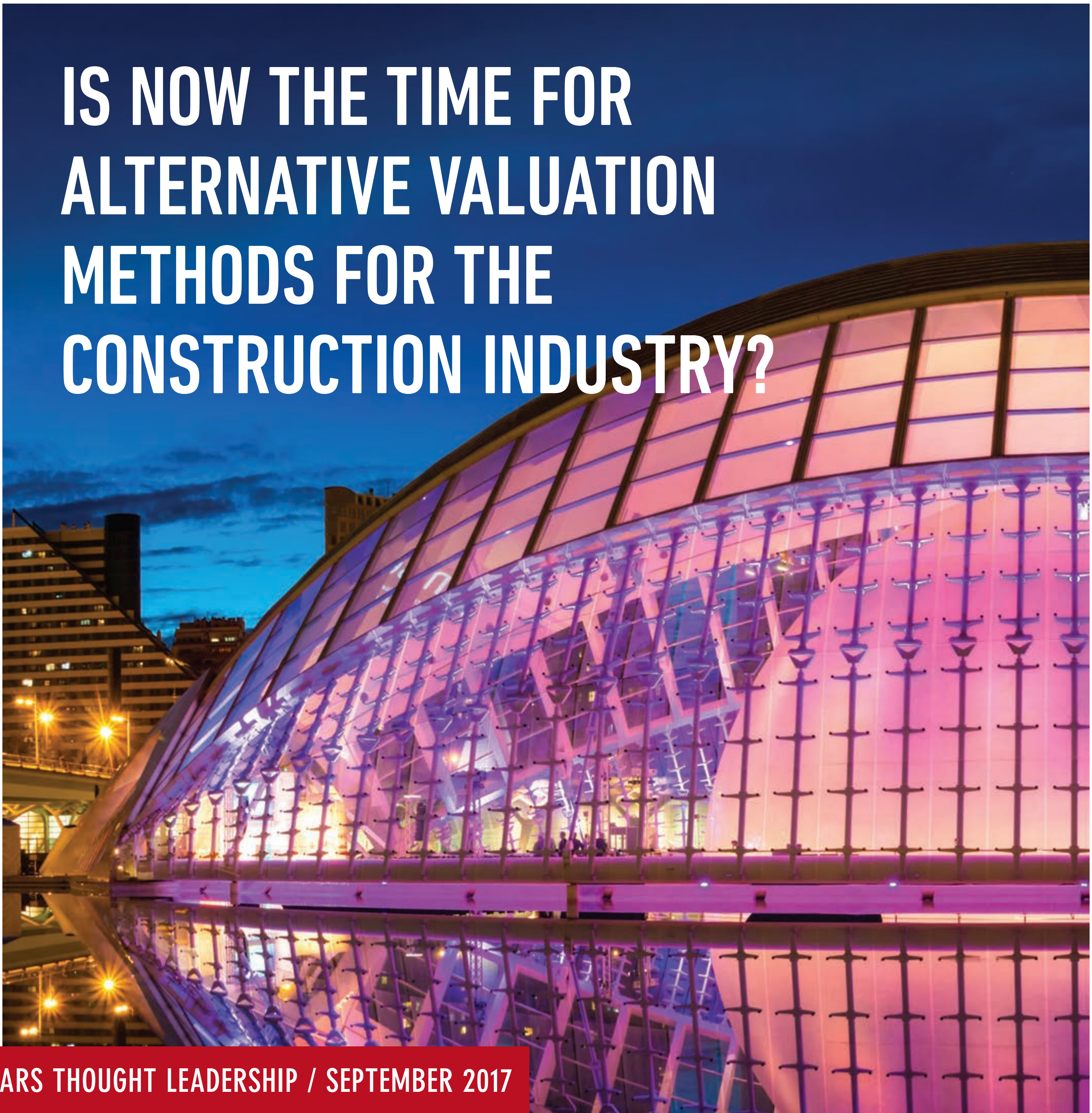
IS NOW THE TIME FOR ALTERNATIVE VALUATION METHODS FOR THE CONSTRUCTION INDUSTRY?



MAZARS THOUGHT LEADERSHIP / SEPTEMBER 2017

Whether it's a local company or a major global entity, the valuation of a construction business is often estimated on the basis of multiples of earnings, and therefore essentially founded on a short-term outlook. However, businesses strategies with a long-term vision, such as innovation, energy, concessions and acquisitions are not taken fully into account in valuations.

