A Work Project, presented as part of the requirements for the Award of a Master Degree in
Management from the Nova – School of Business and Economics.
The LafargeHolcim Merger, a Merger of (Implied) Interests
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The project title is: The LafargeHolcim Merger, a Merger of (Implied) Interests. This work project is a case study about the merger that created the world's biggest cement company, LafargeHolcim. It is focused on the pre-deal situation and the long negotiations that led to the merger, with attention too to the poor share price performance after the merger. Questions regarding governance, deal rationale, merger of equals, transaction ratios and multiples are the main subjects developed.

# **Keywords:**

- LafargeHolcim
- Holcim
- Lafarge
- Merger of equals

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#### Case Study

#### Introduction

The creation of LafargeHolcim is a recent landmark in the building materials industry and, more specifically, in the cement and concrete sectors. In 2014, Lafarge and Holcim were the fourth and third largest cement producers in the world, respectively. After the deal, the formed company, LafargeHolcim, turned into the biggest cement company in the world<sup>1</sup>. Also, the so called "merger of equals" would be the world's second biggest merger in 2014 at the time it was announced. In a sluggish economic environment in hand with a low interest rate context, the creation of LafargeHolcim was the opening of new M&A activity deals of the sector – CRH has acquired some disposed assets of LafargeHolcim, HeidelbergCement completed in 2016 the acquisition of 45% of Italcementi, which will be followed by a takeover bid for the remaining 55%, and Saint-Gobain that has announced an interest to acquire a controlling stake in Sika (the last outside the cement sector, but it is still building materials industry).

The cement industry has some relevant idiosyncrasies. Although several cement companies have a global reach, the industry is fragmented worldwide. Competition is local and cement can be considered a local commodity as it is not profitable to transport it thousands of kilometers away of where it is produced. Actually, transport it is so costly that it rarely travels more than 320km by road. It is also an industry that tends towards oligopolies, due to high barriers to entry and the fact that it is, thus, cheaper for a firm already producing within this industry to expand. For instance, by 2013 a new cement plant producing 1 million tonnes a year, the smallest worth building, was costing around US\$200 million. The main global cement manufacturers include LafargeHolcim, HeidelbergCement, Cemex, CRH (only after acquiring the disposals of Lafarge and Holcim, the Irish building materials group turned into a

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<sup>&</sup>lt;sup>1</sup> LafargeHolcim can be considered the first or the second biggest cement company in terms of capacity for 2015 depending of the source – from 286.66 to 386.5 Mt of cement per year, rivaling the first place with the Chinese CNBM (Sinoma). However, considering these two, the Swiss company definitely is the most international.

major global cement producer), Buzzi, as well as Italcementi, a global player already before acquisition. Being a global player is related with countries in operation rather than production capacity, once some chinese and indian (among others) players are capable to produce as much as or even more than some of the global companies. Nevertheless, the global ones mentioned together have around 50% of the market (**Exhibit 1**).

The cement industry is facing tough challenges since the economic crisis of 2008. The crisis pushed down the global demand for cement and construction materials, foremost in rich countries. On the other hand, non-developed countries are already the main consumers of cement, whilst developed countries are becoming less important in relative terms, a trend that is expected to continue, where demand for cement is already in long-term decline. No more demographic pressure, nor rapidly urbanization or industrialization means in practice that fewer buildings and bridges, for example, are going up in the future on those places. Cement consumption follows the same logic as other more widely traded commodities with a close correlation with economic expansion. Consequently, demand in the future is expected to come mainly from developing countries, a trend that is happening at least since the 2000's (Exhibit 2).

On those conditions, M&A deals can be one relevant source of growth, with companies expanding outside their home markets where growth rates are declining. This is the case of the world's biggest cement-makers, including Lafarge and Holcim. However, criticism also exists about M&A deals on the cement sector, as the rush to buy best firms in the best locations make the cement giants overpaid, leaving "a trail of value destruction", according to Phil Roseberg of Sanford C. Bernstein, a research and investment firm.

#### Holcim

A company founded in 1912 in Holderbank (Switzerland), by Adolf Gygi, when two years later joined the industrial Ernst Schmidheiny, grand-uncle of the major shareholder Thomas

Schmidheiny, that had a stake of 20.11% by the end of 2014 (**Exhibit 3**). He was Chairman of the company from 1984 up to 2003, when resigned its position to be only Board member after investigations in Spain about inside trading involving him. By 2014 Holcim had as chairman Mr. Wolfgang Reitzle and Bernard Fontana as Chief Executive Officer, as Holcim aims to achieve a balanced relationship between management and control by keeping these functions separate. In terms of operations, it is a huge company, present at roughly 1500 sites in around 70 countries across the globe, with around 35% of the firms' revenue coming from Asia-Pacific market.

The Board of Holcim (Exhibit 4) have all members considered "independent according to the definition of the Swiss Code of Best Practice for Corporate Governance" a questionable definition of independent because the Board included, among other members, the already mentioned Mr. Thomas Schmidheiny, which is Chairman of the BoD of Spectrum Value Management Ltd and of Schweizerische Cement-Industrie-Aktiengesellschaft. Dieter Spälti is, since 2003, other Board member of Holcim and, nowadays, of LafargeHolcim. Not only, he joined Spectrum Value Management Ltd as a partner in 2002 and, since 2006, he has been Chief Executive Officer and Member of the Board of Directors at the same company, a firm that administers the industrial and private investments of the family of Thomas Schmidheiny. Additionally, he is membership in the Board of Directors of Schweizerische Cement-Industrie-Aktiengesellschaft.

With a stake of 10.82% of Holcim shares by the end of 2014, the second most important shareholder is Eurocement Holding – owned by Filaret Galchev, one of the richest men in Russia. Mr. Galchev was building a crescent position on Holcim. There were rumors that Thomas felt endangered and so the merger seemed to be appealing, as it will dilute Eurocement influence and crescent weight at Holcim. Curiously, Mr. Galchev did not know about the deal (the initial negotiations) until he read the press release of April 2014.

With the merger, Holcim enters in its most recent chapter of its history. In practice, the "merger of equals" meant that Holcim acquired Lafarge and its name was changed to LafargeHolcim, as well as its shares changed from HOLN VX to LHN VX, which are traded in the Swiss Stock Exchange, while Lafarge shares stopped to be traded and were exchanged for new issued LafargeHolcim shares. To conclude, all Holcim shares, including those issued as Offer consideration, will be listed on both SIX and Euronext Paris at the end of the settlement of the Offer at the latest.

#### Lafarge

Founded in France in 1833, Lafarge has become a world leader in building materials. Mr. Bruno Lafont was its Chairman and CEO. By the end of 2014 Lafarge presented 12,843€ million in revenues, it was present in 61 countries, had around 63,000 employees and had 1,612 production sites, a giant of the sector. Furthermore, it was the world leader in cement, and number two and four worldwide in aggregates and concrete, respectively.

Lafarge was historically focused on the Middle East and Africa, where it started its international expansion in 1864 by providing lime for the construction of the Suez Canal. By the end of 2014, this region accounted for 28.9% of its revenues, the most important for the firm. Beyond Middle East and Africa (**Exhibit 5**), emerging markets were the principal source of revenues with a share of 60% while no single emerging countries represents more than 6% of revenues. With such geographical portfolio to capture growth, Lafarge had a relevant strength, among others, in the strategic lever.

The Board of Lafarge included some major shareholders (again, **Exhibit 3**), specifically, Nassef Sawiris through NNS Jersey Trust and Paul Desmarais Jr. through Groupe Bruxelles Lambert (GBL, controlled by the Desmarais family and Albert Frère, the richest man in Belgium). Mr. Sawiris became shareholder and board member of Lafarge after the acquisition of Orascom Cement by that company in the end of 2007. Orascom Construction Industries

was the parent company of Orascom Cement, and run/own by Mr. Sawiris, which reinvested back part of the money received by the selling of Orascom Cement to Lafarge by buying Lafarge shares and became a major shareholder on the French firm.

Regarding GBL, which includes Paul Desmarais Jr., its investment approach was already in 2013 focused in Europe on countries least scarred by the global financial crisis, like Switzerland, Belgium and Germany. Also, Gérard Lamarche, Board member of Lafarge (and currently of LafargeHolcim) but not a major shareholder, was Managing Director at Groupe Bruxelles, strengthening the influence of this main shareholder. According to him, Mr. Frère has a preference for investments close to home, thus "GBL does not buy directly into fast-growing emerging markets but into European companies that have a fair exposure to them" The group yet in 2013 was being affected by Lafarge's poor performance, once the company "has outperformed the market over 10 years but the poor performance of Lafarge and Suez has weighed on returns since 2008".

With the new merger project, Lafarge – and even more Mr. Lafont – were "determined to succeed in our merger project with Holcim", always showing a great interest for the deal realization.

#### **Negotiations**

The first official rumors regarding a possible combination of both companies occurred on April 4, 2014, with the first merger announcement occurring three days after (**Exhibit 6**). The reasons for the merger were, among other factors, the creation of a unique basis for growth with a global and well-balanced footprint, "strong innovation capabilities, the highest level of research and development, and a consolidated portfolio of solutions and products", as well as the new company will be global market leader in cement, concrete and aggregates, which will bring "new opportunities to optimize production and strengthen commercial partnerships" vi. For shareholder, the focus is to generate attractive returns by better allocating the capital

available and improving returns on capital employed. Considering Lafarge, Moody's indicated it would in line for a credit rating upgrade too if the merger happens as Lafarge had a relatively higher leverage than Holcim.

The key highlights of the initial terms comprised, among other points: (1) a merger of equals creating the most advanced group in the building materials industry, (2) an unprecedented range of products and services to answer the changing demands of the building materials industry and the challenges of increasing urbanization, (3) combined sales amount to CHF 39bn and EBITDA to CHF 8bn, (4) a transaction structured as a public exchange offer initiated by Holcim with an exchange ratio of one Holcim share for one Lafarge share (1:1), (5) enhanced performance through incremental synergies totaling more than CHF 1.7bn / EUR 1.4bn on a full run-rate basis phased over three years with one third in year one, (6) strategic optimization of portfolio while anticipating regulatory requirements through divestments: 10% to 15% of the global EBITDA, -(7) combined group to be uniquely positioned in 90 countries around the world with a balanced exposure to both developed and high growth markets – with no country accounting for more than 10% of combined revenues, (8) an equally composed board – 7 from Lafarge, 7 from Holcim – with Wolfgang Reitzle as Chairman and Bruno Lafont as CEO and member of the board, (9) unanimous approval by the two BoD and full support from core shareholders of both companies<sup>2</sup>, (10) and an expected closing in H1 2015<sup>vii</sup>.

In the following months, the firms started to put in practice the divestment process, selected the future Executive Committee and obtained some approvals of the merger from authorities around the world. Notwithstanding, on March 16 of 2015, almost one year after the first announcement, Holcim shareholders went back and proposed a revision of the terms, around the exchange ratio and governance issues. The main reasons for the step back can be

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<sup>&</sup>lt;sup>2</sup> As mentioned, Mr. Galchev discovered the merger proposal through the release, so it seems that he is not considered a core shareholder at Holcim, even owning more than 10% of the company.

summarized in (1) stock price changes, because stock prices of each company moved in opposite directions (Lafarge down, Holcim up) in the last months – followed later financial results divergences between both firms that only enlarged (Exhibit 7 for the latest results of each as separated firms); (2) which means that the initially expected weight of Lafarge ownership (47%) in the new company is not close to its contribution to the value of the company; (3) the decision of the Swiss National Bank to let the Swiss Franc exchange ratio freer in January 2015 resulted in a stronger valuation of the Swiss Franc, which influenced all the merger financial terms. Lafarge indicated that it could negotiate only the exchange ratio. At the time, the media also mentioned lack of transparency about the negotiations on the back stage and possible agreement problems between shareholders, including Holcim main shareholder and Eurocement around the exchange ratio and governance issues, like board composition. According to reports, Eurocement proposed its owner, Filaret Galchev, to join the board of LafargeHolcim and, even though Holcim had earlier said it would be open to giving Galchev a seat on the board, he was not on the list of candidates for the LafargeHolcim board released by the two companies on April 14, 2015. Not only, almost one month later and days before the Holcim's Extraordinary General Meeting, where the merger would be officially approved by shareholders, Eurocement issued a statement on its website publicly backing the merger and offering to take an active participation in the merger. Months passed and the active role that Eurocement pretended to have did not realize, though.

The reasons raised and the actions taken that led to the re-negotiation of the deal were seen by some analysts as enough to broke the deal. Analysts believed the deal would not happen anymore or was, at least, threatened. However, a no-deal scenario meant a huge burn of money, including a breakup fee of 350€ million in the merger agreement, plus a break-fee of €157.8 million due to CRH if the two companies renege on the deal (once the production

facilities to be sold to CRH depends on the merger), and about more \$150 million worth of investment banking fees that are also at stake.

Interestingly, on March 20 of 2015, only four days after the possible end of all the merger project, the BoD of both companies announced that they have reached an agreement on revised terms for the so-called "merger of equals", showing a strong willingness to advance with the deal despite the renegotiations and disagreements. The changes in relation to the first announcement were: (1) a new exchange ratio of 9 Holcim shares for 10 Lafarge shares, (2) a new CEO, to be proposed by Lafarge Board and accepted by the Holcim Board, (3) Wolfgang Reitzle and Bruno Lafont will be non-executive Co-Chairmen of the Board, with Beat Hess as Vice-Chairman of the Board.

The co-chairmenship of the Board raised possible challenges once two persons would have the roles usually attributable to just one. When asked if how this model would work, Mr. Reitzle responded "You must choose between legal rules and effective ways of dividing up the work." In practice, and symbolically, Mr. Reitzle is the "Statutory Chairman" and his name appears first on LafargeHolcim's Annual Report, followed by the vice-chairman Beat Hess and only then by Bruno Lafont, not to mention other parts of the same document where Mr. Reitzle has a more prominent role, such as on his signature on pages 4 and 99, where he is considered chairman of the board, without the "co-" before. Moreover, Lafont's compensation is aligned to the other members of the board and much lower than Mr. Reitzle's one. Therefore, it is questionable if the co-chairman position of Bruno Lafont is merely a courtesy one (more evidence is that on page 138 of LafargeHolcim Annual Report, Mr. Reitzle is called as Chairman while Mr. Lafont is Co-Chairman) and to maintain the logic of a merger of equals to the public. The need to change the CEO from Bruno Lafont to Eric Olsen – appointed in April 09, 2015, a Lafarge executive already involved in integrating the previous Blue Circle and Orascom Lafarge acquisitions – raised several questions about the

cultural fit of both companies. Olsen is not Swiss nor French (he is American), hopefully helping him to reduce political and cultural differences from each side. He clearly left a message when he said that "I see my role not only as the operational leader but also as the integrator of cultures" and "we are going to make one team, and forget who was at Lafarge and who was at Holcim and make one company" ix.

Still on cultural fit, very different corporate cultures reason for potential problem, although yet in 2014 one of the alleged reasons for the merger was the "cultural proximity between the two companies". Nevertheless, historically Lafarge is known as always having a more centralized approach than Holcim.

