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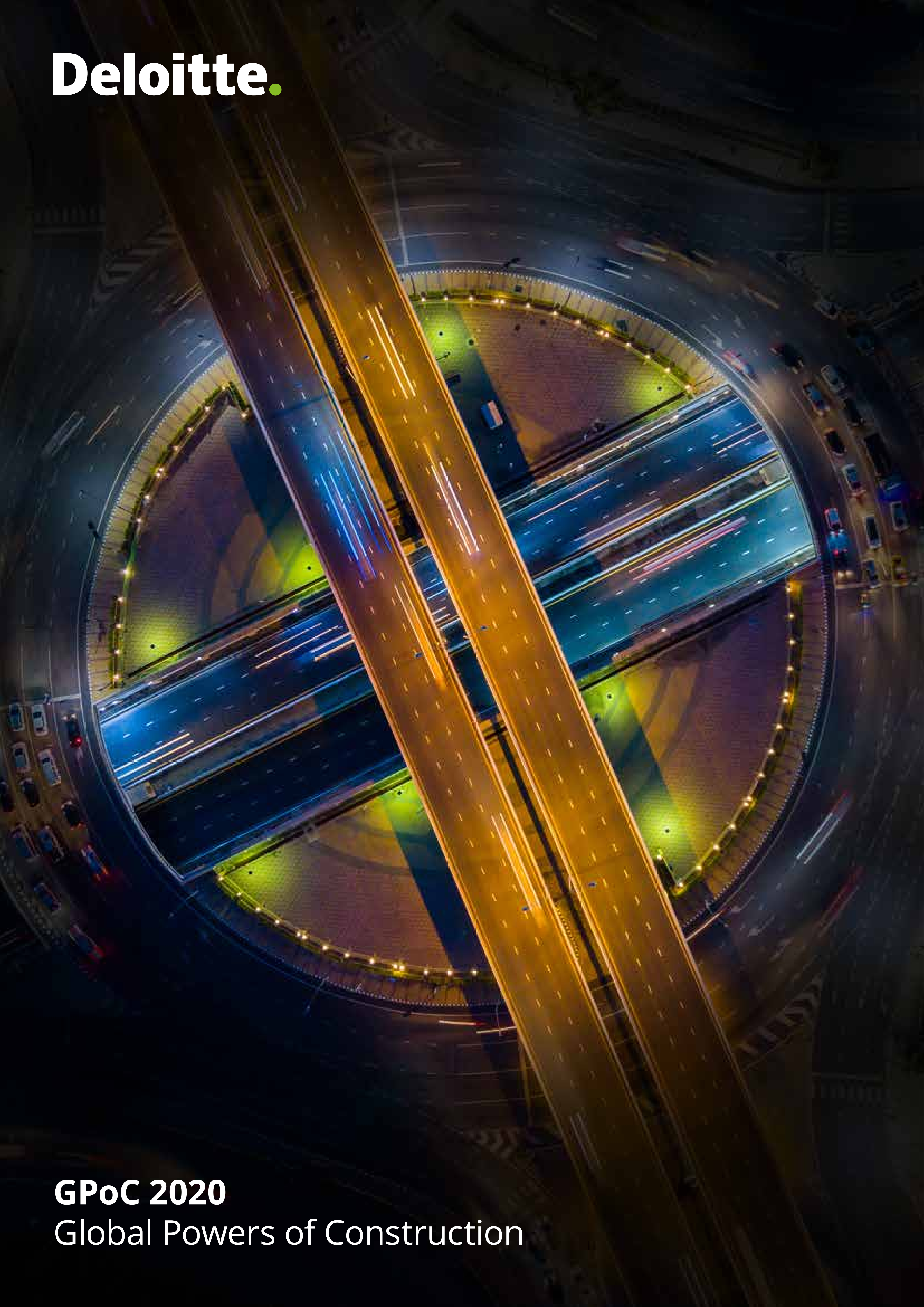

GPoC 2020
Global Powers of Construction

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Introduction

Global Powers of Construction reviews the outlook for the construction industry worldwide and analyzes the strategies and performance of the most representative listed global construction groups in 2020.

We are pleased to present the fourth edition of Global Powers of Construction, a publication in which we identify, list and outline the world's major listed construction groups and provide insights in terms of macroeconomic expectations and trends within the industry. The data included in this edition of GPoC is the product of a comprehensive review of various external sources, which mainly include annual company reports, Euroconstruct, the European Commission, the International Monetary Fund, the World Bank, Forbes and ENR reports. The analysis also takes into consideration comments and suggestions from Deloitte professionals in different countries.

As in previous editions, this publication includes an analysis of the current macroeconomic outlook and expectations for the coming years in the global construction industry. Our current-year analysis is subject to greater uncertainty, given the impact of the COVID-19 pandemic on the industry and the expected shift in investment priorities worldwide. Until 2019 the construction market grew at a moderate pace, but 2019 had already registered a slight deceleration which was exacerbated by the outbreak of the COVID-19 pandemic. Nevertheless, the fact remains that global need for infrastructure over the next 30 years is still huge, although the merciless impact of the pandemic will certainly call for spending reviews. On a positive note, construction has a great potential impact on economic recovery, since the industry is traditionally labor-intensive.

This edition also analyses the main financial indicators of the major players within the industry. Performance in terms of revenue, market capitalization, international presence, diversification, profitability, indebtedness and other financial ratios are examined throughout this publication. In 2020 the aggregate sales of the Top 100 GPoC rose by 3.7% , while market capitalization decreased by 6.9% (see Figure 1.1). However, the market value of our Top 30 GPoC in terms of market capitalization has recovered by almost 17.1% in comparison with 31 March 2020, although this figure varies significantly among different regional players (see Figure 2.2).

These figures summarize the pandemic's impact on the industry, which was relatively minor in 2020 since the essential nature of the construction industry meant that it was disrupted less than other industries in the economy. However, the pandemic has affected the growth outlook for the coming years, as the higher indebtedness caused by the increase in public spending required to mitigate the COVID-19 crisis may jeopardize the sustainability of public finances in certain countries and, consequently, infrastructure investment possibilities.

This year's edition provides a simplified analysis of internationalization and diversification strategies, which were covered in previous issues of our publication, since the global impact of the COVID-19 pandemic has generally put most of the defined group strategies on hold.

We do, however, include a section in which we analyze a number of industry trends that have been shaping construction over the past few years or are expected to have a great impact in the near future, taking into account the new post-pandemic priorities. In general, the industry has some way to go in terms of digitalization and sustainability, which appear to be winning trends in the years ahead.

We hope that you find our GPoC 2020 analysis of the global construction industry of interest and that the information detailed herein helps you to understand and assess the related challenges and opportunities for the coming years. As always, we welcome any thoughts and suggestions you may have about any of the topics covered.

Ranking of listed global construction companies

The total revenue obtained by the GPoC in 2020 (see Figure 1.2) amounted to USD 1.5 trillion, 3.7% higher than in 2019. By geographical area, the largest companies in terms of revenue are based in China, Europe (particularly France and Spain), Japan, the United States and South Korea; these companies account for 48%, 22%, 13%, 8% and 5% of total sales, respectively (see Figure 1.3). Among the Top 100 GPoC, slightly less than half of the companies recorded an increase in sales (as reported in US dollars) and 18 achieved double-digit increases. On the contrary, 25 companies reported revenue contractions of more than 10%.

As regards the stock market performance of the GPoC, total value decreased from USD 594,623 million to USD 553,356 million (-6.9%). The significant market cap growth observed in the United States and South Korea (16% and 22%, respectively) was not enough to offset the double-digit downturn experienced by Chinese and Japanese groups (see Figure 1.1) and the 6.2% decrease experienced by European groups.

As in previous years, China State Construction Engineering, which reported almost USD 234,000 million in revenue in 2020, leads the ranking. The podium, which is completed by the Chinese companies China Railway Group and China Railway Construction, accounts for approximately 34% of the total revenue of our GPoC (see Figure 1.2).

By number of companies, Europe has the largest presence in the industry, with 41 groups included in the Top 100 ranking. Aggregate sales of European GPoC decreased by 7% with respect to the previous year, amounting to USD 325,304 million, with market capitalization decreasing along the same lines, by 6%. In terms of revenue, VINCI, ACS and Bouygues, which are ranked in 6th, 8th and 9th position, respectively, represent the largest European construction companies (see Figure 1.2). It is worth noting that the French company VINCI, which reported about one fifth of the sales obtained by the Chinese Top GPoC, leads the market capitalization ranking of the Top 100 GPoC companies (Figure 2.1).

Japan took second place in the ranking by number of companies (15). Aggregate sales of Japanese GPoC increased by 4.7% to USD 199,506 million (see Figure 1.1). The largest Japanese companies, Daiwa House Industry and Sekisui House, placed in 7th and 13th position, respectively, focus mainly on homebuilding.

With 14 companies included in the Top 100 ranking, the United States has an extensive presence within the industry (see Figure 1.1). Total revenue of US GPoC decreased slightly (1.7%), while market cap jumped by 16%. The largest US companies, Lennar and D.R. Horton, are ranked in 12th and 15th position, respectively, with sales of over USD 20,000 million (see Figure 1.2).

The South Korean presence in the ranking is headed by Samsung C&T, Doosan and Hyundai E&C, all of which are among the Top 30 companies in terms of revenue. Revenue in 2020 slightly decreased for these three South Korean companies, but while aggregate sales of the South Korean GPoC as a whole decreased by 3%, market capitalization increased by an impressive 21.7%.

The remaining members of the ranking are medium-sized companies located in areas such as India, Australia, Canada, the United Arab Emirates, Turkey and Mexico. Aggregate sales represented approximately 4% of the total revenue of the GPoC. Among these companies, only the Indian company Larsen & Toubro reported sales exceeding USD 10,000 million.

Figure 1.1: Top 100 Global Construction Companies by Country

Country	Number of Companies	Sales 2020 (USD Million)	% Change Sales 2020-2019	% Change in LC 2020-2019	MC 2020 (USD Million)	% Change MC 2020-2019	% Change in LC 2020-2019
AUSTRALIA	1	8,577	(27.5%)	(19.6%)	5,830	14.2%	15.4%
AUSTRIA	2	22,511	(2.1%)	(8.7%)	4,685	15.2%	8.0%
BELGIUM	1	3,680	(9.3%)	(11.1%)	2,587	(6.5%)	(14.1%)
BRAZIL	1	1,307	(14.9%)	11.4%	1,758	(26.1%)	(4.5%)
CANADA	2	7,949	(18.7%)	(17.9%)	3,759	(22.8%)	(24.1%)
CHINA	11	721,959	12.5%	13.5%	82,684	(19.7%)	(23.8%)
DENMARK	1	1,995	(1.8%)	(1.2%)	788	28.9%	19.6%
FINLAND	1	3,505	(7.7%)	(9.5%)	1,261	(9.8%)	(17.1%)
FRANCE	3	107,651	(8.1%)	(9.5%)	83,777	(11.5%)	(18.9%)
GERMANY	1	1,175	(28.6%)	(35.1%)	291	0.0%	0.0%
GREECE	3	4,791	(8.7%)	(15.0%)	3,320	16.2%	9.2%
INDIA	1	21,255	5.3%	6.9%	15,059	(46.3%)	(41.6%)
ISRAEL	1	2,400	18.3%	48.5%	2,063	27.5%	18.6%
ITALY	1	5,736	(3.9%)	(5.8%)	1,608	0.0%	0.0%
JAPAN	15	199,506	4.7%	2.7%	75,995	(17.5%)	(21.8%)
MEXICO	1	4,394	(17.5%)	(7.6%)	7,546	12.5%	18.8%
NETHERLANDS	3	17,136	(0.9%)	(2.9%)	2,792	(6.2%)	(8.5%)
NORWAY	1	4,052	(2.5%)	4.3%	1,742	(5.2%)	(7.3%)
PORTUGAL	1	2,775	(13.0%)	(14.7%)	396	(20.6%)	(27.0%)
SOUTH KOREA	7	80,795	(2.9%)	(2.1%)	33,071	21.7%	15.5%
SPAIN	7	71,098	(4.7%)	(8.4%)	44,033	(7.1%)	(14.7%)
SWEDEN	4	32,919	3.6%	(4.4%)	18,160	12.8%	(0.9%)
SWITZERLAND	1	4,248	(4.7%)	(10.0%)	750	0.0%	0.0%
TAIWAN	1	1,886	0.1%	(4.6%)	1,036	6.7%	0.3%
THAILAND	1	1,729	(13.7%)	(13.3%)	195	(26.1%)	(25.5%)
TURKEY	2	3,330	(25.4%)	(18.8%)	6,381	(3.3%)	20.8%
U.A.E.	1	3,371	5.9%	5.9%	608	(16.0%)	(15.3%)
UK	11	42,031	(17.7%)	(17.1%)	42,639	(3.0%)	(4.4%)
USA	14	127,228	(1.7%)	(2.1%)	108,541	16.2%	16.2%
Grand Total	**100**	**1,510,990**	**3.7%**	**0.1%**	**553,356**	**(6.9%)**	**(28.4%)**

Source: Global Powers of Construction (GPoC) 2020. (July 2021).
Bloomberg and company financials.

Top 100 GPoC – ranking by sales

Figure 1.2: Top 100 Global Construction Companies by Sales

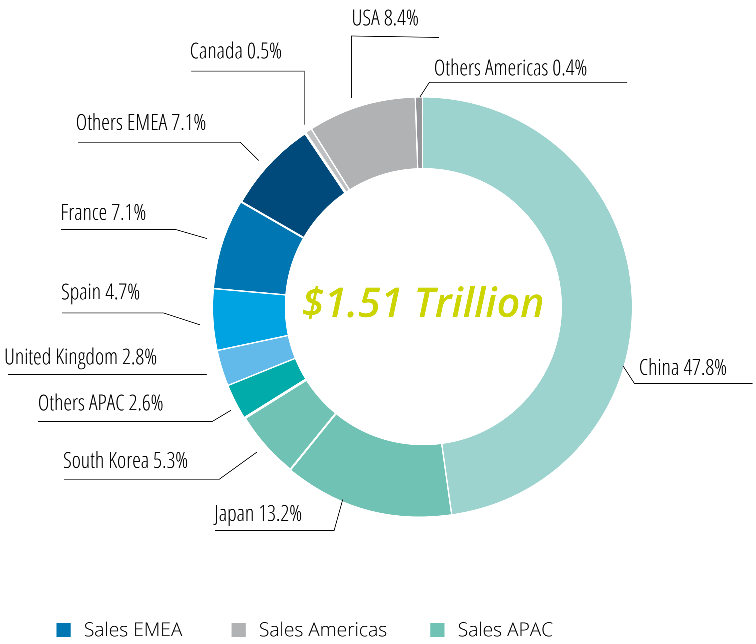
Rank 2020	Company	Country	Sales 2020 (MN $)	% change 2020-2019	% change in local currency 2020-2019[a)]	2020 market capitalization (USD million)	% change 2020-2019	% change in local currency 2020-2019
1	CHINA STATE CONSTRUCTION ENGINEERING CORP. LTD. (CSCEC)	CHINA	233,919	13.8%	13.7%	30,975	(6.7%)	(12.6%)
2	CHINA RAILWAY GROUP LTD. CREC)	CHINA	141,180	14.6%	14.6%	10,838	(28.6%)	(33.0%)
3	CHINA RAILWAY CONSTRUCTION CORP. LTD. (CRCC)	CHINA	131,851	9.7%	9.6%	7,426	(50.1%)	(53.2%)
4	CHINA COMMUNICATIONS CONSTRUCTION GROUP LTD. (CCCC)	CHINA	90,452	13.1%	13.0%	6,984	(47.0%)	(50.4%)
5	METALLURGICAL CORPORATION OF CHINA LTD (MCC)	CHINA	57,952	18.2%	18.2%	3,662	(21.4%)	(26.3%)
6	VINCI	FRANCE	49,382	(8.2%)	(10.0%)	58,756	(12.7%)	(20.1%)
7	DAIWA HOUSE INDUSTRY CO.	JAPAN	40,288	7.8%	5.7%	16,496	(21.8%)	(23.9%)
8	ACTIVIDADES DE CONSTRUCCION Y SERVICIOS, S.A. (ACS)	SPAIN	39,905	(8.7%)	(13.4%)	9,461	(22.1%)	(28.4%)
9	BOUYGUES	FRANCE	39,627	(6.7%)	(8.5%)	15,663	(3.0%)	(10.9%)
10	SHANGHAI CONSTRUCTION GROUP (SCG)	CHINA	33,505	12.6%	35.6%	4,072	(9.9%)	(16.0%)
11	SAMSUNG C&T CORP.	SOUTH KOREA	25,595	(3.0%)	(1.8%)	20,718	34.9%	27.2%
12	LENNAR CORP.	USA	22,489	1.0%	1.0%	23,721	25.9%	25.9%
13	SEKISUI HOUSE	JAPAN	22,149	13.0%	11.8%	13,131	27.7%	15.6%
14	LARSEN & TOUBRO LTD. (L&T)	INDIA	21,255	5.3%	6.9%	15,059	(46.3%)	(41.6%)
15	DR HORTON	USA	20,311	15.4%	13.1%	27,529	41.8%	41.8%
16	OBAYASHI CORP.	JAPAN	19,067	3.7%	1.6%	6,166	(14.6%)	(16.9%)
17	EIFFAGE, S.A.	FRANCE	18,642	(10.9%)	(10.0%)	9,358	(16.6%)	(23.4%)
18	KAJIMA CORP.	JAPAN	18,494	3.9%	1.8%	5,274	(31.1%)	(33.0%)
19	SKANSKA AB	SWEDEN	18,232	(0.2%)	(7.2%)	10,521	12.9%	(0.8%)
20	STRABAG	AUSTRIA	16,847	(4.0%)	(11.2%)	4,188	17.3%	9.1%
21	TAISEI CORP.	JAPAN	16,108	8.2%	6.1%	6,480	(36.0%)	(37.7%)
22	FLUOR CORP.	USA	15,668	(9.5%)	(9.5%)	2,247	(15.1%)	(15.1%)
23	SHIMIZU CORP.	JAPAN	15,620	4.0%	2.0%	5,981	(12.2%)	(14.6%)
24	DOOSAN	SOUTH KOREA	15,282	(3.9%)	(2.7%)	651	(20.9%)	(25.5%)
25	CHINA FORTUNE LAND DEVELOPMENT (CFLD)	CHINA	14,659	(3.7%)	(3.8%)	12,151	(1.0%)	(1.9%)
26	DAITO TRUST CONSTRUCTION	JAPAN	14,590	1.7%	(0.3%)	6,391	(36.7%)	(38.4%)
27	HYUNDAI ENGINEERING & CONSTRUCTION CO. LTD. (HDEC)	SOUTH KOREA	14,375	(3.0%)	(1.9%)	3,830	(6.1%)	(11.5%)
28	JACOBS ENGINEERING	USA	13,567	6.5%	6.5%	12,227	1.5%	1.5%
29	AECOM	USA	13,240	(34.4%)	(34.4%)	6,571	11.1%	11.1%
30	IIDA GROUP HOLDINGS	JAPAN	12,895	6.3%	4.2%	4,005	(23.3%)	(25.3%)
31	PULTEGROUP	USA	11,036	8.1%	8.1%	11,490	9.6%	9.6%
32	BALFOUR BEATTY	UK	11,016	2.6%	2.2%	2,545	6.4%	3.4%
33	SUMITOMO FORESTRY	JAPAN	10,155	(14.0%)	(15.6%)	2,331	(7.4%)	(9.9%)
34	DAELIM INDUSTRIAL CO. LTD.	SOUTH KOREA	8,699	4.5%	6.0%	2,653	(2.7%)	(2.5%)
35	LENDLEASE	AUSTRALIA	8,577	(27.5%)	(19.6%)	5,830	14.2%	15.4%
36	GS ENGINEERING & CONSTRUCTION	SOUTH KOREA	8,575	(4.0%)	(43.0%)	2,778	30.1%	22.7%
37	HASEKO	JAPAN	7,781	(3.2%)	(5.0%)	3,144	(15.9%)	(18.1%)
38	ROYAL BAM GROUP NV	NETHERLANDS	7,777	(3.6%)	(5.5%)	570	(30.9%)	(36.5%)
39	ACCIONA	SPAIN	7,392	(8.2%)	(10.0%)	7,826	35.4%	24.4%
40	VOLKERWESSELS	NETHERLANDS	7,365	(0.9%)	(2.9%)	1,972	0.0%	0.0%
41	NVR	USA	7,329	1.5%	1.5%	15,077	9.0%	9.0%
42	FERROVIAL	SPAIN	7,243	6.9%	4.7%	20,249	(9.1%)	(16.5%)
43	FOMENTO DE CONSTRUCCIONES Y CONTRATAS, S.A.	SPAIN	7,031	0.1%	(1.9%)	4,401	(8.5%)	(16.0%)
44	TOLL BROTHERS	USA	6,937	(2.0%)	(2.0%)	5,350	(4.6%)	(4.6%)
45	DAEWOO ENGINEERING & CONSTRUCTION CO.	SOUTH KOREA	6,832	(7.9%)	(6.0%)	1,881	11.6%	5.2%
46	PEAB AB	SWEDEN	6,806	19.2%	6.3%	3,218	8.8%	(4.4%)
47	SICHUAN ROAD AND BRIDGE (GROUP) CO. LTD.	CHINA	6,761	(11.4%)	0.0%	3,301	89.5%	77.6%
48	NCC AB	SWEDEN	6,131	(0.4%)	(7.4%)	1,961	11.5%	(2.0%)
49	HEBEI CONSTRUCTION GROUP CO. LTD.	CHINA	5,801	(2.4%)	(3.6%)	961	(12.2%)	(2.2%)
50	SALINI IMPREGILO SPA	ITALY	5,736	(3.9%)	(5.8%)	1,608	0.0%	0.0%
51	PORR AG	AUSTRIA	5,664	3.7%	0.0%	497	0.0%	0.0%
52	TUTOR PERINI CORP.	USA	5,319	19.5%	19.5%	658	1.7%	1.8%
53	PENTA-OCEAN CONSTRUCTION CO. LTD.	JAPAN	5,278	8.0%	5.9%	1,507	14.0%	10.9%
54	SNC-LAVALIN INC.	CANADA	5,229	(27.1%)	(26.4%)	2,988	(26.2%)	(27.4%)
55	SACYR, S.A.	SPAIN	5,195	11.3%	9.1%	1,493	(12.1%)	(19.3%)
56	TODA CORP.	JAPAN	4,771	3.6%	1.6%	1,790	(4.9%)	(7.5%)

