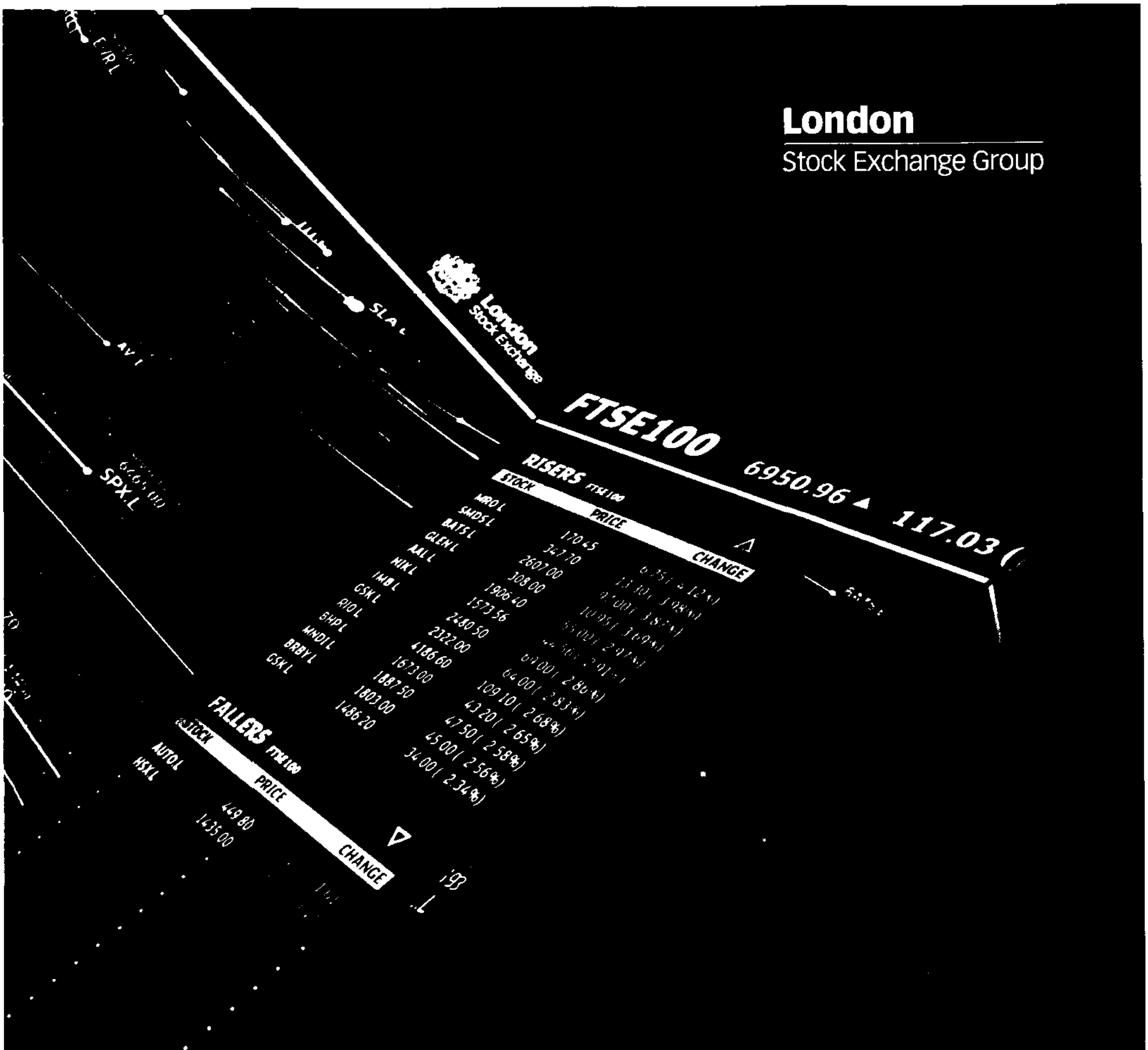
London
Stock Exchange Group



A global financial markets infrastructure business

Annual Report
31 December 2018

LSEG

Who we are
London Stock Exchange Group is a global financial markets infrastructure business. We provide valuable services for a wide range of customers, focusing on Information Services, Risk and Balance Sheet Management and Capital Formation.

Our vision
To be the world's leading financial markets partner.

Our purpose
We support global financial stability and sustainable economic growth by enabling businesses and economies to fund innovation, manage risk and create jobs.

Further information on London Stock Exchange Group can be found at **www.lseg.com**
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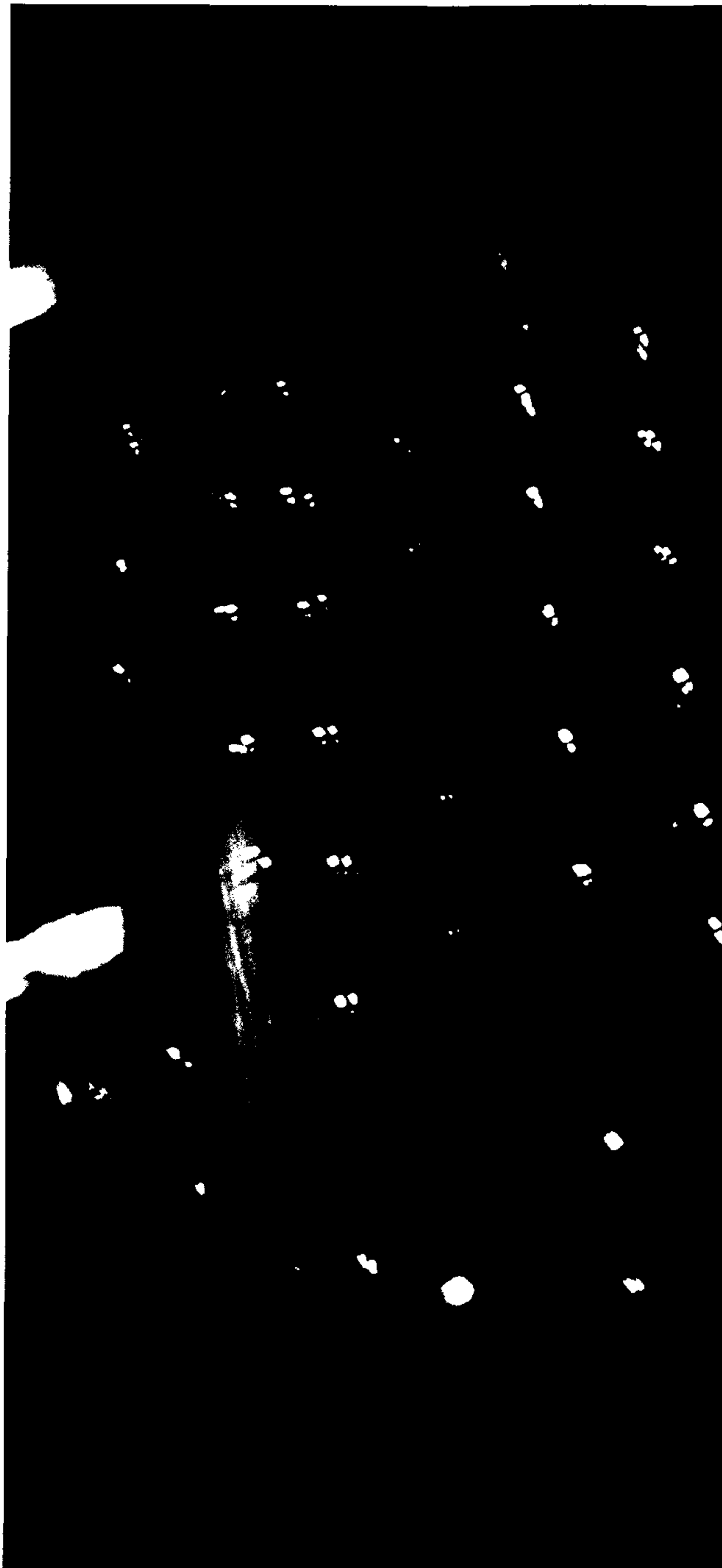


STRATEGIC REPORT

An overview of our business, our strategy and the markets and regulatory environment in which we operate, including statements from our Chairman and CEO, followed by more detail on each of our divisions, our performance, how we consider our wider responsibilities and the principal risks that could affect our business. Sign-off for the Strategic Report is provided in the Directors' Report on page 104.

GOVERNANCE

An introduction to our Board of Directors, our approach to corporate governance, the reports of committees to the Board and how we reward performance, along with *other statutory and regulatory information*

GROUP FINANCIAL STATEMENTS

Detailed financial information setting out our performance for the reported 12 month period and financial position at year end

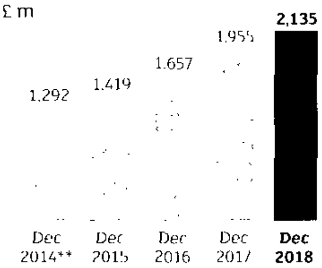
SHAREHOLDER INFORMATION

A glossary of terms used in this report and other information for shareholders

Highlights

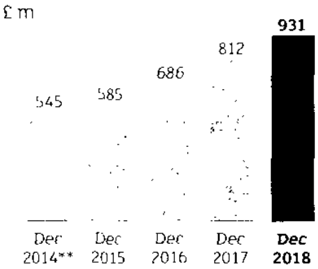
The figures in the graphs below are for the Group on a continuing basis, so exclude businesses classified as discontinued during the periods shown.