Regarding Mr. Bruno Lafont, he seems to be an unpleasant presence for Holcim's shareholders. To start, Lafont apparently made a strategic error when, on a jointly roadshow to sell the €42bn merger to investors, he had chosen to use a private jet to fly across the US, which is against Holcim's company guidelines and left its executives how the man who was supposed to lead the combined firm could spend much more for a private jet when commercial options were available. Continuing, Bruno Lafont would initially retain his CEO role, but media investigations stated that Bernard Fontana, Holcim's chief executive, and his team found it increasingly difficult to work with Mr. Lafont. There were attacks over his management style as well as his personal qualities. A person involved in the deal said that "his nickname in France is Napoleon and I don't have to tell you more". Also, Mr. Reitzle and his team came to a point where they were simply unwilling to work with Mr. Lafont.xi Mr. Lafont, along with Mr. Rolf Soiron – Holcim's chairman for 11 years, until April 29 of 2014, which did not stand for re-election and was succeeded by Wolfgang Reitzle – were the first a main articulators of the merger in its first stages. At the time, a favorable scenario was formed. Both companies by the beginning of 2014 reached similar values and share prices, where a deal could be presented as a merger of equals, although Holcim had a better financial

position and results than Lafarge. The media also mentioned that Mr. Soiron was about to stop his position as Chairman and, according to an insider, wanted to "end on a high". For Mr. Lafont, it was a great opportunity to grow even more in his career, as he was going to be the CEO of LafargeHolcim. Additionally, one cement industry insider, who described Soiron as "an old fox", said the former chairman was keen to be associated with a successful merger but left its difficult execution to Mr. Reitzle, but "Reitzle was not amused", he said<sup>xii</sup>.

After the renegotiation of the deal's terms as mentioned previously, Mr. Lafont had to accept be only co-chairman of the new company, but he apparently was still very benefited with the deal. Even though he was pushed aside from being CEO of LafargeHolcim after renegotiations of the deal terms, the board in July gave him a departure package worth 5.9 million euro with, in addition, a bonus of 2.5 million euro, plus allowed him to keep certain stock options and long-term incentives. This payment package raised the attention of AMF (*Autorité des marchés financiers*), France's stock market regulator, which started an investigation on early October 2015.

Top executives questions aside, shareholders as members of the Board were common on both companies and, thus, the same repeats in LafargeHolcim. Again, as a merger of equals, the new Board of Directors of LafargeHolcim would be composed of seven members from Lafarge and seven from Holcim.

#### **Deal Realization**

The Public Exchange Offer was successfully completed in July 07, 2015, when 87.46 percent of the share capital of Lafarge S.A. has been tendered to the offer. Three days later, on July 10, Holcim and Lafarge publicly informed they completed the merger and created LafargeHolcim and by July 14 the new LafargeHolcim shares started to be traded.

The public exchange offer was re-opened for at least 10 trading days, in accordance with the AMF general regulation. Holcim shareholders initially set as the maximum percentage of

LafargeHolcim share capital acquired by the former Lafarge shareholders in the exchange offer as 44.66% xiii, in other words, the maximum share ownership of Lafarge shareholders on LafargeHolcim. The result with the public exchange offer and the re-opened period was a stake of 43.35% belonging to ex-Lafarge shareholders (**Exhibit 8**), below what was set. Meanwhile, by July 31 the final results of the re-opened period were published, stating that, following the settlement-delivery on August 4, 2015, LafargeHolcim will hold 96.41% of the share capital and at least 95.25% of the voting rights of Lafarge. For accounting purposes, it was considered for the public exchange offer and the re-opened period the close share price of July 9, 2015 (Holcim CHF 71.55 whereas Lafarge EUR 61.68, with an exchange ratio CHF/EUR of 0.952). With at least 95% of the share capital and voting rights tendered, LafargeHolcim could advance with a squeeze-out procedure for all the remaining Lafarge shares not tendered, what the firm actually did in October, reducing the influence of minority shareholders.

One month before the squeeze-out, yet in September, an authorized share capital increase happened with an exceptional scrip dividend of one new LafargeHolcim share for every twenty existing LafargeHolcim shares. The scrip dividend was issued with no fractional shares issued and shareholders expecting to receive a not whole number of shares had rounded-down whole number, with the difference paid in cash. This procedure can reduce the share ownership of small shareholders. The scrip dividend issued represented 5 percent of the firm's share capital and voting rights as of September 3, 2015, or 28,870,252 new shares.

Finally, the squeeze-out procedure of Lafarge, announced on October 23, 2015, represents the final step and completion of the merger. A *squeeze-out* procedure, or *squeezeout*, or even referred sometimes as *freeze[-]out* (terms that can be used as synonyms, just as in this case), is the "forced sale of stock owned by minority shareholders in a joint-stock company, usually in the context of an acquisition" In other words, the acquiring company is allowed to freeze

existing shareholders out of the gains from the merger by forcing the non-tendering shareholders to sell their stocks. The remaining Lafarge shareholders received a cash indemnification of 60 Euros per share, or 9.45 newly issued LafargeHolcim share for 10 Lafarge shares. Almost all shares were acquired back for EUR 60 each. With it, Lafarge shares were delisted from Euronext Paris. Business combination data (the amount of shares, share prices, etc.) can be seen on **Exhibit 9**.

The reasons for the merger were wide. Both companies argued prior to the merger that the

#### **Synergies**

creation of LafargeHolcim would create, among other points: (1) a rebalanced portfolio (i.e., more exposure to emerging markets, no country above 10% of sales, divestments mainly focused in developed markets), (2) best growth platform in the industry and superior operating profitability, (3) attractive dividend payout policy, (4) significant synergies. The cement industry is very capital intensive, with considerable barriers to entry due to high entry costs, but with great potential for scale gains through cost competitiveness, operational leverage and productivity gains. However, given the size and complexities of merger in question, the integration and delivering the promised savings constitute important challenges. Run-rate synergies are expected to reach €1.4bn – €1bn from operational synergies at the EBITDA level, €200 million from financing and more €200 million from capital expenditures synergies. These synergies would be phased-in over three years following the completion of the combination, which means synergies of €410 million in the first year, €900 million in the second and €1,400 in the third and further years. Additionally, €410 million in one-time working capital synergies over three years are expected to happen. By its turn, however, nonrecurring implementation costs are expected to reach 1,000 million Euros during the two years following completion. Up to the end of 2015, synergies already achieved CHF 130 million.

#### **Divestment Project**

When concluded the merger, the market share of LafargeHolcim would, in many countries, surpass the maximum set by competition authorities. Hence, due to legal constraints, divestments in many countries were necessary for the merger to advance in order to avoid excessive market concentration and power. In the U.S., for example, under the Hart-Scott Rodino (HSR) Act of 1976, all mergers above \$60 million (approximately)<sup>xv</sup>, must be approved by the government before the proposed merger occur. However, each country normally has its own agency responsible for establishing and implementing competition rules and specific policies, which can bring relevant costs, problems and delays on mergers of companies with operations throughout the world, including Holcim and Lafarge.

One exception to the "one country, one set of rules" above mentioned is regarding the countries of the European Union (EU), where the European Commission (EC) has established above country level the *Directorate-General for Competition*, or DGComp, responsible for the competition policy for the European Union. On this case, the merging parties are required to notify the EC, to provide additional information if requested about the proposed merger, and wait for approval before proceeding. Even though the EC lacks legal authority to block a merger of companies based outside the EU, such as US companies, it can indeed stop a takeover or a merger in any or all EU countries by imposing restrictions on the combined firm's operations and sales. Thus, fulfilling competition authority requirements is a crucial step for a deal, and a stressing expectation before the agency final decision for firms' shareholders and directors.

For the Holcim and Lafarge merger, in order to obtain regulatory approval asset disposals were necessary to complete the deal. Divestments can be hard to deal but, on the other hand, it would be a good way for the new firm to reduce its presence in developed market to improve its profit margin and to free capital and redeploy it where it is more necessary. The two

companies were willing to reduce their presence in Europe, where there is a chronicle problem of excess capacity, where Europe pushes down the EBITDA margin of both companies separately and together (Exhibit 10). Lafarge and Holcim started the divestment project for the merger in 2014, by formally notifying the proposed merger to the European Commission (and regulators of other regions too). By December of that year, the companies received clearance from the European Commission for their proposed merger, with assets to be disposed in Europe located in France, Germany, United Kingdom, Hungary, Romania, Serbia and Slovakia. In their words, it is a "strategic portfolio optimization", which will make possible a "strong capital structure after divestments" In their view, the asset disposals would reinvigorate the firm's balance sheet by reducing outstanding debt. This goes in direction to one of the strategic goals desired with the merger of Lafarge and Holcim, namely the pro-active management and disciplined capital allocation, based on a systematic review of the market attractiveness and performance of its assets.

The total amount of disposals was huge, close to €8 billion in total, capable to form a world giant if all assets remain under the same company. The main one started on February 2. 2015, when both Lafarge and Holcim announced they had started exclusive negotiations regarding the sale of plants and assets over 685 locations in 11 countries – including the 7 EU countries aforementioned, Canada, Brazil and the Philippines – for an enterprise value of 6.5 billion euros (with 4.2 billion euros from Lafarge divestment side) with the Irish company CRH. This deal was completed on August 3, 2015, with the exception of the Philippines (expected to close in Q3 2015). The assets sold include millions tons of cement capacity, aggregates, asphalt and ready-mixed concrete and turned CRH the third largest building materials player globally and the number two in aggregates.

In financial terms (comparable deals on **Exhibit 11**), CRH paid 1.25x EV/sales and 8.7x EV/EBITDA for the disposals, considering 2014 figures. Beyond CRH disposals,

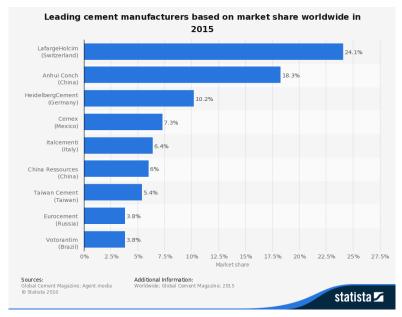
LafargeHolcim sold some US assets, most of them to Summit Materials for €420 million at 10x EBITDA, and also disposals in India plus some disposals done on a standalone (Lafarge and Holcim still in separate) basis previous to the merger. To sum-up, in total the "strategic optimization of portfolio while anticipating regulatory requirements through divestments" represents around 10% to 15% of the new firm's EBITDA<sup>xvii</sup>. It also represents more than 5% of sales, higher than the 1.5-2.5% usually seen in the sector. Notwithstanding, for 2016 the company expects to divest more CHF 3.5 billion in assets.

#### First months as LafargeHolcim

While Lafarge shares were delisted, Holcim shares turned into LafargeHolcim shares, thus before the merger LafargeHolcim shares were only Holcim shares. After the merger, LafargeHolcim share price started to decline (**Exhibit 12**). Investors were reluctant about many aspects. Some argued that Lafarge had a much weaker balance sheet<sup>xviii</sup> (**Exhibits 13.a** and 13.b). Also, the macroeconomic scenario was contributing to get things worse. Yet in 2015, the first earnings of LafargeHolcim were hit by economic problems in China and Brazil followed by cut in investments. Plus, problems in other markets, such as Russia and Iraq, could be harmful for 2015 last quarter results. Mr. Olsen, the CEO, argued that a reduction on earnings was a "natural consequence" of a post-merger portfolio review and would not affect future earnings potential<sup>xix</sup>. He was trying to demonstrate that the benefits of the merger surpass the problems happening plus market and media questioning if the firm is not too big to be managed<sup>xx</sup>. However, some questions still arise. Are the benefits in fact superior than the problems? When benefits will be evident? He is the CEO and has this function, but do investors think the same? Was the creation of LafargeHolcim a good deal?

#### **Appendixes**

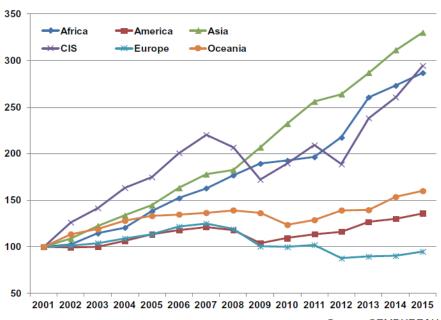
**Exhibit 1 – Leading Cement Manufacturers** 



Based on Statista data. Only LafargeHolcim, Heidelberg, Cemex and Italcementi have 48% of market share. Considering the size of CRH and Buzzi, it is strongly likely that the market share of all those firms surpass the 50% world's market share.

**Exhibit 2 – World Cement Production** 

# World cement production by region - Evolution 2001-2015 (2001=100)



Source: CEMBUREAU

 ${\bf Exhibit~3-Lafarge, Holcim~and~Lafarge Holcim~Major~Shareholders}$ 

Lafarge Major Shareholders						
At Dec. 31, 2014	# shares held	# votes held	% of total shares issued	% of total voting rights		
Groupe Bruxelles Lambert -						
including Paul Desmarais Jr.	60,568,754	120,876,019	21.10%	29.30%		
NNS - Nassef Sawiris	40,063,011	80,126,022	13.90%	19.40%		
Dodge & Cox	20,978,862	28,396,758	7.30%	6.90%		
Subtotal			42.30%	55.60%		

Source: Lafarge 2014 Annual Report, p. 196

Holcim Major Shareholders							
At Dec. 31 2014	# shares held	% of total shares issued	Obs.:				
Thomas Schmidheiny	65,777,912	20.11%					
Eurocement Holding AG	35,402,772	10.82%					
Harris Associates L.P.	16,163,815	4.94%	April 14, 2014				
Harbour International Fund declare	9,840,977	3.01%	August 4, 2014				
Black-Rock Inc.	9,582,830	2.93%	January 26, 2015				
Subtotal		41.81%					

Source: Holcim 2014 Annual Report, p. 234

	LafargeHolcir	n Major Shareholders	
At Dec. 31, 2015	# shares held	% of total shares issued	Versus (in %) right after the merger
Thomas Schmidheiny	69,068,278	11.40%	11.87% on July 16, 2015
Groupe Bruxelles Lambert - including Paul			
Desmarais Jr.	57,238,551	9.40%	9.84% on July 18, 2015
Eurocement*	37,172,910	6.10%	6.39% on July 22, 2015
NNS Jersey Trust - Nassef Sawiris	28,935,639	4.80%	4.97% on July 16, 2015
Dodge & Cox	19,835,811	3.30%	3.41% on July 21, 2015
Harbour International Fund	10,310,884	> 3%	> 3%
Black-Rock Inc.	9,582,830	> 3%	> 3%
Harris Associates L.P.	18,412,635	3.03%	> 3%
Subtotal		38.03% (c	nly shareholders with more than 3%)

Souce: LafargeHolcimm Annual Report 2015, p. 278.

<sup>\*</sup> Declared on February 12, 2016 it has disposed all shares.