If valuers took a long-term view, through using other valuation methods that make it easier to understand these strategies, would this have an influence on how these firms are valued?

MAZARS

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WHAT LOCAL VALUATION PRACTICES ARE USED?

Cover: Valencia's City of Arts and Sciences, Spain

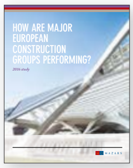
Our last study, ***How are major European construction groups performing?*** showed an average return of between 2.6% and 8.9% annually over the last ten years for our sample of 15 European groups.

This sector certainly presents its own particular risks, but it also has a number of attractions: a certain stability in the levels of results, average growth prospects of 4.1% annually until 2020 , the impact of emerging countries with their keen demand for infrastructure, and a still-significant fragmentation in the sector (given that the 15 majors represent 12% of the European construction market), suggesting that there is scope for consolidation.

How far are these aspects taken into account by the market when valuing construction entities?

In additional to the analyses conducted for *mergers and acquisitions* and *due diligence operations* in this sector, we have talked to financial analysts and studied brokers' reports on the listed values for our sample. The valuation of the concession business, which is based on specific business models, and of other activities (telephony, etc.) that are not connected with the construction industry have not been included in our analyses.

SAMPLE OF 15 MAJOR EUROPEAN CONSTRUCTION COMPANIES



The sample used in this paper consists of 15 European groups, either "pure players" or diversified entities in the construction sector, with turnover in excess of €5 bn. It was used in our previous survey, ***How are major European construction groups performing?*** (see page 7)

THE DIFFERENT VALUATION METHODS USED ACROSS ALL SECTORS

While there are several approached to valuing undertakings, the market predominantly opts for two methods: an analogous approach based on a comparison with listed companies (**market multiples / or comparable transactions**) and an intrinsic approach based on discounted cash flows (**DFC method**).

During negotiations, other analogous or net asset value approaches can be applied where appropriate.

In the case of an **approach using the sum of the parts**, different methods can be used for the various activities of the entity which is being valued, depending on the particular features of each, such as available information and relevance of comparables.

THE MARKET MULTIPLES METHOD consists of applying valuation multiples taken from similar listed companies to the aggregates of the entity being valued. The aggregates of the listed companies selected include projected aggregates derived from the forecasts of market analysts (broker reports). The sample of comparable entities must be sufficiently large for a statistically valid comparison, and at the same time must contain only comparable entities. However, there will always be differences between the chosen companies and the entity to be valued: profitability, growth, etc.

THE DISCOUNTED CASH FLOWS METHOD (DCF) is based on the discounted value of future cash flows generated by the asset being valued. The discounted future cash flows method makes it possible to take account of the medium to long-term prospects of the entity by understanding the level of the entity's risk (flows, market, country, business sector, etc.)

THE COMPARABLE TRANSACTIONS METHOD applies external valuation multiples from recent transactions in a comparable sector to the aggregates of the company to be valued.

THE NET ASSET VALUE METHOD is based on the value of the entity's assets minus the total value of its liabilities. The asset and liability items are remeasured on the basis of their market value.

1: Average return: Average (annual dividends / price at end of period)
2: Xerfi - "Construction Groups – World, Market Analysis – 2015-2020 trends – Corporate Strategies"

BUT ONLY THE MARKET MULTIPLES METHOD IS USED FOR VALUATIONS IN THE CONSTRUCTION INDUSTRY...

Construction activities include building and public works, but also activities in the real estate, energy and services sectors.

We studied a sample of brokers' reports published over the 2016 financial year for our sample of 15 major construction companies. In this sample, only the market multiples valuation method was used for building and public works activities, with on average earnings before interest, tax (EBIT) multiples of 8x, and sometimes earnings before interest, tax, depreciation and amortization (EBITDA) multiples of 5x.

Furthermore, some financial analysts separate out certain lines of business such as roads, real estate, or energy and services generally use a high multiple for these segments, reflecting the greater market appetite for these activities. This is because, usually, a higher multiple reflects better profitability, greater visibility or a cycle that is more favourable to a given sector, etc. However, the sample size for these three activities was not sufficiently representative to enable us to identify average multiples.