Rank 2020	Company	Country	Sales 2020 (MN $)	% change 2020-2019	% change in local currency 2020-2019[a)]	2020 market capitalization (USD million)	% change 2020-2019	% change in local currency 2020-2019
57	MAEDA CORP.	JAPAN	4,487	1.1%	(0.9%)	1,366	(18.5%)	(90.7%)
58	GRUPO CARSO	MEXICO	4,394	(17.5%)	(7.6%)	7,546	12.5%	18.8%
59	KIER GROUP PLC	UK	4,379	(24.5%)	(22.4%)	196	(10.5%)	(8.2%)
60	SUMITOMO MITSUI CONSTRUCTION CO. LTD.	JAPAN	4,345	7.4%	5.3%	699	(37.4%)	(39.1%)
61	BARRATT DEVELOPMENTS PLC	UK	4,308	(30.1%)	(28.2%)	6,251	(15.4%)	(13.3%)
62	PERSIMMON PLC	UK	4,270	(8.4%)	(8.8%)	12,048	5.8%	2.8%
63	IMPLENIA AG	SWITZERLAND	4,248	(4.7%)	(10.0%)	750	0.0%	0.0%
64	VEIDEKKE ASA	NORWAY	4,052	(2.5%)	4.3%	1,742	(5.2%)	(7.3%)
65	MORGAN SINDALL PLC	UK	3,892	(0.7%)	(1.2%)	969	(0.8%)	(3.6%)
66	CFE	BELGIUM	3,680	(9.3%)	(11.1%)	2,587	(6.5%)	(14.1%)
67	TAYLOR WIMPEY PLC	UK	3,579	(35.4%)	(35.7%)	8,251	(2.0%)	(4.8%)
68	GRANITE CONSTRUCTION INC.	USA	3,560	7.3%	3.3%	1,220	(35.4%)	(35.4%)
69	YIT OYJ	FINLAND	3,505	(7.7%)	(9.5%)	1,261	(9.8%)	(17.1%)
70	PRIMORIS SERVICES CORP.	USA	3,491	12.4%	12.4%	1,328	22.8%	22.7%
71	HAZAMA ANDO CORP.	JAPAN	3,478	7.1%	5.0%	1,234	(7.6%)	(10.1%)
72	ORASCOM CONSTRUCTION LTD.	U.A.E.	3,371	5.9%	5.9%	608	(16.0%)	(16.0%)
73	SINOMA INTERNATIONAL ENGINEERING CO. LTD.	CHINA	3,247	(8.0%)	(8.0%)	1,832	5.3%	(1.3%)
74	OBRASCON HUARTE LAIN, S.A.	SPAIN	3,234	(2.4%)	(4.4%)	216	(36.6%)	(41.8%)
75	BELLWAY PLC	UK	2,809	(32.1%)	(30.7%)	4,114	(7.9%)	(14.2%)
76	MOTA ENGIL SGPS	PORTUGAL	2,775	(13.0%)	(14.7%)	396	(20.6%)	(27.0%)
77	AECON GROUP INC.	CANADA	2,719	4.3%	5.3%	772	(5.9%)	(7.4%)
78	KELLER GROUP PLC	UK	2,646	(9.9%)	(10.3%)	688	(4.0%)	(6.8%)
79	FULLSHARE HOLDING LIMITED	CHINA	2,632	62.9%	62.8%	483	6.1%	18.1%
80	BERKELEY GROUPS HOLDINGS	UK	2,464	(36.2%)	(35.1%)	7,192	4.7%	8.6%
81	ELECTRA LTD.	ISRAEL	2,400	18.3%	48.5%	2,063	27.5%	18.6%
82	MYTILINEOS HOLDINGS	GREECE	2,169	(14.1%)	(15.8%)	1,989	26.8%	16.5%
83	PER AARSLEFF HOLDING	DENMARK	1,995	(1.8%)	(1.2%)	788	28.9%	19.6%
84	HEIJMANS NV	NETHERLANDS	1,994	11.3%	9.1%	250	39.0%	27.4%
85	CTCI CORP.	TAIWAN	1,886	0.1%	(4.6%)	1,036	6.7%	0.3%
86	INFRASTRUCTURE & ENERGY ALTERNATIVES INC.,	USA	1,753	20.1%	20.1%	348	427.4%	429.0%
87	JM AB	SWEDEN	1,750	6.0%	(1.4%)	2,461	19.2%	4.8%
88	ITALIAN-THAI DEVELOPMENT PUBLIC CO. LTD.	THAILAND	1,729	(13.7%)	(13.3%)	195	(26.1%)	(25.5%)
89	TEKFEN HOLDING AS	TURKEY	1,672	(35.0%)	(19.7%)	826	(31.2%)	(14.1%)
90	ENKA INSAAT VE SANAYI AS	TURKEY	1,659	(12.4%)	(12.4%)	5,555	3.0%	28.6%
91	GEK TERNA	GREECE	1,603	23.8%	0.0%	879	0.0%	0.0%
92	HANJIN HEAVY INDUSTRIES & CONSTRUCTION CO. LTD.	SOUTH KOREA	1,436	2.8%	4.1%	560	55.9%	46.8%
93	STERLING CONSTRUCTION CO. INC.	USA	1,427	26.7%	26.7%	520	33.3%	33.3%
94	GALLIFORD TRY PLC	UK	1,413	(22.0%)	(19.9%)	163	(81.7%)	(81.2%)
95	MRV ENGENHARIA	BRAZIL	1,307	(14.9%)	11.4%	1,758	(26.1%)	(4.5%)
96	COSTAIN GROUP PLC	UK	1,255	(15.0%)	(15.3%)	222	(3.0%)	(5.7%)
97	BAUER AG	GERMANY	1,175	(28.6%)	(35.1%)	291	0.0%	0.0%
98	MATRIX SERVICE CO.	USA	1,101	(22.3%)	(22.3%)	254	(53.2%)	(53.2%)
99	GRUPO EMPRESARIAL SAN JOSE SA	SPAIN	1,099	2.4%	0.4%	387	9.5%	(10.2%)
100	ELLAKTOR SA	GREECE	1,019	(28.5%)	(29.9%)	452	10.5%	1.3%
	TOTAL		**1,510,990**	**3.7%**	**0.1%**	**553,356**	**(6.9%)**	**(28.4%)**

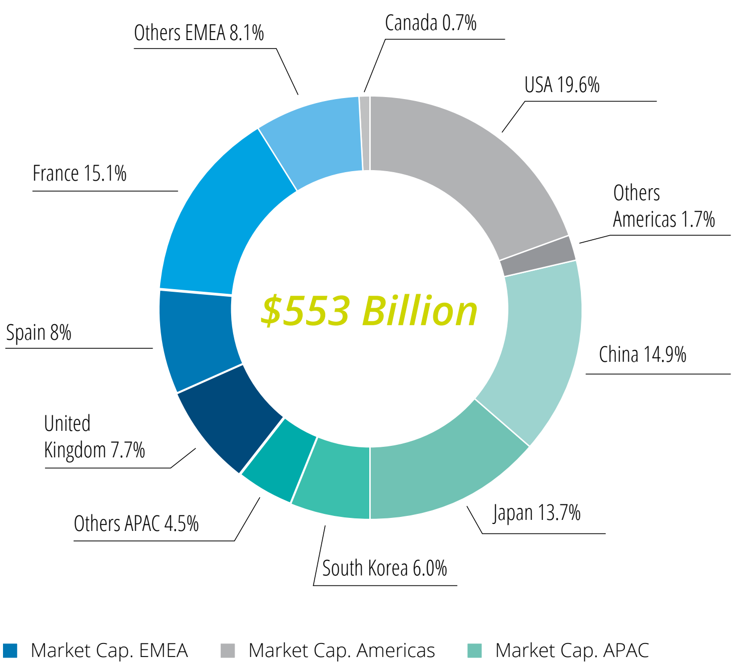
Source: Global Powers of Construction (GPoC) 2020. (July 2021).
Bloomberg and company financials.
a) % variation is calculated over total sales included in 2019's financial statements, without considering any subsequent restatement.
To understand how the Top 100 GPoC ranking by sales was drawn up, please refer to the methodology note on page 38.

Figure 1.3: Top 100 Global Construction Company Sales and Market Capitalization

Sales



Market capitalization



Top 30 GPoC – ranking by market capitalization

In 2020 our GPoC reported an overall 6.9% decrease in their market capitalization value as a result of the uncertainty caused by the COVID-19 pandemic. Stock market performance varied by area, with significant growth observed in the United States and South Korea, although this was not enough to offset the double-digit downturn experienced by Chinese and Japanese groups and the 6.2% decrease recorded by European groups. Nevertheless, in comparison with the market capitalization figures achieved at 31 March 2020 when lockdown had been imposed in numerous countries, market prices have generally recovered, with the notable exception of the main Chinese groups.

The aggregate market capitalization of the companies in our Top 30 ranking decreased by 7% in 2020 to USD 422,552 million (see Figure 2.1). In terms of geographical distribution, the United States is the country with most companies on the list (six), while both Japan and China are represented by five companies. It should also be noted that eleven European groups are included in this ranking. Change in market value significantly varies by geographical area, with all the US groups included in the Top 30 ranking increasing their market capitalization, while all Chinese groups show a decline in market value, in line with all Japanese groups, with the exception of Sekisui House.

Given that the stock market performance of our GPoC was so uneven in 2020, it is necessary to perform a more in-depth analysis by geographical area, which is included below:

Asian companies

The Chinese and Japanese companies in our Top 30 experienced significant

Figure 2.1: Top 30 Global Construction Companies by Market Capitalization

Rank	Company	Country	2020 market capitalization (USD million)	2019 market capitalization (USD million)	% change	% change in local currency
1	VINCI	FRANCE	58,756	67,271	(13%)	(20%)
2	CHINA STATE CONSTRUCTION ENGINEERING CORP. LTD. (CSCEC)	CHINA	30,975	33,213	(7%)	(13%)
3	DR HORTON	USA	27,529	19,420	42%	42%
4	LENNAR CORP.	USA	23,721	18,843	26%	26%
5	SAMSUNG C&T CORP.	SOUTH KOREA	20,718	15,356	35%	27%
6	FERROVIAL	SPAIN	20,249	22,266	(9%)	(16%)
7	DAIWA HOUSE INDUSTRY CO.	JAPAN	16,496	21,088	(22%)	(24%)
8	BOUYGUES	FRANCE	15,663	16,156	(3%)	(11%)
9	NVR	USA	15,077	13,835	9%	9%
10	LARSEN & TOUBRO LTD. (L&T)	INDIA	15,059	28,031	(46%)	(42%)
11	SEKISUI HOUSE	JAPAN	13,131	10,282	28%	16%
12	JACOBS ENGINEERING	USA	12,227	12,051	1%	1%
13	CHINA FORTUNE LAND DEVELOPMENT (CFLD)	CHINA	12,151	12,279	(1%)	(2%)
14	PERSIMMON PLC	UK	12,048	11,391	6%	3%
15	PULTEGROUP	USA	11,490	10,485	10%	10%
16	CHINA RAILWAY GROUP LTD. (CREC)	CHINA	10,838	15,173	(29%)	(33%)
17	SKANSKA AB	SWEDEN	10,521	9,317	13%	(1%)
18	ACTIVIDADES DE CONSTRUCCION Y SERVICIOS, S.A. (ACS)	SPAIN	9,461	12,141	(22%)	(28%)
19	EIFFAGE, S.A.	FRANCE	9,358	11,225	(17%)	(23%)
20	TAYLOR WIMPEY PLC	UK	8,251	8,421	(2%)	(5%)
21	ACCIONA	SPAIN	7,826	5,778	35%	24%
22	GRUPO CARSO	MEXICO	7,546	6,710	12%	19%
23	CHINA RAILWAY CONSTRUCTION CORP. LTD. (CRCC)	CHINA	7,426	14,871	(50%)	(53%)
24	BERKELEY GROUPS HOLDINGS	UK	7,192	6,866	5%	9%
25	CHINA COMMUNICATIONS CONSTRUCTION GROUP LTD. (CCCC)	CHINA	6,984	13,186	(47%)	(50%)
26	AECOM	USA	6,571	5,915	11%	11%
27	TAISEI CORP.	JAPAN	6,480	10,121	(36%)	(38%)
28	DAITO TRUST CONSTRUCTION	JAPAN	6,391	10,098	(37%)	(38%)
29	BARRATT DEVELOPMENTS PLC	UK	6,251	7,393	(15%)	(13%)
30	OBAYASHI CORP.	JAPAN	6,166	7,217	(15%)	(17%)
	TOTAL		**422,552**	**456,399**	**(7%)**	**(18%)**

Source: Global Powers of Construction (GPoC) 2020. (July 2021). Bloomberg.

contractions in comparison with 2019, with aggregate market capitalization decreases of 23% and 17%, respectively. Among the Chinese companies, only China Fortune Land Development was able to virtually recover its 2019 market capitalization value at the end of 2020. The remaining four Chinese groups that head the top positions in our GPoC ranking by sales all ended 2020 with significant decreases in market value.

The performance of the Japanese groups analyzed was also poor, with the notable exception of Sekisui House, which increased its market value in 2020 by an impressive 28%.

The South Korean company Samsung C&T Corp achieved a notable 35% increase in market value, which saw the group climb to fifth position in our 2020 ranking. On the contrary, Larsen & Toubro, ranked third in our 2019 Top 30, experienced a 46% decline in market value, causing the group to fall to tenth position in our 2020 Top 30.

European companies
The total market value of the European groups included in our Top 30 decreased by 7% in the aggregate. However, we should note the positive evolution of the British groups Persimmon and Berkeley, the Swedish group Skanska and, particularly, the 35% increase of the Spanish company Acciona, which was not even ranked in the Top 30 in 2019.

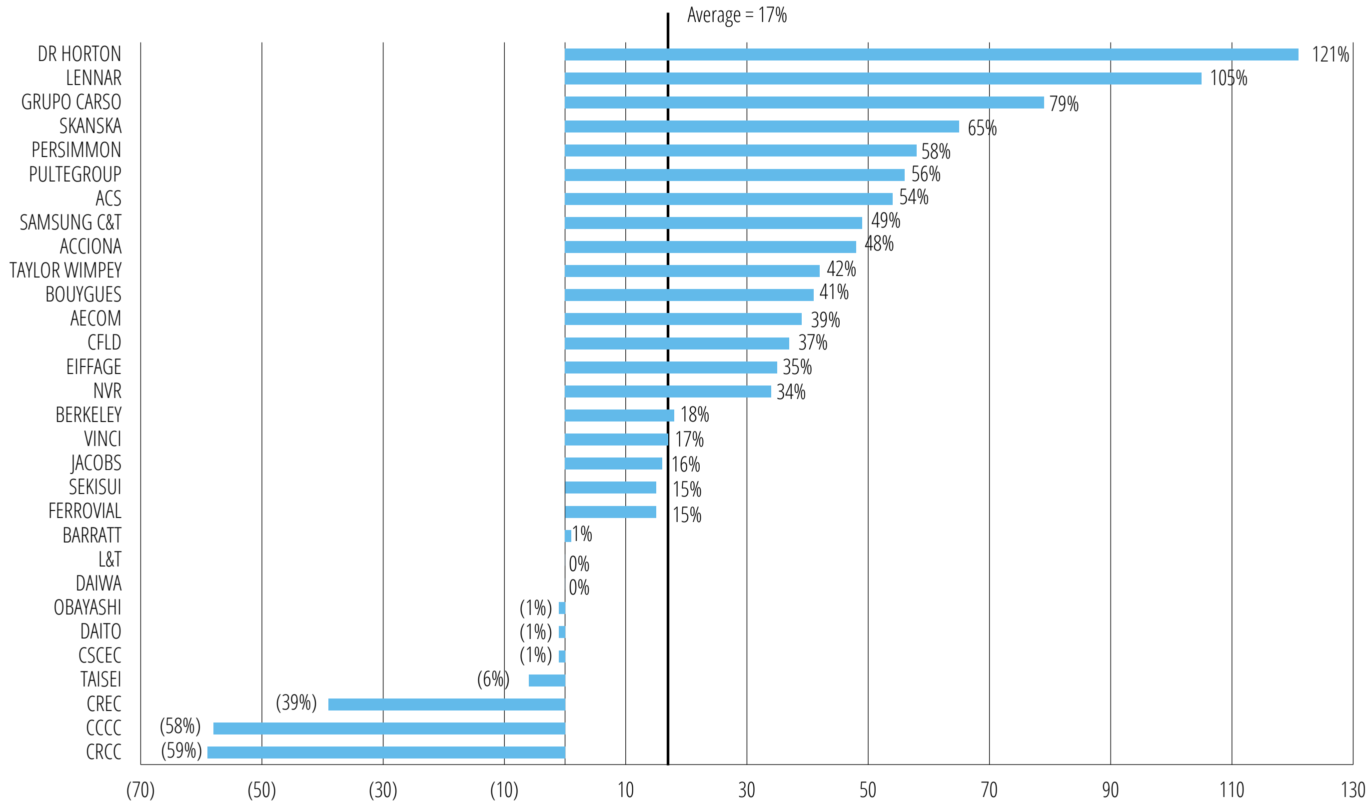
It is worth noting that all European groups analyzed experienced increases in market value in comparison with 31 March 2020 (see Figure 2.2), with impressive double-digit growth figures, with the exception of Barratt. Most European countries were hit by the COVID-19 pandemic and entered into lockdowns in March 2020, and the sharp drop in the stock markets was general. The average growth of the European groups' market value at 31 December 2020 vs. 31 March 2020 was an outstanding 28%.

