was confirmed with companies involved in the deals.

Considering Hershey's and Ferrero configuration, transaction multiples are applied to the combined company. In this context, the following deals are analysed, involving only majority interests in comparable companies:

(i) The acquisition of 100% stake in Thorntons by Ferrero, which was announced at 17th August 2015;

(ii) The acquisition of 100% stake in Russell Stover Candies by Lindt & Sprunengli, which was announced at 10th July 2014;

(iii) The acquisition of 100% stake in Cadbury by Mondelēz International, which was announced at 02nd February 2010;

(iv) The acquisition of 100% stake in Nutresa by Grupo Nutresa, which was announced at 28st January 2009;

(v) The acquisition of 52% stake in Fazer Konfektyr Service by Oy Karl Fazer, which was announced at 13th January 2008; and

(vi) The acquisition of 100% stake in Godiva Chocolatier by Yildiz Holding, which was announced at 18th March 2008.

The revision of these M&A deals leads to (i) EV/EBITDA being the selected multiple considering available data about the set of transactions; (ii) greater significance of larger arrangements, considering Hershey's and Ferrero current size, thereby it is used the weighted average instead of the median as advised by JP Morgan guide.

Consequently, based on comparable transactions multiples (EV/EBITDA multiple selected of 16.55x based on the weighted average of selected deals) combined company exhibits (i) an assets current value of € 47.0 billion, representing less 4.4% than the mean verified through income approach; and (ii) equity value of € 42.0 billion (i.e. minus 3.3% relative to the mean verified in income approach).

MULTIPLES APPROACH (COMPARABLE TRANSACTIONS)														
Traget transactions	**Date**	**Bidder**	**Deal Value**	**% acquisition**	**EV EUR**	**EV**	**EV/Sales**	**EV/EBITDA**	**EV/EBIT**	**Sales (LTM)**	**EBITDA (LTM)**	**EBIT (LTM)**	**Sales (t+1)**	**EBITDA (t+1)**
Thorntons Plc	17/08/2015	Ferholding UK Ltd.	99.9	100%	183	131	0.62 x	8.46 x	14.11 x	211	15	9	234	19
Russell Stover Candies, Inc	10/07/2014	Lindt & Spruengli (International) AG	1,420.0	100%	1,420	1,420	2.84 x	18.44 x	23.87 x	500	77	59.500		
Cadbury	02/02/2010	Mondelēz International, Inc.	15,341.6	100%	15,342	13,570	2.51 x	16.73 x	23.97 x	5,404	811	566		
Nutresa, S.A. de CV	28/01/2009	Grupo Nutresa S.A.	71.0	100%	71	71	2.01 x	10.43 x	19.70 x	35	7			
Fazer Konfektyr Service AB	13/01/2009	Oy Karl Fazer AB	270.0	52%	467	467	1.35 x	11.19 x	16.84 x	345	42	28		
Godiva Chocolatier Inc	18/03/2008	Yildiz Holding AS	593.2	100%	593	593	1.70 x	14.90 x	19.70 x	349	40			
Average							**1.84 x**	**13.36 x**	**19.70 x**					
Weighted average							**2.46 x**	**16.55 x**	**23.52 x**					
Median							**1.86 x**	**13.05 x**	**19.70 x**					
Deviation = Std. Dev/ median							**43%**	**30%**	**20%**			**296.94**		

F. Financial Data Own Forecasting

Financial Data Own Forecasting	2015	2016 E	2017 E	2018 E	2019 E	2020 E	2021 E	2022 E	2023 E	2024 E	2025 E
Rf (EUR) Projected by German Bunds	0.4%	-0.1%	0.3%	0.6%	0.9%	1.3%	1.6%	2.0%	2.0%	2.1%	2.1%
Rf (USD) Projected by US Bonds	2.1%	1.7%	1.9%	2.1%	2.3%	2.5%	2.7%	2.9%	2.9%	3.0%	3.0%
Inflation (EUR) Projected by Inflation Swaps EUR	1.3%	1.1%	1.2%	1.3%	1.4%	1.5%	1.6%	1.7%	1.8%	1.8%	1.9%
Inflation (USD) Projected by Inflation Swaps USD	1.9%	1.9%	1.9%	2.0%	2.0%	2.1%	2.2%	2.2%	2.3%	2.3%	2.4%
Exchange Rate (average) Implicit by the theory	0.90	**0.89**	0.87	0.86	0.85	0.84	**0.83**	0.83	0.82	0.82	0.81

G. Country Risk Premium Estimation

CRP Hershey's

Country	CRP	G-spread	Germany CDS Adj.	CDS	Sovereign rating S&P	Fitch	Moody's	Geographical distribution (Revenues, 2015) Total	Ticket
USA	0.0	0.0	27.0	0.0	AA+u	AAA	Aaa	82.8%	T 1 5/8 05/15/26
Canada	27.0	0.0	27.0	27.0	AAA	AAA	Aaa	4.8%	CAN 1 1/2 06/01/26
China	122.0	95.0	27.0	108.5	AA-	A+	Aa3	2.9%	CGB 2.9 05/05/26
Mexico	172.2	145.2	27.0	152.0	A	BBB+	A3	2.7%	MBONO 5 3/4 03/05/26
Brasil	316.3	289.3	27.0	282.5	BB	BB	Ba2	1.5%	BNTNF 10 01/01/27
India	227.0	0.0	227.5	227.5	BBB-u	BBB-	Baa3	0.7%	IGB 7.59 01/11/26
Europe, Middle East and Africa	103.2							4.6%	Ferrero Average
CRP Estimation	**20.6**							100%	

CRP Ferrero

Country	CRP	G-spread	CDS Adj.	CDS	Sovereign rating S&P	Fitch	Moody's	Geographical distribution (Revenues, 2015) Totais	Ticket
Italy	141.0	125.0	16.0	119.0	BBB-u	BBB+	Baa2	15.0%	BTPS 1.6 06/01/26
Germany	16.0	0.0	16.0	16.0	AAAu	AAA	Aaa	12.3%	DBR 0 08/15/26
Poland	85.6	69.6	16.0	86.0	A-	A-	A2	9.4%	POLGB 2 1/2 07/25/26
Russia	227.0	0.0	227.0	227.0	BBB-	BBB-	Ba1	7.3%	RFLB 8.15 02/03/27
France	40.7	24.7	16.0	32.0	AAu	AA	Aa2	14.7%	FRTR 0 1/2 05/25/26
UK	36.5	0.0	36.5	36.5	AAu	AA	Aa1	6.6%	UKT 2 09/07/25
Belgium	41.7	25.7	16.0	42.0	AAu	AA	Aa3	2.6%	BGB 1 06/22/26
Spain	129.9	113.9	16.0	87.0	BBB+	BBB+	Baa2	2.6%	SPGB 1.95 04/30/26
Portugal	310.0	294.0	16.0	275.0	BB+u	BB+	Ba1	0.5%	PGB 2 7/8 07/21/26
USA	0.0	0.0	27.0	0.0	AA+u	AAA	Aaa	3.6%	T 1 5/8 05/15/26
Canada	27.0	0.0	27.0	27.0	AAA	AAA	Aaa	3.6%	CAN 1 1/2 06/01/26
Mexico	172.2	145.2	27.0	152.0	A	BBB+	A3	3.6%	MBONO 5 3/4 03/05/26
BraSil	316.3	289.3	27.0	282.5	BB	BB	Ba2	3.6%	BNTNF 10 01/01/27
Australia	77.7	50.7	27.0	27.0	AAAu	#N/A N/A	Aaa	1.9%	ACGB 4 1/4 04/21/26
Japan	35.4	-0.1	35.5	35.5	A+u	A	A1	3.2%	JGB 0.1 06/20/26
China	122.0	95.0	27.0	108.5	AA-	A+	Aa3	3.2%	CGB 2.9 05/05/26
India	227.5	0.0	227.5	227.5	BBB-u	BBB-	Baa3	3.2%	IGB 7.59 01/11/26
South Africa	273.6	246.6	27.0	251.0	BBB+	BBB-	Baa2	3.2%	SAGB 10 1/2 12/21/26 #R186
CRP Estimaton	**103.2**							100.0%	

H. Beta Estimation

(i) Beta Equity Historical

Beta Equity (Historical)

	Weakly Beta						Monthly Beta						
Company	**Adj. Beta**	Nr. Observ.	Correlation	R-squared	Currency	Index	**Adj. Beta**	Nr. Observ.	Correlation	R-squared	Currency	Index	**Market Cap**
HERSHEY CO/THE	0.74	104	0.41	16.4%	USD	S&P 500	0.44	60	0.11	0.01	USD	S&P 500	23,480
NESTLE SA-REG	0.83	104	0.58	34.1%	CHF	MSCI ACWI USD	0.60	60	0.44	0.19	CHF	MSCI ACWI USD	242,940
CHOCOLADEFABRIKEN LINDT-REG	0.81	104	0.57	32.8%	CHF	MSCI ACWI USD	0.58	60	0.38	0.14	CHF	S&P 500	15,645
MONDELEZ INTERNATIONAL INC-A	1.05	104	0.65	42.9%	USD	S&P 500	0.84	60	0.55	0.30	USD	S&P 500	70,107
ULKER BISKUVI SANAYI	0.76	104	0.28	7.6%	TRY	MSCI ACWI USD	0.81	60	0.46	0.22	TRY	MSCI ACWI USD	2,510
BOURBON CORP	0.74	104	0.26	6.7%	JPY	MSCI ACWI USD	0.37	60	0.07	0.01	JPY	MSCI ACWI USD	567
GRUPO NUTRESA SA	0.59	104	0.29	8.4%	COP	MSCI ACWI USD	0.42	60	0.09	0.01	COP	MSCI ACWI USD	3,886
TOOTSIE ROLL INDS	0.91	104	0.57	32.6%	USD	S&P 500	0.76	60	0.47	0.22	USD	S&P 500	2,311
Wawel SA	0.64	104	0.27	33.3%	PLN	MSCI ACWI EUR	0.53	60	0.08	0.01	PLN	MSCI ACWI USD	9,443
Orkla ASA	0.72	104	0.58	7.3%	JPY	MSCI ACWI EUR	0.81	60	0.09	0.01	JPY	MSCI ACWI EUR	346
CLOETTA AB-B SHS	0.60	104	0.36	12.8%	SEK	MSCI ACWI EUR	0.99	60	0.47	0.22	SEK	MSCI ACWI EUR	1,031
Average	**0.76**	**0.74**	0.44	0.21			**0.65**		0.30	0.13			
Weighted Average	**0.85**		0.57	0.34			**0.63**						
Industry	**0.78**	104.0	0.67	0.45	USD	MSCI ACWI USD							

(ii) Beta Equity Implicit

Beta Equity Implicit

Company	**Beta**	Volatility Stock	Volatility Index	Correlation	Index	**Market Cap**
HERSHEY CO/THE	0.51	18.301	14.650	0.405	S&P 500	23,480
NESTLE SA-REG	0.62	15.855	14.650	0.574	S&P 500	242,940
CHOCOLADEFABRIKEN LINDT-REG	0.67	16.692	14.650	0.585	S&P 500	15,645
MONDELEZ INTERNATIONAL INC-A	1.12	25.017	14.650	0.655	S&P 500	70,107
Average	**0.73**					
Weighted Average	**0.71**					

(iii) Beta of Debt

Beta of Debt

	Weakly Beta							Monthly Beta							
Company	**Beta**	Nr. Observ.	Correlation	R-squared	Currency	Index	Rating S&P	**Beta**	Nr. Observ.	Correlation	R-squared	Currency	Index	Rating S&P	Ticker
HERSHEY CO/THE	-0.11	104	-0.12	0.01	USD	MSCI ACWI USD	A	-0.18	60	-0.24	0.06	USD	MSCI ACWI USD	A	HSY 7.2 08/15/2027 Corp
NESTLE SA-REG	-0.11	104	-0.27	0.07	GBP	MSCI ACWI USD	AA	0.27	60	0.48	0.17	GBP	MSCI ACWI USD	AA	NESNVX 2.25 11/30/23 Cor
CHOCOLADEFABRIKEN LINDT-REG	-0.09	104	-0.40	0.16	CHF	MSCI ACWI CHF	A	-0.07	60	-0.19	0.04	CHF	MSCI ACWI CHF	AA	LISNSW 1 10/08/24 Corp
MONDELEZ INTERNATIONAL INC-A	0.37	104	0.28	0.08	USD	S&P 500	BBB	0.02	60	0.03	0.00	USD	S&P 500	BBB	MDLZ 6.5 11/01/31 Corp
BOURBON CORP	0.12	33	0.05	0.00	JPY	MSCI ACWI EUR	AA							AA	GBBFP 4.7 10/29/49 Corp
CLOETTA AB-B SHS	0.00	104	-0.07	0.01	SEK	MSCI ACWI EUR	BB+	0.01	36	0.09	0.00	SEK	MSCI ACWI EUR	BB+	CLABSS Float 09/17/18 Co
Average	**0.03**		-0.09	0.07				**0.01**		0.02	0.07				

(iv) Beta Unlevered (of Industry)

Beta Unlevered

		(USD Mn)	(USD Mn)	(USD Mn)	(USD Mn)	Historical Beta			Implicit Beta			
Company	Tax rate	Net Debt	Net Debt Adj.	Equity	EV	**$Beta_U$**	$Beta_E$	$Beta_D$	**$Beta_U$**	$Beta_E$	$Beta_D$	Market Leverage
HERSHEY CO/THE	40.0%	3,036	3,083	21,274	24,357	0.65	0.74	0.00	0.44	0.51	0.00	12.7%
NESTLE SA-REG	17.9%	24,506	17,220	253,461	270,681	0.78	0.83	0.00	0.58	0.62	0.00	6.4%
CHOCOLADEFABRIKEN LINDT-REG	17.9%	-319	-314	15,669	15,355	0.82	0.81	0.00	0.68	0.67	0.00	-2.0%
MONDELEZ INTERNATIONAL INC-A	40.0%	17,597	12,063	69,097	81,159	0.89	1.05	0.00	0.95	1.12	0.00	14.9%
ULKER BISKUVI SANAYI	20.0%	-39	35	2,541	2,576	0.75	0.76	0.00				1.4%
BOURBON CORP	33.1%	-82	-83	600	517	0.86	0.74	0.00				-16.1%
GRUPO NUTRESA SA	25.0%	1,056	1,014	4,059	5,073	0.48	0.59	0.00				20.0%
TOOTSIE ROLL INDS	40.0%	-109	-108	2,439	2,330	0.95	0.91	0.00				-4.7%
Wawel SA	19.0%	-34	-35	360	326	0.71	0.64	0.00				-10.6%
Orkla ASA	27.0%	1,467	-95	9,685	9,590	0.73	0.72	0.00				-1.0%
CLOETTA AB-B SHS	22.0%	342	342	1,037	1,379	0.45	0.60	0.00				24.8%
Average						**0.73**	0.76	0.00	**0.66**	0.73	0.00	
Weighted Average						**0.79**	0.86		**0.65**			
Median						**0.75**	0.74		**0.63**			
Industry	27.4%	47,422	33,122	380,222	413,344	**0.72**	0.78	0.00				4.1%

I. Hershey's Discount Rate Estimation

COST OF EQUITY	2015	2016 E	2017 E	2018 E	2019 E	2020 E	2021 E	2022 E	2023 E	2024 E	2025 E
CAPM Approach	7.3%	**6.9%**	**7.1%**	**7.3%**	**7.5%**	**7.6%**	**7.9%**	**8.0%**	**8.1%**	**8.1%**	**8.2%**
Rf	2.1%	1.7%	1.9%	2.1%	2.3%	2.5%	2.7%	2.9%	2.9%	3.0%	3.0%
Country Risk Premium	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ERP	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%
βL	0.86	0.86	0.86	0.86	0.86	0.86	0.87	0.87	0.87	0.87	0.87
βD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
βU	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75

UNLEVERED COST OF EQUITY	2015	2016 E	2017 E	2018 E	2019 E	2020 E	2021 E	2022 E	2023 E	2024 E	2025 E
CAPM Approach	**6.7%**	**6.3%**	**6.5%**	**6.7%**	**6.9%**	**7.0%**	**7.2%**	**7.4%**	**7.5%**	**7.5%**	**7.5%**
Rf	2.1%	1.7%	1.9%	2.1%	2.3%	2.5%	2.7%	2.9%	2.9%	3.0%	3.0%
Country Risk Premium	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ERP	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%
βU	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Implicit	**7.0%**	**6.7%**	**6.7%**	**6.9%**	**7.0%**	**7.2%**	**7.4%**	**7.6%**	**7.6%**	**7.6%**	**7.7%**
rE	7.3%	6.9%	7.1%	7.3%	7.5%	7.6%	7.9%	8.0%	8.1%	8.1%	8.2%
rD	5.0%	5.0%	4.0%	4.2%	4.1%	4.2%	4.2%	4.3%	4.3%	4.2%	4.2%
D	2,794,415	3,013,129	2,985,306	2,973,729	2,976,380	2,994,196	3,064,261	3,064,261	3,064,261	3,064,261	3,064,261
E	19,558,254	20,522,817	20,521,834	20,520,836	20,519,824	20,518,796	20,517,753	20,516,694	20,515,619	20,514,528	20,513,420

COST OF DEBT	2015	2016 E	2017 E	2018 E	2019 E	2020 E	2021 E	2022 E	2023 E	2024 E	2025 E
Existing + New Debt	5.0%	**5.0%**	**4.0%**	**4.2%**	**4.1%**	**4.2%**	**4.2%**	**4.3%**	**4.3%**	**4.2%**	**4.23%**
Existing debt	5.0%	**5.0%**	**5.0%**	**5.0%**	**5.0%**	**5.0%**	**5.0%**	**5.0%**	**5.0%**	**5.0%**	**5.0%**
New debt: Rf + spread	3.2%	**2.5%**	**2.8%**	**3.0%**	**3.2%**	**3.4%**	**3.7%**	**3.9%**	**4.0%**	**4.0%**	**4.0%**
Rf	2.1%	1.7%	1.9%	2.1%	2.3%	2.5%	2.7%	2.9%	2.9%	3.0%	3.0%
Country Risk Premium	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%
Spread	1.1%	0.8%	0.9%	0.9%	0.9%	0.9%	1.1%	1.1%	1.1%	1.1%	1.1%
Issues at date (spread bp)	105	80	85	88	91	93	105	105	105	105	105

WACC (Foregin currency = USD)	2015	2016 E	2017 E	2018 E	2019 E	2020 E	2021 E	2022 E	2023 E	2024 E	2025 E
Enterprise Value	22,352,669	23,535,947	23,507,140	23,494,565	23,496,204	23,512,992	23,582,014	23,580,955	23,579,880	23,578,789	23,577,682
Net Debt	2,794,415	3,013,129	2,985,306	2,973,729	2,976,380	2,994,196	3,064,261	3,064,261	3,064,261	3,064,261	3,064,261
Equity	19,558,254	20,522,817	20,521,834	20,520,836	20,519,824	20,518,796	20,517,753	20,516,694	20,515,619	20,514,528	20,513,420
# shares outstanding	219,091	214,114	210,940	207,812	204,731	201,695	198,704	195,758	192,855	189,995	187,177
Price per share	89	95.9	97	99	100	102	103	105	106	108	110
Marginal tax rate	39.2%	39.2%	39.2%	39.2%	39.2%	39.2%	39.2%	39.2%	39.2%	39.2%	39.2%
rD	5.0%	5.0%	4.0%	4.2%	4.1%	4.2%	4.2%	4.3%	4.3%	4.2%	4.2%
rE	7.3%	6.9%	7.1%	7.3%	7.5%	7.6%	7.9%	8.0%	8.1%	8.1%	8.2%
Ru	7.0%	6.7%	6.7%	6.9%	7.0%	7.2%	7.4%	7.6%	7.6%	7.6%	7.7%
WACC (without tax shields)	6.8%	**6.4%**	**6.5%**	**6.7%**	**6.8%**	**7.0%**	**7.2%**	**7.3%**	**7.4%**	**7.4%**	**7.4%**
Tax shields	41,910	46,967	43,260	42,282	40,965	42,247	42,498	44,604	45,905	46,167	47,228
WACC (adjusted by tax shields)	6.8%	**6.4%**	**6.5%**	**6.7%**	**6.8%**	**7.0%**	**7.2%**	**7.3%**	**7.4%**	**7.4%**	**7.4%**

J. Ferrero's Discount Rates Estimation

COST OF EQUITY	2015	2016 E	2017 E	2018 E	2019 E	2020 E	2021 E	2022 E	2023 E	2024 E	2025 E
CAPM Approach	**6.1%**	**5.8%**	**6.1%**	**6.4%**	**6.8%**	**7.1%**	**7.5%**	**7.8%**	**7.9%**	**8.0%**	**8.0%**
Rf	0.4%	-0.1%	0.3%	0.6%	0.9%	1.3%	1.6%	2.0%	2.0%	2.1%	2.1%
Country Risk Premium	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
ERP	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%
βL	0.85	0.87	0.88	0.87	0.88	0.88	0.88	0.88	0.88	0.88	0.88
βU	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75

UNLEVERED COST OF EQUITY	2015	2016 E	2017 E	2018 E	2019 E	2020 E	2021 E	2022 E	2023 E	2024 E	2025 E
CAPM Approach	**5.6%**	**5.1%**	**5.4%**	**5.8%**	**6.1%**	**6.5%**	**6.8%**	**7.1%**	**7.2%**	**7.3%**	**7.3%**
Rf	0.4%	-0.1%	0.3%	0.6%	0.9%	1.3%	1.6%	2.0%	2.0%	2.1%	2.1%
company-specific risk adjustment	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
ERP	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%
βU	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Implicit	**5.7%**	**5.3%**	**5.6%**	**5.8%**	**6.1%**	**6.5%**	**6.8%**	**7.1%**	**7.2%**	**7.3%**	**7.3%**
rE	6.1%	5.8%	6.1%	6.4%	6.8%	7.1%	7.5%	7.8%	7.9%	8.0%	8.0%
rD	3.7%	2.4%	2.4%	1.9%	2.2%	2.4%	2.7%	3.0%	3.0%	3.1%	3.1%
D	2,588,862	2,837,012	2,972,973	3,044,178	3,149,315	3,299,110	3,515,335	3,561,134	3,625,893	3,711,621	3,806,631
E	15,470,803	18,068,093	18,519,795	18,982,790	19,457,360	19,943,794	20,442,389	20,953,449	21,477,285	22,014,217	22,564,572

COST OF DEBT	2015	2016 E	2017 E	2018 E	2019 E	2020 E	2021 E	2022 E	2023 E	2024 E	2025 E
Existing + new debt	**3.7%**	**2.4%**	**2.4%**	**1.9%**	**2.2%**	**2.4%**	**2.7%**	**2.96%**	**3.0%**	**3.1%**	**3.15%**
Exiting debt	3.7%	3.7%	3.8%	3.8%	3.8%	3.9%	3.9%	3.8%	3.7%	3.7%	3.8%
New debt	1.4%	0.9%	1.3%	1.6%	1.9%	2.3%	2.6%	3.0%	3.0%	3.1%	3.1%
Rf	0.4%	-0.1%	0.3%	0.6%	0.9%	1.3%	1.6%	2.0%	2.0%	2.1%	2.1%
Country Risk Premium	1.04%	1.04%	1.04%	1.04%	1.04%	1.04%	1.04%	1.04%	1.04%	1.04%	1.04%
Spread (synthetic rating)	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%

WACC	2015	2016 E	2017 E	2018 E	2019 E	2020 E	2021 E	2022 E	2023 E	2024 E	2025 E
Enterprise Value	18,059,664	20,905,105	21,492,768	22,026,968	22,606,675	23,242,904	23,957,724	24,514,583	25,103,178	25,725,838	26,371,204
Debt	2,588,862	2,837,012	2,972,973	3,044,178	3,149,315	3,299,110	3,515,335	3,561,134	3,625,893	3,711,621	3,806,631
Equity	15,470,803	18,068,093	18,519,795	18,982,790	19,457,360	19,943,794	20,442,389	20,953,449	21,477,285	22,014,217	22,564,572
Marginal Tax rate	27.4%	27.4%	27.4%	27.4%	27.4%	27.4%	27.4%	27.4%	27.4%	27.4%	27.4%
rD	3.7%	2.4%	2.4%	1.9%	2.2%	2.4%	2.7%	3.0%	3.0%	3.1%	3.1%
rE	6.1%	5.8%	6.1%	6.4%	6.8%	7.1%	7.5%	7.8%	7.9%	8.0%	8.0%
Ru	5.7%	5.3%	5.6%	5.8%	6.1%	6.5%	6.8%	7.1%	7.2%	7.3%	7.3%
WACC (without tax shields)	**5.5811%**	**5.2%**	**5.5%**	**5.7%**	**6.1%**	**6.4%**	**6.7%**	**7.0%**	**7.1%**	**7.1%**	**7.2%**
Tax shields	57,980	9,158	10,315	6,604	8,775	10,467	13,581	16,958	17,619	18,355	19,104
WACC (with tax shields)	**5.6%**	**5.2%**	**5.5%**	**5.7%**	**6.1%**	**6.4%**	**6.7%**	**7.0%**	**7.1%**	**7.1%**	**7.2%**

K. Balance Sheet Estimation

Balance sheet forecasting reflects the following criteria:

(i) Each item reported at Hershey's and Ferrero's balance sheet is denominated as invested capital (working capital and fixed assets), in order to withdraw non-operating assets, debt and debt equivalents, and hybrid claims;

(ii) Hershey's non-operating items estimation follows different approaches, wherein (a) non-operating assets are assumed to be constant, with the exception of excess cash; (b) long-term debt estimation is based on previous corporate bonds and assuming similar financing values and maturities; (c) debt equivalents are essentially based on an adjustment factor of 0.999, assuming that these equivalents tend to disappear in the future, though it is unrealistic to consider its elimination regarding historical trend and its certainty in the future; and (d) deferred operational income taxes (net) are based on revenues, since corresponding balance sheet items are not available;

(iii) Hershey's equity involved the following issues: (a) common stock and additional paid-in capital are assumed to be constant; (b) retained earnings are based on previous year accumulated retained earnings plus retained earnings occurred in current year; (c) group equity is based on previous year group equity, plus group retained earnings and minus share repurchases (which is assumed to be the average of historical volume); (d) accumulated other comprehensive loss is calculated implicitly, regarding previous assumptions; and (e) non-controlling interests are the sum between its previous year value plus current minority interests shares;

(iv) Ferrero's non-operating items comprises (a) non-operating assets that are constant over forecasted period considering last available value, with the exception of excess cash; (b) long-term debt, which is estimated based on previous subordinated debt by assuming similar financing values and maturities in prospective period; (c) employee benefit plan will be constant in forecasting period, instead of gradually decreasing, considering that it exhibits an increasing historical trend; (c) long-term provisions, that are estimated based on sales; (d) deferred operating income taxes (net), which are based on the corresponding balance sheet item;

(v) Ferrero's equity is predicted by various items, namely: (a) common stock and accumulated other comprehensive loss are assumed to be constant; (b) total reserves and retained earnings are based on previous year accumulated item plus group retained earnings; and (c) non-controlling interests are based on the sum between previous year accumulated item and current minority interests shares;

(vi) Both balance sheets are finally balanced by excess cash (when assets are lower than the sum between debt and equity) and by short-term debt (when the sum between debt and equity is lower than assets);

(vii) To close, all items are reclassified and grouped in more general considerations, in order to have comparable statements between both Hershey’s and Ferrero players.