This level of multiple is often the basis of negotiations during transactions between unlisted companies.

....WITH MARKET MULTIPLE LEVELS BELOW THOSE IN OTHER SECTORS

The levels of multiples for this activity remain lower than in other sectors, as can been seen from our analysis of the data published by Aswath Damodaran, Professor of Finance at the Stern School of Business in New York. We have compared the valuation ratios for a sample of 1118 companies in the Engineering/Construction sector with the market average for all sectors globally (excluding financial stocks).

For the EBITDA multiple, the difference between the Engineering/Construction sector and the market average for all sectors is -16%. In the European zone alone, the valuation gap is similar, with a difference of -13% for the sample of 170 European Engineering/Construction entities.

For the Price Earnings Ratio (PER), we found a difference between the Engineering/Construction sector and the market average of -20%.

DIFFERENCES BETWEEN THE ENGINEERING/CONSTRUCTION SECTOR AND THE MARKET AVERAGE AT GLOBAL LEVEL

	Market average (2)	Engineering/ Construction sector (1)	Difference
EV/EBITDA multiple EBITDA (3)	10,3	8,7	**-16%**
PER (4)	26,6	21,4	**-20%**

Source: Data at 5 January 2017, Damodoran on Line - Aswath Damodaran, Professor of the Stern School of Business - University of New York

(1) Sector consisting of 1 118 Engineering/Construction sector entities worldwide
(2) Market average excluding financial stocks
(3) Enterprise Value / Earnings Before Interest, Tax, Depreciation and Amortization,
(4) Price-Earnings Ratio, defined by Damodaran as Aggregate Market Cap / Net income

BUILDING & PUBLIC WORKS

VALUATION OF CONSTRUCTION ACTIVITIES

EBITDA market multiple: 5x
EBIT market multiple: 8x

* Average multiples found in analysis reports valuing entities

"The market seems overwhelmingly in favour of the market multiples approach for valuing building and public works groups. The sole use of an analogous approach based on market multiples for valuations in this sector assumes (i) relatively standardised results and (ii) growth forecasts consistent with those of companies in the chosen sample, since medium to long-term prospects are not covered by this approach.

Although the application of a DCF approach would require (i) enough visibility to provide a forecast plan and (ii) an understanding of the level of risk in implementing the business plan, in particular in terms of the discount rate to be applied (WACC), it would nevertheless make it possible to take account of the longer-term prospects and would therefore complement the existing market approach."

HADRIEN POUCH, PARTNER, FINANCIAL ADVISORY SERVICES, MAZARS PARIS

The multiple of 8.7x EBITDA is higher than that found for building and public works in the major European groups (5x) because it concerns all the operations of construction groups worldwide.

WHY IS THE MARKET MULTIPLES METHOD USED IN CONSTRUCTION?

Our conversations with players in the transactions market and analysts suggest that **the use of market multiples as the main valuation method is due to several factors:**

UNCERTAIN GROWTH PROSPECTS

- Growth prospects are regarded as weak despite the presence of studies forecasting growth in the construction sector (see the second part of this study);
- The construction sector in Europe is still fragmented, making it difficult to extrapolate from the market data of any given player;
- Major groups are increasingly exposed to international markets, where growth prospects are very varied and hard to assess for a given player.

UNDERSTANDING FINANCIAL PERFORMANCE IN THE CONSTRUCTION INDUSTRY CAN BE TRICKY

It can sometimes be difficult to analyse published results, in particular establishing the margin because of:

- certain projects where the annual results correspond to a share in the estimated margin on completion;
- the time difference between the completion of works, the recognition of supplementary products (additional works, claims), the occurrence or resolution of risks;
- the inclusion of operations carried out as part of a consortium.

RISKY CONSTRUCTION SITES AND HARD-TO-ESTIMATE RESULTS

- The results of operations can be varied and sometimes erratic. Taking account of the various hazards of building sites can influence the results for construction entities.

All these factors make it difficult for external players to make long-term forecasts.

“Since the early 2000s entities in this sector have made significant changes to their economic model. The construction industry, in the strict sense, has standardised its processes (tendering, execution) and formed concentrations, bolstering margins and making themselves less erratic. But, with a PER rising from 10x in 2007 to 16x in 2016, it is clearly the movement in infrastructure concessions that has allowed significant improvement in valuations.”

