

CRH plc: Strategy-Driven Achievement



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ABSTRACT

This case presents an in-depth study of CRH, a leading global building materials producer and one of Ireland's most successful companies. The case study profiles the fundamentals and dynamics of a challenging strategic context, explores the successful strategies developed by CRH in this setting over time, and draws theoretical lessons highlighting the contributions of strategy to CRH's success and insights from the case study for strategy theory. A strategic context of the building materials industry is presented and a strategic profile of CRH is developed. Three key dimensions of CRH's strategic success are outlined: acquisitions, low-cost operations and supportive strategic architecture. Notable theoretical aspects of CRH's business-level strategy are CRH Group's focused, multi-market cost leadership, its underpinning by core resources and competences (tangible, knowledge-based, social), and the fit of its multifarious supporting activities. CRH's corporate strategy is noteworthy for its rich portfolio management and amalgam of corporate management styles.

Key Words: CRH; building materials; business-level strategy; corporate strategy

INTRODUCTION

This case presents an in-depth study of CRH plc, a worldwide leader in the building materials industry and one of Ireland's most successful companies. The aims of this case study are to profile the fundamentals and dynamics of a challenging strategic context, to explore the successful strategies developed by CRH in this setting over time, and to draw theoretical insights for both business level and corporate strategy from CRH's success. The case study is structured as follows. Following the introduction, a strategic profile of the building materials industry context is presented. This is followed by sections profiling CRH's strategy and key dimensions of strategic success. The case study concludes with a theoretical commentary highlighting the contributions of strategy to CRH's success together with insights for strategy theory, both business level and corporate.

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Research Method

This case study is the product of specific research together with almost a quarter of a century of ongoing study. The author was formerly a leading stockbroking analyst of the building materials industry in general (Moroney, 1991a, 1994, 1995) and of CRH in particular (Moroney, 1990, 1991b, 1992, 1993). The author has also published academic literature in relation to CRH in the context of the global building materials industry (Moroney, 2002, 2008, 2011, 2014). This body of research and study provides a long-term base of in-depth knowledge and insight for this case.

A range of primary and secondary research was undertaken for the purposes of this case study. Secondary research involved sources both external and internal to the company. External sources included industry reports, official industry statistical publications and leading investment analyses, both in Ireland and internationally. Internal secondary sources included CRH annual reports, statutory filings in the United States (US), company investor presentations and CRH's website. Primary research encompassed interviews with stockbroking analysts, senior CRH management and investor relations.

STRATEGIC CONTEXT: THE BUILDING MATERIALS INDUSTRY

In the 43 years since its formation in 1970, CRH has grown from a small building materials company based almost entirely in Ireland to become a worldwide leader in its industry. By 2013, CRH was operating in 35 countries across the globe, generating almost €19 billion in annual revenues, was valued on the stock market at over €10 billion (based on trough cycle earnings) and was among Ireland's most successful companies. This was achieved against the background of a demanding industry environment, including a severe global recession in construction since 2007/2008. In large measure, CRH's success reflects its successful strategy in a challenging context.

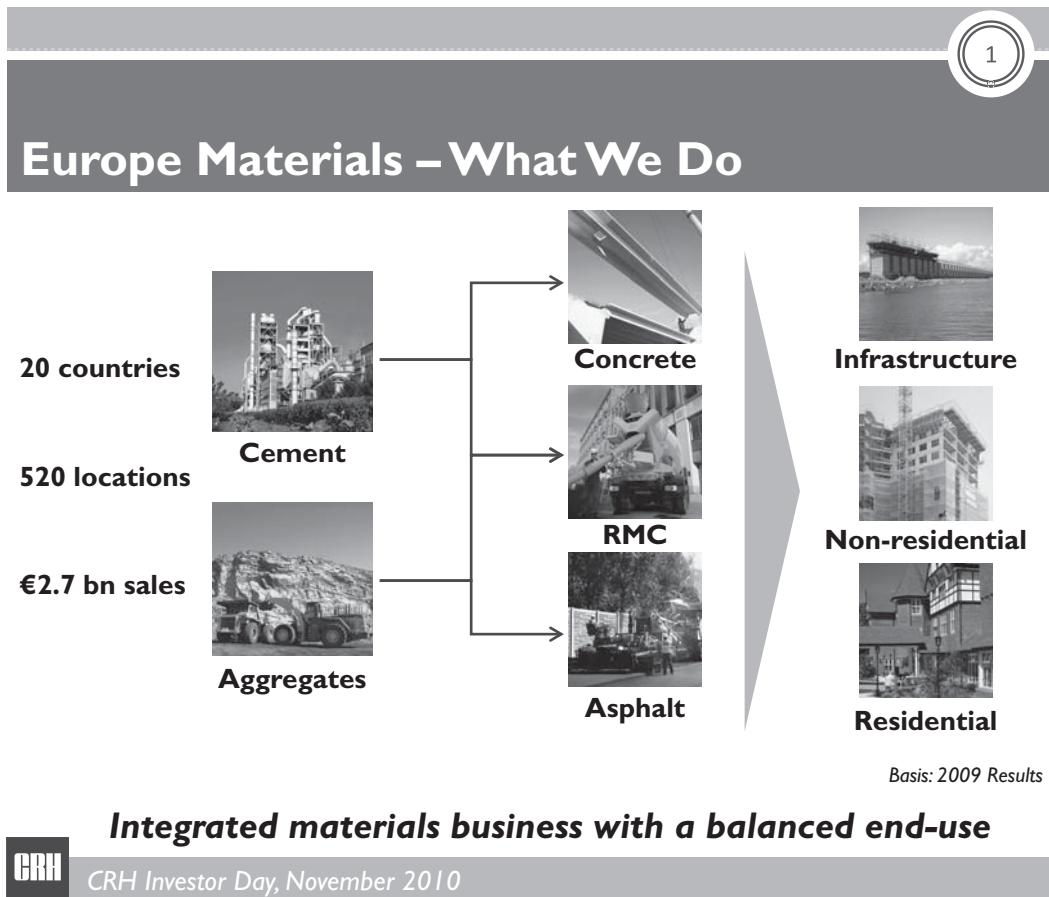
Industry Background

Construction is an important sector, representing a steady state percentage of economic activity in the low to mid teens. The primary activity in the sector is building materials, which involves the extraction, production and supply of building materials, products and services for construction activity. There are a number of end-use markets for building materials. Residential involves dwellings in which people live and is determined by population and levels of income and wealth. The industrial and commercial market comprises the construction of offices, factories and workplaces generally, for which economic activity is the prime mover. Finally, infrastructure involves the development of roads and bridges, hospitals and schools, the bulk of which is government funded (public works). Construction activity is mainly undertaken on a contracting basis, an inherently speculative and risky activity, which drives demand for building materials and is a prime determinant of that industry's characteristics.