Exhibit 4 – Board of Directors of Holcim, Lafarge and LafargeHolcim

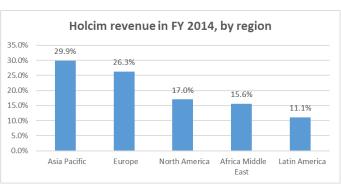
Holcim	Lafarge	LafargeHolcim
CEO: Bernard Fontana	CEO: Bruno Lafont	CEO: Eric Olsen, from Lafarge side
BoD at Jan 14, 2015	End of 2014	BoD at the end of 2015
Wolfgang Reitzle - Chairman	Bruno Lafont - Chairman and CEO	(H) Wolfgang Reitzle - Co-chairman (statutory Chairman)
Beat Hess	Philippe Dauman	(H) Beat Hess - Vice-chairman
Alexander Gut	Paul Desmarais Jr.	(H) Alexander Gut
Adrian Loader	Oscar Fanjul - Vice-chairman	(H) Adrian Loader
Jürg Oleas	Gérard Lamarche	(H) Thomas Schmidheiny
Thomas Schmidheiny	Nassef Sawiris	(H) Hanne Birgitte Breinbjerg Sørensen
Hanne Birgitte Breinbjerg Sørensen	Philippe Charrier	(H) Dieter Spälti
Dieter Spälti	Juan Gallardo	(L) Bruno Lafont - Co-chairman
Anne Wade	lan Gallienne	(L) Bertrand Collomb*
	Mina Gerowin	(L) Philippe Dauman
	Jérôme Guiraud	(L) Paul Desmarais Jr.
	Luc Jeanneney	(L) Oscar Fanjul
	Hélène Ploix	(L) Gérard Lamarche
	Baudouin Prot	(L) Nassef Sawiris
	Christine Ramon	
	Michel Rollier	
	Ewald Simandl	
	Véronique Weill	

Souces: Holcim Annual Report 2014, p.10 | Lafarge Annual Report 2014 | LafargeHolcim Annual Report 2015, p. 8

<sup>\*</sup>Honorary Chairman of Lafarge, but his term of office as a member of Board of Directors of Lafarge ended in May 2012

Exhibit 5 – Holcim and Lafarge 2014 Revenues by Geographies





Source: Bloomberg

#### **Exhibit 6 – Merger Main Facts Timeline**

Date	Event
04/04/2014	First public announcement regarding a possible combination of both companies
07/04/2014	1st announcement
02/02/2015	Holcim and Lafarge announce a project to sell assets to CRH for an enterprise value of EUR 6.5 Bn [CHF 6.8 Bn] in the context of their planned merger
02/02/2013	value of EUR 6.5 Bn [CHF 6.8 Bn] in the context of their planned merger
16/03/2015	Holcim shareholders reject proposed terms
20/03/2015	New agreement announcement
09/04/2015	Eric Olsen appointed as future CEO of LHN
14/04/2015	Future BoD of LHN nominated
16/04/2015	Documentation related to the proposed merger
08/05/2015	Holcim shareholders approve all motions at Extraordinary General Meeting
11/05/2015	Lafarge BoD issues a favorable opinion

08/07/2015 Public Exchange Offer completed successfully

09/07/2015 Final results of the P.ex. Offer

10/07/2015 Holcim and Lafarge complete merger and create LHN

14/07/2015 LHN starts trading on SIX in Zurich and Euronext in Paris

31/07/2015 Results of the re-opened Public Exchange Offer

Source: press releases

# Exhibit 7 – First Semester 2015 (and Last) Results of Holcim and Lafarge as Separated **Companies**

#### LAFARGE:

# Summary of the key figures

, , ,							
	6 Months		Variation	Variation			
Volumes	2015	2014		like (5)			
Cement (MT)	54.7	57.0	-4%	-3%			
Pure Aggregates (MT)	69.7	69.9	-	1%			
RMX-Concrete (Mm3)	12.3	12.8	-4%	-4%			
Sales (million euros)	6,319	6,000	5%	-			
EBITDA (million euros)	1,223	1,155	6%	2%			
EBITDA Margin	19.4%	19.3%	10bps	50bps			
COI (million euros)	813	755	8%	6%			
Net income – Group share (1)	(477)	70	nm				
Adjusted net income (2)	182	116	57%				
Adjusted earnings per share (euros) (2) (3)	0.63	0.40	57%				
Free Cash Flow (4)	(155)	(160)	3%				
Net Debt	10,253	10,104	1%				

2 <sup>nd</sup> Quarter		Variation	Variation like-for- like (5)
2015	2014		like '-'
29.7	31.1	-4%	-3%
43.2	43.0	1%	1%
6.8	7.1	-3%	-4%
3,540	3,367	5%	-
820	812	1%	-2%
23.2%	24.1%	-90bps	-50bps
608	609	<u>-</u>	-3%
(381)	205	nm	
210	237	-11%	
0.73	0.82	-11%	
(14)	(37)	nm	

#### Consolidated statement of income

	6 m c	onths	2 <sup>nd</sup> quarter		December 31,	
(million euros, except per share data)	2015	2014	2015	2014	2014	
Earnings per share (euros)						
Attributable to the owners of the parent company						
Basic earnings per share	(1.66)	0.24	(1.32)	0.71	0.50	
Diluted earnings per share	(1.65)	0.24	(1.32)	0.71	0.49	

Net income attributable to the owners of the parent of the Group
 Adjusted for non-recurring items, net of tax: merger costs, non-cash impairments and restructuring costs.
 Based on an average number of shares outstanding of 287.8 million and 287.4 for the first half of 2015 and 2014, and 288.0 million and 287.4 for the second quarter 2015 and 2014, respectively.
 Defined as the net cash generated or used in continuing operating activities less sustaining capital expenditures
 Variations like-for-like at Group level are calculated at constant scope and exchange rates

Holcim Ltd: Half-year Report 2015 - Key figures

January–June		2015	2014 <sup>1</sup>	±%	±% like-for-like
Annual cement production capacity	million t	211.3	208.8 <sup>2</sup>	+1.2	+1.2
Sales of cement	million t	67.6	68.9	-2.0	-2.1
Sales of mineral components	million t	1.8	1.6	+18.2	-10.7
Sales of aggregates	million t	72.0	69.6	+3.4	-2.3
Sales of ready-mix concrete	million m <sup>3</sup>	18.2	18.1	+0.6	-3.0
Sales of asphalt	million t	4.6	4.1	+13.1	+13.1
Net sales	million CHF	8,646	8,926	-3.1	-0.2
Operating EBITDA	million CHF	1,471	1,595	-7.8	-5.1
Operating EBITDA adjusted <sup>3</sup>	million CHF	1,557	1,617	-3.7	-1.1
Operating EBITDA margin	%	17.0	17.9		
Operating EBITDA margin adjusted <sup>3</sup>	%	18.0	18.1		
Operating profit	million CHF	827	943	-12.3	-12.4
Operating profit adjusted <sup>3</sup>	million CHF	912	965	-5.5	-5.5
Operating profit margin	%	9.6	10.6		
Operating profit margin adjusted <sup>3</sup>	%	10.6	10.8		
EBITDA	million CHF	1,972	1,798	+9.6	
Net income	million CHF	690	657	+4.9	
Net income margin	%	8.0	7.4		
Net income – shareholders of Holcim Ltd	million CHF	573	485	+18.0	
Cash flow from operating activities	million CHF	220	194	+13.6	+9.0
Cash flow margin	%	2.5	2.2		
Net financial debt	million CHF	9,057	9,520 <sup>2</sup>	-4.9	+3.6
Total shareholders' equity	million CHF	15,721	17,430 <sup>2</sup>	-9.8	
Personnel		63,314	67,137 <sup>2</sup>	-5.7	-6.0
Earnings per share	CHF	1.62	1.37 <sup>4</sup>	+18.2	
Fully diluted earnings per share	CHF	1.62	1.37 4	+18.2	

Principal key figures in USD (illustrative)					
Net sales	million USD	9,131	10,019	-8.9	
Operating EBITDA	million USD	1,553	1,790	-13.2	
Operating EBITDA adjusted <sup>3</sup>	million USD	1,644	1,815	-9.4	
Operating profit	million USD	873	1,058	-17.5	
Operating profit adjusted <sup>3</sup>	million USD	963	1,084	-11.1	
Net income – shareholders of Holcim Ltd	million USD	605	545	+11.1	
Cash flow from operating activities	million USD	232	218	+6.9	
Net financial debt	million USD	9,724	9,625 <sup>2</sup>	+1.0	
Total shareholders' equity	million USD	16,878	17,622 <sup>2</sup>	-4.2	
Earnings per share	USD	1.71	1.54 <sup>4</sup>	+11.0	

Principal key figures in EUR (illustrative)					
Net sales	million EUR	8,182	7,309	+11.9	
Operating EBITDA	million EUR	1,392	1,306	+6.6	
Operating EBITDA adjusted <sup>3</sup>	million EUR	1,473	1,324	+11.3	
Operating profit	million EUR	782	772	+1.3	
Operating profit adjusted <sup>3</sup>	million EUR	863	790	+9.2	
Net income – shareholders of Holcim Ltd	million EUR	542	397	+36.4	
Cash flow from operating activities	million EUR	208	159	+31.3	
Net financial debt	million EUR	8,698	7,916 <sup>2</sup>	+9.9	
Total shareholders' equity	million EUR	15,097	14,492 <sup>2</sup>	+4.2	
Earnings per share	EUR	1.53	1.12 4	+36.6	

<sup>&</sup>lt;sup>1</sup> Restated due to changes in accounting policies.

<sup>&</sup>lt;sup>2</sup> As of December 31, 2014.

<sup>&</sup>lt;sup>3</sup> Excluding merger-related costs only.

<sup>&</sup>lt;sup>4</sup> Restated due to the commitment to distribute a scrip dividend.

Exhibit 8 – LafargeHolcim (LHN) Ownership by Origin Company

Holcim shares outstanding	327,086,376
Number of LHN shares issued (exchanged tendered Lafarge shares)	250,318,676
LHN shares after closing the tender offer	577,405,052
Holcim shareholders weight on LHN	56.65%
Lafarge shareholders weight on LHN	43.35%

Sources: Annual Reports

#### **Exhibit 9 – Business Combination**

For accounting purposes, the initial public exchange offer and the re-opened public exchange offer are treated as linked transactions and accounted for as one single transaction resulting in LafargeHolcim Ltd holding, and hence consolidating, 96.41 percent of the shares of Lafarge S.A. from the effective date of the merger. As a result, the Group recognized 3.59 percent non-controlling interest for which a squeeze-out procedure was completed in October 2015 as explained further below.

#### Consideration for the business combination

The consideration calculated on the effective date of the merger amounts to CHF 19,483 million and is detailed in the following table:

Number of Lafarge S.A. shares tendered	278,131,864
Exchange ratio into LafargeHolcim Ltd shares	0.9
Number of LafargeHolcim Ltd shares issued	250,318,676
LafargeHolcim Ltd closing share price as at July 9, 2015 (in CHF)	71.55
Million CHF	
FAIR VALUE OF THE LAFARGEHOLCIM LTD SHARES	
ISSUED IN EXCHANGE OF LAFARGE S.A. SHARES	17,910
Cash consideration in connection with mandatory take-overs,	
non-compete clauses and merger related agreements	893
TOTAL CONSIDERATION TRANSFERRED FOR THE BUSINESS COMBINATION	18,803
Fair value of previously held interests of Holcim	680
TOTAL CONSIDERATION FOR THE BUSINESS COMBINATION	19,483

Source: LafargeHolcim Annual Report 2015, p. 201

	Lafarge	Holcim						
Share price as at July 09, 2015	61.68€	CHF 71.55						
Shares outstanding	288,411,188	327,086,376						
Sources: Bloomberg data, Holcim and Lafarge Reports								

Exhibit 10 – EBITDA Margin by Geographies

Holcim_									
	FY 2014								
EBITDA Margin (%)	19.37								
Latin America	28.60								
Africa Middle East	32.10								
North America	18.00								
Asia Pacific	18.40								
Europe	17.80								

Source: Blomberg

Lafarge								
	FY 2014							
EBITDA Margin (%)	17.91							
Middle East & Africa	28.10							
Central and Eastern Europe	21.20							
Latin America	21.10							
Asia	19.40							
North America	19.20							
Western Europe	13.80							

**Exhibit 11 – Comparable Deals** 

Date	Target	Sector	Acquirer	EV (\$m) -	EV as a m	ultiple of
Date	raiget	3000	Acquirer	LV (ŞIII)	Revenue	<b>EBITDA</b>
Sep-13 Lafa	arge Honduras	Cement	Cementos Argos	561	-	8.6 x
Nov-12 Lafa	arge (UK)	Cement plant	Mittal Investments	440	-	-
Sep-12 Lafa	arge (N America)	Cement plant	Eagle Materials Inc.	446	2.50 x	16.5 x
Mar-12 Cim	por - Cimentos de Portugal	Manufacturer & seller of cement	Camargo (Intercement)	7,130	2.40 x	8.7 x
May-11 Lafa	arge (Southeastern US assets)	Cement, grinding plant	Cementos Argos	760	3.20 x	16.0 x
May-10 Tarr	mac France & Belgium	Concrete	Fondations Capital	87	-	4.1 x
Feb-10 Cim	por (31.2% stake)	Cement, aggregates, concrete	Camargo Correa	8,584	3.00 x	10.4 x
Jul-09 Lafa	arge Chile	Cement, aggregates, concrete	Brescia Group	661	-	7.4 x
Jun-09 Cen	nex Australia	Cement, aggregates, concrete	Holcim	1,623	1.00 x	5.6 x
May-09 Lafa	arge Turkey	Cement, aggregates, concrete	Oyak	217	-	10.0 x
Nov-08 Cen	nex Canary Islands	Cement, aggregates, concrete	Cimpor	207	0.90 x	4.4 x
Nov-08 Lafa	arge Italy	Cement, aggregates, concrete	Sacci	369	2.50 x	16.1 x
Dec-07 Ora	scom Cement	Cement	Lafarge	14,965	10.90 x	22.3 x
May-07 Han	ison	Aggregates	HeidelbergCement	19,104	2.30 x	12.2 x
Apr-07 Rinl	ker	Aggregates	Cemex	15,163	2.80 x	10.5 x
Feb-07 Flor	rida Rock	Aggregates	Vulcan Materials	4,510	3.30 x	11.2 x
Jun-06 Uni	land	Cement, concrete & aggregates	Cementos Portland V.	2,723	4.70 x	13.6 x
Dec-05 Uni	land	Cement, concrete & aggregates	CRH	1,468	2.90 x	8.7 x
Dec-05 Cen	nentos Lemona	Cement	Cementos Portland V.	535	4.10 x	12.4 x
Jun-05 Hei	delberg	Cement	Spohn Cement	8,498	1.50 x	8.7 x
Apr-05 Lom	na Negra	Cement	Camargo Correa	1,000	3.60 x	7.9 x
Jan-05 Agg	regate Industries	Aggregates	Holcim	4,490	1.40 x	9.2 x
Sep-04 RM	С	Aggregates	Cemex	5,991	0.80 x	8.2 x
Aug-04 Aall	borg Portland & Unicon	Cement & concrete	Cementir	700	1.40 x	5.7 x
Mar-04 Sec	il	Cement & concrete	CRH	544	2.20 x	7.3 x
Mar-03 Cen	nentos de Hispania	Cement	Holcim	204	3.10 x	8.6 x
Dec-02 Sec	il	Cement & concrete	Semapa	471	2.30 x	6.2 x
May-01 Blue	e Circle North America	Cement & concrete	Votorantim	707	2.70 x	6.6 x
Jun-01 Dyc	kerhoff	Cement & concrete	Buzzi Unicem	776	2.00 x	10.7 x
Jan-01 Blue	e Circle	Cement	Lafarge	7,881	2.50 x	9.1 x
Nov-00 Jura	3	Cement, concrete & aggregates	CRH	233	0.80 x	7.0 x
Sep-00 Sou	thdown	Cement, concrete & aggregates	Cemex	2,837	2.20 x	7.0 x
Aug-00 Tarr	mac (America)	Cement & concrete	Titan	379	1.00 x	6.5 x
Feb-00 Am	eriyah Cement	Cement	Cimpor	397	3.30 x	9.8 x
Nov-99 Pio	neer	Aggregates & concrete	Hanson	3,070	1.20 x	8.8 x
Nov-99 Tarr		Aggregates & concrete	Anglo American	2,917	1.40 x	9.3 x
Nov-99 Rug	by	Cement	RMC	1,621	1.00 x	11.5 x
Sep-99 Lon	•	Cement	Dyckerhoff	1,167	3.20 x	9.1 x
•	mpson-McCully	Aggregates	CRH	422	1.70 x	8.0 x
May-99 Scar		Cement	Heidelberg	2,204	1.40 x	6.6 x
,	nsementti & Lohja Rudus	Cement	CRH	448	1.70 x	6.5 x
	•			Median	2.20 x	8.7 x
Source: Parelave						

Source: Barclays

Exhibit 12 - Timeline Returns Table and Graph

Date	Event	Holcim/ LafargeHolcim (LHN) share	SMI Index	Stoxx Europe 600 Construction &	Holcim/ LHN SMI Index		SXOP
		price in CHF		Materials (SXOP Index)	Returns		
07/03/2014	Pre-announcement	72.40	8378.580	343.410	0%	0%	0%
07/04/2014	Announcement	81.50	8405.100	359.620	13%	0%	5%
20/03/2015	Re-announcement	76.15	9396.290	407.630	5%	12%	19%
09/07/2015	Deal*	71.55	8985.080	382.390	-1%	7%	11%
08/07/2016	One year after the deal (closest date)	40.80	8037.940	364.730	-44%	-4%	6%

<sup>\*</sup>The merger was completed one day after, but the exchange ocurred on July 09

Source: Bloomberg | Only Last Price, no dividend reinvestment

Graph of returns evolution from one month before the first announcement until one year after the deal realization for Lafarge shares (although delisted in the end of 2015), LafargeHolcim shares (Holcim before the deal), SXOP<sup>3</sup> and SMI indexes (source: Google Finance)



.