CHARLES-EDOUARD BOISSY
FINANCIAL ANALYST
MANAGER, AKRONIS CONSEIL

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Valencia's City of Arts and Sciences, Spain

OUR OBSERVATIONS ON THESE VALUATION FACTORS

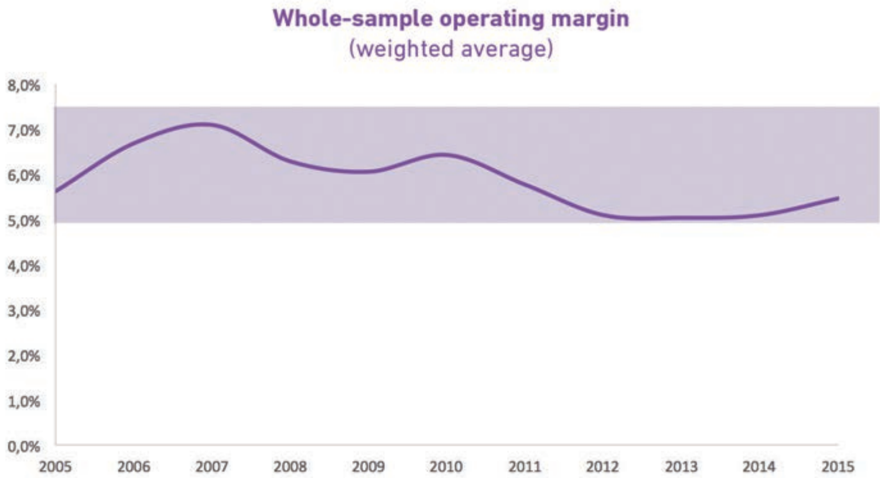
A BACKGROUND OF RELATIVELY STEADY PROFITABILITY DESPITE THE CRISES

SAMPLE

These enterprises have a background of relatively stable and fundamentally solid performance:

- **a degree of control over results** and dividends

10 years of relatively stable operating margins

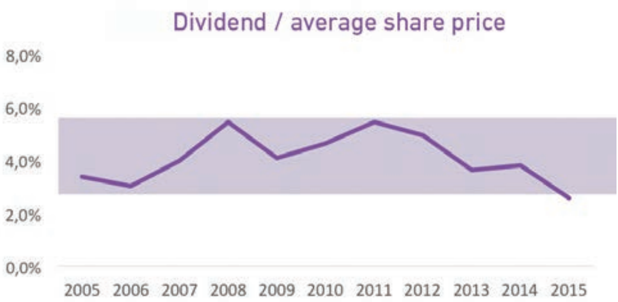


Source: Consolidated operating margin of entities in the sample

SAMPLE

The sample used in this publication consists of the following European groups: Vinci, ACS, Bouygues, Skanska, Eiffage, Strabag, Balfour Beatty, Ferrovial, Royal BAM Group, NCC AB, Acciona, FCC, Bilfinger, Carillion and SPIE.

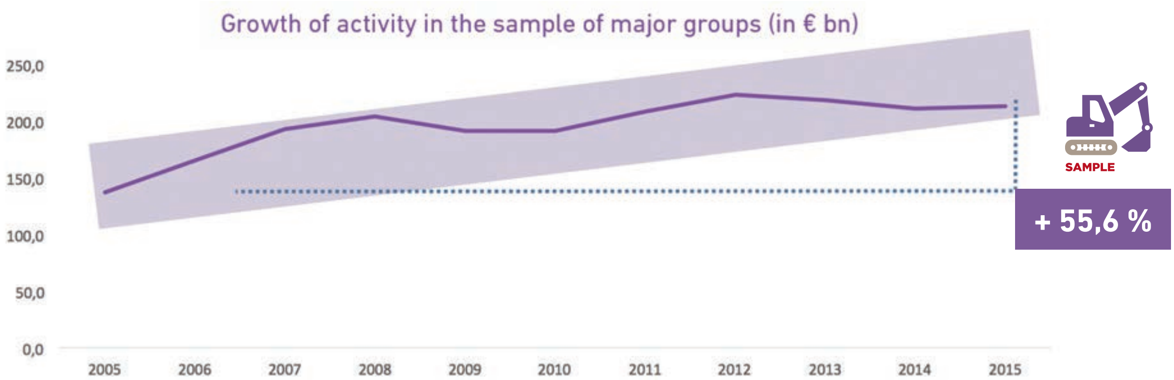
10 years of relatively stable dividend payments, averaging around 4%



