

**HOLCIM :**  
**FROM THE FAMILY BUSINESS TO THE GLOBAL LEADERSHIP**  
**(1993-2007)**

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The Swiss group Holcim is now one of the two most important global groups of the cement industry<sup>1</sup>. He puts at the forefront, at about equality with Lafarge<sup>2</sup>, its french competitor: if this last outstrips by its net sales – because more diversified- it is Holcim which dominates in terms of cash flow<sup>3</sup>.

Table 1- The first five world cementers at 31 December 2006  
(by the amount of net sales and cash flow from operating activities in billion euros)

	Net sales	Cash flow from operating activities
1- Lafarge (France)	16,909	2,639
2- Holcim (Switzerland)	15,170	2,799
3- Cemex (Mexico)	14,600	2,001
4- Heidelberg Cement (Germany)	9,234	1,538
5- Italcementi (Italy)	5,854	1,060

Source : Annual reports of the groups concerned.

As the most european cementers groups (Lafarge, Heidelberg Cement, Italcementi, Buzzi Unicem, Dyckerhoff, Vicat), became dominant at global level, Holcim took its origins from

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<sup>1</sup> Henri Dumez et Alain Jeunemaître, *Understanding and regulation the market at a time of globalisation : the case of the cement industry*, London, Mc Millan, 1997.

<sup>2</sup> Haig Simonian, « Holcim expansion closes the gap on Lafarge », *Financial Times*, Friday August 25 2005, p. 14.

<sup>3</sup> About Lafarge, look at : Dominique Barjot, “Lafarge : the keys of a successful internationalisation process (1946-1973)”, in Bonin (H.) (ed.), *Transnational Companies (19<sup>e</sup>-20<sup>e</sup> siècles)*, 2002, Plage, p. 663-680 ; « Lafarge : l’ascension d’une multinationale à la française (1833-2005) », *Relations internationales*, n° 124, octobre 2005, p. 51-67 ; « Lafarge (1993-2004). Comment on devient firme mondiale », *Revue économique*, 58, n° 1, janvier 2007, p. 79-111.

the spirit of entrepreneurship of a family, the Schmidheiny<sup>4</sup>. Better than the other however, this family had been able to retain control while paving the way toward a global leadership.

Born from the initiative of an swiss manufacturers family deeply ingrained in protestant ethics, focusing on three trades intimately related, Holcim enjoys of an establishment truly global<sup>5</sup>. It owed to a sustained growth, characterized by a good control of costs of production, but extensive and supported by a massive and continued effort of investment. This growth found itself its origin in an efficient management, but also a strategy focusing on emerging countries and the sustainable development.

## **1/ A WORLD COMPANY**

Among the major global cementers groups, Holcim, without any doubt because it could not rely initially on a broad national market, had probably internationalized the faster.

### **1-1/ Origins : the rise of a family of swiss entrepreneurs**

In 1912, Ernest Schmidheiny senior<sup>6</sup>, an industrial originating in the Rhine valley, founded the Aargauische Portlandcement – Fabrik-Holderbank. The Plant was then established to Holderbank in the Canton d'Argovie (Aargau). Scope by the swiss industrialization, the company develops well. From 1923, it made its first acquisition outside its borders, the Dutch Cement Company-Nederlandsche Cement Industry, based in Maastricht in Belgium. This is why in 1925, the swiss firm get into the capital of the Public Limited Company of Cement of Obourg, which it took control a year later. These initial success kindle the ambitions of Ernest Schmidheiny senior. From 1927, this one engaged the construction, in joint venture (with 50% of the capital), of a cement factory near the Cairo: it took the name of

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<sup>4</sup> Fred Neubauer and Alden G. Lank, *The Family Business*, New York, Palgrave, 1998.

<sup>5</sup> On the globalization of firms, see, among others: Jean-Marie Chevalier, *Economie industrielle des stratégies d'entreprises*, Paris, Montchrestine, 1995 ; Patrick Joffre, *Comprendre la mondialisation de l'entreprise*, Paris, Economica, 1994 ; Michael Porter, *Choix stratégiques et concurrence*, Paris, Economica, 1990.

<sup>6</sup> On the history of the Holderbank Financière de Glaris Ltd., see: « Holderbank Financière de Glaris Ltd », Company Histories <http://www.fundingunivose.com/company-histories> ; Peter Müller, *Dictionnaire historique de la Suisse*, « Holderbank », <http://www.hls.dhs.dss.ch/f/F41872.php> ; *75 Jahre Cementfabrik « Holderbank »*, Holderbank, Joba, Switzerland, 1987 ; Heinrich O. Staub, *Von Schmidheiny zu Schmidheiny*, Zurich, Switzerland, 1994.

Torah Portland Company. Beyond the projects of nationalization of 1960s, it constitutes still nowadays one of the major support group in Africa and the Middle-East<sup>7</sup>.

In 1930, the diversification of the group Holderbank required a break up between manufacturing and the activities of holding company. A part of the Holderbank Financière Glaris SA (Hofi, became public limited company in 1958), also appeared the cement manufacture Holderbank-Wildegg AG. Indeed, with the support of the Crédit Suisse Group, the group has diversified in brick making, industry of plaster and especially asbestos. Since the filing, the 30 March 1900, of a patent for the manufacturing of fibers-cement, developed by the austrian manufacturer Hatschek, an international trust has been formed to promote the new product, named as early as this time "Eternit". This trust combines the groups Cuvelier (France), Emsens (Belgium) and Schmidheiny. They meet within the Société Amiantus, established in Niederunen (Switzerland), then within the Société Financière Belge de l'Abeste-Ciment, within which they join with the english trust of the asbestos Turner and Newall. At the time, even in the medical community, there was no doubt about the effects of asbestos on human health. The Financière de Glaris controlled in particular the companies Eternit Tiefbau GmbH (Austria), ceased in 1997, and Eternit AG Suisse, sold in 2003. In parallel, the group Holderbank continued its international breakthrough, with the constitution, in the 1930s, of the Cements Portland Artificial Company of Greece, its location in Lebanon and the creation, in 1938, by Ernest Schmidheiny junior, of a cement factory in Cape Town, South Africa, other mainstay of the group.

After a consolidation stage, the group Holcim resumed, from 1945, its expansion. strengthened by the acquisition of its swiss competitor, the cement company Rheintalische Zementfabrik AG, Holderbank focuses now in North America where, in 1953, the group created a new subsidiary, St. Lawrence Cement Inc., which, based in Quebec, to equip itself quickly to three plants in Canada and two in the north-east of the United States. Encouraged by this first success, the group establishment directly in that country, with the creation, in 1958, a subsidiary, Dundee Cement Co<sup>8</sup>. In a very competitive context, marked by confrontation with the main american (Lone Star, Ideal Cement, General Portland, Lehigh, etc.) and, more important, europeans cementers (Associated Portland Cement Manufacturers

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<sup>7</sup> Cement, *Business Today* (Egypt), <http://findarticles.com/p/articles/mi>.

<sup>8</sup> « Holcim Inc. », <http://www.fundinguniverse.com/company-histories>

Ltd., then Blue Circle, Lafarge, Cimenteries et Briqueteries Réunies, etc.)<sup>9</sup>. Dundee develops quickly, both by organic growth and by external growth. After the takeover, in 1978, by Dundee of Santee Portland Cement Corporation, Holdernam Inc., other subsidiary of Holderbank, gives birth to a third subsidiary, Holnam Inc. The group focuses even to South America, ensuring a sustained expansion, across a network of trusts and companies in participation.