Despite a 13% decrease in its market value in 2020, VINCI still holds its position as the top construction company in terms of market value, with a significant advantage over its closest rival China State Construction Engineering, which is the leading construction company by sales.

US companies
US groups recorded a remarkable 20% increase in market capitalization in 2020. This figure is even more impressive if the drop in market value recorded at March 2020 is considered. From the low March 2020 figures, the increase in market capitalization of the US groups included in our ranking was an impressive 67%, with all six groups showing double-digit growth rates (see Figure 2.2). Worthy of note is the evolution of the homebuilders D.R. Horton and Lennar, which benefited from a strong housing market in the country. Their market performance enabled them to reach third and fourth position, respectively, in our 2020 ranking.

In this scenario, and taking into account the diverse performance by geographical area, although the impact of COVID-19 on stock markets can be noted in the aggregate 7% decrease in market value of our Top 30 GPoC, there was a 17% increase in market prices from March 2020 to December 2020 (see Figure 2.2). This recovery is expected to continue in 2021, with emergence from lockdowns and the growing control of the pandemic.

Figure 2.2: Market Capitalization change FY 2020 vs March 2020



Source: Global Powers of Construction (GPoC) 2020. (July 2021). Bloomberg.

Top 30 GPoC – ranking by international sales

In 2020, and as a result of the economic disruption caused by the outbreak of the COVID-19 pandemic, revenue obtained by our GPoC from international sales fell to 17% from 19% in the prior year.

The COVID-19 pandemic affected construction industry players to varying extents, depending on the location of their business and their main projects. Although disruption in economic activity has been the norm, construction work benefited from the fact that it was widely considered to be an essential activity and, therefore, was able to continue in most areas. Nevertheless, the pandemic's profound impact on the global economy affected the availability of goods and labor and, in some instances, caused delays and even the termination of certain projects.

After a lower-than-expected contraction in 2020, the global economy is projected to expand at 6% in 2021 and at a more moderate rate of 4.4% in 2022, according to the International Monetary Fund.[1] Although current estimates forecast continued growth for the construction industry, not all companies will be able to benefit equally, since certain subsectors such as hospitality may still require some time to return to normal activity levels. In addition, the pandemic is not evolving evenly, and some areas will still suffer disruption and experience lockdowns in 2021, while other countries, thanks to successful vaccination campaigns, will probably be able to return to "normal" economic activity levels by the second half of the year.

In this context, companies that developed internationalization strategies in the past and heavily rely on international sales may encounter difficulties that could arise, on the one hand, from their reassessment of the risks associated with the markets in which they had been focusing investment and, on the other, from new restrictions implemented by certain countries on foreign companies.

Considering these circumstances and the disruptive environment, in 2020 our GPoC obtained around 17% of total revenue outside their respective domestic markets, down from 19% of international sales in 2019.

As in prior years, the most internationalized companies are the European groups (59%), followed by the South Korean GPoC (40%). The US-based GPoC only obtained 15% of their revenue abroad, given the presence of the two domestic homebuilders Lennar and D.R. Horton in the ranking. ACS remained the largest international contractor among our GPoC (86% of total revenue obtained outside Spain, in line with 2019). Other European groups -VINCI, Bouygues and Strabag- complete the Top 4 (see Figure 3.1).

Lastly, and in line with prior years, the Chinese and Japanese groups under analysis have an extensive presence in their domestic markets and, therefore, international revenue represents just 6% and 10% of their total sales, respectively. However, the international presence of Chinese companies has significantly increased over the last few years, particularly in Africa, the Middle East, Southeast Asia and Latin America. In fact, there are now two Chinese companies in our Top 10 ranking by international sales and another two in the Top 20.

European groups are the most internationalized (59% of sales), followed by South Korean (40%), United States (15%), Japanese (10%) and Chinese companies (6%).

Figure 3.1: Top 30 Global Construction Companies by 2020 International and Domestic Sales

Rank	Company	Country	International sales (USD million)	Domestic sales (USD million)	International sales as % of total sales
1	ACS	SPAIN	34,259	5,646	86%
2	VINCI	FRANCE	23,212	26,170	47%
3	BOUYGUES	FRANCE	16,324	23,303	41%
4	STRABAG	AUSTRIA	14,675	2,172	87%
5	CCCC	CHINA	14,272	76,180	16%
6	SKANSKA	SWEDEN	13,747	4,485	75%
7	CSCEC	CHINA	12,983	220,936	6%
8	DOOSAN	SOUTH KOREA	9,221	6,061	60%
9	SAMSUNG C&T	SOUTH KOREA	8,135	17,460	32%
10	L&T	INDIA	7,023	14,232	33%
11	CREC	CHINA	6,820	134,360	5%
12	FLUOR (a)	USA	5,862	9,806	37%
13	CRCC	CHINA	5,606	126,245	4%
14	EIFFAGE	FRANCE	4,939	13,703	26%
15	HDEC	SOUTH KOREA	4,883	9,492	34%
16	OBAYASHI	JAPAN	4,348	14,719	23%
17	KAJIMA	JAPAN	4,329	14,165	23%
18	SEKISUI	JAPAN	3,576	18,573	16%
19	JACOBS	USA	3,408	10,159	25%
20	AECOM	USA	3,102	10,138	23%
21	MCC	CHINA	2,582	55,370	4%
22	SHIMIZU	JAPAN	1,995	13,625	13%
23	TAISEI	JAPAN	1,611	14,497	10%
24	CFLD	CHINA	1,326	13,333	9%
25	SCG	CHINA	970	32,535	3%
26	DAIWA	JAPAN	-	40,288	0%
27	LENNAR	USA	-	22,489	0%
28	DR HORTON	USA	-	20,311	0%
29	DAITO	JAPAN	-	14,590	0%
30	IIDA	JAPAN	-	12,895	0%
	TOTAL		**209,208**	**997,938**	**17%**

Source: Global Powers of Construction (GPoC) 2020. (July 2021). Bloomberg and company financials.

Outlook for the construction industry

Construction is a major global industry, accounting for a sizeable proportion of most countries' gross domestic product (GDP). Construction-related spending accounts for 13% of the world´s GDP.[2] It is especially sensitive to fluctuations in the global economic outlook, as low economic growth typically leads to a construction recession, while high economic growth leads to a rapid acceleration of construction activity.

This procyclicality in the construction industry is due basically to the dependency of civil works and investment on infrastructure funded by central government taxes, which during times of crisis must be assigned in greater measure to social spending and other current expenses, usually causing infrastructure investment to decrease. In addition, residential construction is also very procyclical.

More than a year after the outbreak of the COVID-19 pandemic, the accumulating human toll continues to raise concerns, even as growing vaccine coverage lifts sentiment. Uncertainty surrounds the global economic outlook, primarily in relation to the path of the pandemic. The contraction of activity in 2020 was unprecedented in living memory in terms of its speed and synchronized nature. COVID-19 caused a global recession the depth of which is surpassed only by the two World Wars and the Great Depression over the past century and a half. But it could have been much worse if not for extraordinary policy support. According to the International Monetary Fund,[3] after an estimated contraction of 3.3% in 2020, the global economy is projected to grow at 6% in 2021, moderating to 4.4% in 2022. The contraction for 2020 was smaller than previously estimated, reflecting the higher-than-expected growth outturns in the second half of the year for most regions after lockdowns were eased and as economies adapted to new ways of working.

For the construction industry, 2020 was a better year than for many other industries given that construction was categorized as an essential activity in most countries, enabling it to continue working during lockdowns. As a result, the volume of global construction output merely declined by approximately 2%, below the contraction levels suffered by the global economy. As the world recovers from COVID-19, construction volumes are expected to increase globally by an average of 3.2% per year from 2021 to 2023. Current estimates indicate that the value of global construction output will increase from USD 11.6 trillion in 2020 to around USD 14.8 trillion in 2030, an average annual growth rate of 2.5%. China is expected to remain the largest construction market globally, but to decline in importance from 32% of the global total in 2020 to 29.2% in 2030.[4]

A year after the outbreak of the COVID-19 pandemic, we can have a clearer outlook for the global construction industry per comparison with last year's perspectives, but a more in-depth analysis by geographical area is included below:

The Americas

When analyzing the economic growth of the continent and forecasts for the coming years, we must distinguish between North America and Latin America due to the significant differences between the two areas.

North America

The fall in US activity in the first half of 2020 was nearly three times as large as the peak decline during the global financial crisis, underscoring the depth of the recession. For 2020 as a whole, US output is estimated to have fallen by approximately 3.5%. Although the pandemic's economic impact was not as severe as envisioned at the beginning of the crisis, last year's contraction was more than one percentage point larger than that of 2009. Recovery has started in 2021 and will continue throughout 2022.[5]

Activity in the construction industry continued in most parts of the country during 2020, but several factors resulted in project delays. Economic shutdown and supply chain disruptions adversely affected operations and construction schedules. All of these factors contributed to the decline of construction industry output in the United States in 2020. However, the medium to long term growth story in the country remains intact. The industry is

expected to grow by 15.6% in 2021 and a CAGR of 4.7% is estimated for 2021-2025.[6]

In March 2021 the US government announced a fifteen-year USD 2 trillion infrastructure investment plan, USD 620,000 million of which will be dedicated to the transport industry in order to modernize more than 32,000 km of highways and repair around 10,000 bridges.[7]

Canada's 2021 economic outlook is similar to that of the United States: following the largest economic contraction since 1945, the economy should grow enough to largely offset the losses of 2020. Strong consumption and a rebound in exports will give the Canadian economy a boost. Bringing forward government investment projects should also provide a tailwind to Canadian economic growth. GDP growth is expected to be around 5% in 2021, but pre-pandemic activity levels will not be reached until 2022.[8]

Following a decline of 3.4% in 2020, Canada's construction industry is now forecast to grow by 0.6% in 2021. It has been recovering faster than expected, bolstered by increasing investment in residential building construction. The country's housing market has been benefiting from record low interest rates, pent-up demand for new homes and the significant shift in remote work. Beyond 2021, the industry is set to expand by 2.8%, supported by the government's efforts to accelerate its long-term infrastructure plan ("Investing in Canada Plan") and revive the economy.[9]

Latin America

Latin America and the Caribbean have been severely affected by the COVID-19 pandemic, from both a health and an economic perspective. Pandemic control measures, risk aversion among households and firms, and spillovers from a shrinking global economy resulted in a 6.9% GDP contraction in 2020. A modest recovery to 3.7% growth is projected for 2021 as restrictions are relaxed, vaccine rollouts gather pace, oil and metal prices rise, and external conditions improve. Among the largest economies, while Mexico and Argentina reported approximate GDP decreases of above 8%, Brazilian output is estimated to have fallen by around 4% in 2020.[10] Expectations for the coming years do not significantly differ from one country to another.

Latin America was the world's worst-performing region in 2020 in terms of construction output and reflects the deepening economic damage of the COVID-19 pandemic and strict lockdowns imposed by authorities to limit its spread. Peru's construction output is expected to contract the most at 24%, followed by Argentina (23.5%), Mexico (15.2%), Colombia (13.2%) and Chile (8.2%). In Brazil, output is projected to fall by 4.8% as the continuity of nearly all building activities since the start of the pandemic has helped prevent a much worse outcome in the second quarter. While activity is expected to gradually recover in the coming months as more COVID-19-related restrictions are eased throughout the region, pre-pandemic output levels are not expected to be restored in the next four years.[11]

Europe

After the historic drop in activity recorded in 2020 (GDP decrease of 6.6%), economic developments in 2021 and 2022 will largely be determined by how successfully vaccination programs curb the pandemic and how quickly governments lift restrictions. A number of other factors will also be critical to the outlook, including the extent to which the EU can benefit from the improved external environment; the continuation of adequate policy support; the response of households and companies; and the extent to which the crisis leaves long-term scars on the economy. As mentioned, policy will continue to play a key role. Its focus will have to shift from damage control to strengthening the recovery and resilience of the EU economy. The implementation of the national Recovery and Resilience Plans under the Next Generation EU program will serve this purpose. Following the final adoption of the Recovery and Resilience Facility (RRF) regulation in February 2021 and significant progress on the preparation of national Recovery and Resilience Plans (RRPs), the budgetary and economic impact of these plans is expected to be significant. Accordingly, GDP is projected to grow by 4.2% in 2021 and 4.4% in 2022. Outside the scope of the EU, the United Kingdom reported worse figures than the EU in 2020 (GDP contraction of almost 10%) but is expected to grow faster in 2021 and 2022 (above 5%).[12]

The construction industry is very important to the EU economy, as it provides 18 million direct jobs and contributes about 9% of the EU's GDP. Construction volume in the region is expected to slump by approximately 8% in 2021. The outlook remains positive for 2022 (+3.4%) and 2023 (+2.4%), with total construction output in the area likely to reach EUR 1.7 trillion and exceed the pre-coronavirus level of 2019 by EUR 28 billion, or 1.7%.[13]

Asia

After a sharp slowdown to 0.9% in 2020, output in the East Asia and Pacific (EAP) region is projected to expand by 7.4% in 2021, to a level still around 3% below pre-pandemic projections. While China, the largest economy in the region, is expected to recover strongly, the rest of EAP is only expected to return to a level around 7.5% below pre-pandemic projections in 2022, with significant cross-country differences. The pandemic is expected to leave lasting economic scars on the region and dampen potential growth and income.[14]

In terms of the construction industry, the focus should be placed on China. While the coronavirus outbreak severely impacted the Chinese construction industry in the first quarter of 2020, the resumption of construction activities picked up pace in the second quarter. After China emerged from the pandemic in March 2020, the Chinese government introduced a program including a series of fiscal stimuli for constructing roads, bridges, broadband, utilities and railroads across the country. The construction industry in China is expected to grow by 12.4% in 2021. The growth momentum is expected to continue over the coming years, recording a CAGR of 6.4% from 2021 to 2025.[15]

The pandemic has had a devastating impact on South Asia (SAR), leading to an estimated 6.7% output contraction in 2020. The region is projected to grow by 3.3% in 2021 and 3.8% in 2022, substantially weaker growth than during the decade leading up to the pandemic.[16]

With regard to the construction industry, the focus is on India. The Indian construction industry is expected to register growth of 13% in real terms in 2021, following a decline of 12.4% in 2020. The outbreak of the COVID-19 pandemic and subsequent lockdown restrictions weighed on the industry's output last year. On a positive note, government investment in infrastructure development aided the industry's recovery in the final quarter of 2020. The Indian construction industry grew by 6.2% year on year in Q4 2020, up from decreases of 7.2% in Q3 and 49.4% in Q2 2020.[17] In any case, the uncertainties regarding the evolution of the pandemic in India in 2021 could have a severe impact on these forecasts.

Oceania

Australia's real GDP decreased by just 2.4% in 2020, a much lower level than most of the world's advanced economies. Recovery began in 2021 and will continue in 2022 as GDP is expected to grow by 4.5% and 2.8%, respectively.[18]

After the decline reported in 2020, the Australian construction industry is expected to rebound in 2021 and grow by 2.6% in real terms. Growth in 2021 will be driven by the Australian government's focus on an infrastructure-led economic revival, through new and accelerated infrastructure spending. In mid-June 2020, the government announced that 15 infrastructure projects worth USD 49 billion will be fast-tracked, thereby supporting over 60,000 direct and indirect jobs. Moreover, the federal, state and territory governments have reached an agreement to cut approval time for infrastructure projects in half. In the fiscal year 2020/2021 (July to June) budget the government announced plans to invest USD 5.4 billion in transport infrastructure projects across the country, bringing the federal government's total commitment to infrastructure projects since the onset of the pandemic to USD 9.5 billion over the next four years.[19]

Similarly to Australia, New Zealand's real GDP decreased by 3.0% in 2020, but is expected to accelerate in 2021 and 2022 by 4.0% and 3.2%, respectively.[20]

Prior to the COVID-19 crisis, the construction industry in New Zealand had been expanding at a healthy rate, growing by 4.6% in real terms in 2019, supported by investment in transport infrastructure and commercial and residential projects. However, the disruption caused by COVID-19 containment measures has ended this expansionary trend (contraction of over 6%). The industry is expected to recover with average annual growth of 3.8% between 2021 and 2024, supported by investments in residential, transport, institutional and renewable energy projects. As part of the COVID-19 Response and Recovery Fund (CRRF), in May 2020 the government allocated USD 1.7 billion to fund infrastructure projects across the country. In addition, growth will also be supported by an investment of USD 7 billion to build and upgrade road, rail, school and hospital projects under the New Zealand Upgrade Programme launched in December 2019.[21]