Source: Bloomberg

- and **average growth holding up even during periods of economic slowdown.**

10 years of 4.5% average business growth

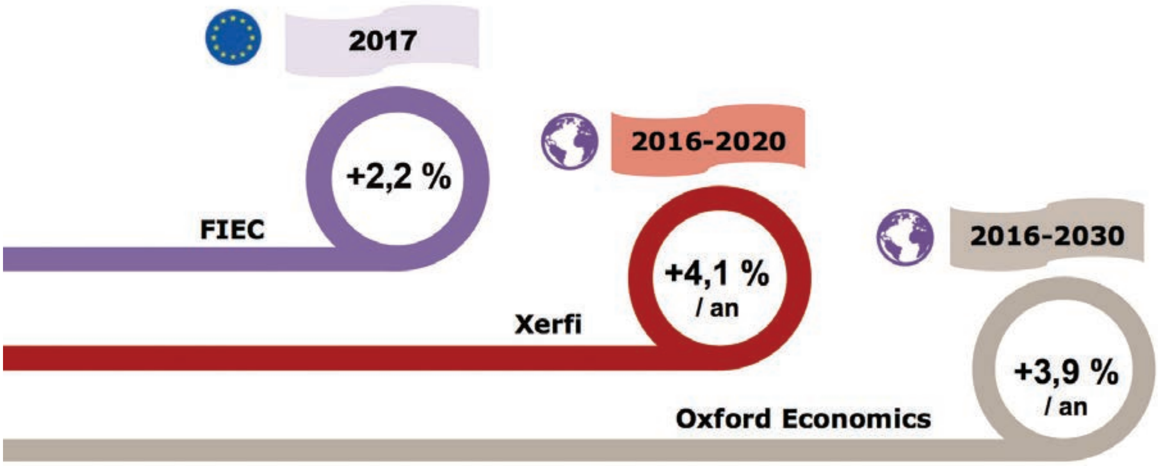


Source: Consolidated revenues of entities in the sample

SIGNIFICANT GROWTH PROSPECTS FOR THE SECTOR

Recent studies forecast significant growth for the construction business in the coming years.

Forecast growth rates for the construction market



Sources: FIEC data – European Construction Industry Federation – Construction activity in Europe, 2016 edition
Xerfi: Construction Groups – World, Market Analysis – 2015-2020 trends – Corporate Strategies
Oxford Economics – Global construction 2030

The growth estimates provided by these studies are fairly consistent with the average growth of activities over the past ten years.

Prospects vary from one geographical zone to another, as the Xerfi data quoted in the sidebar show, with the strongest growth mainly expected outside Europe.

Developing markets continue to be boosted by demographic growth, ongoing urbanisation and increasingly middle-class populations. This growth will be strengthened by economic development: telecommunications and energy networks, new transport networks, like the Chinese initiative "One Belt One Road", also named the "New Silk Road", which proposes to build a logistics corridor from the Pacific to the Baltic Sea, crossing nearly 60 countries.

Conversely, growth in **mature markets** relies mainly on the challenges of green growth and energy transition: new approaches to mobility, roads of the future, smart cities, innovative infrastructure such as eco-neighbourhoods, biomass plants, solar farms, etc., likely with lesser prospects for growth.

“ ***Construction Groups – World", Xerfi study:***

***Qatar** is forecast to have the third fastest growing construction market in the five coming years. It will benefit from the country's hosting of the FIFA 2022 World Cup and continuing diversification within its economy.*