In 1970, the Hofi resumed a large part of interests held by a group competitor, Swiss – Cement-Industry (SCI) Gesellschaft. These acquisitions allow Holderbank to settled down to Mexico, where it already sells fiber-cement, to Costa Rica and West Germany, with the takeover of Breitenburger Cement-Fabrik AG. The group also diversified into engineering with the constitution, that same year, the Holderbank Management und Beratung AG. These transactions lead to strengthen way of the family Schmidheiny on Holderbank. At the head of the group, Ernst Jr. is then greatly helped by his younger brother, Max Schmidheiny. The group Holderbank, roughly the same time, accessed by leading the world in cement industry. Established in France in 1973, following the takeover of Ciments d'Origny-Desvoise, Holderbank doubled its production from 1967 to 1986<sup>10</sup>.

In 1978, Max Schmidheiny defered the effective management of the group to Thomas, who chaired and the running of this date in 2001. Engineer of high level, Thomas reinforced the leadership of the group, thanks to the conjunction of advanced technology and production costs below those of the main competitors. In 1986, the transfer of the last interests of the SCI conferred to Holderbank the control of the company Ostschweize Zementwerke AG: now, the group produces more than 50% of the Swiss cement. That same year, he also reinforces its positions to the United States: the repurchase of Ideal Basic Industries allows it to resume advantage on Lafarge<sup>11</sup>. But the fight remains rough. In 1990, Holderbank restructures therefore its interests: the merger of Dundee, Ideal Basic, Holnam Inc., Holdernam Inc. and Northwestern States Portland Cement born Holderbank US Holding Company.

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<sup>9</sup> Léon Dubois, *Lafarge Coppée, 150 ans d'industrie*, Paris, Belfond, 1988, p. 142-179.

<sup>10</sup> John Martin, "Location and Corporate Structure. The case of the French Cement Industry", *Research Papan in Environmental and Soatial Analysus*, n° 54, Department of Geography & Environment, London School of Economics, May 1999.

<sup>11</sup> Bruce T. Allen, « Vertical integration and market foreclosure : the case of cement and concrete », *Journal of Law and Economic*, vol. 14, n° 1, April 1971, p. 251-274.

This leadership found in the United States, confirms the world advance taken by Holderbank on its main competitors<sup>12</sup>. The swiss group dominates the world market cement:

Table 2 – The main world producers of cement to 31 December 1993  
(in million tonnes produced)

1- Holderbank (Switzerland)	51
2- Ciments Lafarge (France)	43
3- Italcementi (Italy)	39
4- Heidelberger (Germany)	34
5- Cemex (Mexico)	30
6- Onoda Chichibu (Japan)	24

Source : Syndicat Français de l'Industrie Cimentière.

It also outstriped by the size of its sales, its operating profits and its staff employees:

Table 3 – Performance compared of the groups Holderbank and Cement Lafarge  
to 31 December 1993

	Net sales (109 euros)	Operating EBITDA (109 euros)	Personnel
1-Holderbank	5,352	1,039	36143
2-Ciments Lafarge	4,639	0,741	30572

Source : Annal reports of Holderbank and Ciments Lafarge.

On the threshold of 1990s, the Swiss group retained an advance. Of course, the latter remained fragile, but he had many strengths.

### **1-2/ A cement company set up in all continents**

The Holderbank group become Holcim in 2001, was characterised by a specific model of growth, which focused first on the cement, but also on a balanced geographical diversification.

<sup>12</sup> « L'industrie cimentière », *Economie et Géographie*, n0 323, mars 1995.

*A/A specific model: concentrate on its core to better internationalize*

Owing to the competition, but also the highly cyclical demand, the cementers groups must either diversify, either internationalize their activities<sup>13</sup>. Rarely, they combine the two options. The level of diversification groups vary significantly depending on the type of activity. They are either of horizontal diversification – toward products close – or vertical, upstream or downstream of core business. The cementers groups opt in preference for a selective diversification to downstream: they all attend in the ready mix concrete production, a natural outlet for cement. The diversification towards the aggregates extraction is the logical consequence. But they do not interested in the production elements in concrete, segment of low gross profit and dominated by the large groups of construction.

The diversification therefore appears relative. In contrast, for large cementers groups, internationalisation constitutes the best way to limit the impact of cycles. Nevertheless, it must differentiate between settlements conducted around the national basis and real globalization of activities: in this regard, Holcim and Lafarge are ahead on their main competitors<sup>14</sup>. The Holcim case shows how some actors have been quickly forced to grow out of their national borders due to a national market too narrow: Holcim is now the most internationalized group from all the sector of building materials, before Wienenberger (Austria) and Rockwool (Denmark).

In addition to the cement manufacturing, the cementers groups are all present in the extraction of aggregates and the production of ready mix concrete: in general, these three activities represent 80% of their net sales at least. Between these groups the differences in strategy therefore rest in the relative share of these three activities and the level of development of the other. Two types of strategy are emerging. The first matches the profile of groups Lafarge and Heidelberg Cement, with a weight of cement around 50% and activities annexes of the order of 18-20%: the first is very present on the market of plaster (the third of the world<sup>15</sup>), the second is active in many markets of materials (mortars, products of facades

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<sup>13</sup> Raphaël Gesmar, « Lafarge : la transformation d'une entreprise industrielle », 13/5/2005, <http://www.melchior.fr/melchior.nsf> ; « L'investissement direct et les entreprises françaises », *Economie et statistique*, n° 326-327, 1999 ; « Les entreprises et les marchés mondiaux », *Economie et statistique*, n° 363, 364 et 365, 2003 ; « Pas de frontières pour les groupes performants », *Sessi*, n° 216, avril 2006.

<sup>14</sup> « Mondialisation des grands groupes : de nouveaux indicateurs », *Economie et statistique*, n° 363, 364 et 365, 2003.

<sup>15</sup> Félix Torres, Frédéric Emeric, *Lafarge Plâtres : histoires pour l'avenir*, Paris, Jean-Pierre de Monza, 1999.

and soils, concrete, hardship and coated). This profile more diversified opposes that advocated by groups such as Holcim, Cemex or Italcementi, whose growth is based mainly on the production of cement, aggregates and ready mix concrete. At an internationalization coupled with a diversification reasoned opposed to another one, that of Holcim, consisting to concentrate on its core.

### **B/Three trades, but first the cement**

Holcim is a producer of cement: this last represents, on average, from 1996 to 2006, approximately 60% of total net sales.

Table 4 – Relative weight different segments in terms of net sales<sup>16</sup> (% of total)

	1996-2006 (11)	1997-2001 (5)	2002-2006 (5)
Cement	60,5	62,1	59,3
Aggregates-Ready mix	29,9	23,6	35,5
Others	9,6	14,3	5,2

Source : Holcim.

However, the relative share of aggregates and ready-mix concrete has increased significantly between the beginning and end of the period, from less than one quarter of the total to more than a third.

If the sales of cement have grown by regularly between 1996 and 2006, with a slight acceleration from 2001, that date also marked the starting point for an explosion of turnover aggregates-ready mix concrete employment.

Table 5 – Annual average growth rates of net sales by segment line

	1996-2006 (10)	1997-2001 (4)	2001-2006 (5)
Cement	+ 4,1	+ 3,0	+ 4,2
Aggregates-Ready mix	+ 6,6	+ 3,0	+ 9,9
Others	- 3,9	- 11,8	+ 1,7

Source : Holcim.

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<sup>16</sup> Taxes excluded.

In contrast, the other activities have gone down very quickly. The years 1997-2001 have been marked by a spectacular disengagement of the asbestos sector, illustrated by the assignment of Eternit Tiefbau GmbH and dimming of Eternit Switzerland AG. The fact appears as very important because in 1985 yet, Eternit group was the second largest purchaser global asbestos and sold for 2 billions \$ of asbestos cement in thirty-two countries<sup>17</sup>.

