

GLOBALISATION AND CHANGES IN OWNERSHIP OF THE BUILDING AND CONSTRUCTION INDUSTRY

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ABSTRACT

Globalisation is profoundly affecting many industries, including the building and construction industry. The international restructuring of contractors, consultants and specialist subcontractors is a complex process, with only the largest firms in any country involved. Typically, globalisation is measured by the trade share in a country's GDP (exports and imports), and the level and extent of foreign direct investment (both inward and outward). In construction, the value of foreign work won by companies and the foreign share of company turnover have been followed and reported, and are often taken as the most appropriate measures of global activity in the industry. This paper takes a different approach, and investigates the extent and implications of changes in the ownership of major contractors, consultants and sub-contractors in both the international and Australian building and construction industries.

INTRODUCTION

Despite the importance of the issues associated with globalisation, defining globalisation is an issue in its own right. Guillen (2001) counted hundreds of citations using the term globalisation, with many versions of a definition. Common elements included global compression, interdependence, and integration. Also, there is a debate regarding over the significance of this phenomenon. Castells (1996: 92) argues we are living through a dramatic transformation into a global economy distinct from the "world" economy of the 16th century. Others argue the current process of globalisation is less dramatic than in the late 19th and early 20th centuries (Hirst & Thompson 1996). For some theorists, globalisation has altered the economic chances of significant populations (Rodrik 1997), while others argue that its effect has been exaggerated (Berger 1996; Krugman 1994).

Clearly, although globalisation is a major issue, it often generates more heat than light in the debate over its effects and implications. Friedman (1999) argues that there is a "golden straightjacket" that restricts countries to macroeconomic policies acceptable to the international financial markets, and that this impost on national sovereignty is a trade-off for faster growth from access to global capital. The main rules imposed by the "golden straightjacket" are: low inflation and price stability; balanced budgets; privatisation of government businesses and reduction of bureaucracy; and openness of markets in trade, capital and services.

The principle features of globalisation that Hatzichronoglou (1996: 13) identified are divided into general aspects and microeconomic aspects. These can be taken as a guide to the typical measures for globalisation. The main general aspects are:

- Competition in many markets between many new competitors from many countries
- Internationalisation of production and origin of products, services and capital
- International trade is increasingly intra-industry or intra-product in nature
- Diminished importance of trade, which is no longer the sole vector of globalisation
- Foreign direct investment (FDI) has become a crucial factor in the worldwide process of industrial restructuring and the development of global industries
- Financial sector is tightly entwined with the industrial sector.

Microeconomic or industry specific aspects of globalisation are:

- Global strategies adopted by firms and a global conception of markets
- Refocusing on core activities
- Priority given to external expansion and striving for critical mass

- Rapid increase in agreements and alliances and firms' networks
- Changes in internal organisation (e.g., the transition from fordism to toyotism).

Hatzichronoglou discusses two limitations on traditional ways of measuring competitiveness. Firstly, complexity can prevent clear research results when studying globalisation, and secondly, studies of globalisation have demonstrated the importance of means other than international trade for winning markets, notably direct investment. Such investment includes mergers and acquisitions (M&A) and takeovers. This paper looks at M&A in the construction industry over the past few years and the trend toward a small, global, "super league" of contractors who are seeking to widen their expertise, enter new markets and get closer to their international clients.

ISSUES IN GLOBALISATION OF CONSTRUCTION

There have been a number of recent papers looking at issues associated with the globalisation of construction. Raftery et al. (1998) reviewed recent developments in the construction industry in Japan and China and identified three trends: larger private sector participation in infrastructure projects, increasing vertical integration in the packaging of construction projects, and increased foreign participation in domestic construction. They attribute these trends to globalisation and deregulation of markets necessitated by fiscal, technological and managerial constraints and suggest the trends have enhanced the financial and technical advantages of industrial countries. .