Total income
£m



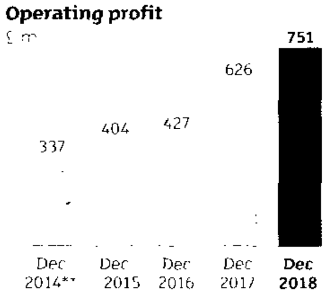
+9%

Adjusted operating profit*
£m



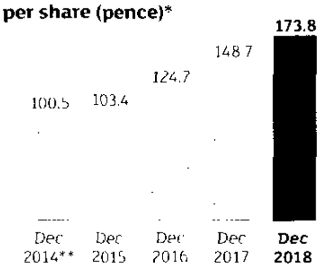
+15%

Operating profit
£m



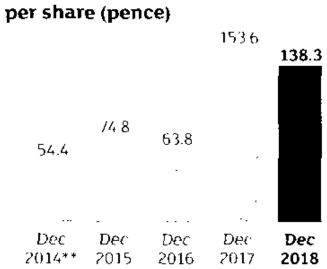
+20%

Adjusted basic earnings per share (pence)*



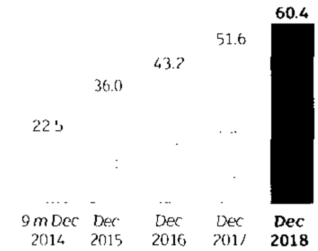
+17%

Basic earnings per share (pence)



(10%)

Dividends per share (pence)



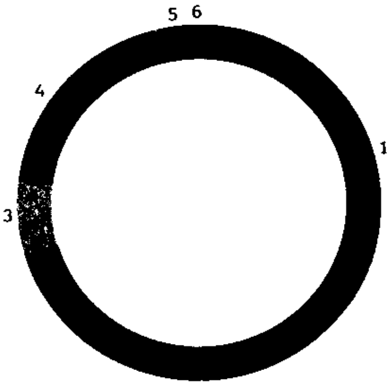
+17%

The Group changed its financial reporting reference date in 2014 hence the graphs show full 12 month figures on a December year-end basis, unless stated otherwise

Year ended 31 December	12 months to 31 December 2018 Continuing	Discontinued	Total	12 months to 31 December 2017 Continuing	Discontinued	Total	Total Variance	Continuing Variance
Total income	£2,135m		**£2,135m**	£1,955m	–	**£1,955m**	**9%**	**9%**
Adjusted operating profit*	£931m	–	**£931m**	£812m	–	**£812m**	**15%**	**15%**
Operating profit	£751m	–	**£751m**	£626m	(£23m)	**£603m**	**25%**	**20%**
Adjusted profit before tax*	£865m	–	**£865m**	£750m	-	**£750m**	**15%**	**15%**
Profit before tax	£685m	-	**£685m**	£564m	(£23m)	**£541m**	**27%**	**21%**
Basic earnings per share	138.3p	–	**138.3p**	153.6p	(7.2p)	**146.4p**	**(6%)**	**(10%)**
Adjusted basic earnings per share*	173.8p	–	**173.8p**	148.7p		**148.7p**	**17%**	**17%**

[illegible]

Group Total Income by segment



	12 months to 31 Dec 2018 £m
1. Information Services	841
2. Post Trade Services LCH	662
3. Post Trade Services CC&G and Monte Titoli	145
4. Capital Markets	407
5. Technology Services	65
6. Other	15
	2,135

FURTHER INFORMATION
More detailed information on the performance of our business segments can be found on pages 24–35

NEED HELP?
Like any industry, global financial markets infrastructure has its own unique language. For that reason, we have included a glossary on pages 176–178

The Group produced strong financial results as it executes its strategy to deliver best-in-class capabilities, drive global growth and develop our partnership approach. Key headlines are provided below:

Information Services

- Revenues for the year increased by 14% to £841 million (2017: £736 million) with the full year contribution of The Yield Book, and up 9% on an organic and constant currency basis driven by growth across FTSE Russell
- FTSE Russell revenue for the year increased by 15% to £631 million (2017: £546 million) and up 8% on an organic and constant currency basis
- Other Information Services revenues increased by 22% to £116 million (2017: £96 million), driven by strong performance in UnaVista following the implementation of MiFID II
- Worldwide assets benchmarked to FTSE Russell indices increased to US$16 trillion
- Global ESG partnership formed with Sustainalytics to develop new FTSE Russell ESG indices using the new Sustainalytics ESG Risk Ratings

Post Trade Services – LCH

- LCH's income for 2018 was £662 million (2017: £562 million), up 18% on a reported basis and on a constant currency basis
- Net Treasury Income increased by 45% to £175 million (2017: £120 million), driven by increased number of counterparties and changing interest rate environments
- SwapClear total notional cleared surpassed US$1 quadrillion, up 23%, with client trades cleared up by 21% to 1.5 million and compression up by 27% to US$773 trillion
- ForexClear clearing increased by 54% to US$17.2 trillion. Membership increased to 32 (2017: 30)
- Fixed income clearing increased to €98.7 trillion in nominal value cleared
- Cash equity clearing volumes increased by 1% to 810 million trades
- LSEG increased its majority stake in LCH Group to 82.6% (2017: 65.9%)

- Income for the year fell by 4% to £145 million (2017: £151 million) on a reported basis and by 5% on a constant currency basis. This was, in part, as a result of a change in reporting of £10 million T2S costs, previously cost of sales and now netted off against revenues
- Net Treasury Income increased by 2% to £43 million and increased 1% on a constant currency basis
- Contracts cleared by CC&G rose 3% to 111.9 million
- Monte Titoli assets held under custody of €3.29 trillion, up 1%

- Revenues in 2018 increased by 4% to £407 million (2017: £391 million) and up 4% on a constant currency basis
- 177 new companies joined our markets in the year (2017: 196)
- UK cash equity average daily value traded increased by 9% to £5.8 billion
- Borsa Italiana cash equity average daily number of trades increased by 2% to 282,000
- Turquoise Plato Block Discovery value traded increased 70% to €92.5bn (2017: €54.5bn)

Technology Services

- Technology revenues increased by 7% on an organic and constant currency basis, but were down by 28% on a reported basis to £65 million (2017: £91 million) largely due to the disposals of Exactpro and MillenniumIT ESP
- New shared services office opened in Bucharest, Romania, to complement the Group's centre in Sri Lanka
- LSEG Technology successfully implemented Settlement and Central Securities Depository functionality for Singapore Exchange (SGX) in 2018

Note [illegible]

Chairman's statement

Overview

By any standards, 2018 was an extraordinary year with a confluence of major events and trends in world affairs creating a complex backdrop against which business operated. Trade wars, rising US interest rates, a slowdown in Chinese and European growth, growing populism and, of course, the uncertainties around the process of the UK planning to leave the European Union provided a challenging macroeconomic and political backdrop for all business leaders throughout the year.

I am pleased to report that London Stock Exchange Group successfully managed through this environment with income up 9%, adjusted earnings per share up 17% and a proposed dividend of 60.4 pence per share up 17%.

As the Group continued to deliver strong results, it also pursued strategic initiatives. In December, the Group increased its interest in LCH to 82.6% while maintaining its customer partnership approach. I am pleased to report also that LCH skilfully navigated the complexities of the risk of a no-deal Brexit in a way that put its clients' interests first, as well as supporting financial stability of the market as a whole. As a result, LCH informed its members that it intends to continue to offer all clearing services for all products and services to all members and clients after 29 March 2019. Our members and clients will continue to benefit from the capital efficiencies of a global service.

LSEG continues to believe that enhanced regulatory supervision and regulation on a global scale will far outweigh any short term political benefits of fragmenting financial markets, which would introduce unnecessary risk into the financial system and undo much of the global regulation which was introduced post 2008 to make our markets more efficient, stable and safe.

Governance

During the first half of the year, the Group was led by David Warren, who combined his role as CFO with that of interim CEO. His collegiate approach and personal flexibility ensured that the Group lost no momentum and I should like to record my gratitude and that of the Board to him for his excellent work. We were joined by David Schwimmer in August as our new CEO. He was chosen by the Board from a selection of excellent candidates after an extensive search. The Board was impressed by David's deep knowledge of market infrastructure, his evident intellect and clarity of thought and his understated style and collaborative mindset. His first months in post have validated the Board's choice and he has provided excellent leadership during this complex time period.

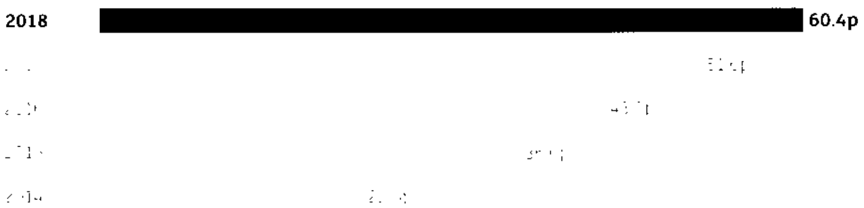
During 2018, we also welcomed several new Non-Executive Directors to our Board. Marshall Bailey was appointed Chairman of LCH Group succeeding Professor Lex Hoogduin, who remains Chairman of LCH's two operating subsidiaries. Marshall joined the boards of LCH Group and LSEG and brings banking and regulatory skills to the roles

"London Stock Exchange Group is in robust health, in a sector with much opportunity"

Sir Donald Brydon CBE
Chairman

Full year dividend

Final dividend of 43.2 pence per share to be paid on 29 May 2019 (2017: 37.2 pence per share)



Dividend policy

We operate a sustainable, progressive dividend policy, aiming to operate in a target range of 2.5–3.0x dividend cover. LSEG has operated within the target dividend cover range since 2015.

We also welcomed Ruth Wandhofer, with a background in banking and regulation and a deep interest in emerging technologies, and Professor Kathleen DeRose, who brings experience in both asset management and FinTech.

Mary Schapiro and David Nish both left the Board in 2018 and on behalf of the Board, I would like to thank them for the valuable roles they both performed during a busy time for the Board.

I am delighted that the Board is once again appropriately reflective of the gender balance consistent with our commitment to the UK's HM Treasury Women in Finance Charter and the Hampton Alexander Review, reflecting our wider commitment to supporting a culture that reflects the diversity of our customers and communities in which we operate around the world.

I will retire from the Board this year. It has been a privilege to chair this excellent Group, and it is with considerable regret that I stand down after the AGM. However, it is important to honour the promise I made in 2017 to our shareholders. Don Robert has joined the Board as a Non-Executive Director in January 2019 and will succeed me as Chairman of the Group from May 2019 after the AGM. I wish the Group and all my colleagues well under Don Robert's leadership.

Corporate Sustainability

The Group recognises its wider purpose supporting financial stability and sustainable economic growth by enabling businesses and economies to fund innovation, manage risk and create jobs. The Group is in a privileged position at the heart of financial markets and we are pleased to help corporates, issuers and investors integrate sustainability and diversity as a core part of the capital raising and investment decisions. We also continue to work with global and regional charities which help disadvantaged young people in the communities in which we operate. In 2018, the Group's Foundation donated £1.3 million to various charities and our colleagues also were encouraged to volunteer through two paid volunteer days offered to every employee.