In volume, the rebalancing in profit of aggregates and the ready-mix concrete seems less net:

Table 6 – Growth in the physical production of the different segments  
(annual average growth rates in %)

	1993-2006 (13)	1993-1997 (4)	1997-2001 (4)	2001-2006 (5)
Cement (1)	+ 3,7	+ 3,5	+ 2,9	+ 4,4
Aggregates (1)	+ 4,1	+ 4,3	+ 1,1	+ 6,4
Ready-mix concrete (2)	+ 3,8	+ 3,4	+ 3,0	+ 4,8

- (1) Millions of tonnes
- (2) Million of m3

Source : Holcim.

However, acceleration observed between 2001 and 2005 has more benefited to the aggregates than the cement and ready-mix concrete. Holcim then tries, without success, to fill the gap on Lafarge, which was dominant in this area. Furthermore, it is likely that price developments had been more favourable to the client for cement than for the other two segments, hence inciting integrating upstream towards aggregates and downstream towards ready-mix concrete.

Another factor has been able to play in this sense: the weight of relatively higher charges for labor in the cement than in the granulates or the ready mix concrete.

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<sup>17</sup> “Stephan Schmidheiny 2. The Asbestos Ghost”, *The Generalist*, Tuesday, February 28, 2006, <http://hqinfo.blogspot.com>.



Table 7 – The staff employees: respective weight of the different segments line (% of total)

	1996-2006	1997-2001	2002-2006
Cement	60,6	55,4	65,5
Aggregates-Ready mix	27,1	28,1	26,8
Others	12,3	16,5	7,7

Source : Holcim.

This relative weight of the cementer workforce increased significantly between 1997 and 2001.

The cement had been in effect the sector in which the staff have risen most on throughout the period:

Table 8 – Annual average growth rates the numbers of different segments (%)

	1996-2006	1997-2001	2002-2006
Cement	+ 4,1	+ 3,9	+ 6,0
Aggregates-Ready mix	+ 3,5	+ 3,3	+ 4,0
Others	- 0,9	- 9,6	+ 6,3

Source : Holcim.

In late period, from 2001 to 2005, the staff also grew rapidly in the other segments, from a very low level it is true: it corresponded mainly to the willingness of Holcim not to neglect the asphalt sector and road concrete.

The cement segment is characterized indeed by a level of labor productivity in average lower than for aggregates and ready-mix concrete:

Table 9 – Average runlevels means of labor productivity by segments line 1996-2006 period  
(%) Index 100 basis for the average of segments

	1996-2006	1997-2001	2002-2006
Cement	100	112	91
Aggregates-Ready mix	110	84	132
Others	84	87	68
Moyenne	100	100	100

Source : Holcim.

The trend manifested mostly from 2002: before the productivity of cement industry exceeded rather that of the other segments.

In fact, on all of the period 1996-2006, the productivity of cement has tended to decline more and more, with the redeployment to the emerging markets :

Table 10 – Annual average growth rates labour annual productivity  
by segments line and by period (%)

	1996-2006	1997-2001	2002-2006
Cement	0	- 0,9	- 1,8
Aggregates-Ready mix	+ 3,1	- 0,3	+ 5,9
Others	- 3,0	+ 2,2	- 4,6

Source : Holcim.

On the contrary, it has progressed in a sustained way for the granulates and the ready-mix concrete. It collapsed in other sectors, mainly because of withdrawal from the sector of asbestos.

The scale of these developments must not be exaggerated, because the cement is still, between 1996 and 2006, the segment by far the most profitable.

Table 11 – Runlevels of profitability by segment: evolution of the ratio operating profit/net sales (%)

	1996-1997	2004-2006
Cement	17,8	23,7
Aggregates-Ready mix	2,8	3,1
Others	1,5	5,6
Total	12,0	17,8

Source : Holcim.

Aggregates and ready mix concrete offer very low margins. On the contrary, on the cementer segment, the economy effects scales play in full, favouring an remarkable rising of the margins.

### **C/An implementation truly global**

This preponderance of cement activity is consequential an establishment truly global. Indeed, the group Holcim is present, significantly, in each of the major areas of activity world:

Table 12 – Weight of the different regions in terms of net sales (% of total and per period)

	1996-2006	1997-2001	2001-2006
Europe	37,2	36,8	36,4
North America	23,1	23,2	23,5
Latin America	20,2	21,6	19,3
Africa-Middle East	7,9	10,9	5,5
Asia-Pacific	11,6	7,5	15,3
Total	100	100	100

Source : Holcim.

If Europe remains, the most important area of activity (much more than a third), the group is also powerfully installed in North America (a quarter of the total), and in latin America (a fifth). But in each of these sectors, it is facing a difficult competition: Lafarge prevails in Europe and North America and Cemex in Latin America, Holcim is occupying the second

place on each of these markets. In Africa and the Middle East, he is also the second place, but its positions in Egypt or in South Africa are such that keeps the leadership.

This leadership cannot be challenged in the Asia-Pacific: no competitor, even Lafarge, was developing such activity there. The Asia-Pacific is characterized in fact by a spectacular development:

Table 13 – Annual average growth rates of net dirty (% of total and per period)

	1996-2006 (10)	1997-2001 (4)	2001-2006 (5)
Europe	+ 2,4	- 0,7	+ 5,7
North America	+ 4,5	+ 2,2	+ 4,9
Latin America	+ 3,0	+ 4,7	- 0,3
Africa-Middle East	+ 0,4	+ 1,1	+ 4,7
Asia-Pacific	+ 9,2	+ 7,2	+ 11,2

Source : Holcim.

The latter has accelerated from 2001. It is the same in Europe (Spain, Italy, Russia, UK for aggregates). Latin Northern continues to offer interesting growth opportunities while Latin America's most dynamic area in early period, is now a stagnation marked. The recent years have seen a significant recovery in activity in Africa and Middle East, where Egypt is a locomotive.

In terms of jobs, the relative weight of Europe and, more importantly, of North America is far from being as strong:

Table 14 – The staff employees: respective weight of the different regions of activity (%)

	1996-2006	1997-2001	2001-2006
Europe	32,7	34,8	30,5
North America	12,5	12,3	12,8
Latin America	22,1	25,9	18,9
Africa-Middle East	11,1	13,6	8,7
Asia-Pacific	21,6	13,4	29,1
Total	100	100	100

Source : Holcim.

In contrast, one of Latin America and in the Asia-Pacific appear high: the first exceeds a quarter of the total in early period, the second reached almost 39% of total between 2002 and 2006.

All Asia-Pacific is indeed the zone by far the most creative jobs:

Table 15 – Average annual growth rates of the staff employed by the various regions (%)

	1996-2006	1997-2001	2001-2006
Europe	+ 1,5	+ 0,3	+ 3,3
North America	+ 3,6	+ 0,2	+ 6,5
Latin America	+ 0,6	+ 2,7	- 0,4
Africa-Middle East	- 1,4	- 3,9	- 0
Asia-Pacific	+ 9,6	+ 8,0	+ 12,7

Source : Holcim.

The pace of job creation accelerating even in the final period, as in North America. Scope by an overall favourable conditions, this region offers a sample sustained growth. The progression is much more modest in Europe. As for latin America, at the end of period and especially the Africa zone-Middle East, they are characterized by a poor dynamism.

In terms of labor productivity, there are strong differences between these regions. Northern America stands out clearly :

Table 16 – Runlevels compared to annual productivity of work among the five major geographical sets. Index 100 basis for the global productivity of the group

	1996-2006	1997-2001	2001-2006
Europe	114	143	118
North America	186	188	184
Latin America	101	99	109
Africa-Middle East	87	68	117
Asia-Pacific	54	56	53
Total	100	100	100

Source : Holcim.

Without doubt, the competition was particularly strong there. An explanation of this type is probably also valid for the Africa zone, Middle East, where, apart from the leader Lafarge, Holcim must face the competition of Italcementi, of Heidelberg Cement and Cemex. In Europe, the average level of productivity tended to decline with the conquest of new markets in Eastern Europe (Hungary, Czech Republic, Slovakia, then Russia) and the South East (Bulgaria, Romania and Croatia and Serbia). The productivity levels are lowest in Asia-Pacific, where the scale of demand slowed the restructurings. More importantly, it supports the global growth of the group.