L. Hershey's Forecasting Performance and Estimated Market Share

Revenue by geographic segment (US$ thousands)															
Years	2011	2012	2013	2014	2015	2016	2017 E	2018 E	2019 E	2020 E	2021 E	2022 E	2023 E	2024 E	2025 E
Net Sales	6,080,788	6,644,252	7,146,079	7,421,768	7,386,626	**7,349,903**	**7,548,685**	**7,760,324**	**7,980,718**	**8,206,989**	**8,549,602**	**8,893,043**	**9,251,678**	**9,626,229**	**10,017,449**
Total growth	7.2%	9.3%	7.6%	3.9%	-0.5%	**-0.5%**	**2.7%**	**2.8%**	**2.8%**	**2.8%**	**4.2%**	**4.0%**	**4.0%**	**4.0%**	**4.1%**
Volume growth	3.4%	2.2%	7.8%	3.4%	-3.4%	0.8%	0.7%	0.9%	0.9%	0.9%	2.2%	2.1%	2.1%	2.1%	2.1%
Price growth	3.5%	5.7%	0.1%	0.2%	3.5%	-0.3%	1.8%	1.9%	1.9%	1.9%	2.0%	2.0%	2.0%	2.0%	2.0%
Acquisitions and divestures	0.0%	1.9%	0.0%	1.0%	1.0%	0.4%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Currency exchange rates	0.3%	-0.5%	-0.3%	-0.7%	-1.6%	-1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
United States	5,132,185	5,449,877	5,832,070	5,996,564	6,116,490	**6,105,766**	**6,248,176**	**6,381,483**	**6,517,728**	**6,656,959**	**6,901,410**	**7,132,350**	**7,371,016**	**7,617,666**	**7,872,566**
Growth		6.2%	7.0%	2.8%	2.0%	-0.2%	2.3%	2.1%	2.1%	2.1%	3.7%	3.3%	3.3%	3.3%	3.3%
Volume growth						0.6%	0.4%	0.5%	0.4%	0.4%	1.9%	1.6%	1.6%	1.6%	1.6%
Price growth			0.5%	0.5%	4.7%	-1.1%	1.7%	1.7%	1.7%	1.7%	1.8%	1.7%	1.7%	1.7%	1.7%
Acquisitions and divestures						0.6%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Currency exchange rates						-0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Equity Research															
Credit Suisse (North America)			6.7%	2.5%	1.8%	0.5%	2.2%								
Volume growth			6.4%	2.4%	-2.4%	1.1%	1.0%	0.6%	0.5%						
Price growth			0.5%	0.5%	4.7%	-1.1%	1.0%								
Acquisitions and divestures			0.0%	0.0%	0.3%	0.6%	0.2%								
Currency exchange rates			-0.2%	-0.4%	-0.8%	-0.1%	0.0%								
Canada	315,398	362,762	368,048	356,165	351,668	**339,880**	**349,485**	**357,956**	**366,707**	**375,668**	**386,653**	**400,575**	**414,997**	**429,938**	**445,417**
Growth		15.0%	1.5%	-3.2%	-1.3%	-3.4%	2.8%	2.4%	2.4%	2.4%	2.9%	3.6%	3.6%	3.6%	3.6%
Volume growth						0.0%	0.7%	0.7%	0.8%	0.8%	1.1%	1.9%	1.9%	1.9%	1.9%
Price growth						3.6%	1.9%	1.7%	1.7%	1.7%	1.8%	1.7%	1.7%	1.7%	1.7%
Acquisitions and divestures						-0.2%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Currency exchange rates						-6.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Equity Research															
Credit Suisse (North America)			6.7%	2.5%	1.8%	-1.8%	3.2%								
Volume growth			6.4%	2.4%	-2.4%	-0.7%	1.0%								
Price growth			0.5%	0.5%	4.7%	5.9%	2.0%								
Acquisitions and divestures			0.0%	0.0%	0.3%	-0.2%	0.2%								
Currency exchange rates			-0.2%	-0.4%	-0.8%	-6.8%	0.0%								
International	633,205	831,613	945,961	1,069,039	918,468	**904,257**	**951,025**	**1,020,884**	**1,096,282**	**1,174,361**	**1,261,538**	**1,360,118**	**1,465,665**	**1,578,625**	**1,699,466**
Growth		31.3%	13.8%	13.0%	-14.1%	-1.5%	5.2%	7.3%	7.4%	7.1%	7.4%	7.8%	7.8%	7.7%	7.7%
Volume growth			17.0%	17.0%	-9.1%	2.1%	2.5%	3.9%	3.9%	3.6%	4.0%	4.4%	4.3%	4.3%	4.2%
Price growth			-2.4%	-1.7%	-4.0%	3.7%	2.7%	3.4%	3.5%	3.5%	3.5%	3.4%	3.4%	3.4%	3.4%
Acquisitions and divestures			0.0%	0.0%	5.1%	-0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Currency exchange rates			-0.9%	-2.3%	-6.1%	-7.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Equity Research															
Credit Suisse						-3.5%	3.0%								
Volume growth						0.3%	1.0%								
Price growth						3.5%	2.0%								
Acquisitions and divestures						-0.2%	0.0%								
Currency exchange rates						-7.1%	0.0%								

Market Share															
Years	2011	2012	2013	2014	2015	2016	2017 E	2018 E	2019 E	2020 E	2021 E	2022 E	2023 E	2024 E	2025 E
United States															
Hershey	15.8%	16.7%	17.4%	17.7%	17.5%	17.4%	17.5%	17.6%	17.6%	17.7%	17.7%	17.7%	17.7%	17.7%	17.8%
Mars			16.9%	16.7%	16.4%	16.4%	16.4%	16.4%	16.4%	16.5%	16.5%	16.5%	16.4%	16.4%	16.4%
Mondelez (cadbury)			3.2%	3.2%	3.0%	3.0%	3.1%	3.2%	3.2%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%
Lindt/ Ghirardelli/ R. Stover			2.7%	2.9%	3.0%	3.0%	3.0%	3.1%	3.2%	3.2%	3.3%	3.3%	3.3%	3.3%	3.3%
Nestle			2.9%	3.0%	2.9%	2.7%	2.5%	2.4%	2.2%	2.0%	1.9%	1.9%	1.9%	1.9%	1.9%
Private label	0.2%		1.7%	1.8%	1.9%	1.8%	1.7%	1.7%	1.6%	1.6%	1.5%	1.5%	1.5%	1.5%	1.5%
Ferrara			< 1.5%	< 1.5%	1.4%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
Canada															
Total Confectionery	10.5%	11.7%	11.9%	10.8%	10.3%	10.3%	10.2%	10.1%	10.0%	9.9%	9.8%	9.8%	9.8%	9.8%	9.8%
Chocolate															
Nestle			15.1%	17.4%	18.8%	19.0%	19.2%	19.4%	19.6%	19.8%	20.0%	20.2%	20.4%	20.6%	20.8%
Mondelez			17.8%	16.6%	17.3%	16.6%	15.9%	15.2%	14.5%	13.8%	13.1%	12.4%	11.7%	11.0%	10.3%
Hershey			15.8%	16.6%	17.0%	16.3%	15.6%	14.9%	14.2%	13.5%	12.8%	12.1%	11.4%	10.7%	10.0%
Mars			7.3%	8.3%	10.5%	10.9%	11.3%	11.7%	12.1%	12.5%	12.9%	13.3%	13.7%	14.1%	14.5%
Lindt			12.0%	11.7%	10.6%	10.8%	11.0%	11.2%	11.4%	11.6%	11.8%	12.0%	12.2%	12.4%	12.6%
Ferrero			9.2%	9.2%	7.4%	7.8%	8.2%	8.6%	9.0%	9.4%	9.8%	10.2%	10.6%	11.0%	11.4%
Control label			5.9%	5.7%	5.5%	6.0%	6.5%	7.0%	7.5%	8.0%	8.5%	9.0%	9.5%	10.0%	10.5%

M. Hershey's Financial Statements (in U.S. dollars)

(i) Income Statement

Income Statements (US$ thousands)																
Years	2011	2012	2013	2014	2015	2015 (recorrente)	2016 E	2017 E	2018 E	2019 E	2020 E	2021 E	2022 E	2023 E	2024 E	2025 E
Net Sales	6,080,788	6,644,252	7,146,079	7,421,768	7,386,626	7,386,626	7,349,903	7,548,685	7,760,324	7,980,718	8,206,989	8,549,602	8,893,043	9,251,678	9,626,229	10,017,449
Cost of sales	-3,360,405	-3,609,582	-3,698,687	-3,909,290	-3,806,897	-3,806,897	-3,822,132	-3,960,588	-4,107,698	-4,261,450	-4,420,416	-4,644,690	-4,774,173	-4,907,306	-5,044,173	-5,184,859
Gross Profit	**2,720,383**	**3,034,670**	**3,447,392**	**3,512,478**	**3,579,729**	**3,579,729**	**3,527,771**	**3,588,097**	**3,652,626**	**3,719,268**	**3,786,573**	**3,904,912**	**4,118,870**	**4,344,373**	**4,582,056**	**4,832,591**
Fixed Expenses and losses	**-1,442,192**	**-1,696,428**	**-1,906,626**	**-1,892,558**	**-2,015,663**	**-2,015,663**	**-1,938,513**	**-1,958,552**	**-2,011,176**	**-2,065,942**	**-2,122,098**	**-2,208,170**	**-2,300,821**	**-2,397,715**	**-2,499,059**	**-2,605,071**
Selling, marketing and administrative (without advertising)	-860,724	-1,178,931	-1,305,607	-1,292,614	-1,359,213	-1,359,213	-1,347,027	-1,377,883	-1,410,782	-1,444,954	-1,479,860	-1,535,325	-1,596,999	-1,661,403	-1,728,664	-1,798,919
Advertising	-582,354	-480,016	-582,354	-570,223	-561,644	-561,644	-562,115	-580,669	-600,394	-620,988	-642,238	-672,845	-703,822	-736,312	-770,395	-806,152
Business realignment charges	886	-37,481	-18,665	-29,721	-94,806	-94,806	-29,371	0	0	0	0	0	0	0	0	0
Earnings Before Interest Taxes Depreciation & Amortization = EBITDA	**1,278,191**	**1,338,242**	**1,540,766**	**1,619,920**	**1,564,066**	**1,564,066**	**1,589,258**	**1,629,545**	**1,641,450**	**1,653,326**	**1,664,474**	**1,696,742**	**1,818,049**	**1,946,658**	**2,082,997**	**2,227,520**
Depreciation Charges	-188,491	-174,788	-166,544	-176,312	-197,054	-197,054	-205,164	-204,144	-207,422	-210,932	-214,551	-218,196	-224,765	-231,152	-237,725	-244,490
Amortization Charges	-27,272	-35,249	-34,489	-35,220	-47,874	-47,874	-61,703	-61,305	-61,172	-61,096	-61,057	-61,045	-61,624	-62,162	-62,744	-63,385
Goodwill and Other Intangible Asset Impairment Charges	0	-7,457	0	-15,900	-280,802	0	0	0	0	0	0	0	0	0	0	0
Net Operating Income = Profit from Operations = EBIT	**1,062,428**	**1,120,748**	**1,339,733**	**1,392,488**	**1,038,336**	**1,319,138**	**1,322,392**	**1,364,097**	**1,372,856**	**1,381,297**	**1,388,866**	**1,417,502**	**1,531,660**	**1,653,343**	**1,782,527**	**1,919,645**
Financial Income	**-92,183**	**-95,569**	**-86,732**	**-86,218**	**-135,912**	**-107,586**	**-119,784**	**-110,329**	**-107,834**	**-104,475**	**-107,747**	**-108,384**	**-113,756**	**-117,075**	**-117,744**	**-120,449**
Interest Expense	-94,780	-98,509	-91,514	-87,598	-109,309	-80,983	-121,491	-111,562	-108,578	-105,240	-108,533	-109,193	-114,598	-117,951	-118,655	-121,397
Interest Income (earned on short term investments)	2,597	2,940	3,158	4,066	3,536	3,536	1,707	1,232	744	764	786	808	842	876	911	948
Other interest expense (net) (equity investments)	0	0	1,624	-2,686	-30,139	-30,139	0	0	0	0	0	0	0	0	0	0
Profit before taxes = EBT	**970,245**	**1,025,179**	**1,253,001**	**1,306,270**	**902,424**	**1,211,552**	**1,202,607**	**1,253,768**	**1,265,022**	**1,276,822**	**1,281,120**	**1,309,117**	**1,417,904**	**1,536,269**	**1,664,784**	**1,799,196**
Income taxes	-333,883	-354,648	-430,849	-459,131	-388,896	-388,896	-424,162	-442,728	-446,827	-451,151	-452,565	-462,517	-501,082	-543,133	-588,895	-636,685
Net Income	**636,362**	**670,531**	**822,152**	**847,139**	**513,528**	**822,656**	**778,446**	**811,040**	**818,195**	**825,671**	**828,555**	**846,601**	**916,822**	**993,136**	**1,075,889**	**1,162,511**
Minority interests share	-7,400	-9,600	-1,682	-227	-577	-577	-546	-569	-574	-579	-581	-594	-643	-697	-755	-815
Group Net income	**628,962**	**660,931**	**820,470**	**846,912**	**512,951**	**822,079**	**777,900**	**810,471**	**817,622**	**825,092**	**827,974**	**846,007**	**916,179**	**992,440**	**1,075,134**	**1,161,696**
Dividends Common Stock	228,269	255,596	294,979	328,752	352,953	352,953	299,872	324,442	339,425	354,757	368,270	388,832	434,666	485,558	541,954	602,809
Dividends Class B Stock	75,814	85,610	98,822	111,662	123,179	123,179	104,654	113,229	118,458	123,809	128,525	135,701	151,696	169,457	189,140	210,378
Reserves																
Group Reteined Earnings (without legal reserves)	**324,879**	**319,725**	**426,669**	**406,498**	**36,819**	**345,947**	**373,374**	**372,800**	**359,739**	**346,526**	**331,179**	**321,474**	**329,817**	**337,424**	**344,040**	**348,509**

(ii) Balance Sheet

Balance Sheet (US$ thousand)															
Years	2011	2012	2013	2014	2015	2016 E	2017 E	2018 E	2019 E	2020 E	2021 E	2022 E	2023 E	2024 E	2025 E
ASSETS															
Not Current Assets															
Tangible Fixed Assets															
Property, plant and equipment (net)	1,559,717	1,674,071	1,805,345	2,151,901	2,240,460	2,229,321	2,265,124	2,303,453	2,342,980	2,382,782	2,454,517	2,524,264	2,596,046	2,669,916	2,745,924
Goodwill	516,745	588,003	576,561	792,955	684,252	818,380	818,380	818,380	818,380	818,380	818,380	818,380	818,380	818,380	818,380
Other intangibles	111,913	214,713	195,244	294,841	379,305	364,537	361,166	357,691	353,862	349,511	349,117	347,555	345,356	342,466	338,827
Trademarks	7,048	66,240	61,076	121,630	211,265	198,699	192,245	185,476	178,240	170,434	164,154	156,814	148,643	139,578	129,555
Customer-related	16,086	51,800	44,062	118,560	119,889	114,539	112,754	110,896	108,884	106,662	105,585	104,075	102,288	100,203	97,796
Patents	3,587	12,607	9,541	6,936	4,376	4,705	5,193	5,709	6,252	6,821	7,514	8,241	9,015	9,839	10,718
Others	3,727	2,601	4,045	2,715	0	285	585	902	1,236	1,589	1,986	2,411	2,866	3,355	3,879
Trademarks (non-depreciable)	81,465	81,465	76,520	45,000	43,775	46,310	50,389	54,708	59,250	64,004	69,877	76,015	82,545	89,491	96,880
Deferred income taxes	33,439	12,448	0	0	36,390	64,344	0	0	0	0	0	0	0	0	0
Other assets	138,722	152,119	293,004	136,126	155,366	157,213	163,514	170,830	178,945	188,050	198,156	209,486	222,109	236,191	251,993
Pension	0	0	32,804	25	0	0	0	0	0	0	0	0	0	0	0
Capitalized software (net)	0	0	56,502	63,252	68,004	82,701	89,281	96,582	104,695	113,720	123,777	134,997	147,533	161,560	177,279
Income tax receivable	0	0	63,863	1,568	1,428	1,480	1,202	1,216	1,218	1,298	1,347	1,457	1,545	1,599	1,682
Other non-current assets	0	0	139,835	71,281	85,934	73,032	73,032	73,032	73,032	73,032	73,032	73,032	73,032	73,032	73,032
Total Not Current Assets	2,360,536	2,641,354	2,870,154	3,375,823	3,495,773	**3,633,796**	**3,608,185**	**3,650,354**	**3,694,166**	**3,738,723**	**3,820,170**	**3,899,685**	**3,981,892**	**4,066,953**	**4,155,124**
Current Assets															
Cash and cash equivalents	693,686	728,272	1,118,508	374,854	346,529	250,185	150,974	155,206	159,614	164,140	170,992	177,861	185,034	192,525	200,349
Working Cash	121,616	132,885	142,922	148,435	147,733	146,998	150,974	155,206	159,614	164,140	170,992	177,861	185,034	192,525	200,349
Excess cash	572,070	595,387	975,586	226,419	198,796	103,187	0	0	0	0	0	0	0	0	0
Short-term investments	0	0	0	97,131	0	0	0	0	0	0	0	0	0	0	0
Accounts receivable-trade (net)	399,499	461,383	477,912	596,940	599,073	712,971	720,819	729,273	737,895	746,385	764,593	781,835	799,351	817,130	835,165
Inventories	648,953	633,262	659,541	801,036	750,970	848,216	872,788	898,823	925,844	953,512	994,672	1,014,983	1,035,661	1,056,708	1,078,124
Deferred income taxes	136,861	122,224	52,511	100,515	0	0	0	0	0	0	0	0	0	0	0
Prepaid expenses and other	167,559	168,344	178,862	276,571	152,026	156,101	165,284	175,018	185,234	195,879	209,676	223,943	239,055	255,060	272,009
Total Current Assets	2,046,558	2,113,485	2,487,334	2,247,047	1,848,598	**1,967,473**	**1,909,865**	**1,958,321**	**2,008,588**	**2,059,916**	**2,139,933**	**2,198,622**	**2,259,100**	**2,321,422**	**2,385,647**
Total Assets	4,407,094	4,754,839	5,357,488	5,622,870	5,344,371	**5,601,268**	**5,518,050**	**5,608,675**	**5,702,754**	**5,798,639**	**5,960,103**	**6,098,308**	**6,240,992**	**6,388,375**	**6,540,771**
OWNERS EQUITY AND LIABILITIES															
Equity															
Owners (group) Equity:															
Common Stock at par value	359,901	359,901	359,901	359,901	359,901	359,901	359,901	359,901	359,901	359,901	359,901	359,901	359,901	359,901	359,901
Common stock	299,269	299,272	299,281	299,281	299,281	299,281	299,281	299,281	299,281	299,281	299,281	299,281	299,281	299,281	299,281
Class B common stock	60,632	60,629	60,620	60,620	60,620	60,620	60,620	60,620	60,620	60,620	60,620	60,620	60,620	60,620	60,620
Additional paid-in capital	490,817	592,975	664,944	754,186	783,877	817,135	817,135	817,135	817,135	817,135	817,135	817,135	817,135	817,135	817,135
Treasury—common stock shares, cost	-4,258,962	-4,558,668	-4,707,730	-5,161,236	-5,672,359	-6,144,376	-6,449,940	-6,755,504	-7,061,068	-7,366,632	-7,672,196	-7,977,760	-8,283,324	-8,588,888	-8,894,452
Retained Earnings	4,707,892	5,027,617	5,454,286	5,860,784	5,897,603	6,270,977	6,643,777	7,003,515	7,350,041	7,681,220	8,002,694	8,332,511	8,669,935	9,013,976	9,362,484
Accumulated other comprehensive loss	-442,331	-385,076	-166,567	-358,573	-371,025	-404,283	-404,283	-404,283	-404,283	-404,283	-404,283	-404,283	-404,283	-404,283	-404,283
Total Group Equity	857,317	1,036,749	1,604,834	1,455,062	997,997	**899,353**	**966,589**	**1,020,764**	**1,061,726**	**1,087,340**	**1,103,250**	**1,127,504**	**1,159,364**	**1,197,840**	**1,240,785**
Noncontrolling Interests	23,626	11,624	11,218	64,468	49,465	46,711	47,280	47,854	48,433	49,014	49,608	50,251	50,947	51,702	52,517
Total Equity	880,943	1,048,373	1,616,052	1,519,530	1,047,462	**946,064**	**1,013,869**	**1,068,618**	**1,110,159**	**1,136,354**	**1,152,858**	**1,177,754**	**1,210,311**	**1,249,542**	**1,293,302**
Liabilities															
Non Current Liabilities															
Long-term debt	1,748,500	1,530,967	1,795,142	1,542,317	1,557,091	2,356,894	2,056,635	2,356,647	2,006,552	1,972,299	2,621,932	2,372,299	2,371,932	1,772,299	1,521,932
Deferred income taxes	0	35,657	104,204	99,373	53,188	55,080	58,785	62,710	66,832	71,135	76,613	82,300	88,333	94,734	101,523
Post-retirement benefits liabilities	289,736	292,234	245,460	268,850	231,412	227,782	227,554	227,327	227,099	226,872	226,645	226,419	226,192	225,966	225,740
Pension benefits liabilities	173,593	240,215	50,842	114,923	122,681	155,062	154,907	154,752	154,597	154,443	154,288	154,134	153,980	153,826	153,672
Other liabilities	140,547	136,283	137,766	142,230	114,625	113,266	113,153	113,040	112,927	112,814	112,701	112,588	112,476	112,363	112,251
Total Not Current Liabilitites	2,352,376	2,235,356	2,333,414	2,167,693	2,078,997	**2,908,084**	**2,611,033**	**2,914,475**	**2,568,007**	**2,537,563**	**3,192,180**	**2,947,740**	**2,952,913**	**2,359,188**	**2,115,118**
Current Liabilities															
Short-term debt	42,080	118,164	165,961	384,696	363,513	410,237	221,959	218,179	229,438	256,774	72,104	134,477	441,823	795,278	1,147,227
Current portion of long-term debt	97,593	257,734	914	250,805	499,923	120	300,379	367	350,462	384,715	367	250,000	367	300,000	250,367
Accounts payable	420,017	441,977	461,514	482,017	474,266	537,349	554,657	573,020	592,147	611,828	640,339	655,589	671,197	687,169	703,510
Accrued liabilities	612,186	650,906	699,722	813,513	856,967	776,304	792,436	809,653	827,505	845,679	875,475	904,913	935,445	967,114	999,964
Payroll, compensations and benefits	233,547	236,598	245,641	225,439	215,638	217,799	227,010	236,788	247,024	257,638	272,154	286,998	302,642	319,129	336,505
Advertising and promotion	253,534	289,221	348,966	326,647	337,945	335,539	343,869	352,744	361,975	371,427	386,089	400,721	415,968	431,858	448,421
Due to SGM shareholders	0	0	0	98,884	72,025	0	0	0	0	0	0	0	0	0	0
Other	125,105	125,087	105,115	162,543	231,359	222,965	221,556	220,120	218,507	216,614	217,231	217,193	216,835	216,127	215,038
Accrued income taxes	1,899	2,329	79,911	4,616	23,243	23,110	23,717	24,363	25,036	25,727	26,780	27,835	28,935	30,084	31,282
Total Current Liabilities	1,173,775	1,471,110	1,408,022	1,935,647	2,217,912	**1,747,120**	**1,893,147**	**1,625,583**	**2,024,588**	**2,124,722**	**1,615,065**	**1,972,813**	**2,077,768**	**2,779,645**	**3,132,351**
Total Liabilities	3,526,151	3,706,466	3,741,436	4,103,340	4,296,909	**4,655,204**	**4,504,181**	**4,540,057**	**4,592,596**	**4,662,285**	**4,807,245**	**4,920,553**	**5,030,681**	**5,138,833**	**5,247,469**
Total Sources of Funds	4,407,094	4,754,839	5,357,488	5,622,870	5,344,371	**5,601,268**	**5,518,050**	**5,608,675**	**5,702,754**	**5,798,639**	**5,960,103**	**6,098,308**	**6,240,992**	**6,388,375**	**6,540,771**