Culture

In the last year, there have been a number of initiatives in the area of corporate governance culminating in the publication of the revised UK Corporate Governance Code. The Code makes reference to the need for boards to consider carefully the culture of the company. During the past year, we have worked with the executive team to develop ways to ensure that we set the tone for appropriate collaboration and customer-focused behaviours, as well as monitor our culture on an ongoing basis. We have had excellent support from the CEO in this endeavour and have introduced a 360 degree appraisal process, as well as other feedback mechanisms detailed elsewhere in this report.

Conclusion

London Stock Exchange Group is in robust health, in a sector with much opportunity. There will be a need to remain selective in the opportunities the Group pursues to ensure a continuing focus on shareholder returns, while also recognising the wider role the Group plays in the financial system. With its strong presence in the EU, sitting also at the heart of the world's major international financial market, and with its focus on customer partnership, open access and innovation, I believe the Group faces a very bright future. It has excellent people with which to capitalise on the opportunities ahead and I thank them for their support and wish them continued success.

Donald Brydon

Sir Donald Brydon CBE
Chairman
1 March 2019

CEO's statement

Overview
When I joined LSEG in August 2018, I had an outsider's perception of the Group's strong businesses and international standing. Since then my impressions of its strengths have only been reinforced. The Group is distinguished by its customer partnership approach, a set of world class businesses across the capital markets lifecycle and a team of committed colleagues. LSEG's successful strategy and open access philosophy provide a strong foundation for further growth and development.

The Group has grown rapidly through organic growth and acquisition in recent years, building businesses around three core strategic areas - Capital Formation, Information Services and Post Trade and Risk Management Services - supported by Group Technology and a commitment to operational excellence. In the years ahead, we intend to further develop these businesses and focus on delivering the opportunities and efficiencies of operating as a unified Group, to benefit our customers and to drive sustainable long-term growth and value for our shareholders and broader stakeholders.

In 2018, LSEG operated against a backdrop of macroeconomic and political disruption including the continued uncertainty around the implementation of the United Kingdom's decision to leave the European Union. As a systemically important financial markets infrastructure business, the Group has a responsibility to ensure the orderly functioning of markets and continuity of service for its customers, shareholders and other stakeholders. With a strong global footprint and significant infrastructure businesses across the UK, Eurozone, US and Asia, the Group is well positioned to adapt to any eventual outcome. On behalf of our customers, the Group continues to advocate strongly for a defined implementation period and the prevention of the fragmentation of regulatory systems designed to make financial markets efficient, stable and safe.

The Group has skilfully navigated the challenges of this evolving backdrop and delivered a strong set of results in 2018, continuing to execute its strategy successfully across its core businesses, as outlined below. I'd like to acknowledge and thank David Warren, Group CFO, for his leadership delivering these results as Interim CEO during the first seven months of 2018.

"LSEG's successful strategy and open access philosophy provide a strong foundation for further growth and development."

David Schwimmer
Chief Executive Officer

Information Services

With its global reach and multi-asset capabilities FTSE Russell continues to benefit from industry drivers including the growth of passive investment as well as the increasing customer demand for access to data and analytical tools. At the end of 2018, the value of ETF assets tracking its benchmarks was US$606 billion.

In 2018, FTSE Russell assumed 100% ownership of the FTSE TMX Global Debt Capital Markets business as it continued to strengthen its fixed income capabilities. This follows the 2017 acquisition of The Yield Book and Citi Index business, which substantially enhanced its ability to offer world class multi asset investment tools.

In September, FTSE Russell announced that China equity A Shares would be included in its global equity benchmarks beginning in June 2019, an acknowledgement of China's remarkable growth and the significant progress that has been made in Chinese capital markets. Upon completion of the first phase of inclusion, China A Shares will represent approximately 5.5% of the total FTSE Emerging Index. To put this in context, this could equate to US$10 billion in net passive inflows of assets under management.

In January 2019, we announced that Waqas Samad would succeed Mark Makepeace as Group Director of the Information Services Division and join LSEG's Executive Committee. Waqas is a natural successor to lead the Information Services Division, including FTSE Russell. He will build on the existing strong business and proven strategy to continue to deliver on our growth expectations for this business, as well as continue to deepen our customer partnership approach. Mark has been a pioneer in the development of the global index industry and FTSE Russell today is a world class global business with more than US$16 trillion in assets benchmarked to its indices. I would like to thank Mark for his leadership and significant contribution to the Group.

"We intend to further develop these businesses and focus on delivering the opportunities and efficiencies of operating as a unified Group"

Post Trade Services

Post Trade Services continues to be an area of strategic focus for the Group. In 2018, LSEG increased its majority stake in LCH Group to 82.6%, while also reaffirming its commitment to LCH's customer partnership model. LCH achieved another record year for volumes across its equities, fixed income, and OTC derivatives clearing services driven by the roll out of new products and the growth of client clearing.

SwapClear remains the largest OTC rates liquidity pool in the world, processing over US$1 quadrillion in notional volume in 2018. More significantly for its members and customers, over US$773 trillion was compressed, up 27% on the previous year, enabling customers to save approximately US$39.5 billion in capital during 2018. SwapClear also expanded its global product offering to include non deliverable interest rate swaps in Chinese Yuan, Korean Won, and Indian Rupee and LCH was the first CCP to introduce clearing of SOFR swaps in July 2018.

LCH remains well placed to address the capital and margin challenges facing customers in the global FX market. ForexClear continued to expand clearing over US$17 trillion in notional, up 54% in 2018. It also helped members compress US$4.5 billion of cleared notional with its first compression runs. The service successfully launched clearing of deliverable FX Options in July 2018, developed in collaboration with the CLS settlement service.

RepoClear reported the largest nominal amount cleared in the service's history with €197 trillion cleared across LCH Ltd and LCH SA, up 13% from 2017. RepoClear has seen good customer growth with 10 new memberships and over 75 market extensions this year. LCH SA now offers clearing of all euro-denominated debt repo products in line with long standing member demand to consolidate their European government bond repo clearing activity into one CCP in order to leverage the benefits of 12S. CDSClear also showed significantly increased growth with a record of €1.2 trillion across its CDS index and single names offering.

In November 2018, LCH SwapAgent further extended its non-cleared derivatives offering and processed its first swaptions trades, adding to its existing cross-currency swap offering. LSEG also acquired a minority c.16% stake in AcadiaSoft, supporting LCH's strategy to expand into the non-cleared space. Alongside LSEG's investment, LCH SwapAgent and AcadiaSoft signed a heads of terms agreement to explore opportunities for new products aimed at automating and standardising the margin process for non cleared derivatives.

The Group also operates post trade businesses Monte Titoli and CC&G in Italy, as well as UnaVista in the UK which primarily focuses on post trade reporting. In February 2018, CC&G was chosen by CCP Austria to provide technology driven CCP Clearing and Risk Management services. UnaVista processed an average of 34 million reports per day, as it helped clients meet the new reporting requirements under MiFID II.

In January 2019, LSEG announced the purchase of a 4.9% minority stake in Euroclear which will strengthen our existing operational and commercial relationship to the benefit of our respective customers.

CEO's statement

"We are committed to supporting global financial stability and sustainable economic growth by enabling businesses and economies to fund innovation, manage risk and create jobs"

Capital Markets
A strong track record of innovation and an international outlook drive London's capital markets. Despite global macroeconomic uncertainty, our capital markets businesses continue to perform well. London Stock Exchange welcomed over three times more international companies to list on its markets than any other European exchange in 2018. Three out of the five largest IPOs in London in 2018 were from international companies. London Stock Exchange continues to partner with exchanges around the world, including with Shanghai Stock Exchange on Shanghai-London Stock Connect, which aims to directly connect investors and companies from both markets for the first time.

AIM continues to be the leading international growth market, helping companies raise £5.5 billion in new and further issues during the course of 2018. Borsa Italiana helped companies raise €2 billion through listings in 2018 across its markets. The total capitalisation of companies listed on Borsa Italiana was €542 billion, around a third of Italian GDP.

In fixed income, bond listings in London surpassed 2,000 for the first time, raising a total of £34.7 billion. Multiple debut and landmark international bonds came to London in 2018, including Angola's largest-ever international bond and Fiji's first international sovereign green bond. Reflecting the growing investor demand for green finance, a record 36 green bonds listed in London in 2018, including the largest green bond to list in London to date, the £1.2 billion issue from Industrial and Commercial Bank of China London Branch.

The implementation of MiFID II in January 2018 has begun to benefit our secondary market businesses such as CurveGlobal, MTS and Turquoise as customers adapt to the new regulation. CurveGlobal continues to see good volume growth with open interest at 348,000 lots at the end of 2018 and has started 2019 with a record 350% year-on-year growth in average daily trading volumes as participants look for more efficient alternatives to existing futures platforms.

Group-wide Collaboration
The benefits of the broader Group working more closely together to deliver innovative solutions to our global clients is clear. Working across our businesses, we are able to address many of the regulatory, technological and structural challenges facing our clients and the industry overall. For example, as the market transitions to new global reference rates, both LCH and CurveGlobal have developed complementary innovative products for clients while also addressing a priority for many of our government stakeholders. CurveGlobal has seen good uptake of its SONIA three-month futures contract, while LCH is helping to facilitate a smooth transition to new reference rates offering clearing of swaps for new global benchmarks including SOFR, SONIA and SARON.

We are exploring how our Information Services and LCH teams can work together to identify Group-wide data and analytics opportunities that benefit our customers. We are also using emerging technologies to modernise the processes behind our business safely and efficiently. For example, we are piloting artificial intelligence in our market supervision function, as well as in our FTSE Russell data business. In February 2019, we acquired a small minority stake in Nivaura, a UK-based FinTech specialising in developing end-to-end automation and distributed ledger technology solutions for capital raising and administration. The investment represents an attractive strategic fit for LSEG as we work with partners to explore ways to help companies raise capital in a more efficient and streamlined way.

We are committed to operational excellence and are focused on driving efficiency across the Group through several initiatives, including migration to cloud services for data and processes and the operation of shared service centres. We opened our Bucharest office in 2018, now employing over 100 skilled professionals across technology, data services and corporate functions. The office complements the Group's existing shared services centres in Colombo, Sri Lanka. We are also consolidating real estate, including multiple offices in New York City and Tokyo to drive efficiency and collaboration.