Ofori (2000) considers issues raised by Raftery et al. and discusses the construction industry in developing countries, technology transfer and joint ventures, and the impact of policy reform on their industries. He criticises the focus on corporate development by Raftery et al., arguing that construction industry development should also consider development of: materials; project documentation and procedures; human resources; technology; contractors; and institutions, both public and private.

Crosthwaite (2000) examined the extent of international construction activity, basing the study on a cross-sectional analysis of published data of global construction spending and found that the role of construction changes as economic development proceeds. The share of construction spending in GDP first grows during less developed country (LDC) status, peaks during newly industrializing country (NIC) status and then declines as countries move from NIC to advanced industrialized country (AIC) status. The conclusion reached is that as economic development proceeds from NIC to AIC status, construction fails to maintain its share of GDP and declines in importance.

Low (1991a and b) argued that the function of marketing research in the context of international construction is to find out where the markets are in the world. Absolute measures (volume) and relative measures (growth) can be used for this purpose.

China is of particular interest to the global construction industry. Luo (2001) investigated Sino-foreign construction joint ventures, and the relationships between ownership, management control and joint venture performance. The study examines the management and performance of the joint ventures, and finds that dominant management control over joint ventures by Chinese partners is the major form of management with Sino-foreign construction joint ventures performing well. The economic growth in China has resulted in a strong demand for basic infrastructure, with road and power projects commanding top priority. The article by Wang et al. (2000a) is based on the findings from an international survey on risk management of BOT projects in developing countries, with emphasis on power projects in China. It discussed the criticality of foreign exchange and revenue risks, including exchange rate and convertibility risk, financial closing risk, dispatch constraint risk and tariff adjustment risk. The article also discusses measures for mitigating each of these risks. Wang et al. (2000b) analysed the unique risks associated the Laibin B concession (foreign exchange and revenue risks, which include exchange rate and convertibility risk, financial closing risk, dispatch constraint risk and tariff adjustment). Chan (1997) looked at how the combined mediation/arbitration process, unique to the People's Republic of China, works if the dispute is foreign-related, as defined under the Foreign Economic Contract Law. Foreign investment in the Chinese construction industry was analysed by Luo, Gale and He (2001). The types, structure and composition of partnerships in different construction joint ventures are described along with approval procedures, appropriate laws and regulations.

The opening of European borders in 1992 was seen an opportunity by some British contractors to expand into Europe. However, UK contractors such as McAlpine and Mowlem suffered heavy financial losses, while in Britain a severe recession weakened many contractors and led to divestment of unprofitable businesses, notably house building divisions. Continental European contractors such as HBG and Kvaerner became some of the UK's top contractors (Carrillo 1997: 1).

Crosthwaite (1998) studied international contracting activity performed by the top ten British construction companies, who account for approximately 90% of overseas activity by British firms. The

research was concerned with the reasons, objectives and conditions considered important by these companies, and examined international performance of British construction firms 1990-96. The study analysed perceptions of the overseas market and the companies' objectives and future expectations with regard to overseas operations. The principal findings indicated that British firms had increased overseas activities during the study period. However, despite theory to the contrary and relatively high levels of construction demand in some developing countries, they had tended to conduct the major share of their overseas work in developed countries. . It was concluded that while market demand is a factor for overseas location by British construction companies, it is only one of many.

Alliances in international construction have become a focus in recent years. On alliances, Badger and Mulligan (1995) and Bing et al. (1999) address why alliances are formed, benefits of international alliances, types of alliances, trends in global construction, and risks encountered in international markets. Norwood and Mansfield (1999) look at how construction companies from developed and developing countries approach international joint ventures in the Asian construction market. Kangari and Sillars (1997) look at Japanese construction alliances.

THE TOP 20 INTERNATIONAL CONTRACTORS

There has been a growing trend toward increasing merger and acquisition activity in the industry. Many contractors' corporate strategies are based on an increase in size to allow them to become global players and take on larger building and infrastructure projects, such as Private Finance Initiative (PFI) projects in the UK, which require a strong balance sheet. The major players in global M&A are contractors from the US and Europe. Table 10.1 shows current ranking for construction contractors based on international revenues. Many of these companies have also been actively pursuing M&A strategies to expand their business and both enter new markets and increase their presence in global markets.