N. Hershey's Financial Statements (in euros)

(Aggregated items for simplification)

(i) Income Statement

Income Statements (EUR thousands)																
Years	2011	2012	2013	2014	2015	2015 (recorrente)	2016 E	2017 E	2018 E	2019 E	2020 E	2021 E	2022 E	2023 E	2024 E	2025 E
Net Sales	4,366,769	5,166,848	5,379,511	5,586,584	6,654,770	6,654,770	6,504,970	6,573,590	6,659,125	6,758,291	6,868,468	7,112,714	7,356,994	7,613,009	7,880,515	8,160,229
Cost of sales	-2,413,193	-2,806,962	-2,784,342	-2,942,638	-3,429,715	-3,429,715	-3,382,746	-3,448,983	-3,524,811	-3,608,713	-3,699,467	-3,864,081	-3,949,555	-4,038,117	-4,129,413	-4,223,593
Gross Profit	1,953,576	2,359,886	2,595,169	2,643,946	3,225,055	3,225,055	3,122,224	3,124,607	3,134,314	3,149,578	3,169,001	3,248,634	3,407,439	3,574,892	3,751,101	3,936,635
Fixed Expenses and losses	-1,036,311	-1,290,067	-1,421,242	-1,402,212	-1,730,541	-1,730,541	-1,689,670	-1,705,557	-1,725,788	-1,749,497	-1,775,994	-1,837,054	-1,903,412	-1,973,029	-2,045,855	-2,122,094
Other operating costs and revenues	636	-29,147	-14,051	-22,372	-85,413	-85,413	-25,995	0	0	0	0	0	0	0	0	0
Earnings Before Interest Taxes Depreciation & Amortization = EBITDA	917,902	1,040,673	1,159,876	1,219,362	1,409,101	1,409,101	1,406,560	1,419,050	1,408,526	1,400,081	1,393,007	1,411,580	1,504,027	1,601,863	1,705,246	1,814,541
Depreciation Charges	-135,360	-135,922	-125,373	-132,715	-177,530	-177,530	-181,578	-177,773	-177,989	-178,623	-179,559	-181,525	-185,943	-190,210	-194,614	-199,162
Amortization Charges	-19,585	-27,411	-25,963	-26,511	-43,131	-43,131	-54,610	-53,386	-52,491	-51,738	-51,099	-50,785	-50,980	-51,152	-51,366	-51,634
Goodwill and Other Intangible Asset Impairment Charges	0	-5,799	0	-11,968	-252,981	0	0	0	0	0	0	0	0	0	0	0
Net Operating Income = Profit from Operations = EBIT	762,957	871,541	1,008,540	1,048,167	935,459	1,188,440	1,170,372	1,187,891	1,178,046	1,169,721	1,162,349	1,179,269	1,267,104	1,360,501	1,459,266	1,563,746
Financial Income	-66,199	-74,318	-66,514	-62,877	-95,293	-69,774	-106,014	-96,078	-92,532	-88,473	-90,174	-90,169	-94,108	-96,338	-96,391	-98,118
Interest Expense	-68,064	-76,605	-68,891	-65,938	-98,479	-72,959	-107,525	-97,151	-93,170	-89,120	-90,832	-90,841	-94,804	-97,059	-97,137	-98,890
Interest Income (earned on short term investments)	1,865	2,286	2,377	3,061	3,186	3,186	1,511	1,073	638	647	658	673	697	721	746	772
Other financial income (expense), net	0	0	-220,760	1,202,686	-303,355	-581,855	0	0	0	0	0	0	0	0	0	0
Profit before taxes = EBT	696,758	797,222	721,267	2,187,976	536,811	536,811	1,064,358	1,091,813	1,085,514	1,081,248	1,072,175	1,089,101	1,172,997	1,264,163	1,362,876	1,465,628
Income taxes	-239,770	-275,789	-324,340	-345,601	-350,365	-350,365	-375,401	-385,539	-383,421	-382,047	-378,754	-384,784	-414,532	-446,932	-482,099	-518,645
Net Income	456,988	521,433	396,927	1,842,375	186,447	186,447	688,957	706,275	702,093	699,201	693,422	704,317	758,464	817,231	880,777	946,983
Minority interests share	-5,314	-7,465	-1,266	-171	-520	-520	-483	-495	-492	-490	-486	-494	-532	-573	-618	-664
Group Net income	451,674	513,968	395,661	1,842,204	185,927	185,927	688,473	705,779	701,600	698,711	692,935	703,823	757,932	816,657	880,159	946,319
Dividends	218,370	265,336	296,450	331,513	428,958	428,958	358,022	381,135	392,909	405,263	415,770	436,377	485,083	538,998	598,510	662,423
Group Reteined Earnings (without legal reserves)	233,304	248,632	99,211	1,510,691	-243,031	-243,031	330,451	324,644	308,691	293,448	277,165	267,445	272,850	277,659	281,649	283,896

(ii) Hershey’s Operating and Non-operating Taxes

Operating taxes																
Years	2011	2012	2013	2014	2015		2016 E	2017 E	2018 E	2019 E	2020 E	2021 E	2022 E	2023 E	2024 E	2025 E
Total	962,845	1,015,579	1,251,119	1,306,043	901,847											
EBT Domestic	904,418	980,176	1,252,008	1,320,738	1,357,618	1,222,094	1,289,330	1,343,505	1,384,467	1,410,081	1,425,991					
EBT Foreign	58,427	35,403	-889	-14,695	-455,771											
Current Income Taxes	300,272	340,863	423,392	440,335	427,433	1,222,094	**1,289,330**	**1,343,505**	**1,384,467**	**1,410,081**	**1,425,991**					
Federal	254,732	299,122	372,649	385,642	409,060											
State	32,174	36,187	47,980	52,331	47,978											
Foreign	13,366	5,554	2,763	2,362	-29,605											
Deferred	33,611	13,785	7,457	18,796	-38,537											
Federal	37,160	5,174	11,334	20,649	-31,153											
State	-1,005	1,897	2,212	2,725	-2,346											
Foreign	-2,544	6,714	-6,089	-4,578	-5,038											
Total Provision for income taxes	333,883	354,648	430,849	459,131	388,896											
Tax reconciliation																
Federal	35.0%	35.0%	35.0%	35.0%	35.0%											
State income taxes, net of Federal income tax benefits	2.4%	3.2%	2.8%	3.0%	4.2%											
Qualified production income deduction	-2.2%	-2.5%	-2.6%	-2.4%	-4.4%											
Business realignment and impairment charges and gain on sale of trademark licensing rights	-0.1%	0.2%	0.1%	0.7%	10.8%											
International operations	-0.6%	-0.1%	-0.4%	-0.1%	2.2%											
Historic and solar tax credits					-3.3%											
Other (net)	0.2%	-0.9%	-0.5%	-1.0%	-1.4%											
Reported taxes	34.7%	34.9%	34.4%	35.2%	43.1%											
Income taxes at statuory rates	336,996	355,453	437,892	457,115	315,646											
State income taxes, net of Federal income tax benefits	23,108	32,499	35,156	39,181	37,968											
Qualified production income deduction	-21,183	-25,389	-32,529	-31,476	-39,681											
Business realignment and impairment charges and gain on sale of trademark licensing rights	-963	2,031	1,376	9,142	97,490											
International operations	-5,777	-25,391	-5,004	-1,567	19,931											
Historic and solar tax credits	0	0	0	0	-29,806											
Other (net)	1,926	-9,140	-6,256	-13,256	-12,671											
Reported taxes	333,883	354,648	430,849	459,131	388,896											
Operating taxes																
Marginal tax rates on EBIT	397,348	428,126	506,553	529,145	407,132											
Marginal tax rate (%)	37.4%	38.2%	37.8%	38.0%	39.2%											
EBIT	1,062,428	1,120,748	1,339,733	1,392,488	1,038,336											
Other operating taxes	-26,960	-50,780	-37,534	-33,043	-19,750											
Operating taxes	370,388	377,345	469,019	496,103	387,381											
Increase in operating deferred taxes		-19,826	-6,328	11,339	-57,333											
Operating cash taxes		357,519	462,691	507,442	330,048											
Forecast to Reported Taxes	335,912.0	340,837.9	436,226.1	463,339.7	334,090.0		424,161.9	442,727.5	446,826.5	451,150.8	452,564.8	462,516.6	501,081.7	543,132.8	588,894.8	636,685.1
Operating Taxes	370,388	377,345	469,019	496,103	387,381		**471,129**	**485,988**	**489,108**	**492,116**	**494,812**	**505,014**	**545,685**	**589,038**	**635,062**	**683,913**
EBIT	1,062,428	1,120,748	1,339,733	1,392,488	1,038,336		1,322,392	1,364,097	1,372,856	1,381,297	1,388,866	1,417,502	1,531,660	1,653,343	1,782,527	1,919,645
Operating tax rate	34.9%	33.7%	35.0%	35.6%	37.3%		35.6%	35.6%	35.6%	35.6%	35.6%	35.6%	35.6%	35.6%	35.6%	35.6%
Nonoperating taxes	-34,476	-36,507	-32,793	-32,763	-53,291		**-46,967**	**-43,260**	**-42,282**	**-40,965**	**-42,247**	**-42,498**	**-44,604**	**-45,905**	**-46,167**	**-47,228**
Interest expense	-94,780	-98,509	-91,514	-87,598	-109,309		-121,491	-111,562	-108,578	-105,240	-108,533	-109,193	-114,598	-117,951	-118,655	-121,397
Interest income	2,597	2,940	3,158	4,066	3,536		1,707	1,232	744	764	786	808	842	876	911	948
Nonoperating income	0	0	1,624	-2,686	-30,139		0	0	0	0	0	0	0	0	0	0
Marginal tax rate	37.4%	38.2%	37.8%	38.0%	39.2%		39.2%	39.2%	39.2%	39.2%	39.2%	39.2%	39.2%	39.2%	39.2%	39.2%

(iii) Balance Sheet

Balance Sheet (EUR thousand)															
Years	**2011**	**2012**	**2013**	**2014**	**2015**	**2016 E**	**2017 E**	**2018 E**	**2019 E**	**2020 E**	**2021 E**	**2022 E**	**2023 E**	**2024 E**	**2025 E**
ASSETS															
Not Current Assets															
Property, plant and equipment (net)	1,179,905	1,283,010	1,308,221	2,005,873	1,983,059	1,938,420	1,937,916	1,941,906	1,949,283	1,959,169	2,006,167	2,051,617	2,098,746	2,147,373	2,197,583
Intangible Assets	84,661	164,556	141,481	274,833	335,728	316,969	308,994	301,548	294,402	287,374	285,346	282,478	279,199	275,440	271,166
Goodwill	390,911	450,646	417,798	739,145	605,640	711,591	700,161	689,928	680,866	672,888	668,892	665,145	661,610	658,211	654,955
Deferred tax assets	25,296	9,540	0	0	32,209	55,948	0	0	0	0	0	0	0	0	0
Other operating assets	0	0	147,607	67,905	77,325	64,789	63,510	62,594	61,774	61,115	60,793	60,542	60,291	60,024	59,794
Other non-operating assets	0	0	64,714	58,983	60,191	71,909	76,384	81,423	87,102	93,503	101,167	109,720	119,271	129,940	141,878
Total Not Current Assets	**1,680,773**	**1,907,752**	**2,079,822**	**3,146,740**	**3,094,152**	**3,159,626**	**3,086,964**	**3,077,399**	**3,073,427**	**3,074,049**	**3,122,365**	**3,169,502**	**3,219,117**	**3,270,989**	**3,325,376**
Current Assets															
Cash and cash equivalents	524,764	558,148	810,513	349,416	306,717	217,539	129,165	130,845	132,794	134,959	139,758	144,558	149,588	154,845	160,341
Working Cash	92,001	101,843	103,566	138,363	130,760	127,816	129,165	130,845	132,794	134,959	139,758	144,558	149,588	154,845	160,341
Excess cash	432,764	456,305	706,947	211,054	175,957	89,722	0	0	0	0	0	0	0	0	0
Other financial assets	0	0	0	90,540	0	0	0	0	0	0	0	0	0	0	0
Accounts receivable-trade (net)	302,216	353,604	346,313	556,432	530,247	619,937	616,693	614,807	613,905	613,692	624,930	635,443	646,226	657,205	668,388
Inventories	490,924	485,333	477,928	746,678	664,693	737,533	746,709	757,745	770,273	783,996	812,982	824,936	837,269	849,894	862,830
Deferred income taxes	103,534	93,673	38,051	93,694	0	0	0	0	0	0	0	0	0	0	0
Other operating assets receivable	126,756	129,019	129,610	257,803	134,560	135,731	141,408	147,547	154,109	161,056	171,376	182,012	193,261	205,141	217,691
Total Current Assets	**1,548,194**	**1,619,777**	**1,802,416**	**2,094,563**	**1,636,217**	**1,710,740**	**1,633,975**	**1,650,945**	**1,671,080**	**1,693,702**	**1,749,046**	**1,786,949**	**1,826,345**	**1,867,085**	**1,909,250**
Total Assets	**3,228,967**	**3,527,529**	**3,882,238**	**5,241,303**	**4,730,369**	**4,870,366**	**4,720,939**	**4,728,344**	**4,744,507**	**4,767,752**	**4,871,411**	**4,956,452**	**5,045,462**	**5,138,074**	**5,234,626**
OWNERS EQUITY AND LIABILITIES			99,211												
Equity															
Owners (group) Equity:															
Common Stock at par value	272,260	275,828	260,798	335,478	318,553	312,938	307,911	303,411	299,426	295,917	294,160	292,513	290,958	289,463	288,031
Additional paid-in capital	371,297	454,457	481,843	703,007	693,819	710,508	699,096	688,879	679,830	671,864	667,874	664,133	660,604	657,209	653,959
Treasury—common stock shares, cost	-3,221,849	-3,493,768	-3,411,399	-4,810,996	-5,020,675	-5,342,604	-5,518,213	-5,695,169	-5,874,580	-6,056,986	-6,270,768	-6,483,993	-6,696,564	-6,907,913	-7,118,294
Retained Earnings	3,561,459	3,853,171	3,952,381	5,463,072	5,220,042	5,452,685	5,684,049	5,904,252	6,114,996	6,315,646	6,540,895	6,772,320	7,009,115	7,249,805	7,492,863
Accumulated other comprehensive loss	-334,618	-295,123	-120,701	-334,240	-328,399	-351,529	-345,882	-340,827	-336,350	-332,409	-330,435	-328,584	-326,838	-325,159	-323,551
Total Group Equity	**648,549**	**794,565**	**1,162,923**	**1,356,322**	**883,340**	**781,998**	**826,960**	**860,546**	**883,321**	**894,032**	**901,727**	**916,388**	**937,275**	**963,405**	**993,009**
Noncontrolling Interests	17,873	8,909	8,129	60,093	43,782	40,616	40,450	40,343	40,295	40,300	40,546	40,842	41,188	41,583	42,030
Total Equity	**666,422**	**803,474**	**1,171,052**	**1,416,415**	**927,122**	**822,613**	**867,410**	**900,889**	**923,616**	**934,332**	**942,273**	**957,230**	**978,463**	**1,004,988**	**1,035,039**
Liabilities															
Non Current Liabilities															
Long-term debt	1,322,717	1,173,335	1,300,828	1,437,656	1,378,201	2,049,346	1,759,544	1,986,751	1,669,386	1,621,662	2,143,001	1,928,106	1,917,563	1,425,433	1,218,013
Deferred tax liabilities	0	27,328	75,510	92,630	47,077	47,893	50,293	52,867	55,602	58,489	62,619	66,890	71,412	76,193	81,250
Employee benefit plans	350,502	408,069	214,712	357,730	313,412	332,887	327,213	322,108	317,559	313,524	311,351	309,297	307,346	305,461	303,646
Other non-operational liabilities	106,322	104,447	99,830	132,578	101,456	98,486	96,807	95,297	93,951	92,758	92,115	91,507	90,930	90,372	89,835
Total Not Current Liabilities	**1,779,542**	**1,713,179**	**1,690,880**	**2,020,594**	**1,840,146**	**2,528,612**	**2,233,856**	**2,457,023**	**2,136,499**	**2,086,432**	**2,609,086**	**2,395,801**	**2,387,251**	**1,897,459**	**1,692,744**
Current Liabilities															
Short-term debt	105,661	288,089	120,924	592,376	764,238	356,810	446,883	184,243	482,458	527,444	59,234	312,487	357,484	880,916	1,118,505
Accounts payable	317,737	338,732	334,430	449,307	419,779	467,231	474,534	483,080	492,647	503,056	523,372	532,836	542,622	552,680	563,024
Other operating accounts payable	464,547	500,640	564,951	762,611	779,085	695,099	698,255	703,110	709,287	716,486	737,446	758,099	779,643	802,031	825,314
Total Current Liabilities	**887,945**	**1,127,460**	**1,020,306**	**1,804,294**	**1,963,101**	**1,519,141**	**1,619,672**	**1,370,433**	**1,684,392**	**1,746,987**	**1,320,052**	**1,603,421**	**1,679,749**	**2,235,627**	**2,506,843**
Total Liabilities	**2,667,487**	**2,840,639**	**2,711,186**	**3,824,888**	**3,803,247**	**4,047,752**	**3,853,529**	**3,827,456**	**3,820,891**	**3,833,419**	**3,929,137**	**3,999,222**	**4,066,999**	**4,133,086**	**4,199,587**
Total Sources of Funds	**3,333,909**	**3,644,113**	**3,882,238**	**5,241,303**	**4,730,369**	**4,870,366**	**4,720,939**	**4,728,344**	**4,744,507**	**4,767,752**	**4,871,411**	**4,956,452**	**5,045,462**	**5,138,074**	**5,234,626**

(iv) Other information

Other Information																
Years	2011	2012	2013	2014	2015		2016 E	2017 E	2018 E	2019 E	2020 E	2021 E	2022 E	2023 E	2024 E	2025 E
Buyback calculation	6,224	7,070	3,143	5,549	6,527	6,527	4,925	3,141	3,094	3,049	3,004	2,959	2,916	2,872	2,830	2,788
HSY Average Price	62	72	97	104	89	89	96	97	99	100	102	103	105	106	108	110
Repurchase of common stock	384,515	510,630	305,564	576,755	582,623	582,623	472,017	305,564	305,564	305,564	305,564	305,564	305,564	305,564	305,564	305,564
Number of Shares Issued	359,902	359,902	359,902	359,902	359,902	359,902	359,902	359,902	359,902	359,902	359,902	359,902	359,902	359,902	359,902	359,902
Number of Shares Treasury	134,696	136,116	136,007	138,857	143,124	143,124	148,049	151,190	154,284	157,333	160,336	163,296	166,211	169,084	171,914	174,702
Number of Shares Outstanding	226,574	225,036	224,176	222,555	219,091	219,091	214,114	210,940	207,812	204,731	201,695	198,704	195,758	192,855	189,995	187,177
Common Stock	165,929	164,406	163,549	161,935	158,471	158,471	153,884	153,884	153,884	153,884	153,884	153,884	153,884	153,884	153,884	153,884
Class B Stock	60,645	60,630	60,627	60,620	60,620	60,620	60,620	60,620	60,620	60,620	60,620	60,620	60,620	60,620	60,620	60,620
Number of Shares Diluted	229,919	228,337	227,603	224,837	220,651	220,651	214,504	214,504	214,504	214,504	214,504	214,504	214,504	214,504	214,504	214,504
Common Stock	169,274	167,707	166,976	164,217	160,031	160,031	153,884	153,884	153,884	153,884	153,884	153,884	153,884	153,884	153,884	153,884
Class B Stock	60,645	60,630	60,627	60,620	60,620	60,620	60,620	60,620	60,620	60,620	60,620	60,620	60,620	60,620	60,620	60,620
Average dilution	3,345	3,301	3,427	2,282	1,560	1,560	2,783	2,783	2,783	2,783	2,783	2,783	2,783	2,783	2,783	2,783
EPS Outstanding	2.78	2.94	3.66	3.81	2.34	3.75	3.63	3.84	3.93	4.03	4.11	4.26	4.68	5.15	5.66	6.21
EPS Diluted	2.74	2.89	3.60	3.77	2.32	3.73	3.63	3.78	3.81	3.85	3.86	3.94	4.27	4.63	5.01	5.42
DPS Outstanding	1.34	1.52	1.76	1.98	2.17	2.17	1.89	2.07	2.20	2.34	2.46	2.64	3.00	3.40	3.85	4.34
Common Stock	1.4	1.6	1.8	2.0	2.2	2.2	1.95	2.11	2.21	2.31	2.39	2.53	2.82	3.16	3.52	3.92
Class B Stock	1.3	1.4	1.6	1.8	2.0	2.0	1.73	1.87	1.95	2.04	2.12	2.24	2.50	2.80	3.12	3.47
DPS Diluted	1.32	1.49	1.73	1.96	2.16	2.16	1.89	2.04	2.13	2.23	2.32	2.45	2.73	3.05	3.41	3.79
Common Stock	1.35	1.52	1.77	2.00	2.21	2.21	1.95	2.11	2.21	2.31	2.39	2.53	2.82	3.16	3.52	3.92
Class B Stock	1.25	1.41	1.63	1.84	2.03	2.03	1.73	1.87	1.95	2.04	2.12	2.24	2.50	2.80	3.12	3.47
Dividend Pay out	48%	52%	48%	52%	93%	58%	52%	54%	56%	58%	60%	62%	64%	66%	68%	70%
Plow Back Ratio	52%	48%	52%	48%	7%	42%	48%	46%	44%	42%	40%	38%	36%	34%	32%	30%

O. Hershey's Invested Capital

VALUATION USD												Pereptuity
Years	2015	2016 E	2017 E	2018 E	2019 E	2020 E	2021 E	2022 E	2023 E	2024 E	2025 E	2026 E
INVESTED CAPITAL												
Operating Current Assets	**1,649,802**	**1,864,286**	**1,909,865**	**1,958,321**	**2,008,588**	**2,059,916**	**2,139,933**	**2,198,622**	**2,259,100**	**2,321,422**	**2,385,647**	**2,488,614**
Inventories	750,970	848,216	872,788	898,823	925,844	953,512	994,672	1,014,983	1,035,661	1,056,708	1,078,124	1,124,657
Operational Accounts Reiceivable	599,073	712,971	720,819	729,273	737,895	746,385	764,593	781,835	799,351	817,130	835,165	871,212
Deferrals and Other Operating Accounts receivable	152,026	156,101	165,284	175,018	185,234	195,879	209,676	223,943	239,055	255,060	272,009	283,750
Working cash	147,733	146,998	150,974	155,206	159,614	164,140	170,992	177,861	185,034	192,525	200,349	208,996
Operating Current Liabilities	**1,282,451**	**1,336,763**	**1,370,809**	**1,407,037**	**1,444,688**	**1,483,233**	**1,542,594**	**1,588,337**	**1,635,577**	**1,684,367**	**1,734,757**	**1,809,631**
Accounts Payable	474,266	537,349	554,657	573,020	592,147	611,828	640,339	655,589	671,197	687,169	703,510	733,874
Payroll, compensations and benefits	215,638	217,799	227,010	236,788	247,024	257,638	272,154	286,998	302,642	319,129	336,505	351,029
Other Opperating Accounts Payable	569,304	558,505	565,426	572,865	580,481	588,041	603,321	617,915	632,803	647,985	663,459	692,095
Deferrals and Other Operating Accounts payable	23,243	23,110	23,717	24,363	25,036	25,727	26,780	27,835	28,935	30,084	31,282	32,632
Total Working Capital	**367,351**	**527,523**	**539,055**	**551,284**	**563,899**	**576,683**	**597,339**	**610,286**	**623,523**	**637,056**	**650,890**	**678,983**
Total Fixed Assets												
Property, plant and equipment (net)	2,240,460	2,229,321	2,265,124	2,303,453	2,342,980	2,382,782	2,454,517	2,524,264	2,596,046	2,669,916	2,745,924	2,864,441
Goodwill	684,252	818,380	818,380	818,380	818,380	818,380	818,380	818,380	818,380	818,380	818,380	853,702
Other intangibles	379,305	364,537	361,166	357,691	353,862	349,511	349,117	347,555	345,356	342,466	338,827	353,451
Total Fixed Assets	**3,304,017**	**3,412,239**	**3,444,671**	**3,479,524**	**3,515,222**	**3,550,673**	**3,622,014**	**3,690,199**	**3,759,782**	**3,830,762**	**3,903,131**	**4,071,595**
Other Operating Assets												
Other (net) long-term operating assets (liabilities)	87,362	74,512	74,234	74,248	74,250	74,330	74,379	74,489	74,577	74,631	74,714	77,939
Other Operating Assets	**87,362**	**74,512**	**74,234**	**74,248**	**74,250**	**74,330**	**74,379**	**74,489**	**74,577**	**74,631**	**74,714**	**77,939**
Total Invested Capital	**3,758,730**	**4,014,274**	**4,057,960**	**4,105,056**	**4,153,371**	**4,201,685**	**4,293,732**	**4,374,974**	**4,457,882**	**4,542,448**	**4,628,735**	**4,828,517**