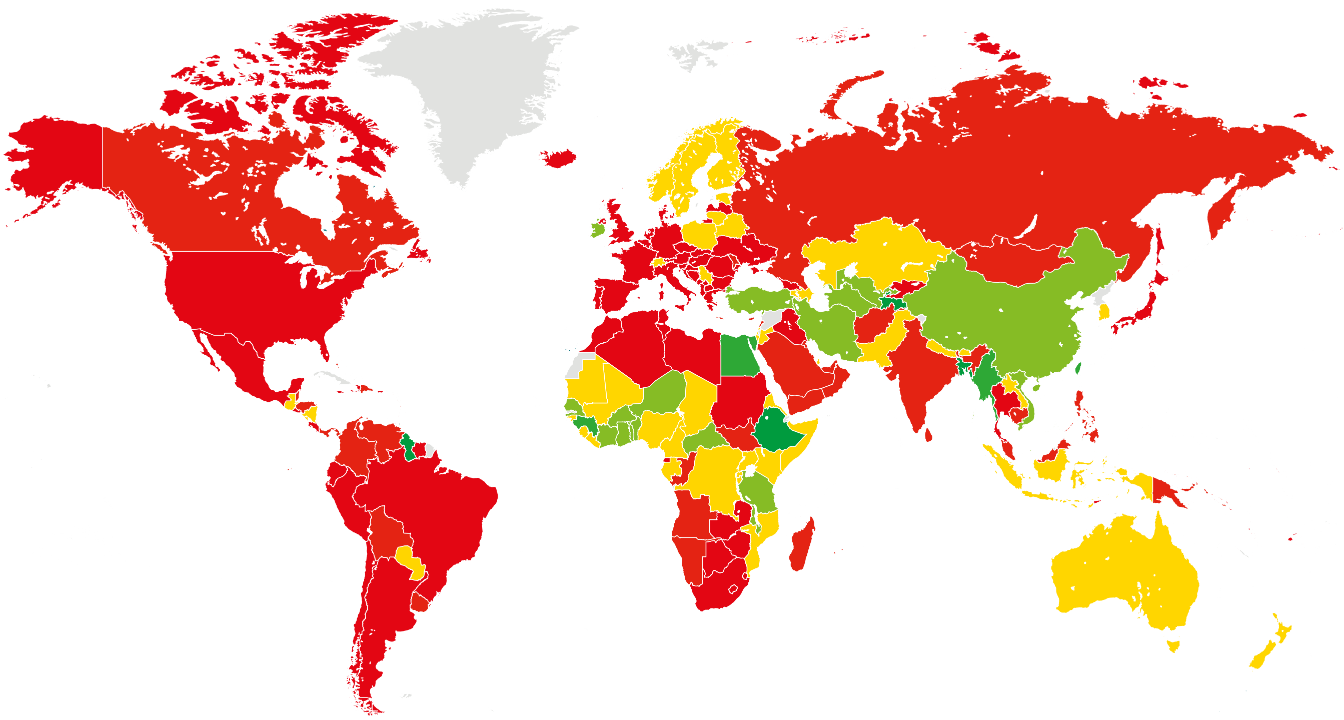
Africa and the Middle East

GDP in the Middle East and North Africa (MENA) fell by 3.4% in 2020 but is projected to rise by 4.0% and 3.7% in 2021 and 2022, according to the International Monetary Fund. A similar outlook is also expected for the Sub-Saharan Africa, where GDP decreased by 1.9% in 2020 but is expected to rise by 3.4% and 4.0% in the next two years.[22]

Construction output for the MENA region in 2020 decreased by around 5% but is expected to recover with growth of 1.9% in 2021 and 4.1% in 2022. The 2020 contraction reflects the severe impact on construction activity of the COVID-19 lockdowns and other restrictions.[23]

In relation to Sub-Saharan Africa, the focus is on South Africa. The South African construction industry is expected to grow by 6.1% in real terms in 2021, up from a contraction of 16.5% in 2020. To help the economy recover from the crisis, the government announced a ten-year infrastructure investment plan worth USD 124.7 billion, with investments planned in the housing, energy, agriculture, transport, water and sanitation and digital infrastructure sectors. Officials from the World Bank, African Development Bank (AfDB) and Development Bank of South Africa (DBSA) have pledged support for the infrastructure drive, which is expected to create over 1.8 million jobs over the next 10 years. In another positive development, the government rolled out an ambitious USD 60 billion Economic Reconstruction and Recovery Plan, which has four priority areas of intervention: infrastructure investment; expansion of energy generation capacity; job creation to support livelihoods; and industrial growth.[24]

Figure 4.1: Real GDP growth (Annual percentage change, 2020)



© IMF. World Economic Outlook (April 2021).

Figure 4.2: Real GDP growth (Annual percentage change, 2021)

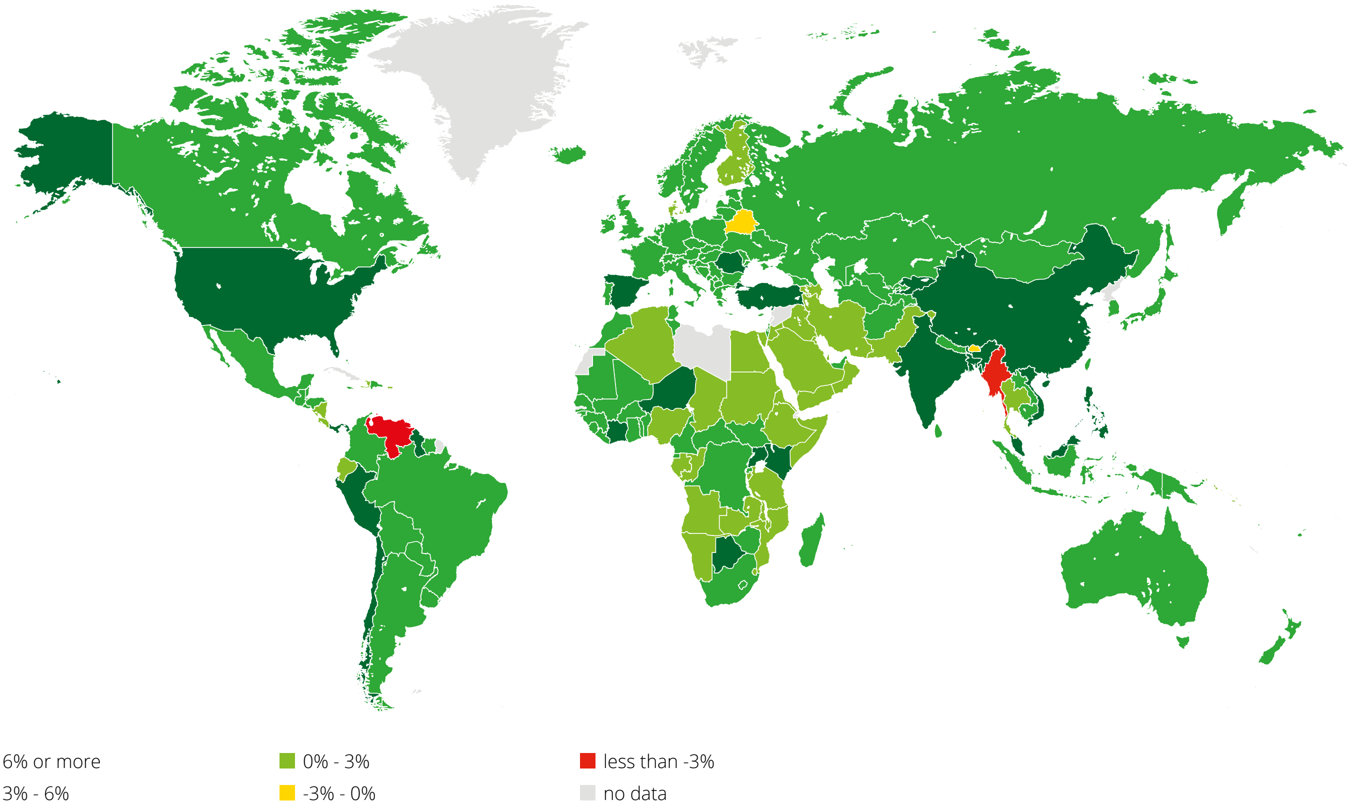


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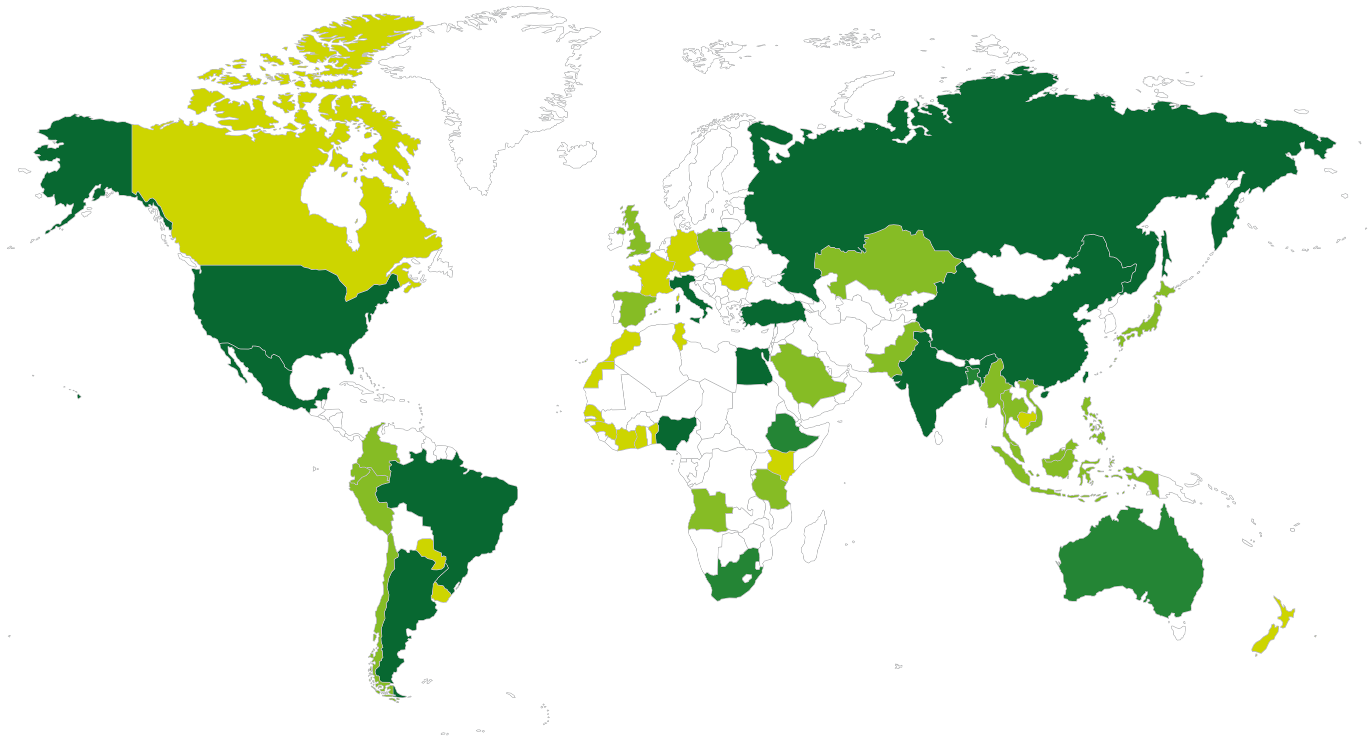
Figure 4.3: Total forecast infrastructure investment gaps



■ >$200 billion
■ $150-$200 billion
■ $100-$150 billion
■ $50-$100 billion
■ $0-$50 billion
□ N/A

Source: Global Infrastructure Outlook. Global Infrastructure Hub.

Global challenges for the construction industry

The evolution of the construction industry in 2020 was conditioned by the impact of COVID-19. However, the short-term effects of the pandemic in 2020 were limited, as construction was considered to be an essential industry and, therefore, its activity was not significantly affected in most countries across the world. Nevertheless, the potential long-term impacts could be very considerable for the industry and will relate to the changes that the pandemic may cause in the megatrends on which the industry has based its growth expectations, the impact of the crisis on public finances, the possibility of attracting private capital investment to finance infrastructure projects and, lastly, companies' ability to respond in order to improve their current limited profitability.

Megatrends affecting the industry

Despite the uncertainty caused by the COVID-19 crisis, the long-term global outlook for the construction industry continues to be positive. The current crisis should only have a transitory or limited effect on the megatrends that will drive global infrastructure asset growth in the coming years:

- Population growth in emerging countries (excluding China), ageing in developed countries, greater urbanization and concentration in megacities. The pandemic has not significantly affected these major demographic trends, and the most significant effect is the impact that remote working might have in potentially curbing the trend towards greater urbanization and concentration of the population. In any case, this impact will foreseeably be limited and mainly centered on more developed countries. Therefore, it should not cause a significant impact on the high levels of investment in transport and service infrastructure that will be required to cater for the increase in urbanization and the size of cities.

- Climate change, the decarbonization of the economy and the need to comply with the United Nations Sustainable Development Goals (SDGs) relating to water, the environment, healthcare and education. The pandemic has done nothing but speed up the process of decarbonizing the economy, with countries and corporations publishing aggressive emission neutrality goals and investors increasingly focusing on sustainability and SDG compliance, which will positively affect investment in renewable energy and the energy efficiency of infrastructure.

- Technology and digital transformation. The progress made in the digital transformation of companies and society in the past year equates to the progress that could have been made in five years at pre-pandemic pace. This process is expected to speed up in the coming years and give rise to major opportunities for the industry in relation to investment in the infrastructure required to meet growing demand.

All these megatrends will continue to have a positive impact and will be the main growth drivers for the industry in the coming decades, as they will require significant investment in transport, water, waste management, social infrastructure, renewable energies, telecommunications and adaptation to new technologies.

Almost two thirds of the infrastructure investment forecast for the next decade will center on emerging countries, where infrastructure has a clear transformational impact on the lives of citizens and the development of businesses. However, even the more developed countries will need to invest in infrastructure to improve competitiveness, meet increasing demand, sustain economic development, decarbonize the economy and digitalize. In this regard, President Biden announced the largest infrastructure investment plan in the history of the United States, with an investment of more than USD 2 trillion over the next 15 years. Although this amount may be substantially reduced in the legislative process, it would represent a highly significant infrastructure investment, a very considerable proportion of which is earmarked for roads, bridges, airports and public transport, with additional major investments in fighting climate change and in technological innovation.[7]

Leading companies are battling against traditionally low industry profitability by investing in new technologies, industrializing construction processes and increasing risk control in tendering processes.

Public finances and public-private cooperation

Despite this positive outlook, the impact of the crisis on public finances could prevent this increase in investment in the short term. Although increasing infrastructure investment could appear to be an advisable countercyclical fiscal policy in times of economic crisis such as the current situation, many emerging countries and some highly leveraged developed economies lack the necessary margin to increase infrastructure investment and, at the same time, sustain public finances that will be highly affected by the crisis.

In most countries, higher debt to GDP ratios will mean that more funds will be needed to pay the interest on debt, increased unemployment will result in a rise in unemployment benefits, the ageing population will increase pressure on pension payments and healthcare spending, which will also increase due to the health crisis, and greater public expenditure will be needed to support certain industries particularly affected by the crisis. All these factors will mean a reduction in fiscal space for infrastructure investment.

Against this backdrop, public-private cooperation would seem to be a very appropriate instrument, and probably the main one available, for channeling the extraordinary liquidity that still exists on a global scale into infrastructure investment at an affordable cost. Promoting public-private cooperation as a viable and sustainable option to ensure infrastructure investment requires clear and predictable regulatory frameworks that will ensure optimal infrastructure planning, legal certainty, a reasonable return for private investors, a suitable risk distribution between the public and private sectors and adequate control and monitoring of investments.

Profitability and operational transformation

As shown in this report, in 2020 the profit margins of our GPoC decreased and indebtedness levels increased across the board. Having experienced margins which were already narrow pre-COVID and with a significant increase in borrowings in recent years, the current crisis could exacerbate the financial position of many global construction companies.

The low profitability of construction worldwide is a result of the industry's current competitive dynamics, both in the residential sector, due to the low barriers to entry for competitors, and in civil engineering, where we can observe global excess capacity, fierce price competition, international expansion of companies in certain geographical areas outside their domestic markets and insufficient distribution of the risks involved in projects. These factors are leading to shrinking margins below the objective profitability that should be obtained considering the risk inherent to the construction business. To all of the above factors we can add the highly litigious nature of the industry, often leading to protracted and expensive contractual claims in the courts or through arbitration or mediation.

This situation is causing the industry, which is very traditional and a sector of the economy that has experienced the lowest growth in productivity in the last 30 years, to consider a transformation through the application of new technologies and improved operational efficiency.

Leading companies in the industry are already making significant investments in the application of new digital technologies, data analysis techniques, robotization, drones, wearables, artificial intelligence and document management, which will have a profound impact on the industry. Also, the traditional decentralized management approach may be affected by a change in the paradigm if there is a consolidation of the trends towards the industrialization of processes, standardization, modularization and the prefabrication of components due to the application of new technologies and materials in construction processes.

In turn, the increase in operational efficiency must be accompanied by greater control of the risks involved in tender processes and an appropriate distribution of the risks between customers and construction companies, which are key issues for the adequate profitability of projects. If construction companies wish to improve their margins, they must be proactive in project management and achieve improvements in the integration and management of the supply chain and in the simplification and digitalization of construction and support processes.

The current contracting models in place in many countries often involve perverse incentives as they place a disproportionate emphasis on economic criteria, causing withdrawals from the award process and resulting in the subsequent claims process which ultimately increases costs and litigiousness. These processes not only affect companies' profitability but also the execution of investments within the timescales and costs set out by the authorities and, therefore, certain jurisdictions are implementing contracting models that reduce contractors' costs (alliance, cost plus or pain/gain contracts) and regulate the authorities' and contractors' obligations more strictly, limiting particularly aggressively priced bids and increasing legal certainty in relation to issues such as possible modifications, penalties and swifter resolution of contractual conflicts through arbitration or mediation.

Therefore, we expect that, in the long term, the global construction market will grow at a higher rate than the economy as a whole and that companies in the industry will concentrate on innovation, the application of new technologies and operational efficiency which, combined with improvements to contracting and tender processes, would enable construction companies to achieve sustainable profitability.

A change in the contracting models currently in place in most jurisdictions is needed in order to balance risks between contractors and their clients and avoid delays, cost increases and litigiousness.

Financial performance of the GPoC 2020

2020 was inevitably conditioned by the COVID-19 pandemic, which impacted the financial position and results of the GPoC. Net debt rose by 15% and profitability decreased as a result of the impact that worldwide lockdown restrictions had on businesses. The outbreak of COVID-19 triggered a freefall in stock market share prices, causing a 11% drop in the aggregate market value of our Top 30 GPoC with respect to 2019.

The financial performance of the Top 30 GPoC in 2020 was uneven, since the COVID-19 crisis did not affect all sectors and countries in which these companies operate to the same extent. However, due to the similarities among GPoC headquartered in the same regions, the following conclusions may be highlighted (see Figure 5.0):

- In terms of profitability, the aggregate EBIT margin decreased from 6.1% to 5.6% in 2020. While Asian and European companies reported lower EBIT margins in comparison with 2019, US-based GPoC benefited from a robust domestic housing market, resulting in a 10.0% operating profitability in 2020 (2019: 6.1%). Net income as a percentage of total sales showed the same trend: while US GPoC reported an aggregate margin of 5.5% in 2020 (2019: 2.8%), European and Asian companies saw their profitability reduced to 2.7% and 3.0%, respectively (2019: 3.9% and 3.7%, respectively). In terms of dividend yield, a 11% decrease in market capitalization, together with a 5% decrease in dividends paid by GPoC, resulted in an aggregate dividend yield of 5.3% in 2020 (2019: 5.0%). Asian groups dominate the ranking in terms of dividend yield. Lastly, US companies obtained the highest ROE (11.8%), around two and three percentage points above Asian and European entities, respectively.