Table 10.1 International Contractors – Top 20

Rank	Country	Company	1999 Revenue US\$	
			Int'l	Total
1	USA	Bechtel Group Inc	7,442	11,240
2	UK	Kvaerner PLC Group	6,540	8,420
3	Sweden	Skanska AB	5,984	8,232
4	France	Bouygues	5,007	11,462
5	USA	Kellogg Brown & Root	4,721	6,399
6	USA	Fluor Corp.	4,669	8,707
7	Germany	Hochtief AG	4,402	7,833
8	UK	Bovis Lend Lease	4,113	5,341
9	France	Vinci, France	3,600	9,098
10	Netherlands	Hollandsche Beton Groep NV	3,407	4,428
11	France	Groupe GTM	3,162	7,591
12	Germany	Bilfinger + Berger	2,514.8	4,361.3
13	France	TECHNIP	2,503	2,607
14	USA	Foster Wheeler Corp.	2,240	2,884
15	Germany	Philipp Holzmann AG	2,100.6	4,254.3
16	UK	AMEC	1,958.8	4,452
17	Sweden	NCC	1,776	4,203
18	Japan	JGC Corp.	1,729	2,528
19	Korea	Hyundai Eng. and Const. Co.	1,633	4,299
20	China	China State Const. Eng. Corp.	1,545.3	4,878.6

Source: *Engineering News Record* <<http://www.enr.com/dbase/2000tic.asp>>

The top 20 international contractors come from nine countries. The two largest groups of four contractors are from France and the USA. Germany and the UK have three contractors each and Sweden has two. Completing the list are China, Korea, Japan and the Netherlands with one contractor each. There are only eight contractors with international revenues above US\$4 billion. With the exception of Bouygues these firms get over 50% of their revenue from overseas. Some firms have over 70% of revenues from international operations.

MERGER AND ACQUISITION ACTIVITY

Table 10.2 details M&A deals done by global contractors between 1993 and 2001. What is significant is the increase in activity over the last few years. In 1999, 2000 and the first half of 2001 there were 12, 13 and 6 deals. By contrast, 1998 saw two and both 1996 and 1997 had five. After Bechtel, the largest contractors are French. In 2000, the French construction group Vinci, through its merger with GTM, became the world leader when it replaced Bouygues, which appears to be more interested in developing its broadcasting and telecommunications activities (Michaud 2001).

The 2000 edition of Construction Europe's *European Contractors Survey* showed that Bouygues and the SGE Group of France were Europe's biggest two companies. The GTM Group was third, while Sweden's Skanska rose two places to fourth and AMEC of the UK jumped three places to seventh (after takeovers). HBG of the Netherlands slipped two places to tenth, Eiffage of France was eighth and Germany's Philipp Holzmann dropped from third to sixth. The two other German companies in the top ten retained the places they held in 1999, with Hochtief ranked fifth and Bilfinger + Berger ninth.¹ The merging of Walter Bau and Heilit-Woerner Bau in 2000 made Walter Bau Germany's fourth largest construction group.²

Germany's big three contractors prospered in the construction boom after reunification in the early 1990s. But with a slump in the domestic market after 1998, Hochtief AG, Philipp Holzmann AG and Bilfinger + Berger Bau AG all went for American acquisitions. Hochtief and Holzmann owe much of their overseas revenue growth to acquisition, while Bilfinger + Berger has grown most of its international business organically (Reina 2000). Owning the Turner Corp. raised International work to 75% of Hochtief's 2000 revenue. Philipp Holzmann's U.S. operations, primarily J.A. Jones Inc, helped drive its international revenue to 60% of the total (Reina 2001).

The extent of corporate activity by contractors can be illustrated by looking at the recent M&A efforts of three particularly active firms from three European countries: Hochtief, AMEC and Skanska.