<sup>&</sup>lt;sup>3</sup> The SXOP Index presented on the table and on the graph, also called the Stoxx 600 Europe Building Materials Index, is an index that comprises the considered 21 most important European building materials companies, including companies with cement as main source of revenues but not only. LafargeHolcim, Saint-Gobin, CRH, HeidelbergCement, Vinci, i.e., are some of the companies components of the index. LafargeHolcim weight on the index is 10.70%, based on the free-float market cap. For more information, access <a href="https://www.stoxx.com/index-details?symbol=SXOP">https://www.stoxx.com/index-details?symbol=SXOP</a>

# Exhibit 13.a – Holcim Key Financial Data

Price at 16 Mar. 15 / 12m Target Price CHF74.5 / CHF77 +3%

#### **HOLCIM R (Neutral)**

Reuters / Bloom berg: HOLN.VX / HOLN VX	Roger, CFA	(+44) 203 4	30 8415 &	Touahri (+4	4) 207 039 9	523		F	Heavy Bui	ding Mate	rials   Buil	Iding Mate	erials - Sw	itzerland
Company Highlights CHFm / EURm	160.0	, ,			<u> </u>									
Enterprise value 38,331 / 36,110 Market capitalisation 24,261 / 22,855														
Free float 16,620 / 15,657	120.0			~~~~~	Lu		L.M			file				
3m average volume 125 / 118			Want	MMMM		. /	Mary 1	Λ	4.7	ar" Wh	Wh.			
Performance (*) 1m 3m 12m Absolute 7% 9% 9%	80.0	May many	White was	/ 1174	IN WAR	MAN	North he /	W W.A.	MA MY	all has	A Part of the last	g <sup>¢</sup> ◆ T	rget Price	
Absolute 7% 9% 9% Rel. Sector 2% (3%) 2%	ď	"Vynyns"	. Mar.		\"/\\J	1/1/1/40	The second	ارا بالارتمر بهرم	Mar Warry	m. a. MARAN	R. Au	7		
Rel. MSCI Europe 0% 1% (2%)		,			Y W	N KMA		LAN	Mary Mary					
12m Hi/Lo (CHF): 82.8 -10% / 60.3 +24%	40.0				. 11	1/		MA.						
CAGR 1992/2015 2015/2017 EPS restated (**) 4% 14%						γ								
CFPS 2% 12%	28.3					Price		7.4°CFPS		Re	lative to MSCI E	urope (CHF)		
Price (yearly avg from Dec. 04 to Dec. 14)	61.2	73.7	94.4	119.4	81.4	57.1	67.5	57.3	56.3	67.9	72.2	74.5	74.5	74.5
PER SHARE DATA (CHF)	Dec. 04	Dec. 05	Dec. 06	Dec. 07	Dec. 08	Dec. 09	Dec. 10	Dec. 11	Dec. 12	Dec. 13	Dec. 14	Dec. 15e	Dec. 16e	Dec. 17e
No of shares year end, basic, (m) Avg no of shares, diluted, excl. treasury stocks (m)	255.472 251.034	251.339 258.215	279.131 272.111	288.072 282.957	288.072 285.081	327.086 289.368	327.086 320.122	327.086 319.940	327.086 322.583	327.086 325.549	327.086 325.900	327.086 326.052	327.086 326.052	327.086 326.052
EPS, company definition	4.17	6.73	8.64	14.86	6.27	4.93	3.69	0.86	1.92	3.90	3.95	3.91	4.93	5.59
EPS restated, fully diluted	5.62	6.12	6.83	9.28	6.42	4.84	3.76		3.57	3.53	3.94	4.30	4.93	5.59
% change CFPS	10.1% 9.34	8.9% 11.04	11.7% 12.82	35.8% 15.20	(30.8%) 12.15	(24.6%) 9.56	(22.3%) 8.47	(15.7%) 6.72	12.5% 7.42	(1.0%) 7.20	11.6% 7.05	9.0% 6.84	14.7% 7.98	13.5% 8.53
Book value (BVPS) (a)	33.4	45.6	54.4	65.2	53.3	58.2			51.8	49.5	53.3	52.6	55.3	58.4
Net dividend	1.25	1.65	2.00	3.30	2.25	1.50	1.50	1.00	1.15	1.30	1.30	1.42	1.63	1.84
STOCKMARKET RATIOS	Dec. 04	De c. 05	Dec. 06	Dec. 07	Dec. 08	Dec. 09	De c. 10	Dec. 11	Dec. 12	Dec. 13	Dec. 14	Dec. 15e	De c. 16e	Dec. 17e
P / E (P/ EPS restated) P / E relative to MSCI Europe	10.9x 54%	12.0x 75%	13.8x 173%	12.9x 135%	12.7x 86%	11.8x 75%	17.9x 142%	18.1x 119%	15.8x 98%	19.2x 102%	18.3x 100%	17.3x 104%	15.1x	13.3x
P / CF	6.6x	6.7x	7.4x	7.9x	6.7x	6.0x	8.0x	8.5x	7.6x	9.4x	10.2x	10.9x	9.3x	8.7x
FCF yield	7.8%	8.0%	5.6%	3.9%	(2.8%)	6.4%	6.6%	4.1%	4.0%	2.2%	1.8%	4.0%	6.4%	7.5%
P / BVPS	1.83x	1.61x	1.74x	1.83x	1.53x	0.98x	1.22x	1.11x	1.09x	1.37x	1.36x	1.42x	1.35x	1.28x
Net yield Payout	2.0% 22.2%	2.2% 27.0%	2.1% 29.3%	2.8% 35.6%	2.8% 35.1%	2.6% 31.0%	2.2% 39.9%	1.7% 31.5%	2.0% 32.3%	1.9% 36.8%	1.8%	1.9%	2.2% 33.0%	2.5% 33.0%
EV / Sales	1.87x	1.87x	1.95x	2.07x	1.74x	1.73x	1.77x	1.70x	1.58x	1.75x	1.94x	1.98x	1.79x	1.60x
EV / Restated EBITDA	6.9x	7.5x	7.7x	8.1x	8.1x	7.9x		8.9x	8.1x	8.8x	9.5x	9.3x	8.2x	7.2x
EV / Restated EBITA EV / OpFCF	9.6x 10.0x	10.2x 10.6x	10.7x 13.0x	11.2x 15.7x	12.4x 68.5x	12.6x 13.5x	14.3x 12.7x	15.3x 15.7x	13.3x 15.8x	14.6x 19.7x	15.0x 22.2x	14.1x 16.6x	11.8x 11.7x	10.0x 9.9x
EV / OpFCF  EV / Capital employed (incl. gross goodwill)	10.0x 1.2x	10.6x 1.2x	13.0x 1.3x	15.7x 1.4x	68.5x	13.5x 0.9x	12.7x 1.1x	15.7x 1.0x	15.8x 1.0x	19.7x 1.1x	22.2x 1.2x	16.6x 1.2x	11.7x 1.2x	9.9x 1.1x
ENTERPRISE VALUE (CHFm)	24,726	34,563	46,777	56,076	43,744	36,527			34,064	34,439	37,086	38,331	37,009	35,471
Market cap	14,871	18,518	25,028	33,776	23,201	16,524			18,172	22,090	23,523	24,261	24,261	24,261
+ Adjusted net debt + Other liabilities and commitments	6,846 825	12,693 1,550	12,837 1,718	12,873 1,355	15,047 1,336	13,833 1,557	11,333 1,567	11,545 1,664	10,362 1,720	9,461 1,091	9,644 1,252	8,201 1,252	6,878 1,252	5,340 1,252
+ Revalued minority interests	3,346	3,892	8,610	9,520	6,216	6,818		5,698	5,656	4,536	5,644	7,374	7,374	7,374
- Revalued investments	1,162	2,090	1,416	1,448	2,056	2,206		1,986	1,846	2,738	2,977	2,756	2,756	2,756
P & L HIGHLIGHTS (CHFm)	Dec. 04	Dec. 05	Dec. 06	Dec. 07	Dec. 08	Dec. 09	Dec. 10	Dec. 11	Dec. 12	Dec. 13	Dec. 14	Dec. 15e	Dec. 16e	Dec. 17e
Sales Restated EBITDA (b)	13,215 3,588	18,468 4,627	23,969 6,086	27,052 6,930	25,157 5,433	21,132 4,630		20,744 3,975	21,544 4,223	19,719 3,896	19,110 3,885	19,322 4,120	20,711 4,535	22,195 4,960
Depreciation (b)	(1,077)	(1,311)	(1,701)	(1,906)	(1,973)	(1,849)		(2,025)	(2,168)	(1,539)	(1,430)	(1,392)	(1,408)	(1,407)
Restated EBITA (b) (**)	2,568	3,388	4,385	5,024	3,524	2,910	2,681	2,309	2,552	2,357	2,466	2,728	3,129	3,553
Reported operating profit (loss)	2,251	3,316	4,385	5,024	3,360	2,781	2,619		1,816	2,357	2,317	2,588	3,129	3,553
Net financial income (charges) Affiliates	(515) 56	(688) 75	(765) 89	(773) 259	(709) 229	(695) 302		(1,017)	(552) 115	(590) 161	(423)	(373) 147	(342) 154	(276) 162
Other	(188)	(20)	88	1,236	9	193			206	200	173	0	0	0
Tax	(510)	(865)	(1,078)	(1,201)	(663)	(623)		(449)	(558)	(533)	(588)	(661)	(794)	(929)
Minorities Goodwill amortisation	(239) (260)	(278)	(615)	(680)	(444)	(487)	(439)	(407)	(404)	(324)	(332)	(426)	(541)	(688)
Net attributable profit reported	855	1,540	2,104	3,865	1,782	1,471	1,095	275	623	1,271	1,287	1,275	1,606	1,823
Net attributable profit restated (c)	1,151	1,580	1,860	2,625	1,829	1,401	1,204	1,014	1,150	1,149	1,284	1,401	1,606	1,823
CASH FLOW HIGHLIGHTS (CHFm)	Dec. 04	Dec. 05	Dec. 06	Dec. 07	Dec. 08	Dec. 09	Dec. 10	Dec. 11	Dec. 12	De c. 13	Dec. 14	Dec. 15e	Dec. 16e	Dec. 17e
EBITDA (reported) EBITDA adjustment (b)	3,588	4,627	6,086	6,930	5,333 100	4,630	4,513	3,958 17	3,984 239	3,896	3,747 138	3,980 140	4,535 0	4,960
Other items	219	188	273	367	327	319		310		274	143	(172)	77	81
Change in WCR	(119)	54	(219)	(92)	(603)	159	(43)	(259)	(554)	(217)	(393)	(140)	(187)	(200)
Operating cash flow	3,688	4,869	6,140	7,205	5,157	5,108		4,026	3,896	3,953	3,635	3,808	4,426	4,842
Capex Operating free cash flow (OpECF)	(1,206) 2,482	(1,618) 3,251	(2,547) 3,593	(3,629) 3,576	(4,518) 639	(2,404) 2,704			(1,740) 2,156	(2,205) 1,748	(1,968) 1,667	(1,500) 2,308	(1,264) 3,162	(1,264) 3,577
Net financial items + tax paid	(1,066)	(1,464)	(1,717)	(1,882)	(1,454)	(1,220)		(1,274)	(1,214)	(1,166)	(1,137)	(1,040)	(1,142)	(1,210)
Free cash flow	1,416	1,787	1,876	1,694	(815)	1,484	1,838	976	942	582	530	1,269	2,020	2,367
Net financial investments & acquisitions	(1,196)	(4,721)	(1,834)	(1,936)	(957)	(2,186)		(15)	505	540	(243)	50 722	0	0
Other Capital increase (decrease)	243 1,418	(2,847) 456	(598) 1,115	1,109 (31)	1,055 (347)	96 2,040	889	(491) 32	264 16	349 6	(241)	733 0	0	0
Dividends paid	(392)	(558)	(703)	(872)	(1,105)	(192)	(719)	(714)	(544)	(576)	(721)	(608)	(698)	(829)
Increase (decrease) in net financial debt	(1,489)	5,883	144	36	2,169	(1,242)	(2,467)	212	(1,183)	(901)	183	(1,443)	(1,322)	(1,538)
Cash flow, group share BALANCE SHEET HIGHLIGHTS (CHFm)	2,344 Dec. 04	2,850 Dec. 05	3,488 Dec. 06	4,301 Dec. 07	3,465 Dec. 08	2,767 Dec. 09	2,713 Dec. 10	2,149 Dec. 11	2,395 Dec. 12	2,343 Dec. 13	2,297 Dec. 14	2,231 Dec. 15e	2,597 Dec. 16e	2,781 Dec 17e
Net operating assets	16,889	26,699	33,016	Dec. 07 35,797	32,568	Dec. 09 35,476			Dec. 12 30,285	Dec. 13 28,057	Dec. 14 29,189	Dec. 15e 29,248	Dec. 16e 29,105	Dec. 17e 28,963
WCR	2,180	3,000	3,373	3,684	3,032	3,340		2,257	2,443	2,291	2,457	2,597	2,784	2,983
Restated capital employed, incl. gross goodwill	20,939	29,699	36,389	39,489	35,608	38,828		33,867	32,969	30,594	31,892	30,880	30,925	30,982
Shareholders' funds, group share Minorities	8,530 2,178	11,467 2,783	15,177 3,548	18,782 3,163	15,358 2,616	19,033 3,011		16,830 2,827	16,949 2,889	16,205 2,471	17,430 2,682	17,190 3,108	18,099 3,648	19,093 4,336
Provisions/ Other liabilities	3,289	5,609	7,349	7,097	6,001	6,632		5,854	2,889 5,771	5,416	5,645	6,880	6,880	6,880
Net financial debt (cash)	6,810	12,693	12,837	12,873	15,042	13,800	11,333	11,545	10,362	9,461	9,644	8,201	6,878	5,340
FINANCIAL RATIOS (%)	Dec. 04	Dec. 05	Dec. 06	Dec. 07	Dec. 08	Dec. 09	Dec. 10	Dec. 11	Dec. 12	Dec. 13	Dec. 14	Dec. 15e	Dec. 16e	Dec. 17e
Sales (% change) Organic sales grow th	4.9% 7.2%	39.8% 10.1%	29.8% 8.9%	12.9% 8.1%	(7.0%) 4.3%	(16.0%) (9.9%)	2.5%	(4.2%) 8.0%	3.9%	(8.5%)	(3.1%)	1.1% 4.1%	7.2%	7.2%
Organic sales growth Restated EBITA (% change) (**)	15.3%	31.9%	29.4%	14.6%	(29.9%)	(17.4%)		(13.9%)	10.5%	(7.6%)	4.6%	10.6%	14.7%	13.6%
Restated attributable net profit (% change) (**)	16.3%	12.0%	17.7%	41.2%	(30.3%)	(23.4%)	(14.0%)	(15.8%)	13.4%	(0.1%)	11.8%	9.1%	14.7%	13.5%
Personnel costs / Sales	19.0%	20.2%	19.2%	18.2%	18.8%	19.1%	18.6%	18.6%	18.7%	18.5%	18.5%	18.8%	18.7%	18.7%
Restated EBITDA margin Restated EBITA margin	27.2% 19.4%	25.1% 18.3%	25.4% 18.3%	25.6% 18.6%	21.6% 14.0%	21.9% 13.8%	20.8% 12.4%	19.2% 11.1%	19.6% 11.8%	19.8% 12.0%	20.3% 12.9%	21.3% 14.1%	21.9% 15.1%	22.3% 16.0%
Tax rate	27.4%	32.2%	28.4%	20.9%	22.9%	24.1%	31.4%	39.7%	35.2%	25.0%	26.7%	28.0%	27.0%	27.0%
Net margin	8.3%	9.8%	11.3%	16.8%	8.8%	9.3%	7.1%	3.3%	4.8%	8.1%	8.5%	8.8%	10.4%	11.3%
Capex / Sales	9.1%	8.8%	10.6%	13.4%	18.0%	11.4%	8.4%	8.6%	8.1%	11.2%	10.3%	7.8%	6.1%	5.7%
OpFCF / Sales WCR / Sales	18.8% 16.5%	17.6% 16.2%	15.0% 14.1%	13.2% 13.6%	2.5% 12.1%	12.8% 15.8%		10.8% 10.9%	10.0% 11.3%	8.9% 11.6%	8.7% 12.9%	11.9% 13.4%	15.3% 13.4%	16.1% 13.4%
Capital employed (excl. gdw ./intangibles) / Sales	115.9%	123.3%	113.5%	106.1%	104.5%	136.4%	118.7%	122.5%	114.7%	117.2%	126.2%	125.8%	117.6%	110.0%
ROE	16.5%	13.8%	12.3%	14.0%	11.9%	7.4%	6.7%	6.0%	6.8%	7.1%	7.4%	8.2%	8.9%	9.5%
Gearing	64%	89%	69%	59%	84%	63%	54%	59%	52%	51%	48%	40%	32%	23%
EBITDA / Financial charges Adjusted financial debt / EBITDA	6.6x 1.9x	6.3x 2.7x	7.5x 2.1x	8.9x 1.9x	7.6x 2.8x	6.5x 3.0x	7.1x 2.5x	3.9x 2.9x	7.6x 2.5x	6.6x 2.4x	9.1x 2.5x	10.9x 2.0x	13.1x 1.5x	17.6x 1.1x
ROCE, excl. gdw /intangibles	11.7%	10.4%	11.3%	12.8%	9.8%	7.4%		6.6%	7.5%	7.4%	7.5%	8.2%	9.4%	10.6%
ROCE, incl. gross goodwill	8.6%	8.0%	8.4%	9.3%	7.2%	5.5%	5.6%	5.0%	5.7%	5.6%	5.6%	6.4%	7.4%	8.4%
WACC	8.5%	7.0%	7.5%	7.9%	8.0%	6.9%	7.5%	7.5%	8.7%	8.3%	8.0%	7.7%	7.7% del update: 1	7.7%
												Latest Mod	ret undate:	u Iviar, 15