The largest, and most important, primary stage building materials are cement (a binding powder produced by kiln-burning alumina, silica, iron oxide, lime and magnesia) and aggregates (crushed stone, sand and gravel). These primary stage materials have the

following advantages: widespread natural availability; relatively low cost; adaptability and flexibility; and comparative ease of conversion into intermediate stage building materials and products, such as ready-mixed concrete, asphalt and a wide range of concrete-based building products. Collectively, core materials of cement, aggregates and asphalt, together with a broad variety of concrete products and bricks/pavers/tiles, comprise the 'heavyside' of the industry (Figure 1). Such materials and products, which are greater in mass, lower in value and largely standardised, are used in the early stages of construction in the exterior frame of buildings. By contrast, 'lightside' building products comprise finishing, glass, insulation, plumbing, heating and lighting products, together with distribution, 'merchanning' and Do-It-Yourself (DIY). Lightside products are employed in later stages of mainly interior construction, and display variety, higher value and less density/mass.

Figure 1: Heavyside Building Materials and Products (CRH)



Source: Morris (2010: slide 3)

Building materials and products have their own external, intermediate markets but are also related in an input-output sequence across different categories.

Industry Core Characteristics

Traditionally, markets for building materials have been distinguished by a number of core features (Moroney, 2002, 2008, 2011, 2014):

1. *Cyclical*: Cyclical reflects the fact that construction is linked to general economic cycles. Construction/building materials industry cycles are longer in duration and larger in amplitude, while the timing and degree of variation of cycles differs between countries. (The sector downturn since 2007/2008 was exceptional in its synchronised nature.) In developed markets, construction lags gross domestic product growth, whereas it leads economic activity in developing economies. Cyclical is most pronounced for capital-intensive, heavyside investment, which involves large-scale, long-term commitments, significant lead times and 'lumpy' additions to capacity.
2. *Commodity*: In general, building materials and products are commodities, have long life cycles, are similar across markets and are largely stable over time, with price-based competition predominant. Production processes are standard. Technology is non-proprietary and, for some products, relatively unsophisticated. Innovation is incremental and modular (Henderson and Clark, 1990), focusing on enhancing manufacturing processes, improving ease of use and providing value-added solutions and services.
3. *Fragmented/Local*: Traditionally, the building materials industry has been fragmented. Production is often linked to the location of reserves, close to end markets. Because building materials and products are characterised by a high weight-to-value ratio, high transport costs rapidly outweigh scale economies, with the result that the radius of economic activity and competition often can be 150 kilometres or less. Many markets are local in nature due to differences in building regulations, construction practices and product standards. Success is often determined by micro-market factors such as locality, quality, reliability of service and price (Bank of America Merrill Lynch, 2009: 14). As a result, the industry has developed as a large number of small and medium-sized firms, often family-owned and run.
4. *Mature versus Dynamic*: Building materials manifest a dual mature/dynamic, geographically based character in terms of the composition and growth of output. In developed markets (North America, Western Europe and Australasia) the bulk of buildings and infrastructure is already in place. As a result, construction is stable with modest growth and mainly comprises (late-cycle) repair, maintenance and improvement (RMI). Population and public investment are the prime drivers of activity (J.P. Morgan Cazenove, 2011). By contrast, in developing markets (Asia, Central and Eastern Europe, Latin America) construction is dominated by (early-cycle) new building work and high growth in output reflects above average rates of economic activity. However, cyclical in such markets is more pronounced.

Strategic Industry Dynamics Pre-2007/2008

Prior to the downturn of 2007/2008, the buildings materials industry had enjoyed a long and sustained up-cycle since the early 1990s (interrupted briefly by the modest cyclical contraction of the early 2000s). Both volumes and prices rose strongly. Between 1993 and 2007, new construction spending in Western Europe expanded by over 35 per cent to around €820 billion (Euroconstruct, 2012). Growth occurred in all developed markets, while developing economies also emerged as significant centres of construction activity. Prices for building materials and products recorded significant increases. For example, volumes of aggregates and ready-mixed concrete in the US expanded by more than three-quarters between the early 1990s and 2007/2008. In both cases, product prices rose strongly, increasing by 50 per cent alone between 2003 and 2008 (J.P. Morgan Cazenove, 2011: 110–118).

During this period, several structural trends emerged in the building materials industry. One trend was erosion of local differences between geographic markets, driven by institutional harmonisation of regulations, standards and tendering; convergence in building practices; consolidation of customers; and homogenisation of their needs. Nonetheless, the underlying logic of fragmentation still prevailed. Globally, the top five producers supplied only one-fifth of demand for cement, and one-twentieth for aggregates (J.P. Morgan, 2008: 22). In the US, the top ten concentration ratio for materials (excluding cement) was less than 30 per cent, with two-thirds of capacity privately held (Black, 2010: slide 22).

Another trend was consolidation, which varied by product type. Over time, a number of large, international building materials companies emerged (see Appendix), typically using the base of a strong local market position and/or product competence as a spring-board to expand into other regions and areas of activity. This occurred to the greatest extent in materials, arising from concentrated, large-scale facilities, standard, undifferentiated output and scarcity of reserves. By the late 1990s the percent of industry output accounted for by the top four firms ('concentration ratios') in the United Kingdom (UK) for cement, aggregates and readymix were 100 per cent, two-thirds and three-quarters, respectively (Warburg Dillon Read, 1998). Scale economies provided similar opportunities in merchanting. Major players to emerge from consolidation included industry leaders HeidelbergCement, Holcim, Lafarge, Italcementi and CRH (global companies of European provenance involved in cement, aggregates and concrete); US aggregates companies Martin Marietta and Vulcan Materials; and worldwide distributors such as Wolseley and Saint-Gobain, which typically specialised in particular areas of merchanting.

A related industry trend was significant merger and acquisition (M&A) activity (see Appendix). During almost two decades up until mid-2009, there were twenty large corporate deals involving total consideration of US\$125 billion and an average multiple of value to EBITDA (Earnings Before Interest, Tax, Depreciation, Amortisation and non-operational items) of 10.3 times (J.P. Morgan Cazenove, 2011: 27). Some of this M&A activity was funded by the inherently robust cash generation of building materials and by equity fund raisings (such as rights issues) by major industry players quoted on global stock markets. However, much buying was financed by increased levels of borrowing and many companies ran up significant levels of debt.

Trends in competition also occurred. Traditionally, building materials comprised many competitors, reflecting industry fragmentation and commodity characteristics. Moreover, companies tended to specialise in particular products/markets and parts of the industry value chain (see Appendix). An exception in this regard is CRH, which is notable for its diversified range of operations and level of integration. Consolidation and M&A activity resulted in the removal of a number of large, established players (many household names), particularly in the UK (see Appendix). These same processes also facilitated the emergence of large, often global, players in the 1990s and 2000s, especially in heavyside materials markets (see Appendix). Less visible but also important throughout this period was ongoing rationalisation across the industry, as smaller, independent operators were merged into larger groups. CRH was an industry leader in this process.

Strategic Industry Dynamics Post-2007/2008

By 2013, the construction sector had endured more than five years of a severe global downturn, unprecedented since the 1930s in severity, extent and synchronised nature. Europe suffered a cumulative fall of 28 per cent in construction spending, undoing all the gains of the up-cycle and reducing activity below the level of twenty years earlier (Euroconstruct, 2012). In developed markets, cement consumption declined by double-digit percentages year-on-year, prices fell and plant capacity utilisation rates dropped by more than 20 percentage points to an unsustainably low level of 60 per cent (Deutsche Bank, 2011). US heavyside markets experienced a similar correction, with declines of 40 per cent in volumes from peak levels, although the fall in prices was not as marked (J.P. Morgan Cazenove, 2011).