"Our strategic vision remains the same – to be the world's leading financial markets partner"

Our broader responsibility
As a global financial markets infrastructure business, LSEG provides critical services to clients around the world. We run businesses that are of systemic importance and recognise that in doing so we hold a privileged position in the financial ecosystem with a broad set of responsibilities to our stakeholders. We engage proactively and positively with governments and regulators around the world in more than 90 countries and maintain licences or other direct regulatory engagement in more than 20 jurisdictions. We are committed to supporting global financial stability and sustainable economic growth by enabling businesses and economies to fund innovation, manage risk and create jobs.

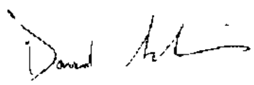
Our core businesses are engaged in activities that directly support this purpose. In Capital Markets, helping high growth companies access capital is fundamental to our aim of promoting innovation and creating jobs. We support SMEs through ELITE, our global educational and capital raising programme for private high growth companies, which now includes over 1,000 companies from 40 countries. ELITE partners with local exchanges around the world to develop the local funding ladder and investor base. In Information Services, FTSE Russell has introduced innovative tools to help support investors' interest and investment in environmental, social and governance (ESG) data factors, for example launching FTSE Russell's STEP Change report to help drive better global standards in reporting and help companies measure their own performance against peers. In Post Trade Services, LCH plays a critical role supporting global financial stability by reducing risk in financial markets through maximising the number of counterparties that have access to an international liquidity pool, simplifying outstanding exposures and delivering significant cost and margin efficiencies for members and customers.

We also recognise our responsibilities to our people and their professional development, and we continue to support a culture that reflects our values of partnership, innovation, integrity and excellence. In 2018, we introduced our first Group-wide Career Framework, 'Futures', designed to support colleagues in their career progression and facilitate internal mobility across the Group. Our Mentoring Exchange programme was expanded globally to include more than 800 colleagues and 50 colleagues also joined the 30% Club cross-company mentoring scheme in the UK. In 2018, we also signed the 'Time to Change' Employer Pledge, affirming our commitment to support mental wellbeing in the workplace.

Looking forward
Collaboration is a strategic and commercial imperative for LSEG. I firmly believe it will allow us to take the Group to the next level of operational, financial and strategic success. Across the Group's businesses and global locations, we will continue to deepen our partnership approach, delivering innovative products and services that meet the needs of our global customers.

We are mindful of the macroeconomic, technological and regulatory challenges in our industry. We must continue to address an evolving landscape. We are committed to continuing to invest in technology and deliver operational excellence, while investing for growth across our core businesses.

In summary, our strategic vision remains the same – to be the world's leading financial markets partner. Together with LSEG's highly capable and experienced team, I look forward to continuing to focus on the opportunities ahead for our business, investing for growth and driving efficiency, while operating as a unified Group for the benefit of our customers, shareholders and broader stakeholders.



David Schwimmer
CEO
1 March 2019

What we do – our business model

London Stock Exchange Group (LSEG) is a global financial markets infrastructure provider which operates in multiple regions to meet our customers' evolving needs. Headquartered in London and with significant operations around the world in North America, Italy, France and Sri Lanka, the Group employs approximately 4,600 people. Our Global presence is also reflected in the geographical distribution of our income, with 40% in Sterling, 30% in Euro, 28% in US Dollar and 2% in other currencies.

The Group plays a vital economic and social role within the global economy through its interconnected businesses, enabling companies to access funding for growth and development, make informed investment decisions and manage financial risks. In turn, on a broader macro-economic basis this provides greater efficiency in accessing and managing capital, helping to fund innovation, generate wealth and create jobs.

How we add value

Our businesses are formed of interconnected business strategies: 1) Information Services, 2) Risk and Balance Sheet Management, and, 3) Capital Formation. Group Technology provides IT systems and support across the Group. Our presence across the financial markets infrastructure value chain enables us to provide a platform for serving customers across multiple activities, meeting a wide range of their needs. The model below shows our businesses and the key connections between them.

1. Information Services

Supporting clients' investment decisions

Our Information Services Division provides customers with an extensive range of valuable information, analytics and data products, that inform investment decisions and capital allocation, including indices, data on pricing, trading and valuations.

2. Risk and Balance Sheet Management

The markets' partner for post trade services globally

The Group offers a full range of central counterparty (CCP) clearing services and collateral management solutions that provide strong risk management capabilities and capital efficiency benefits. These allow our buy-side and sell-side customers to operate more effectively, enabling increased trading and investment activities.

3. Capital Formation

Supporting access to capital, enabling businesses and economies to fund innovation, generate wealth and create jobs

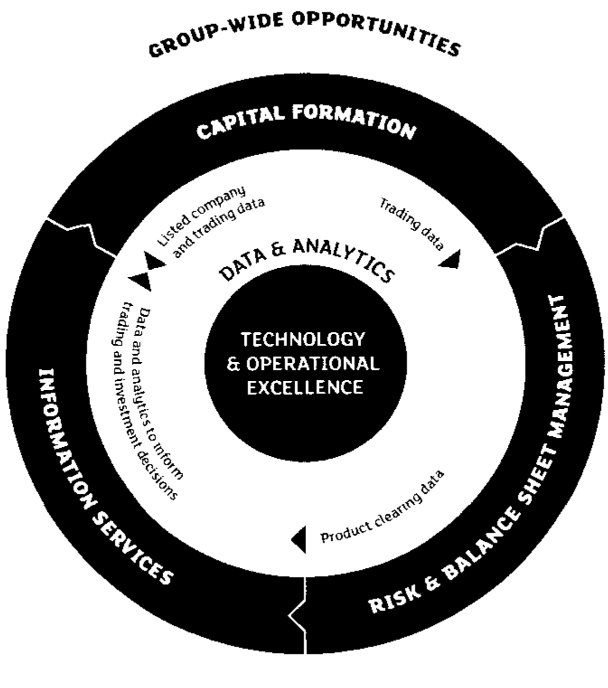
Our Primary Markets provide choice and connections between a wide range of issuers and investors enabling domestic and international companies to raise capital effectively. Our Secondary Markets provide liquid and deep access to financial securities to enable improved price formation, transparency and trading efficiency.

4. Group Technology

Our Group Technology Services support the Group's 3 business segments

It delivers financial markets infrastructure IT to various businesses within the Group. This IT comprises resilient, secure, high performance trading platforms, post trade platforms, real time market data, hosting and other infrastructure products and services. It also provides these services to third parties around the world.

Our activities across the financial markets value chain



What makes us different from our competitors

In addition to operating businesses across the value chain, our business model incorporates 2 key approaches that differentiate us from competitors in the global financial markets infrastructure industry

Open Access

– Open Access is the principle that lies at the heart of free and fair markets, and is enshrined in MiFID II

We believe customers should have the choice of where they place their business. In particular, we support non-discriminatory access to trading and clearing infrastructures as we believe this provides greater market efficiencies by reducing fragmentation and barriers to service uptake

– We provide access to all of our markets and products for a wide range of users, including those that may offer competing services to parts of the Group. Access to our services is not conditional on taking a suite or bundle of different services. This open access approach is in contrast to most other exchanges and capital markets infrastructure providers

Examples

[illegible]

FTSE Russell also [illegible]

Customer Partnership

– We believe that aligning our strategy, services and products to the needs and interests of our customers is central to supporting long term value creation, enabling innovation in products which can be rapidly adopted

– In some businesses we are joint owners with our customers, which helps ensure continued relevance and uptake of the business within the operating landscape, and development goals targeted to address customer needs

Examples:

[illegible]

[illegible]

The next 2 pages provide details on the products, customers and sources of revenue for the business segments that we report

NEED HELP?

Like any industry, global financial markets infrastructure has its own unique language. For that reason, we have included a glossary on pages 176–178

What we need to operate our businesses and deliver value

We are committed to investing in and developing a number of aspects of our business to meet Group-wide opportunities and offer client solutions that make our services more attractive to customers

Data and analytics

Our proprietary data and the resulting insights generated across our businesses deliver value-add products and services that strengthen our customers' ability to make informed risk, trading and investment decisions.

Risk management

The management of risk is fundamental to maintaining our role as a diversified global financial markets infrastructure provider in order to maintain stakeholder confidence in our businesses

Technology

Secure and stable high-performing technology is critical to the operation of the Group's businesses. We continue to invest in our technology in order to maintain and enhance the quality, resilience and efficiency of our platforms, while also creating innovation to serve our customers

Regulatory expertise

Many of the markets we operate are highly regulated and subject to ongoing regulatory change. We have proven expertise in operating transparent, efficient and well governed market infrastructure in regulated markets globally, providing services that are trusted, independent and resilient

Customer trust

Our network of customers and their ongoing input to, and support for, our businesses are vital to our ability to provide efficient financial markets infrastructure across the value chain and underpin our customers' success

People and Culture

Our people are at the heart of what we do – we are committed to attracting, developing and retaining exceptional talent and capabilities in order to deliver on our strategy. We are also committed to developing a culture that reflects our values of Partnership, Integrity, Innovation and Excellence. See pages 36–40 for details on how we support employees and ensure that our culture supports the delivery of our strategy

CAPITAL ALLOCATION FRAMEWORK

We use an established internal capital allocation framework to help us determine the most effective use of capital, to support growth in the business. This includes investment in new products and services and also acquisitions to further enhance Group capabilities. The returns from such investments are benchmarked against alternative uses of capital, including distribution of cash to shareholders

See page 47 for more detail about our capital management approach

Overview of Group activities

This page shows our business areas and activities across Information Services, Risk and Balance Sheet Management and Capital Formation. The tables describe who are our *customers, the revenue drivers and key* performance indicators.

INFORMATION SERVICES

INFORMATION SERVICES

Provides a wide range of information and data products including indices and benchmarks, analytics, real time pricing data, product identification and trade reporting and reconciliation services.