Latest Model update: 10 Mar. 15

(a) Intangibles: CHF7,779.00m, or CHF24 per share. (b) adjusted for capital gains/losses, impairment charges, exceptional restructuring charges, capitalized R&D, pension charge replaced by service cost

(c) adj.for capital gains losses, imp.charges, capitalized R&D, am. of intangibles from M&A, or for am. of gwill for pre IFRS year

Source: BNP Paribas Equity Research of 16.03.2015

#### Exhibit 13.b - Lafarge Key Financial Data

Price at 16 Mar. 15 / 12m Target Price EUR60.9 / EUR67 +10% LAFARGE (Neutral) Reuters / Bloomberg: LAFP.PA / LG FP Company Highlights Enterprise value Market capitalisation Heavy Building Materials | Building Materials - France Touahri (+44) 207 039 9523 & Roger (+44) 203 430 8415 25,212 17,437 July Free float 11,333 52 9% (14%) (10%) (6%) (10%) 18% Rel. Sector Rel. MSCI E Δħ (12%) 21. Dec. 08 PER SHARE DATA (EUR) Dec. 05 Dec. 06 Dec. 07 Dec. 09 Dec. 10 Dec. 11 Dec. 12 Dec. 13 Dec. 14 De c. 16e Dec. 17e Dec. 04 De c. 15e 286.053 2.89 3.05 213.90 EPS, company definition EPS restated, fully diluted 22.9% 10.5% 3.2% % change CFPS 8.76 8.49 10.98 11.78 11.99 6.05 4.78 4.56 4.43 2.93 6.52 7.39 Book value (BVPS) (a) 54.7 39.6 48.2 51.2 55.4 57.4 52.3 56.4 55.7 50.8 53.9 55.0 57.7 61.0 STOCKMARKET RATIOS P/E(P/EPS restated) P / E relative to MSCI Europe 52% 73% 7.6x 157% 132% 75% 102% 122% 102% 84% 8.3x 152% 166% 122% P/CF 6.9x 7.6 8.7x 6.4× 9.8x 8.2x 16.15 19.9> 2.4% 1.34x 3.4% 40.1% FCF yield P / B / PS 2 4% 4 0% 5.0% 6.4% 1.85x 3.4% 42.4% 0.91x 4.2% 67.6% 1.85x 0.67x 2.7% 37.0% 0.84x 2.1% 0.98× 2.0% 1.06x 2.1% 1.00x 2.5% 0.67× Net yield Payout EV / Sales 57.3% 1.75x 28.3% 1.53x 1.61x 1.58× 1.61 1.84x 1.99 1.59× 1.48 1.92> 1.68> EV / Restated EBITDA 7.5x 7.7× 7.5× 7.9x 8.1x 8.3 9.0x 7.7× 6.9x 8.4x 9.3x 7.4× 6.5x 10.2x 20.0x ENTERPRISE VALUE (EURm) 23,175 25,310 27,216 32,362 36,612 29,447 32,111 24,230 23,416 24,717 24,690 23,997 22,902 25,212 11,687 6,625 1,574 Market cap + Adjusted net debt + Other liabilities and Other liabilities and commitr Revalued minority interests 1,002 4,031 P & L HIGHLIGHTS (EURm) De c. 04 Dec. 05 Dec. 06 Dec. 07 De c. 08 Dec. 09 De c. 10 Dec. 11 Dec. 12 Dec. 13 Dec. 14 ec. 15e Dec. 16e ec. 17e Sales Restated EBITDA (b) 4,542 (1,076) 3,387 (1,010) 3,070 3,304 (973) 3,636 4,113 (941) 3,536 (1,123) 3,549 (1,173) 3,156 2,722 (857) 2,670 (840) 2,956 (874) (932) (877) Restated EBITA (b) (\*\*) 2,166 2,331 2,704 3,172 3,466 2,413 2,376 2,118 2,377 1,865 1,830 2,081 2,459 2,798 Reported operating profit (loss) Net financial income (charges) 2.201 2.357 2.772 3.242 3,542 2.477 2.441 2.179 2,440 1.937 1.881 2.137 2.518 2.860 (941) (3) (180) (926) (18) (227) (1,069) (16) 74 (585) 212 (68) (547) (427) (485) 30 (526) (1,031) (984) 0 (870) 69 (762) 137 (635) 174 (120) (424) (68) (617) (316) (267)(630) (725) (479) (260) (432)(316) (242) (385)(419) (751)Minorities (288)(328)(217)(247)(341) (310)(287)(143)(189)(152)(131)(146) (172)(199) Goodw ill amortisation Net attributable profit reported
Net attributable profit restated (c
CASH FLOW HIGHLIGHTS (EURm) 1 046 1 096 1 372 1 909 1 598 736 827 593 432 601 143 804 1 200 1 469 1,143 ec. 04 1,129 ec. 05 1,387 c. 06 774 ec. 12 553 c. 14 1,242 c. 16e ec. 07 c. 09 ec. 10 c. 11 c. 13 c. 17e ec. 08 3,330 (26) (92) (352) 2,860 3,450 (63) (366) (304) 2,717 3,704 (68) 59 4,183 (70) (304) (79) 3,730 EBITDA (reported)
EBITDA adjustment (b) (35) (70) (271) 2,729 (65) (398) 354 3,505 (55) (46) (81) 2,829 (310) (257) 3,438 (154) 4,353 (80) 3,653 Operating cash flow 3,025 4,406 2,416 2,268 3,302 (1.133)(1.454)(1.639)(2.113)(2.886) (1.645)(1.331)(1.071)(775)(950) (861) (1.100)(1.100)(1.100)1,729 (1.181) 548 1,799 (1,056) Operating free cash flow (OpFCF) 1.596 1,406 (974) 1.617 1.467 2.761 2.174 1,954 1.942 1.466 1.407 2.202 2.553 Net financial items + tax paid
Free cash flow
Net financial investments & acquisitions
Other (1.028) (1,352) (1.333) (1.441) (1.311) (1.320) (1.252) (248) (263) 1,028) 589 1,435 (192) 841 299 (597) 501 304 186 744 151 743 115 526 950 1,217 (2,995) (197) 686 122 1,006 (266) 1,534 Capital increase (decrease) 255 387 196 53 2,695 41 11 Dividends paid (504) (545) (617) (652) (1,051) (536) (849) (487) (299) (486) (436) (413) (427) (525) Increase (decrease) in net financial debt Cash flow, group share BALANCE SHEET HIGHLIGHTS (EURm) 2,870 2,282 Dec. 06 (692) 2,119 .734 (1,233 Dec. 07 Dec. 10 Dec. 11 Dec. 12 Dec. 13 ec. 04 Dec. 05 ec. 17e 1.643 2.104 2.017 1.904 1.787 921 440 443 391 611 769 850 19,513 7,782 2,119 22,318 9,758 2,571 22,167 10,403 1,391 Restated capital employed, incl. gross goodwill 32 838 34.677 30 967 29.816 26 711 15,668 2,082 16,537 2,154 2,947 Shareholders' funds, group share Minorities Provisions/ Other liabilities 3,488 3,717 2,895 3,011 3,324 3,311 2,627 3,074 3,140 2,897 3,521 2,802 9,975 2,115 9,483 FINANCIAL RATIOS (%) Dec. 04 Dec. 05 ec. 06 Dec. 07 Dec. 08 Dec. 09 Dec. 10 Dec. 11 Dec. 12 Dec. 13 Dec. 14 ec. 15e ec. 16e ec. 17e ales (% change) (10.9%) Restated EBITA (% change) (\*\*) 15.3% 7.6% 16.0% 17.3% 9.3% (30.4%) (1.5%)12.2% (21.5%) (1.9%) 13.8% 18.2% 13.8% Restated attributable net profit (% change) (\*\*)
Personnel costs / Sales
Restated EBITDA margin
Restated EBITA margin 22.8% 16.7% 21.8% (49.1%) 14.5% (21.2%) (35,4% 10.5% 23.9% 22.1% 15.7% 23.49 22.19 22.0% 14.7% 22.1% 20.8% 14.2% 25.5% 21.3% 15.0% 21.5% 16.0% 20.8% 14.2% 16.7% 22.9% 28.3% 26.2% 19.9% 63.9% 34.3% 58.4% 31.0% 31.0% Tax rate 19.8% Net margin Capex / Sal 9.2% 8.9% 12.2% 12.0% 6.9% 4.8% 2.1% 6.7% 9.3% 10.6% 10.6% 11.9% 78.1% OnECE / Sales 9 2% 17.4% 13 4% 12.8% 12.3% 15.0% Capital employed (excl. gdw ./intangibles) / Sales 113.5% 14.7% 11.6% 13.3% 15.4% 11.5% 5.4% 4.9% 3.4% 3.6% 7.5% 67% 56% 83% 72% 115% 82% 77% 66% 64% 60% 54% 51% 40% EBITDA / Financial charges
Adjusted financial debt / EBITDA
ROCE, excl. gdw./intangibles 7 7v 7.8× 3.84 2 2v 3.2x 3.3 2.85 5.3x 6.3× 3.3x 3.3x 10.8% 5.6% 2.1x 14.2% 7.1% 2.1x 11.8% 7.6% 10.4% 5.1% 9.1% ROCE, incl. gross goodwill 10.1% 4.6% 6.3% 8.6% 7.3% 5.2% 4.8% WACC 8.5% 7.6% 7.3% 9.1% 7.5% 8.0% 8.4% 8.2% 7.8% 7.8% 7.8% 10 Mar. 15

(a) htangibles: EUR11,709.00m, or EUR41 per share. (b) adjusted for capital gains/losses, impairment charges, exceptional restructuring charges, capitalized R&D, pension charge replaced by service cost (c) adj.for capital gains losses, imp. charges, capitalized R&D, am. of intangibles from M&A, or for am. of gw iii for pre FRS year.

Source: BNP Paribas Equity Research of 16.03.2015

# Exhibit 14 – Latest Trends (Up to November of 2015, When Published the Research)

#### Difficult short term trends in several of LafargeHolcim's key markets

Recent development and earnings momentum

	% 2014 EBITDA	Latest trends
Asia & Oceania	25%	
India	8%	Disappointing volumes in H1, pick up in volumes in Q3 but pricing remain weak
Australia	3%	Volumes impacted by lower commodities related investment
Philippines	3%	Strong trends
Indonesia	3%	Weak H1 volumes, new entrants, government intervention on prices / Better Q3 volumes but pricing still mixed
China	2%	Weak volumes and pricing
Malaysia	2%	Good demand but new entrants (price pressure and market share loss)
Other	4%	
Latin America	14%	
Mexico	4%	Strong volumes / Market share gain
Brazil	3%	Disappointing volumes and prices
Colombia	2%	Good volumes / pricing impact by new entrant
Ecuador	2%	Volumes impacted by lower oil prices
Other	3%	
Middle East and Africa	23%	
Algeria	6%	Resilient demand but doubt on oil prices impact
Nigeria	5%	Weaker pricing in Q3, construction activity impacted by lower oil pries
Egypt	3%	Stable underlying demand but weaker pricing in Q3
Morocco	2%	Better than expected volumes in Q3
Iraq	2%	War
Kenya	1%	Good volumes / some threat from imports
South Africa	1%	Some volumes growth but market share loss due to new entrants + pricing pressure
Other	3%	
North America	15%	
USA	7%	Solid pricing, volumes growth a bit slower than initially expected
Canada	8%	Economy impacted by lower oil prices
Europe	23%	
France	5%	Negative volumes trends notably for public works
UK	4%	Solid pricing but slow volumes
Russia	3%	Negative demand evolution partly offset by Lafarge ramp-up of a new plant
Switzerland	2%	Weak volumes in Q3 and some pricing pressure
Poland	1%	Some pricing pressure, not material volumes improvement in Q3
Germany	1%	Subdued demand (stable in Q3)
Other	7%	
GROUP		

Source: Exane BNP Paribas estimates

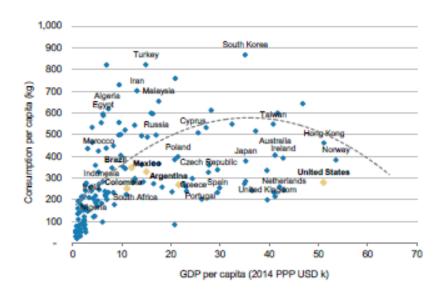
#### Exhibit 15 - Cement Intensity of GDP vs. GDP Per Capita

Source: Morgan Stanley Research

– Sustainable and Responsible,

Cement Industry: From grey to

green – March 8, 2016.