VALUATION EUR												
Years	2015	2016 E	2017 E	2018 E	2019 E	2020 E	2021 E	2022 E	2023 E	2024 E	2025 E	2026 E
INVESTED CAPITAL												
Operating Current Assets	**1,486,342**	**1,649,970**	**1,663,159**	**1,680,433**	**1,700,927**	**1,723,954**	**1,780,285**	**1,818,866**	**1,858,965**	**1,900,433**	**1,943,351**	**2,010,742**
Inventories	676,565	750,706	760,046	771,279	784,030	797,999	827,503	839,670	852,224	865,074	878,241	908,696
Operational Accounts Reiceivable	539,718	631,009	627,708	625,788	624,870	624,653	636,091	646,793	657,769	668,944	680,326	703,919
Deferrals and Other Operating Accounts receivable	136,963	138,156	143,933	150,183	156,861	163,932	174,437	185,263	196,713	208,805	221,579	229,263
Working cash	133,095	130,099	131,472	133,182	135,166	137,369	142,254	147,140	152,260	157,610	163,205	168,864
Operating Current Liabilities	**1,155,388**	**1,183,091**	**1,193,736**	**1,207,377**	**1,223,402**	**1,241,325**	**1,283,338**	**1,313,992**	**1,345,882**	**1,378,907**	**1,413,135**	**1,462,139**
Accounts Payable	427,276	475,576	483,009	491,708	501,446	512,042	532,720	542,353	552,314	562,551	573,080	592,953
Payroll, compensations and benefits	194,273	192,761	197,686	203,188	209,186	215,618	226,414	237,427	249,038	261,255	274,117	283,623
Other Opperating Accounts Payable	512,898	494,300	492,387	491,575	491,568	492,135	501,924	511,185	520,720	530,473	540,455	559,196
Deferrals and Other Operating Accounts payable	20,940	20,453	20,653	20,906	21,201	21,531	22,279	23,027	23,810	24,628	25,483	26,366
Total Working Capital	330,954	**466,880**	**469,423**	**473,056**	**477,526**	**482,629**	**496,947**	**504,874**	**513,084**	**521,526**	**530,216**	**548,603**
Total Fixed Assets												
Property, plant and equipment (net)	2,018,478	1,973,042	1,972,529	1,976,591	1,984,099	1,994,162	2,041,999	2,088,261	2,136,231	2,185,727	2,236,834	2,314,402
Other intangibles	341,724	322,631	314,513	306,934	299,660	292,507	290,443	287,524	284,186	280,360	276,009	285,581
Goodwill	616,457	724,300	712,666	702,251	693,027	684,906	680,839	677,026	673,427	669,967	666,654	689,771
Total Fixed Assets	2,976,660	**3,019,973**	**2,999,708**	**2,985,776**	**2,976,786**	**2,971,575**	**3,013,281**	**3,052,810**	**3,093,845**	**3,136,054**	**3,179,496**	**3,289,754**
Other Operating Assets												
Other (net) long-term operating assets (liabilities)	78,706	65,946	64,645	63,712	62,877	62,207	61,878	61,623	61,368	61,097	60,862	62,972
Other Operating Assets	78,706	**65,946**	**64,645**	**63,712**	**62,877**	**62,207**	**61,878**	**61,623**	**61,368**	**61,097**	**60,862**	**62,972**
Total Invested Capital	3,386,320	**3,552,799**	**3,533,776**	**3,522,544**	**3,517,189**	**3,516,411**	**3,572,107**	**3,619,308**	**3,668,296**	**3,718,677**	**3,770,574**	**3,901,329**

P. Ferrero's Forecasting Performance and Market Share

Revenue by geographic segment (€ thousands)															
Years	2011	2012	2013	2014	2015	2016 E	2017 E	2018 E	2019 E	2020 E	2021 E	2022 E	2023 E	2024 E	2025 E
Net Sales	**7,218,024**	**7,670,189**	**8,100,261**	**8,412,438**	**9,542,228**	**10,324,794**	**10,887,418**	**11,478,215**	**12,122,545**	**12,837,581**	**13,659,385**	**14,145,248**	**14,635,864**	**15,129,817**	**15,627,582**
Growth		6.3%	5.6%	3.9%	13.43%	8.2%	5.4%	5.4%	5.6%	5.9%	6.4%	3.6%	3.5%	3.4%	3.3%
Europe		6,071,788	6,198,308	6,409,198	6,761,057	7,140,706	7,272,179	7,389,336	7,508,614	7,641,211	7,799,616	7,887,453	7,956,713	8,005,982	8,035,006
Growth			2.1%	3.4%	5.5%	5.6%	1.8%	1.6%	1.6%	1.8%	2.1%	1.1%	0.9%	0.6%	0.4%
% of total	**2.97%**	79.2%	76.5%	76.2%	70.9%	69.2%	66.8%	64.4%	61.9%	59.5%	57.1%	55.8%	54.4%	52.9%	51.4%
Americas		871,811	983,287	991,262	1,376,206	1,521,508	1,667,122	1,820,884	1,983,132	2,153,487	2,343,396	2,434,808	2,528,147	2,622,980	2,719,163
Growth			12.8%	0.8%	38.8%	10.6%	9.6%	9.2%	8.9%	8.6%	8.8%	3.9%	3.8%	3.8%	3.7%
% of total		11.4%	12.1%	11.8%	14.4%	14.7%	15.3%	15.9%	16.4%	16.8%	17.2%	17.2%	17.3%	17.3%	17.4%
Others		726,590	918,666	1,011,978	1,404,966	1,662,580	1,948,117	2,267,995	2,630,799	3,042,883	3,516,373	3,822,986	4,151,004	4,500,855	4,873,412
Growth			26.4%	10.2%	38.8%	18.3%	17.2%	16.4%	16.0%	15.7%	15.6%	8.7%	8.6%	8.4%	8.3%
% of total		9.5%	11.3%	12.0%	14.7%	16.1%	17.9%	19.8%	21.7%	23.7%	25.7%	27.0%	28.4%	29.7%	31.2%

Market Share by geographic segment(%)															
Years	2011	2012	2013	2014	2015	2016 E	2017 E	2018 E	2019 E	2020 E	2021 E	2022 E	2023 E	2024 E	2025 E
Europe		9.7%	9.9%	9.8%	10.7%	11.1%	11.3%	11.4%	11.5%	11.6%	11.7%	11.7%	11.7%	11.7%	11.8%
Americas		1.8%	2.1%	2.2%	2.6%	2.7%	2.9%	3.1%	3.3%	3.5%	3.7%	3.7%	3.7%	3.8%	3.8%
Others		1.9%	2.4%	2.6%	2.9%	3.3%	3.6%	3.9%	4.3%	4.6%	4.9%	5.0%	5.0%	5.1%	5.1%
Global	5.4%	5.1%	5.5%	5.6%	5.8%	5.9%	6.0%	6.0%	6.1%	6.2%	6.3%	6.2%	6.1%	6.1%	6.0%

Q. Ferrero's Income Statement and Balance Sheet

(Aggregated Items for simplification)

(i) Income Statement

Income Statement (€ thousands) for M&A															
Years	2011	2012	2013	2014	2015 E	2016 E	2017 E	2018 E	2019 E	2020 E	2021 E	2022 E	2023 E	2024 E	2025 E
Net Sales	7,218,024	7,670,189	8,100,261	8,412,438	9,542,228	10,324,794	10,887,418	11,478,215	12,122,545	12,837,581	13,659,385	14,145,248	14,635,864	15,129,817	15,627,582
Cost of revenues (includes salaries for comparation)	0	-4,297,879	-4,575,531	-4,834,498	-5,475,260	-5,915,081	-6,227,697	-6,555,400	-6,912,575	-7,308,855	-7,764,552	-8,040,736	-8,319,622	-8,600,406	-8,883,355
Gross Profit	**7,218,024**	**3,372,310**	**3,524,730**	**3,577,940**	**4,066,969**	**4,409,713**	**4,659,721**	**4,922,815**	**5,209,970**	**5,528,725**	**5,894,833**	**6,104,512**	**6,316,242**	**6,529,412**	**6,744,227**
Fixed Expenses and losses	0	-2,405,300	-2,598,816	-2,725,996	-3,111,182	-3,380,091	-3,514,735	-3,697,799	-3,897,285	-4,118,594	-4,373,132	-4,519,243	-4,675,990	-4,833,802	-4,992,832
Other operating costs and revenues	0	254,404	368,581	433,652	477,472	510,962	533,717	557,347	582,947	611,210	643,614	660,927	678,201	695,404	712,119
Earnings Before Interest Taxes Depreciation & Amortization = EBITDA	**7,218,024**	**1,221,414**	**1,294,495**	**1,285,596**	**1,433,259**	**1,540,584**	**1,678,703**	**1,782,363**	**1,895,632**	**2,021,341**	**2,165,316**	**2,246,195**	**2,318,453**	**2,391,014**	**2,463,513**
Depreciation Charges	-257,192	-256,979	-284,084	-275,825	-291,604	-331,051	-358,508	-378,368	-399,241	-422,013	-447,287	-476,327	-493,691	-511,250	-528,955
Amortiziation Charges	-37,484	-48,093	-31,262	-35,094	-40,618	-45,138	-47,828	-49,368	-50,923	-52,594	-54,438	-56,585	-57,213	-57,763	-58,231
Goodwill and Other Intangible Asset Impairment Charges	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3
Net Operating Income = Profit from Operations = EBIT	**6,923,348**	**916,342**	**979,149**	**974,677**	**1,101,037**	**1,164,396**	**1,272,367**	**1,354,627**	**1,445,469**	**1,546,734**	**1,663,590**	**1,713,283**	**1,767,549**	**1,822,001**	**1,876,328**
Financial Income (Expense), net	**0**	**-47,665**	**-46,424**	**-40,670**	**-45,097**	**-33,471**	**-37,699**	**-24,136**	**-32,070**	**-38,254**	**-49,636**	**-61,976**	**-64,390**	**-67,080**	**-69,818**
Interest income	0	21,066	21,396	24,111	32,869	25,041	27,009	28,429	29,919	31,542	33,342	35,409	36,637	37,877	39,125
Interest expenses	0	-68,731	-67,820	-64,781	-77,966	-58,511	-64,709	-52,565	-61,988	-69,797	-82,978	-97,385	-101,027	-104,957	-108,943
Other financial income, net	**0**	**8,976**	**-138,146**	**-26,720**	**-166,799**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Profit before taxes = EBT	**6,923,348**	**877,653**	**794,579**	**907,287**	**889,141**	**1,130,925**	**1,234,667**	**1,330,491**	**1,413,399**	**1,508,480**	**1,613,954**	**1,651,306**	**1,703,159**	**1,754,920**	**1,806,510**
Income taxes		-270,826	-249,595	-271,393	-269,428	-337,089	-368,039	-396,211	-421,053	-449,474	-481,108	-492,508	-507,984	-523,440	-538,846
Net Income	**6,923,348**	**606,827**	**544,984**	**635,894**	**619,714**	**793,836**	**866,628**	**934,280**	**992,346**	**1,059,006**	**1,132,846**	**1,158,798**	**1,195,175**	**1,231,480**	**1,267,664**
Minority interests share		-557	-361	-420	-409	-524	-572	-617	-655	-699	-748	-765	-789	-813	-837
Group Net income	**6,923,348**	**606,270**	**544,623**	**635,474**	**619,304**	**793,311**	**866,056**	**933,663**	**991,690**	**1,058,307**	**1,132,098**	**1,158,033**	**1,194,385**	**1,230,667**	**1,266,827**
Dividends Out of Net Income		813,900	400,000	400,000	400,000	528,581	594,728	660,212	721,486	791,553	869,852	913,417	966,469	1,020,947	1,076,803
Group Reteined Earnings (without legal reserves)	**6,923,348**	**-207,630**	**144,623**	**235,474**	**219,304**	**264,730**	**271,328**	**273,451**	**270,204**	**266,754**	**262,245**	**244,616**	**227,916**	**209,720**	**190,024**

(ii) Balance Sheet

Balance Sheet (EUR thousand)															
Years	**2011**	**2012**	**2013**	**2014**	**2015 E**	**2016 E**	**2017 E**	**2018 E**	**2019 E**	**2020 E**	**2021 E**	**2022 E**	**2023 E**	**2024 E**	**2025 E**
ASSETS															
Not Current Assets															
Property, plant and equipment (net)	2,709,090	2,825,772	2,923,698	3,064,826	3,479,225	3,767,582	3,976,074	4,195,192	4,434,238	4,699,545	5,004,387	5,186,533	5,370,708	5,556,396	5,739,199
Intagible Assets	128,925	127,549	139,183	178,387	197,978	209,490	215,923	222,388	229,324	236,976	245,896	248,170	250,080	251,597	259,874
Goodwill	0	0	1,457	1,457	1,457	1,458	1,459	1,460	1,461	1,462	1,463	1,463	1,463	1,463	1,463
Deferred tax assets	0	84,916	109,474	102,588	108,504	117,230	123,067	129,981	136,838	144,424	153,063	159,330	164,403	169,585	174,580
Other operating assets	0	43,469	43,669	46,089	52,311	56,636	59,759	63,040	66,619	70,592	75,157	77,878	80,628	83,401	86,144
Other non-operating assets	206,714	255,121	272,065	295,686	295,686	295,686	295,686	295,686	295,686	295,686	295,686	295,686	295,686	295,686	295,686
Total Not Current Assets	**3,044,729**	**3,336,827**	**3,489,546**	**3,689,033**	**4,135,161**	**4,448,081**	**4,671,968**	**4,907,747**	**5,164,167**	**5,448,685**	**5,775,652**	**5,969,060**	**6,162,969**	**6,358,127**	**6,556,947**
Current Assets															
Cash and cash equivalents	266,743	241,760	177,455	253,677	190,845	206,496	217,748	229,564	242,451	256,752	273,188	282,905	292,717	302,596	312,552
Working cash	144,360	153,404	162,005	168,249	190,845	206,496	217,748	229,564	242,451	256,752	273,188	282,905	292,717	302,596	312,552
Excess cash	122,383	88,356	15,450	85,428	0	0	0	0	0	0	0	0	0	0	0
Other financial assets	0	20,658	37,540	52,549	9,331	9,331	9,331	9,331	9,331	9,331	9,331	9,331	9,331	9,331	9,331
Inventories	0	1,507,656	1,428,233	1,572,136	1,782,156	1,927,096	2,030,819	2,139,654	2,258,314	2,389,975	2,541,320	2,634,330	2,728,406	2,823,285	2,916,170
Accounts receivable-trade (net)	0	878,496	921,311	1,018,927	1,111,332	1,202,473	1,267,999	1,336,805	1,411,847	1,495,123	1,590,834	1,647,420	1,704,560	1,762,088	1,820,060
Deferred income taxes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other op. Assets receivables	0	382,489	446,766	454,716	514,803	555,961	585,138	615,710	649,026	685,989	728,498	752,957	777,568	802,255	828,649
Total Current Assets	**266,743**	**3,031,059**	**3,011,305**	**3,352,005**	**3,608,466**	**3,901,357**	**4,111,035**	**4,331,065**	**4,570,969**	**4,837,170**	**5,143,171**	**5,326,943**	**5,512,581**	**5,699,556**	**5,886,761**
Total Assets	**3,311,472**	**6,367,886**	**6,500,851**	**7,041,038**	**7,743,627**	**8,349,437**	**8,783,002**	**9,238,812**	**9,735,136**	**10,285,855**	**10,918,823**	**11,296,003**	**11,675,550**	**12,057,682**	**12,443,708**
OWNERS EQUITY AND LIABILITIES															
Equity															
Owners (group) Equity:															
Common Stock at par value	138,000	138,000	138,000	138,000	138,000	138,000	138,000	138,000	138,000	138,000	138,000	138,000	138,000	138,000	138,000
Additional paid-in capital	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Treasury—common stock shares, cost	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total reserves and Retained Earnings	2,693,843	2,068,558	2,213,181	2,448,655	2,667,959	2,932,689	3,204,017	3,477,468	3,747,672	4,014,426	4,276,672	4,521,288	4,749,204	4,958,923	5,148,947
Acummulated other comprehensive income	0	-61,666	-106,009	-121,722	-121,722	-121,722	-121,722	-121,722	-121,722	-121,722	-121,722	-121,722	-121,722	-121,722	-121,722
Total Group Equity	**2,831,843**	**2,144,892**	**2,245,172**	**2,464,933**	**2,684,237**	**2,948,967**	**3,220,295**	**3,493,746**	**3,763,950**	**4,030,704**	**4,292,950**	**4,537,566**	**4,765,482**	**4,975,201**	**5,165,225**
Noncontrolling Interests	7,747	8,287	8,672	8,726	9,135	9,660	10,232	10,849	11,505	12,204	12,952	13,718	14,507	15,320	16,158
Total Equity	**2,839,590**	**2,153,179**	**2,253,844**	**2,473,659**	**2,693,373**	**2,958,627**	**3,230,527**	**3,504,595**	**3,775,455**	**4,042,908**	**4,305,902**	**4,551,283**	**4,779,989**	**4,990,522**	**5,181,383**
Liabilities															
Non Current Liabilities															
Long-term debt	0	990,385	1,170,676	1,280,899	1,434,622	756,718	1,733,399	1,716,089	1,868,779	1,872,639	2,018,639	1,970,639	1,922,639	1,874,639	1,826,639
Convertible Subordinated Debt	0	261,655	202,152	141,168	80,184	0	0	0	0	0	0	0	0	0	0
Deferred tax liabilities	0	265,331	256,776	251,742	284,607	309,724	328,691	348,766	370,733	395,152	423,174	441,286	459,795	478,662	494,203
Employee benefit plans	226,897	258,624	250,131	262,683	262,683	262,683	262,683	262,683	262,683	262,683	262,683	262,683	262,683	262,683	262,683
Other non-operational liabilities	166,085	142,395	157,653	172,858	195,097	210,041	220,373	231,157	242,894	255,907	270,892	279,081	287,264	295,411	305,130
Total Not Current Liabilitites	**392,982**	**1,918,390**	**2,037,388**	**2,109,350**	**2,257,193**	**1,539,166**	**2,545,146**	**2,558,695**	**2,745,088**	**2,786,381**	**2,975,388**	**2,953,690**	**2,932,381**	**2,911,395**	**2,888,655**
Current Liabilities															
Short-term debt	0	732,029	634,838	860,200	1,001,477	1,912,587	1,061,535	1,139,265	1,079,977	1,212,898	1,268,138	1,353,748	1,458,324	1,583,905	1,717,196
Convertible Subordinated Debt	0	58,078	59,503	60,984	60,984	80,184	0	0	0	0	0	0	0	0	0
Accounts payable	0	918,299	864,354	822,003	923,871	990,438	1,034,733	1,080,708	1,130,657	1,186,030	1,249,945	1,284,115	1,318,006	1,351,481	1,395,944
Other operating accounts payable	0	587,911	650,924	714,842	806,729	868,435	911,062	955,548	1,003,959	1,057,638	1,119,451	1,153,168	1,186,851	1,220,379	1,260,529
Total Current Liabilities	**0**	**2,296,317**	**2,209,619**	**2,458,029**	**2,793,061**	**3,851,644**	**3,007,329**	**3,175,521**	**3,214,592**	**3,456,566**	**3,637,534**	**3,791,030**	**3,963,181**	**4,155,766**	**4,373,670**
Total Liabilities	**392,982**	**4,214,707**	**4,247,007**	**4,567,379**	**5,050,255**	**5,390,810**	**5,552,475**	**5,734,217**	**5,959,681**	**6,242,947**	**6,612,922**	**6,744,720**	**6,895,562**	**7,067,161**	**7,262,325**
Total Sources of Funds	**3,232,572**	**6,367,886**	**6,500,851**	**7,041,038**	**7,743,627**	**8,349,437**	**8,783,002**	**9,238,812**	**9,735,136**	**10,285,855**	**10,918,823**	**11,296,003**	**11,675,550**	**12,057,682**	**12,443,708**

(iii) Ferrero's Operating and Non-operating Taxes

Operating taxes															
Years	2011	2012	2013	2014	2015 E	2016 E	2017 E	2018 E	2019 E	2020 E	2021 E	2022 E	2023 E	2024 E	2025 E
EBT Total	6,923,348	877,653	794,579	907,287	**889,141**	**1,130,925**	**1,234,667**	**1,330,491**	**1,413,399**	**1,508,480**	**1,613,954**	**1,651,306**	**1,703,159**	**1,754,920**	**1,806,510**
Income taxes at statuory rates		237,348	211,270	248,255											
Permanent differences arisen during the period		11,861	4,802	5,168											
Change in applicable tax rates on opening temporary differences		-932	26	53											
Temporary differences arisen during the period		327	-5,362	-3,247											
Tax losses arisen during the period for which no conditions for recognition were existing in previous years		-1,384	16,343	1,674											
Translation gains/(losses) and other taxable base differences		5,592	161	-1,900											
Differences on local taxes (mainly Italian I.R.A.P.)		18,041	22,355	21,390											
Reported taxes		270,853	249,595	271,393											
Expected Group's weighted average corporate tax rate		27.0%	26.6%	27.4%											
Permanent differences arisen during the period		1.3%	0.5%	0.6%											
Change in applicable tax rates on opening temporary differences		-0.1%	0.0%	0.0%											
Temporary differences arisen during the period		0.0%	-0.6%	-0.4%											
Tax losses arisen during the period for which no conditions for recognition were existing in previous years		-0.2%	1.8%	0.2%											
Translation gains/(losses) and other taxable base differences		0.6%	0.0%	-0.2%											
Differences on local taxes (mainly Italian I.R.A.P.)		2.0%	2.5%	2.4%											
Reported taxes		**30.7%**	**30.8%**	**29.9%**											
Operating taxes															
Marginal tax rates on EBIT		247,811	260,345	266,694											
Marginal tax rate (%)		27.0%	26.6%	27.4%											
EBIT		916,342	979,149	974,677											
Other operating taxes		33,505	38,325	23,138											
Operating taxes		281,316	298,670	289,832											
Increase in operating deferred taxes		0	1	0											
Operating cash taxes		281,316	298,671	289,833											
Forecast to Reported Taxes		270,853.0	249,595.0	271,393.0	269,427.6	337,089.3	368,038.8	396,211.3	421,053.3	449,473.5	481,107.8	492,508.0	507,984.4	523,440.1	538,845.8
Operating Taxes		281,316	298,670	289,832	**327,407**	**346,248**	**378,354**	**402,816**	**429,828**	**459,941**	**494,689**	**509,466**	**525,603**	**541,795**	**557,950**
EBIT		916,342	979,149	974,677	1,101,037	1,164,396	1,272,367	1,354,627	1,445,469	1,546,734	1,663,590	1,713,283	1,767,549	1,822,001	1,876,328
Operating tax rate		30.7%	30.5%	29.7%	29.7%	29.7%	29.7%	29.7%	29.7%	29.7%	29.7%	29.7%	29.7%	29.7%	29.7%
Nonoperating taxes		-10,463	-49,075	-18,439	**-57,980**	**-9,158**	**-10,315**	**-6,604**	**-8,775**	**-10,467**	**-13,581**	**-16,958**	**-17,619**	**-18,355**	**-19,104**
Share of profit (loss) under the equity method		0	1,895	7,447	0	0	0	0	0	0	0	0	0	0	0
Financial Income		-38,689	-186,465	-74,837	-211,896	-33,471	-37,699	-24,136	-32,070	-38,254	-49,636	-61,976	-64,390	-67,080	-69,818
Marginal tax rate		27.0%	26.6%	27.4%	27.4%	27.4%	27.4%	27.4%	27.4%	27.4%	27.4%	27.4%	27.4%	27.4%	27.4%

