

UK Equity Capital Markets: 2019 Review

January 2020

knma com/uk/oquitycanitalmarkots



£30.4 bn funds raised

15% **y** on 2018

£22.9 bn raised via placings

19% A on 2018

£5.9 bn raised via IPOs

39% **y** on 2018

£1.7 bn raised via rights issues

76% **v** on 2018

Whilst overall ECM issuance declined in 2019, follow-on fundraising remained buoyant and the successful post-IPO market performance of most 2019 debutants provided a silver lining

Welcome

Welcome to the KPMG UK Equity Capital Markets 2019 Review. We are delighted to present our analysis of the performance of UK equity markets over the last twelve months and our expectations and insights on how London markets will develop through 2020.

Whilst global capital markets recorded significant gains in 2019, macroeconomic and political factors acted as a headwind for equity fundraising activity across global exchanges. Closer to home, UK equity markets activity was undoubtedly further impacted by the ongoing shadow of Brexit-related uncertainties coupled with a general election in December.

Despite these challenges, we are encouraged that UK markets continue to exhibit resilience and once again London retained its position as the leading European exchange, evidenced through a number of high profile international IPOs in the first half of the year.

However, IPOs on London markets in 2019 decreased both in terms of volume and funds raised as market volatility and macroeconomic uncertainty gave rise to investors exhibiting greater selectivity and scrutiny over potential issuers who in turn explored alternative funding options in light of heightened execution risk and the availability of private funding.

The fall in IPOs was particularly notable on AIM which exhibited a significant year-on-year decrease in activity, reflecting the increasingly risk averse appetite of investors coupled with the accessibility of growth capital in private markets. In spite of this, AIM continues to be Europe's leading exchange for growth companies.

In contrast, the secondary market was very active as placings increased 19% year-on-year. Additionally, UK equity markets achieved a close to record twelve month period in terms of investor returns and London markets also saw a number of high profile demergers and acquisitions as companies sought to unlock value through M&A or to use shares as acquisition currency.

As we enter 2020, the pipeline for UK IPOs is strong following the result of December's general election and comprises a number of potential issuers who have deferred their transactions until markets and valuations become more favourable to sellers. Without doubt there are still challenges ahead, but we are optimistic that activity levels will recover over the course of the forthcoming twelve months and therefore would encourage those companies considering an IPO to prepare as early as viable to create as much first mover advantage as possible.



Linda Main
Partner, Head of UK Capital
Markets Group

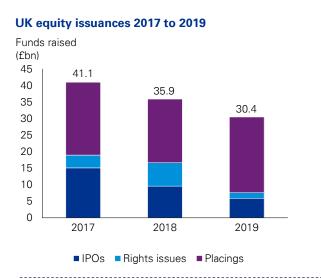


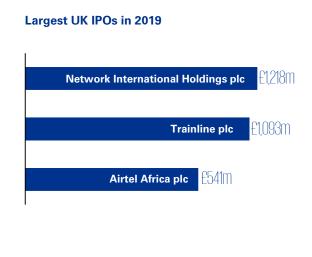
Marco Schwartz

Managing Director, Head of Equity
Capital Markets Advisory UK

2019 Full Year Snapshot

Total UK equity fundraising decreased by 15% in 2019, however, placings increased by 19%





No. deals

50

40

30

20

10

0

11.0

0.6

2019

UK IPO volumes and funds raised fell in 2019, with AIM in particular seeing a sharp decrease across both metrics



2019 IPO companies have outperformed the broader market



2019 review and 2020 outlook

2019 review

2019 UK equity markets operated in a challenging macroeconomic and political environment

Challenging macroeconomic and political conditions significantly affected overall appetite for ECM transactions in 2019. Another year of Brexit-related political uncertainty combined with another general election in December contributed to a suppression of IPO volumes with just 24 main market IPOs completing during 2019 compared to 43 in 2018.

AIM IPO volumes also suffered amid the political uncertainty with only 11 completed IPOs (compared to 35 in 2018).