- Aggregate net debt increased by 15% in 2020 to USD 242,380 million. However, while European and Asian companies reported similar net debt to equity ratios to those achieved in 2019, the US GPoC Lennar and D.R. Horton, both considered to be homebuilders, were able to reduce net debt by 48%, resulting in an aggregate ratio of 13.4% for the US-based companies (2019: 24.4%). The combination of the increase in aggregate net debt and a decrease in market value resulted in a net debt to market capitalization ratio of 0.67 in 2020 (2019: 0.52). The net debt / EBITDA ratio of the GPoC in 2020 was 2.7x, but differences among regions are evident: US companies reported ratios of around 1, European GPoC reached 1.9 and net debt of the Asian groups represented 3.2x total EBITDA.

- The increase in book value (10%), together with the weak performance noted in the stock markets (-11%), resulted in a contraction in the market capitalization to book value ratio. In 2020 GPoC traded at a discount in the stock markets (0.9 vs 1.1 in 2019). By region, European-based and US GPoC were able to reach ratios of 2 and 1.8, respectively.

Figure 5.0: Top 30 GPoC Financial Ratios

Types	EBIT/ Sales	Net Income/ Sales	Net Debt/ Net Debt Equity	Net Debt/ Market Cap	Market Cap/ Book Value	EV/ EBITDA	Net Debt/ EBITDA	Capex / Sales	Dividend Yield	ROE
ASIAN COMPANIES	5.3%	3.0%	33.2%	1.1	0.6	6.1	3.2	3.8%	8.7%	9.8%
US COMPANIES	10.0%	5.5%	13.4%	0.1	1.8	9.5	0.8	0.8%	0.7%	11.8%
EUROPEAN COMPANIES	5.4%	2.7%	35.1%	0.3	2.0	7.5	1.9	4.1%	2.6%	8.9%
TOTAL 2020	**5.6%**	**3.2%**	**32.2%**	**0.7**	**0.9**	**6.7**	**2.7**	**3.6%**	**5.3%**	**9.8%**

Source: Global Powers of Construction (GPoC) 2020. (July 2021). Bloomberg and company financials.

A more in-depth analysis by company of the financial ratios and indicators summarized above allows us to draw the following conclusions:

EBIT margin

Based on the figures obtained in 2020 and 2019 (Figure 5.1), the following conclusions may be drawn:

- EBIT from construction activities represented 5.4% of sales, while operating profitability from non-construction activities averaged 6.5%, resulting in a combined average EBIT margin of 5.6%, 0.5 percentage points below 2019. Operating profitability decreased for the first time since 2016, which is partially explained by the negative impact of the COVID-19 crisis. However, none of the Top 30 GPoC reported operating losses in 2020.

- The six companies that could be classified as "homebuilders" are Sekisui, Daiwa, D.R. Horton, Lennar, Daito and Iida. This activity tends to have higher margins than others such as civil works. As a result, five out of the six homebuilders analyzed are in the top positions of the ranking by construction operating profitability.

- Excluding homebuilders, average sales from construction activities stood at 4.6% (0.1 p.p. below the 2019 figure). The Japanese company Taisei, which reported construction EBIT of 9.6% in 2020, is the first non-homebuilder in the ranking. The US-based firm Fluor, which reported operating losses in the construction business in 2019, was able to return to operating profits in 2020, despite the challenging environment in the last year. AECOM, which also reported operating construction losses in 2019, has decided to divest its construction business, thus it is classified in 2020 as discontinued operations. The largest European GPoC, VINCI, saw its construction operating profitability fall to 1.0% due to weak performance in the domestic market. Business levels in France were very low in both building and public works during the first lockdown. They gradually recovered from late April and were almost back to normal from June onwards. Doosan is the only company that reported construction operating losses in 2020.

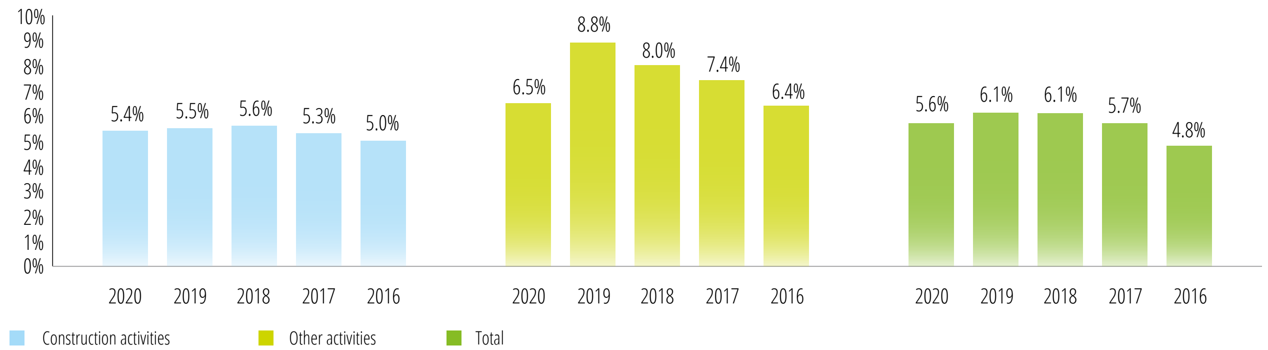
- The company with the highest non-construction EBIT margin is the American homebuilder D. R. Horton (48%). Its non-construction activities consist mainly of financial services, but this business only represents around 3% of the company's revenue. Skanska is ranked in second place in terms of non-construction profitability due to the strong performance of its residential and commercial property development business lines in 2020. VINCI, which was formerly among the leading positions in this ranking, reported a 9.2% margin, as compared with 44.5% in 2019. Lower traffic levels resulting from the various travel restrictions introduced in France and Europe severely impacted its concessions business. Two groups reported operating losses from non-construction activities, namely Daiwa House and China Estate Construction Engineering .

Figure 5.1: Top 30 GPoC EBIT/Sales

	EBIT* / Sales					
	Construction activities		Other activities		Total	
Company	2020	2019	2020	2019	2020	2019
LENNAR CORP.	14.2%	12.0%	32.7%	18.6%	15.5%	12.5%
DAITO TRUST CONSTRUCTION	14.0%	15.7%	4.9%	3.2%	8.1%	8.0%
DR HORTON	13.6%	11.1%	47.7%	48.6%	14.7%	12.1%
SEKISUI HOUSE	12.8%	15.4%	6.8%	5.7%	8.5%	8.8%
DAIWA HOUSE INDUSTRY CO.	10.3%	10.9%	(7.3%)	(2.7%)	8.7%	9.0%
TAISEI CORP.	9.6%	9.3%	9.9%	9.0%	9.6%	9.3%
CHINA FORTUNE LAND DEVELOPMENT (CFLD)	8.0%	21.7%	0.0%	(111.4%)	7.9%	21.4%
SHIMIZU CORP.	7.6%	7.5%	10.4%	10.1%	7.9%	7.8%
LARSEN & TOUBRO LTD. (L&T)	7.5%	7.8%	15.2%	15.1%	11.2%	11.2%
CHINA STATE CONSTRUCTION ENGINEERING CORP. LTD. (CSCEC)	7.4%	7.6%	(2.0%)	(2.7%)	5.9%	5.9%
OBAYASHI CORP.	7.0%	7.3%	12.9%	14.1%	7.4%	7.6%
IIDA GROUP HOLDINGS	6.1%	7.3%	2.3%	2.9%	6.0%	7.2%
KAJIMA CORP.	5.7%	6.8%	13.4%	11.3%	6.6%	7.2%
AVERAGE	**5.4%**	**5.5%**	**6.5%**	**8.8%**	**5.6%**	**6.1%**
CHINA COMMUNICATIONS CONSTRUCTION GROUP LTD. (CCCC)	5.2%	5.8%	8.5%	9.6%	5.5%	6.2%
SAMSUNG C&T CORP.	4.5%	4.6%	1.8%	1.7%	2.8%	2.8%
STRABAG	4.3%	3.8%	5.9%	5.3%	4.3%	3.8%
CHINA RAILWAY GROUP LTD. (CREC)	3.8%	2.3%	2.3%	18.6%	3.7%	4.0%
ACTIVIDADES DE CONSTRUCCION Y SERVICIOS, S.A. (ACS)	3.5%	3.9%	7.0%	11.5%	4.2%	5.4%
SKANSKA AB	2.5%	2.4%	45.8%	27.5%	7.9%	4.3%
CHINA RAILWAY CONSTRUCTION CORP. LTD. (CRCC)	2.0%	1.9%	12.8%	12.1%	3.4%	3.3%
METALLURGICAL CORPORATION OF CHINA LTD (MCC)	2.0%	2.1%	12.4%	10.4%	3.0%	2.8%
BOUYGUES	1.8%	2.0%	7.6%	10.3%	3.5%	4.4%
EIFFAGE, S.A.	1.4%	3.1%	17.0%	21.6%	7.7%	10.7%
VINCI	1.0%	4.3%	9.2%	44.5%	6.6%	11.9%
FLUOR CORP.	0.9%	(17.8%)	2.2%	0.4%	2.0%	(1.1%)
AECOM	0.0%	(6.5%)	2.9%	4.4%	2.9%	0.2%
DOOSAN	(7.8%)	3.2%	7.4%	9.2%	1.5%	6.8%
AVERAGE ASIAN COMPANIES	**5.4%**	**5.8%**	**5.0%**	**6.1%**	**5.3%**	**5.8%**
AVERAGE US COMPANIES	**13.4%**	**7.8%**	**5.1%**	**3.6%**	**10.0%**	**6.1%**
AVERAGE EUROPEAN COMPANIES	**2.5%**	**3.4%**	**10.8%**	**21.9%**	**5.4%**	**7.3%**
AVERAGE EXCLUDING HOMEBUILDERS	**4.6%**	**4.7%**	**6.5%**	**9.5%**	**5.0%**	**5.7%**

(*) EBIT figures, as reported by these Groups, correspond to operating income from ordinary activities.
Shanghai Construction Group, Hyundai E&C and China Fortune Land Development were not included in the analysis since these companies do not disclose construction EBIT from other activities.

Figure 5.2: Top 30 GPoC EBIT Margin



Source: Global Powers of Construction (GPoC) 2020. (July 2021).

Net income attributable

The analysis of the net income obtained by the Top 30 GPoC in 2020 (Figure 5.3) enables us to reach the following conclusions:

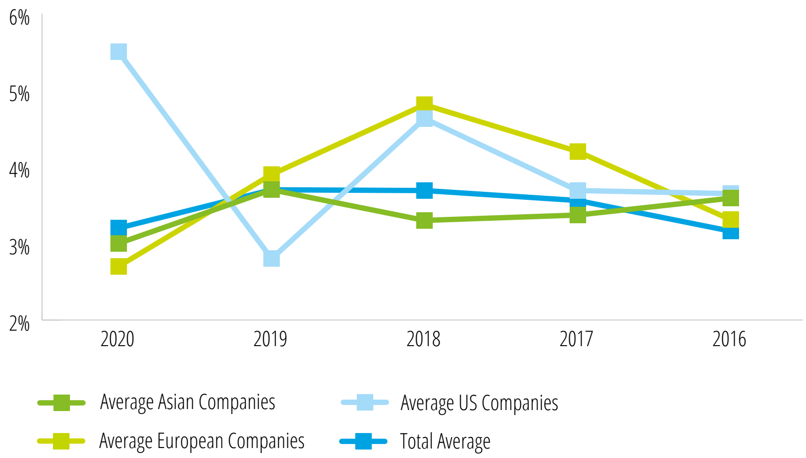
- While aggregate net income decreased in 2020 to USD 38,149 million (8% down on 2019), 16 groups (10 of which are Asian) reported a higher net profit than in 2019. The net income margin as a percentage of total sales amounted to 3.2% in 2020 (2019: 3.7%).
- The ranking is headed by D.R. Horton, Lennar and Taisei. As previously mentioned, D.R. Horton and Lennar benefited from a robust housing market in the United States. Taisei, which reported a net income margin in line with 2019 (7.0% vs 6.8%), was able to offset the effects of the COVID-19 outbreak due to the contribution of certain major infrastructure projects carried out in relation to the Tokyo 2020 Olympic and Paralympic Games, among others.
- AECOM, Fluor and Doosan reported net losses in 2020 as a result of impairment and other non-cash charges incurred in the period. Specifically, AECOM's losses relate to certain impairment losses on the construction business, which has been classified under discontinued operations in 2020. Along the same lines, Fluor reported net losses in 2020 due to non-cash impairment and charges of approximately USD 358 million, reflecting the impact of weak commodity prices and COVID-19.

Figure 5.3: Top 30 GPoC Net income as a percentage of total sales

	Net Income* / Total Sales	
Company	2020	2019
DR HORTON	11.7%	9.2%
LENNAR	11.0%	8.3%
TAISEI	7.0%	6.8%
SKANSKA	6.2%	3.5%
SHIMIZU	5.8%	6.0%
SEKISUI	5.8%	6.0%
L&T	5.7%	6.3%
DAITO	5.7%	5.6%
OBAYASHI	5.5%	5.5%
DAIWA	5.3%	5.7%
KAJIMA	5.1%	5.6%
IIDA	3.8%	4.9%
JACOBS	3.6%	6.7%
CFLD	3.6%	13.9%
SAMSUNG C&T	3.4%	3.4%
AVERAGE	**3.2%**	**3.7%**
VINCI	2.9%	6.8%
CSCEC	2.8%	3.0%
STRABAG	2.7%	2.4%
CCCC	2.6%	4.7%
CREC	2.6%	2.8%
CRCC	2.5%	2.4%
EIFFAGE	2.3%	3.9%
BOUYGUES	2.0%	3.1%
MCC	2.0%	1.9%
ACS	1.6%	1.8%
SCG	1.4%	1.9%
HDEC	0.7%	2.4%
AECOM	(1.4%)	(1.3%)
FLUOR	(2.8%)	(8.8%)
DOOSAN	(3.1%)	2.3%
AVERAGE, ASIAN COMPANIES	**3.0%**	**3.7%**
AVERAGE, US COMPANIES	**5.5%**	**2.8%**
AVERAGE EUROPEAN, COMPANIES	**2.7%**	**3.9%**
AVERAGE EXCLUDING HOMEBUILDERS	**2.7%**	**3.3%**

Source: Global Powers of Construction (GPoC) 2020.
(*) The net income figures reported by these groups are the net income attributable to the group .

Figure 5.4: Net income as a percentage of total sales



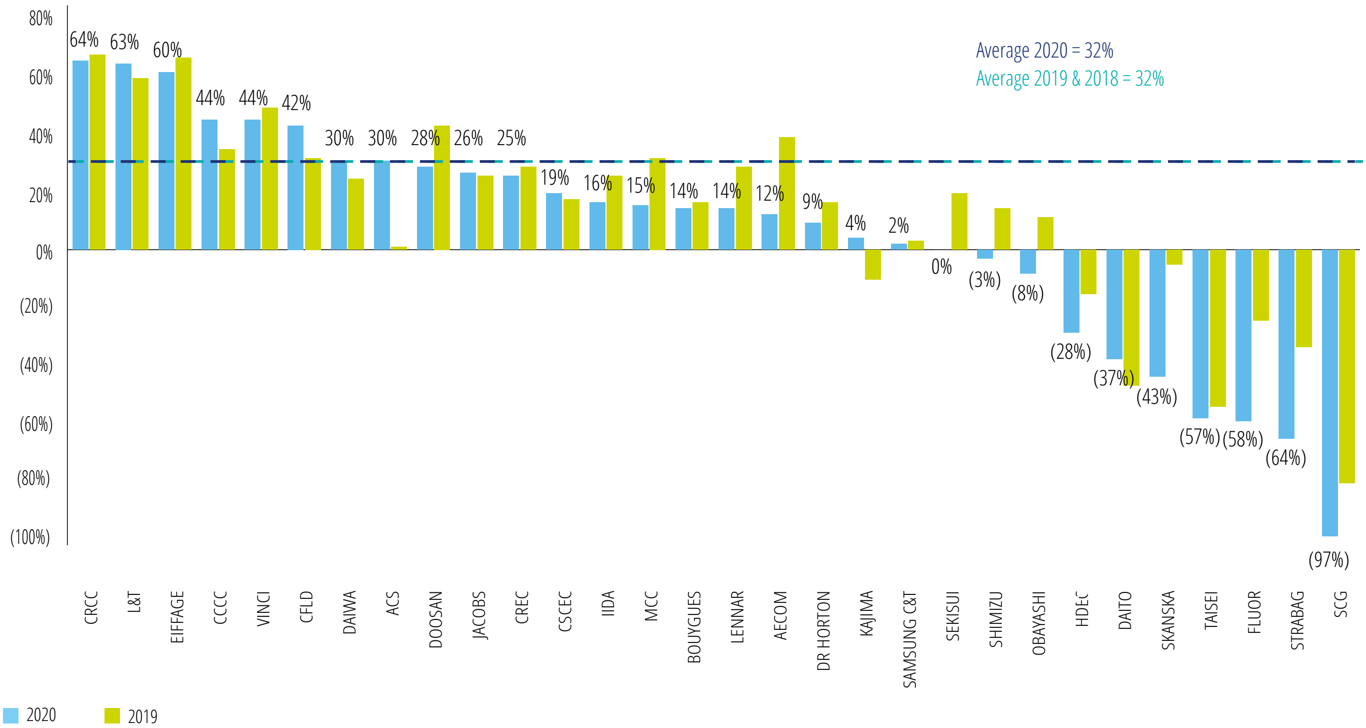
Source: Global Powers of Construction (GPoC) 2020. (July 2021).

Net debt / Net debt + Equity

The noteworthy matters arising from the analysis of the net debt / (net debt +equity) ratio (Figure 5.5) were as follows:

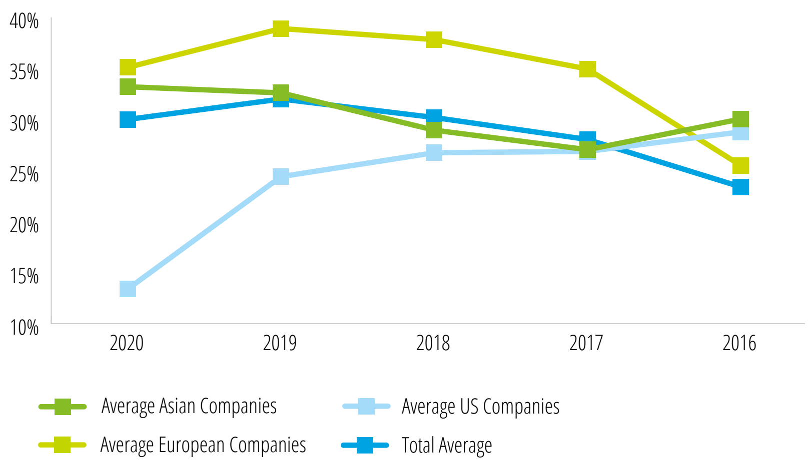
- Aggregate shareholders' equity and net debt increased by 19% and 15%, respectively, resulting in a 32% net debt / (net debt + equity) ratio in 2020, similar to 2019. Nine GPoC reported positive net cash positions in 2020, Shanghai Construction being the company with the largest cash surplus (USD 3,311 million).
- Certain of the companies with the highest ratios have a significant presence in non-construction businesses (such as concessions) which traditionally require major capital investments that in most cases are financed by external borrowings.

Figure 5.5: Top 30 GPoC, Net debt/(Net debt + Equity)



Source: Global Powers of Construction (GPoC) 2020. (July 2021).