While indicators suggested the worst may have passed, there were few grounds for optimism for an early and strong upturn. Against the macro backdrop of weak consumer and investor confidence in the Eurozone balanced by an improving outlook in the Americas, the prospects for building materials remained cautious. Notwithstanding deep cyclical declines in both the US and Europe, the likelihood was an 'L-shaped' recovery of sub-trend growth (Exane BNP Paribas, 2012: 10).

The post-2007/2008 period was marked by a number of changed structural trends. Geographically, the downturn was most severe in developed markets (Western Europe, North America). Developing economies in Asia, Latin America and Eastern Europe continued to expand, albeit more slowly. By 2012, emerging economies dominated new build construction globally, accounting for 90 per cent of cement consumption and two-thirds of demand for aggregates (J.P. Morgan Cazenove, 2011). However, doubts were beginning to emerge about whether or not developing markets would continue to provide a growth stimulus. Some China-based commentators were signalling a property correction in the short term and a peaking of cumulative cement consumption from mid-decade (Deutsche Bank, 2012).

Another structural trend was rationalisation, both within companies and across markets. Over-capacity and low utilisation rates prevailed in certain mature heavyside markets, particularly in Western Europe (Credit Suisse, 2012). For individual companies,

this raised the prospect of downsizing, closing older, less efficient facilities (Deutsche Bank, 2011). Between companies, several deals involving divestment of non-core assets had taken place, with scope for further corporate activity (Exane BNP Paribas, 2012). Such organic and seller-led restructuring was markedly different to the demand-led M&A activity pre-2007/2008.

A related trend was deleveraging, which was partly driving rationalisation. With a few noticeable exceptions (such as CRH), heavyside companies carried high levels of indebtedness, arising from previous high M&A activity, anaemic volume recovery in developed markets and a gross margin squeeze (Exane BNP Paribas, 2012). Against this backdrop, heavily indebted firms sought to deleverage by selling assets (Credit Suisse, 2012).

The confluence of weak cyclical outlook and changing structural trends raised prospects for further changes in the competitive landscape of building materials (see Appendix). Pre-2007/2008, the main drivers of industry consolidation were the expansive ambitions of larger firms and ready availability of finance for M&As, which no longer prevailed. Post-2007/2008, rationalisation and deleveraging pointed to reductions on the supply side, in the form of a lower scale of operations for individual companies and a further fall in the number of competitors. Unlike during the upturn, however, the benefits of such prospective changes would not be available to all. Only those companies strategically positioned and with financial wherewithal would be able to capitalise.

CRH PLC: STRATEGIC PROFILE

Headquartered in Dublin, Ireland, CRH had annual revenues of €18.7 billion in 2012; it employs 76,000 people in 3,500 locations in 35 countries. The Group enjoys strong positions in developed markets in Europe and North America (85 per cent of EBITDA) and a growing presence in emerging economies in Asia, Central and Eastern Europe and Latin America (15 per cent of EBITDA). CRH's prominence has been recognised by many industry awards for corporate governance (UBS, 2009: 7) and management practices. CRH serves the breadth of construction activity, providing exposure to multiple demand drivers. CRH's output is sizeable across a wide range of materials and products (Table 1). The Group is a major player in virtually all categories of heavyside building materials and products. In the long term, CRH's businesses are underpinned by a high level of increasingly scarce reserves. In aggregates, Group reserves of 15 billion tonnes are equivalent to over 80 years of production and are among the highest in the sector (J.P. Morgan Cazenove, 2011: 108-9). CRH has 700 quarries/pits in the US and 320 in Europe (CRH, 2012a: 21).

History, Growth and Development

For a fuller discussion of the history, growth and development of CRH, please see Moroney (2002, 2008, 2011 and 2014).

CRH was formed in 1970 following the merger of two leading Irish public companies, Cement Limited (established in 1936) and Roadstone Limited (established in 1949). At that time, CRH was the sole producer of cement and principal producer of aggregates, concrete products and asphalt in Ireland, with Group sales of €27 million, 95 per cent of which were

Table 1: CRH Output by Product and Market (2012 Data)

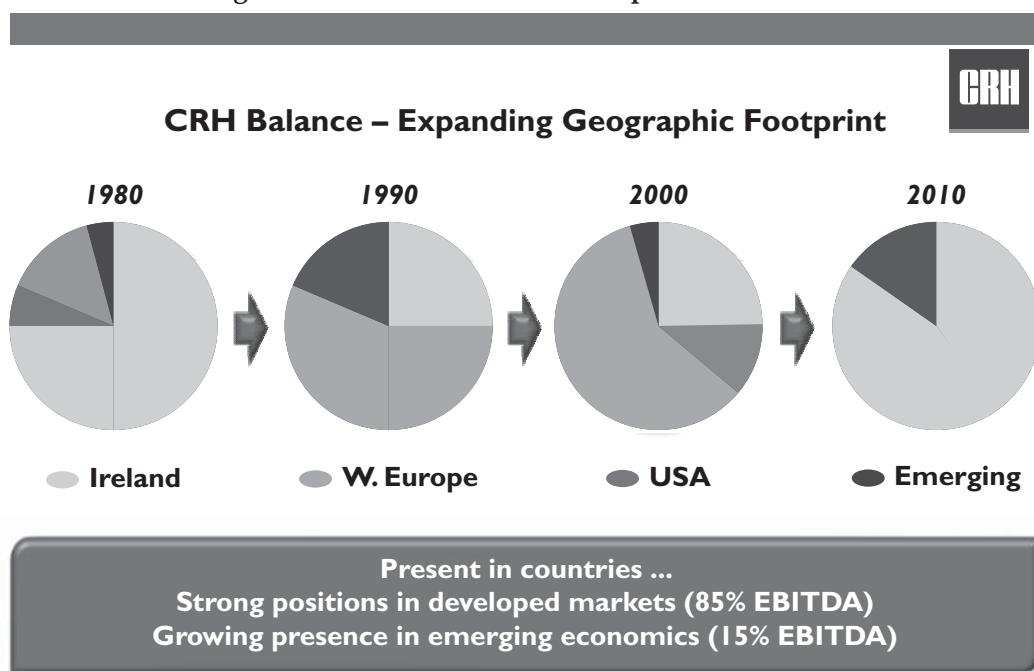
	Annualised Production Volumes		
	Europe	Americas	Total
Materials			
Cement (excludes associates reserves) ¹	11.3		11.3
Aggregates ¹	45.0	124.9	169.9
Asphalt ¹	2.3	40.7	43.0
Ready-mixed concrete (excludes associates reserves) ²	7.9	6.1	14.0
Lime ¹	1.0		1.0
Concrete products ¹	3.8		3.8
Reserves			
Cement (excludes associates reserves) ¹	542		542
Aggregates ¹	1,618	12,987	14,605
Building Products			
Architectural concrete ¹	5.0	8.1	13.1
Precast concrete ¹	5.6	1.0	6.6
Pre-packaged concrete mixes ¹		2.2	2.2
Pipe and pre-stressed concrete ¹		0.4	0.4
Clay bricks, pavers and tiles ¹	2.0	0.9	2.9
Building envelope products (glass) ³		9.6	9.6
Pre-packaged lawn and garden products ¹		3.6	3.6
Fencing and security ⁴	3.5	10.7	14.2
Distribution			
Builders' merchants ⁵	426		426
Exterior products ⁵		136	184
Interior products ⁵		48	
Sanitary, heating and plumbing (SHP) ⁵	119		119
DIY ⁶	238		238