Despite lower volumes, average funds raised increased, and several large IPOs still successfully completed during the year and performed strongly post-debut

Market entrants in 2019 achieved an average return post-IPO of 26.7% on the Main Market and 15.5% on AIM. The two largest Main Market IPOs of the year, Network International and Trainline were trading at +47% and +45%, respectively, at 31 December 2019.

2020 outlook

The UK remains the centre of European ECM issuance and is expected to continue to attract domestic and international issuers seeking to raise capital

Despite the headwinds experienced in 2019, London retained its position as the leading European market in 2019, accounting for nearly 33% of all fundraisings.

The IPOs of Network International, Airtel Africa, Finablr and Helios Towers, along with the first transaction under the LSE-Shanghai connect programme by Huatai Securities, also demonstrate London's continued appeal to international and emerging market issuers.

However, some, if not all of the factors which suppressed ECM activity in 2019 are likely to persist in 2020 and in the short to medium term we expect to see increasing investor focus on placings and further issues as well as shareholders and companies deriving value through demerger and M&A activity.

A number of substantial transactions are currently in progress and are expected to complete in 2020.

Investors were selective with their deployment of funds, focusing on quality and exhibiting a preference for placings and yield orientated offers

The follow-on market has been resilient with further issues down by only 7% (comprising placings and rights issues) compared to 2018. Financial services and technology were the most active sectors in terms of funds raised. Healthcare was the third largest sector by funds raised, underpinned by the largest completed ECM deal of the year, a £2.7bn placing by AstraZeneca.

We also saw a strong trend towards demergers, public company M&A transactions and public to private deals

Another consequence of a more challenging backdrop has been the focus on core assets and management and shareholders' attempts to unlock value through demergers and M&A activity. Highlights include the demerger of Prudential plc and M&G plc, OneSavings Bank plc's merger with Charter Court Financial Services Group plc and the London Stock Exchange Group's acquisition of Refinitiv.

Public to private M&A activity increased by 40% year-on-year as 28 agreements were reached to take UK companies off the stock market during 2019. The increase was driven by private equity deployment of funds, foreign issuers taking advantage of a weak sterling and suppressed public market valuations.

Issuers must adapt to the evolving investor landscape and sentiment in order to remain attractive, whilst proactive investor engagement has become increasingly important to protect against activist strategies

The increased importance placed on ESG by Fund Managers is expected to continue in 2020, following the LSE's 'Green Economy' accreditation for its IPO candidates in 2019, enabling companies to market themselves to investors as a 'sustainable investment.'

There was an increase in activist investor activity in 2019. High-profile examples, such as the proposed merger of Just Eat and Takeaway.com, demonstrated that such investors have increasing power to shape strategic decisions and corporate actions.

Our advice to any company looking to list in 2020, is that early preparation will be vital. Following a settling of market headwinds, companies that are ready to execute will put themselves in a beneficial position to capitalise on early investor interest and ultimately benefit from a successful transaction.



The UK ECM landscape

Total funds raised across UK Equity Capital Markets in 2019 were at the lowest level since 2012 (and down 15% compared to 2018). Fundraising for the year was weighted towards H1 with 63% of total issuance raised in the first half of the year (compared to 56% in H1 2018). Notably, the average size of transactions in 2019 increased against prior periods, with the top 5 largest deals of the year accounting for 23% of all funds raised.



Whilst IPO volumes sharply declined in 2019, placings have performed well throughout the year, representing 75% of total issuance (2018: 53%) and up 19% on the prior year. Placings were underpinned by several significant follow-on transactions in the period, including the £2.7 billion placing by AstraZeneca.