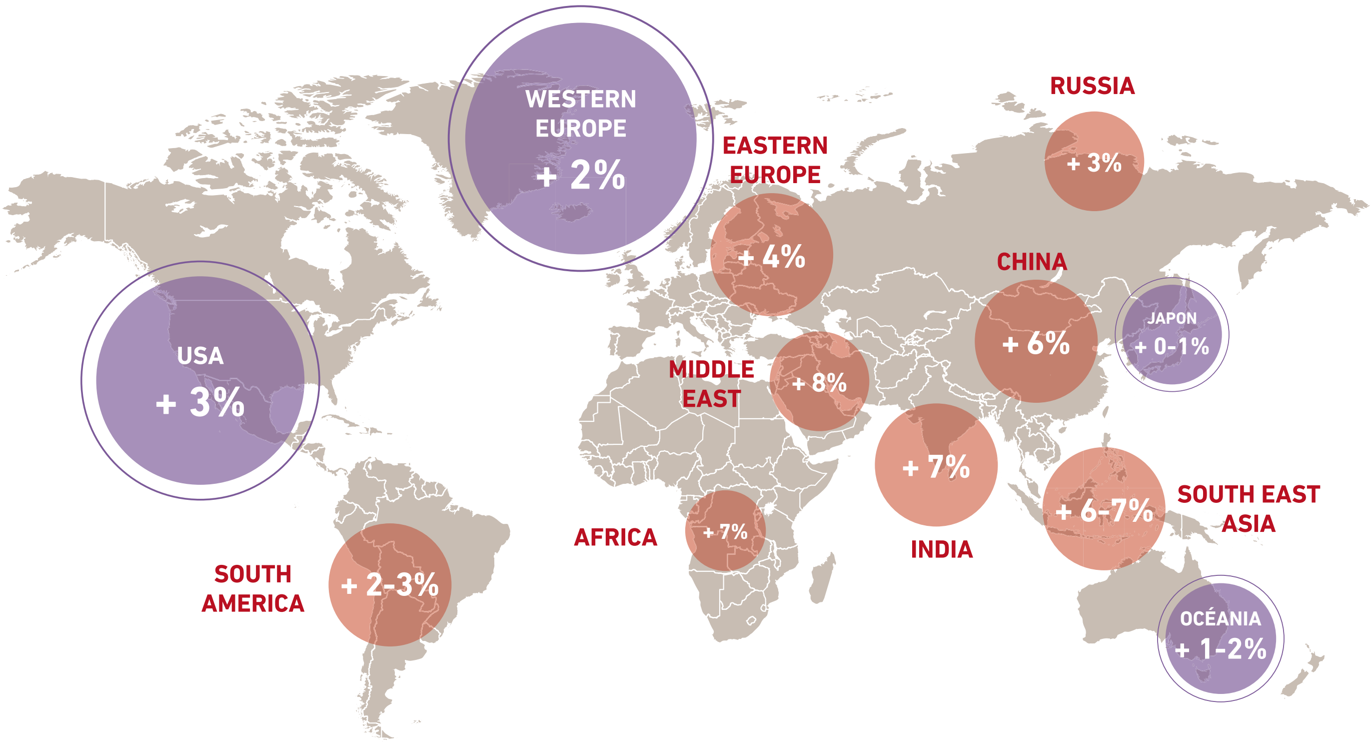
***Sub-Saharan Africa** is rising fast. (…) African nations are also urbanising fast and the urban population of Sub-*

*Saharan Africa is expected to become increasingly middle-class. **Nigeria** has the world' seventh largest population and its GDP is forecast to grow considerably in the coming years.* ”

“ ***EGlobal Construction 2030", Oxford Economics study:** Growth across Western Europe's major construction markets will average only 1.6% [per annum], and will not exceed 2.0% in any one year to 2030. European construction markets will not recover pre-crisis levels of spending until 2025. (…)*

*China will remain the largest construction market in the world (…). China's ambitious Silk Road project will drive unimaginable investment and spending on infrastructure, building a modern-day Silk Road, connecting its new consumer class of over one billion global consumers with over 60 separate economies (…). China's modern-day Silk Road is a **global 'game-changer' for construction.** (…)* ”

Growth forecasts for the construction market, 2015 – 2020 (Average annual growth rates in %)



Source: Xerfi study: Construction Groups – World, Market Analysis – 2015-2020 trends – Corporate Strategies

The "New Silk Road": the Chinese One Belt *One Road initiative*

Inspired by the Silk Road that ran from China to Europe through Central Asia two millennia ago, the OBOR project (One Belt One Road) aims to create an "economic belt" on land, opening up a logistics corridor from the Pacific to the Baltic Sea and linking Asia with Europe.