¹ Million tonnes, ² Million cubic metres, ³ Million square metres, ⁴ Million lineal metres, ⁵ Number of branches, ⁶ Number of stores

Source: CRH (2012a)

in Ireland (CRH, 2012b). CRH set a clear strategy for development: to seek new geographic platforms in its core businesses and to take advantage of complementary product opportunities in order to achieve strategic balance and to establish multiple platforms from which to deliver performance and growth. Over 43 years, the Group has expanded rapidly, in terms of scale and geographic scope of activities (Figure 2). CRH has undergone major growth through several phases of development (see below). In general, change has been evolutionary, involving a managed learning process of building, augmenting and layering competences.

Figure 2: CRH Growth and Development over Time



Source: Lee (2012b: slide 5)

Organic Market Penetration in Ireland (from 1970)

During the 1970s, Irish construction enjoyed a boom on the back of a modernising economy. The newly merged CRH capitalised on this favourable environment through its vertically integrated and leading positions in virtually all domestic markets for heavyside building materials and products. By the end of the decade, CRH had established the operational and financial platform from which to launch the next stage of its strategic development.

Acquisition-Led Overseas Expansion (from the late 1970s)

In the late 1970s, with a view to spreading risks and opportunities more broadly, CRH made a strategic decision to invest in familiar business areas overseas, through bolt-on acquisitions of medium-sized, often family-owned, businesses. First, early expansion in the UK and the Netherlands was followed by further acquisitions in mainland Europe. Western Europe represented half of Group activity by 1990. The second domain of geographic growth was North America. In 1977, Don Godson (later Chief Executive, 1994–2000) went to the US with 'a telephone and a cheque book' (mentioned to the author at a 1994 CRH analysts' briefing). By 2000, the Americas accounted for around half of Group turnover and profits. Third, CRH's presence in emerging regions gathered pace from the mid-1990s. Initial steps in Latin America were followed by more substantial investment in Eastern European markets (notably Poland and Ukraine) and, latterly, in Asia (China and India).

From 1970 to 1990, CRH primarily pursued a multi-domestic international strategy (Porter, 1987a) with dispersed activities and a relatively low level of Group coordination. This strategy was pursued by means of overseas market development (Ansoff, 1965). Such a strategy represented appropriate external fit by exploiting the opportunities presented by a fragmented industry environment and by diversifying from the Group's small, peripheral domestic market (Siggelkow, 2001).

Product Focus, Larger Acquisitions (from the 1990s)

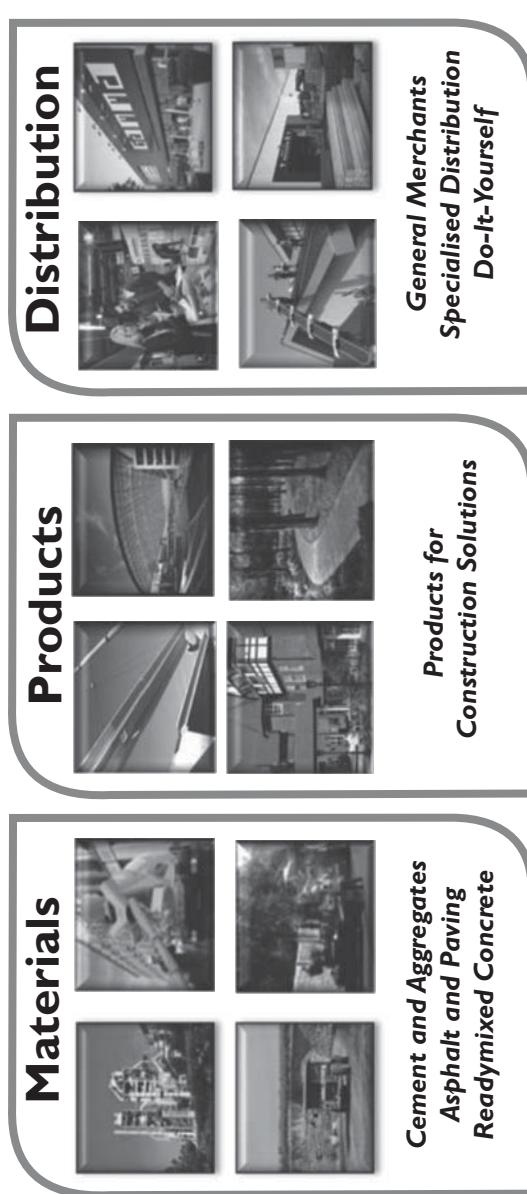
CRH also expanded in a limited, but highly rewarding, way into new product areas, including merchanting and DIY, security fencing, clay brick products and glass fabrication (in the US). Since the 1990s, CRH's structure has evolved to a more product-based organisation, to bring greater focus to business development and sharing best practice. At the same time, leading industry consolidation, the Group supplemented its traditional focus on mid-size deals with larger acquisitions. This evolution of strategy saw CRH's operations, which hitherto had functioned largely as independent local subsidiaries, take on more of the character of global product divisions (Bartlett and Ghoshal, 1998) against the structural backdrop of erosion of market differences and industry consolidation.

Developing Value-Based Growth Platforms (from the early 2010s)

By the early 2010s, CRH had established a global footprint and a diverse product template. In the wake of the severe industry downturn of 2007/2008, the Group adopted a more value-focused approach to strategy, emphasising accelerated integration, greater coordination, enterprise management and portfolio rationalisation. This approach combined the large-scale disciplines of the Group with the entrepreneurial skills of local management. In this regard, CRH supplemented long-standing external fit with internal congruence (Siggelkow, 2002).

Figure 3: CRH Balanced Exposure to Multiple Demand Drivers

CRH – Serving the Breadth of Construction Demand



Source: Lee (2012b; slide 4)