Graham Hertrich, Director, Equity Capital Markets Advisory, UK

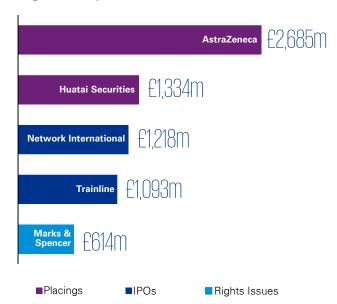
Main Market - All ECM Activity



AIM - All ECM Activity



Largest completed ECM deals in 2019



Most active sectors in 2019 by funds raised

Technology & Software

£6,392m raised (82 deals)

Notable deals: Network International Holdings plc, Trainline plc, Avast plc, Finablr plc, GB Group plc, Blue Prism Group plc

Financial Services

£6,238m raised (95 deals)

Notable deals: Huatai Securities Co Ltd, Hipgnosis Songs Fund Ltd, Metro Bank plc, Sequoia Economic Infrastructure Income Fund Ltd, TCS Group Holding plc, Standard Life Aberdeen plc, Halyk Bank, Merian Chrysalis Investment Co Ltd, 3i Infrastructure plc, Hargreaves Lansdown Plc, JPMorgan Global Core Real Assets Ltd, Syncona Ltd, M&G plc, International Public Partnerships Ltd, Draper Esprit plc

Healthcare

£3,181m raised (41 deals)

Notable deals: AstraZeneca plc, UniPhar plc, Angle plc

2019 UK IPO highlights

£5.9 billion — IPO funds raised, 39% down from 2018

Key metrics – 2019 (2018)

	Main Market	AIM
Number of deals	24 IPOs (43)	11 IPOs (35)
IPO funds raised	£5,296 million (£8,196 million)	£574 million (£1,401 million)
Average IPO funds raised	£221 million (£191 million)	£52 million (£40 million)
Average market capitalisation on IPO	£496 million (£541 million)	£111 million (£84 million)

35 IPOs — 52% down from 2018

Key 2019 sectors by funds raised

Technology

£3,627m raised (9 deals)

Notable deals: Network International Holdings plc, Trainline plc, Airtel Africa plc, Finablr plc, Helios Towers plc, Essensys plc, Induction Healthcare Group plc

Investment Funds

£1,002m raised (5 deals)

Notable deals: Schiehallion Fund Ltd, Octopus Renewables Infrastructure Trust plc, US Solar Fund plc, Aquila European Renewables Income Fund plc

Retail

£484m raised (2 deals)

Notable deal: Watches of Switzerland Operations plc

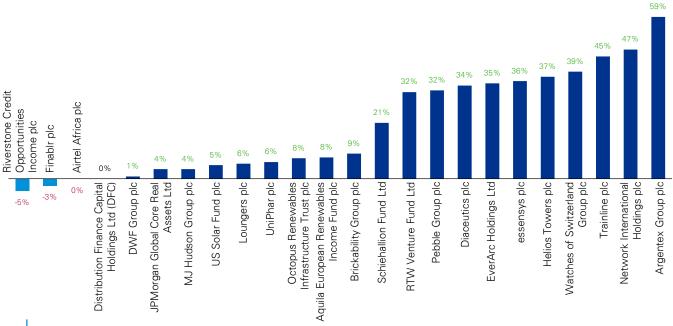
Across the Main Market and AIM, a total of 35 companies completed IPOs during the year. The year started strongly with 21 IPOs in the first half, including the two largest IPOs of the year in Network International (£1.2bn) and Trainline (£1.1bn) and the first-ever premium listing of a law firm in DWF Group. However, heightened political and economic uncertainty in H2 2019 restricted investor appetite for new entrants with 14 additional IPOs in the period raising a total of £1.4 billion.



From a sector perspective, technology companies led the way with funds raised of £3.7 billion (62.7% of total funds raised in 2019). Other prominent sectors included closed end funds and trust based investment vehicles, demonstrating preference by some equity investors for consistent and stable yields.

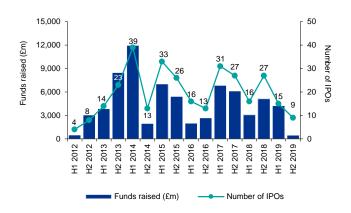
Svetlana Marriott, Partner, UK Capital Markets Group

After-market performance of 2019 IPOs as at 31 December 2019 (market cap > £50 million)

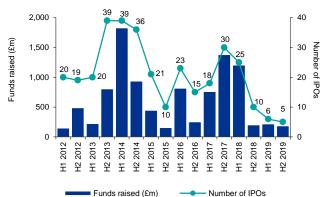


IPO review: UK Main Market and AlM

Main Market IPO activity (2012 to H2 2019)