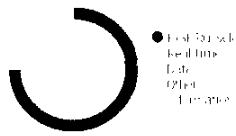
Group total income: 39%

TOTAL INCOME CONTRIBUTION

SUB-SEGMENT

£841m

2017 £736m



CUSTOMER PROFILE

FTSE Russell

- Asset owners and managers (active and passive buy-side firms) and trading venues

Real Time Data

- Direct to trading firms and via service providers such as Bloomberg and Refinitiv that incorporate our data with other information

Other Information

- Our customers vary based on the service provided; they include banks, brokers and fund managers

MAIN TYPES OF REVENUE

FTSE Russell

- Subscription fees for data and analytic services
- Asset-linked fees for passive funds and derivatives tracking indices

Real Time Data

- Fees primarily based on number of terminals taking our real time price and trading data

Other Information

- Fees vary based on the nature of service provided, mostly subscriptions and licence fees

FTSE Russell

HIGHLIGHTS

- Worldwide assets benchmarked to FTSE Russell indices increased to US$16tn
- Global ESG partnership formed with Sustainalytics to develop new FTSE Russell ESG indices using the new Sustainalytics ESG Risk Ratings

KPIS

- ETF assets benchmarked to FTSE Russell indices 2018: **US$606bn** (2017: US$624bn)

Real Time Data

KPIS

- Number of professional terminals taking Group data 2018: **174,000** (2017: 180,000)

Other Information

HIGHLIGHTS

- UnaVista has seen good growth following the implementation of MiFID II

RISK AND BALANCE SHEET MANAGEMENT

POST TRADE SERVICES LCH

Provides clearing services through which counterparty risk is mitigated across multiple asset classes for sell-side clearing members and buy-side clients in conjunction with trading venues globally.

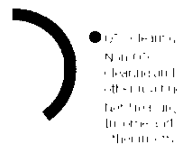
Group total income: 31%

TOTAL INCOME CONTRIBUTION

SUB-SEGMENT

£662m

2017 £562m



CUSTOMER PROFILE

Clearing services

- A worldwide base of banks, brokers and fund manager firms for OTC derivatives and listed equities, exchange traded derivatives, fixed income and commodities

MAIN TYPES OF REVENUE

Clearing and related services

- Fees based on trades or contracts cleared and CCP services provided
- Fees for SwapClear interest rate swap service and other OTC derivative clearing primarily based on *membership fees or client trades*
- Fees for managing non-cash collateral and compression services

Net Treasury Income

- Net interest on cash held for margin and default funds

Clearing services

HIGHLIGHTS

- SwapClear continues to grow with record clearing and compressed volumes
- ForexClear saw record clearing, increased membership and began to offer the clearing of deliverable products
- LSEG increased its majority stake in LCH Group to 82.6% (2017: 65.9%)

KPIS

- SwapClear notional cleared 2018: **US$1,077tn** (2017: US$874tn)
- SwapClear notional compressed 2018: **US$773tn** (2017: US$609tn)
- SwapClear Client trades cleared 2018: **1,487,000** (2017: 1,227,000)
- RepoClear nominal value cleared 2018: **€98.7tn** (2017: €87.5tn)
- Average cash collateral held 2018: **€86.7bn** (2017: €84.5bn)

Note: [illegible]

RISK AND BALANCE SHEET MANAGEMENT

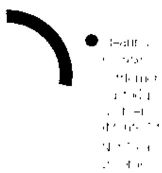
POST TRADE SERVICES CC&G AND MONTE TITOLI

Offers efficient clearing, settlement and custody services for cash equity, derivative, commodity and fixed income markets, mostly in Italy.

Group total income: 7%

TOTAL INCOME CONTRIBUTION

SUB-SEGMENT



£145m
2017: £151m

CUSTOMER PROFILE

CC&G
- 149 members (mainly banks and brokers), of which 54% are based outside Italy

Monte Titoli
- Wide range of Italian and international banks and brokers for both on market and OTC trades. Issuers of equity and fixed income products (Italian and international)

MAIN TYPES OF REVENUE

Clearing – CC&G
- Fees based on trades or contracts cleared and Central Counterparty (CCP) services provided
- Net interest on cash and securities held for margin and default funds

Settlement and Custody – Monte Titoli
- Revenue mostly from the settlement of equity and fixed income trades
- Custody fees are charged on the issuance of an equity or fixed income instrument, when dividend and interest payments are made and on any corporate action

CC&G
HIGHLIGHTS
- CC&G delivered CCP advisory projects for Casablanca stock exchange in April 2018 and Bucharest Stock Exchange in November 2018

KPIS
- Number of equity and derivative contracts cleared 2018: **111.9m** (2017: 128.3m)
- Average initial margin held 2018: **€11.0bn** (2017: €11.[illegible]bn)

Monte Titoli
HIGHLIGHTS
- Settlement rate [illegible]% of trades

KPIS
- Settlement instructions handled 2018: **45.4m** (2017: 44.6m)
- Monte Titoli's assets under custody 2018: **€3.29tn** (2017: €3.27tn)

CAPITAL FORMATION

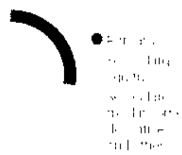
CAPITAL MARKETS

Provides access to capital for domestic and international businesses and efficient electronic platforms for secondary market trading of equities, bonds and derivatives.

Group total income: 19%

TOTAL INCOME CONTRIBUTION

SUB-SEGMENT



£407
2017: £391m

CUSTOMER PROFILE

Primary Markets
- Companies from more than 60 countries around the world have come to our markets to raise money, together with issuers of bonds, ETFs and other instruments

Secondary Markets
- Sell-side banks and brokers and buy-side investors worldwide, trading on the Group's equities, derivatives and fixed income trading platforms

MAIN TYPES OF REVENUE

Primary Markets
- Admission fees for initial listing or raising further capital
- Annual fees for securities traded on our markets

Secondary Markets
- Fees based on value traded (UK equities) or number of trades or contracts (Italian equities, retail bonds and derivatives)

Primary Markets
HIGHLIGHTS
- **177** new companies joined our markets in the year (2017: 196)

KPIS
- Number of companies on our markets 2018: **2,467** (2017: 2,485)
- Capital raised by new and further equity issues 2018: **£28.7bn** (2017: £44.[illegible]bn)

Secondary Markets
HIGHLIGHTS
- UK cash equity average value traded increased by 9%
- Borsa Italiana cash equity average daily number of trades increased by 2%
- Turquoise Plato Block Discovery value traded increased 70% to **€92.5bn** (2017: €54.5bn)

KPIS
- Average order book equity value traded per day in London 2018: **£5.8bn** (2017: £5.[illegible]bn)
- Average number of equity order book trades per day in Italy 2018: **282,000** (2017: 276,000)
- MTS Repo notional value traded **€87.4tn** (2017: €77.7tn)

GROUP TECHNOLOGY

Our businesses and customers depend on our secure technology that performs to high levels of availability and throughput.

Group total income: 3%

TOTAL INCOME CONTRIBUTION

£65m
2017: £91m

CUSTOMER PROFILE

LSEG Technology
- LSEG divisions, other exchange groups and capital market clients

Banks, trading firms and depositories in Europe, North America, Africa and Asia Pacific region

MAIN TYPES OF REVENUE

LSEG Technology
- Sales of capital markets software including trading, market surveillance and post trade systems
- Fees for network connections, server hosting and systems supplied to Group businesses

LSEG Technology
HIGHLIGHTS
- Successful implementation of post trade solutions for Singapore Exchange
- New office opened in Bucharest, Romania as we expand our shared services model

KPIs

Availability in UK equity market during the year 2018: 99.99% uptime (2017: 100%)

Market trends and our response

Through its 3 core business activities: Information Services; Risk and Balance Sheet Management; and Capital Formation, the Group supports global economic growth by providing financial markets infrastructure to facilitate safe, effective and transparent global capital allocation, trading and investment decisions, and associated risk and capital management

Our customers are global and range from the world's largest financial institutions to retail investors and SMEs, all participants share exposure to the dynamically evolving financial markets landscape which shapes customers' needs and influences the products and services that the Group provides.

We observe a number of high level trends that continue to impact the industry and shape our strategy and plans:

1. Globalisation and growing global wealth
2. Changing investment behaviours
3. Evolution of customers' operating dynamics
4. Innovation and continued trend of M&A activity
5. Regulatory change

1. Globalisation and growing global wealth

Global wealth and redistribution

As global wealth continues to grow, total AUM is expected to almost reach US$145 trillion by 2025 and the distribution of global wealth has continued to shift significantly between different regions of the globe throughout 2018.

Growth of Emerging Markets

Developing markets are expected to increase their share of the world's assets, driven by double-digit growth in AUM for emerging markets such as Asia-Pacific (11.8%) and in Latin America (10.4%) between 2020 and 2025. These growth rates are expected to outstrip those of North America (4.0%) and Europe (3.4%) for the same period.

Importance of global presence

The pace of growth in these economies is expected to continue outpacing those of developed markets and contribute approximately 75% of the world's GDP growth over the next 5 years.

Implications for LSEG

The Group is a global financial markets infrastructure business with a growing global footprint that provides a wide range of services to an increasingly global customer base. We continue to establish partnerships in strategically important regions to serve our global customers. Some of our priorities are to deepen our relationships with key stakeholder groups across Asia, Africa and South America, to facilitate access to developing and rapidly growing markets.

Whilst we manage a global suite of financial market infrastructure assets, we seek to organise our Group appropriately for the future, with a key focus on delivering broader benefits and efficiencies for customers across our businesses and customer segments.

The Group also continues to optimise its resources locally, to support the Group's increasingly global operations. This has included the development of deeply specialised capability centres, such as the expansion of our office in Colombo, Sri Lanka and the opening of a new office in Bucharest, Romania to support the delivery of the Group's core business activities globally.

Credit Suisse Global Wealth reports 2014–2018

Total wealth by region US$ tn

1 Asset & Wealth Management Revolution: Pressure on profitability, PwC (2018)
2 Global Wealth Report 2018, Credit Suisse (2018)
3 IMF DataMapper, International Monetary Fund

2. Changing investment behaviours

Economic growth

Whilst economic growth in the US showed signs of strength in 2018, other regions, including Europe in particular, displayed weaker signals. As we move into 2019, we expect signals of reduced economic growth globally to remain, with further geopolitical uncertainty to be expected. Financial assets across a broad spectrum globally appeared to underperform in 2018. Following a sustained period of positive returns there is potential for a low return and high volatility environment to emerge more prominently in 2019.