## **2/AN SUSTAINED GROWTH AND BASED ON THE INVESTMENT**

Between 1993 and 2006, the group Holcim has experienced a sustained growth and based on a massive effort and continued investment.

### **2-1/A sustained progress of sales and profits**

Between 1993 and 2006, the group Holcim knew an sustained growth of its sales.

Table 17 – Annual average growth rates of sales and profits from 1993 to 2006 (%)

Net sales	+ 3,5
Operating EBITDA	+ 4,3
Operating profit	+ 4,5
Net income	+ 6,1

Source : Holcim.

Less faster than that which characterized Lafarge to the same period<sup>18</sup>, this growth of sales is however exceeded by that of profits: operating EBITDA, operating profit and, especially, net income.

This evolution had been unequal according to the periods.

<sup>18</sup> Dominique Barjot, « Lafarge (1993-2004). Comment on devient firme mondiale », *art. cit.*, p. 82.

Table 18 – Annual average growth rates of sales and profits  
from 1993 to 2006 by period (by %)

	1993-1997	1997-2001	2001-2006
Net sales	+ 3,1	+ 2,1	+ 4,9
Operating EBITDA	+ 4,1	+ 3,2	+ 5,2
Operating profit	+ 4,1	+ 3,3	+ 7,1
Net income	+ 5,9	+ 3,4	+ 8,4

Source : Holcim.

From 1993 to 1997, sales were growing 3% on average, a point less than the average gross income and operating income. The growth in net income was spectacular. It was slowing down of a sensitive manner between 1997 and 2001, dressing on the other indicators of profit, even that sales. The latter resumed at a sustained pace during the period 2001-2006, marked by the accelerating growth of gross income, the boom of operating income and, more importantly, net income.

It follows an regular rising of the profit margins of the group.

Table 19 – Evolution of profit margins of the group Holcim between 1993 and 2006 by period  
(in % of net sales)

	1993-1997 (4)	1997-2001 (5)	2001-2006 (5)
Operating EBITDA/ Net sales	21,3	24,0	25,8
Operating profit/ Net sales	12,3	14,2	17,0
Net income/ Net sales	5,2	7,6	9,1

Source : Holcim.

They exceeded enough largely those of the competition, as a comparison with Lafarge has shown: the gap was approximately five points for the ratio Operating EBITDA /Net sales and of two to two and half for the Net income/Net sales<sup>19</sup>.

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<sup>19</sup> *Ibidem*, p. 83.

## 2-2/An extensive growth without a real productivity earnings

During the period, Holcim is managed to control the growth of costs.

*A/A proper control of costs*

From 1993 to 2006, the added value grew significantly faster than the intermediate input.

Table 20 – Annual average growth rates of various elements of operating (in % and by period)

	1993-1997	1997-2001	2001-2006	1993-2006
Cost of Purchases	+ 2,7	+ 0,2	+ 4,9	+ 2,8
Gross profit	+ 4,0	+ 4,7	+ 4,9	+ 4,5
Personnel expenses	+ 3,8	+ 6,5	+ 4,5	+ 4,9
Operating EBITDA	+ 4,1	+ 3,2	+ 5,3	+ 4,3

Source : Holcim.

Nevertheless, the situation has deteriorated from 2001 with an marked acceleration of these same consumptions (raw materials, energy, transportation). More worrying has been changing personnel expenditures: always supported, they have increased much faster – of two points per year on average – that the added value between 1997 and 2001. This same period was marked by a decline in the Operating EBITDA.

These trends read in the evolution of the structure of operating. During the period 1993-2006, the relative weight of intermediate consumption fell nearly two thirds of a little more than 40%, a decrease of nearly a quarter:



Table 21 – Structure of operating account of Holcim (% and by period)

1/Distribution of net sales

	Net sales	Coast of purchases	Gross profit
1993-1996	100	64,4	35,6 (4)
1997-2001	100	56,0	44,0 (5)
2001-2006	100	41,7	58,3 (5)
1993-2006	100	51,1	48,9 (14)

2/ Distribution of gross profit

	Gross profit	Personnel expenses	Operating EBITDA
1993-1996	100	40,4	59,6
1997-2001	100	45,6	54,4
2001-2006	100	55,7	44,3
1993-2006	100	50,3	49,7

Source : Holcim.

Here evident interest integration strategy upstream: it was a need given the relative weight of coast of purchases (a little more than 50% of net sales). Similarly should be urgently save energy expenditure, hence the economic interest a strategy of sustainable development. In contrast, the inevitable rise in staff costs has led to a reduction of the share of gross operating result, dropped from nearly 60% to less than 45%, down from 15 points in 14 years. The cost control was therefore limited, less than what Lafarge realized at the same period<sup>20</sup>. It was probably explainable by the extensive character of the growth.

*B/An extensive growth*

Between 1993 and 2006, the progression of gross profit has increased at a brisk pace, significantly higher than the growth in personnel:

<sup>20</sup> Dominique Barjot, « Lafarge (1993-2004). Comment on devient firme mondiale », *art. cit.*, p. 91.

Table 22 – Annual average growth rate of gross profit and physical factors of production from 1993 to 2006 (in %)

Gross profit	+ 4,5
Personnel	+ 3,0
Gross productive long term assets	+ 4,7

Source : Holcim.

In contrast, the Gross productive long term assets (cement plants, crushing stations, etc.) increased even faster.

This phenomenon, logic in an industry as capital intensive industry than the cement industry, explains the weak growth, or even weak global productivity of the production factors.

Table 23 – Annual average growth rate of Gross profit and various indicators of productivity from 1993 to 2006 (in %)

Gross profit	+ 4,5
Annual labour productivity	+ 1,5
Gross productive long term assets productivity	- 0,2
Global productivity of the production factors	+ 0,6

Source : Holcim.

Certainly the labor productivity has increased to a modest pace, but it does not have been even for capital productivity which, in contrast, has slightly decreased during the same period. In fact most of the dynamics of growth resided in a mobilization increased productive capital.

### **2-3/A massive and continuous effort of investment**

The group has maintained a sustained effort of investment while slowing growth.

Table 24 – Annual average growth rate of the total investments from 1993 to 2006 (in %)

Investments in property plant and equipment (A) <sup>21</sup>	+3,3
Net financial investments net (B)	+ 4,9
Total investment (A+B)	+ 4,0

Source : Holcim.

The total investments has therefore increased less quickly, half a point, the added value.

*A/A high investment rate*

This brake on investment grew out of character high intensive capital activity in the group.

Table 25 – Evolution of the share of fixed capital assets within the group Holcim for each periods considered ( % of total assets)

1993-1996	74,2
1997-2001	75,6
2002-2006	75,8
1993-2006	75,5

Source : Holcim.

But this policy could only slow the reduction of the liquidity of assets from 1997.

Indeed, from 1993 to 2006, the investment rate of the group Holcim remains persistently high.

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<sup>21</sup> Productive investments.

Table 26 – Evolution of investment rate of the group Holcim between 1993 and 2006  
( % of net sales and by period)

	Total investments/Net sales	Productive investments/Net sales	Net financial investments/Net sales
1993-1996	18,2	9,9	8,3
1997-2001	22,3	11,2	11,1
2002-2006	20,1	9,2	10,9
1993-2006	20,5	10,0	10,5

Source : Holcim.

It increased until 1997, stabilized at a high level until 2001, then it settled a little. Except between 1993 and 1996 and 2002 to 2006, the balance was almost done between productive investment and financial investments.

*B/Toward priorities to the external growth*

Sensitive in long period, due to a superior growth in a tendentious manner, the bias in favor of the external growth emerged better yet from the investigation on the structure of investment.