Hochtief

Hochtief has an established worldwide presence either via its subsidiaries or, as in Australia, South Africa and the Netherlands, through major associated companies³. Hochtief's M&A strategy is driven by a quest for more international business, both to keep up with key global customers and to improve its risk profile. By having a presence in markets around the globe Hochtief can smooth peaks and troughs in regional market cycles. Hochtief reinforced its position in Southeast Asia by raising its interest in Australian contractor Leighton Holdings Ltd. from under 50% to a 51% controlling share. Through Hong Kong-based Leighton Asia Ltd., the firm has grown its regional business, notably in Malaysia. Hochtief has also been buying in Canada, the Czech Republic and Poland. For Hochtief and Holzmann, North America has emerged as a key market at a time when construction demand at home remains weak (Reina 2000).

In 1999, Hochtief acquired the Czech construction company Vodni Stavby Bohemia (VSB), Prague. Hochtief has moved systematically into selected growth markets in Central and Eastern Europe. In Poland, it is successfully represented by Hochtief Polska Sp and now with the acquisition of VSB, it is initiating a lasting presence in the Czech construction market.⁴

In 1999, the acquisition of The Turner Corporation, of Dallas, Texas was the largest acquisition in Hochtief's history. Hochtief's growth strategy for North America also included the acquisition of 49.99% of newly merged Canadian construction companies, Armbro Enterprises Inc. and BFC Construction Corporation.⁵

Table 10.2 Mergers and Acquisitions in the International Construction Industry

Date	Acquirer	Target Company
2001	Balfour Beatty	ABC-NACO (Rail Systems Div)
2001	Bovis Lend Lease	IRW
2001	Taylor Woodrow	Bryant

¹ <<http://www.construction-europe.com/cgi-bin/frontend.cgi?showlink~construction~magazine~150~>> (6/7/01)

² <http://www.walter-bau.de/englisch/html/press_release_15.htm> (6/7/01)

³ <http://www.hochtief.com/hochtief/englisch/html/index_a_e.htm> (6/7/01) Press release 20/9/99

⁴ <http://www.hochtief.com/hochtief/englisch/html/index_a_e.htm> (6/7/01) Press release 8/11/99

⁵ <http://www.hochtief.com/hochtief/englisch/html/index_a_e.htm> (6/7/01) Press release 4/5/00

2001	Alfred McAlpine	Kennedy
2001	IMES	Kvaerner sold Davy Weighting Systems
2001	Hochtief	Leighton Holdings
2000	Skanska	Kvaerner
2000	Kvaerner	Whessoe International
2000	AMEC	Ogden Environmental & Energy Services
2000	Conflex Stena Offshore	Kvaerner sold RJ Brown
2000	Finning International	Hewden Stuart
2000	Bovis Lend Lease	Project Consultants
2000	Bouygues	Colas
2000	Walter Bau	Heilit-Woerner Bau
2000	Skanska	Exbud
2000	Balfour Beatty	Marta Track Constructors Inc
2000	Balfour Beatty	Metroplex Corporation
2000	Vinci Group (SGE)	GTM Group
2000	AMEC	AGRA Inc
2000	Skanska	IPS
1999	Centex	AMEC sold Fairclough Homes
1999	Union Electric Steel	Kvaerner sold its UK metals manufacturing
1999	Lend Lease	P&O sold Bovis
1999	Bovis	Tanvec
1999	Bovis	WR Adams (US health facilities)
1999	Bovis	Crystal Group
1999	Hanson	Olin Jones Sand
1999	Hanson	Brewer
1999	Hewden Stuart	Enmore Plant Services
1999	Hochtief	VSB
1999	Hochtief	Turner Corp
1999	Bouygues	Kvaerner France
1999	Skanska	Karl Steiner Holding
1998	Hanson	McAlpine US aggregates and engineering
1998	Colas	Hanson sold its US road building business
1997	AMEC	Babcock International's process division
1997	AMEC	BKW Eagleton
1997	Jacob's Holdings	Ropner (shipping, property)
1997	Jacob's Holdings	Tiptoes (car transport)
1997	AMEC	SPIE SA
1996	Hollandsche Beton Groep	Higgs & Hill (construction division)
1996	Hewden Stuart	Kvaerner sold Agent Plant
1996	Kvaerner	Trafalgar House
1996	AMEC	Spie Batignolles
1996	AMEC	S/W Infrastructure Maintenance
1995	Walter Bau	Concrete Constructions
1993	Bilfinger + Berger	Boulderstone Hornibrook