Changes to investment preferences and products

The market's investment preferences are continuing to shift in response to the current market conditions. Passive and alternative investment AUMs are expected to more than double by 2025[1] to US$10 trillion and US$21 trillion respectively. As such, ETFs continue to grow in popularity as a low-cost alternative investment vehicle, and ESG products are becoming a more mainstream consideration in investment decision making, whilst the increased accessibility of private capital is driving deeper private capital pools and creating alternative market structures which are becoming increasingly popular with investors.

Implications for LSEG

FTSE Russell's scalable model, global presence and sales capabilities position LSEG well for the expected growth areas. We continue to realise value from the integration of Mergent and The Yield Book, which have expanded the Group's ability to provide customer solutions across multiple asset classes and enhance the data and analytics capabilities which underpin our offerings.

The Group has also sustained its focus on extending its offering in response to the evolving demands of the market. In 2018, the Group formed numerous collaborative partnerships seeking to deliver new and innovative offerings in the passive and alternative investment space. This included FTSE Russell's recent partnership with Sustainalytics to broaden the ESG offering available for customers.

3. Evolution of customers' operating dynamics

Buy-side cost challenges

Despite sustained AUM growth in 2018, fee pressures continued to have an impact on the buy side, with cost measures becoming increasingly prioritised. As the focus shifts towards managing their cost base, there may be significant opportunities to drive cost reductions and efficiencies for the buy-side.

Sell-side efficiencies and revenue improvements

After several years of strategic pruning and operating model reform in response to regulatory-driven change, the sell-side is beginning to focus on driving growth again. Pressures on sell-side revenues show signs of abating in response to cyclical drivers, and we expect technology and innovation to become key competitive advantages for banks as they continue to face challenges, particularly as they target areas of significant cost and inefficiencies, such as OTC derivatives post trade processing.

Implications for LSEG

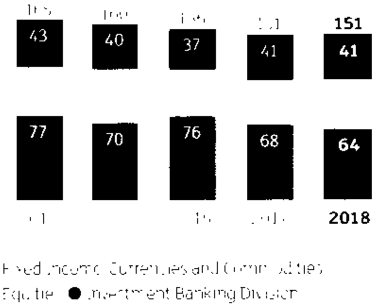
The Group understands the criticality of operational and capital efficiencies for its customers so that they can more effectively direct their efforts, investment decisions and capital resources to their core, value-creating activities. We continue to invest in developing offerings that extend such benefits for our customers, for example, the extension of LCH's core clearing offering across multiple asset classes and uncleared markets via SwapAgent.

The Group continues to focus on providing solutions such as consolidated standardised information that greatly helps our customers navigate their operational challenges.

As customers continue to seek services which help them manage capital and operational constraints, there is scope for collaborative and innovative solutions, where LSEG can be central in shaping the future of financial markets infrastructure. Our partnership approach leaves us well positioned to play a leading role in addressing customer challenges across the industry.

Coalition IB Index revenues by business

US$ bn



Note [illegible]

[1] [illegible]

Market trends and our response

4. Innovation and continued trend of M&A activity

Data insights, tech and innovative business models

The value potential from data insights is shaping the way our customers operate, creating a need for enhanced data management, quality and analytics to deliver greater value from the available data sources. Our industry is facing significant technological transformation, with increasing adoption of emerging technologies. As customers continue to seek products and services that enable them to deliver a competitive advantage, financial market infrastructure providers *are investing in innovative capabilities to better meet* their customers' needs.

Industry M&A activity

Throughout 2018, there have been ongoing acquisitions and partnerships across the industry as it continues to evolve. We expect this trend to persist through 2019 whilst greater activity is expected in high-growth areas such as data, analytics and emerging technologies where innovation and *collaboration are driving the development of* new solutions and enhanced customer benefits.

Implications for LSEG

As our product diversity and geographic presence has increased, we have focused on developing our capability to understand and respond to client needs across the value chain.

Advances in data and technology may reinforce the *current market structure or favour new entrants*, so we have actively invested in developing emerging capabilities across the value chain through organic initiatives, partnerships with leading researchers and the acquisition of minority shareholdings in AcadiaSoft (June 2018) and Nivaura (February 2019).

We actively assess and execute organic and inorganic growth opportunities that enhance our existing business, or create new opportunities in complementary areas, to enhance our offering as a global financial markets infrastructure provider.

5. Regulatory change

During 2018, significant regulatory initiatives that the Group has highlighted in previous reports *impacting various businesses, continued to take* shape. Other regulatory initiatives increased in prominence and are now a significant focus for us. All of these initiatives have evolved in the context of the uncertainty in relation to the UK referendum decision to leave the European Union (Brexit) which has driven increased focus on cross-border market access across many of our products and services.

On the following pages we provide our assessment *of likely regulatory changes and their impacts* on the Group.

Brexit Update

LCH SA and CC&G benefit from the temporary deemed permission by the Bank of England which was confirmed publicly on 24th January 2019. In addition, it was announced on 18 February 2019 that LCH Ltd had been recognised by ESMA as a third country CCP under Article 25 of EMIR. This *recognition will apply from 30 March 2019 until* 30 March 2020 in the absence of a withdrawal agreement with the UK in accordance with Article 50(2) of the Treaty on European Union. These recognitions confirm LCH Ltd, LCH SA and CC&G's ability to continue to offer all clearing services for all products and services to all members and clients after 29 March 2019 in a no-deal Brexit scenario.

Implications for LSEG

As part of a structured Brexit programme formed by the Group, we continue to engage with UK and EU Brexit policy leads to advise on financial market infrastructure considerations. Our key objectives are 1) maintaining London's position as a global financial hub, 2) providing continuity of cross-border financial services, and 3) protecting against policies which may result in fragmentation of financial markets. LSEG continues to maintain an ongoing dialogue with UK, EU and other authorities with respect to the need *for contingency measures and on LSEG contingency* plans for several businesses.

Cross-border market access

As G20 mandates continue to be implemented and revised, focus has increased across jurisdictions on *cross-border market access to financial market* infrastructure products and services. In the EU, EMIR 2.2, EU BMR, MiFID II/R and other financial services files contain third country provisions that could impact EU participant access across non-EU clearing, trading, benchmarks and other global products and services. In the US, the CFTC has proposed several revisions to expand cross-border derivatives markets access. The UK will continue to evaluate its market access rules pending Brexit developments.

Implications for LSEG

As a leading global financial market infrastructure business, market access rules impact how customers across jurisdictions access our products and services. LSEG promotes harmonisation and cross-border rules that support open and global markets. We remain closely engaged with authorities at the national and multilateral levels to promote open, cross-border access to our global offerings.

Benchmark regulation and LIBOR transition

The EU Benchmark Regulation (EU BMR) came into effect in January 2018. Building on the principles agreed by IOSCO, the regulation impacts benchmark users, contributors and administrators. There are initiatives in other jurisdictions to review the regulatory framework governing benchmarks. Regulators have established a clear priority to move away from LIBOR and EURIBOR to introduce alternative reference rates *in several major jurisdictions.*

Implications for LSEG

FTSE Russell is a leading global benchmarks provider. FTSE International Limited has been authorised by the UK's Financial Conduct Authority (FCA) as a Benchmark Administrator, under the BMR. We view the BMR rule set positively as it raises standards across the industry. Regarding the interbank reference rate transitions, LCH is closely engaged *with the relevant government authorities and the* industry to fully support a smooth transition to selected alternative reference rates.

CCP Recovery and Resolution
Authorities across Europe, North America and other major jurisdictions, as well as international standard setters, are working on further developing the regulatory frameworks for the recovery and resolution of CCPs. In the rare scenario where CCPs face severe distress or failure, this global framework will ensure that the critical functions of CCPs are preserved while maintaining financial stability.

Implications for LSEG
Harmonisation of the requirements for CCP recovery plans, and the introduction of resolution plans prepared by the resolution authorities should provide clarity on the impact on CCPs and identify the critical functions they must maintain in the unlikely event of their failure. LSEG will continue to assist the authorities and provide input for the development of this framework including on the potential increase of CCP resources.

Market Structure Reviews
MiFID II/R is the widest ranging of the EU legislative initiatives in terms of its impact on the Group and its customers. The impact on LSEG includes rules on market transparency, trading protocols and microstructures, market data, transaction reporting, SME Growth Markets, and Open Access for CCPs and benchmark providers. In the US, there is growing focus on both equity and fixed income market structure topics with a view to implementing changes whilst there is a global regulatory scrutiny process led by IOSCO into the rapidly growing ETF space.

Implications for LSEG
The impact of MiFID II/R has been broadly neutral with the ability to offer customer solutions in areas such as Turquoise block trading and Open Access potentially providing opportunities across all Group segments (see section on Open Access). We continue to follow the US debates closely given the potential impact on our growing US operations, as well as the global focus on ETFs.

Capital Markets Union (CMU)
CMU is a plan introduced by the European Commission (EC) that aims to create deeper and more integrated European capital markets, enhance competition and remove barriers to retail investment.

Implications for LSEG
CMU may increase activity across our capital markets and post trade businesses. LSEG is closely following development of the relevant regulatory files such as the Prospectus Regulation, the EC proposals for a prudential regime for investment firms including market makers and initiatives to support SME growth markets.

Sustainable Finance
The Global Commission on the Economy and Climate estimated that US$90 trillion of investment is needed by 2030 to achieve the Paris agreement. Given the desire of some investors to integrate ESG factors into investment strategies, asset managers across the world are responding.

Implications for LSEG
We continue to actively contribute to this global and regional debate, in particular the European Commission Sustainable Finance Action Plan and the Technical Expert Group, and the UK Green Finance Taskforce and Institute. In Italy, Borsa Italiana joined the Italian Observatory on Sustainable Finance. We have also contributed to the Canadian High Level Expert Group. At LSEG, we recognise we have a role to play through our businesses. As our clients integrate climate change and sustainability into their plans, we are supporting issuers to access capital and investors choice in developing and implementing investment strategies.

Open Access
Open Access underpins provisions within MiFID II/R that change the way some clearing houses, trading venues and index/benchmark providers will need to provide their products. The changes, which will apply when the relevant provisions of MiFID II/R come fully into effect, require access to be provided to potential users of trading, clearing and indices on a non-discriminatory basis.