Table 27 – The investment strategy of the group Holcim in 1997 to 2006  
(% of total investment and by period)

	Investments in property and equipment		Net financial investments	Total investments
	For maintenance	For expansion		
1997-2001	24,7	25,5	49,8	100
2002-2006	26,5	19,2	54,3	100
1997-2006	25,6	22,2	52,2	100

Source : Holcim.

While balance internal growth-external growth was basically achieved in 1997 to 2001, over the years 2002-2006, the second outstripped clearly. On the one logical way, within productive investments, the expenditure of maintenance tended to take over on the spending extension, rather privileged until 2001.

Nevertheless, these investments enabled, in the cement, to increase faster production capacity than the volume of sales.

Table 28 – Evolution of the ratio productive long term assets/total assets of Holcim  
(% of total by period)

1993-1996	78,6
1997-2001	75,5
2002-2006	67,3
1993-2006	71,8

Source : Holcim.

The difference goes from 20% between 1993 and 1996 to nearly one third of 2002 to 2006. But does the advantage conferred by the economies of scale really balance the negative effect of surplus production capacity?

*C/An high rate of self-financing*

The group Holcim drew, it was true, benefit from a high rate of self-financing investment: approximately 70% on average of 1993 to 2006.

Table 29 – Evolution of self-financing rate of investment of Holcim group  
(% of total, by period)

1993-1996	77,7
1997-2001	70,0
2002-2006	69,7
1993-2006	71,2

Source : Holcim.

If it lowered of 8 points between 1993-1996 and 2002-2003, it was still very substantial in the final period and, in any case, higher than its main competitors. More than any other of the latter, Holcim took advantage of barriers to new competition imposed by the high capitalistic

character of this sector<sup>22</sup>. In turn, this investment strategy creates the conditions of high level financial independence and profitability.

### **3/FROM THE KEYS OF SUCCESS TO THE RESEARCH**

The commercial and financial success of the Holcim group was the combination of different factors. Three have played, apparently, a major role: management effectiveness, a repositioning in favor of emerging market and a deliberate strategy of sustainable development.

#### **3-1/ An effective management**

The strength of the group was its high profit. But it also received two other assets: the stability of its shareholding and good management of a treasury tense, but without excesses.

##### *A/Two major assets*

Unlike most of its competitors, Holcim got the benefit from 1993 to 2006, of the relative stability of its shareholding. This stability had not been total however. Indeed, from 1993 to 1998, the family Schmidheiny has an absolute majority at the general meetings, with 54.6% of voting rights<sup>23</sup>. Certainly, at this period, there was already five times more transferable shares than the registered shares. But the seconds brought five times more voting rights than the firsts. This system of share with a plural vote was well recognized, particularly because of granting the first of higher profits. This domination of the founding family however operated through a financial company that it controlled, the Schweizerische Cement-Industry-Gesellschaft Glarus (Financière de Glaris). It was reflected by the fact that Thomas Schmidheiny exercised the functions of Chairman and that of Managing Director.

From 1999, Thomas Schmidheiny became the first name in shareholder of the company Holderbank: with the initial share of the group companies, he retained the absolute majority of voting rights, that is 54%<sup>24</sup>. In the beginning of 2002, due to difficulties

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<sup>22</sup> James S. Bain, *Barriers to New Competition : their Characters and Consequences in Manufacturing Industries*, Cambridge (Mass.), Havard University Press, 1965.

<sup>23</sup> *Annual Reports 1997*, p. 90-101 et *2000*, p. 110-111.

<sup>24</sup> *Holderbank Annual Report 2000*, p. 110-111.

encountered by the group in Spain and Portugal (the case Cimpor<sup>25</sup>), he resigned from his functions of Chairman Managing Director while remaining member of the Board of Directors. His participation, always important fell to 27.1%, then 23.6% a year later<sup>26</sup>. It was fixed at this level. Nevertheless, the group controlled firmly the capital, through Capital Group Companies Inc., an holding company with nearly 10% of voting rights<sup>27</sup>.

Table 30 – Distribution of the shareholding of Holcim group to the 31 December 2006

Swiss shareholders	39 %
which : -Thomas Schmidheiny	21,03 %
-Capital Group Companies Inc	9,99 %
Other countries	30%
Shares pending registration of transfer	31 %
Total	100

Source : Holcim.

Despite a new recess of the commitment of Thomas Schmidheiny, the group still controlled about 31% of voting rights. Given the fact that the Swiss shareholders, together, held almost 40% of total shares, in the form of registered shares, the capital appeared well controlled, in spite of the existence of 31% transferable shares. Regardless the amount of free float achieved 79% in 2006, the group retained a certain a margin of strategic independence: it escaped to "the tyranny of the market prices"<sup>28</sup>. Quoted to the exchange Swiss Exchange, Holcim share showed there a dynamism above the average: + 30.7% in 2005, + 26.8% in 2006 compared to the level reached in December 31 last year.

<sup>25</sup> The Case C-42/01 Portuguese Republic against Commission of the European Communities, <http://avia.europa.eu/jurisp/cgi-bin>. In 1994, the Portuguese government has committed itself in a process of privatization of the first national company group of cement, Cimpor, which in June 2000, it did not maintain that 12.7% of the capital, but with a veto within the board of directors on all the strategic decisions and other special rights related to the shares held by the State (golden shares). On that date, the Portuguese company Secil and Holderbank launched a takeover bids on shares of Cimpor not held by the State, with the aim of sharing the assets of Cimpor: to Sacil, its activities in Spain, Egypt and, for a share, in Brazil, to Holderbank, the activities in Morocco, Tunisia, Mozambic and the balance of brazilian assets. The partners emitted two conditions: the acceptance at least 67% of shares and the resignation by the State Portuguese of its special powers. But, in July 2000, the Portuguese Department of Finance refused, then, again in August, after that Sacil and Holderbank had dropped the second requirement. Informed, the European Commission seized the case. It notified the Portuguese government of its opposition, based on a contradiction with Article 21 of the Treaty of Rome. The case led to a litigation brought before the Court of Justice of the European Union, which, in January 2004, repudiated the Portuguese government. In the case, Holcim lost the possibility to settle strongly in Portugal.

<sup>26</sup> *Holcim Annual Report 2002*, p. 128 et 144.

<sup>27</sup> *Holcim Annual report 2006*, p. 26-27 et 164.

<sup>28</sup> Dominique Barjot, « Lafarge (1993-2004). Comment on devient firme mondiale », *art. cit.*, p. 98-102.

This dynamism is met by the absence of real cash flow problems. Of course, in 1993 to 2006, the total shareholders equity<sup>29</sup> was never enough to cover the long term assets : the situation seemed even worse, especially from 1999 to 2001 and 2005-2006. But the long term liabilities allowed to restored without problem a large cash surplus and compensate for the high needs, but steadily growing, investment financing. The cash position had even gradually improved, from 2001, as the shows the evolution of gearing, that is to say the report: net financial debt/total shareholders equity<sup>30</sup>.

Table 31 – Evolution of the gearing of the Holcim group in 1993 to 2006 (%)

1993	52,2	2000	100,7
1994	63,1	2001	94,1
1995	82,3	2002	94,4
1996	92,9	2003	88,0
1997	81,7	2004	64,2
1998	110,2	2005	89,1
1999	92,7	2006	68,6

Source : Holcim.

To cope with the rise of net debt, the only viable solution laid in expanding the capital: thus the need to invest massively which led to the relative disengagement of the founding family. Such a strategy was driving, in a progressive way, from the family business to the managerial firm. It could not remain viable, in the eyes of Thomas Schmidheiny, only in case of the strong profitability of the group.

#### *B/An high profitability*

Between 1993 and 2006, the group Holcim has always enjoyed a high profitability :

<sup>29</sup> The “Total shareholders equity” is the addition of the shareholders equity and the minority interests. They are also called “ ownership”.