R. Ferrero's Invested Capital

VALUATION												
Years	2015 E	2016 E	2017 E	2018 E	2019 E	2020 E	2021 E	2022 E	2023 E	2024 E	2025 E	2026 E
INVESTED CAPITAL												
Operating Current Assets	**3,599,135**	**3,892,026**	**4,101,704**	**4,321,734**	**4,561,638**	**4,827,839**	**5,133,840**	**5,317,612**	**5,503,250**	**5,690,225**	**5,877,430**	**6,084,087**
Inventories	1,782,156	1,927,096	2,030,819	2,139,654	2,258,314	2,389,975	2,541,320	2,634,330	2,728,406	2,823,285	2,916,170	3,018,706
Operational Accounts Reiceivable	1,111,332	1,202,473	1,267,999	1,336,805	1,411,847	1,495,123	1,590,834	1,647,420	1,704,560	1,762,088	1,820,060	1,884,055
Deferrals and Other Operating Accounts receivable	514,803	555,961	585,138	615,710	649,026	685,989	728,498	752,957	777,568	802,255	828,649	857,785
Working cash	190,845	206,496	217,748	229,564	242,451	256,752	273,188	282,905	292,717	302,596	312,552	323,541
Operating Current Liabilities	**1,730,600**	**1,858,873**	**1,945,795**	**2,036,256**	**2,134,616**	**2,243,668**	**2,369,396**	**2,437,282**	**2,504,856**	**2,571,861**	**2,656,474**	**2,749,878**
Accounts Payable	923,871	990,438	1,034,733	1,080,708	1,130,657	1,186,030	1,249,945	1,284,115	1,318,006	1,351,481	1,395,944	1,445,027
Other Opperating Accounts Payable (VAT and others)	806,729	868,435	911,062	955,548	1,003,959	1,057,638	1,119,451	1,153,168	1,186,851	1,220,379	1,260,529	1,304,851
Deferrals and Other Operating Accounts payable	0	0	0	0	0	0	0	0	0	0	0	0
Total Working Capital	**1,868,535**	**2,033,153**	**2,155,909**	**2,285,478**	**2,427,023**	**2,584,170**	**2,764,445**	**2,880,329**	**2,998,394**	**3,118,364**	**3,220,957**	**3,334,209**
Total Fixed Assets												
Property, Plant and Equipments	3,479,225	3,767,582	3,976,074	4,195,192	4,434,238	4,699,545	5,004,387	5,186,533	5,370,708	5,556,396	5,739,199	5,940,995
Intagible Assets	197,978	209,490	215,923	222,388	229,324	236,976	245,896	248,170	250,080	251,597	259,874	269,011
Goodwill	1,457	1,458	1,459	1,460	1,461	1,462	1,463	1,463	1,463	1,463	1,463	1,514
Biological assets	52,311	56,636	59,759	63,040	66,619	70,592	75,157	77,878	80,628	83,401	86,144	89,173
Total Fixed Assets	**3,730,971**	**4,035,165**	**4,253,214**	**4,482,080**	**4,731,643**	**5,008,575**	**5,326,903**	**5,514,044**	**5,702,879**	**5,892,856**	**6,086,680**	**6,300,694**
Total Invested Capital	**5,599,506**	**6,068,317**	**6,409,124**	**6,767,557**	**7,158,665**	**7,592,746**	**8,091,348**	**8,394,373**	**8,701,273**	**9,011,220**	**9,307,637**	**9,634,903**

S. Hershey's Valuation According with DCF Approach (in U.S. dollars)

(i) Present Value (WACC)

Years	2015	2016 E	2017 E	2018 E	2019 E	2020 E	2021 E	2022 E	2023 E	2024 E	2025 E	2026 E
FCFF (Free Cash Flow to the Firm)												
NOPLAT	826,996	**851,262**	**878,109**	**883,748**	**889,182**	**894,054**	**912,487**	**985,975**	**1,064,306**	**1,147,465**	**1,235,732**	**1,289,068**
EBIT	1,319,138	1,322,392	1,364,097	1,372,856	1,381,297	1,388,866	1,417,502	1,531,660	1,653,343	1,782,527	1,919,645	2,002,499
Operating tax rate	37.3%	35.6%	35.6%	35.6%	35.6%	35.6%	35.6%	35.6%	35.6%	35.6%	35.6%	35.6%
Investment in WC	254,370	**-160,172**	**-11,532**	**-12,229**	**-12,615**	**-12,783**	**-20,656**	**-12,947**	**-13,237**	**-13,533**	**-13,834**	**-28,093**
Capital expenditures	-309,248	**-375,088**	**-297,880**	**-303,447**	**-307,725**	**-311,059**	**-350,582**	**-354,574**	**-362,897**	**-371,449**	**-380,244**	**-489,627**
Depreciation	244,928	**266,867**	**265,448**	**268,594**	**272,028**	**275,608**	**279,241**	**286,389**	**293,314**	**300,470**	**307,875**	**321,163**
Investment in Other Operating Assets	-14,513	**12,850**	**278**	**-14**	**-2**	**-80**	**-49**	**-110**	**-87**	**-54**	**-83**	**-3,225**
FCFF	1,002,532	**595,718**	**834,424**	**836,651**	**840,867**	**845,740**	**820,441**	**904,733**	**981,398**	**1,062,899**	**1,149,445**	**1,089,286**
Discount factor	1	**0.94**	**0.88**	**0.83**	**0.77**	**0.72**	**0.68**	**0.63**	**0.59**	**0.55**	**0.51**	**32.02**
WACC	6.8%	6.4%	6.5%	6.7%	6.8%	7.0%	7.2%	7.3%	7.4%	7.4%	7.4%	7.4%
Perpetuity Growth Rate												4.3%
Continuing Value		-255,544	-43,686	-47,097	-48,315	-48,314	-92,047	-81,242	-82,908	-84,566	-86,287	**34,878,172**
RONIC												7.2%
Discount Cash Flows		**559,804**	**736,357**	**692,189**	**651,241**	**612,164**	**554,134**	**569,303**	**575,110**	**579,871**	**18,294,143**	
ENTERPRISE VALUE (@ WACC)	**23,824,314**											
Non Operating Assets	266,800											
Excess cash	198,796											
Short-term investments	0											
Other Assets: Pension	0											
Other Assets: Capitalized software (net)	68,004											
Firm Value/ Enterprise Value	**24,091,115**											
Debt	2,556,863											
Debt Equivalents	372,248											
Post-retirement benefits liabilities	145,077											
Pension benefits liabilities	76,911											
Accrued liab. Due to SGM shareholders	72,025											
Deferred income taxes (net)	-36,390											
Other non operating liabilites	114,625											
Hybrid claims	696,844											
Stock Options	594,191											
Outstanding as of April 3, 2016	7,489,176											
Average exercise price	79											
Noncontrolling Interests	49,465											
Deferred income taxes (net)	53,188											
EQUITY VALUE	**20,465,159**											

(ii) Economic profit

Years	2015	2016 E	2017 E	2018 E	2019 E	2020 E	2021 E	2022 E	2023 E	2024 E	2025 E	2026 E
EVA & MVA												
Implied MVA in PV of Future FCFF												
FCFF (Free Cash Flow to the Firm)	23,824,314	24,757,053	25,528,426	26,393,212	27,353,225	28,422,168	29,638,916	30,908,419	32,207,640	33,533,018	34,878,172	36,383,555
Invested Capital	3,758,730	4,014,274	4,057,960	4,105,056	4,153,371	4,201,685	4,293,732	4,374,974	4,457,882	4,542,448	4,628,735	4,828,517
Implied MVA in PV of Future FCFF	20,065,585	**20,742,779**	**21,470,467**	**22,288,156**	**23,199,854**	**24,220,482**	**25,345,183**	**26,533,444**	**27,749,758**	**28,990,569**	**30,249,437**	**31,555,038**
NOPLAT	826,996	**851,262**	**878,109**	**883,748**	**889,182**	**894,054**	**912,487**	**985,975**	**1,064,306**	**1,147,465**	**1,235,732**	**1,289,068**
Capital charge	265,717	241,143	260,375	270,458	280,099	290,729	301,160	314,977	322,813	330,563	337,923	344,342
WACC	6.8%	6.4%	6.5%	6.7%	6.8%	7.0%	7.2%	7.3%	7.4%	7.4%	7.4%	7.4%
Invested Capital (boy)	3,934,266	3,758,730	4,014,274	4,057,960	4,105,056	4,153,371	4,201,685	4,293,732	4,374,974	4,457,882	4,542,448	4,628,735
EVA (Economic Value Added)	561,279	**610,120**	**617,735**	**613,290**	**609,083**	**603,325**	**611,327**	**670,997**	**741,492**	**816,902**	**897,809**	**944,725**
ROIC	21.0%	22.6%	21.9%	21.8%	21.7%	21.5%	21.7%	23.0%	24.3%	25.7%	27.2%	27.8%
WACC	6.8%	6.4%	6.5%	6.7%	6.8%	7.0%	7.2%	7.3%	7.4%	7.4%	7.4%	7.4%
EVA Spread	14.3%	16.2%	15.4%	15.1%	14.8%	14.5%	14.5%	15.6%	16.9%	18.3%	19.8%	20.4%
EVA (Economic Value Added)	561,279	**610,120**	**617,735**	**613,290**	**609,083**	**603,325**	**611,327**	**670,997**	**741,492**	**816,902**	**897,809**	**944,725**
MVA = PV of Future EVA @ WACC	20,065,585	20,742,779	21,470,467	22,288,156	23,199,854	24,220,482	25,345,183	26,533,444	27,749,758	28,990,569	30,249,437	
MVA + Current Year EVA		21,352,899	22,088,202	22,901,446	23,808,937	24,823,807	25,956,511	27,204,442	28,491,250	29,807,472	31,147,246	
Control = EV by FCFF	23,824,314	**24,757,053**	**25,528,426**	**26,393,212**	**27,353,225**	**28,422,168**	**29,638,916**	**30,908,419**	**32,207,640**	**33,533,018**	**34,878,172**	**4,828,517**

(iii) APV

Years	2015	2016 E	2017 E	2018 E	2019 E	2020 E	2021 E	2022 E	2023 E	2024 E	2025 E	2026 E
Adjusted Present Value (APV)												
FCFF												
FCFF	1,002,532	**595,718**	**834,424**	**836,651**	**840,867**	**845,740**	**820,441**	**904,733**	**981,398**	**1,062,899**	**1,149,445**	**1,089,286**
Discount factor	1	**0.94**	**0.88**	**0.82**	**0.77**	**0.72**	**0.67**	**0.62**	**0.58**	**0.54**	**0.50**	**14.903**
Ru	7.0%	6.7%	6.7%	6.9%	7.0%	7.2%	7.4%	7.6%	7.6%	7.6%	7.7%	7.7%
Perpetuity Growth Rate												4.3%
Discount Cash Flows		**558,479**	**733,229**	**687,899**	**645,975**	**606,026**	**547,488**	**561,340**	**565,914**	**569,458**	**572,034**	**16,233,889**
Present Value of FCFF	**22,281,729**											
Interest Tax Shields												
Interest Tax Shields	41,910	**46,967**	**43,260**	**42,282**	**40,965**	**42,247**	**42,498**	**44,604**	**45,905**	**46,167**	**47,228**	**48,075**
Debt t-1	2,177,818	2,420,527	2,767,251	2,578,973	2,575,193	2,586,452	2,613,788	2,694,403	2,756,776	2,814,122	2,867,577	2,919,526
Expected interest rate	5.0%	5.0%	4.0%	4.2%	4.1%	4.2%	4.2%	4.3%	4.3%	4.2%	4.2%	4.2%
Cash and other t-1	323,550	346,529	250,185	150,974	155,206	159,614	164,140	170,992	177,861	185,034	192,525	200,349
Expected interest rate	0.7%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
Marginal tax rate	39.2%	39.2%	39.2%	39.2%	39.2%	39.2%	39.2%	39.2%	39.2%	39.2%	39.2%	39.2%
Discount factor	1	**0.94**	**0.88**	**0.82**	**0.77**	**0.72**	**0.67**	**0.62**	**0.58**	**0.54**	**0.50**	**14.903**
rU		6.7%	6.7%	6.9%	7.0%	7.2%	7.4%	7.6%	7.6%	7.6%	7.7%	7.7%
Perpetuity Growth Rate												4.3%
Discount Cash Flows		**44,031**	**38,014**	**34,764**	**31,470**	**30,273**	**28,359**	**27,674**	**26,471**	**24,735**	**23,504**	**716,476**
Present Value of Interest Tax Shields	**1,025,771**											
Present Value of FCF and Interst Tax Shields	**23,307,500**											
Non Operating Assets	266,800											
Firm Value/ Enterprise Value	**23,574,300**											
Debt	2,556,863											
Debt Equivalents	372,248											
Hybrid claims	696,844											
EQUITY VALUE	**19,948,345**											

(iv) FTE

Years	2015	2016 E	2017 E	2018 E	2019 E	2020 E	2021 E	2022 E	2023 E	2024 E	2025 E	2026 E
FCFE (Free Cash Flow to the Equity)												
Cash Flow going to Debt holders		**-201,321**	**191,500**	**69,828**	**52,747**	**38,658**	**-14,235**	**7,274**	**14,316**	**18,614**	**21,764**	**-70,850**
Debt Increase		274,137	-124,431	-4,276	10,764	26,841	80,121	61,879	56,854	52,962	51,457	147,231
Interest Expenses after taxes		72,817	67,069	65,552	63,511	65,499	65,887	69,152	71,170	71,576	73,221	76,381
Cash Flow for the firm		**595,718**	**834,424**	**836,651**	**840,867**	**845,740**	**820,441**	**904,733**	**981,398**	**1,062,899**	**1,149,445**	**1,089,286**
FCFE		**797,039**	**642,924**	**766,823**	**788,120**	**807,082**	**834,675**	**897,459**	**967,082**	**1,044,285**	**1,127,681**	**1,160,136**
Discount factor	1	**0.94**	**0.87**	**0.81**	**0.76**	**0.70**	**0.65**	**0.60**	**0.56**	**0.52**	**0.48**	**12.410**
Re		6.9%	7.1%	7.3%	7.5%	7.6%	7.9%	8.0%	8.1%	8.1%	8.2%	8.2%
Perpetuity Growth Rate												4.3%
Discount Cash Flows		**745,523**	**561,640**	**624,533**	**597,356**	**568,260**	**544,865**	**542,224**	**540,544**	**539,757**	**538,856**	**14,397,400**
EQUITY VALUE (@ Re)	**20,200,959**											
Non Operating Assets	266,800											
Hybrid claims	696,844											
EQUITY VALUE	**19,770,915**											

T. Hershey's Valuation According with DCF Approach (in euros)

(i) Present Value (WACC)

Years	2015	2016 E	2017 E	2018 E	2019 E	2020 E	2021 E	2022 E	2023 E	2024 E	2025 E	2026 E
FCFF (Free Cash Flow to the Firm)												
NOPLAT	745,058	**753,403**	**764,680**	**758,343**	**752,984**	**748,238**	**759,130**	**815,672**	**875,795**	**939,373**	**1,006,629**	**1,041,536**
EBIT	1,188,440	1,170,372	1,187,891	1,178,046	1,169,721	1,162,349	1,179,269	1,267,104	1,360,501	1,459,266	1,563,746	1,617,972
Tax rate	37.3%	35.6%	35.6%	35.6%	35.6%	35.6%	35.6%	35.6%	35.6%	35.6%	35.6%	35.6%
Investment in WC	137,033	**-141,759**	**-10,043**	**-10,494**	**-10,683**	**-10,699**	**-17,185**	**-10,710**	**-10,892**	**-11,079**	**-11,270**	**-22,699**
Capital expenditures	-1,355,586	**-331,969**	**-259,402**	**-260,388**	**-260,590**	**-260,327**	**-291,662**	**-293,330**	**-298,621**	**-304,087**	**-309,748**	**-395,607**
Depreciation	220,661	**236,188**	**231,159**	**230,480**	**230,361**	**230,658**	**232,310**	**236,923**	**241,362**	**245,980**	**250,795**	**259,492**
Investment in Other Operating Assets	-23,871	**11,373**	**242**	**-12**	**-2**	**-67**	**-41**	**-91**	**-72**	**-44**	**-68**	**-2,606**
FCFF	-276,704	**527,235**	**726,638**	**717,929**	**712,069**	**707,804**	**682,553**	**748,463**	**807,572**	**870,142**	**936,339**	**880,118**
Discount factor	1	**0.96**	**0.91**	**0.87**	**0.82**	**0.78**	**0.73**	**0.69**	**0.64**	**0.60**	**0.56**	**32.28**
WACC	4.87%	4.54%	4.8%	5.1%	5.4%	5.7%	6.5%	6.7%	6.8%	6.9%	6.9%	6.6%
Perpetuity Growth Rate												3.5%
Continuing Value											**28,411,809**	
RONIC											6.6%	
Discount Cash Flows		**504,339**	**663,399**	**623,608**	**586,717**	**551,512**	**499,231**	**512,897**	**518,128**	**522,418**	**16,481,585**	
ENTERPRISE VALUE (@ WACC)	**21,463,835**	527,235	726,638	717,929	712,069	707,804	682,553	748,463	807,572	870,142	936,339	
Non Operating Assets	240,366											
Excess cash	179,100											
Short-term investments	0											
Other Assets: Pension	0											
Other Assets: Capitalized software (net)	61,266											
Firm Value/ Enterprise Value	**21,704,201**											
Debt	2,303,532											
Debt Equivalents	335,367											
Post-retirement benefits liabilities	130,703											
Pension benefits liabilities	69,291											
Accrued liab. Due to SGM shareholders	64,889											
Deferred income taxes (net)	-32,785											
Other non operating liabilites	103,268											
Hybrid claims	627,802											
Stock Options	535,320											
Outstanding as of April 3, 2016	7,489,176											
Average exercise price	88											
Noncontrolling Interests	44,564											
Deferred income taxes (net)	47,918											
EQUITY VALUE	**18,437,500**											

(ii) Adjusted Present Value

Years	2015	2016 E	2017 E	2018 E	2019 E	2020 E	2021 E	2022 E	2023 E	2024 E	2025 E	2026 E
Adjusted Present Value (APV)												
FCFF												
FCFF	**-276,704**	**527,235**	**726,638**	**717,929**	**712,069**	**707,804**	**682,553**	**748,463**	**807,572**	**870,142**	**936,339**	**880,118**
Discount factor	1	**0.95**	**0.91**	**0.86**	**0.82**	**0.77**	**0.72**	**0.68**	**0.63**	**0.59**	**0.55**	**16.618**
Ru		4.8%	5.0%	5.3%	5.6%	6.0%	6.7%	7.0%	7.0%	7.1%	7.1%	6.8%
Perpetuity Growth Rate												3.5%
Discount Cash Flows		**503,146**	**660,582**	**619,743**	**581,973**	**545,981**	**493,244**	**505,723**	**509,844**	**513,037**	**515,358**	**14,625,458**
Present Value of FCFF	**20,074,087**											
Interest Tax Shields												
Interest Tax Shields		**41,568**	**37,672**	**36,282**	**34,690**	**35,357**	**35,355**	**36,900**	**37,774**	**37,795**	**38,472**	**38,844**
Net Debt		2,142,267	2,409,794	2,213,014	2,180,744	2,164,614	2,174,502	2,229,013	2,268,492	2,303,782	2,335,933	2,358,909
Expected interest rate		5.0%	4.0%	4.2%	4.1%	4.2%	4.2%	4.3%	4.3%	4.2%	4.2%	4.2%
Cash and other t-1		306,693	217,868	129,550	131,433	133,582	136,554	141,457	146,358	151,478	156,831	161,877
Expected interest rate		0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
Marginal tax rate		39.2%	39.2%	39.2%	39.2%	39.2%	39.2%	39.2%	39.2%	39.2%	39.2%	39.2%
Discount factor	1	**0.95**	**0.91**	**0.86**	**0.82**	**0.77**	**0.72**	**0.68**	**0.63**	**0.59**	**0.55**	**16.618**
rU		4.8%	5.0%	5.3%	5.6%	6.0%	6.7%	7.0%	7.0%	7.1%	7.1%	6.8%
Perpetuity Growth Rate												3.5%
Discount Cash Flows		**39,669**	**34,247**	**31,320**	**28,352**	**27,274**	**25,549**	**24,932**	**23,848**	**22,284**	**21,175**	**645,489**
Present Value of Interest Tax Shields	**924,139**											
Present Value of FCF and Interest Tax Shields	**20,998,226**											
Non Operating Assets	240,366											
Firm Value/ Enterprise Value	**21,238,592**											
Debt	2,303,532											
Debt Equivalents	335,367											
Hybrid claims	627,802											
EQUITY VALUE	**17,971,891**											

(iii) FTE

Years	2015	2016 E	2017 E	2018 E	2019 E	2020 E	2021 E	2022 E	2023 E	2024 E	2025 E	2026 E
FCFE (Free Cash Flow to the Equity)												
Cash Flow going to Debt holders	-512,928	**-178,177**	**166,763**	**59,919**	**44,667**	**32,353**	**-11,842**	**6,017**	**11,780**	**15,238**	**17,729**	**-57,245**
Debt Increase	601,069	242,623	-108,357	-3,669	9,115	22,464	66,656	51,191	46,784	43,358	41,917	118,959
Interest Expenses after taxes	88,141	64,446	58,406	56,250	53,783	54,817	54,814	57,208	58,564	58,596	59,646	61,714
Cash Flow for the firm	-276,704	**527,235**	**726,638**	**717,929**	**712,069**	**707,804**	**682,553**	**748,463**	**807,572**	**870,142**	**936,339**	**880,118**
FCFE	236,223	**705,412**	**559,875**	**658,010**	**667,402**	**675,451**	**694,396**	**742,445**	**795,791**	**854,904**	**918,611**	**937,362**
Discount factor	1	**0.95**	**0.90**	**0.86**	**0.81**	**0.76**	**0.71**	**0.66**	**0.61**	**0.57**	**0.53**	**13.838**
Re		5.0%	5.4%	5.7%	6.0%	6.4%	7.2%	7.4%	7.5%	7.6%	7.6%	7.3%
Perpetuity Growth Rate												3.5%
Discount Cash Flows		**671,657**	**505,994**	**562,655**	**538,171**	**511,957**	**490,881**	**488,501**	**486,988**	**486,279**	**485,467**	**12,970,926**
EQUITY VALUE (@ Re)	18,199,477											
Non Operating Assets	240,366											
Hybrid claims	627,802											
EQUITY VALUE	17,812,041											

U. Ferrero's Valuation According with DCF Approach (in euros)

(i) Present Value (WACC)

Years	2015 E	2016 E	2017 E	2018 E	2019 E	2020 E	2021 E	2022 E	2023 E	2024 E	2025 E	2026 E
FCFF (Free Cash Flow to the Firm)												
NOPLAT	**773,630**	**818,148**	**894,012**	**951,812**	**1,015,640**	**1,086,793**	**1,168,900**	**1,203,816**	**1,241,946**	**1,280,206**	**1,318,378**	**1,364,733**
EBIT	1,101,037	1,164,396	1,272,367	1,354,627	1,445,469	1,546,734	1,663,590	1,713,283	1,767,549	1,822,001	1,876,328	1,942,301
Operating tax rate	29.7%	29.7%	29.7%	29.7%	29.7%	29.7%	29.7%	29.7%	29.7%	29.7%	29.7%	29.7%
Investment in WC	**-191,352**	**-164,618**	**-122,757**	**-129,568**	**-141,545**	**-157,148**	**-180,274**	**-115,885**	**-118,065**	**-119,970**	**-102,593**	**-113,252**
Capital expenditures	**-772,434**	**-680,382**	**-624,385**	**-656,601**	**-699,727**	**-751,540**	**-820,054**	**-720,054**	**-739,739**	**-758,990**	**-781,010**	**-821,845**
Depreciation	**332,222**	**376,189**	**406,336**	**427,736**	**450,164**	**474,607**	**501,726**	**532,913**	**550,904**	**569,013**	**587,186**	**607,832**
FCFF	**142,066**	**349,337**	**553,206**	**593,378**	**624,532**	**652,713**	**670,298**	**900,791**	**935,046**	**970,259**	**1,021,961**	**1,037,468**
Discount factor	**1.00**	**0.95**	**0.90**	**0.85**	**0.80**	**0.76**	**0.71**	**0.66**	**0.62**	**0.58**	**0.54**	**14.62**
WACC		5.2%	5.5%	5.7%	6.1%	6.4%	6.7%	7.0%	7.1%	7.1%	7.2%	7.2%
Perpetuity Growth Rate												3.5%
Discount Cash Flows		**331,992**	**498,287**	**505,447**	**501,567**	**492,800**	**474,316**	**595,645**	**577,380**	**559,147**	**549,421**	**15,168,118**
ENTERPRISE VALUE (@ WACC)	**20,254,122**											
Non Operating Assets	305,017	-468,811	-340,806	-358,434	-391,108	-434,080	-498,602	-303,026	-306,900	-309,947	-296,417	-327,266
Excess cash	0	-304,194	-218,050	-228,865	-249,563	-276,932	-318,328	-187,141	-188,836	-189,977	-193,824	-214,014
Short-term investments	6,755	65%	64%	64%	64%	64%	64%	62%	62%	61%	65%	65%
Other current financial assets	2,576											
Investments and securities	269,782											
Other non-current financial assets	25,904											
Firm Value/ Enterprise Value	**20,559,139**											
Debt	2,436,099											
Debt Equivalents	379,668											
Employee benefit plan	184,571											
Net Derivatives	0											
Provisions	195,097											
Deferred tax (non-operational)	0											
Hybrid claims	265,423											
Noncontrolling interests	9,135											
Convertible subordinated debt	80,184											
Deferred tax (operational) (net)	176,104											
EQUITY VALUE	**17,477,949**											