With mainly Chinese funding, the "New Silk Road" aims to open new markets, reduce transport costs with new infrastructure (railway lines, roads, etc.) and cut customs duties via the signature of trade deals. Above and beyond these objectives, the project hopes to strengthen economic, financial and monetary cooperation more generally between the countries it crosses.

The official framework document Visions and Actions published in 2015 highlights five routes (three land, two maritime) that are currently being studied, foreshadowing the broad lines along which China proposes to organise cooperation with a range of partners. So far, the most recent information reported by the press claims that agreements have been signed with more than forty countries and international organisations.

FINANCIAL REPORTING, A SOURCE OF ADDED VALUE

In general terms, entities provide little or patchy information about the forecasts for the markets to which they are exposed. Some groups give details of their order books, but they do not all provide the same level of information.

Users of financial reporting might hope to find:

- **medium-term forecasts for the different markets/geographical zones** where entities are targeting growth, so as to make their strategies and prospects more transparent in the medium to long term;
- **presentation of the income statement by destination**, making it easier to understand the results. Only five of our sample of 15 major construction groups present the income statement by destination, making it possible to distinguish, for instance, the breakdown of expenses between activity and overheads.

For example, Skanska, which is active in the Nordic construction markets, presents its income statement in a way that it provides a better understanding of the gross margin on the group's construction sites;

SEK M	Note	2016	2015
Revenue	8, 9	145,365	153,049
Cost of sales	9	-131,119	-139,160
Gross income		**14,246**	**13,889**
Selling and administrative expenses	11	-9,152	-8,869
Income from joint ventures and associated companies	20	2,126	1,270
Operating income	10, 12, 13, 22, 36, 38, 40	**7,220**	**6,290**
Financial income		119	127
Financial expenses		-238	-441
Financial items	14	**-119**	**-314**
Income after financial items	15	**7,101**	**5,976**
Taxes	16	-1,366	-1,185
Profit for the year		**5,735**	**4,791**
Profit for the year attributable to			
Equity holders		5,722	4,780
Non-controlling interests		13	11

Source: Skanska 2016 Annual report

"Possible improvements to financial reporting might include providing more information about the prospects for the markets in which entities are active, in particular new international markets; and presenting the income statement by destination and the cash flow statement by activity."

OLIVIER THIREAU
PARTNER,
REAL ESTATE,
MAZARS PARIS

In other sectors, some entities provide more detailed information on the destination of expenses, as in the following example.

By nature	By destination
Revenue	**Revenue**
Purchases and inventory changes	Cost of sales
Staff costs	**Gross margin**
External costs	Research and development costs
Taxes and duties	Advertising and promotional expenses
Depreciation charges	Commercial and administrative expenses
Provisions and reversal of provisions	
Operating result	**Operating result**

Source: L'Oréal presentation – 1st September 2005

- **the presentation of cash flows generated by different business segments,** making it easier to forecast cash flows, as can be seen in this example from the Spanish group Ferrovial.

Cash flow ex-infra projects

	2011	2012	2013	2014	2015
Construction	298	100	304	236	272
Services	164	495	359	302	289
Dividends from tollroads	159	220	242	255	267
Dividends from airports	0	145	219	341	132
Other	-43	-16	-27	-58	-70
Taxes	-67	-30	-48	0	-29
Operating CF (a)	**511**	**914**	**1,048**	**1,076**	**860**

	2011	2012	2013	2014	2015
Total Investment (b)	-328	-320	-754	-581	-374
Total Divestment (c)	1,264	893	564	24	74
Activity CF (a+b+c)	**1,447**	**1,487**	**858**	**519**	**560**
Interest Payment	-114	-33	-11	-32	-35
Other	-81	-51	-132	35	-71
Dividend to Shareholders	-376	-826	-523	-565	-572
Net CF generation	**876**	**577**	**192**	**-43**	**-118**

Source: Ferrovial analysts' presentation – 31 December 2015 reporting date

CONCLUSION

Both major construction groups and local players turning towards new markets (energy, international, etc.) and working on innovative new processes. Yet the valuations that we find both in the listed markets and during transactions (listed and unlisted companies) are often carried out using methods that take no account of medium and long-term prospects that look to the future.

At a time when innovation and the growth of new markets are the focus of attention, consideration could be given to the processes that contribute to valuation in this area and the financial reporting that would better reflect these prospects in order to incorporate them in the valuation.