<sup>30</sup> Shareholders’ equity + minority interests.



Table 32 – Evolution of the indicators of profitability of the Holcim group between 1993 and 2006 (% by period)

	1993-1996	1997-2001	2002-2006	1993-2006
R1 = Operating EBITDA/Productive assets	20,2	20,1	18,8	19,4
R2 = Cash flow/Shareholders equity (1)	18,1	20,5	20,2	19,8
R3 = Net income/ Shareholders equity (1)	3,7	9,1	9,7	8,7
R4 = Net income/Liabilities	2,7	4,4	4,9	4,5

(1) Minority interests included.

Source : Holcim.

The economic performance of the assets<sup>31</sup> was around in average 19-20%, a figure very substantially higher than what was observed at the same time among Lafarge Group. It stabilized from 2002, but remained at a high level. The return on investment therefore remained high throughout the period. It was the same for the financial profitability, close enough however to those obtained by the great french competitor<sup>32</sup>. Apart from during the period 1993-1996, where the group Holcim must proceed to significant provisions for risks (see the case of Cimpor for example), the ratios net income/total shareholders equity and net income/liabilities also appeared rather better than for the competitors. Further the developments was frankly positive, then they amounted to a regular basis.

This strong profitability reflected a satisfactory financial structure. Between 1993 and 2006, the group Holcim was characterized by a very good level of financial independence, the persistence of a heavy net financial debt in the medium-term and long term together with a decent level of coverage for medium-term and long term debts by the cash flow from operating activities.

<sup>31</sup> Operating EBITDA/Productive assets.

<sup>32</sup> Cash flow/Shareholders equity.

Table 33 – Evolution of the financial structure of the Holcim group in 1993 to 2006  
(% by period)

	1993-1996	1997-2001	2002-2006	1993-2006
R5 = Sharoholders/equity/Liabilities	57,5	48,5	50,5	51
R6 = Long term Liabilities/Liabilities	38,2	43,9	42,9	42,4
R7 = Cash flow/Liabilities	10,4	9,9	10,2	10,1
R8 = Cash flow/ Long term Liabilities	27,2	22,6	23,8	23,9

Source : Holcim.

It was true that all indicators of profit are progressing, on a satisfactory manner for the group.

Table 34 – Annual average growth rates of the various indicators of profit from 1993 to 2006  
(%)

Operating EBITDA	+ 4,3
Operating profit	+ 4,5
Net income	+ 6,1
Cash flow	+ 4,1
Earnings	+ 4,7

Source : Holcim.

Especially fast was the progression of net result, the more visible to the eyes of the shareholder. In contrast, the progression of cash flow from operating activities appeared a little more in withdrawal.

The result had been on the whole period, a faster progression of earnings than that of self-financing.

Table 35 – Compared annual growth rates of the earnings and gross self-financing  
(%, by period)

	Earnings	Self financing	
1993-1997	- 1,1	+ 2,8	
1997-2001	+ 5,1	+ 4,1	
2001-2006	+ 9,0	+ 4,8	
1993-2006	+ 4,7	+ 4,0	

Source : Holcim.

Indeed this last increased more and more from a period to another, but the difference did not stop to amplify, from 1997, starting date of a change of attitude in regard to the shareholder. In fact, the continued growth of the group supposed an increasingly wide call to the international financial markets. To do this, it had to be attractive, especially vis-à-vis anglo-saxon investors.

This inflection to the benefit of shareholder is remained however at a limited scale. Indeed, the cash flow from operating activities had been devoted around 90% to the self-financing of investments:

Tableau 36 – Evolution of the sharing of cash flow from operating activities between earnings and self financing (% of total annual average by period)

	Self-financing	Earnings	Cash flow from operating activities
1993-1996	88,1	11,9	100
1997-2001	91,9	8,1	100
2002-2006	89,2	10,8	100
1993-2006	89,9	10,1	100

Source : Holcim.

Such a distribution policy offered to the group the means of an ambitious strategy of sustainable development.

### 3-2/A strategy focused on sustainable development

As its main competitors, but earlier and more quickly they, the group Holcim had put the sustainable development as a major focus of its strategy, according to two complementary components: the priority given to markets in emerging markets; the defense of the environment.

#### *A/Priority to emerging markets*

From 1998, the share of emerging markets had continued to grow within the net sales of the Holcim group.

Tableau 37 – Net sales breakdown in terms of mature and emerging markets (% of total)

	Emerging	Mature
1998	37,7	62,3
1999	38,2	61,8
2000	43,9	56,1
2001	45,6	54,4
2002	47,0	53,0
2003	47,7	52,3
2004	48,7	51,3
2005	41,1	58,9
2006	45,7	54,3

Source : Holcim.

Indeed, on the markets of mature countries, the competition appeared strong. This was the case in Western Europe, where Holcim was lagging by Lafarge, its main competitor. The latter outstrips the United Kingdom, in France, where Italcementi is also better placed, through its subsidiary Ciments Français<sup>33</sup>. In Germany, the Benelux countries and in Scandinavia, Heidelberg Cement appeared as a leader. Germany, as elsewhere in Central and Balkan Europe appeared very coveted, because, in addition to Heidelberg, Lafarge and Buzzi Unicem groups, through its subsidiary Dyckerhoff, were also presents there. Holcim had a strong positions in Italy and Spain, but it did not succeed to acquire a leadership there: in Italy, Italcementi and Buzzi-Unicem dominated, the two local protagonists, whereas in Spain,

<sup>33</sup> John Martin, « Location and Corporate Structure... », *in op. cit.*.

where Italcementi was present, Cemex seemed to take a progressive ascendant, partly thanks to its advance in the ready-mix concrete segment.

In North America, Holcim had provided some very important investments that helped him, in 2006, to acquire (with 17,3 million tonnes of installed capacity in 2006, or 14% of the market) a leadership in the United States, in the cement sector, but the advantage taken on Lafarge remained insufficient: thanks to the domination that the French group exercised in Canada, it remained the number one in North America, where were also established Cemex, Heidelberg Cement, Buzzi Unicem, Italcementi and Vicat, a french group enjoying about an excellent technology<sup>34</sup>. In contrast, always in North America, Holcim was clearly outdistanced by Lafarge in the area of aggregates (65,1 million tonnes produced in 2006 against 142.6) and by Cemex for the ready-mix concrete. Yet Holcim had not measured its efforts, as revealed the redemption in 2005, of Aggregate Industries Inc. to USA (5498 persons employed in 2006) and that of Aggregate UK Ltd., its British subsidiary (6599 employees).

The emerging markets therefore offer the only way to get back a competitive advantage. This advantage, Holcim had kept it for a long time in Latin America. The group settled early in Mexico, thanks to Apasco Ltd. of CV, become Holcim Apasco Ltd. of CV in 2003: with a cement capacity of 11,5 million tonnes per year, the group controls then about one quarter of the market. It is also well established in Costa Rica, El Salvador, Nicaragua, Panama, in the Caribbean ex-Dutch, in Santo Domingo. Regarding South America, it is present in Colombia, Venezuela, Ecuador, Chile, Argentina (Minetti SA, which dominates the national market) and Brazil, where the competition remains strong with Lafarge, despite an relative advance of Holcim in market shares. But this latin-America leadership is increasingly challenged by Cemex, which dominates on the Mexican market, the most dynamic of all, but also present in all the countries of Central and Caribbean America, in Colombia and Venezuela.

In Africa and the Middle East, the Holcim positions appear more fragile. Absent from Turkey, where Lafarge, Heidelberg Cement and Vicat are the most active, Holcim is also absent in sub-Saharan Africa, except in Guinea, Ivory Coast, Nigeria (in contrast with

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<sup>34</sup> On the competitive advantage taken by the europeans groups in North America, read especially : James C. Mabry, « Regulation, Industry Structure and Competitiveness in the US Portland Cement Industry », *Business and Economic History*, vol. 27, n° 22, Winter 1998, p. 402-412 ; Olivier Vagt, "Cement", *Annuaire des Minéraux du Canada*, 1995, p. 24. 1 à 24.12.