Figure 5.6: Net debt/(Net debt + Equity)



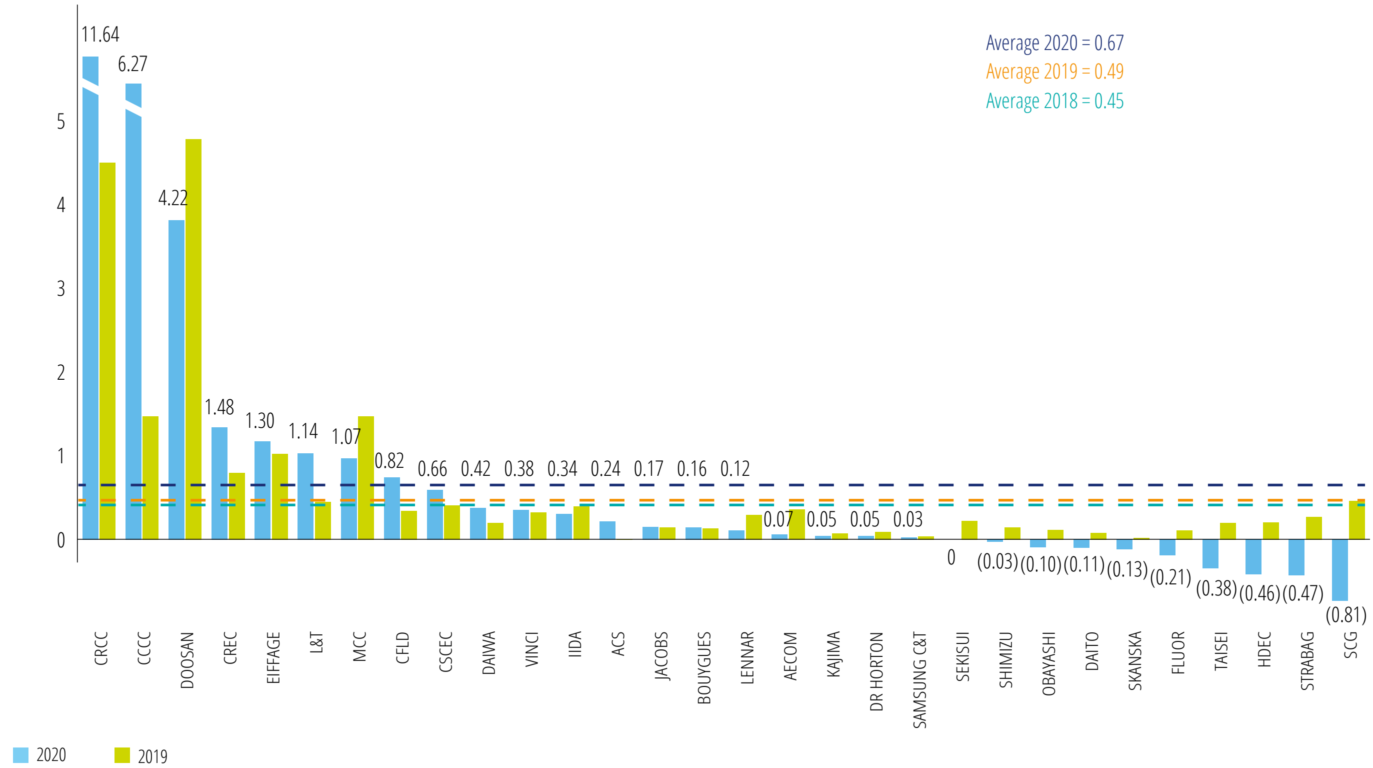
Source: Global Powers of Construction (GPoC) 2020. (July 2021).

Net debt / Market capitalization

The following conclusions can be drawn from the analysis of the data shown in Figure 5.7:

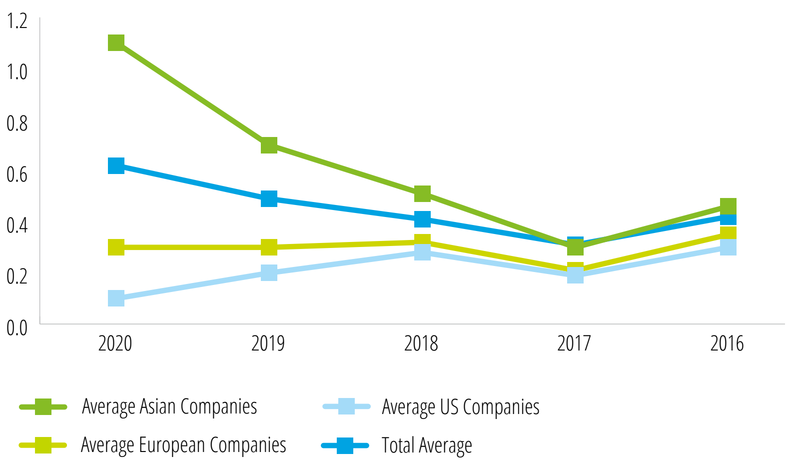
- The net debt to market capitalization ratio worsened to 0.67 in 2020 as a result of a 15% increase in net debt and a 11% decrease in market value. The aggregate ratio has been worsening since 2017.
- Nine companies obtained negative ratios due to the net cash positions they reported at the end of 2020. Thirteen GPoC reported ratios of between 1 and 0, while seven groups (six of them from Asian countries) recorded higher net debt than market value.
- The highest ratios were reported by China Railway Construction, China Communications Construction and Doosan. At the other end of the spectrum, Shanghai Construction, Strabag and Hyundai recorded the lowest ratios.
- Most of the Top 30 GPoC reported similar ratios to those achieved in 2019, except for China Railway Construction and China Communications Construction. Aggregate net debt for these two entities rose by 36%, while market value fell by 49%.

Figure 5.7: Top 30 GPoC Net debt / Market capitalization



Source: Global Powers of Construction (GPoC) 2020. (July 2021).

Figure 5.8: Net debt / Market capitalization



Source: Global Powers of Construction (GPoC) 2020. (July 2021).

Market capitalization / Book value

The analysis of the market capitalization to book value ratio (Figure 5.9) enables us to draw the following conclusions:

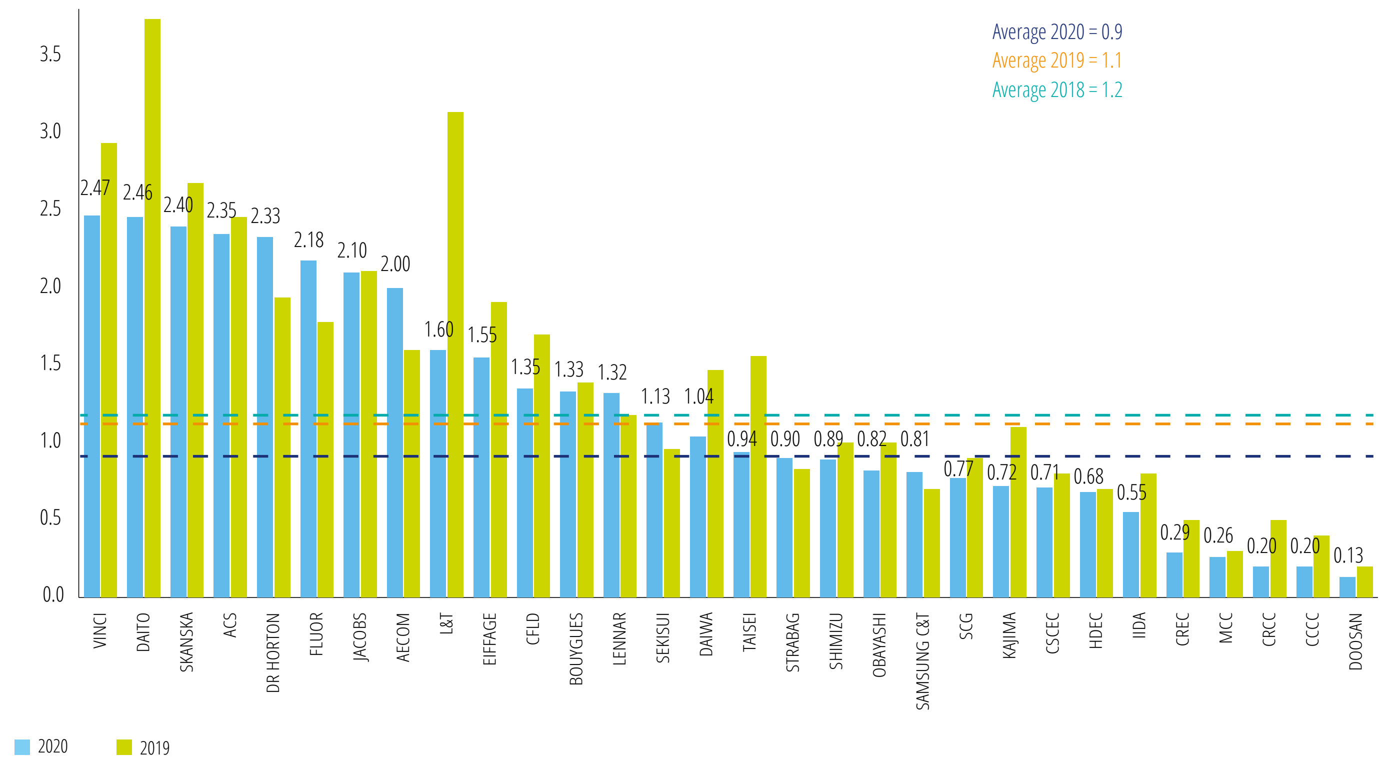
- The 11% decrease in market value, combined with a 10% increase in book value, resulted in a market capitalization to book value ratio of 0.9 in 2020, slightly below that of 2019. Among the 15 groups trading at a discount to book value, 14 are companies based in Asian countries.

Eight groups posted ratios of between 1 and 2, while seven GPoC reported market values representing represent at least 2x book value.

- In 2020 this ranking is headed by VINCI, Daito, Skanska and ACS all of which have ratios around 2.4. While ACS remained in line with 2019, the market capitalization to book value of VINCI, Skanska and Daito worsened as a result of weak performance in the stock markets.

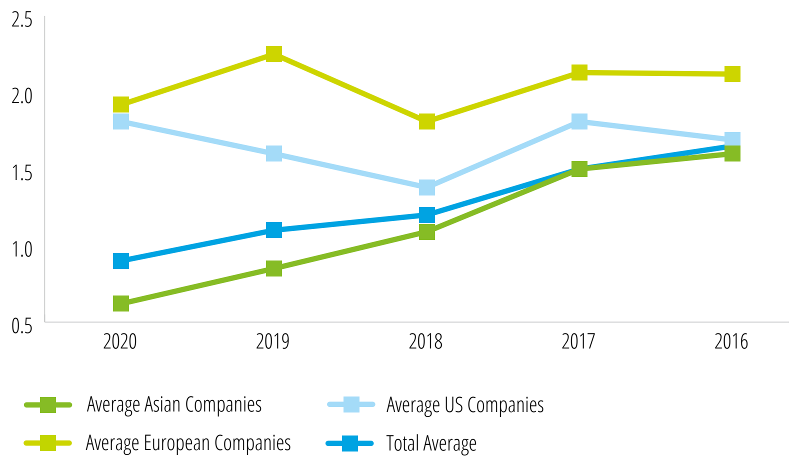
- Doosan, China Communications Construction and China Railway Construction posted the weakest ratios as a result of the combined effect of a 48% decrease in market capitalization and a 14% increase in book value.

Figure 5.9: Market Capitalization / Book Value



Source: Global Powers of Construction (GPoC) 2020. (July 2021).

Figure 5.10: Market Capitalization / Book Value



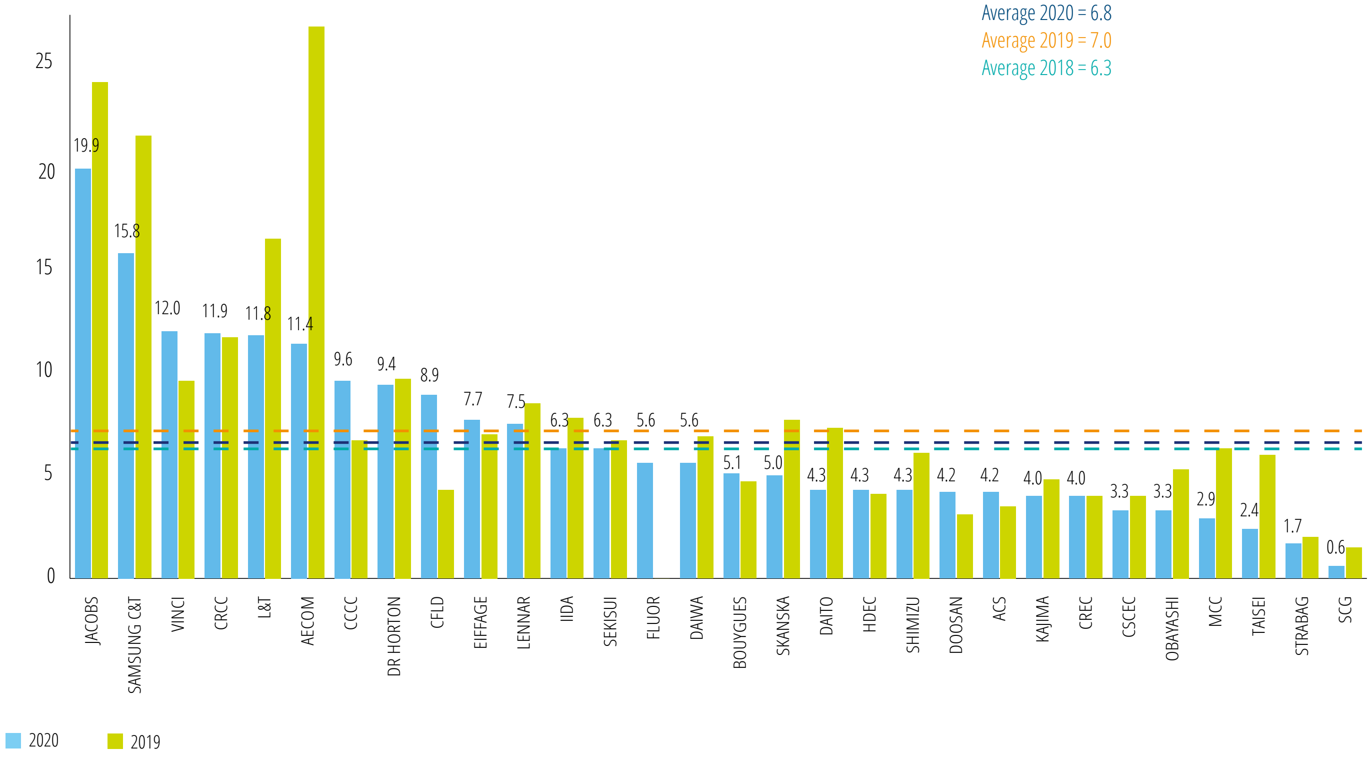
Source: Global Powers of Construction (GPoC) 2020. (July 2021).

Enterprise value / EBITDA

The average enterprise value / EBITDA multiple (Figure 5.11) decreased from 7.0 in 2019 to 6.8 in 2020 as a result of a 1.7% decrease in enterprise value and 3.0% growth in EBITDA.

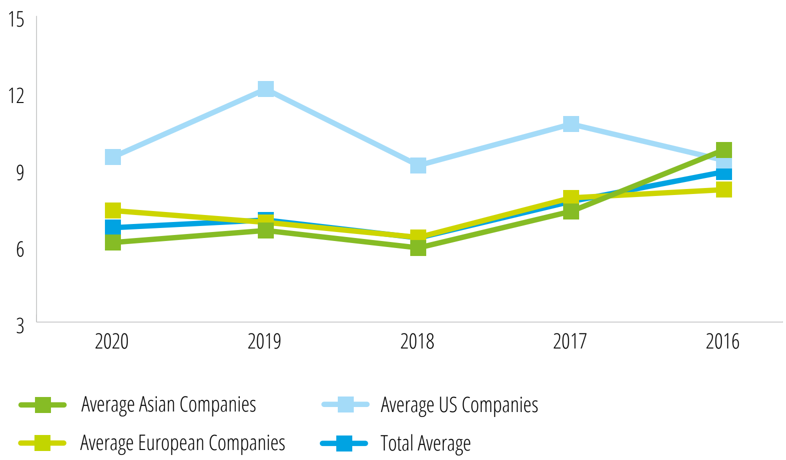
Six groups reported ratios above 10, eleven entities had ratios of between 5 and 10, 12 GPoC had ratios of between 1 and 5 and just one company, Shanghai Construction, reported a ratio of below 1.

Figure 5.11: Top 30 GPoC, Enterprise value/EBITDA



Source: Global Powers of Construction (GPoC) 2020. (July 2021).

Figure 5.12: Enterprise value/EBITDA



Source: Global Powers of Construction (GPoC) 2020. (July 2021).

Net debt / EBITDA

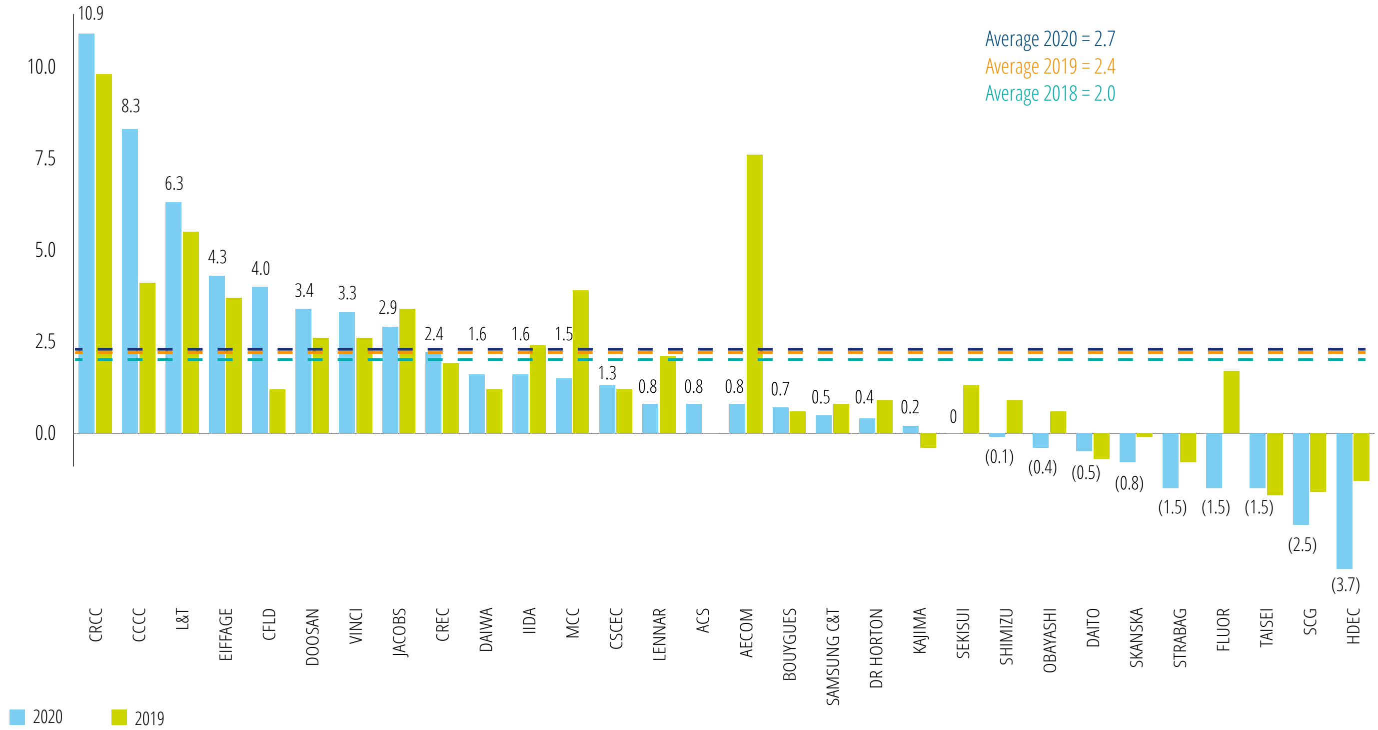
The average net debt / EBITDA ratio (Figure 5.13) has been steadily increasing since 2017. In 2020 it reached 2.7, in comparison with 2.4 in 2019.