Sources: <<http://www.ukbusinesspark.co.uk/bpmerg.htm>>; On-line database ABI/INFORM Global (Proquest) which includes *International Construction*; *ENR*; *Access Czech Republic Business Bulletin*; *Northern Echo*; *AFX News*; and individual company web pages.

AMEC

In 2000, AMEC strengthened the strategic partnership with SPIE. Also, in another example of a European construction firm moving into America, AMEC acquired Toronto-based design firm AGRA Inc. Acquiring AGRA increased AMEC's access to North American markets and boosted its design capacity. In 1999, AGRA itself had made seven acquisitions, including the purchase, for \$20.5 million, of Vancouver-based H.A. Simons, an engineering and service company (ENR, 2000a: 15). The combined group will have design service revenues estimated at \$1.14 billion, and the merger puts AMEC/AGRA into the top five engineering design firms, behind Bechtel and Fluor Daniel (PF, 2000: 4).

Skanska

In 1999, Skanska purchased 70% of Swiss construction group, Karl Steiner Holding AG, Zurich, the deal giving Skanska an interest in New York-based Turner Steiner International Inc. a construction management company that operates in the Mideast, Southeast Asia and Europe (ENR, 1999a: 21). In 2000, Skanska Europe acquired 66.1% of the Czech Republic's largest construction company, IPS and completed its acquisition of a 75% controlling stake in Exbud, a leading contractor in Poland.⁶

In 2000, Skanska also acquired the construction division of Kvaerner, the company's fifth European acquisition giving Skanska a strong presence in the U.K., Hong Kong and India. For Kvaerner, selling its core construction business will leave it focusing on oil, gas and industrial work (ENR, 2000c: 9). Kvaerner Construction is among the U.K.'s top five construction companies, and represents "the conventional face of contracting." Until now, Skanska had a "tiny toehold" in the U.K. through its 1997 acquisition of 7.6% of troubled contractor Costain Group Ltd. (ENR, 2000b: 14).

AUSTRALIAN CONTRACTORS

The ongoing strength of the Australian economy and growing expenditure in building and engineering construction during the 1990s made the industry an attractive investment opportunity to overseas contractors. Further, Australia is seen as a base from which to expand into the Asian market, with a number of Australian companies active across the region.

Australian construction contractors have therefore been prey rather than predator in the global M&A round. The exception is Lend Lease Corp (LLC). The acquisition of UK's Bovis Group was a £285 million (A\$718 million) buyout, funded though cash reserves and debt (AFR 1999). Acquiring the world's largest construction management contractor put LLC into a leading position in European and U.S. construction markets. Buying Bovis extended capabilities globally, giving Lend Lease Projects new opportunities and markets, especially in the Americas and Europe (ENR, 1999b: 13). The deal targeted a multiplier effect, with LLC's development, investment and project management arms able to create opportunities for each other. The deal did not impact LLC negotiations to acquire other businesses, including Boston Financial and parts of Amresco in the US.

Table 10.3 Takeovers of Australian Contractors

Date	Acquirer	Company	Acquirer's Country	
1993	Bilfinger + Berger	Baulderstone Hornibrook	German	Private
1995	Walter Bau	Concrete Constructions	German	Private
2000	Lend Lease Corporation	Bovis Group plc	Australian	£285M
2000	Development Land DBS	Australand	Singapore	
2001	Hochtief	Leighton Holdings	German	51%

Sources: Annual reports, *Australian Financial Review*.