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Millau Viaduct, Aveyron, France

OTHER VALUATION FACTORS USED DURING TRANSACTIONS

In Europe, the construction sector remains fragmented and is going through a transition phase. It has to face a double challenge: resisting a stagnant market by capturing new markets and reducing structural costs as well as succeeding in the transmission to new generations.

Transactions in the construction sector are impacted, with:

- A background of still-low interest rates;
- Increased confidence among leaders; and
- A weak economic growth in France and Europe, which encourages consolidation operations between players in the sector.

In recent polls, Business leaders agree that their priority is to ensure the future of their company and the continuation of the business – a motivation far outstripping the prospects of medium or long-term financial gains.

The transfer of an enterprise is a critical process, involving non-financial aspects such as the sustainability of the model **and the business, the capacity of management to handle the transition or, again, the timing of the operation.**

Now that a significant proportion of companies in the construction sector have managing directors approaching retirement, the question of the transfer of the company has become critical.

“Anticipation remains the key to a successful operation somewhere between one and three years ahead of the transaction, by defining the enterprise model, its organisation, its human and material resources, etc., and by preparing for the transfer of management and customer relations.”

BENJAMIN BOUCHER
SENIOR MANAGER,
CORPORATE FINANCE.
MAZARS LYON

SOME OTHER FACTORS CAN BE USED DURING THESE TRANSACTIONS, SUCH AS:

The order book and the quality of customers, which can be used to forecast the entity's activity in the medium-term.

The know-how, human capital and management stability are key assets in the event of disposal, particularly where the managing director or main executives have contracts that will see them remaining in place after the entity is sold.

The reputation, image and accreditations acquired over the course of time provide the purchaser with a degree of security.

Opportunities for future investments, and the quality of the investments generally.

The motive and timing of the transfer, particularly if the transaction takes place as part of a well-planned succession, or if the entity is sold in an unstable financial state.

Risk management via a policy of insurance or contracts confirming the involvement of key personnel with particular know-how.

Opportunities for synergies via cost reductions (economies of scale, shared resources, horizontal or vertical integration) and commercial complementarity are taken into account in the price fixed during the transaction.

“One of the main issues for businesses in the sector relates to the entity's ability to reproduce its performance levels, especially in the context of a transaction in which the manager intends to step down.

To support the valuation process and secure the transfer operation, we help sellers to draw up a strategic plan around a management team and to find a counterparty that believes in the potential and is capable of building on what is there, while we help purchasers to obtain a sound understanding of the targets through an analysis of the issues, risks and future prospects”

FRÉDÉRIC CLAIRET
PARTNER, CORPORATE FINANCE
MAZARS LYON

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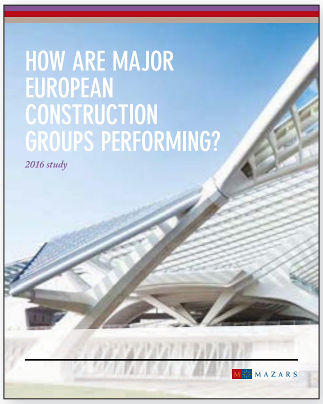
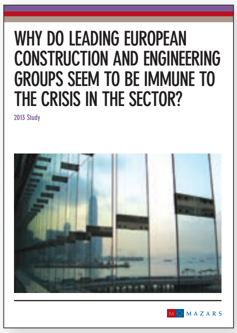
Mazars has been supporting players in the Construction and Engineering sector for many years, offering audit, advisory, accounting and tax services. To meet your needs and expectations, Mazars has established a centre of excellence bringing together multi-disciplinary experts with extensive knowledge of your issues and economic environment, whether in France or internationally.

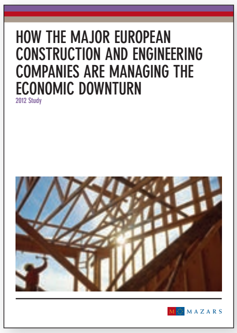
The heavy involvement of our specialists among players in the sector means that we can constantly update our skills and knowledge of the governance, the tools used and the financial packages regularly offered to building and public works entities.

OUR PUBLICATIONS

> CONSTRUCTION STUDIES







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