Source: Company data, Morgan Stanley Research

Exhibit 16 - Comparable Ratios										
		Lafar	ge SA		Holcim					
	FY 2014	FY 2013	FY 2012	FY 2011	FY 2014	FY 2013	FY 2012	FY 2011		
EV/Sales	2.17	2.06	1.70	1.41	1.88	1.71	1.65	1.46		
EV/EBITDA	12.09	9.66	9.20	7.93	9.72	8.64	8.95	7.65		
EV/EBIT	19.05	13.95	14.04	12.82	15.79	14.28	19.91	15.67		
EV/FCF	60.89	31.52	23.01	24.28	37.04	31.98	25.62	22.00		
P/E	116.16	28.19	39.86	77.05	19.66	17.07	35.40	58.43		
P/Free Cash Flo	191.88	100.30	26.47	14.20	46.84	37.40	23.25	16.47		
ROCE	0.95	3.98	2.31	3.69	7.65	7.79	3.67	1.57		
Net Debt/EBITD	4.03	3.43	3.76	4.26	2.61	2.43	2.64	2.88		
		Heide	lberg			CF	RH			
	FY 2014	FY 2013	FY 2012	FY 2011	FY 2014	FY 2013	FY 2012	FY 2011		

	Heidelberg				CRH			
	FY 2014	FY 2013	FY 2012	FY 2011	FY 2014	FY 2013	FY 2012	FY 2011
EV/Sales	1.51	1.53	1.19	1.16	0.92	0.92	0.79	0.82
<b>EV/EBITDA</b>	9.00	8.19	7.13	6.60	10.96	20.18	9.33	9.01
EV/EBIT	13.95	13.41	13.85	11.28	19.02	166.50	17.80	17.12
EV/FCF	34.28	57.26	23.46	31.30	20.76	25.97	29.12	29.71
P/E	16.61	16.87	44.07	16.64	25.22	24.22	20.51	18.60
P/Free Cash Flo	19.86	31.86	12.10	12.82	17.47	20.82	22.45	21.86
ROCE	-	-	-	-	-	-	-	-
Net Debt/EBITD	3.27	3.22	2.98	3.48	1.64	3.64	1.99	2.21

	Italcementi				SXOP Index			
	FY 2014	FY 2013	FY 2012	FY 2011	FY 2014	FY 2013	FY 2012	FY 2011
EV/Sales	1.13	1.16	1.02	1.03	1.01	0.95	0.83	0.81
EV/EBITDA	7.01	8.19	14.25	8.13	9.34	8.87	7.52	6.94
EV/EBIT	20.16	30.92	-	37.63	15.79	14.85	12.49	11.31
EV/FCF	-	43.54	31.99	111.17	-	-	-	-
P/E	-	-	-	28.07	19.34	25.40	20.80	13.95
P/Free Cash Flo	12.19	15.31	8.24	29.09	-	-	-	-
ROCE	-	-	-	-	-	-	-	-
Net Debt/EBITD	3.27	3.35	6.66	3.66	-	-	-	-

**Exhibit 17 – Relevant Rates for Valuation Purposes** 

Countrie	s	Switzerland (GSWISS 1, 10, 30 Indexes)	France (GFRN 1, 10, 30 Indexes)	Germany (GDBR 1, 10, 30 Indexes)	World	
Risk-free rate (yield in %),	One year	-0.216	-0.018	-0.064		
end 2014	10 years	0.319	0.826	0.541		
	30 years	0.784	1.898	1.389		
Corporate Tax rate, 2014		18.01%	33.33%	29.58%	30.00%	
Corporate Tax rate do	os ARs, 2014					
<b>Equity Risk Premium</b>	S	5.81%	6.41%	5.81%	7.30%	
Historical Beta (last 5 years up to deal date)						
Holcim		1.296				
Lafarge		1.191 (against CAC Index)				

Sources: Bloomberg, KPMG, Damodaran (July 2015)

#### **Teaching Note**

# The LafargeHolcim merger

#### **Synopsis**

In 2014, Holcim and Lafarge announced a merger of equals agreement between the two companies, which was realized one year later and created the world's greatest cement company and a huge player on the building materials sector. The formed company, LafargeHolcim (LHN), became the world's largest cement company and, in theory, it would be in a better condition to face increasing competition and a lagging and weak economic recovery from the 2008 global crisis.

The current Teaching Note should be analysed together with the respective Case Study and should be focused on: (I) merger rationale, (II) merger of equals concept and the case of this merger along with gains and losses for each side of the merger, (III) corporate governance issues, (IV) the asset disposals deals and (V) impact of the merger on EPS. The suggested discussion questions and its answers based on the case are the followings below.

#### Question 1

# What transaction drivers can you identify of the deal, in other words, the merger rationale? Do they make sense?

The key points for the merger were (1) a merger of equals to create the most advanced group in the building materials industry, with a truly global and balanced footprint, (2) creating the best growth platform in the industry, (3) positioning their business to meet changing market needs through a bigger focus on emerging markers, (4) a unique value proposition, including: unique global portfolio, superior growth and margins, augmented by significant synergies and disciplined financial approach focused on returns.

The relevant portfolio complementarity would in principle help LHN to achieve market leadership across all continents. By re-allocating the group capital more efficiently, the merger allows both sides to rely on each other's investment plans, freeing capital to be reallocated where needed. This enables to reposition the group (through Western Europe

disposals, but not only) and grow through synergies, even in a low-growth environment. This can in a certain way stimulate growth momentum that was constrained. The combined group can explore massive synergy potential, representing €1.4bn of EBITDA net of disposal impact. Still in terms of freeing capital, it would be also relevant by finding more sources of cost savings with the merger, but the risk of cost cutting plans hurting its' own performance or cutting too much into the "muscle" and not "fat" should not be forgotten to be managed.

The drivers given for the merger make sense with the macro-environment and give base for the realization of the merger. This means that the problems that emerged with the merger are not related with its theoretical potential, but with its implementation, deal terms, and short-term macro-economic factors that drove down market expectations, and share price, of LafargeHolcim. Additionally, the potential synergies only reinforce the reasons for the fusion.

#### Question 2

The merger between Lafarge and Holcim, in your opinion, could be called in reality a "merger of equals"? What where the gains and losses for each side? Explain.

Although Holcim and Lafarge always maintained the message of a merger of equals, in reality it indicated to be a friendly takeover. The reason for not being a merger of equals are: (1) the weight of Lafarge in the new company of 43.35%, below the expected 50% once each part was considered equal; (2) the new exchange ratio, favorable to Holcim; (3) the renegotiation of new directors for the firm, favorable to Holcim, with the co-chairmanship model being in practice one chairman (Mr. Reitzle, from Holcim).

The initial idea of a merger of equals, catalyzed still in 2014 with market dynamics (aligned share prices and exchange rates, allowing a 1:1 swap ratio), although later adapted for new terms, including a new ratio (10 Lafarge:9Holcim), turned possible the justification of a merger of equals, when no premium is paid to either side. Holcim shareholders paid a premium of -0.61% (in practice a zero, due to rounded values and possible slightly different exchange rate used versus the one used by LHN on its report) per each Lafarge share tendered in order to control Lafarge and realize the merger (**Exhibit TN1**).

Regarding gains and losses, this was a great deal for Holcim in a first moment. Only through a merger of equals that one company normally can acquire other without paying a premium, which is excellent to preserve value for Holcim shareholders'. **Exhibit TN2** multiples show that Holcim paid considerably less for Lafarge than comparable deals (Exhibit 7 of the Case). However, the question of when synergies and results would be big enough to demonstrate that it was good decision for Holcim remains. In fact, takeovers have one big benefit over a merger, mainly merger of equals, which is that in a takeover one side pays a premium and must justify it. Hence, at least one of the sides would probably analyze twice if merging makes sense, beyond secondary reasons for it. For Mr. Schmidheiny, Holcim's main shareholder, the deal was with no doubt a gain because he maintained his position of main shareholder and was successful in removing Eurocement (Mr. Galchev) from LHN (Exhibit 3 of the case shows that Eurocement shorted its position on LHN in early 2016).

For Lafarge shareholder, it was expected to be a good deal by combining it with a firm in better financial condition. The merger would reduce Lafarge side debt – debt level was not significantly high, but even Moody's indicated that the merger would make Lafarge credit rating better by merging it with Holcim, with lower debt level – to improve cash-flow generation (**Exhibit TN3**) and to produce better results, but if share price remains low and synergies do not come, then even long-run benefits are doubtful. In control terms the deal was positive; half the board of LHN comes from Lafarge with a weight close to 43% into the new firm, composed of main shareholders or people directly related to them. Thus, Lafarge shareholders gained proportionally more power than Holcim's over LafargeHolcim.

### Question 3

What governance issues do you identify by reading the case? Are there any perverse incentives from any character?

Perverse incentives are the unethical or the ones that do not beneficiate overall shareholders. They are, in fact, incentives good for specific individuals – a shareholder, a director or other stakeholder – and generally do not choose the best outcomes to most of the parts involved.

**Thomas Schmidheiny** – he was in the past already involved in trouble with the inside trading investigation over him. Regarding this merger, the conflict of interests between him and Mr. Galchev are evidence of conflict of interests. With his position at the Board and influence over other members, he blocked Mr. Galchev interest on having a more active role on the merger, on having a seat on the board and even negotiations started without his consent. All was attributed to fear from Thomas and his family of losing the control of the family founded company, definitely a perverse incentive. The media mentioned lack of transparency about the negotiations on the back stage and the agreement problems among shareholders, which is bad in terms of governance once the public and small shareholders became unaware of what is going on in a, ironically, public company, where this is not supposed to happen. The most important point, however, is that if the merger of Holcim with Lafarge was motivated and advanced by Thomas because he wanted to maintain his position as the most important shareholder and block any other shareholder of becoming more powerful (namely on this case Mr. Galchev), instead of being motivated by reasons common to all shareholders, like creation of value and the best way to develop the company, then there was a relevant governance issue and a perverse incentive.

**Dieter Spälti** – is not an independent member due to his strict relationship with Thomas. Even though Mr. Schmidheiny is the major shareholder of Holcim/LHN, Dieter is strongly inclined to protect the interests of Thomas instead of all shareholders. As stated, he joined Spectrum Value Management Ltd as a partner in 2002 (before joining Holcim, in 2003). Since 2006, he has been Chief Executive Officer and Member of the Board of Directors at the same company, a firm that administers the industrial and private investments of the family of Mr. Schmidheiny. Thus, his decisions on the board of Holcim and LafargeHolcim are probably much conditioned by his position at Spectrum Value and the relationship with Thomas and his family. It is then questionable if his actions at Holcim/LafargeHolcim are done for the benefit of all shareholders. A strong evidence of this is what happened to Mr. Galchev, the second biggest shareholder of Holcim, which seems to have been neglect on his requirements to the board of directors, what favored more Thomas position.

**Bruno Lafont** – agency costs involving him are identified. Probably the stronger evidence of it is the payment package that he was granted, which is being investigated by AMF. The deal was also a great opportunity to become CEO of an even bigger and relevant company, adding to this ego reasons mentioned on the case. For Holcim shareholders, he also demonstrated unwilling behaviors, such as spending too much money for the roadshow to present the merger to shareholders and problems with his management style.

**Rolf Soiron** – the former chairman of Holcim had personal motivations for the merger. He wanted to end his career with a remarkable realization and a successful merger had a strong fit with his objective, even more to create the world's most important cement company.

Gérard Lamarche – managing director at Groupe Bruxelles Lambert (GBL), the holding group of Albert Frère and the Canadian Demarais family, since 2012. He had strong motivation to make the deal happen. His motivation, though, came from a huge conflict of interest, originated by his position at GBL. As managing director, the deal would be a good mark for his career, an undesirable incentive if this is not aligned with other players. Frère and his group prefer to invest close to home, in companies with exposure to emerging markets. Also, it was expressed their interest to invest in Switzerland. Finally, Lafarge weak performance was harming the returns of the group already in 2013, and the exhibits show that Lafarge performance got even worse since that time. It is, thus, evident that for GBL the merger with Holcim was a great deal to solve all those problems aforementioned.

Consequently, Lamarche (along with GBL and its shareholders on Lafarge) had perverse motivations for the merger. However, this motivation seemed to be perverse but, on that case, not necessarily bad for Lafarge. It is bad indeed for Holcim, which was doing a bad deal.

**Nassef Sawiris** – the second largest Lafarge shareholder through NNS Holding had also a perverse incentive for the merger but, such as GBL and Mr. Lamarche, his incentive was not an issue for others shareholders of Lafarge, once his actions would be good for, generally, all shareholders. The problem was for Holcim side, again, like GBL and Lamarche motivations.

Exhibit 7 shows that Lafarge paid too high for Orascom when compared to other acquisitions, the most expensive of the list in ratio terms (this acquisition is questionable in terms of governance, but escapes from the subject and thus will not be developed here). Sawiris used the same strategy of when Orascom was acquired by Lafarge with the merger to form LafargeHolcim, which is being acquired and becoming a relevant shareholder with more power than before once the company is bigger. Holcim acquired Lafarge for a price that is just too high once Lafarge was overvalued in relation to its results (even with smaller weight of Lafarge on the new company versus Holcim and also with the new exchange ratio that make the deal better for Holcim. Further developed on question 5).

To sum-up, both GBL and Sawiris were keen to close de deal for the same reason: Lafarge was relatively weak in performance terms and overvalued (as ratios can show), so merger it with Holcim would be an easy way rebalance the firm financials and improve return for shareholders. Sawiris became shareholder of LHN similarly as he did to enter Lafarge, whereas GBL would try to recover performance by the merger, by investing accordingly to Frère's strategy and his holding. They have perverse incentives, at the expense of Holcim tough, so it is not ethical but still not a problem for Lafarge side.

An analysis of the merger leads to the conclusion that the merger itself happened because of individual motivations, many of these unrelated between each other but complementary towards the realization of a merger among Holcim and Lafarge, justified by a favorable market condition that facilitated the formal reason for the deal.

### **Question 4**

Analyze the asset disposals to CRH and Summit Materials. Do they were good deals? When possible, analyze it from a financial and a strategic view.

The reason for these perspectives are that the financial side gives sometimes basis for some of the strategic reasons while other times they are different and go in distinct ways. The asset disposals to CRH and Summit Materials are analyzed in the points below.