AIM IPO activity (2012 to H2 2019)



2019 saw the lowest number (24) of Main Market IPOs since 2012, down 39% on the prior year and with the value of funds raised down 35% on 2018 levels. It was a year heavily weighted towards the first six months. The trend for large, PE-backed listings in H1 failed to continue into the second half, in which only £1.1bn of funds were raised, 75% down on H1 2019. Whilst the IPO market was suppressed during the year, the LSE remained the top stock exchange in Europe for equity issuance, welcoming 10 international IPOs throughout the twelve month period.

Although there were several withdrawn or postponed transactions in the period, the majority of companies that did come to market have performed very well since IPO. As a result, we saw several instances of shareholders capitalising on strong IPO aftermarket performance to further monetise their remaining equity stakes, for example, pre-IPO shareholders in both Trainline and Network International took the opportunity to sell down stock twice following their respective IPOs earlier in the year.

Rob Crowley Director, UK Capital Markets Group London's AIM experienced a significant reduction in IPO activity in 2019, with only 11 issuers completing listings (2018: 35) raising a total of £574 million (2018: £1.4bn).

Whilst UK political uncertainty is likely to have been a factor in the recent slowdown, it is also notable that the decline in AIM IPOs has been observed at a time when UK growth companies have found an abundance of capital in the private markets.

AIM continues to be Europe's leading exchange for growth companies, accounting for 65% of total growth company IPO and Follow-on activity for the year, approximately 3.2 times more than the next largest exchange.

Where companies did come to market in 2019, many performed well, with the average return for IPO candidates far exceeding the FTSE AIM index. This may be a sign that investors have taken a more robust stance on IPO valuations throughout the year. The largest AIM float of the year, the Pebble Group, occurred in December and shows that the IPO market remains open, despite a challenging back drop.

Adam Evans Associate Director, UK Capital Markets Group

"

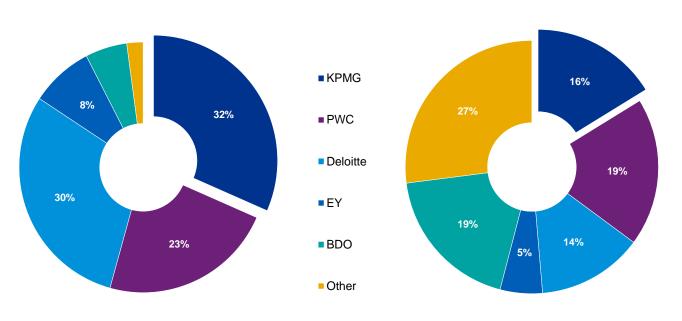


Our highlights of 2019

2019 IPO reporting accountant market share

By market capitalisation

By number of IPOs



Source: Dealogic, London Stock Exchange statistics, Company announcements

KPMG maintained its market leading position in the UK IPO reporting accountant market during 2019, acting on several of the year's highest profile listings including Network International, Trainline and Watches of Switzerland.

"

2019 also saw the KPMG Capital Markets Group assist on a number of company support and advisory roles, providing expertise and additional resource to effectively guide finance teams for the duration of their capital markets transactions. Companies are also increasingly aware of the need to be well-prepared prior to an IPO. We have seen that those companies who address major outstanding issues early on in the IPO timeline benefit from a smoother process.

Svetlana Marriott, Partner, UK Capital Markets Group

Our equity capital market services

Pre-IPO

Pre-IPO feasibility and readiness assessment

- Identifying the financial areas critical to a successful IPO
- Minimises delays and additional costs later in the process

Reward structuring

- Advice on potential executive and employee remuneration plans and benefits structuring
- Benchmarking against listed peers

Independent IPO advisor

- Independent advice on potential IPO structuring
- Assistance with advisor selection

Tax structuring

- Tax structuring advise including areas such as the domicile of TopCo and re-registration vs. NewCo
- VAT treatment advice