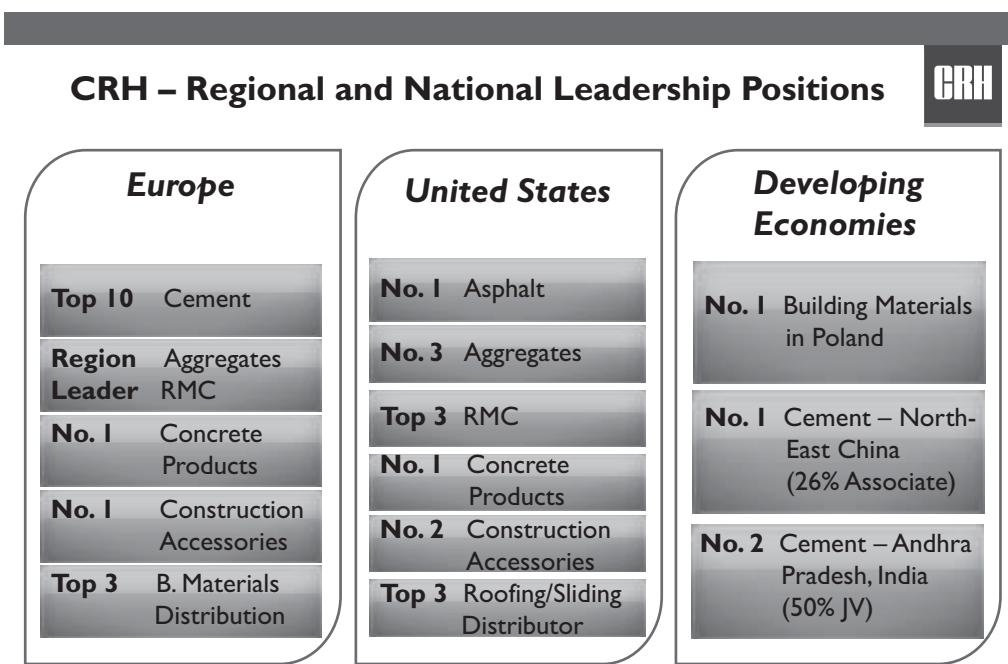
Group Strategy and Business Model

CRH strategy is to sustain and grow a geographically diversified business with exposure to all segments of construction demand, enabling CRH to achieve its vision of being a responsible international leader in building materials delivering superior performance and growth ... through the business cycle (CRH, 2011: 10).

The Group's focus is on achieving superior long-term returns. In developed markets, CRH's 'build and grow approach aims to create clustered groups of businesses with significant local market positions, augmented from time to time by larger step-out transactions to create new platforms for expansion' (CRH, 2012b: 14). In developing markets, opportunities in materials provide suitable initial entry positions for CRH, facilitating expansion into products and distribution as time and circumstances allow.

A unique characteristic of CRH's strategy and business model is its diversified, broad-based exposure to all areas of construction demand (Figure 3). This strategic balance encompasses dimensions of geography, product, sector, end use, stage of the cycle and intensity of investment. Strategic balance smoothes the effects of varying economic

Figure 4: CRH Market Leadership



Sanford Bernstein Strategic Decisions Conference, 19 September 2012

Source: Lee (2012b: slide 6)

conditions and provides greater opportunities for growth. An indication of the severity of the industry downturn since 2007/2008 is that, while CRH consistently outperformed peers through previous cycles, in the most recent down-cycle both balanced and single-product companies were affected similarly (Lee, 2010: slide 9).

Another notable feature is product/market leadership (Figure 4). Across the Group, there are around 70 separate positions of product/market leadership, mostly number one (CRH, 2012b). Product leadership in its chosen markets is a deliberate core strategy of the Group. Reflecting the commodity and fragmented nature of the building materials industry, CRH focuses on securing and maintaining leading positions in local or regional (and national) markets and in a number of product segments or niches. For certain product categories, CRH is a leading player on the global stage, ranking number two and three in aggregates and asphalt respectively (J.P. Morgan Cazenove, 2011). In most cases, market leadership involves significant market shares (ranging to the mid/high teens nationally).

CRH PLC: KEY DIMENSIONS OF STRATEGIC SUCCESS

CRH's strategic success in a challenging environment could be attributed to three core inter-related dimensions which collectively generate substantial added value:

1. *Acquisition strategy*: Over time, CRH has developed a successful acquisition formula to acquire a steady stream of quality businesses at low cost.
2. *Low-cost operational strategy*: CRH has adopted a rigorous and synergistic ongoing approach to the management of costs for both newly acquired and existing operations. Tight control and continuous improvement combine with the advantages of global Group scale.
3. *Supportive strategic architecture*: CRH's strategic architecture is integral to success, in particular the Group-wide culture and systems of management development and learning.

Acquisition Strategy

For a fuller discussion of the acquisition strategy of CRH, please see Moroney (2002, 2008, 2011 and 2014).

Acquisitions are the engine of growth, development and expansion at CRH: 'CRH has the best track record of its peer group ... of growing returns through acquisitions' (Goldman Sachs, 2005: 3). Historically, acquisitions accounted for 70 per cent of CRH's profit growth, with organic growth contributing one quarter, and currency movements the remainder (Goodbody Stockbrokers, 2005: 7). Over a quarter of a century, up until 2012, CRH spent €18.5 billion on over 800 acquisitions, which were strongly earnings enhancing (Table 2). Acquisition activity increased markedly in the first decade of the millennium. By contrast, acquisition expenditure slowed significantly following the severe downturn from 2007/2008, declining from an average of €1.5 billion annually to around €600 million per annum as the recession took hold.

Traditionally, CRH's acquisitions were bolt-on in nature (three to four deals per month at an average cost of less than €20 million). However, from the mid-1990s to 2008, CRH completed a series of larger deals (over €100 million). During this period, CRH committed a total of €8.1 billion to such purchases, half of total acquisition outlays. Reflecting consolidation opportunities and M&A activity more generally, these deals largely involved materials, with a focus on the US. However, in all cases, no single deal amounted to more than 10 per cent of the Group's capital base. Moreover, CRH acquired on favourable terms, reflecting the Group's 'valuation discipline'. Purchase price/EBITDA multiples ranged between six and seven (somewhat higher for larger deals).

Table 2: CRH Acquisition Activity

	Acquisitions		Analysis (averages)		
	Total Spend € million	Number of Deals	Spend per Annum € million	Number of Deals per Annum	Spend per Deal € million
1988–2012					
Total acquisitions	18,452	818	768	33	23
Breakdown					
Bolt-on deals	10,332		413		
Large deals	8,120		677		

Note: Average spend per annum for large deals is over the 12 years in which such deals occurred.

Source: Michael Moroney estimates and CRH company announcements.

CRH's acquisition strategy is singular in conception and execution and has 'proven very difficult to replicate' (Merrill Lynch, 2005: 12). To identify prospects, CRH maintains fourteen development teams spread across the Group seeking opportunities and maintaining contact with an extensive database of potential targets accumulated over 30 years. At any one time, a sizeable number of acquisitions are being actively considered, ensuring a steady deal flow. Each purchase gives rise to further opportunities, in other (occasionally new) markets.

Courtship involves a patient and often long process of familiarisation and coaching. CRH takes time to assess suitability, strategic and cultural fit, and to know management and their evolving (post-acquisition) needs. It is not unusual for CRH to walk away from a deal on grounds of timing, price or compatibility. Sometimes, acquisitions are completed at a later date. To aid negotiation, CRH codified, in a classified proprietary document, the best practice, knowledge and processes involved in making an acquisition, gleaned from many years of experience. This is full of collected wisdom and practical advice. An experienced operational manager guides each acquisition team. At the appropriate time, a senior level 'ambassador' is introduced to close the deal. Before completion, each deal undergoes rigorous evaluation, including qualitative operational review, due diligence, strict cash flow testing and board approval.