China Railway Construction Corporation leads this ranking in 2020 (10.9) and also reported the highest ratio in 2019 (9.8). The Top 3 ranking is completed by China Communications Construction (8.3) and Larsen & Toubro (6.3).

At the other end of the spectrum, nine groups achieved ratios below zero as a result of the cash surpluses reported at the end of the year.

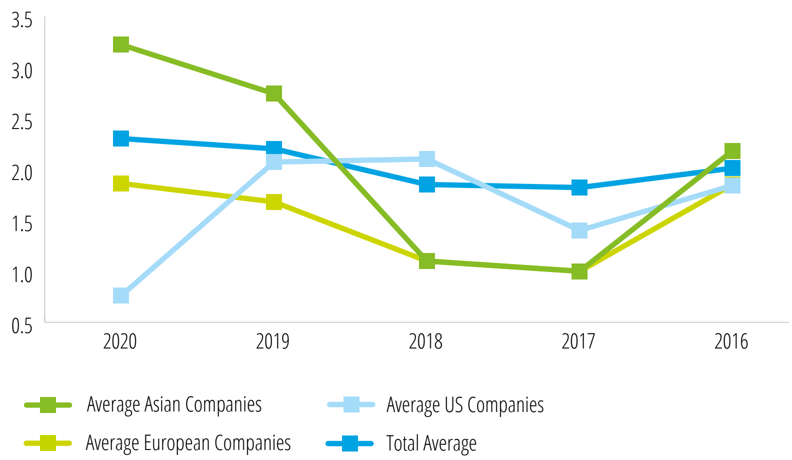
None of the entities under review obtained negative EBITDA in both 2020 and 2019.

Figure 5.13: Top 30 GPoC, Net debt/EBITDA



Source: Global Powers of Construction (GPoC) 2020. (July 2021).

Figure 5.14: Net debt/EBITDA



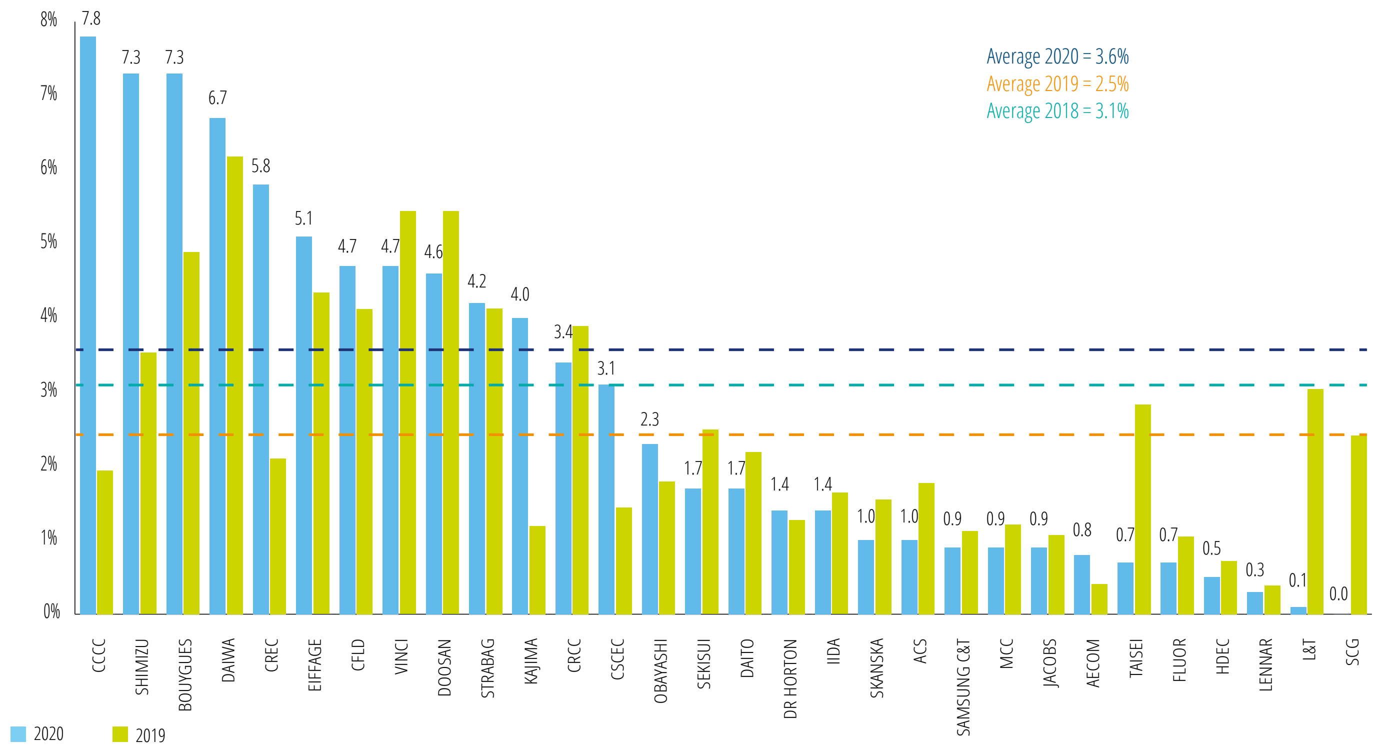
Source: Global Powers of Construction (GPoC) 2020. (July 2021).

Capital expenditure / Sales

In 2020 the average capital expenditure / sales ratio reported was 3.6%, 1.1 percentage points above that of 2019. Eleven groups achieved above-average ratios, while capital expenditure for ten entities represented less than 1% of total income (Figure 5.15).

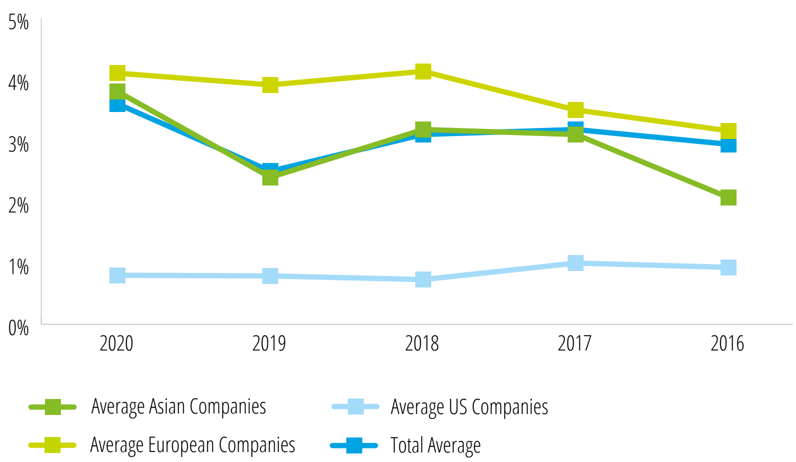
In comparison with other activities, these ratios are generally low among the Top 30 GPoC, since the construction business does not generally require significant levels of capital expenditure due to the fact that construction contracts are usually financed through downpayments. Capital expenditure requirements are traditionally higher in more diversified groups, since certain non-construction activities such as concessions and real estate projects are more capital intensive. Accordingly, the French companies VINCI, Bouygues and Eiffage, which are considered to be some of the most diversified GPoC, are ranked within the Top 8, as they have been able to diversify the traditional construction business into other activities such as concessions and telecommunications.

Figure 5.15: Top 30 GPoC, Capital expenditure/Sales



Source: Global Powers of Construction (GPoC) 2020. (July 2021).

Figure 5.16: Capital expenditure/Sales



Source: Global Powers of Construction (GPoC) 2020. (July 2021).

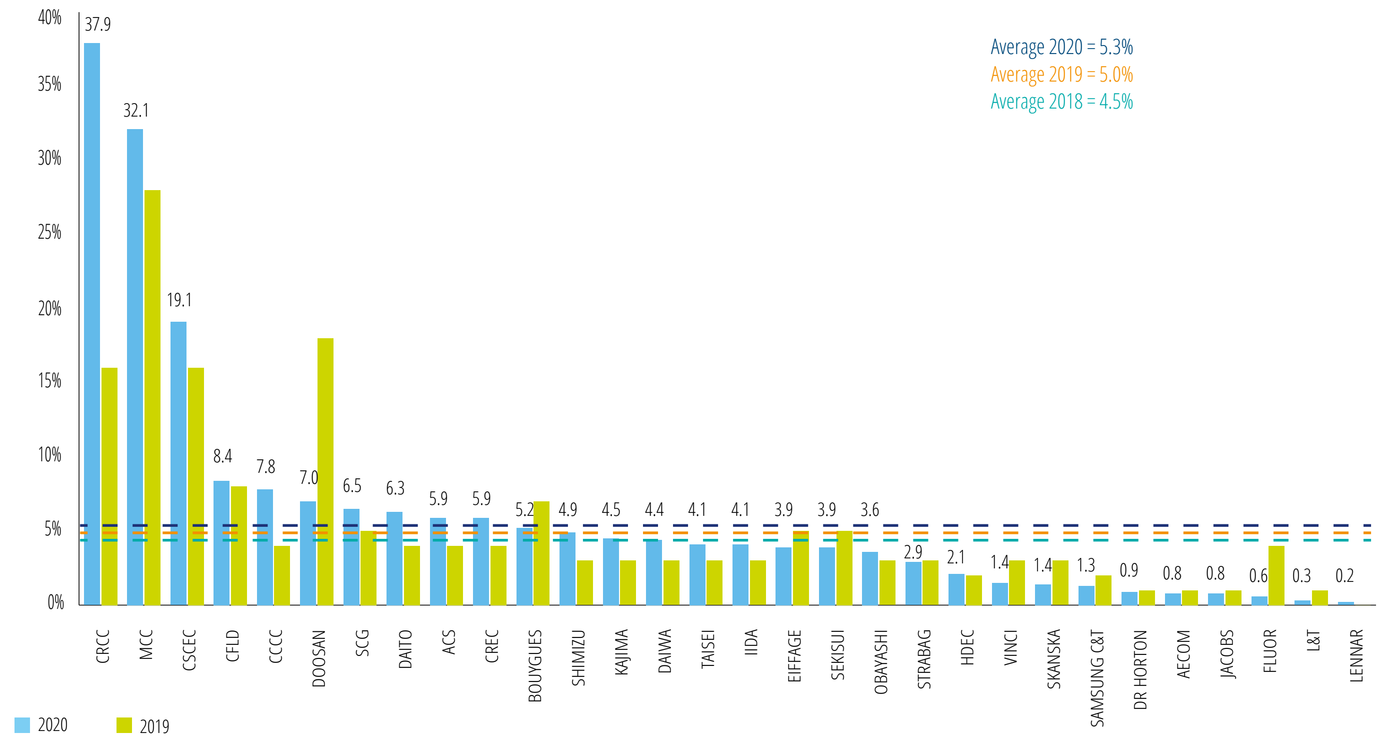
Dividend yield

The dividend yield increased slightly from 5.0% in 2019 to 5.3% in 2020 (see Figure 5.17) as a result of a 5% reduction in dividends paid, offset by a 11% contraction in market value.

Ten companies achieved an above-average dividend yield, while six groups (five of which are from the United States) reported ratios below 1%.

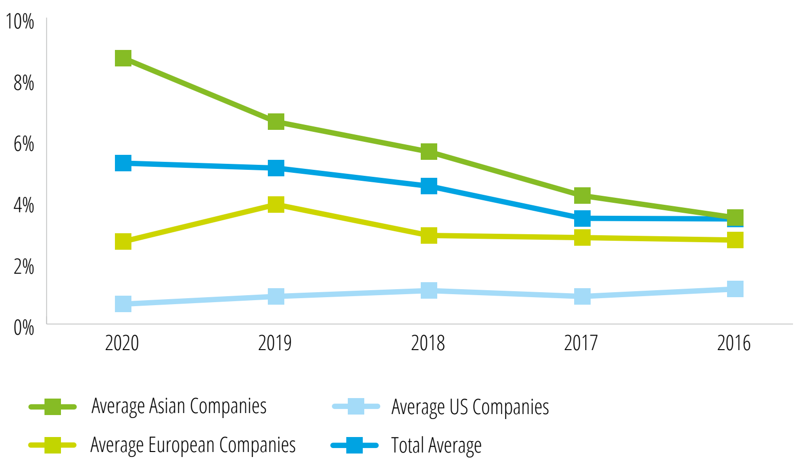
The Top 3 is dominated by Asian companies: China Railway Construction, Metallurgical Corporation of China and China Estate Construction Engineering. ACS leads the ranking among the European and US-based GPoC (5.9%).

Figure 5.17: Top 30 GPoC, Dividend Yield



Source: Global Powers of Construction (GPoC) 2020. (July 2021).

Figure 5.18: Dividend Yield



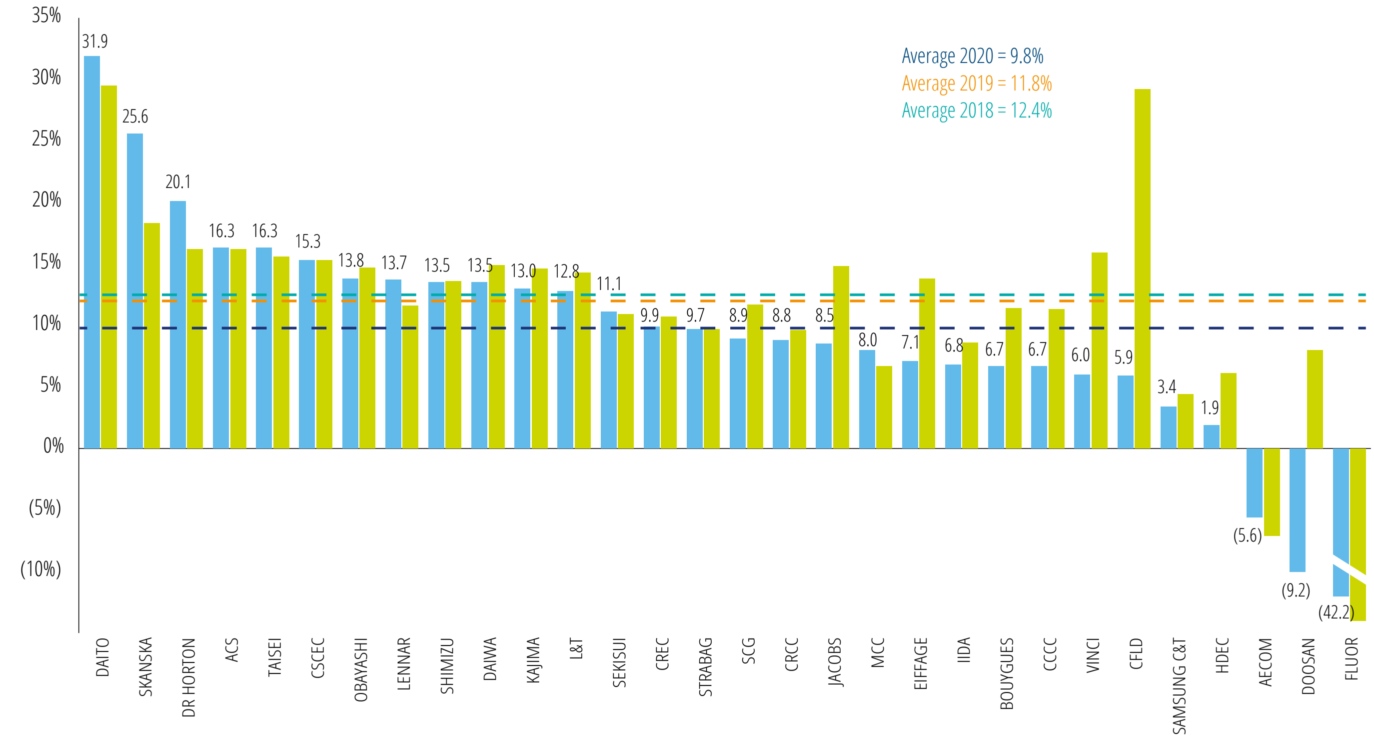
Source: Global Powers of Construction (GPoC) 2020. (July 2021).

Return on Equity (ROE)

Average ROE (Figure 5.19) for the Top 30 GPoC in 2020 (9.8%) is significantly below the levels of 2019 (11.8%) and 2018 (12.4%). Fourteen groups reported above-average ROE, while Fluor, AECOM and Doosan are the only GPoC that obtained net losses in 2020.

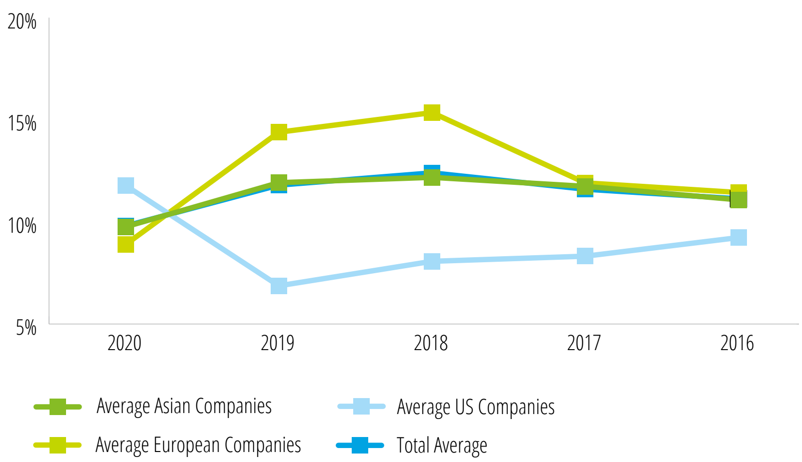
In addition, since their businesses are not as capital intensive, it can be deduced that pure construction groups (including homebuilders) have higher ROE than conglomerates, in view of the fact that the Top 3 is made up of Daito Trust Construction, Skanska and D.R. Horton.

Figure 5.19: Top 30 GPoC, Return on Equity



Source: Global Powers of Construction (GPoC) 2020. (July 2021).

Figure 5.20: Return on Equity



Source: Global Powers of Construction (GPoC) 2020. (July 2021).

Geographical and portfolio diversification of our GPoC

Over the last two decades, construction companies have followed a clear trend towards geographical and business diversification. Significant infrastructure needs in certain regions (see Figure 4.3) have boosted the international expansion of our GPoC, while their portfolio diversification into activities throughout the entire infrastructure cycle has allowed construction groups to increase synergies, resulting in higher profitability. In addition, in the current context of the COVID-19 crisis, diversified companies with a significant international presence have been able to balance risks, since the pandemic has not affected all sectors and countries in which these companies operate to the same extent.