Lafarge), in La Réunion and, especially in South Africa (approximately 30% of the market against 20 for Lafarge). In contrast, it has strong positions in Morocco, where the market is shared with Lafarge (37% to Holcim, 41 for Lafarge) and Ciments français, in Lebanon and, more importantly, Egypt (21% of the market against 8 to Lafarge, 7,5 to Cemex and 5 to Italcementi). Moreover Holcim group had tried, belatedly, to take off in Russia: the group had conquered 10.7% of market cement company, against 10% to Lafarge and 6% to Dyckerhoff. Absent from Ukraine, Holcim is also missing in Central Asia, except in Azerbaijan, where it dominates the domestic market.

In Asia, Holcim has really acquired an undisputed leadership. It owes to the conquest early and systematic of the ASEAN markets. Holcim was settled in Malaysia (where Lafarge has taken the ascendant), at Singapore and New-Zealand, it took a clear lead, especially for business and technology in Vietnam<sup>35</sup>, in spite of the Lafarge recent irruption, and Indonesia (12% of the market against 3 to Lafarge). Above all, it had acquired a dominant position Philippines (nearly 50% of the production of cement against 32 to Lafarge), Australia, thanks to the merger carried out in 2006 between the local subsidiary and a major competitor, and Thailand, where Siam City Cement Ltd. has an installed capacity of 14,8 million tonnes (approximately 50% of total equipment of the country). Nevertheless, the main strength of Holcim group, came from two huge operations of external growth achieved in India in 2005-2006: the takeover of groups ACC Ltd. India, second domestic producer of cement (20,1 million tonnes of capacity in 2006), and Gujarat Ambuja Cements Ltd. (18,1 million tonnes of capacity). With about 21% of Indian national market, the Holcim group has taken a place of undisputed leader, facing the competition of Lafarge (only 3%) and Heidelberg Cement groups<sup>36</sup>. Present yet to Sri Lanka and Bangladesh (positions similar to those of Lafarge), Holcim was also interested in China, where everything remains to be done, despite the breakthrough already effected by Lafarge (19,7 million tonnes of installed capacity, but 2% of the domestic market). These Asian success confer a real credibility to the strategic objectives of the Holcim group in terms of protection of the environment.

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<sup>35</sup> Nguyen Kim Anh, *Stratégie et impacts des firmes multinationales dans le secteur du ciment au Vietnam*, CERNA, Ecole des Mines de Paris, Institut Polytechnique de Hô chi minh-ville, Rapport de Recherche, 1996 ; Laurent Schwab, Nguyen Kim Anh, Do Thanh Nam, *Firme multinationale, structure de marché, politique de concurrence. Le cas du groupe Holderbank*, Mémoire de recherche, Ho Chi Minh-ville, Centre Franco-Vietnamien de Formation à la Gestion (CFVG), 1998 ; « *Firme multinationale, structure de marché, politique de concurrence. Le cas du groupe Holderbank* », *Ouverture économique*, n° 5, Hanoi, Editions de Statistiques du Vietnam, 1999.

## *B/Preserving human environment*

This strategy aimed at preserving the environment is human footprint of brothers Thomas and Stephan Schmidheiny. The first, born in 1945, has studied the mechanical to the ETH of Zurich<sup>37</sup>, then obtained an MBA from the IMD<sup>38</sup> in Lausanne, which he was released in 1972. He began his career in Mexico within Cementos Apasco (who subsequently became Holcim Apasco, *vide supra*), and then, he entered to the executive committee of Holderbank in 1976, prior to become the Chairman from 1978 to 2001. At the creation of Holderbank Ltd. in 1978, he integrated immediately the Board of Directors, he chaired it from 1984 to 2003. At his departure from the chairmanship, it appeared, in 2006, in all likelihood and by the amount of his fortune in 145e world class and second in Switzerland (after the family Rausing)<sup>39</sup>.

At the head of the Holderbank group, he committed, from 1998, in the path of sustainable development. This year the group adhered to the World Business Council for Sustainable Development, which gathers 160 firms of global dimensions, in order to promote the reduction of carbon dioxide emissions (CO<sub>2</sub>), the use of materials and energy of substitution and, in the case of cement, to promote products mixed. In this context, Thomas Schmidheiny lead his group to engage for the strict application of the commitments of Kyoto Protocol, namely a reduction of 20% in 2010 CO<sub>2</sub> emissions compared to their 1990 level. That same year saw the foundation, at the initiative of Holcim Brazil of the Institute for Sustainable Development, then the next year of the Holcim Foundation for Sustainable Construction: with the support of the ETH, the IMD, of the MIT of Boston and that of Tonji University in Shanghai, it opened an annual price well granted.

Thomas Schmidheiny followed in fact the door opened by his brother Stephan<sup>40</sup>. Born in St. Gallen, Switzerland in 1947, lawyer by training, it starts to twenty-five years at Holderbank. After four years, he accesses the duties of CEO. In the following years, it diversified investment of the group, focusing particularly on forest sector, the bank and optics. He entered in the boards of Director of some companies like ABB, Nestlé, Swatch, Union des

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<sup>36</sup> Mahesh V. Joshi and Girish Maheta, *Globalization and Indian Cement Industry*, New Delhi, Adbyayan, 2006.

<sup>37</sup> Swiss Institute of Technology.

<sup>38</sup> International Institute of Management Development.

<sup>39</sup> <http://fr.wikipedia.org>. Also read Heinrich O. Staub, *Von Schmidheiny Zu Schmidheiny*, *op.cit*.

<sup>40</sup> "Stephan Schmidheiny 2. The Abestos Ghost", *The Generalist*, Tuesday, February, 28, 2006, *art. cit.* ; *Von Schmidheiny Zu Schmidheiny*, *op.cit.* ; "Q & A with Stephan Schmidheiny", *The Ssynergos Institute/World Economic forum*, 2002, [www.synergos.org](http://www.synergos.org).

Banques Suisses (UBS). By the middle of 1970s, Stephan succeeded to his father as Chairman of the Board of Directors of Eternit group, that he renamed Anova. From 1990, it committed this last in the path of diversification: successfully, whereas in 2002, the Eternit group achieved 4 billion of annual net sales against 2 in 1984.

The decision of the Schmidheiny family to opt out of the sector of asbestos dated back to 1976, that is when the reality of the asbestos cancer began to be recognized by the medicine. Unable to withdraw immediately, he reinvested profits of Eternit in large areas forest in latin America, in particular on 120000 hectares in southern Chile. In the 1980s, S. Schmidheiny created FUNDES, an organization which supports the development of small and medium enterprises in different countries of Latin America. However, he waited until 2005, to retire the family from all its interests in Anova.

Meanwhile, Stephan Schmidheiny became, in 1990, Chief advisor of business and industry to the General Secretariat of the United Nations Conference on Environment and Development (UNCED<sup>41</sup>), better known under the name of Rio de Janeiro Summit (1992). This forum soon gave birth to the World Business Council for Sustainable Development (WBCSD), initiated jointly by S. Schmidheiny and Hugh Faulkner, Canadian politician, a member of the Liberal Party, former Secretary of State, then Minister of Indian Affairs and Northern Development in successive governments of Pierre Elliott Trudeau, before access to the vice presidency Alcan, then to the chairmanship of Alcan plc. Europe<sup>42</sup>. S. Schmeidheiny was directly appointed as honorary chairman there. In 2003, he retired in Costa Rica, abandoning its functions in Anova and Groupe Nueva, latin-American holding, which control namely its forest exploitation network. Moreover, having created Viva Trust, an philanthropic foundation, he yielded all his shares of the both companies. This attitude allowed him to become Doctor honoris causa of the University of Yale. His brother Thomas invited him by creating a Chair of Family Business and Wealth into the Indian Business School of Hyderabad, proof of his interest in the country.