CRH's acquisition formula embraces several common characteristics:

- Target medium-sized companies, predominantly privately owned and many family-run
- Assess the suitability and cultural fit of businesses prior to purchase, usually involving a long courtship
- Acquire firms which are geographic/product market leaders, are well-run and, in most cases, are an add-on to one or more existing Group businesses
- Conclude agreed deals on favourable terms. Usually, this means no hostile takeovers, no auctions and no overpaying.
- In emerging regions and in new product areas, structure deals on the basis of low initial ownership stakes, incorporating options to increase shareholdings at minimum additional cost. Joint ventures are also used in such contexts.
- As far as possible, retain owner-vendors and existing management in the acquired businesses
- Consider large deals where warranted by Group strategy and the situation

Post-acquisition integration to boost returns is rapid and well practised. From an estimated level of 10 per cent on purchase, return on invested capital (ROIC) typically rises to 12 per cent within the first year and to the benchmark level of 15 per cent within two to three years (Goodbody Stockbrokers, 2005: 10). Group financial, management information systems and control systems are implemented immediately. Revenue and cost synergies are captured as benchmarking, best practice programmes and (if warranted) targeted capital investment are put in place. The central expertise and coordination of CRH's superstructure delivers procurement economies of scale, enhances customer access and provides greater network density and synergies. For a period, newly acquired entities operate under the guidance of a related, existing CRH business. After three years, a formal look-back review is carried out.

Low-Cost Operational Strategy

For a fuller discussion of CRH's low-cost operational strategy, please see Moroney (2002, 2008, 2011 and 2014).

CRH's management of operations reflects the Group's strategy, with many channels exploited to deliver key messages. Senior management are active, both externally and internally, in explaining and promulgating CRH's strategic stance, which is explicit, enduring and continually reinforced. Over time, the broad thrusts of the Group's strategy have been progressively articulated and refined. Management training and meetings are used as opportunities to restate key messages, from reinforcing the performance-based 'right to grow' strategic mantra, to the minutiae of operational best practice. Communications opportunities are exploited to the full through technologies such as the company

website, e-mail, intranet and bulletin boards. Regular editions of the internal news magazine, *Contact*, are read avidly by managers and employees alike.

CRH's approach to organic growth (and integration of acquisitions) is based on continuous improvement of existing operations. Products and processes are evaluated continually and re-engineered to yield higher returns, primarily through greater efficiencies. Consistent with CRH's strategy and business model of providing complementary, value-added products and integrated services as platforms for growth, continuous improvement also results in higher volumes where market conditions are favourable. An ongoing programme of development investment exists, incorporating new plant, capacity extensions and major plant upgrades (e.g. Poland from the mid-1990s). Ongoing development investment is well in excess of the level of depreciation across industry cycles (Goodbody Stockbrokers, 2007: 16).

CRH adopts a rigorous approach to evaluation, approval and review. The twin requirements of performance and growth are continually emphasised, with entities having to earn the right to grow. Planning and control are formalised and interactive, with stretch targets for financial and operational output measures. Performance measurement is timely, formal and rigorous, facilitating early critical review of under-performance, allowing intervention and appropriate corrective measures to be put in place and enabling senior management to draw broader lessons. Continuous improvement is relentless, as demonstrated by ongoing programmes of benchmarking and best practice. CRH adopts a systematic approach to the management and improvement of its operations, initiating and tracking a broad variety of programmes through a wide range of metrics. The cumulative, collective contribution to the Group's bottom line is substantial. Many such programmes are developed and progressed during the first quarter of the year, when weather conditions limit activity.

At division level, integrated product management has become progressively strengthened over time, led by the US. Coordinated divisionally, ongoing best practice activities involve meetings by small teams of experts at local, regional and international levels facilitated by technical advisors. These result in highly innovative ideas and exchanges of products, delivering significant synergies. There are around seven best practice programmes in each of the product-based divisions. Best practice is supplemented by benchmarking exercises and the development of common systems platforms.

The value of CRH's rigorous management processes is evident in its internal response to the severe industry downturn post-2007. Broad-based initiatives were enacted across price discipline/recovery, cost action, working capital management, capacity management, capital expenditure and acquisition restraint (Manifold and Culpepper, 2009: slides 18-20). CRH put in place a broad-based, multi-year programme, focused on reducing the cost base, a sharpened commercial focus involving resizing businesses and resetting capacity, optimising cash generation and maintaining a strong balance sheet (Lee, 2012a: slide 30). In the five years to 2012, CRH delivered cumulative annualised savings of €2.2 billion across structural, process and procurement components, of which over 40 per cent was permanent in nature (CRH, 2013). These measures offset around half of the adverse profit impact of volume declines and cost inflation over the period (Lee, 2012b: slide 20).

Supportive Strategic Architecture (People, Structure, Process)

For a fuller discussion of CRH's supportive strategic architecture, please see Moroney (2002, 2008, 2011 and 2014).

The strongest dimension of CRH's strategic architecture is its people, in particular the Group-wide culture and systems of management development and learning. CRH displays many characteristics of knowledge integration (Grant, 1996). The human resources (HR) function ensures a healthy mix and depth of management to sustain the growth, development and learning of the Group. CRH's corporate cultural values and tight social networks provide unity in a far-flung and highly decentralised Group through a variety of integrative mechanisms facilitating knowledge exchange.

CRH's management is characterised by experience, stability and continuity, resulting in a wealth of industry knowledge and expertise, but also a lack of employee diversity. In over 40 years, there have been only six chief executives, all of whom (like many senior managers) were internal appointments. In 2012, key corporate, divisional and operational managers numbered around 400. Managers are drawn from internally developed operating managers, highly qualified and experienced professionals, and owner-entrepreneurs from acquired companies, providing a healthy mix and depth of skills and backgrounds. Management turnover is low. CRH's remuneration policy is market driven and performance related.

CRH operates a Group-wide management development system to develop the critical experience base of managers, particularly when they are mobile, in their twenties and thirties. As CRH grew bigger, this system became more formal and structured to ensure the systematic requisite exposure to the wide range of CRH's operations. A key element is the management database, on which the core 400 managers in the Group are profiled formally. In addition, there is a variety of formal development programmes for managers, many of which involve inputs and presentations on strategy from senior management, including the chief executive. Promotion, rotation and mentoring are also instruments of manager development.

Informal mechanisms underpin integration. 'The culture of performance and achievement which pervades CRH is its key strength' (CRH, 2005: 7). Corporate culture is nurtured and sustained constantly through formal statements of strategy values, in external and internal communications and through corporate folklore and clear norms of acceptable behaviour. The supportive team orientation is evident in informal mentoring, hands-on assistance, and individual and team coaching, which is common within and across entities. Flexibility prevails, particularly as regards hierarchy and job descriptions. HR Director Dr Jack Golden is involved in Group issues pertaining to France, based on his previous experience as country manager there for another multinational. Strong informal networks exist among managers, even between far-flung regions of the Group's activities, arising from organisational mechanisms of interaction and from a social dimension to formal events.

Other dimensions of CRH's strategic architecture buttress and complement the Group's core people dimension. Organisationally, CRH operates a federal structure, comprising a small HQ, regionally focused product divisions and devolved operational responsibility

within Group guidelines and controls (Figure 5). This federal structure facilitates local responsiveness, collective identity and a steady stream of acquisitions. Management processes foster continuous improvement, capacity enhancement, best practice exchange and benchmarking. Coordinating mechanisms promote cohesion and upgraded management skills. CRH's finance function is knowledgeable, conservative and prudent, with the strongest balance sheet and the highest credit rating (BBB+) in the sector (Lee, 2012b: slide 3). Group financial management is characterised by a rigorous approach to capital allocation and a strong focus on cash generation. CRH has delivered superior performance through sector cycles relative to peers, with no reduction in dividend over 29 years (Table 3). As a result, CRH has the capability to ramp up acquisition spending to €1.5 billion within eighteen months (Manifold, 2010: slide 29).