The experience of other Australian firms is rather different. The takeover of Baulderstone Hornibrook by Bilfinger + Berger (B+B) put three directors from B+B on the nine-member board. At the time of the takeover the managing director of Baulderstone estimated turnover in 1996 would be about 12% of total B+B turnover (AFR 1996).

The Walter Bau (WB) takeover of Concrete Constructions (now Walter Construction) put four WB directors on the board and a finance director who is a permanent resident in Australia. A new banking facility included \$200 million for syndicated debt, provided through Deutsche Bank and Bayerische Landesbank, enabling Walter easier access to Asian projects (AFR 1996)..

Leighton Holdings and Hochtief have had a long history together. Hochtief maintained a share of between 40% and 49.9% since early 1980's although it was reduced to 45% in 1996. Hochtief has 3 directors on Leighton's board, one resident in Australia, and the relationship extends to financial support if necessary. In February 2001 Hochtief moved to majority control with 51.5%, and can consolidate balance sheets. In turn, Leighton Holdings acquired John Holland at end of 2000, adding to existing subsidiaries Theiss and Leighton Contractors.

Walker Corporation was taken over in 2000 by Australand Holdings. The Chairmans Report stated the significance of the acquisition of the Walker Corporation Group, which had been finalised in mid January 2000 when management control passed to Australand. During 2000, the benefits of operating synergies,

⁶ <http://www.whitecase.com/pr_skanska_exbud_poland.html> (6/7/01)

savings in overheads and reduced financing costs emerged. Other key aims had been to identify and acquire new development sites to replace existing projects and underpin organic growth, and to maintain, if not improve, margins on projects already under construction. In 2000, Australand was in turn acquired by the Singaporean company Development Land, a joint venture formed by a recent merger of DBS Land and Pidemco Land and ultimately owned by the major bank DBS and the Singaporean Government.

CONCLUSION

The construction industry has become more global, deregulated, open and competitive as a result of changes in the international economic system. However, because construction is not a commodity that can be traded across borders and the industry is not suitable for internationally integrated production, the effects of globalisation are seen in the rise of international contracting and corporate activity. On the one hand, the construction industry is like many other industries in having to adjust to a challenging new and dynamic business environment. On the other hand, the role of FDI in construction is not very important when compared to other industries, where investment in production, storage or distribution facilities is a major part of the global strategy. By contrast, in construction there are many mergers, acquisitions and strategic alliances taking place, so portfolio investment is important.

This review of recent M&A activity in the global construction industry has revealed a significant increase in M&A activity since 1996. The most active firms have been European contractors, who are rapidly expanding into the American and Asian markets, while US contractors have not been as active. This is probably a reflection of the different states of their respective home markets. The efforts of the European contractors to get into the US market have seen a number of takeovers there with the express intention of gaining access to a market that was seen as growing and offering new opportunities. In contrast the European markets, particularly in Germany, have been constrained.

Although alliances and joint ventures in international construction have become a topic for research in recent years, there have been few papers on M&A in international construction. However, M&A is becoming an increasingly important aspect of the industry as firms seek entry into new markets and the industry consolidates around a small number of very large global contractors. Increasingly, growth of contractors, particularly from Europe, is driven by increases in turnover due to acquisitions.

The Australian construction industry has been of particular interest to German contractors, with three of the largest making acquisitions in the last few years. The motivation for these moves has been a combination of diversification and a search for growth markets, both in Australia and the region. It is too early to comment on the success or otherwise of these moves for the parent companies.

Finally, it is becoming clear that the strategic intent of the largest international contractors is to pursue size (in terms of revenue) and geographical diversification. For these firms the decision on which markets to enter, North or South Asia, Western or Eastern Europe, North or South America and so on, is possibly the most important facing their managers. Differences between the characteristics and prospects of the construction market in developing and industrial countries will determine the success or otherwise of these moves into international markets. The long-run growth and position of their companies could, to a large extent, depend on the outcome of this choice.

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