The push given by the Schmidheiny were quickly in keeping with the practice of the group around some pathfinders experiences: standardization of modernized factory (Joliette in Canada, Dundee in USA, for alternative energy sources), development of composite cements

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<sup>41</sup> United Nations Conference on Environment and Development.

<sup>42</sup> « Hugh Faulkner », <http://eu.wikipedia.org>.



(Belgium, Spain, Italy). However, we must wait for 2004 that emerged a real strategy. It promotes the entry of the group in the Dow Jones Index resources, then the London Stock Exchange, in the FTSE 4 Good Index. It acted in the same sense with the organization, in Bangkok in April 2006, of the Holcim forum for Sustainable Construction, with assistance of the ETH of Zurich. This strategy is based on the following objectives: health and safety at work (decrease in the accident rate and the time lost), progressive reduction in emissions of CO2 (the Kyoto objectives are achieved as early as 2006), increasingly replacement of fossil fuels (close cooperation with GTZ German Technical Cooperation), development of social commitment ( support to many projects selected and to various donations), strengthened cooperation with the World Business Council for Sustainable Development (Holcim is part of the three promoters of the Cement Sustainability Initiative), support for sustainable construction projects. This strategy proves effective: two consecutive years, in 2005 and 2006, Holcim is taking the head of Dow Jones Sustainability Index.

The group placed the sustainable development at the heart of its objectives:

Table 38 – Planned investment of the Holcim group in favor of sustainable development (in % of net sales)

	Investment in environment and safety	Investment in favor of the lower emissions of CO2	Expenses on Research-development
2005	5,5	1,4	0,1
2006	5,3	3,3	0,1

Source : Holcim.

The investments in favor of the environment and safety are an important part of the net sales. Those specifically allocated to the reduction of CO2 are progressing in a so impressive way.

In contrast, the expenses on research-development appear much less than among major European competitors.

Table 39 – Evolution of the research-development expenses among Holcim (% of net sales)

2002	2003	2004	2005	2006
0,10	0,09	0,07	0,12	0,10

Source : Holcim.

Constant on average since 2002, despite a significant decline in 2004, their level was probably underestimated, because the subsidiaries of the group benefited from a large margin of technical and commercial autonomy. The group Holcim appears anxious to expand its range of products, to develop new types of cement, in collaboration with Swiss universities, to launch new composite materials more competitive and sustainable than steel, aluminum, wood or the glass, to maintain the proximity with the client by an innovative offer and propose new processes which are able to allow the use of new alternative fuels. In terms of products, 2006 saw the launch in Belgium and France of CEMROC (cement based on dairy of blast furnaces), new type of mortar which can replace the plastic, in USA that of the Bardon Superflex, an asphalt developed jointly with British Petroleum. New marks are also regularly launched, for example in USA (Envicore) and in Switzerland (Selfpact, Flextremo).

In order to facilitate the membership of personal to the sustainable development strategy, the group had developed, from 2001, a new management structure, with the separation between the duties of CEO, assigned to Markus Akermann, and of Chairman, devolved from 2004 to Rolf Soron. To improve the Corporate governance, had been created an Audit Committee and a Nominations & Compensation Committee. This group is concerned now for the formation of a truly international management, with as essential concern to promote young talents and the responsibility of the staff toward the environment and society. Built since 2001 around a single brand, Holcim, the group is concerned with training, in conjunction with the most prestigious business schools (IMD of Lausanne, University of Saint-Gall). With the progress achieved in terms of reducing accidents at work, with improved living conditions of employees of the group, the dynamic driven from the outset by Schmidheiny is also reinforcing.

## Conclusion

The Holcim group must face today in a formidable competition. Up, then exceeded by his great competitor Lafarge, it is also under the threat of Mexican Cemex, which, since 1993, growth was faster.

Table 40 –Average annual growth rates of net sales and cash flow from operating activities (%)

	Holcim	Lafarge	Cemex
Net sales	+ 3,5	+ 4,3	+ 6,2
Cash flow	+ 5,2	+ 5,3	+ 4,0

Source : Annual Reports Holcim, Lafarge and Cemex.

Nevertheless, one can see that its two main competitors have prevailed in terms of Net Sales.

If Holcim has lost some market shares, it suffers from a lower productivity.

Table 41 – Comparison of annual labour productivity levels of the five world leaders to cement industry in 2006 (Holcim = base100)

Lafarge	139
Holcim	100
Cemex	170
Heidelberg Cement	118
Italcementi	132

Source : Annual Reports 2006 of the five groups.

Not only Holcim lies in last position, but still, it has lost ground: on a basis for 100 Holcim labor productivity index was at 103 for Lafarge in 1993. Without doubt it is the consequence, for Holcim, of a strategy focusing, more than among competitors, the emerging markets.

This strategy is without doubt the good, because, in terms of profitability, Holcim surpasses its competitors.

Table 42 – Levels compared of operating margin in 2006 for the five world leaders of the cement industry (cash flow from operating activities/net sales in %)

Lafarge	15,6
Holcim	18,3
Cemex	13,7
Heidelberg Cement	15,8
Italcementi	18,2

Source : Annual Reports 2006 of the five groups.

In terms of operating profitability, Holcim outstrips all its competitors. Moreover, its progression had been stronger than that of competitors: in 1993, Holcim not identified that 11.7% of operating margin, equivalent to Lafarge (11.8%) and considerably less than Cemex (26.9%).

Holcim draws actually benefit from global implementation of its cementers activities. Certainly Lafarge still dominates the cement industry by the amount of its sales (8,8 billion euros in 2006 against 8,6 to Holcim), but, ultimately, Holcim should take advantage of the fact of production capacity above:

Table 43 – Comparison of the capacity of cementers productions of the Holcim and Lafarge groups in 2006 (in millions of tons)

	Holcim	Lafarge
Europe	46,8	57,8
North America	22,1	26,8
Africa-Middle East	24,4	30,1
Latin America	35,8	10,8
Asia	83,1	53,9
Total	212,2	179,4

Source : Annual Reports Holcim and Lafarge.

Rather than to challenge the leadership of Lafarge in Europe and in North America, Holcim prefers prevail clearly in Latin America and Asia as well as to maintain contact in Africa and

the Middle East. Today the danger may be coming from Cemex, very interested in Australian market, or d'Heidelberg Cement, if this last group merges with the British Hanson<sup>43</sup>.

This last operation risks especially to weaken the relative position of Holcim in the field of aggregates, where Lafarge dominates clearly (262 million tonnes produced in 2006 against 187,6 to Holcim). However, the main threat to Holcim is to lose the battle of ready mix concrete. Indeed, in 2004, Cemex had took control of number one of the world, the British RMC Group<sup>44</sup>, outclassing at the same time Holcim and Lafarge (44,2 million m3 delivered in 2006 against 43,2 for Lafarge). The oligopoly of the cementer companies, despite recurring predilections from cartel agreements, has lost none of its competitive nature<sup>45</sup>.

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<sup>43</sup> « Le ciment suscite encore des convoitises », *Le Figaro*, samedi 5-dimanche 6 mai 2007, p. 27.

<sup>44</sup> Ready-Mix Concrete.

<sup>45</sup> Claude d'Aspremont, David Encaoua, Jean-Pierre Ponsard, « Politique de la concurrence et théorie des jeux : quelques réflexions à partir de l'industrie cimentière », *Revue d'Economie politique*, n° 1, 1999 ; Jean-Pierre Ponsard, « Concurrence stratégique et réglementation de la concurrence dans un oligopole-naturel. L'exemple de l'industrie cimentière », in « Economie industrielle développements récents », *Revue d'économie industrielle*, hors séries, 1999.