Figure 5: CRH Federal Organisation Structure



Source: CRH 2011 Sustainability Report

Table 3: CRH Group Financial Summary

	2007 €m	2008 €m	2009 €m	2010 €m	2011 €m	2012 €m
Revenue ¹	20,992	20,887	17,373	17,173	18,081	18,659
EBITDA²	2,860	2,665	1,803	1,615	1,656	1,640
Group operating profit	2,086	1,841	955	698	871	845
Finance costs (net)	(303)	(343)	(297)	(247)	(257)	(289)
Profit before tax	1,904	1,628	732	534	711	674
Income tax expense	(466)	(366)	(134)	(95)	(114)	(120)
Group profit for year	1,438	1,262	598	439	597	554
Key Financial Ratios						
Earnings per share (cent)	236.9	210.2	88.3	61.3	82.6	76.5
Cash EPS (cent)	365.1	348.9	214.7	194.6	194.0	206.8
Dividend per share (cent)	61.3	62.2	62.5	62.5	62.5	62.5
Dividend cover (times)	3.9	3.4	1.4	1.0	1.3	1.2
Net debt	5,163	6,091	3,723	3,473	3,483	2,964
Net debt/Total equity				0.33	0.33	0.28
EBITDA/Net interest				6.5	7.2	6.4

¹ CRH's revenues first exceeded €18 billion in 2006, ² Earnings Before Interest, Tax, Depreciation and non-operational items

Source: CRH Annual Reports

THEORETICAL COMMENTARY

CRH's achievements during its corporate history over 43 years are readily evident. Equally apparent is the contribution of the Group's strategy to its competitive advantage. Without a clearly thought out and executed strategy, CRH would be buffeted by the forces of a challenging industry. Strategy, both business-level and corporate, is central to the Group's longevity, growth and development. This theoretical commentary highlights the contributions of strategy to CRH's success together with insights from the case for strategy theory.

Business-Level Strategy

Three dimensions of CRH's business-level strategy are worthy of theoretical comment. The first concerns the actual strategy that the Group pursues. This is less apparent than the benefits that accrue. In generic terms (Porter, 1980), differentiation is precluded by the prevalence of the commodity price, especially for heavyside products. (Possible exceptions are the more value-added building products and distribution operations.) On the other

hand, overall industry cost leadership would also appear to be ruled out by fragmentation and localism and by the absence of a clear industry leader. (Ultimately, there can be only one overall cost leader.) Similarly, CRH's status as a leading global player means that a focus strategy is not relevant.

Closer analysis and reflection reveals CRH's business-level strategy to be an amalgam of generic approaches. The Group's competitive advantage arises from a strategy of focused, multi-market cost leadership. CRH occupies leading (mostly number one) positions in around 70 separate, identifiable product categories and/or local or regional markets. CRH is able to attain and sustain these positions by exploiting the barriers to entry and limited domain of competition resulting from industry characteristics and by virtue of its singular acquisition formula. CRH earns above-normal returns by reason of scale within its local sphere of operation and due to the support, guidance and leverage from being part of a large group superstructure.

More general theoretical comment is pertinent. Generic approaches are just that – ideal types, rarely encountered in reality except in a proximate sense (Bryman, 1984). In addition, true understanding of organisational competitive advantage requires in-depth, ethnographic-type, case study research (Barney, 1986). Rouse and Daellenbach (1999) highlight the difficulty of distinguishing the effects of the variety of exogenous factors from the focal resource or capability of interest, leading to tautologous inference of competitive advantage from above-average performance. They propose a four-step selection process (from broad context to specific firms) and in-depth, high intrusion ethnographic fieldwork to determine comparative advantage from organisational factors. This CRH case study, with its comprehensive treatment of context (industry and competitive) and detailed analysis of company dynamics and strategy over a long period, embraces such a hands-on research strategy.

The second noteworthy theoretical dimension of CRH's business-level strategy is that it is underpinned by core resources and competences, affirming key precepts of the resource-based view (Barney, 1991). This is readily apparent in respect of tangible resources. CRH has a network of modern, efficient, well-located facilities that service its sizeable heavy-side operations. In addition, the Group possesses increasingly scarce reserves of building materials critical for long-term advantage. Furthermore, CRH excels in relation to the most fungible of all resources, cash, due to its superior cash generation and management.

Less immediately obvious is CRH's rich tapestry of intangible resources. Hall (1992) highlights the importance of functional (know-how) and cultural resources as capability differentiators, dimensions on which CRH focuses and excels. Similarly, Grant (1996) states that accessing and integrating specialist knowledge is the core of organisational capability. These requisites are clearly evident in the shared understanding of the critical success factors for CRH, and in the collective development of winning strategies to exploit them. The industry knowledge and insight of the Group's long-serving and experienced management are important specialist contributions exploited for strategic success. A clear example of integrated organisation-wide knowledge underpinning competitive advantage is CRH's singular acquisition formula (which finds tangible manifestation in the codified

'bible' for transacting a deal). Intangible resources also comprise social capital, which facilitates the creation of intellectual capital through combination and exchange, particularly in firms where there is density of relations (Nahapiet and Ghoshal, 1998). The social bond may be discerned in CRH's robust corporate culture and its variety of integrative mechanisms. This collective spirit in part explains how a cadre of just 400 key managers can lead, grow and develop a successful global enterprise.

The third noteworthy dimension of CRH's business-level strategy is the trope that strategy requires doing many things well. Moreover, CRH's multifarious activities are purposeful, cohesive and integrated. In short, they 'fit' and are combined (Porter, 1996). CRH's strategy of focused, multi-market cost leadership embraces many elements. These include value-accretive acquisition-led growth, product-market leadership, rigorous low-cost management, strategic balance, superior cash generation and a supportive strategic architecture. Systematic implementation of Group strategy occurs through a plethora of programmes and initiatives.

Corporate Strategy

Corporate strategy is also fundamental to CRH's success, two dimensions of which warrant theoretical comment. First, CRH is an exemplar of portfolio theory (Hespelagh, 1982). The Group's approach to management of its worldwide businesses is richer than received methods (e.g. Boston Consulting Group growth/share matrix, General Electric-McKinsey directional policy matrix). CRH's portfolio management is particularly strong on dimensions of balance and fit (Johnson et al., 2011), which are unprecedented in range and extent (geography, product, sector, end-use, stage of the cycle and intensity of investment). This unique characteristic is recognised generally as being important to the Group's out-performance of peers across industry cycles. Fundamentally, however, strategic portfolio balance essentially involves risk-spreading. As such, it lacks utility in the face of a 'perfect storm', as evidenced by the similar impact of the deep, synchronised downturn since 2007/2008 on both CRH and its peers.