(ii) Economic Profit

Years	2015 E	2016 E	2017 E	2018 E	2019 E	2020 E	2021 E	2022 E	2023 E	2024 E	2025 E	2026 E
EVA & MVA												
Implied MVA in PV of Future FCFF												
FCFF (Free Cash Flow to the Firm)	20,254,122	20,962,958	21,564,654	22,209,556	22,931,924	23,740,340	24,659,741	25,488,304	26,359,509	27,273,829	28,213,748	28,213,748
Invested Capital	5,599,506	6,068,317	6,409,124	6,767,557	7,158,665	7,592,746	8,091,348	8,394,373	8,701,273	9,011,220	9,307,637	9,634,903
Implied MVA in PV of Future FCFF	**14,654,616**	**14,894,641**	**15,155,530**	**15,441,998**	**15,773,259**	**16,147,594**	**16,568,393**	**17,093,931**	**17,658,236**	**18,262,609**	**18,906,111**	**18,578,845**
NOPLAT	**773,630**	**818,148**	**894,012**	**951,812**	**1,015,640**	**1,086,793**	**1,168,900**	**1,203,816**	**1,241,946**	**1,280,206**	**1,318,378**	**1,364,733**
Capital charge	277,243	292,545	334,319	368,023	410,419	456,121	508,425	567,435	594,875	622,099	648,201	669,523
WACC	5.6%	5.2%	5.5%	5.7%	6.1%	6.4%	6.7%	7.0%	7.1%	7.1%	7.2%	7.2%
Invested Capital (boy)	**4,967,942**	**5,599,506**	**6,068,317**	**6,409,124**	**6,767,557**	**7,158,665**	**7,592,746**	**8,091,348**	**8,394,373**	**8,701,273**	**9,011,220**	**9,307,637**
EVA (Economic Value Added)	**496,387**	**525,603**	**559,694**	**583,789**	**605,221**	**630,672**	**660,475**	**636,381**	**647,072**	**658,106**	**670,177**	**695,210**
ROIC	15.6%	14.6%	14.7%	14.9%	15.0%	15.2%	15.4%	14.9%	14.8%	14.7%	14.6%	14.7%
WACC	5.6%	5.2%	5.5%	5.7%	6.1%	6.4%	6.7%	7.0%	7.1%	7.1%	7.2%	7.2%
EVA Spread	10.0%	9.4%	9.2%	9.1%	8.9%	8.8%	8.7%	7.9%	7.7%	7.6%	7.4%	7.5%
EVA (Economic Value Added)	**496,387**	**525,603**	**559,694**	**583,789**	**605,221**	**630,672**	**660,475**	**636,381**	**647,072**	**658,106**	**670,177**	**695,210**
MVA = PV of Future EVA @ WACC	14,654,616	14,894,641	15,155,530	15,441,998	15,773,259	16,147,594	16,568,393	17,093,931	17,658,236	18,262,609	18,906,111	
MVA + Current Year EVA		15,420,243	15,715,224	16,025,787	16,378,480	16,778,267	17,228,869	17,730,312	18,305,307	18,920,715	19,576,288	
Control = EV by FCFF	**20,254,122**	**20,962,958**	**21,564,654**	**22,209,556**	**22,931,924**	**23,740,340**	**24,659,741**	**25,488,304**	**26,359,509**	**27,273,829**	**28,213,748**	**9,634,903**

(iii) Adjusted Present Value (APV)

Years	2015 E	2016 E	2017 E	2018 E	2019 E	2020 E	2021 E	2022 E	2023 E	2024 E	2025 E	2026 E
Adjusted Present Value (APV)												
FCFF												
FCFF		**349,337**	**553,206**	**593,378**	**624,532**	**652,713**	**670,298**	**900,791**	**935,046**	**970,259**	**1,021,961**	**1,037,468**
Discount factor	**1.00**	**0.95**	**0.90**	**0.85**	**0.80**	**0.75**	**0.70**	**0.66**	**0.61**	**0.57**	**0.53**	**14.01**
Ru	5.7%	5.3%	5.6%	5.8%	6.1%	6.5%	6.8%	7.1%	7.2%	7.3%	7.3%	7.3%
Perpetuity Growth Rate												3.5%
Discount Cash Flows		**331,710**	**497,432**	**504,241**	**499,980**	**490,816**	**471,929**	**591,995**	**573,198**	**554,463**	**544,186**	**14,531,580**
Present Value of FCFF	**19,591,531**											
Interest Tax Shields												
Interest Tax Shields	**57,980**	**9,158**	**10,315**	**6,604**	**8,775**	**10,467**	**13,581**	**16,958**	**17,619**	**18,355**	**19,104**	**17,506**
Debt		2,436,099	2,669,305	2,794,934	2,855,354	2,948,756	3,085,537	3,286,777	3,324,387	3,380,963	3,458,544	3,085,537
Expected interest rate		2.4%	2.4%	1.9%	2.2%	2.4%	2.7%	3.0%	3.0%	3.1%	3.1%	3.1%
Cash and cash equivalents		200,176	215,827	227,079	238,895	251,782	266,083	282,519	292,236	302,048	311,927	266,083
Expected interest rate		12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%
Marginal tax rate		27.4%	27.4%	27.4%	27.4%	27.4%	27.4%	27.4%	27.4%	27.4%	27.4%	27.4%
Discount factor	**1.00**	**0.95**	**0.90**	**0.85**	**0.80**	**0.75**	**0.70**	**0.66**	**0.61**	**0.57**	**0.53**	**14.01**
rU		5.3%	5.6%	5.8%	6.1%	6.5%	6.8%	7.1%	7.2%	7.3%	7.3%	7.3%
Perpetuity Growth Rate												3.5%
Discount Cash Flows		**8,696**	**9,275**	**5,612**	**7,025**	**7,871**	**9,562**	**11,145**	**10,801**	**10,489**	**10,173**	**245,198**
Present Value of Interest Tax Shields	**335,847**											
Present Value of FCF and Interst Tax Shields	**19,927,378**											
Non Operating Assets	305,017											
Firm Value/ Enterprise Value	**20,232,395**											
Debt	2,436,099											
Debt Equivalents	379,668											
Hybrid claims	265,423											
EQUITY VALUE	**17,151,205**											

(iv) FTE

Years	2015 E	2016 E	2017 E	2018 E	2019 E	2020 E	2021 E	2022 E	2023 E	2024 E	2025 E	2026 E
FCFE (Free Cash Flow to the Equity)												
Cash Flow going to Debt holders		**-223,838**	**-108,577**	**-53,673**	**-81,843**	**-122,008**	**-180,171**	**-781**	**-17,988**	**-37,003**	**-44,296**	**-92,072**
Debt Increase		248,150	135,960	71,205	105,137	149,795	216,225	45,799	64,759	85,728	95,010	144,570
Interest Expenses after taxes		24,312	27,384	17,532	23,295	27,787	36,054	45,018	46,771	48,725	50,714	52,497
Cash Flow for the firm		**349,337**	**553,206**	**593,378**	**624,532**	**652,713**	**670,298**	**900,791**	**935,046**	**970,259**	**1,021,961**	**1,037,468**
FCFE		**573,175**	**661,783**	**647,051**	**706,375**	**774,721**	**850,469**	**901,572**	**953,034**	**1,007,262**	**1,066,257**	**1,129,540**
Discount factor	**1.00**	**0.95**	**0.89**	**0.84**	**0.78**	**0.73**	**0.68**	**0.63**	**0.58**	**0.54**	**0.50**	**11.13**
Re		5.8%	6.1%	6.4%	6.8%	7.1%	7.5%	7.8%	7.9%	8.0%	8.0%	8.0%
Perpetuity Growth Rate												3.5%
Discount Cash Flows		**541,902**	**589,642**	**541,615**	**553,673**	**566,770**	**578,713**	**568,891**	**557,281**	**545,488**	**534,561**	**12,570,802**
EQUITY VALUE (@ Re)	**18,149,338**											
Non Operating Assets	305,017											
Hybrid claims	265,423											
EQUITY VALUE	**18,188,932**											

V. NewCo's Valuation According with DCF Approach (in euros)

(i) Invested Capital

INVESTED CAPITAL	2015	2016 E	2017 E	2018 E	2019 E	2020 E	2021 E	2022 E	2023 E	2024 E	2025 E	2026 E
Operating Current Assets	5,059,395	**5,345,805**	**5,523,326**	**5,710,890**	**5,916,003**	**6,143,319**	**6,434,544**	**6,653,097**	**6,874,869**	**7,099,735**	**7,326,701**	**7,582,544**
Inventories	2,446,849	2,664,629	2,776,547	2,895,541	3,025,781	3,170,074	3,349,459	3,453,746	3,559,503	3,666,476	3,771,935	3,903,649
Operational Accounts Reiceivable	1,641,579	1,655,172	1,669,983	1,684,911	1,701,530	1,720,510	1,754,452	1,817,433	1,881,379	1,946,358	2,012,420	2,082,692
Deferrals and Other Operating Accounts receivable	649,363	691,693	728,799	767,847	810,149	856,586	912,061	948,316	985,127	1,022,542	1,062,229	1,099,321
Working cash	321,604	334,312	347,996	362,591	378,543	396,150	418,572	433,602	448,859	464,360	480,117	496,882
Operating Current Liabilities	**2,929,464**	**2,990,913**	**3,124,763**	**3,268,113**	**3,424,845**	**3,597,661**	**3,817,352**	**3,933,743**	**4,051,514**	**4,170,581**	**4,297,925**	**4,448,005**
Accounts Payable	1,343,650	1,427,378	1,510,453	1,599,480	1,696,636	1,803,553	1,935,307	1,995,193	2,056,058	2,117,764	2,180,407	2,256,546
Other Opperating Accounts Payable	1,585,814	1,563,535	1,614,309	1,668,633	1,728,209	1,794,108	1,882,045	1,938,550	1,995,455	2,052,817	2,117,517	2,191,460
Total Working Capital	**2,129,931**	**2,354,892**	**2,398,563**	**2,442,777**	**2,491,158**	**2,545,658**	**2,617,192**	**2,719,353**	**2,823,355**	**2,929,154**	**3,028,776**	**3,134,539**
Total Fixed Assets												
Property, plant and equipment (net)	5,462,284	5,706,002	5,932,334	6,174,004	6,439,274	6,733,717	7,105,500	7,341,477	7,579,462	7,819,595	8,057,304	8,338,659
Intangible Assets	533,705	526,459	526,545	527,087	528,300	530,257	538,437	538,223	537,074	534,961	539,104	557,929
Goodwill	607,097	713,049	701,620	691,388	682,327	674,350	670,355	666,608	663,073	659,674	656,418	679,340
Total Fixed Assets	**6,603,087**	**6,945,509**	**7,160,499**	**7,392,479**	**7,649,901**	**7,938,323**	**8,314,292**	**8,546,309**	**8,779,609**	**9,014,229**	**9,252,826**	**9,575,928**
Other Operating Assets												
Other (net) long-term operating assets (liabilities)	129,636	121,425	123,651	126,389	129,514	133,191	137,791	140,396	142,995	145,581	148,155	153,328
Other Operating Assets	**129,636**	**121,425**	**123,651**	**126,389**	**129,514**	**133,191**	**137,791**	**140,396**	**142,995**	**145,581**	**148,155**	**153,328**
Total Invested Capital	**8,862,654**	**9,421,826**	**9,682,714**	**9,961,644**	**10,270,574**	**10,617,172**	**11,069,275**	**11,406,058**	**11,745,959**	**12,088,964**	**12,429,757**	**12,863,795**

(ii) Present Value (WACC)

FCFF (Free Cash Flow to the Firm)	2015	2016 E	2017 E	2018 E	2019 E	2020 E	2021 E	2022 E	2023 E	2024 E	2025 E	2026 E
NOPLAT		**1,240,484**	**1,560,124**	**1,736,282**	**1,899,642**	**2,052,050**	**2,211,218**	**2,325,916**	**2,444,368**	**2,564,754**	**2,686,612**	**2,780,426**
EBIT		1,830,257	2,301,867	2,561,776	2,802,804	3,027,673	3,262,515	3,431,745	3,606,513	3,784,135	3,963,929	4,102,347
Operating tax rate		32.2%	32.2%	32.2%	32.2%	32.2%	32.2%	32.2%	32.2%	32.2%	32.2%	32.2%
Investment in WC		**-224,961**	**-43,671**	**-44,213**	**-48,382**	**-54,500**	**-71,534**	**-102,161**	**-104,002**	**-105,799**	**-99,622**	**-105,763**
Capital expenditures		**-954,799**	**-854,149**	**-893,541**	**-942,994**	**-1,000,463**	**-1,118,521**	**-1,011,306**	**-1,035,639**	**-1,060,225**	**-1,087,634**	**-1,201,787**
Depreciation		**612,377**	**639,159**	**661,561**	**685,572**	**712,041**	**742,552**	**779,289**	**802,338**	**825,606**	**849,038**	**878,685**
Investment in Other Operating Assets		**8,211**	**-2,226**	**-2,738**	**-3,125**	**-3,676**	**-4,600**	**-2,605**	**-2,599**	**-2,587**	**-2,573**	**-5,173**
FCFF		**681,312**	**1,299,237**	**1,457,351**	**1,590,713**	**1,705,451**	**1,759,116**	**1,989,133**	**2,104,466**	**2,221,748**	**2,345,820**	**2,346,388**
Discount factor	1	**0.95**	**0.90**	**0.86**	**0.81**	**0.76**	**0.72**	**0.67**	**0.63**	**0.59**	**0.55**	**28.57**
WACC		5.00%	5.26%	5.54%	5.86%	6.18%	6.51%	6.82%	6.89%	6.95%	6.99%	6.99%
Perpetuity Growth Rate												3.5%
Continuing Value											**67,032,382**	
Discount Cash Flows		**648,873**	**1,175,548**	**1,249,347**	**1,288,174**	**1,300,750**	**1,259,680**	**1,333,451**	**1,319,805**	**1,302,816**	**38,024,082**	
ENTERPRISE VALUE (@ WACC)	**48,902,525**											
Non Operating Assets	545,383											
Excess cash	179,100											
Short-term investments	9,331											
Other nonoperating assets	356,952											
Firm Value/ Enterprise Value	**49,447,908**											
Debt	4,739,631											
Debt Equivalents	715,034											
Employee benefit plans	384,565											
Deferred income taxes (net)	-32,785											
Other non-operational liabilities	363,254											
Hybrid claims	893,225											
Stock Options	535,320											
Noncontrolling Interests	53,699											
Deferred income taxes (net)	224,022											
Convertible subordinated debt	80,184											
EQUITY VALUE	**43,100,018**											

(iii) Economic Profit

EVA & MVA	2015	2016 E	2017 E	2018 E	2019 E	2020 E	2021 E	2022 E	2023 E	2024 E	2025 E	2026 E
Implied MVA in PV of Future FCFF												
FCFF (Free Cash Flow to the Firm)	48,902,525	50,666,009	52,031,586	53,458,798	55,001,332	56,693,008	58,624,388	60,633,432	62,707,853	64,844,102	67,032,382	
Invested Capital	8,862,654	9,421,826	9,682,714	9,961,644	10,270,574	10,617,172	11,069,275	11,406,058	11,745,959	12,088,964	12,429,757	
Implied MVA in PV of Future FCFF	**40,039,871**	**41,244,183**	**42,348,872**	**43,497,154**	**44,730,758**	**46,075,836**	**47,555,113**	**49,227,374**	**50,961,894**	**52,755,138**	**54,602,625**	
NOPLAT		**1,240,484**	**1,560,124**	**1,736,282**	**1,899,642**	**2,052,050**	**2,211,218**	**2,325,916**	**2,444,368**	**2,564,754**	**2,686,612**	**2,780,426**
Capital charge		443,073	495,547	536,797	583,857	634,356	691,137	754,923	786,111	816,307	845,298	869,127
WACC		5.0%	5.3%	5.5%	5.9%	6.2%	6.5%	6.8%	6.9%	6.9%	7.0%	7.0%
Invested Capital (boy)		8,862,654	9,421,826	9,682,714	9,961,644	10,270,574	10,617,172	11,069,275	11,406,058	11,745,959	12,088,964	12,429,757
EVA (Economic Value Added)		**797,411**	**1,064,577**	**1,199,485**	**1,315,785**	**1,417,694**	**1,520,081**	**1,570,993**	**1,658,256**	**1,748,447**	**1,841,314**	**1,911,300**
ROIC		14.0%	16.6%	17.9%	19.1%	20.0%	20.8%	21.0%	21.4%	21.8%	22.2%	22.4%
WACC		5.0%	5.3%	5.5%	5.9%	6.2%	6.5%	6.8%	6.9%	6.9%	7.0%	7.0%
EVA Spread		9.0%	11.3%	12.4%	13.2%	13.8%	14.3%	14.2%	14.5%	14.9%	15.2%	15.4%
EVA (Economic Value Added)		**797,411**	**1,064,577**	**1,199,485**	**1,315,785**	**1,417,694**	**1,520,081**	**1,570,993**	**1,658,256**	**1,748,447**	**1,841,314**	**1,911,300**
MVA = PV of Future EVA @ WACC	40,039,871	41,244,183	42,348,872	43,497,154	44,730,758	46,075,836	47,555,113	49,227,374	50,961,894	52,755,138	54,602,625	
MVA + Current Year EVA	40,039,871	42,041,594	43,413,449	44,696,638	46,046,544	47,493,529	49,075,194	50,798,367	52,620,150	54,503,585	56,443,940	
Control = EV by FCFF	**48,902,525**	**50,666,009**	**52,031,586**	**53,458,798**	**55,001,332**	**56,693,008**	**58,624,388**	**60,633,432**	**62,707,853**	**64,844,102**	**67,032,382**	

(iv) Adjusted Present Value

Adjusted Present Value (APV)	2015	2016 E	2017 E	2018 E	2019 E	2020 E	2021 E	2022 E	2023 E	2024 E	2025 E	2026 E
FCFF		876,572	1,279,844	1,311,307	1,336,602	1,360,516	1,352,852	1,649,254	1,742,618	1,840,402	1,958,300	1,917,585
FCFF		**681,312**	**1,299,237**	**1,457,351**	**1,590,713**	**1,705,451**	**1,759,116**	**1,989,133**	**2,104,466**	**2,221,748**	**2,345,820**	**2,346,388**
Discount factor	1	**0.95**	**0.90**	**0.85**	**0.81**	**0.76**	**0.71**	**0.67**	**0.62**	**0.58**	**0.54**	**14.891**
Ru		5.1%	5.4%	5.6%	6.0%	6.3%	6.6%	7.0%	7.0%	7.1%	7.1%	7.1%
Perpetuity Growth Rate												3.5%
Discount Cash Flows		**648,189**	**1,173,211**	**1,245,782**	**1,283,303**	**1,294,509**	**1,252,135**	**1,323,790**	**1,308,561**	**1,290,056**	**1,271,424**	**34,939,632**
Present Value of FCFF	**47,030,592**											
Interest Tax Shields												
Interest Tax Shields		**33,761**	**32,104**	**21,460**	**20,210**	**20,232**	**24,099**	**25,852**	**26,953**	**27,177**	**28,236**	**28,929**
Debt t-1		4,578,537	5,244,642	5,001,361	5,026,348	5,100,600	5,234,643	5,489,012	5,100,600	5,234,643	5,489,012	5,880,353
Expected interest rate		2.7%	2.3%	2.1%	2.3%	2.5%	2.8%	3.0%	3.1%	3.1%	3.1%	3.1%
Cash and other t-1		506,893	433,366	527,649	659,693	788,085	916,941	1,054,179	788,085	916,941	1,054,179	1,161,374
Expected interest rate		5.2%	6.5%	8.2%	8.4%	8.5%	8.6%	8.7%	8.7%	8.7%	8.7%	8.7%
Marginal tax rate		34.6%	34.6%	34.6%	34.6%	34.6%	34.6%	34.6%	34.6%	34.6%	34.6%	34.6%
Discount factor	1	**0.95**	**0.90**	**0.85**	**0.81**	**0.76**	**0.71**	**0.67**	**0.62**	**0.58**	**0.54**	**14.891**
rU		5.1%	5.4%	5.6%	6.0%	6.3%	6.6%	7.0%	7.0%	7.1%	7.1%	7.1%
Perpetuity Growth Rate												3.5%
Discount Cash Flows		**32,120**	**28,990**	**18,344**	**16,305**	**15,357**	**17,153**	**17,205**	**16,759**	**15,780**	**15,304**	**430,783**
Present Value of Interest Tax Shields	**624,100**											
Present Value of FCF and Interst Tax Shields	**47,654,692**											
Non Operating Assets	545,383											
Firm Value/ Enterprise Value	**48,200,076**											
Debt	4,739,631											
Debt Equivalents	715,034											
Hybrid claims	893,225											
EQUITY VALUE	**41,852,185**											

(v) FTE

FCFE (Free Cash Flow to the Equity)	2015	2016 E	2017 E	2018 E	2019 E	2020 E	2021 E	2022 E	2023 E	2024 E	2025 E	2026 E
Cash Flow going to Debt holders		**-608,144**	**246,063**	**12,858**	**-40,658**	**-102,232**	**-219,465**	**86,222**	**-60,635**	**-167,164**	**49,398**	**-178,320**
Debt Increase		671,964	-185,377	27,707	78,862	140,477	265,020	-37,353	111,585	218,536	3,978	233,561
Interest Expenses after taxes		63,820	60,687	40,566	38,204	38,245	45,555	48,869	50,950	51,373	53,376	55,240
Cash Flow for the firm		**681,312**	**1,299,237**	**1,457,351**	**1,590,713**	**1,705,451**	**1,759,116**	**1,989,133**	**2,104,466**	**2,221,748**	**2,345,820**	**2,346,388**
FCFE		**1,289,456**	**1,053,173**	**1,444,493**	**1,631,371**	**1,807,683**	**1,978,581**	**1,902,911**	**2,165,101**	**2,388,912**	**2,296,422**	**2,524,709**
Discount factor	1	**0.95**	**0.90**	**0.85**	**0.79**	**0.74**	**0.69**	**0.65**	**0.60**	**0.56**	**0.52**	**12.369**
Re		5.4%	5.8%	6.1%	6.4%	6.8%	7.2%	7.5%	7.6%	7.6%	7.7%	7.7%
Perpetuity Growth Rate												3.5%
Discount Cash Flows		**1,223,152**	**944,638**	**1,221,194**	**1,295,675**	**1,344,356**	**1,373,127**	**1,228,556**	**1,299,493**	**1,332,145**	**1,189,251**	**31,229,121**
ENTERPRISE VALUE (@ Re)	**43,680,708**											
Non Operating Assets	545,383											
Hybrid claims	893,225											
EQUITY VALUE	**43,332,867**											