Implications for LSEG
Open Access remains a key principle that underpins our strategy and business model and is fully aligned with the way we currently operate. Our clearing services already accept clearing trades that originate from venues outside of the Group, some of our trading venues already provide choice of clearing through alternative CCPs outside the Group, and FTSE Russell provides index licences to several exchange businesses that are competitors to our trading venues. Open Access increases competition across a range of services, to the benefit of investors and market participants, and potentially provides the Group's relevant businesses and partnerships with opportunities to launch new products and attract new trading and clearing flows (e.g. CurveGlobal).

Emerging Technology
For the financial services industry, regulators in major jurisdictions are closely monitoring and developing regulatory frameworks on emerging financial technology (FinTech), specifically the potential uses of distributed ledger technology, cloud computing and artificial intelligence. There is continuous focus from regulators on the operational resilience of financial market infrastructures to ensure continuity of critical business services and the overall resilience of the financial sector.

Implications for LSEG
Emerging technology related regulatory initiatives have implications in various degrees to all Group functions/services, either as compliance obligations or constituents of the services that we provide to our customers. LSEG continues to monitor and engage with regulators and leading industry working groups on these issues for the development of regulatory frameworks.

Operational resilience and cyber security
Regulators, both at a national level and through the G7 cyber experts working group and other multilateral bodies, and the industry are working to keep pace with the growing cyber threats facing our markets through enhancements and further development of resilience standards.

Implications for LSEG
As one of our top priorities, we continue to invest to ensure cyber resilience and compliance with regulations. In addition to complying with current cyber and data protection requirements, LSEG complies with significant data and cyber operational controls and standards required under regulations. LSEG continues to monitor and engage with regulators and leading industry working groups on the development of regulatory frameworks and appropriate harmonisation of standards across jurisdictions.

Strategy in action

VISION

To be the world's leading financial markets partner.

STRATEGY

To achieve our vision we continue to strengthen our performance as an innovative, customer-focused and collaborative organisation, delivering high value products and services across the financial markets value chain.

Delivery of our strategy is through 3 strategic pillars:

- **driving global growth**
- **developing our customer partnership approach**
- ***delivering best in class capabilities***

Our core principles of Open Access, customer partnership, and operational *excellence will continue to drive delivery of our strategy.*

We adapt to and create opportunity from trends that are shaping our customers behaviour and operating environment, including geopolitical, regulatory and economic change as well as technological advancements that will continue to have an impact on our business. See pages 14–17 for more information

Performance in relation to the Group's financial targets are detailed in the Financial Review on page 47

Details of the KPIs for the Group's business segments are summarised on pages 12–13

FURTHER INFORMATION
Our latest results and presentations can be found at **www.lseg.com/investor-relations/financial-reports-and-key-documents**

STRATEGIC PILLARS

Driving global growth

As a *customer-focused organisation*, we benefit from deep and broad relationships with market participants globally. This drives product and service innovation and, combined with our ability to respond effectively to secular trends, creates growth opportunities across the financial markets value chain.

Selected Examples

- Establishing a greater presence in global emerging markets through partnerships with key local stakeholders across markets, via initiatives such as the Shanghai-London Stock Connect, ELITE's geographic expansion and FTSE Russell's broadening coverage of China

  Sustained organic and inorganic growth to extend the global coverage of our products and services, investments *in emerging capabilities and the organic development of* our global offering e.g. the acquisition of an increased stake in LCH, expansion of LCH's services across 23 currencies and a growing footprint in near shore locations

STRATEGIC PILLARS

Developing our customer partnership approach

LSEG is set apart in the Financial Markets Infrastructure sector through our open access philosophy and customer partnership approach. This gives us maximum flexibility to develop commercial and corporate opportunities amidst ongoing industry and regulatory change

Selected Examples

- Continued partnerships with our customers through shared ownership and governance to develop enhanced offerings across the financial markets infrastructure value chain, with customers contributing through varying minority shareholdings in LCH, Turquoise, CurveGlobal and MTS
- Continued collaboration with our customers and leading providers to drive the growth of new and existing product sets, including the acquisition of a minority stake in Euroclear and FTSE Russell's global ESG partnership with Sustainalytics

STRATEGIC PILLARS

Delivering best in class capabilities

We constantly seek to improve our execution capabilities, customer servicing and expertise in financial markets infrastructure. We utilise technology, our global customer relationships and the skills of our people to innovate, manage risks and to facilitate the execution of cross-divisional opportunities, using the collective expertise and collaboration across the Group.

Selected Examples

- Driving towards operational efficiency, illustrated through the continued integration of Mergent and The Yield Book into FTSE Russell and the Information Services Division, the expansion of BSL (the Group's shared services company) and ongoing optimisation of stable, secure and resilient infrastructure to more effectively support the Group's core activities
- Investment in partnerships with customers, including building out our capability in Artificial Intelligence (AI) and analytics alongside minority investments in AcadiaSoft (June 2018) and Nivaura (February 2019) to drive the development of enhanced customer offerings and applications of new technologies across the financial markets infrastructure value chain

Executive management team

The Executive Committee manages the business on a day-to-day basis. The team meets regularly to review a wide range of business matters, including financial performance, development of strategy, setting and monitoring performance targets, reviewing projects, corporate culture and other initiatives. Profiles of the Executive team are provided as at January 2019 (*for further information on* David Schwimmer, *David Warren and* Raffaele Jerusalmi, who are also members of the Board of Directors, see their biographies on page 59).

Mark Makepeace was Group Director of Information Services and CEO of FTSE Russell during 2018. He stepped down in January 2019 and was succeeded by Waqas Samad.

David Schwimmer
Group Chief Executive Officer
Joined the Group in August 2018

David Warren
Group Chief Financial Officer
[illegible]

Raffaele Jerusalmi
Chief Executive Officer of Borsa Italiana S.p.A. and Director of Capital Markets
[illegible]

Chris Corrado
Group Chief Operating Officer and Chief Information Officer

[illegible]

[illegible]

Diane Côté
Group Chief Risk Officer

[illegible]

[illegible]

Catherine Johnson
Group General Counsel

[illegible]

[illegible]

Daniel Maguire
Chief Executive Officer of LCH Group

[illegible]

[illegible]

Nikhil Rathi
Chief Executive Officer of London Stock Exchange plc and Director of International Development

[illegible]

[illegible]

Waqas Samad
Group Director of Information Services and Chief Executive Officer of FTSE Russell

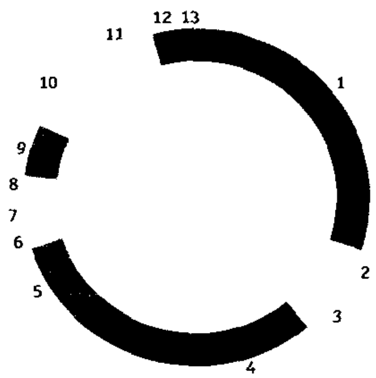
[illegible]

[illegible]

Segmental review

		12 months to 31 December 2018 £m	12 months to 31 December 2017 £m
●	**Information Services**		
1	FTSE Russell	**631**	546
2	Real Time Data	**94**	94
3	Other Information	**116**	96
		841	736
●	**Post Trade Services LCH**		
4	Clearing	**487**	432
5	Net Treasury Income and other	**175**	130
		662	562
6	Clearing (CC&G)	**41**	39
7	Settlement, Custody and other (Monte Titoli)	**61**	70
8	Net Treasury Income	**43**	42
		145	151
●	**Capital Markets**		
9	Primary Markets	**113**	110
10	Secondary Markets – Equities	**169**	163
11	Secondary Markets – Fixed income, derivatives and other	**125**	118
		407	391
●	**Technology Services**		
12	Technology	**65**	91
●	**Other**		
13	Other	**15**	24
Total Continuing Income		**2,135**	1,955

Total Income



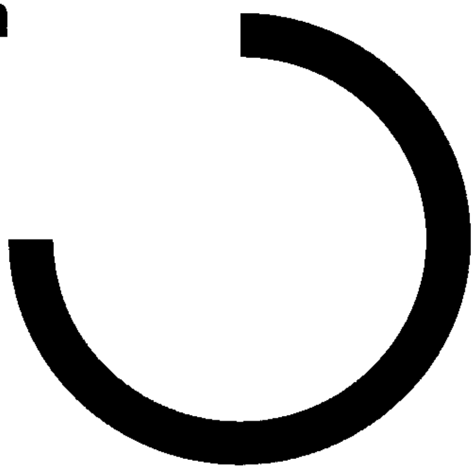
12 months to
31 December 2018

Information Services

Revenue

£841m

2017: £736m



FTSE Russell
75%

Real Time Data
11%

Other Information
14%

FURTHER INFORMATION
Market trends and our response for Information Services can be found on pages 14–[illegible]. Profitability of each segment can be found in the Financial Review on pages 41–4[illegible]. A glossary of terms can be found on pages 176–178.

Key Summary

- Revenues for the year increased by 14% to £841 million (2017: £736 million) with the full year contribution of The Yield Book, and up 9% on an organic and constant currency basis driven by growth across FTSE Russell
- FTSE Russell revenue for the year increased by 15% to £631 million (2017: £546 million) and up 8% on an organic and constant currency basis
- Other Information Services revenues increased by 22% to £116 million (2017: £96 million) driven by strong performance in UnaVista following the implementation of MiFID II
- Worldwide assets benchmarked to FTSE Russell indices increased to US$16 trillion
- Global ESG partnership formed with Sustainalytics to develop new FTSE Russell ESG indices using the new Sustainalytics ESG Risk Ratings

Introduction

The Information Services Division (ISD) provides financial market participants with timely, reliable and accurate market information. ISD offers a wide range of services, including global indices, real time pricing data, product identification, analytics solutions, reporting and reconciliation services. Information Services continues to be a key area of strategic focus and growth for LSEG.

ISD's revenue growth for 2018 has been driven largely by FTSE Russell including the full year contribution of The Yield Book, UnaVista benefiting from clients' increased reporting requirements following the introduction of MiFID II and SEDOL recurring licence growth.

Looking towards 2019, FTSE Russell will continue to work with its clients to seek to meet increasing industry demand for innovation in multi-asset data, index and analytics solutions.