Second, similar to business-level strategy, CRH's corporate strategy may be viewed as an amalgam of styles. The generally accepted classification of corporate management styles for managing strategic business units (SBUs) is portfolio management, restructuring, transferring skills and sharing activities (Porter, 1987b). However, Porter (1987b) points out that the different styles are not always mutually exclusive, while success depends on circumstances. This situational perspective finds echoes in Campbell and Goold's (1994) three corporate management styles, each with its own strengths and weaknesses and none inherently the best: 'Because every company starts at a different point, operates in a different context, and has fundamentally different kinds of resources there is no best prescription for all multibusiness corporations' (Collis and Montgomery, 1998: 81).

Other theoretical contributions argue against an overly prescriptive and categorical approach to corporate management. Grant (2002) highlights the complexity of the management of corporate scope, reflecting differences in managerial human capital, social capital and cognition (Adner and Helfat, 2003). A further factor is the independence of SBUs

and the corollary that maintaining corporate-SBU fit is a dynamic process (Campbell et al., 1995). Indeed, cultural perspectives resist typology on grounds of uniqueness (Whittington, 2002). Whittington (2002) advocates reciprocity between strategy and structure, rather than subordination of the latter to the former. Finally, Markides (2002) argues that a differentiated approach to the management of divisions is not only possible, but desirable, in managing strategic ambiguity.

It is not surprising, therefore, that CRH displays evidence of all of Porter's (1987b) styles of corporate management, echoing the earlier point about ideal types. The Group has a rigorous approach to evaluation, approval and review (portfolio management), has rationalised its portfolio of businesses since 2007/2008 (restructuring), actively encourages best practice exchange across SBUs (transferring activities), and envisages and articulates strategy for SBUs (sharing activities). Such a permissive approach may reflect CRH's diversity and devolved structure of operational independence. It may also be the pragmatic response of a corporate parent exercising all available levers of value in a challenging industry environment.

CONCLUDING COMMENTS

The aims of this case study were to profile the fundamentals and dynamics of a challenging strategic context, to explore the successful strategies developed by CRH in this setting over time, and to draw theoretical lessons highlighting the contributions of strategy for CRH's success and insights from the case study for strategy theory. The research methodology involved secondary and primary sources internal and external to the company, set against the in-depth knowledge and insight gleaned from 25 years of research and study. Such ethnographic study is required to properly determine organisational comparative advantage (Rouse and Daellenbach, 1999).

A long-term perspective and rich data facilitate knowledge and understanding of the challenging strategic context of the building materials industry. This includes the industry's core cyclical, commodity, fragmented and dual mature/dynamic features, together with key structural trends, pre- and post-2007/2008. The case also profiles CRH's strategy, evolution and development, and identifies the three key dimensions of CRH's strategic success. These are a winning acquisition formula delivering a steady stream of quality businesses at low cost, rigorous and synergistic low-cost operational management and a supportive strategic architecture (notably the Group-wide culture and systems of management development and learning, supplemented by a devolved structure, integrative management processes and prudent and cash-generative finances).

While the contributions of strategy to CRH's success are significant, so also are the reflexive insights for strategy theory from the case. CRH's business-level strategy of focused, multi-market cost leadership is an amalgam of generic approaches. In a challenging context, the range of resources and competences on which CRH's competitive advantage is based is broad, reinforcing the trope that strategy requires doing many things well. The Group's intangible capabilities make a significant contribution, an interesting finding in what is a primary processing industry. In addition to being a rich exemplar of

portfolio theory, CRH's corporate strategy is similarly portrayed as an amalgam of styles. This conclusion reflects considerable argument in the literature. At a general level, the CRH case study underlines the limits of generic and ideal types.

The CRH case study surfaces a number of themes for future case development or practice-led research contributions. One such area is the exploration of organisation-wide culture and management development and learning systems in primary industries – settings not normally associated with such intangible resources. Another possible avenue is comparative study of the detail and contribution of acquisition strategies in other organisations and industry contexts. Finally, low-cost operational management as a major and successful strategy is relatively under-researched compared to its near-ubiquity in practice, for which the CRH case study provides the rationale and template.

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Appendix: Major Building Materials Competitors

Company	Profile
Cement	
Buzzi Unicem	Mid-range player. Cement 60% (5% share Europe); aggregates 40% Geographic focus: Italy, US, Germany, Mexico, Russia
Holcim	Major player. Cement 60% (top 3); aggregates 10% (joint #3) Geographic focus: split evenly between developed and emerging markets
Italcementi	Mid-range player. Sales: cement 70%; concrete/aggregates 25% Geographic focus: 60% developed (France and Belgium); 40% emerging markets
Lafarge	Major player. Cement 60% (top 3); concrete/aggregates 30% (#2) Geographic focus: $\frac{1}{3}$ developed; $\frac{2}{3}$ emerging markets
Titan Cement	Mid-range player. $\frac{3}{4}$ cement; $\frac{1}{4}$ concrete/aggregates Geographic focus: 40% Western Europe; 30% South-Eastern Europe; 30% North America
CRH	Mid-range diversified player. Regional leader cement Europe/Asia Geographic focus: 85% developed; 15% emerging markets

(Continued)

Appendix: (Continued)

Company	Profile
Aggregates	
HeidelbergCement	Major player. Cement 40% (top 3); concrete/aggregates 55% (#1) Geographic focus: 60% developed; 40% emerging markets
Martin Marietta	Mid-range player focused on aggregates in the US. #7 globally
CRH	Major diversified player. #3 aggregates; #2 asphalt globally Geographic focus: 85% developed; 15% emerging markets
Merchanting	
Saint-Gobain	Major producer and distributor of flat glass, industrial materials Geographic focus: 80% developed (Europe); 20% emerging markets
Wolseley	World-leading distributor of heating and plumbing products for RMI Geographic focus: 50% North America; 45% Western Europe; 5% Central and Eastern Europe
CRH	Major diversified player. Leading regional and niche, Europe and US Geographic focus: 85% developed; 15% emerging markets
Selected Firms Major Building Materials Companies Acquired pre-2007/2008	
Ciments Francais	European cement producer bought by Italcementi in 1992 (\$6.2 billion)
Scancem	Mid-range cement producer acquired by HeidelbergCement in 1999
Ibstock	Largest UK brick producer acquired by CRH in 1999 (purchase price/EBITDA multiple 6.5)
Tarmac	Large UK aggregates player bought by Anglo American in 1999
Rugby	Established UK cement producer bought by RMC Group in 1999
Blue Circle	Number 1 UK cement producer bought by Lafarge in 2001 (\$7.5 billion)
RMC Group	Diversified UK player acquired by Cemex in 2004 (purchase price/EBITDA multiple 7.1)
Aggregate Industries	Mid-range US aggregates producer acquired by Holcim in 2005
HeidelbergCement	Lead aggregates player bought by Spohn Cement in 2005 (\$12.7 billion)
Rinker	Cement player acquired by Cemex in 2007 (\$15.5 billion; purchase price/EBITDA multiple 10.6)
Hanson	Big player bought by HeidelbergCement in 2007 (\$18.8 billion; purchase price/EBITDA multiple 12.2)

Sources: J.P. Morgan Cazenove, Credit Suisse, Deutsche Bank, company reports

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