W. Operating Synergies Estimation

(i) Revenue Synergies

REVENUE SYNERG.	2011	2012	2013	2014	2015	2016 E	2017 E	2018 E	2019 E	2020 E	2021 E	2022 E	2023 E	2024 E	2025 E
Revenues/EBIT							0.3%	0.6%	0.9%	1.1%	1.3%	1.4%	1.5%	1.5%	1.5%
Total Revenue Synergies						0	54,163	109,069	164,902	221,967	281,322	306,951	327,675	345,959	361,225
Global Market (€ th)	133,140,471	150,395,927	147,998,914	149,296,371	165,190,250	**170,498,940**	**175,688,143**	**181,160,552**	**187,182,218**	**193,864,683**	**201,759,540**	**209,843,590**	**218,108,227**	**226,529,532**	**235,110,131**
Market Growth		13.0%	-1.6%	0.9%	10.6%	3.2%	3.0%	3.1%	3.3%	3.6%	4.1%	4.0%	3.9%	3.9%	3.8%
Ferrero	5.4%	5.1%	5.5%	5.6%	5.8%	6.1%	6.2%	6.3%	6.5%	6.6%	6.8%	6.7%	6.7%	6.7%	6.6%
Hershey	3.3%	3.4%	3.6%	3.7%	4.0%	3.8%	3.7%	3.7%	3.6%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
Ferrero + Hershey	8.7%	8.5%	9.1%	9.4%	9.8%	9.9%	9.9%	10.0%	10.1%	10.2%	10.3%	10.2%	10.2%	10.2%	10.1%
M&A Growth		10.8%	5.0%	3.9%	15.7%	3.9%	3.8%	3.9%	4.1%	4.4%	5.4%	3.5%	3.5%	3.4%	3.4%
European market	57,521,854	62,755,694	62,632,297	65,336,921	63,345,587	**64,060,130**	**64,629,177**	**65,061,616**	**65,504,621**	**66,054,692**	**66,815,931**	**67,424,001**	**67,871,008**	**68,145,952**	**68,247,773**
Market Growth		9.1%	-0.2%	4.3%	-3.0%	1.1%	0.9%	0.7%	0.7%	0.8%	1.2%	0.9%	0.7%	0.4%	0.1%
Ferrero	0.0%	9.7%	9.9%	9.8%	10.7%	11.1%	11.3%	11.4%	11.5%	11.6%	11.7%	11.7%	11.7%	11.7%	11.8%
Hershey	0.2%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.4%	0.4%	0.4%	0.4%	0.4%	0.5%	0.5%
Ferrero + Hershey	0.2%	9.9%	10.2%	10.1%	11.0%	11.5%	11.6%	11.7%	11.8%	11.9%	12.1%	12.1%	12.2%	12.2%	12.3%
M&A Growth			2.3%	3.7%	5.4%	5.4%	1.9%	1.7%	1.7%	1.9%	2.2%	1.3%	1.1%	0.9%	0.6%
Synergies						0	19,784	39,833	60,156	80,882	102,268	111,156	118,466	124,971	130,485
Latin-american market	17,881,325	19,596,574	19,723,151	18,328,964	21,541,031	**23,138,071**	**24,488,192**	**25,881,805**	**27,311,913**	**28,755,157**	**30,394,584**	**32,077,959**	**33,800,563**	**35,554,767**	**37,336,554**
Market Growth		9.6%	0.6%	-7.1%	17.5%	7.4%	5.8%	5.7%	5.5%	5.3%	5.7%	5.5%	5.4%	5.2%	5.0%
Ferrero	2.3%	2.2%	2.5%	2.7%	3.2%	3.3%	3.4%	3.5%	3.6%	3.7%	3.9%	3.8%	3.7%	3.7%	3.6%
Hershey	0.85%	1.1%	1.2%	1.5%	1.3%	1.2%	1.1%	1.1%	1.1%	1.1%	1.2%	1.2%	1.2%	1.2%	1.2%
Ferrero + Hershey	3.1%	3.3%	3.7%	4.2%	4.5%	4.5%	4.5%	4.7%	4.8%	4.9%	5.0%	5.0%	4.9%	4.9%	4.9%
M&A Growth			11.9%	4.8%	26.1%	6.6%	8.0%	8.4%	8.2%	7.9%	8.3%	4.7%	4.6%	4.6%	4.5%
Synergies															
North-american market	25,924,331	29,161,568	26,648,838	26,721,898	32,375,512	**32,375,355**	**32,427,390**	**32,527,937**	**32,678,434**	**32,877,440**	**33,243,285**	**33,596,458**	**33,934,742**	**34,253,768**	**34,553,492**
Market Growth		12.5%	-8.6%	0.3%	21.2%	0.0%	0.2%	0.3%	0.5%	0.6%	1.1%	1.1%	1.0%	0.9%	0.9%
Ferrero	1.6%	1.5%	1.8%	1.9%	2.1%	2.3%	2.6%	2.8%	3.0%	3.3%	3.5%	3.6%	3.7%	3.8%	3.9%
Hershey	15.09%	15.5%	17.5%	17.9%	18.0%	17.6%	17.7%	17.8%	17.8%	17.9%	18.2%	18.5%	18.9%	19.2%	19.6%
Ferrero + Hershey	16.7%	17.0%	19.4%	19.7%	20.1%	20.0%	20.3%	20.6%	20.9%	21.2%	21.8%	22.2%	22.6%	23.1%	23.5%
M&A Growth		14.7%	4.1%	2.3%	23.5%	-0.8%	1.8%	1.7%	1.9%	2.1%	3.9%	3.0%	3.0%	3.0%	3.0%
Synergies	15.09%				1.11	0	30,484	61,157	92,160	123,628	156,255	169,835	181,004	190,943	199,368
Middle East/ Africa market	5,745,004	7,154,305	7,904,316	7,452,022	9,403,818	**10,392,682**	**11,351,001**	**12,359,528**	**13,470,835**	**14,687,855**	**16,078,427**	**17,573,706**	**19,177,605**	**20,892,318**	**22,721,969**
Market Growth		24.5%	10.5%	-5.7%	26.2%	10.5%	9.2%	8.9%	9.0%	9.0%	9.5%	9.3%	9.1%	8.9%	8.8%
Ferrero	2.6%	2.2%	2.5%	3.0%	3.3%	3.5%	3.7%	4.0%	4.3%	4.5%	4.8%	4.7%	4.7%	4.7%	4.7%
Hershey	1.0%	1.1%	1.1%	1.3%	1.1%	1.0%	0.9%	0.9%	0.9%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%
Ferrero + Hershey	3.6%	3.3%	3.7%	4.3%	4.4%	4.4%	4.6%	4.9%	5.1%	5.3%	5.6%	5.5%	5.5%	5.5%	5.4%
M&A Growth		16.1%	20.9%	11.0%	27.6%	12.9%	14.2%	14.3%	14.2%	14.0%	14.2%	8.5%	8.4%	8.2%	8.1%
Synergies															
Australasian market	3,159,752	3,654,917	3,613,402	3,379,755	3,653,236	**3,763,199**	**3,894,888**	**4,039,441**	**4,195,281**	**4,364,032**	**4,559,899**	**4,759,672**	**4,962,843**	**5,168,525**	**5,376,401**
Market Growth		15.7%	-1.1%	-6.5%	8.1%	3.0%	3.5%	3.7%	3.9%	4.0%	4.5%	4.4%	4.3%	4.1%	4.0%
Ferrero	2.8%	2.5%	3.2%	3.8%	4.9%	5.6%	6.4%	7.2%	8.0%	8.9%	9.8%	10.3%	10.7%	11.1%	11.6%
Hershey	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Ferrero + Hershey	2.8%	2.5%	3.2%	3.8%	4.9%	5.6%	6.4%	7.2%	8.0%	8.9%	9.8%	10.3%	10.7%	11.1%	11.6%
M&A Growth		6.3%	26.4%	10.2%	38.8%	18.3%	17.2%	16.4%	16.0%	15.7%	15.6%	8.7%	8.6%	8.4%	8.3%
Synergies						0	3,895	8,079	12,586	17,456	22,799	25,961	28,206	30,046	31,372
Asia Pacific market	22,908,204	28,072,870	27,476,909	28,076,811	34,871,065	**36,769,503**	**38,897,494**	**41,290,224**	**44,021,134**	**47,125,508**	**50,667,413**	**54,411,795**	**58,361,465**	**62,514,202**	**66,873,942**
Market Growth		22.5%	-2.1%	2.2%	24.2%	5.4%	5.8%	6.2%	6.6%	7.1%	7.5%	7.4%	7.3%	7.1%	7.0%
Ferrero	2.0%	1.7%	2.2%	2.4%	2.6%	3.0%	3.3%	3.6%	3.9%	4.2%	4.5%	4.6%	4.7%	4.7%	4.8%
Hershey	0.6%	0.7%	0.8%	0.8%	0.7%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%
Ferrero + Hershey	2.5%	2.4%	2.9%	3.2%	3.3%	3.6%	3.9%	4.2%	4.5%	4.8%	5.1%	5.2%	5.3%	5.3%	5.4%
M&A Growth		14.5%	21.8%	10.9%	29.4%	13.8%	14.8%	14.7%	14.5%	14.3%	14.5%	8.5%	8.4%	8.3%	8.1%
Synergies						0	0	0	0	0	0	0	0	0	0

(ii) Cost of Sales Synergies

COST OF SALES	2011	2012	2013	2014	2015	2016 E	2017 E	2018 E	2019 E	2020 E	2021 E	2022 E	2023 E	2024 E	2025 E
Cost of sales						0	33,436	67,083	101,638	137,512	174,280	180,536	186,888	193,343	199,905
Synergies						0.0%	0.2%	0.4%	0.5%	0.7%	0.8%	0.8%	0.8%	0.8%	0.8%
Gross profit margin					45.0%	44.8%	44.8%	44.8%	44.8%	44.8%	44.8%	45.1%	45.3%	45.5%	45.7%
Ferrero		44.0%	43.5%	42.5%	42.6%	42.7%	42.8%	42.9%	43.0%	43.1%	43.2%	43.2%	43.2%	43.2%	43.2%
Hershey		45.7%	48.2%	47.3%	48.5%	47.5%	47.5%	47.1%	46.6%	46.1%	45.7%	46.3%	47.0%	47.6%	48.2%
M&A pro forma		44.7%	45.4%	44.4%	45.0%	44.8%	44.6%	44.4%	44.3%	44.1%	44.0%	44.2%	44.5%	44.7%	44.9%

(iii) Fixed Costs Synergies

FIXED COSTS	2011	2012	2013	2014	2015	2016 E	2017 E	2018 E	2019 E	2020 E	2021 E	2022 E	2023 E	2024 E	2025 E
Fixed costs															
Synergies						0.0%	0.0%	0.3%	0.5%	0.8%	1.0%	1.0%	1.0%	1.0%	1.0%
Fixed costs % sales						-30.1%	-29.9%	-29.6%	-29.4%	-29.1%	-28.9%	-28.9%	-28.9%	-28.9%	-28.9%
Hershey	-23.7%	-25.0%	-26.4%	-25.1%	-26.0%	-26.0%	-25.9%	-25.9%	-25.9%	-25.9%	-25.8%	-25.9%	-25.9%	-26.0%	-26.0%
Ferrero	0.0%	-31.4%	-32.1%	-32.4%	-32.6%	-32.7%	-32.3%	-32.2%	-32.1%	-32.1%	-32.0%	-31.9%	-31.9%	-31.9%	-31.9%
M&A pro forma		-28.8%	-29.8%	-29.5%	-29.9%	-30.1%	-29.9%	-29.9%	-29.9%	-29.9%	-29.9%	-29.9%	-29.9%	-29.9%	-29.9%
EBITDA margin															
Synergies						0.0%	0.2%	0.5%	0.7%	1.0%	1.2%	1.5%	1.7%	2.0%	2.2%
EBITDA margin					17.5%	17.5%	17.7%	17.9%	18.2%	18.4%	18.6%	18.8%	19.0%	19.2%	19.5%
Ferrero	171.9%	15.9%	16.0%	15.3%	15.0%	14.9%	15.4%	15.5%	15.6%	15.7%	15.9%	15.9%	15.8%	15.8%	15.8%
Hershey	4.1%	20.1%	21.6%	21.8%	21.2%	21.6%	21.6%	21.2%	20.7%	20.3%	19.8%	20.4%	21.0%	21.6%	22.2%
M&A pro forma	108.6%	17.6%	18.2%	17.9%	17.5%	17.5%	17.7%	17.6%	17.5%	17.3%	17.2%	17.4%	17.6%	17.8%	18.0%

X. NewCo's Income Statement, including adjustments

(i) Years 2015-2020

Income Statement (EUR th.)											
Years	2015			2016 E				2017 E			
	Hershey	Ferrero	Pro-forma	Hershey	Ferrero	Financial adj.	Pro-forma	Hershey	Ferrero	Synergies	Pro-forma
Net Sales	6,654,770	9,542,228	16,196,998	6,504,970	10,324,794	0	16,829,763	6,573,590	10,887,418	54,163	17,515,171
Cost of sales	-3,429,715	-5,475,260	-8,904,975	-3,382,746	-5,915,081	0	-9,297,826	-3,448,983	-6,227,697	3,419	-9,673,261
Gross Profit	**3,225,055**	**4,066,969**	**7,292,023**	**3,122,224**	**4,409,713**		**7,531,937**	**3,124,607**	**4,659,721**		**7,841,910**
Margin % sales	48.5%	42.6%	**45.0%**	48.0%	42.7%		**44.8%**	47.5%	42.8%		**44.8%**
OPEX	-1,730,541	-3,111,182	-4,841,723	-1,689,670	-3,380,091		-5,069,761	-1,705,557	-3,514,735	-12,352	-5,232,644
Other operating costs/revenues	-85,413	477,472	392,060	-25,995	510,962	-504,510	-19,543	0	533,717	-201,957	331,760
EBITDA	**1,409,101**	**1,433,259**	**2,842,360**	**1,406,560**	**1,540,584**		**2,442,634**	**1,419,050**	**1,678,703**		**2,941,025**
Margin % sales	21.2%	15.0%	**17.5%**	21.6%	14.9%	0.0%	**14.5%**	21.6%	15.4%	0.2%	**16.8%**
Depreciation Charges	-177,530	-291,604	-469,134	-181,578	-331,051	0	-512,629	-177,773	-358,508	-1,664	-537,945
Amortization Charges	-43,131	-40,618	-83,748	-54,610	-45,138		-99,748	-53,386	-47,828		-101,214
Goodwill	-252,981	0	-252,981	0	0		0	0	0		0
EBIT	**935,459**	**1,101,037**	**2,036,497**	**1,170,372**	**1,164,396**	**-504,510**	**1,830,257**	**1,187,891**	**1,272,367**	**-158,391**	**2,301,867**
Margin % sales	14.1%	11.5%	**12.6%**	18.0%	11.3%		**10.9%**	18.1%	11.7%		**13.1%**
Financial Income	-95,293	-45,097	-140,390	-106,014	-33,471		-97,581	-96,078	-37,699		-92,790
Interest Expense	-98,479	-77,966	-176,445	-107,525	-58,511	41,903	-124,132	-97,151	-64,709	40,987	-120,873
Interest Income	3,186	32,869	36,055	1,511	25,041	0	26,551	1,073	27,009	0	28,082
Other financial income (expense), net	-303,355	-166,799	-470,154	0	0		0	0	0		0
EBT	**536,811**	**889,141**	**1,425,953**	**1,064,358**	**1,130,925**		**1,732,676**	**1,091,813**	**1,234,667**		**2,209,076**
Margin % sales	8.1%	9.3%	**8.8%**	16.4%	11.0%		**10.3%**	16.6%	11.3%		**12.6%**
Income taxes	-350,365	-269,428	-619,792	-375,401	-337,089		-556,012	-385,539	-368,039		-709,639
Net Income	**186,447**	**619,714**	**806,160**	**688,957**	**793,836**		**1,176,664**	**706,275**	**866,628**		**1,499,438**
Margin % sales	2.8%	6.5%	**5.0%**	10.6%	7.7%		**7.0%**	10.7%	8.0%		**8.6%**
Minority interests share	-520	-409	-929	-483	-524		-1,008	-495	-572		-1,068
Group Net income	**185,927**	**619,304**	**805,231**	**688,473**	**793,311**		**1,175,656**	**705,779**	**866,056**		**1,498,370**
Dividends	428,958	400,000	828,958	358,022	528,581		886,603	381,135	594,728	45,610	930,253
Group Reteined Earnings	**-243,031**	**219,304**	**-23,726**	**330,451**	**264,730**		**289,053**	**324,644**	**271,328**		**568,117**

Income Statement (EUR th.)												
Years	2018 E				2019 E				2020 E			
	Hershey	Ferrero	Synergies	Pro-forma	Hershey	Ferrero	Synergies	Pro-forma	Hershey	Ferrero	Synergies	Pro-forma
Net Sales	6,659,125	11,478,215	109,069	18,246,409	6,758,291	12,122,545	164,902	19,045,738	6,868,468	12,837,581	221,967	19,928,015
Cost of sales	-3,524,811	-6,555,400	6,465	-10,073,745	-3,608,713	-6,912,575	9,746	-10,511,541	-3,699,467	-7,308,855	13,516	-10,994,807
Gross Profit	**3,134,314**	**4,922,815**		**8,172,663**	**3,149,578**	**5,209,970**		**8,534,197**	**3,169,001**	**5,528,725**		**8,933,209**
Margin % sales	47.1%	42.9%		**44.8%**	46.6%	43.0%		**44.8%**	46.1%	43.1%		**44.8%**
OPEX	-1,725,788	-3,697,799	17,892	-5,405,694	-1,749,497	-3,897,285	51,673	-5,595,108	-1,775,994	-4,118,594	89,883	-5,804,705
Other operating costs/revenues	0	557,347	-100,979	456,369	0	582,947	-33,660	549,287	0	611,210	0	611,210
EBITDA	**1,408,526**	**1,782,363**		**3,223,338**	**1,400,081**	**1,895,632**		**3,488,376**	**1,393,007**	**2,021,341**		**3,739,713**
Margin % sales	21.2%	15.5%	0.5%	**17.7%**	20.7%	15.6%	0.7%	**18.3%**	20.3%	15.7%	1.4%	**18.8%**
Depreciation Charges	-177,989	-378,368	-3,346	-559,702	-178,623	-399,241	-5,047	-582,911	-179,559	-422,013	-6,776	-608,349
Amortization Charges	-52,491	-49,368		-101,859	-51,738	-50,923		-102,661	-51,099	-52,594		-103,692
Goodwill	0	0		0	0	0		0	0			
EBIT	**1,178,046**	**1,354,627**	**29,103**	**2,561,776**	**1,169,721**	**1,445,469**	**187,615**	**2,802,804**	**1,162,349**	**1,546,734**	**318,590**	**3,027,673**
Margin % sales	17.7%	11.8%		**14.0%**	17.3%	11.9%		**14.7%**	16.9%	12.0%		**15.2%**
Financial Income	-92,532	-24,136		-62,025	-88,473	-32,070		-58,415	-90,174	-38,254		-58,477
Interest Expense	-93,170	-52,565	40,282	-105,454	-89,120	-61,988	37,537	-113,571	-90,832	-69,797	35,325	-125,303
Interest Income	638	28,429	14,362	43,428	647	29,919	24,591	55,157	658	31,542	34,626	66,826
Other financial income (expense), net	0	0		0	0	0		0	0	0		0
EBT	**1,085,514**	**1,330,491**		**2,499,751**	**1,081,248**	**1,413,399**		**2,744,390**	**1,072,175**	**1,508,480**		**2,969,195**
Margin % sales	16.3%	11.6%		**13.7%**	16.0%	11.7%		**14.4%**	15.6%	11.8%		**14.9%**
Income taxes	-383,421	-396,211		-804,035	-382,047	-421,053		-882,952	-378,754	-449,474		-955,391
Net Income	**702,093**	**934,280**		**1,695,716**	**699,201**	**992,346**		**1,861,438**	**693,422**	**1,059,006**		**2,013,805**
Margin % sales	10.5%	8.1%		**9.3%**	10.3%	8.2%		**9.8%**	10.1%	8.2%		**10.1%**
Minority interests share	-492	-617		-1,110	-490	-655		-1,146	-486	-699		-1,186
Group Net income	**701,600**	**933,663**		**1,694,607**	**698,711**	**991,690**		**1,860,292**	**692,935**	**1,058,307**		**2,012,619**
Dividends	392,909	660,212	-38,218	1,091,338	405,263	721,486	-113,242	1,239,991	415,770	791,553	-180,196	1,387,519
Group Reteined Earnings	**308,691**	**273,451**		**603,268**	**293,448**	**270,204**		**620,301**	**277,165**	**266,754**		**625,100**

(ii) Years 2021-2025

Income Statement (EUR th.)																				
Years	2021 E				2022 E				2023 E				2024 E				2025 E			
	Hershey	Ferrero	Synergies	Pro-forma	Hershey	Ferrero	Synergies	Pro-forma	Hershey	Ferrero	Synergies	Pro-forma	Hershey	Ferrero	Synergies	Pro-forma	Hershey	Ferrero	Synergies	Pro-forma
Net Sales	7,112,714	13,659,385	281,322	21,053,421	7,356,994	14,145,248	306,951	21,809,193	7,613,009	14,635,864	327,675	22,576,548	7,880,515	15,129,817	345,959	23,356,292	8,160,229	15,627,582	361,225	24,149,036
Cost of sales	-3,864,081	-7,764,552	16,790	-11,611,843	-3,949,555	-8,040,736	19,132	-11,971,159	-4,038,117	-8,319,622	21,389	-12,336,350	-4,129,413	-8,600,406	23,234	-12,706,585	-4,223,593	-8,883,355	24,503	-13,082,445
Gross Profit	**3,248,634**	**5,894,833**		**9,441,579**	**3,407,439**	**6,104,512**		**9,838,034**	**3,574,892**	**6,316,242**		**10,240,198**	**3,751,101**	**6,529,412**		**10,649,707**	**3,936,635**	**6,744,227**		**11,066,591**
Margin % sales	45.7%	43.2%		**44.8%**	46.3%	43.2%		**45.1%**	47.0%	43.2%		**45.4%**	47.6%	43.2%		**45.6%**	48.2%	43.2%		**45.8%**
OPEX	-1,837,054	-4,373,132	130,061	-6,080,125	-1,903,412	-4,519,243	134,729	-6,287,926	-1,973,029	-4,675,990	139,470	-6,509,548	-2,045,855	-4,833,802	144,287	-6,735,370	-2,122,094	-4,992,832	149,184	-6,965,742
Other operating costs/revenues	0	643,614	0	643,614	0	660,927	0	660,927	0	678,201	0	678,201	0	695,404	0	695,404	0	712,119	0	712,119
EBITDA	**1,411,580**	**2,165,316**		**4,005,068**	**1,504,027**	**2,246,195**		**4,211,035**	**1,601,863**	**2,318,453**		**4,408,851**	**1,705,246**	**2,391,014**		**4,609,741**	**1,814,541**	**2,463,513**		**4,812,967**
Margin % sales	19.8%	15.9%	1.8%	**19.0%**	20.4%	15.9%	1.9%	**19.3%**	21.0%	15.8%	1.9%	**19.5%**	21.6%	15.8%	1.9%	**19.7%**	22.2%	15.8%	1.9%	**19.9%**
Depreciation Charges	-181,525	-447,287	-8,516	-637,329	-185,943	-476,327	-9,454	-671,724	-190,210	-493,691	-10,072	-693,974	-194,614	-511,250	-10,613	-716,477	-199,162	-528,955	-11,057	-739,173
Amortization Charges	-50,785	-54,438		-105,224	-50,980	-56,585		-107,565	-51,152	-57,213		-108,365	-51,366	-57,763		-109,129	-51,634	-58,231		-109,864
Goodwill																				
EBIT	**1,179,269**	**1,663,590**	**419,656**	**3,262,515**	**1,267,104**	**1,713,283**	**451,358**	**3,431,745**	**1,360,501**	**1,767,549**	**478,462**	**3,606,513**	**1,459,266**	**1,822,001**	**502,868**	**3,784,135**	**1,563,746**	**1,876,328**	**523,856**	**3,963,929**
Margin % sales	16.6%	12.2%		**15.5%**	17.2%	12.1%		**15.7%**	17.9%	12.1%		**16.0%**	18.5%	12.0%		**16.2%**	19.2%	12.0%		**16.4%**
Financial Income	-90,169	-49,636		-69,654	-94,108	-61,976		-74,721	-96,338	-64,390		-77,903	-96,391	-67,080		-78,549	-98,118	-69,818		-81,613
Interest Expense	-90,841	-82,978	25,352	-148,468	-94,804	-97,385	26,113	-166,077	-97,059	-101,027	26,245	-171,842	-97,137	-104,957	27,151	-174,942	-98,890	-108,943	27,366	-180,467
Interest Income	673	33,342	44,799	78,814	697	35,409	55,250	91,356	721	36,637	56,581	93,939	746	37,877	57,770	96,393	772	39,125	58,957	98,854
Other financial income (expense), net	0	0		0	0	0		0	0	0		0	0	0		0	0	0		0
EBT	**1,089,101**	**1,613,954**		**3,192,862**	**1,172,997**	**1,651,306**		**3,357,024**	**1,264,163**	**1,703,159**		**3,528,610**	**1,362,876**	**1,754,920**		**3,705,586**	**1,465,628**	**1,806,510**		**3,882,317**
Margin % sales	15.3%	11.8%		**15.2%**	15.9%	11.7%		**15.4%**	16.6%	11.6%		**15.6%**	17.3%	11.6%		**15.9%**	18.0%	11.6%		**16.1%**
Income taxes	-384,784	-481,108		-1,027,198	-414,532	-492,508		-1,079,977	-446,932	-507,984		-1,135,192	-482,099	-523,440		-1,192,205	-518,645	-538,846		-1,249,081
Net Income	**704,317**	**1,132,846**		**2,165,664**	**758,464**	**1,158,798**		**2,277,047**	**817,231**	**1,195,175**		**2,393,418**	**880,777**	**1,231,480**		**2,513,381**	**946,983**	**1,267,664**		**2,633,236**
Margin % sales	9.9%	8.3%		**10.3%**	10.3%	8.2%		**10.4%**	10.7%	8.2%		**10.6%**	11.2%	8.1%		**10.8%**	11.6%	8.1%		**10.9%**
Minority interests share	-494	-748		-1,242	-532	-765		-1,297	-573	-789		-1,363	-618	-813		-1,431	-664	-837		-1,501
Group Net income	**703,823**	**1,132,098**		**2,164,421**	**757,932**	**1,158,033**		**2,275,750**	**816,657**	**1,194,385**		**2,392,055**	**880,159**	**1,230,667**		**2,511,950**	**946,319**	**1,266,827**		**2,631,734**
Dividends	436,377	869,852	-233,723	1,539,953	485,083	913,417	-262,614	1,661,113	538,998	966,469	-285,226	1,790,694	598,510	1,020,947	-307,748	1,927,206	662,423	1,076,803	-328,953	2,068,179
Group Reteined Earnings	**267,445**	**262,245**		**624,468**	**272,850**	**244,616**		**614,637**	**277,659**	**227,916**		**601,362**	**281,649**	**209,720**		**584,744**	**283,896**	**190,024**		**563,556**