Internationalization

Construction groups operate in an increasingly competitive environment and, therefore, one of the pillars that contributes to sustainable and profitable growth is the reinforcement of their leadership in the infrastructure sector through internationalization. The GPoC's international expansion has been achieved through a combination of organic growth and mergers and acquisitions. This process has been led by European companies, although in recent years Chinese and Korean companies have used significant acquisitions to expand their presence not only in Asia, but also in Europe and the Americas. However, the results of the internationalization process have been mixed, as many groups have found it difficult to adapt their business models to foreign markets.

In 2020 international sales represented 17% of total income, but notable differences can be identified among geographical areas: while the European GPoC obtained almost 60% of revenue abroad, the international sales of US and Asian-based GPoC represented just 15% and 19% of total income, respectively.

The international presence of the GPoC is expected to continue to expand in the coming years as demand in domestic markets is not always high enough to meet the supply of construction services.

A summary of the presence of our GPoC by region (excluding companies that only operate in their domestic markets) is as follows (Figure 6):

The Americas

The presence of the Top 30 GPoC 2020 in the Americas is led by three European Groups: ACS, Skanska and VINCI. On a smaller scale, the Top 5 is completed by Doosan and Obayashi.

- ACS is once again the most international contractor among our GPoC, obtaining 86% of its total sales abroad, in line with 2019. While its presence in the United States amounting to USD 22,908 million is headed by the construction business (Turner, Flatiron and Dragados), activities in Mexico and Latin America are led by its industrial services division. In 2020 income from North and South America decreased by approximately 7%, explained mainly by the impact of the COVID-19 pandemic on operations. In the coming years, ACS's presence in Latin America is expected to be limited given that it reached an agreement in Q1 2021 to sell its industrial services division to VINCI.

- Skanska obtained about 40% of its sales in the United States, mainly from construction activities. The United States represents the Group's largest single market. Revenue in the area fell in 2020, which was to a certain extent related to COVID-19 disruptions, but also to strategic actions implemented with a focus on operations and aiming to be more selective in bidding in order to improve profitability.

- VINCI reported revenue of almost USD 5,000 million in the region (in line with 2019), representing about 10% of total income. The distribution between North America and Latin America is roughly equal. Activities in the region are mainly carried out by the VINCI Energies and VINCI Airports divisions (the latter of which operates the Hollywood Burbank airport in California and the Hartsfield-Jackson airport in Atlanta, among others).

Middle East, Asia and Oceania

The companies with the largest presence within the region are Samsung C&T, ACS and Doosan. The Top 5 is completed by Hyundai E&C and Larsen & Toubro.

- Samsung C&T reported revenue of USD 6,202 million in the region, in line with 2019. The company has a large and varied portfolio of impressive construction achievements in the area, such as three of the world's tallest skyscrapers: Burj Khalifa, the Petronas Twin Towers and Taipei 101. It is also involved in other major infrastructure projects throughout the region, such as the Riyadh Metro in Saudi Arabia and the Fujairah F3 Combined Cycle Power Plant in the UAE.

- ACS operates in the region mainly through CIMIC, an Australian-based listed subsidiary. Total revenue in 2020 amounted to USD 8,380 million, more than 20% below 2019. The contraction in operations is related to the impact of COVID-19, together with other non-recurring losses. Excluding exceptional items, revenue in the area would have decreased by approximately 6%. The backlog in the region exceeded USD 20,000 million (25% of the total order book).

- Doosan posted revenue of USD 2,879 million in the region. In the last few years Doosan has laid solid groundwork for expansion by winning large-scale projects in the Middle East, India and Southeast Asia.

Africa

Even though construction projects on the continent are becoming bigger and more complex, the presence of our GPoC is still limited. According to our analysis, Hyundai E&C, Fluor and Doosan lead the presence in the region in relative terms. The Top 5 is completed by VINCI and Jacobs.

- As in Asia/Oceania, Hyundai E&C also has a strong presence in Africa, a market that accounted for about 12% of its total sales in 2020. The Azito Power Plant is one of the most representative projects executed by the group in the region.

  Fluor obtained about USD 550 million in sales in the region. Activities in Africa relate mainly to the Group's engineering and energy business. Some of the most

significant projects performed by the group were located in South Africa, Guinea, Madagascar and the Central African Republic.

- Doosan obtained more than USD 500 million in sales in Africa during 2020, representing about 3% of total sales. Activity in the region is focused on the distribution of construction equipment.

Europe

Strabag, VINCI and Eiffage lead the presence of our Top 30 GPoC in Europe, with 86%, 28% and 22% of their total income, respectively, originating from this region. The Top 5 is completed by Skanska and Jacobs.

- Strabag made almost all of its sales in the area, particularly in Germany. Its presence in other regions such as the Americas, Africa and Asia is almost nil (about 1% of total income). The backlog in Europe, including the domestic market, represented 93% of the total order book at the end of 2020.

- VINCI obtained revenue of USD 14,023 million in Europe (excluding France), slightly below 2019. The company's most important markets in Europe are Germany and the United Kingdom. Its presence in Germany has been strengthened through the acquisition by VINCI Energies of a German company focused on the offshore wind sector. The backlog in the United Kingdom has been strengthened through the award to VINCI Construction of the contract for civil engineering work on the HS2 rail project near Birmingham, as part of a consortium with Balfour Beatty.

- Eiffage obtained revenue of more than USD 4,000 million in Europe in 2020, about 10% lower than in 2019. The growth momentum of previous years was abruptly halted by the onset of the COVID-19 pandemic in Europe towards mid-March. After the shock recorded in the first half of the year in all business lines, in the second half of 2020 Eiffage returned to a level of activity close to that of 2019.

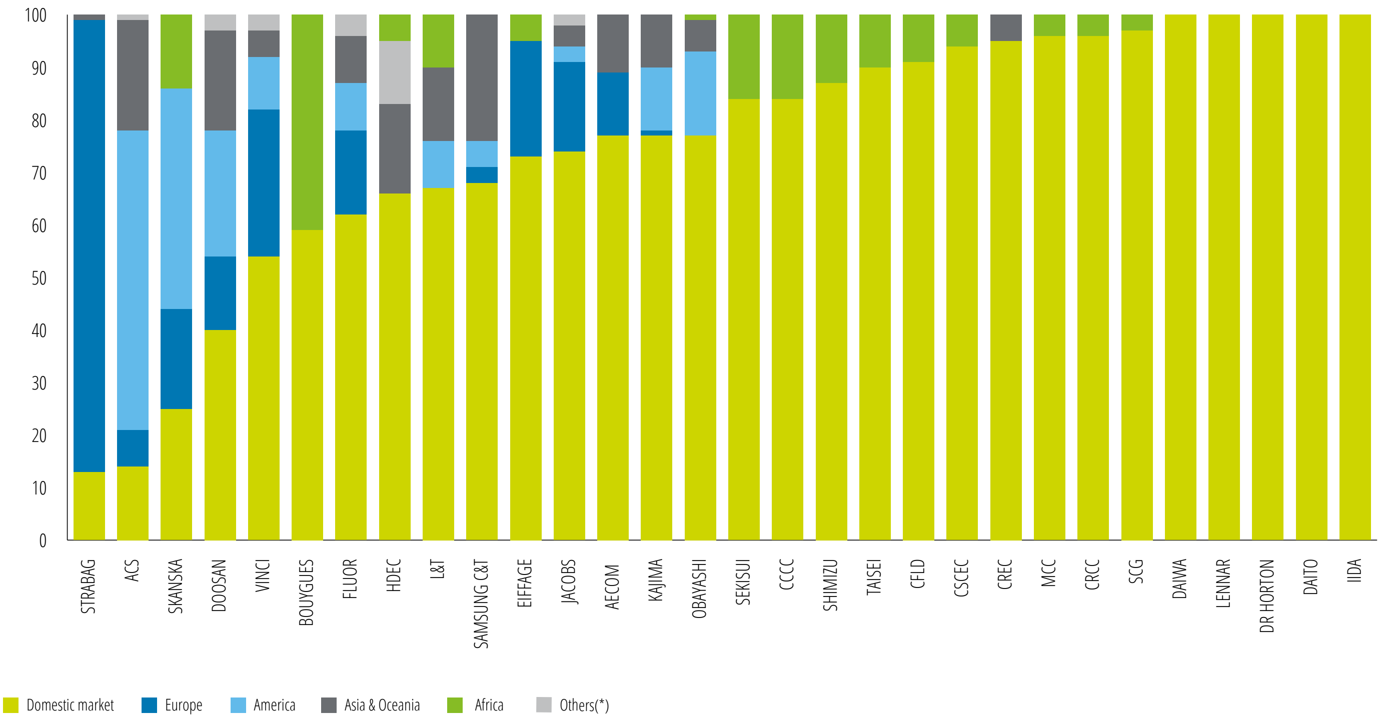
Diversification

Traditionally, margins in the construction industry are subject to great pressure and, accordingly, in their quest to improve profitability most construction groups have diversified their portfolio to perform activities throughout the entire infrastructure cycle. This allows them to increase synergies and harness their competitive advantages and industry knowledge.

These businesses are characterized by higher operating margins, shorter life cycles and more recurrent revenue. However, it should be pointed out that higher diversification usually leads to greater indebtedness, as construction is traditionally a sector of low capital intensity.

The analysis of the presence of our GPoC in non-construction activities enables us to highlight the following conclusions:

Figure 6: Top 30 GPoC Sales by region



(*) The percentages included in the 'Other' segment were taken from figures that the companies did not disclose in their annual reports or in their financial statements.

Source: Global Powers of Construction (GPoC) 2020.

Real estate
Real estate is one of the segments into which GPoC have diversified the most. As a result of the analysis performed, the following key players may be highlighted:

- Among the US-based GPoC, D.R. Horton and Lennar represent the main players in the real estate business. D.R. Horton, considered to be the largest homebuilder in the United States, delivered 76,330 homes in 2020. Lennar's homebuilding operations include the construction and sale of single-family homes as well as the purchase, development and sale of residential land. New homes delivered by Lennar in 2020 totaled 52,925 (51,491 and 45,627 in 2019 and 2018, respectively).

- Three Japanese GPoC have an extensive presence in the real estate sector. Daito's real estate segment represents more than 60% of total income and reported a 10.1% gross profit margin in 2020. Sekisui House's development business segment, which includes sales of houses, land and condominiums, represented 16% of total sales in 2020. With regard to Daiwa House, activities such as rental management and property development sales accounted for 29.4% of total sales.

- China Estate Construction Engineering, which is ranked in first position in the Top 100 ranking by total sales (see Figure 1.2) invests in real estate development. China Overseas Property, a subsidiary of CSCEC, has always been in the leading position among China's real estate enterprises, winning the "China Real Estate Industry Leading Brand" for 14 consecutive years.

Engineering and Energy
This segment covers a diverse range of services, from construction project design and consulting to the maintenance and operation of energy and industrial facilities. Among the GPoC, there are players within this sector in all geographical areas, the most significant of which are as follows:

- Samsung C&T is now becoming a major value creator, beyond the level of a simple EPC contractor, by performing development planning and plant operations. Completed flagship projects include the first nuclear power plant in the UAE, the Prai combined cycle power plant in Malaysia and the Rabigh 2 combined cycle power plant in Saudi Arabia.

- Fluor is one of the most representative US-based players within this sector. Its engineering disciplines include civil, electrical, mechanical, piping and structural engineering, and the company also boasts advanced specialties such as simulation, enterprise integration, integrated automation processes and interactive 3D and 4D modeling.

- The ACS Group also has an extensive presence within this sector. Its activities are focused on the development, construction, maintenance and operation of energy, industrial and mobility infrastructure. Its total revenue in 2020 amounted to approximately USD 7,000 million and its EBITDA margin was 11.3%. Nevertheless, as part of the corporate strategy adopted in previous years to focus on construction and concessions businesses, ACS reached an agreement in Q1 2021 to sell its industrial services division to VINCI.

Concessions
This sector is characterized by recurrent and predictable cash flows but also by strong capital investment requirements to build infrastructure. Numerous public-private partnerships between government agencies and private groups have been launched in recent years to finance and develop significant projects. These partnerships are mostly present in the construction of roads, hospitals and water infrastructure. The presence of the GPoC in the concessions business is dominated by European groups. The presence of US and Asian-based companies is still limited.

- VINCI, Eiffage and Bouygues have significant concessions segments, particularly focused on the operation of transport infrastructure in France.

- ACS could be also considered to be a major player through its non-controlling interests in Abertis, a Spanish-based company that operates transport infrastructure worldwide.

- Concession activities represent a major area of Strabag's businesses, with global project development activities in transportation infrastructure in particular.

Concessions, including those related to transport infrastructure, did not perform strongly in 2020. The lockdowns and mobility restrictions implemented in most regions inevitably reduced traffic levels.

Other
In addition to the traditional non-construction activities carried out by the GPoC detailed above, some of the groups under review have also been able to develop businesses that, at first glance, do not provide synergies with pure construction activities:

- Bouygues has a major presence in the media and telecom sectors. In media, in 2016 the TF1 group developed three strategic segments -Broadcasting, Studios & Entertainment, and Digital- to become the leading group in TV and digital media content in France. Launched in 1995, Bouygues Telecom is a major player in the French electronic communications market. Revenue in 2020 obtained by Bouygues from these activities amounted to approximately USD 2,500 million and USD 7,700 million, respectively.

- Samsung C&T's fashion segment works with an extensive line of brands that has enabled it to successfully cement its leading status in the fashion industry in Korea. This segment represents about 5% of the group's total revenue. In addition, the Korean group is also present in other activities such as resort and golf course operation, food and beverages, and landscaping.

- Larsen & Toubro's financial services segment, which represents about 10% of its total income, offers a diverse set of financial products and services covering mutual funds, infra finance and home loans, among others.

Study methodology and data sources

Companies were included in the Top 100 Global Powers of Construction based on their total sales for 2020 (financial years ended in 2020). To be included in the ranking, a company must be publicly traded and the portion of revenue arising from building and civil works must be significant enough to qualify. The Top 100 GPoC ranking by sales was prepared based on information taken from the ENR "Top 250 Global Contractors" ranking and the Forbes "Global 2000" list, filtered by "Construction Services". We have excluded from these rankings non-listed groups as well as groups whose main activity is engineering and which do not have a significant presence in the field of civil construction work. Listed entities consolidated into a larger group were also excluded from the ranking. Several sources are consulted to prepare the GPoC publication. All the data in this edition was gathered from external sources, such as annual company reports, Euroconstruct, the European Commission, the International Monetary Fund, the World Bank, Forbes and ENR reports. The main data sources for financial and other company information are annual reports and information found in company press releases and fact sheets or on company websites. In order to provide a common base from which to rank companies by their revenue figures, the revenue of non-US companies is converted to US dollars. Exchange rates, therefore, have an impact on the results. The average daily exchange rate corresponding to each company's fiscal year is used to convert that company's results to US dollars (see "Appendix - Exchange rates"). Group financial results are based only on companies with data. Not all items of data are available for all companies. It should also be noted that the financial information used for each company in a given year is accurate at the original date of issue of the financial report. Although a company may have restated prior year results to reflect a change in its operations or as a result of a change in accounting policy, such restatements are not reflected in this data. This study is not an accounting report. It is intended to provide an analysis of the main financial indicators of the major players within the construction industry and reflect market dynamics and their impact on the industry over a period of time. As a result of these factors, growth rates for individual companies may not correspond to other published results.

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Appendix - Exchange rates

2020			2019		
Currency	**Date**	**Exchange rate**	**Currency**	**Date**	**Exchange rate**
AED	From 01.01.2020 to 31.12.2020	3.67	AED	From 01.01.2019 to 31.12.2019	3.67
AUD.	From 01.07.2019 to 30.06.2020	1.55	AUD.	From 01.07.2018 to 30.06.2019	1.40
BAHT	From 01.01.2020 to 31.12.2020	31.32	BAHT	From 01.01.2019 to 31.12.2019	31.04
BRL	From 01.01.2020 to 31.12.2020	5.16	BRL	From 01.01.2019 to 31.12.2019	3.94
CAD.	From 01.01.2020 to 31.12.2020	1.34	CAD.	From 01.01.2019 to 31.12.2019	1.33
CHF	From 01.01.2020 to 31.12.2020	0.94	CHF	From 01.01.2019 to 31.12.2019	0.99
CNY	From 01.01.2020 to 31.12.2020	6.90	CNY	From 01.01.2019 to 31.12.2019	6.91
	31.12.2020	6.53		31.12.2019	6.96
DKK	From 01.10.2019 to 30.09.2020	6.66	DKK	From 01.10.2018 to 30.09.2019	6.62
GBP	From 01.01.2020 to 31.12.2020	0.78	GBP	From 01.01.2019 to 31.12.2019	0.78
	From 01.05.2019 to 30.04.2020	0.79		From 01.05.2018 to 31.04.2019	0.77
	From 01.07.2019 to 30.06.2020	0.79		From 01.07.2018 to 30.06.2019	0.77
	From 01.08.2019 to 31.07.2020	0.79		From 01.08.2018 to 31.07.2019	0.78
INR	From 01.04.2019 to 31.03.2020	68.19	INR	From 01.04.2018 to 31.03.2019	69.87
	31.03.2020	75.39		31.03.2019	69.87
JPY	From 01.04.2019 to 31.03.2020	108.72	JPY	From 01.04.2018 to 31.03.2019	110.88
	31.03.2020	107.53		31.03.2019	110.68
	From 01.02.2019 to 31.01.2020	109.04		From 01.02.2018 to 31.01.2019	110.24
	31.01.2020	108.50		31.01.2019	108.84
KRW	From 01.01.2020 to 31.12.2020	1,180.56	KRW	From 01.01.2019 to 31.12.2019	1,165.80
	31.12.2020	1,086.11		31.12.2019	1,155.46
KWD	From 01.01.2020 to 31.12.2020	0.31	KWD	From 01.01.2019 to 31.12.2019	0.33
MXN	From 01.01.2020 to 31.12.2020	21.55	MXN	From 01.01.2019 to 31.12.2019	19.25
NOK	From 01.01.2020 to 31.12.2020	9.41	NOK	From 01.01.2019 to 31.12.2019	8.80
PEN	From 01.01.2020 to 31.12.2020	3.49	PER.	From 01.01.2019 to 31.12.2019	3.34
SEK	From 01.01.2020 to 31.12.2020	8.79	SEK	From 01.01.2019 to 31.12.2019	9.46
	31.12.2020	8.21		31.12.2019	9.34
TRY.	From 01.01.2020 to 31.12.2020	7.02	TRY.	From 01.01.2019 to 31.12.2019	5.68
TWD.	From 01.01.2020 to 31.12.2020	29.46	TWD.	From 01.01.2019 to 31.12.2019	30.90
EUR	From 01.01.2020 to 31.12.2020	0.88	EUR	From 01.01.2019 to 31.12.2019	0.89
	31.12.2020	0.81		31.12.2019	0.89

* All Exchange rates used are to convert the value of one Dolar. Fred.stlouisfed.org is the source for the exchange rates.

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