- 1- Regulatory reasons: without asset disposals authorities in many countries would block the merger of the companies within their own countries, nulling the merger realization. It is basically a strategic point, but fundamental for the completion of the deal.
- 2- Asset sales for merger fit: sell assets that no longer make sense to hold when the best assets of each company are combined, having no more value for LafargeHolcim. It is as well an opportunity for the company to be more focused towards its objectives, like investing in better projects with higher cash flow generation and focusing on more attractive markets (generally, more weight on emerging markets and less on developed markets), an important strategic point considering the cement trends of the last years and the future perspectives. It is as well financially important once higher cash flow generation increases the value of the company, enables sustainable dividends and more investments to maintain its leadership position on the world. Linked to it but secondarily, it is an attempt to soften market fear that LafargeHolcim could be too big to be managed, which can impact stock performance.
- 3- To improve EBITDA margin: disposals of assets with low margin will improve the firm's EBITDA margin, however disposals reduce cash-flow generation and so it would be financially interesting only if the price paid was superior than the present value of future cash-flows. It is strategically important to raise own money to invest and presumably grow more, and/or improve dividends, which raises the firm's market attractiveness, all factor aligned with the overall strategy of LafargeHolcim.
- 4- Multiples: finally, it is important to compare the disposals with other deals of the sector, in order to reach a conclusion whether the deals were good for Holcim and Lafarge shareholders. The multiples analysis is, hence, a relevant method to be used once it enables a comparison with any quoted company, where the Enterprise Value as a multiple of Revenues (EV/Revenues) and Enterprise Value as a multiple of EBITDA (EV/EBITDA) are usually the most used multiples, which was also the one chose here. Comparing Exhibit 7 data with CRH having paid 1.25x EV/Revenues and 8.7x EV/EBITDA for LHN assets indicates that assets were sold at a relatively low price, even

more if compared to deals from the most recent years. However, it would be much harder to sell the huge amount of assets at a better price to different companies in a reasonable timescale, given the time pressure to get regulatory approval. Regarding US assets to Summit Materials for €420 million at 10x EV/EBITDA, it was reasonably priced and in line the strategic objectives to make de deal happen. The disposals were needed considering the merger objective. To conclude, could have been financially better, but it was strategically needed with no much available time for "amazing" deals.

## **Question 5**

What would be the immediate impact of the merger on earnings per share for shareholders of each side (based on pre-merger EPS results)? What is your opinion about it?

For this analysis is considered the latest EPS of Holcim and Lafarge separately (first semester of 2015), recalculated to be equally distributed for all shareholders right after the merger. Then, for this hypothetical scenario is converted from Euros (EUR) to Swiss Francs (CHF) the earnings per share (EPS) and share price (P) of Lafarge, as LafargeHolcim would be based in Switzerland and its shares mainly traded in this country too. Once Holcim already presented its first semester 2015 results both in EUR as well as CHF, the implied exchange ratio can be calculated and applied for Lafarge, which is also good to maintain more consistency with the same exchange ratio.

On **Exhibit TN4.1** the exchange ratio used by Holcim is calculated based on the values given in EUR and CHF. This ratio is applied to convert Lafarge EPS given in euros, reaching an EPS value of -1.76 CHF. Next, the share price of July 9, 2015 was used as the merger realization occurred on this date for calculating the price-to-earnings ratio (P/E). By using the same exchange rate already calculated, Lafarge share price is converted to CHF and, then, the P/E ratio was calculated, reaching the values presented on **Exhibit TN4.2** 

With Lafarge ownership weight provided in the Case Study, the expected EPS of LafargeHolcim is calculated as the weighted average EPS of Holcim and Lafarge in the new company, at the time it was formed (July 9, 2015), getting a new EPS of CHF 0.16. With it

LHN new P/E is of 459.5. If, however, Holcim P/E ratio of 44.2 was maintained constant, now as LafargeHolcim, and then using the new EPS of CHF 0.16, the new expected share price of LHN would be of mere CHF 6.88 in order to maintain the same ratio that Holcim had (see Exhibit TN4.3). It is considered Holcim P/E instead of Lafarge because, as stated previously, Holcim in fact acquired Lafarge. This value does not consider synergies and is a photograph of that moment, but it clearly demonstrates that the merger produced a strong EPS dilution effect for Holcim shareholders'. Nevertheless, this is not synonym of value destruction, but indicates a combination of two companies where one with a stronger financial position (Holcim) than the other leaded to a re-equilibrium of the earnings generated by each firm. In this case, the re-equilibrium benefitted ex-Lafarge shareholders that are now LHN shareholders. As synergies would not happen instantly, which would help to make this ratio better, the EPS impact for Holcim shareholders demonstrates that, at least for the short term and through a money perspective, this deal was a bad decision, once share price is overvalued based on a multiples and comparators analysis, thus unsustainable. This is observed on the share price fall of Exhibit 12 of the Case Study. On the contrary, for Lafarge investors this indicates that the merger was a good deal to recapitalize Lafarge at the expense of Holcim.

## LafargeHolcim - After the Merger and Conclusion

One year after the deal, LHN share price has dropped 44%, while it was already flat since the pre-announcement yet in 2014. Meanwhile, the SXOP Index presented return of 6%, while SMI Index, the main index of Zurich's stock exchange, had a loss of only 4% (Case Study **Exhibit 12**). The share price fall is consistent with the expected deterioration of some financial indicators, like P/E ratio as previously analyzed. The merger indeed seems to have provided a convenient recapitalization for Lafarge side at Holcim's expense, caused by the weaker financials on Lafarge that were balanced by the better numbers of Holcim. **Exhibit 16** of the case study shows that in 2014 Lafarge had worse ratios than Holcim and other important competitors, and it was overvalued and delivering little return to investors. Furthermore, there was net loss of CHF2.86bn in the fourth quarter of 2015 caused by a CHF3bn charge attributed to asset impairment and "changing market condition" in Brazil,

China, Russia and Iraq<sup>xxi</sup> (**Exhibit 14** of the case). The exposure to emerging markets (which have grown more with the merger and after the disposals), around two-thirds of earnings, is making LHN suffer with the collapse in commodity prices, so the potential advantage of a high exposure to emerging markets has not realized yet. Additionally, cement prices felt in important markets as a result of a lower economic activity whilst investors were reluctant about the capacity of the company to deliver the merger benefits amid tough global economic conditions.

To analysts, results of 2015 suggested "a permanent adjustment to earnings potential" with no signs of recovery up to the moment, and while Eric Olsen is trying (and has to) demonstrate that merger benefits surpass the current problems, results and market performance do not reflect this. Olsen has the challenge to demonstrate too real scale economies with the merger, a not easy task considering that cement, the main product of LHN, is inherently a local business.

Furthermore, Wolfgang Reitzle, which contributions "were instrumental for the completion of the LafargeHolcim merger" announces in February 2016 he would no longer be the company's Chairman, being substituted by Beat Hess in May of the same year. Also, his seat on the Board was substituted by Jürg Oleas, which was from Holcim's BoD previously<sup>xxiii</sup>. Such kind of change does not pass confidence to the market as well. This scenario is particularly destructive for shareholders from Holcim side, mainly because problems seem to come from Lafarge side, like Middle East operations.

To conclude, given the adverse macroeconomic scenario and the long-term perspectives for the cement industry, this merger was a clever growth strategy. However, in the short-run challenges must be overcome, mainly synergies to be realized, offset cultural differences and improve soon cash-flow generation. Questions remain until then. Will ex-Holcim shareholders pay the necessary price and when stock price would recover pre-merger level compensating investors? When synergies would be big enough to demonstrate it was a clever decision? Although in the lung-run it is a good strategy, the "un-official" reasons and perverse

motivations of many actors involved in the deal, indicating to be the truly motivators for the merger, resulted in problems that pushed down Holcim share price and investors' confidence, meaning that until the moment the merger was a bad deal to general Holcim shareholders, with the exception of Schmidheiny and his family, with no perspective yet of a truly recovery.

# **Teaching Note Appendixes**

# Exhibit TN1 – Deal Related Values

Deal Realization and Premium		
Lafarge share price as at July 9, 2015		61.68€
Lafarge shares tendered		278,131,864
Market Cap of the shares tendered (in million)		17,155€
In million CHF	CHF	17,910
In million Euros		17,050€
Exchange rate at July 09 (CHF/EUR)		0.952€
Premium paid over the shares tendered		-0.61%

Sources: Bloomberg and LHN Annual Report 2015. For the exchange rate: https://www.ecb.europa.eu/stats/exchange/eurofxref/html/eurofxref-graph-chf.en.html

# Exhibit TN2 – Multiples Analysis of the Price Paid by Holcim to Acquire Lafarge

(In million CHF)			
Paid EV by Holcim		19,483	
Lafarge 2014 Revenues		13,598 Lafarge 2014 EBITDA	2,881
Lafarge 2015 estimated Revenues		Lafarge 2015 estimated EBITDA	
(from Exhibit 13.b)		14,617 (from Exhibit 13.b)	3,188
EV/Revenues (2014)		1.43 EV/EBITDA (2014)	6.8
EV/Revenues (2015)		1.33 EV/EBITDA (2015)	6.1
Vs. Lafarge real EV/Revenues (2014)		2.17 Vs. Lafarge real EV/EBITDA (2014)	12.1
Exchange Rate (EUR/CHF)	CHF	1.058824	

 $Obs.\ 1: for\ EV is\ considered\ the\ total\ consideration\ for\ the\ business\ combination, from\ Exhibit\ 9\ Business\ Combination$ 

# Exhibit TN3 – Additional Ratios

LafargeHolcim in 2015, Holcim before	FY 2015	FY 2014	FY 2013	Lafarge	FY 2014	FY 2013
12 Months Ending	12/31/2015	12/31/2014	12/31/2013	12 Months Ending	12/31/2014	12/31/2013
Long-Term Debt/Equity	41.60	45.73	47.04	Long-Term Debt/Equity	54.17	64.83
Long-Term Debt/Capital	25.89	28.94	28.92	Long-Term Debt/Capital	32.63	36.12
Long-Term Debt/Total Assets	20.27	23.29	23.15	Long-Term Debt/Total Assets	26.91	29.96
Total Debt/Equity	60.70	58.01	62.67	Total Debt/Equity	66.00	79.48
Total Debt/Capital	37.77	36.71	38.52	Total Debt/Capital	39.76	44.28
Total Debt/Total Assets	29.58	29.54	30.85	Total Debt/Total Assets	32.78	36.74
CFO/Total Liabilities	6.57	12.82	14.46	CFO/Total Liabilities	5.41	5.84
CFO/CapEx	1.17	1.28	1.26	CFO/CapEx	1.10	1.16
Source: Bloombora				Source: Bloomhora		

Source: Bloomberg Source: Bloomberg

 $Obs.\ 2: all\ Lafarge\ values\ were\ converted\ to\ CHF\ based\ on\ the\ exchange\ ratio\ used\ also\ for\ the\ EPS\ calculation$ 

Obs. 3: the Lafarge ratios of FY 2014 were taken from Bloomberg

# **Exhibit TN4.1 – Earnings Per Share (EPS)**

In € In CHF Exchange Ratio Holcim EPS 1.53 1.62 1.058823529 Lafarge EPS -1.66 -1.76 1.058823529

All EPS were taken out from the each company's half-year Results, except for Lafarge in CHF, which was calculated

# **Exhibit TN4.2 – Calculations to P/E Ratio**

Lafarge			Holcim				
	EPS (adj. In CHF)	CHF	-1.76	EPS	CHF :	1.62	
	Price per share	CHF	65.31	Price per share	CHF 7	1.55	Both as at july 9, 2015
	P/E		-37.2	P/E		44.2	

# Exhibit TN4.3 – LHN Expected Share Price with Constant P/E

LafargeHolcim			
Lafarge weight	43.35%		
Holcim weight	56.65%		
New EPS	CHF	0.16	
Price per share	CHF	71.55	As at july 9, 2015
New P/E		459.5	
For Holcim shareholders			
New expec. share price		6.88	(New EPS of CHF 0.16 * Holcim P/E of 44.2)

### References

# **Annual Reports:**

Holcim. 2014. "Annual Report 2014".

http://www.holcim.com/fileadmin/templates/CORP/doc/Q4\_14/EN-Report\_Q4-2014.pdf

Lafarge. 2015. "2014 Annual Report".

http://www.lafarge.com/en/financial-reports

LafargeHolcim. "2015 Annual Report".

http://www.lafargeholcim.com/financial-reports

## **Books**:

Jonathan and DeMarzo. 2013. Corporate Finance, Global Edition. Third edition. Pearson.

### Reports:

Barclays Equity Research. 6 January 2016. "European Construction, Building Materials & Infrastructure. No time for complacency – Initiating on European Building Materials".

Barclays Research. May 2014. "LafargeHolcim. Disposals Discussions" – for Exhibit 11.

Barclays Equity Research. 6 January 2016. "LafargeHolcim Q1 arguably the trough but more recovery evidence needed".

Exane BNP Paribas Equity Research. 4 November 2015. "LafargeHolcim. What to expect from CMD and first consolidated set results?" – Exhibit 14.

Exane BNP Paribas Equity Research. 17 March 2015. "Holcim challenges the merger terms" – Exhibits 13.a and 13.b.

Morgan Stanley Research. March 8, 2016. "Sustainable and Responsible. Cement industry: From grey to green".

## Websites

Bloomberg. 2016. "Many Unhappy Returns for a \$50 Billion Merger". Accessed December 4, 2016.

 $\underline{https://www.bloomberg.com/gadfly/articles/2016-07-13/lafargeholcim-50-billion-cement-merger-gives-no-cause-to-celebrate}$ 

Bloomberg website. 2014. "Holcim to Merge With Lafarge to Form Biggest Cement Maker". Accessed December 4, 2016.

 $\underline{http://www.bloomberg.com/news/articles/2014-04-07/holcim-to-merge-with-lafarge-to-form-biggest-cement-maker}$ 

CRH. 2015. "CRH plc announces completion of Lafarge-Holcim transaction". Accessed December 4, 2016.

 $\underline{http://www.crh.com/media/news-events/press-releases/2015/2015/08/03/crh-plc-announces-completion-of-lafarge-holcim-transaction}$ 

Expansión. 2015. "La fusión de Holcim y Lafarge entra en arenas movedizas". Accessed December 4, 2016.

 $\underline{http://www.expansion.com/empresas/inmobiliario/2015/03/13/55034ea122601dad178b456a.h}\underline{tml}$ 

Financial Times. 2015. "Holcim and Lafarge: A merger of egos". Accessed December 4, 2016.

https://www.ft.com/content/41d317c8-d14e-11e4-98a4-00144feab7de

Financial Times. 2007. "Lafarge buys Orascom Cement for €10bn". Accessed December 4, 2016.

https://www.ft.com/content/3bf1310e-a6f0-11dc-a25a-0000779fd2ac

Financial Times. 2013. "Groupe Bruxelles Lambert aims to get the right investment balance". Accessed December 4, 2016.

https://www.ft.com/content/c6d2dd28-c133-11e2-9767-00144feab7de

Financial Times. 2015. "Holcim rejects €40bn merger with rival Lafarge". Accessed December 4, 2016.

http://www.ft.com/cms/s/0/c965ab5c-cbb2-11e4-aeb5-00144feab7de.html#axzz3UYzdFwDq

Financial Times. 2015. "LafargeHolcim to slash capex amid weak results". Accessed December 4, 2016.

 $\frac{http://www.ft.com/intl/cms/s/0/997eded0-935e-11e5-bd82-c1fb87bef7af.html\#axzz43AFWbokh$ 

Financial Times. 2015. "LafargeHolcim 'on track' despite SFr2.9bn Q4 loss". Accessed December 4, 2016.

http://www.ft.com/intl/cms/s/0/aa812666-ec46-11e5-888e-2eadd5fbc4a4.html#axzz48AqnvFNy

Financial Times. 2015. "Key voices in the Holcim-Lafarge deal". Accessed December 4, 2016.

https://www.ft.com/content/ef81735c-d161-11e4-98a4-00144feab7de

Financial Times. 2016. "LafargeHolcim remains optimistic despite pricing pressures". Accessed December 4, 2016.

http://www.ft.com/intl/cms/s/0/86ad47ba-1824-11e6-b197-a4af20d5575e.html#axzz4ASVqhkfR

Financial Times, video. 2015. "Holcim/Lafarge – a merger unlike others?". Accessed December 8, 2016.

https://www.ft.com/content/b4a902ee-6560-3b1a-86ab-63ff6172e47a?ft site=next

Financial Times. 2015. "Olsen the cement needed to join Lafarge and Holcim". Accessed December 30, 2016.