Y. NewCo's Balance Sheet (including adjustments)

(i) Years 2015-2020

Balance Sheet (EUR thousand)																							
Years	2015			2016 E				2017 E				2018 E				2019 E				2020 E			
ASSETS	Hershey	Ferrero	H + F	Hershey	Ferrero	Financial adj.	Pro-forma	Hershey	Ferrero	Synergies	Pro-forma	Hershey	Ferrero	Synergies	Pro-forma	Hershey	Ferrero	Synergies	Pro-forma	Hershey	Ferrero	Synergies	Pro-forma
Not Current Assets																							
Property, plant and equipment (net)	1,983,059	3,479,225	5,462,284	1,938,420	3,767,582	0	5,706,002	1,937,916	3,976,074	18,345	5,932,334	1,941,906	4,195,192	36,905	6,174,004	1,949,283	4,434,238	55,753	6,439,274	1,959,169	4,699,545	75,003	6,733,717
Intangible Assets	335,728	197,978	533,705	316,969	209,490	0	526,459	308,994	215,923	1,628	526,545	301,548	222,388	3,151	527,087	294,402	229,324	4,574	528,300	287,374	236,976	5,906	530,257
Goodwill	605,640	1,457	607,097	711,591	1,458		713,049	700,161	1,459		701,620	689,928	1,460		691,388	680,866	1,461		682,327	672,888	1,462		674,350
Deferred tax assets	32,209	108,504	140,713	55,948	117,230		173,178	0	123,067		123,067	0	129,981		129,981	0	136,838		136,838	0	144,424		144,424
Other operating assets	77,325	52,311	129,636	64,789	56,636	0	121,425	63,510	59,759	382	123,651	62,594	63,040	756	126,389	61,774	66,619	1,121	129,514	61,115	70,592	1,484	133,191
Other non-operating assets	60,191	295,686	355,877	71,909	295,686		367,595	76,384	295,686		372,070	81,423	295,686		377,109	87,102	295,686		382,788	93,503	295,686		389,189
Total Not Current Assets	**3,094,152**	**4,135,161**	**7,229,313**	**3,159,626**	**4,448,081**		**7,607,707**	**3,086,964**	**4,671,968**		**7,779,287**	**3,077,399**	**4,907,747**		**8,025,958**	**3,073,427**	**5,164,167**		**8,299,042**	**3,074,049**	**5,448,685**		**8,605,127**
Current Assets																							
Cash and cash equivalents	306,717	190,845	497,562	217,539	206,496	0	424,035	129,165	217,748		518,318	130,845	229,564		650,362	132,794	242,451		778,754	134,959	256,752		907,610
Working Cash	130,760	190,845	321,604	127,816	206,496	0	334,312	129,165	217,748	1,083	347,996	130,845	229,564	2,181	362,591	132,794	242,451	3,298	378,543	134,959	256,752	4,439	396,150
Excess cash	175,957	0	175,957	89,722	0	0	89,722	0	0	170,322	170,322	0	0	287,771	287,771	0	0	400,211	400,211	0	0	511,460	511,460
Other financial assets	0	9,331	9,331	0	9,331		9,331	0	9,331		9,331	0	9,331		9,331	0	9,331		9,331	0	9,331		9,331
Accounts receivable-trade (net)	530,247	1,111,332	1,641,579	619,937	1,202,473	-167,238	1,655,172	616,693	1,267,999	-214,708	1,669,983	614,807	1,336,805	-266,702	1,684,911	613,905	1,411,847	-324,222	1,701,530	613,692	1,495,123	-388,305	1,720,510
Inventories	664,693	1,782,156	2,446,849	737,533	1,927,096	0	2,664,629	746,709	2,030,819	-981	2,776,547	757,745	2,139,654	-1,858	2,895,541	770,273	2,258,314	-2,806	3,025,781	783,996	2,389,975	-3,897	3,170,074
Other operating assets receivable	134,560	514,803	649,363	135,731	555,961	0	691,693	141,408	585,138	2,254	728,799	147,547	615,710	4,590	767,847	154,109	649,026	7,014	810,149	161,056	685,989	9,541	856,586
Total Current Assets	**1,636,217**	**3,608,466**	**5,244,683**	**1,710,740**	**3,901,357**		**5,444,858**	**1,633,975**	**4,111,035**		**5,702,978**	**1,650,945**	**4,331,065**		**6,007,991**	**1,671,080**	**4,570,969**		**6,325,545**	**1,693,702**	**4,837,170**		**6,664,111**
Total Assets	**4,730,369**	**7,743,627**	**12,473,996**	**4,870,366**	**8,349,437**		**13,052,566**	**4,720,939**	**8,783,002**		**13,482,266**	**4,728,344**	**9,238,812**		**14,033,949**	**4,744,507**	**9,735,136**		**14,624,587**	**4,767,752**	**10,285,855**		**15,269,238**
OWNERS EQUITY AND LIABILITIES																							
Equity																							
Owners (group) Equity:																							
Common Stock at par value	318,553	138,000	456,553	312,938	138,000		450,938	307,911	138,000		445,911	303,411	138,000		441,411	299,426	138,000		437,426	295,917	138,000		433,917
Additional paid-in capital	693,819	0	693,819	710,508	0		710,508	699,096	0		699,096	688,879	0		688,879	679,830	0		679,830	671,864	0		671,864
Treasury—common stock shares, cost	-5,020,675	0	-5,020,675	-5,342,604	0		-5,342,604	-5,518,213	0		-5,518,213	-5,695,169	0		-5,695,169	-5,874,580	0		-5,874,580	-6,056,986	0		-6,056,986
Retained Earnings	5,220,042	2,667,959	7,888,001	5,452,685	2,932,689	-306,128	8,079,246	5,684,049	3,204,017	-27,855	8,860,211	5,904,252	3,477,468	21,126	9,402,846	6,114,996	3,747,672	56,649	9,919,318	6,315,646	4,014,426	81,181	10,411,253
Accumulated other comprehensive loss	-328,399	-121,722	-450,121	-351,529	-121,722		-473,251	-345,882	-121,722		-467,604	-340,827	-121,722		-462,549	-336,350	-121,722		-458,072	-332,409	-121,722		-454,131
Total Group Equity	**883,340**	**2,684,237**	**3,567,577**	**781,998**	**2,948,967**		**3,424,837**	**826,960**	**3,220,295**		**4,019,401**	**860,546**	**3,493,746**		**4,375,418**	**883,321**	**3,763,950**		**4,703,921**	**894,032**	**4,030,704**		**5,005,917**
Noncontrolling Interests	43,782	9,135	52,917	40,616	9,660		50,275	40,450	10,232		50,682	40,343	10,849		51,192	40,295	11,505		51,799	40,300	12,204		52,504
Total Equity	**927,122**	**2,693,373**	**3,620,494**	**822,613**	**2,958,627**		**3,475,112**	**867,410**	**3,230,527**		**4,070,083**	**900,889**	**3,504,595**		**4,426,610**	**923,616**	**3,775,455**		**4,755,720**	**934,332**	**4,042,908**		**5,058,422**
Liabilities																							
Non Current Liabilities																							
Long-term debt	1,378,201	1,434,622	2,812,823	2,049,346	756,718	0	2,806,064	1,759,544	1,733,399	0	3,492,943	1,986,751	1,716,089	0	3,702,840	1,669,386	1,868,779	0	3,538,165	1,621,662	1,872,639	0	3,494,301
Convertible Subordinated Debt	0	80,184	80,184	0	0		0																
Deferred tax liabilities	47,077	284,607	331,685	47,893	309,724		357,617	50,293	328,691		378,984	52,867	348,766		401,633	55,602	370,733		426,335	58,489	395,152		453,640
Employee benefit plans	313,412	262,683	576,095	332,887	262,683		595,570	327,213	262,683		589,896	322,108	262,683		584,791	317,559	262,683		580,242	313,524	262,683		576,207
Other non-operational liabilities	101,456	195,097	296,553	98,486	210,041		308,527	96,807	220,373		317,180	95,297	231,157		326,454	93,951	242,894		336,845	92,758	255,907		348,665
Total Not Current Liabilitites	**1,840,146**	**2,257,193**	**4,097,339**	**2,528,612**	**1,539,166**		**4,067,778**	**2,233,856**	**2,545,146**		**4,779,002**	**2,457,023**	**2,558,695**		**5,015,718**	**2,136,499**	**2,745,088**		**4,881,587**	**2,086,432**	**2,786,381**		**4,872,813**
Current Liabilities																							
Short-term debt	764,238	1,001,477	1,765,715	356,810	1,912,587	169,181	2,438,578	446,883	1,061,535	0	1,508,418	184,243	1,139,265	0	1,323,509	482,458	1,079,977	0	1,562,435	527,444	1,212,898	0	1,740,342
Convertible Subordinated Debt	0	60,984	60,984	0	80,184		80,184	0	0		0	0	0		0	0	0		0	0	0		0
Accounts payable	419,779	923,871	1,343,650	467,231	990,438	-30,290	1,427,378	474,534	1,034,733	1,187	1,510,453	483,080	1,080,708	35,693	1,599,480	492,647	1,130,657	73,332	1,696,636	503,056	1,186,030	114,467	1,803,553
Other operating accounts payable	779,085	806,729	1,585,814	695,099	868,435	0	1,563,535	698,255	911,062	4,992	1,614,309	703,110	955,548	9,974	1,668,633	709,287	1,003,959	14,963	1,728,209	716,486	1,057,638	19,984	1,794,108
Total Current Liabilities	**1,963,101**	**2,793,061**	**4,756,163**	**1,519,141**	**3,851,644**		**5,509,676**	**1,619,672**	**3,007,329**		**4,633,181**	**1,370,433**	**3,175,521**		**4,591,622**	**1,684,392**	**3,214,592**		**4,987,279**	**1,746,987**	**3,456,566**		**5,338,003**
Total Liabilities	**3,803,247**	**5,050,255**	**8,853,502**	**4,047,752**	**5,390,810**		**9,577,453**	**3,853,529**	**5,552,475**		**9,412,183**	**3,827,456**	**5,734,217**		**9,607,340**	**3,820,891**	**5,959,681**		**9,868,867**	**3,833,419**	**6,242,947**		**10,210,817**
Total Sources of Funds	**4,730,369**	**7,743,627**	**12,473,996**	**4,870,366**	**8,349,437**		**13,052,566**	**4,720,939**	**8,783,002**		**13,482,266**	**4,728,344**	**9,238,812**		**14,033,949**	**4,744,507**	**9,735,136**		**14,624,587**	**4,767,752**	**10,285,855**		**15,269,238**

(ii) Years 2021-2025

Balance Sheet (EUR thousand)																				
Years	2021 E				2022 E				2023 E				2024 E				2025 E			
ASSETS	Hershey	Ferrero	Synergies	Pro-forma	Hershey	Ferrero	Synergies	Pro-forma	Hershey	Ferrero	Synergies	Pro-forma	Hershey	Ferrero	Synergies	Pro-forma	Hershey	Ferrero	Synergies	Pro-forma
Not Current Assets																				
Property, plant and equipment (net)	2,006,167	5,004,387	94,946	7,105,500	2,051,617	5,186,533	103,327	7,341,477	2,098,746	5,370,708	110,008	7,579,462	2,147,373	5,556,396	115,826	7,819,595	2,197,583	5,739,199	120,522	8,057,304
Intangible Assets	285,346	245,896	7,195	538,437	282,478	248,170	7,575	538,223	279,199	250,080	7,795	537,074	275,440	251,597	7,924	534,961	271,166	259,874	8,064	539,104
Goodwill	668,892	1,463		670,355	665,145	1,463		666,608	661,610	1,463		663,073	658,211	1,463		659,674	654,955	1,463		656,418
Deferred tax assets	0	153,063		153,063	0	159,330		159,330	0	164,403		164,403	0	169,585		169,585	0	174,580		174,580
Other operating assets	60,793	75,157	1,841	137,791	60,542	77,878	1,976	140,396	60,291	80,628	2,075	142,995	60,024	83,401	2,156	145,581	59,794	86,144	2,216	148,155
Other non-operating assets	101,167	295,686		396,853	109,720	295,686		405,406	119,271	295,686		414,957	129,940	295,686		425,626	141,878	295,686		437,564
Total Not Current Assets	**3,122,365**	**5,775,652**		**9,001,999**	**3,169,502**	**5,969,060**		**9,251,441**	**3,219,117**	**6,162,969**		**9,501,965**	**3,270,989**	**6,358,127**		**9,755,022**	**3,325,376**	**6,556,947**		**10,013,125**
Current Assets																				
Cash and cash equivalents	139,758	273,188		1,044,848	144,558	282,905		1,074,886	149,588	292,717		1,103,886	154,845	302,596		1,133,414	160,341	312,552		1,152,043
Working Cash	139,758	273,188	5,626	418,572	144,558	282,905	6,139	433,602	149,588	292,717	6,554	448,859	154,845	302,596	6,919	464,360	160,341	312,552	7,225	480,117
Excess cash	0	0	626,275	626,275	0	0	641,284	641,284	0	0	655,027	655,027	0	0	669,054	669,054	0	0	671,926	671,926
Other financial assets	0	9,331		9,331	0	9,331		9,331	0	9,331		9,331	0	9,331		9,331	0	9,331		9,331
Accounts receivable-trade (net)	624,930	1,590,834	-461,312	1,754,452	635,443	1,647,420	-465,431	1,817,433	646,226	1,704,560	-469,407	1,881,379	657,205	1,762,088	-472,936	1,946,358	668,388	1,820,060	-476,028	2,012,420
Inventories	812,982	2,541,320	-4,843	3,349,459	824,936	2,634,330	-5,520	3,453,746	837,269	2,728,406	-6,172	3,559,503	849,894	2,823,285	-6,704	3,666,476	862,830	2,916,170	-7,065	3,771,935
Other operating assets receivable	171,376	728,498	12,187	912,061	182,012	752,957	13,347	948,316	193,261	777,568	14,298	985,127	205,141	802,255	15,146	1,022,542	217,691	828,649	15,889	1,062,229
Total Current Assets	**1,749,046**	**5,143,171**		**7,070,151**	**1,786,949**	**5,326,943**		**7,303,712**	**1,826,345**	**5,512,581**		**7,539,227**	**1,867,085**	**5,699,556**		**7,778,120**	**1,909,250**	**5,886,761**		**8,007,958**
Total Assets	**4,871,411**	**10,918,823**		**16,072,150**	**4,956,452**	**11,296,003**		**16,555,152**	**5,045,462**	**11,675,550**		**17,041,191**	**5,138,074**	**12,057,682**		**17,533,142**	**5,234,626**	**12,443,708**		**18,021,083**
OWNERS EQUITY AND LIABILITIES			**-20.8%**																	
Equity																				
Owners (group) Equity:																				
Common Stock at par value	294,160	138,000		432,160	292,513	138,000		430,513	290,958	138,000		428,958	289,463	138,000		427,463	288,031	138,000		426,031
Additional paid-in capital	667,874	0		667,874	664,133	0		664,133	660,604	0		660,604	657,209	0		657,209	653,959	0		653,959
Treasury—common stock shares, cost	-6,270,768	0		-6,270,768	-6,483,993	0		-6,483,993	-6,696,564	0		-6,696,564	-6,907,913	0		-6,907,913	-7,118,294	0		-7,118,294
Retained Earnings	6,540,895	4,276,672	94,777	10,912,344	6,772,320	4,521,288	97,171	11,390,778	7,009,115	4,749,204	95,786	11,854,105	7,249,805	4,958,923	93,376	12,302,104	7,492,863	5,148,947	89,636	12,731,446
Accumulated other comprehensive loss	-330,435	-121,722		-452,157	-328,584	-121,722		-450,306	-326,838	-121,722		-448,560	-325,159	-121,722		-446,881	-323,551	-121,722		-445,273
Total Group Equity	**901,727**	**4,292,950**		**5,289,454**	**916,388**	**4,537,566**		**5,551,125**	**937,275**	**4,765,482**		**5,798,543**	**963,405**	**4,975,201**		**6,031,982**	**993,009**	**5,165,225**		**6,247,870**
Noncontrolling Interests	40,546	12,952		53,498	40,842	13,718		54,559	41,188	14,507		55,695	41,583	15,320		56,904	42,030	16,158		58,188
Total Equity	**942,273**	**4,305,902**		**5,342,952**	**957,230**	**4,551,283**		**5,605,684**	**978,463**	**4,779,989**		**5,854,238**	**1,004,988**	**4,990,522**		**6,088,885**	**1,035,039**	**5,181,383**		**6,306,058**
Liabilities																				
Non Current Liabilities																				
Long-term debt	2,143,001	2,018,639	0	4,161,640	1,928,106	1,970,639	0	3,898,745	1,917,563	1,922,639	0	3,840,202	1,425,433	1,874,639	0	3,300,072	1,218,013	1,826,639	0	3,044,652
Convertible Subordinated Debt																				
Deferred tax liabilities	62,619	423,174		485,792	66,890	441,286		508,176	71,412	459,795		531,207	76,193	478,662		554,855	81,250	494,203		575,453
Employee benefit plans	311,351	262,683		574,034	309,297	262,683		571,980	307,346	262,683		570,029	305,461	262,683		568,144	303,646	262,683		566,329
Other non-operational liabilities	92,115	270,892		363,007	91,507	279,081		370,588	90,930	287,264		378,193	90,372	295,411		385,783	89,835	305,130		394,965
Total Not Current Liabilitites	**2,609,086**	**2,975,388**		**5,584,474**	**2,395,801**	**2,953,690**		**5,349,490**	**2,387,251**	**2,932,381**		**5,319,632**	**1,897,459**	**2,911,395**		**4,808,854**	**1,692,744**	**2,888,655**		**4,581,399**
Current Liabilities																				
Short-term debt	59,234	1,268,138	0	1,327,371	312,487	1,353,748	0	1,666,235	357,484	1,458,324	0	1,815,808	880,916	1,583,905	0	2,464,821	1,118,505	1,717,196	0	2,835,701
Convertible Subordinated Debt	0	0		0	0	0		0	0	0		0	0	0		0	0	0		0
Accounts payable	523,372	1,249,945	161,990	1,935,307	532,836	1,284,115	178,243	1,995,193	542,622	1,318,006	195,430	2,056,058	552,680	1,351,481	213,603	2,117,764	563,024	1,395,944	221,439	2,180,407
Other operating accounts payable	737,446	1,119,451	25,148	1,882,045	758,099	1,153,168	27,284	1,938,550	779,643	1,186,851	28,962	1,995,455	802,031	1,220,379	30,407	2,052,817	825,314	1,260,529	31,674	2,117,517
Total Current Liabilities	**1,320,052**	**3,637,534**		**5,144,724**	**1,603,421**	**3,791,030**		**5,599,978**	**1,679,749**	**3,963,181**		**5,867,322**	**2,235,627**	**4,155,766**		**6,635,402**	**2,506,843**	**4,373,670**		**7,133,626**
Total Liabilities	**3,929,137**	**6,612,922**		**10,729,197**	**3,999,222**	**6,744,720**		**10,949,468**	**4,066,999**	**6,895,562**		**11,186,953**	**4,133,086**	**7,067,161**		**11,444,256**	**4,199,587**	**7,262,325**		**11,715,025**
Total Sources of Funds	**4,871,411**	**10,918,823**		**16,072,150**	**4,956,452**	**11,296,003**		**16,555,152**	**5,045,462**	**11,675,550**		**17,041,191**	**5,138,074**	**12,057,682**		**17,533,142**	**5,234,626**	**12,443,708**		**18,021,083**

Z. NewCo's Forecasted Reported Taxes

Forecast to Reported Taxes	2015			2016 E				2017 E				2018 E				2019 E				2020 E			
Forecast to Reported Taxes	192,690.1	269,427.6	462,117.7	**375,400.9**	**337,089.3**		**556,011.9**	385,538.6	368,038.8	0.0	709,638.7	383,421.3	396,211.3	0.0	804,034.8	382,046.9	421,053.3	0.0	882,951.8	378,753.7	449,473.5	0.0	955,390.5
Operating Taxes	349,000	327,407	676,407	**416,969**	**346,248**		**589,773**	**423,211**	**378,354**	**0**	**741,742**	**419,703**	**402,816**	**0**	**825,494**	**416,737**	**429,828**	**0**	**903,162**	**414,111**	**459,941**	**0**	**975,623**
EBIT	935,459	1,101,037	2,036,497	1,170,372	1,164,396	-504,510	1,830,257	1,187,891	1,272,367	-158,391	2,301,867	1,178,046	1,354,627	29,103	2,561,776	1,169,721	1,445,469	187,615	2,802,804	1,162,349	1,546,734	318,590	3,027,673
Operating tax rate	37.3%	29.7%	33.2%	35.6%	29.7%		32.2%	35.6%	29.7%	0.0%	32.2%	35.6%	29.7%	0.0%	32.2%	35.6%	29.7%	0.0%	32.2%	35.6%	29.7%	0.0%	32.2%
Nonoperating taxes	-156,310	-57,980	-214,290	**-41,568**	**-9,158**		**-33,761**	**-37,672**	**-10,315**	**0**	**-32,104**	**-36,282**	**-6,604**	**0**	**-21,460**	**-34,690**	**-8,775**	**0**	**-20,210**	**-35,357**	**-10,467**	**0**	**-20,232**
Interest expense	-98,479	-77,966	-176,445	-107,525	-58,511	41,903	-124,132	-97,151	-64,709	40,987	-120,873	-93,170	-52,565	40,282	-105,454	-89,120	-61,988	37,537	-113,571	-90,832	-69,797	35,325	-125,303
Interest income	3,186	32,869	36,055	1,511	25,041	0	26,551	1,073	27,009	0	28,082	638	28,429	14,362	43,428	647	29,919	24,591	55,157	658	31,542	34,626	66,826
Nonoperating income	-303,355	-166,799	-470,154	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Marginal tax rate	39.2%	27.4%	35.1%	39.2%	27.4%		34.6%	39.2%	27.4%		34.6%	39.2%	27.4%		34.6%	39.2%	27.4%		34.6%	39.2%	27.4%		34.6%

Forecast to Reported Taxes	2021 E				2022 E				2023 E				2024 E				2025 E			
Forecast to Reported Taxes	384,783.9	481,107.8	0.0	1,027,198.4	414,532.5	492,508.0	0.0	1,079,976.9	446,932.4	507,984.4	0.0	1,135,192.3	482,098.9	523,440.1	0.0	1,192,204.7	518,644.6	538,845.8	0.0	1,249,081.0
Operating Taxes	**420,139**	**494,689**	**0**	**1,051,297**	**451,432**	**509,466**	**0**	**1,105,829**	**484,707**	**525,603**	**0**	**1,162,145**	**519,894**	**541,795**	**0**	**1,219,381**	**557,117**	**557,950**	**0**	**1,277,317**
EBIT	1,179,269	1,663,590	419,656	3,262,515	1,267,104	1,713,283	451,358	3,431,745	1,360,501	1,767,549	478,462	3,606,513	1,459,266	1,822,001	502,868	3,784,135	1,563,746	1,876,328	523,856	3,963,929
Operating tax rate	35.6%	29.7%	0.0%	32.2%	35.6%	29.7%	0.0%	32.2%	35.6%	29.7%	0.0%	32.2%	35.6%	29.7%	0.0%	32.2%	35.6%	29.7%	0.0%	32.2%
Nonoperating taxes	**-35,355**	**-13,581**	**0**	**-24,099**	**-36,900**	**-16,958**	**0**	**-25,852**	**-37,774**	**-17,619**	**0**	**-26,953**	**-37,795**	**-18,355**	**0**	**-27,177**	**-38,472**	**-19,104**	**0**	**-28,236**
Interest expense	-90,841	-82,978	25,352	-148,468	-94,804	-97,385	26,113	-166,077	-97,059	-101,027	26,245	-171,842	-97,137	-104,957	27,151	-174,942	-98,890	-108,943	27,366	-180,467
Interest income	673	33,342	44,799	78,814	697	35,409	55,250	91,356	721	36,637	56,581	93,939	746	37,877	57,770	96,393	772	39,125	58,957	98,854
Nonoperating income	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Marginal tax rate	39.2%	27.4%		34.6%	39.2%	27.4%		34.6%	39.2%	27.4%		34.6%	39.2%	27.4%		34.6%	39.2%	27.4%		34.6%

AA. NewCo's Discount Rate

(i) WACC sum-of-parts

WACC without synergies	2015	2016 E	2017 E	2018 E	2019 E	2020 E	2021 E	2022 E	2023 E	2024 E	2025 E
Enterprise Value	38,197,663	41,735,397	41,963,392	42,187,627	42,503,906	42,921,039	43,576,431	44,022,523	44,506,559	45,028,620	45,577,617
Net Debt	5,106,410	5,503,757	5,572,654	5,595,931	5,669,796	5,804,967	6,064,602	6,096,122	6,147,408	6,220,180	6,302,783
Equity	33,091,252	36,231,640	36,390,738	36,591,696	36,834,110	37,116,072	37,511,829	37,926,401	38,359,150	38,808,441	39,274,834
Marginal tax rate	35.10%	35.10%	35.10%	35.10%	35.10%	35.10%	35.10%	35.10%	35.10%	35.10%	35.10%
rD	4.32%	2.77%	2.40%	2.25%	2.42%	2.63%	3.06%	3.26%	3.32%	3.34%	3.38%
rE	5.89%	5.51%	5.85%	6.19%	6.54%	6.89%	7.26%	7.59%	7.67%	7.73%	7.78%
Ru	5.68%	5.15%	5.39%	5.67%	5.99%	6.31%	6.67%	6.99%	7.07%	7.12%	7.17%
WACC (without tax shields)	5.48%	**5.02%**	**5.28%**	**5.56%**	**5.88%**	**6.19%**	**6.53%**	**6.83%**	**6.90%**	**6.96%**	**7.00%**
Tax shields	99,889	33,761	32,104	21,460	20,210	20,232	24,099	25,852	30,869	28,548	27,899
WACC (adjusted by tax shields)	5.48%	**5.03%**	**5.28%**	**5.56%**	**5.88%**	**6.19%**	**6.53%**	**6.83%**	**6.91%**	**6.96%**	**7.01%**

(ii) WACC NewCo

WACC NewCo	2015	2016 E	2017 E	2018 E	2019 E	2020 E	2021 E	2022 E	2023 E	2024 E	2025 E
Enterprise Value	38,197,663	47,995,706	48,257,901	48,515,771	48,879,491	49,359,195	50,112,896	50,625,901	51,182,543	51,782,913	52,414,259
Net Debt	5,106,410	5,503,757	5,572,654	5,595,931	5,669,796	5,804,967	6,064,602	6,096,122	6,147,408	6,220,180	6,302,783
Equity	33,091,252	41,666,386	41,849,348	42,080,450	42,359,226	42,683,483	43,138,604	43,615,362	44,113,023	44,629,707	45,166,059
Marginal tax rate	35.10%	34.60%	34.60%	34.60%	34.60%	34.60%	34.60%	34.60%	34.60%	34.60%	34.60%
rD	4.32%	2.71%	2.30%	2.11%	2.26%	2.46%	2.84%	3.03%	3.09%	3.09%	3.13%
rE	5.89%	5.42%	5.76%	6.10%	6.45%	6.80%	7.16%	7.49%	7.57%	7.63%	7.68%
Ru	5.68%	5.11%	5.36%	5.64%	5.96%	6.28%	6.64%	6.96%	7.03%	7.09%	7.13%
WACC (without tax shields)	5.48%	**5.00%**	**5.27%**	**5.55%**	**5.87%**	**6.18%**	**6.52%**	**6.83%**	**6.90%**	**6.96%**	**7.00%**
Tax shields	99,889	33,761	32,104	21,460	20,210	20,232	24,099	25,852	30,869	28,548	27,899
WACC (adjusted by tax shields)	5.48%	**5.00%**	**5.26%**	**5.54%**	**5.86%**	**6.18%**	**6.51%**	**6.82%**	**6.89%**	**6.95%**	**6.99%**