IPO execution

IPO reporting accountant

- Financial, tax and commercial due diligence to give you comfort during the listing process
- Assess the control and governance frameworks and benchmark against listed company requirements
- Sign-off on the financial information included in the listing document

Independent IPO advisor

- Independent advice on equity story, positioning, valuation and investor marketing
- Sounding board on key IPO decisions
- Support in selection and oversight of IPO bank syndicate
- Team of experienced former ECM bankers

Company support and accounting advisory

- Additional resource to support your finance team with: project management; model building; IPO related memorandum drafting; accounting policy manual drafting; additional assistance with any tasks normally performed within your finance team
- Preparation of historical financial information (including carve-outs and GAAP conversions)
- Distributable reserves analysis

- Advice on IPO structuring from an accounting aspect (including impact assessments of new IFRS and accounting position papers)
- Advice on preparation of annual report (including benchmarking against peers)
- Advice on on-going accounting requirements as a listed company and training on new IFRS

Post-IPO

PLC reporting accountant

 Full reporting accountant suite of services for post-IPO transactions (e.g. acquisitions, disposals, reverse takeovers, rights issues, etc.)

ECM advisory

- Independent financial advice for PLCs seeking to raise equity to fund M&A or enhance capital structure
- Advice for shareholders seeking to buy or monetise a stake in a public company

Investor relations support

- Independent investor perception studies
- Advice on investor relations best practice
- Supporting effective engagement with high quality institutional investors

KPMG can advise you throughout the IPO lifecycle

Our selected recent transactions

Main Market and AIM IPOs

Main Market AIM

Technology

KPMG

Trainline

Transaction Services

- Reporting Accountant - Main Market IPO

> £1.7 billion June 2019

KPIMG

The Simply Biz Group

Transaction Services

- Reporting Accountant - AIM IPO

£121 million April 2018

KPMG

Network International **Holdings** Transaction Services

- Reporting Accountant - Main Market IPO

£2.2 billion

KPMG

Shearwater Group

Transaction Services

- Reporting Accountant - AIM IPO

£41 million April 2017

Financial Services

KPMG

M&G

Transaction Services

Reporting Accountant - Main Market Demerger

£7 billion September 2019

KPMG

Amigo Holdings

Transaction Services

- Reporting Accountant - Main Market IPO

> £1.5 billion July 2018

KPMG

AJ Bell

Transaction Services

- Reporting Accountant - Main Market IPO

£650 million December 2018

KPMG

Quilter

Transaction Services

 Reporting Accountant - Main Market Demerger

£2.9 billion June 2018

Consumer & Leisure

KPMG

Watches of **Switzerland Group**

Transaction Services

- Reporting Accountant - Main Market IPO

> £647 million May 2019

KPMG

Hollywood Bowl Group

Transaction Services

- Reporting Accountant - Main Market IPO

> £257 million September 2016

KPMG

THEWORKS.CO.UK

Transaction Services

- Reporting Accountant - Main Market IPO

£109 million July 2018

KPMG

Jimmy Choo

Transaction Services

- Reporting Accountant - Main Market IPO

> £546 million October 2014

Natural Resources

KPMG

Valeura Energy

Transaction Services

- Reporting Accountant - Main Market IPO

£149 million

KPMG

Serinus Energy

Transaction Services

- Reporting Accountant - AIM IPO

May 2018

KPMG

Bellzone Mining

Transaction Services

- Reporting Accountant - AIM IPO

£16 million July 2018

KPMG

Yu Group

Transaction Services

- Reporting Accountant

- AIM IPO

£172 million March 2018

Our selected recent transactions

Main Market and AIM IPOs

Key:

Main Market ———

AIM

Manufacturing/Logistics

KPMG

Xeros Technology Group

Transaction Services

- Reporting Accountant - AIM IPO

> £63 million December 2018

KPMG

Eddie Stobart Logistics

Transaction Services

- Reporting Accountant - AIM IPO

> £533 million June 2018

KPMG

Aston Martin Lagonda Global Holdings

Transaction Services

- Reporting Accountant - Main Market IPO

£4.3 billion

KPMG

Strix Group

Transaction Services

- Reporting Accountant - AIM IPO

> £247million April 2017

Healthcare

KPMG

Induction Healthcare Group

Transaction Services

- Reporting Accountant - AIM IPO

> £34 million May 2019

KPMG

Creo Medical Group

Transaction Services

- Reporting Accountant - AIM IPO

> £154 million July 2018

KPMG

Okyo Pharma

Transaction Services

- Reporting Accountant - Main Market IPO

> £7.9 million July 2018

KPMG

Diurnal Group

Transaction Services

- Reporting Accountant - AIM IPO

> £124 million March 2018

Funds

KPMG

Odyssean Investment Trust

Transaction Services

Reporting Accountant
 Main Market IPO

£90 million April 2018

KPMG

Aberdeen Standard European Logistics Income

Transaction Services

Reporting Accountant
 Main Market IPO

£188 million December 2017

KPMG

Baillie Gifford US Growth Trust

Transaction Services
- Reporting Accountant
- Main Market IPO

£173 million March 2018

KPMG

AEW UK Long Lease REIT

Transaction Services

- Reporting Accountant - Main Market IPO

> £80 million June 2017

Other

KPMG

DWF Group Limited

Transaction Services

- IPO Assist - Main Market IPO

> £366 million March 2019

KPMG

Sirius Real Estate Limited

Transaction Services

Reporting Accountant
 Main Market IPO

£433.5 million March 2017

KPMG

Glenveagh Properties plc

Transaction Services

- Reporting Accountant - Main Market IPO

> £618 million October 2017

KPMG

Escape Hunt

Transaction Services

- Reporting Accountant

- AIM IPO

May 2017

Our selected recent transactions

Other equity capital market transactions

Key:

Main Market

AIM

KPMG

Takeaway.com NV

Transaction Services

- IPO Assist

£9 billion October 2019

Wizz Air

KPMG

Transaction Services

- Reporting Accountant - Class 1 acquisition of 20 aircraft

Undisclosed

KPMG

Prudential

Transaction Services

- Reporting Accountant - Class 1 demerger of M&G plc

> £7 billion September 2019

KPMG

London Stock Exchange

Transaction Services

- Reporting Accountant - Class 1 acquisition of Refinitiv

> \$27 billion September 2019

KPMG

The Renewables Infrastructure Group

Transaction Services

- Reporting Accountant - Share issuance programme

> £302 million March 2019

KPMG

Low & Bonar

Transaction Services

Reporting Accountant
 Rights issue

£54 million February 2019

KPMG

Grainger

Transaction Services

- Reporting Accountant - Acquisition of GRIP REIT plc

> £396 million November 2018

KPMG

Old Mutual

Transaction Services

- Reporting Accountant - Managed separation of the Anglo-South African financial services group

> £7.9 billion June 2018

KPMG

Atlantis Resources

Transaction Services

- Reporting Accountant - Reverse acquisition of SIMEC Uskmouth Power

> £136 million June 2018

KPMG

Ascential

Transaction Services

- Reporting Accountant - Sale of its Ascential Exhibitions business to ITE

> £300 million June 2018

KPMG

Capita

Transaction Services

- Reporting Accountant - Rights issue

> £681 million May 2018

крид

French Connection

Transaction Services

- Reporting Accountant - Sale of Toast (Mail Order) Ltd

> £23.3 million April 2018

KPMG

Cineworld Group

Transaction Services

- Reporting Accountant - Acquisition of US cinema chain, Regal Entertainment Group

> \$3.6 billion February 2018

KPMG

Proactis

Transaction Services

Reporting Accountant
 Re-admission to AIM
 following the reverse
 takeover of Perfect
 Commerce LLC

£167 million August 2017

KPMG

Savannah Petroleum

Transaction Services

- Reporting Accountant - Reversed acquisition of certain assets of Seven Energy

> \$270 million December 2017

KPMG

British American Tobacco

Transaction Services

- Reporting Accountant - Class 1 acquisition of Reynolds

> \$49 billion July 2017



Report Methodology Notes:

Data in this report has been sourced from Dealogic. Data relating to "Average returns in 2019" for FTSE All-Share and FTSE AlM under the heading "2019 IPO Companies have outperformed the broader number" on page 3 has been sourced from Thomson Reuters Datastream. Data contained in this report has been generated at 31 December 2019 and includes priced transactions only. In this document, UK includes LSE Main Market and Alternative Investment Market (AIM). Where report refers to "Placings", this consists of accelerated transactions (including rights issue rump placings), bought deals, fully marketed follow-ons, cash placings, PIPE transactions, at-the-market transactions, top-up placement transactions, and registered direct offerings as per Dealogic classifications. Where the report refers to "Rights Issues" this consists of rights issues, open offers and other guaranteed preferential allocation transactions as per Dealogic classifications. Note that Dealogic data only captures Rights Issue deal volumes when the results of the rights issue are announced, post-trading of the rights. For individual rights issue transactions shown on pages 3 and 6, total deal value includes the value of the rump placing at the placing price. After-market performance across Main Market and AIM IPOs has been calculated by taking an average of the percentage change between the offer price and prevailing closing share price as at 31 December 2019 over all IPOs that have been successfully admitted to trading in the period.

Notes

Notes

Notes

Contact us



Linda Main Partner, Head of UK Capital Markets Group linda.main@kpmg.co.uk +44 (0) 207 311 8574



Partner, UK Capital Markets Group svetlana.marriott@kpmg.co.uk +44 (0) 207 694 4041



Marco Schwartz Managing Director, Head of Equity Capital Markets Advisory UK marco.schwartz@kpmg.co.uk +44 (0) 207 311 2975



Director, UK Capital Markets Group robert.crowley@kpmg.co.uk +44 (0) 207 694 5813



Director, Equity Capital Markets Advisory UK graham.hertrich@kpmg.co.uk +44 (0) 207 311 5114



Director, UK Capital Markets Group helen.mccourt@kpmg.co.uk +44 (0) 161 2464 908



Director, UK Capital Markets Group nina.smith@kpmg.co.uk +44 (0) 207 694 5813



Sergey Baskakov Associate Director, UK Capital Markets Group sergey.baskakov@kpmg.co.uk +44 (0) 207 694 5294



Associate Director, UK Capital Markets Group adam.evans2@kpmg.co.uk +44 (0) 207 694 8997



Edward Corbett Associate Director, UK Capital Associate Director, UK Capital Markets Group +44 (0) 207 311 3918



James Mott Markets Group



Shalin Bhamra Manager, Equity Capital Markets Advisory UK shalin.bhamra@kpmq.co.uk +44 (0) 207 694 4134



Johan Collin Manager, UK Capital Markets johan.collin@kpmg.co.uk +44 (0) 207 694 5425



Rupert Froud Manager, Equity Capital Markets Advisory UK rupert.froud@kpma.co.uk +44 (0) 207 694 8430



Ameerah Smith Manager, UK Capital Markets Group +44 (0) 207 311 8145



Charlotte Sutcliffe Manager, Equity Capital Markets Advisory UK charlotte.sutcliffe@kpn +44 (0) 207 311 8145



Ruth Watts Manager, UK Capital Markets Group ruth.watts@kpmg.co.uk +44 (0) 207 694 3317



Alexander Burke Assistant Manager, UK Capital Markets Group alexander.burke@kpma +44 (0) 207 311 3263



Krishna Mehta Assistant Manager, UK Capital Markets Group krishna.mehta@kpmq.c +44 (0) 207 694 4514



Josephine Slater Assistant Manager, UK Capital Markets Group josephine.slater@kpmg.co.uk +44 (0) 207 311 5138

kpmg.com/uk







The information contained herein is of a general nature and is not intended to address the circumstances of any particular individual or entity. Although we endeavour to provide accurate and timely information, there can be no guarantee that such information is accurate as of the date it is received or that it will continue to be accurate in the future. No one should act on such information without appropriate professional advice after a thorough examination of the particular situation.

© 2020 KPMG LLP, a UK limited liability partnership and a member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity. All rights reserved.