## https://www.ft.com/content/8e93aba8-defb-11e4-852b-00144feab7de

Financial Times. 2015. "Regulators must get harder on Holcim and Lafarge deal". Accessed December 30, 2016.

https://www.ft.com/content/6458ae94-bcda-11e4-9902-00144feab7de

Financial Times. 2015. "LafargeHolcim 'on track' despite SFr2.9bn Q4 loss". Accessed December 4, 2016.

http://www.ft.com/intl/cms/s/0/aa812666-ec46-11e5-888e-2eadd5fbc4a4.html#axzz48AqnvFNy

Financial Times. 2015. "Key voices in the Holcim-Lafarge deal". Accessed December 4, 2016.

https://www.ft.com/content/ef81735c-d161-11e4-98a4-00144feab7de

Financial Times. 2016. "LafargeHolcim remains optimistic despite pricing pressures". Accessed December 4, 2016.

http://www.ft.com/intl/cms/s/0/86ad47ba-1824-11e6-b197-a4af20d5575e.html#axzz4ASVqhkfR

Forbes. 2016. "Filaret Galchev". Accessed December 4, 2016.

http://www.forbes.com/profile/filaret-galchev/

Global Cement. 2015. "Preview: The top 100 global cement companies and global per capita capacity trends". Accessed December 4, 2016.

http://www.globalcement.com/magazine/articles/964-preview-the-top-100-global-cement-companies-and-global-per-capita-capacity-trends

HeidelbergCement. 2016. "HeidelbergCement completes acquisition of 45% stake in Italcementi". Accessed December 4, 2016.

http://www.heidelbergcement.com/en/pr-01-07-2016

Holcim. 2015. "Shareholder Information on the proposed «Merger of Equals» between Holcim Ltd and Lafarge S.A.". Accessed December 4, 2016.

http://www.holcim.com/fileadmin/templates/CORP/doc/AGM/2011-2015/20150417 EN Shareholder Information Brochure.pdf

Holcim. 2014. "Annual General Meeting Holcim Ltd". Accessed December 4, 2016.

http://www.holcim.com/media-relations/latest-releases/latest-release/article/annual-general-meeting-holcim-ltd-13.html

Holcim. 2015. "Public Exchange Offer for the shares of Lafarge". Accessed December 4, 2016.

http://www.holcim.com/fileadmin/templates/CORP/doc/LafargeHolcim/29052015\_EN\_Offer\_Document.pdf

Lafarge. 2014. "Lafarge confirms that Lafarge and Holcim are in advanced discussions regarding a possible combination". Accessed December 4, 2016.

 $\frac{http://www.lafarge.com/en/lafarge-confirms-lafarge-and-holcim-are-advanced-discussions-regarding-a-possible-combination}{}$ 

LafargeHolcim. 2016. "History of LafargeHolcim". Accessed December 4, 2016.

http://www.lafargeholcim.com/our-history

LafargeHolcim. 2016. "Thomas Schmidheiny". Accessed December 4, 2016.

http://www.lafargeholcim.com/thomas-schmidheiny-director

LafargeHolcim. 2014. "A merger of equals to create LafargeHolcim, the most advanced group in the building materials industry". Accessed December 4, 2016.

http://www.lafargeholcim.com/sites/lafargeholcim.com/lh/mergerproject/04072014-press\_finance-LafargeHolcim-merger-project-announcement-uk.pdf

LafargeHolcim. 2015. "Statement". Accessed December 4, 2016.

http://www.lafargeholcim.com/statement

LafargeHolcim. 2014. "CREATING THE MOST ADVANCED GROUP IN THE BUILDING MATERIALS INDUSTRY" – slides 8 and 14. Accessed December 4, 2016. http://www.lafargeholcim.com/sites/lafargeholcim.com/lh/mergerproject/04072014-press\_finance-LafargeHolcim-merger-project-announcement-presentation-uk.pdf

LafargeHolcim. 2015. Accessed December 4, 2016.

http://www.lafargeholcim.com/sites/lafargeholcim.com/lh/mergerproject-03202015/03202015-press\_group-media\_release\_uk.pdf

LafargeHolcim. 2014. Accessed December 4, 2016.

http://www.lafargeholcim.com/sites/lafargeholcim.com/files/atoms/files/04042014-press\_finance-discussions-lafarge-holcim-combination-uk.pdf

LafargeHolcim. 2015. "Public Exchange Offer completed successfully". Accessed December 4, 2016.

http://www.lafargeholcim.com/sites/lafargeholcim.com/lh/mergerproject-7082015/07082015-press\_finance-Lafarge\_Holcim\_public\_exchange\_offer\_interim\_results-en.pdf

LafargeHolcim. 2015. "Holcim and Lafarge complete merger and create LafargeHolcim, a new leader in the building materials industry". Accessed December 4, 2016.

http://www.lafargeholcim.com/sites/lafargeholcim.com/lh/mergerproject-7102015/07102015-press\_finance-Lafarge\_Holcim\_complete\_merger\_create\_LafargeHolcim-en.pdf

LafargeHolcim. 2015. "Final Results of the Public Exchange Offer". Accessed December 4, 2016.

http://www.lafargeholcim.com/sites/lafargeholcim.com/lh/mergerproject-7092015/07092015-press\_finance-Lafarge\_Holcim\_public\_exchange\_offer\_final\_results-en.pdf

LafargeHolcim. 2015. "Results of the re-opened Public Exchange Offer". Accessed December 4, 2016.

http://www.lafargeholcim.com/sites/lafargeholcim.com/lh/mergerproject-7312015/07312015-press\_finance-LafargeHolcim\_results\_reopened\_public\_exchange\_offer-en.pdf

LafargeHolcim. 2015. "LafargeHolcim successfully completes squeeze-out of Lafarge S.A.". Accessed December 4, 2016.

http://www.lafargeholcim.com/sites/lafargeholcim.com/files/atoms/files/10232015-press finance-lafargeholcim successfully completes squeeze out-uk.pdf

LafargeHolcim. 2014. "European Commission provides clearance for proposed merger of Holcim and Lafarge". Accessed December 4, 2016.

http://www.lafargeholcim.com/european-commission-provides-clearance-proposed-merger-holcim-and-lafarge

LafargeHolcim. 2016. "LafargeHolcim publishes invitation to the Annual General Meeting: Beat Hess nominated as new Chairman and Jürg Oleas as member of the Board of Directors". Accessed December 4, 2016.

http://www.lafargeholcim.com/lafargeholcim-publishes-invitation-to-annual-general-meeting

LafargeHolcim. 2015. "Lafarge Draft Response Offer Document". p. 9 and 10

http://www.lafargeholcim.com/sites/lafargeholcim.com/lh/mergerproject-5112015/05112015-finance-Draft\_Reply\_Offer\_Document\_Lafarge-uk.pdf

LafargeHolcim. 2016. "LafargeHolcim publishes invitation to the Annual General Meeting: Beat Hess nominated as new Chairman and Jürg Oleas as member of the Board of Directors". Accessed December 4, 2016.

http://www.lafargeholcim.com/lafargeholcim-publishes-invitation-to-annual-general-meeting

Lawyers.com. "Squeezeout". Accessed December 4, 2016.

http://research.lawyers.com/glossary/squeezeout.html

LII. "Squeezeout". Accessed December 4, 2016.

https://www.law.cornell.edu/wex/squeeze-out

The Economic Times. 2015. "French market regulator looks into ex-Lafarge boss Bruno Lafont's pay package". Accessed December 4, 2016.

http://economictimes.indiatimes.com/news/international/business/french-market-regulator-looks-into-ex-lafarge-boss-bruno-lafonts-pay-package/articleshow/49196333.cms

The Economist. 2013. "Ready-mixed fortunes. The world's cement giants look set for recovery—but will it be durable?". Accessed December 4, 2016.

http://www.economist.com/news/business/21579844-worlds-cement-giants-look-set-recoverybut-will-it-be-durable-ready-mixed-fortunes

The Fletcher School. Tufts University. 2011. "Dr. Thomas Schmidheiny: From Family Business to Family Wealth Management". Accessed December 4, 2016.

http://fletcher.tufts.edu/News-and-Media/2011/02/17/Thomas-Schmidheiny-talk

The New York Times. 2003. "World Business Briefing | Europe: Switzerland: Insider Trading". Accessed December 4, 2016.

http://www.nytimes.com/2003/02/08/business/world-business-briefing-europe-switzerland-insider-trading.html?\_r=0

The Wall Street Journal. 2015. "Holcim Board Rejects Lafarge Merger Terms". Accessed December 4, 2016.

http://www.wsj.com/articles/holcim-board-rejects-lafarge-merger-terms-1426489062

World Cement. 2015. "Eurocement wants seat on LafargeHolcim board". Accessed December 4, 2016.

http://www.worldcement.com/europe-cis/16042015/Eurocement-wants-seat-on-LafargeHolcim-board-692/

World Cement. 2015. "Eurocement backs Lafarge, Holcim merger". Accessed December 4, 2016.

 $\underline{https://www.worldcement.com/europe-cis/05052015/eurocement-backs-lafarge-holcim-merger-787/}$ 

World Cement. 2015. "Distribution of an exceptional scrip dividend by LafargeHolcim". Accessed December 4, 2016.

 $\underline{https://www.worldcement.com/europe-cis/03092015/distribution-exceptional-scrip-dividend-lafargeholcim-491/}$ 

World Cement. 2015. "LafargeHolcim: Becoming Reality – Part One". Accessed December 4, 2016.

 $\frac{http://www.worldcement.com/special-reports/03082015/LafargeHolcim-Becoming-Reality-Part-One-256/$ 

World Cement. 2015. "LafargeHolcim: Becoming Reality – Part Two". Accessed December 4, 2016.

 $\frac{http://www.worldcement.com/special-reports/04082015/LafargeHolcim-Becoming-Reality-Part-Two-257/$ 

Other Sources:

Bloomberg Terminal.

### **End Notes**

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 $\underline{http://www.economist.com/news/business/21579844-worlds-cement-giants-look-set-recoverybut-will-it-bedurable-ready-mixed-fortunes}$ 

ii Holcim. 2014. "Annual Report 2014", p. 102. Accessed December 4, 2016.

http://www.holcim.com/fileadmin/templates/CORP/doc/Q4\_14/EN-Report\_Q4-2014.pdf

iii Financial Times. 2013. "Groupe Bruxelles Lambert aims to get the right investment balance". Accessed December 4, 2016.

https://www.ft.com/content/c6d2dd28-c133-11e2-9767-00144feab7de

iv Ibidem.

<sup>v</sup> Lafarge. 2015. "2014 Annual Report", page 1. Accessed December 4, 2016.

http://www.lafarge.com/en/financial-reports

vi Holcim. 2015. "Shareholder Information on the proposed «Merger of Equals» between Holcim Ltd and Lafarge S.A.". Accessed December 4, 2016.

http://www.holcim.com/fileadmin/templates/CORP/doc/AGM/2011-

2015/20150417 EN Shareholder Information Brochure.pdf

vii LafargeHolcim. 2014. "A merger of equals to create LafargeHolcim, the most advanced group in the building materials industry". Accessed December 4, 2016.

http://www.lafargeholcim.com/sites/lafargeholcim.com/lh/mergerproject/04072014-press\_finance-

LafargeHolcim-merger-project-announcement-uk.pdf

viii Financial Times. 2015. "Holcim and Lafarge: A merger of egos". Accessed December 4, 2016. http://www.ft.com/cms/s/0/41d317c8-d14e-11e4-98a4-00144feab7de.html#

Financial Times. 2015. "Olsen the cement needed to join Lafarge and Holcim". Accessed December 30, 2016. https://www.ft.com/content/8e93aba8-defb-11e4-852b-00144feab7de

<sup>x</sup> LafargeHolcim. 2014. Accessed December 4, 2016.

http://www.lafargeholcim.com/sites/lafargeholcim.com/files/atoms/files/04042014-press finance-discussions-lafarge-holcim-combination-uk.pdf

xi Financial Times. 2015. "Holcim and Lafarge: A merger of egos". Accessed December 4, 2016. https://www.ft.com/content/41d317c8-d14e-11e4-98a4-00144feab7de

xii Financial Times. 2015. "Holcim and Lafarge: A merger of egos". Accessed December 4, 2016. https://www.ft.com/content/41d317c8-d14e-11e4-98a4-00144feab7de

Holcim. 2015. "Public Exchange Offer for the shares of Lafarge". Accessed December 4, 2016.

http://www.holcim.com/fileadmin/templates/CORP/doc/LafargeHolcim/29052015\_EN\_Offer\_Document.pdf xiv LII. "Squeezeout". Accessed December 4, 2016.

https://www.law.cornell.edu/wex/squeeze-out

xv Jonathan and DeMarzo, 2013, Corporate Finance, Global Edition, page 949. Third edition, Pearson.

xvi LafargeHolcim. 2014. "CREATING THE MOST ADVANCED GROUP IN THE BUILDING MATERIALS INDUSTRY", slide 14. Accessed December 4, 2016.

 $\frac{http://www.lafargeholcim.com/sites/lafargeholcim.com/lh/mergerproject/04072014-press\_finance-LafargeHolcim-merger-project-announcement-presentation-uk.pdf$ 

xvii LafargeHolcim. 2014. "A merger of equals to create LafargeHolcim, the most advanced group in the building materials industry". Accessed December 4, 2016.

 $\frac{http://www.lafargeholcim.com/sites/lafargeholcim.com/lh/mergerproject/04072014-press\ finance-LafargeHolcim-merger-project-announcement-uk.pdf}$ 

xviii Bloomberg. 2016. "Many Unhappy Returns for a \$50 Billion Merger". Accessed December 4, 2016. <a href="https://www.bloomberg.com/gadfly/articles/2016-07-13/lafargeholcim-50-billion-cement-merger-gives-no-cause-to-celebrate">https://www.bloomberg.com/gadfly/articles/2016-07-13/lafargeholcim-50-billion-cement-merger-gives-no-cause-to-celebrate</a>

xix Financial Times. 2015. "LafargeHolcim 'on track' despite SFr2.9bn Q4 loss". Accessed December 4, 2016. http://www.ft.com/intl/cms/s/0/aa812666-ec46-11e5-888e-2eadd5fbc4a4.html#axzz48AqnvFNy

xx Bloomberg. 2016. "Many Unhappy Returns for a \$50 Billion Merger". Accessed December 4, 2016. <a href="https://www.bloomberg.com/gadfly/articles/2016-07-13/lafargeholcim-50-billion-cement-merger-gives-no-cause-to-celebrate">https://www.bloomberg.com/gadfly/articles/2016-07-13/lafargeholcim-50-billion-cement-merger-gives-no-cause-to-celebrate</a>

xxi Financial Times. 2015. "LafargeHolcim 'on track' despite SFr2.9bn Q4 loss". Accessed December 4, 2016. http://www.ft.com/intl/cms/s/0/aa812666-ec46-11e5-888e-2eadd5fbc4a4.html#axzz48AqnvFNy

xxii Financial Times. 2015. "LafargeHolcim 'on track' despite SFr2.9bn Q4 loss". Accessed December 4, 2016. http://www.ft.com/intl/cms/s/0/aa812666-ec46-11e5-888e-2eadd5fbc4a4.html#axzz48AqnvFNy

xxiii LafargeHolcim. 2016. "LafargeHolcim publishes invitation to the Annual General Meeting: Beat Hess nominated as new Chairman and Jürg Oleas as member of the Board of Directors". Accessed December 4, 2016.

<sup>&</sup>lt;sup>1</sup> The Economist. 2013. "Ready-mixed fortunes. The world's cement giants look set for recovery—but will it be durable?". Accessed December 4, 2016.

 $\underline{http://www.lafargeholcim.com/lafargeholcim-publishes-invitation-to-annual-general-meeting}$