US$16tn

Assets benchmarked to FTSE Russell indices

Information Services

FTSE Russell

FTSE Russell is a global multi-asset index leader that provides innovative benchmarking with approximately US$16 trillion assets benchmarked. FTSE Russell's offering forms part of the entire investment process and calculates a wide range of indices for investors to benchmark markets across different asset classes, styles and strategies covering 98% of the global investable equities market. FTSE Russell also provides analytics and data solutions to assist customers in their risk management and asset allocation. It has built global relationships and is used by the majority of the world's top financial institutions and their clients.

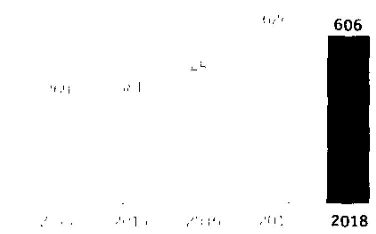
Across the industry, we continue to observe high levels of activity, interest and adoption amongst asset owners and ETF issuers for the implementation of our global equities and fixed income indices and, increasingly, smart beta solutions, in particular for factors, carbon objectives and broader environmental, social and governance (ESG) investing. This year we have seen passive ESG growth including in ESG ETF issuance, integration into listed real estate indices and formed a partnership with Sustainalytics. The Yieldbook Analytics product development work continued throughout 2018 to support FTSE Russell's multi-asset index strategy, including the planned provision of FTSE Russell equity and fixed income indices into The Yield Book's upcoming Custom Index Tool.

At LSEG's June 2017 Investor Update event, a target was set for FTSE Russell to achieve double-digit growth continuing to 2019. In 2018, revenues increased by 15% to £631 million (2017: £546 million) with the addition of The Yield Book and due largely to continued strong demand for our benchmarks including data and analytics as well as ETFs, benefiting from the market's move towards passive investing. Revenues were up 8% on an organic and constant currency basis, slightly behind our growth target. We remain confident of achieving our target in 2019.

Approximately 65% of FTSE Russell's revenue comes from index data subscriptions, including licences, data services and analytics. The remaining 35% comes from asset-linked fees, with revenues based on benchmarked assets under management (AUM) for ETFs and passive funds, and from contracts traded on index derivatives.

The integration of 2 acquisitions made in 2017, The Yield Book and Citi Fixed Income Indices, an analytics platform and fixed income index business, and Mergent, a global provider of business and financial company information, has seen good progress with all staff and processes embedded within the Group.

ETF assets under management benchmarked to FTSE Russell indices
US$ bn (year end)



FTSE Russell's sales teams now form a single global team that is closely aligned and highly engaged with customers. Technological integration is on track with completion targeted for 2019. FTSE Russell has also completed the re-branding of all former Citi Fixed Income indices, including the FTSE World Government Bond Index (WGBI).

Achievements for the year have included the launch of various custom fixed income indices, following the acquisition of Citi Fixed Income Indices. An example includes the FTSE Goldman Sachs Treasury Inflation Protected USD Bond Index, which was also selected by Goldman Sachs to launch an ETF. In April FTSE Russell also acquired the remaining minority interests to assume 100% ownership of FTSE TMX Global Debt Capital Markets Limited. Going forward our continued work in the fixed income space will create opportunities to expand the product offering in composite and multi-asset benchmarks, the first of which, the FTSE Market Based Allocation Index series, was launched in February 2019.

Following a consultation with market participants, FTSE Russell established a transparent and evidence driven country classification framework for its global fixed income benchmarks. The new process identifies objective criteria to calibrate Market Accessibility Levels, which will be incorporated into the methodology of FTSE government benchmarks, including the FTSE WGBI. China is likely to be added to the fixed income Watch List for possible inclusion in FTSE's global bond indices. In the annual equity country classification review, FTSE Russell announced China A shares will be assigned to Secondary Emerging market status and FTSE's global equity benchmarks from June 2019. Saudi Arabia and Kuwait were also announced earlier in the year to be reclassified to Secondary Emerging from previously Unclassified.

FTSE Russell is a leading provider of indices for the growing ETF market, with US$606 billion AUM benchmarked to its indices at the end of the year (2017: US$624 billion). The ETF market saw good growth in the first 9 months of the year with AUM increasing to US$663 billion, before falling with markets in the final quarter. Despite this, asset managers continued to expand into the ETF space, with 82 new ETFs launched benchmarked to FTSE Russell indices.

FTSE Russell is a leading innovator and provider of smart beta or factor-based index solutions, with ETF assets benchmarked to FTSE Russell smart beta indices at the end of the year with US$184 billion AUM (2017: US$190 billion). Fixed income ETFs benchmarked to FTSE Russell indices have seen strong growth across the year, with US$58 billion AUM at the end of the year (2017: US$48 billion).

2018 saw several ESG related achievements including new product launches and important client adoption. Some highlights include the Taiwan Bureau of Labor Funds (BLF), one of the largest public-sector funds in Asia, selected the FTSE4Good TIP Taiwan ESG Index for a new US$1.4 billion passive mandate. In the UK, the Merseyside Pension Fund adopted a Smart Sustainability index combining climate and risk premia factors.

An important product launch was the development of FTSE EPRA's Nareit Green Indexes, a climate risk adjusted extension to the FTSE EPRA Nareit Global Real Estate Index Series, the world's leading series of listed real estate benchmarks. Vanguard launched 2 US ESG ETFs based on the new FTSE Global Choice Index Series. These reflect the shift towards including climate risk and ESG factors within investment mandates.

FTSE Russell also formed a global ESG partnership with Sustainalytics, a leader in ESG and corporate governance research, ratings and analysis, to provide choice to the market and to complement existing in-house capabilities. Plans were announced to develop new FTSE Russell ESG indices using Sustainalytics ESG Risk Ratings, with the first product focused on the Russell Series expected to launch in the first half of 2019.

US$606bn

ETF assets benchmarked to FTSE Russell indices

FTSE Russell indices are licensed globally for derivatives trading across Europe, North America and Asia, demonstrating the Group's open access approach. During the year 234 million derivative contracts based on FTSE Russell indices were traded, up 11% on the previous year, with lower volumes in the US offset by strength in Asia led by the SGX traded FTSE China A50 Index Futures.

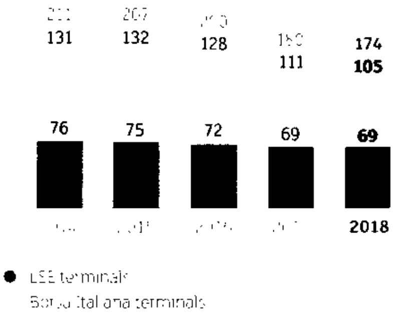
FTSE International Limited has received regulatory approval from the FCA to be authorised as a Benchmark Administrator under the European Benchmark Regulation (EU BMR). We will continue to engage with regulators to ensure a smooth transition through the UK's withdrawal from the European Union, regardless of the outcome of the negotiations between the European Commission and the UK Government.

Real Time Data

Our Real Time Data service provides primary reference data for UK and Italian markets. Its tick-by-tick data showing the full depth of the order book is used by traders, brokers and fund managers globally, while real time prices are licensed to display on websites.

In 2018, Real Time Data expanded its global reach offering data on European securities to a broad Asian investor base. Professional terminal usage across the Group declined to 174,000 from 180,000 in the prior year, with UK at 69,000 (2017: 69,000) and Italy at 105,000 (2017: 111,000) with the reduction largely in lower yield terminals. This decline has been partially offset by focusing on enterprise licensing and the use of non-display applications, including algorithmic/black box trading and trading products where the prices are pegged to the LSEG trading prices.

LSE and Borsa Italiana terminals
thousands (year end)



Other Information

UnaVista

UnaVista is LSEG's technology platform for regulatory reporting, reference data and analytics, providing business solutions designed to help firms reduce operational and regulatory risk across all asset classes. UnaVista processed an average of 34 million reports per day as it helped clients meet the new reporting requirements under MiFID II.

Following the success of the Partner Programme launched last year, UnaVista has extended the programme with a new pillar for consultancy firms. In collaboration with MTS, UnaVista is offering a regulatory reporting solution for the upcoming Securities Financing Transactions Regulation (SFTR).

To continue offering its services in the EU following the UK's withdrawal from the European Union, UnaVista has applied for trading licences in Amsterdam.

Reference Data

SEDOL is the Group's global, multi asset class numbering system which provides reference data and unique identification codes for global equity, derivatives and fixed income securities. The SEDOL Masterfile Service database provides clients with access to reference data on over 70 million securities.

Following the integration of Mergent, using data acquired in 2017, the Group has been able to issue an additional 1.5 million SEDOL identification codes to fixed income securities.

London Stock Exchange LEI Limited is a fully accredited Local Operating Unit (LOU) for the global allocation of Legal Entity Identifiers (LEI). These codes uniquely identify every legal entity or structure, in any jurisdiction, which is party to a financial transaction. An LEI is required under several global regulations and UnaVista's technology is used to allocate and maintain the codes. Since launching in 2013, we have become the second largest LOU globally and have allocated c.165,000 LEIs across 6 continents (2017: c.150,000). Growth in recent years is largely due to MiFID II increasing reporting obligations.

Regulatory News Service

Regulatory News Service (RNS) is the leading specialist provider of regulatory disclosure distribution services to UK listed and AIM companies. In 2018, more than 430,000 announcements were processed by RNS (2017: 310,000), covering the majority of UK company announcements. RNS operates as a Primary Information Provider and is regulated by the FCA.

174,000
Terminals

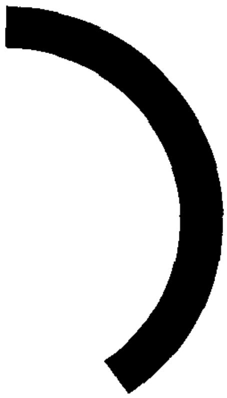
430,000
RNS announcements

Post Trade Services

Income

£662m

2017 £562m



OTC Clearing
41%

Non-OTC Clearing
and other revenue*
33%

Net Treasury Income
and other income
26%

* Other revenue includes non-cash collateral and compression fees

FURTHER INFORMATION
Market trends and our response for Post Trade Services, LCH can be found on pages 14–17
Profitability of each segment can be found in the Financial Review on pages 41–47. A glossary of terms can be found on pages 176–178.

Key Summary

LCH's income for 2018 was £662 million (2017: £562 million), up 18% on a reported basis and on a constant currency basis

- Net Treasury Income increased by 45% to £175 million (2017: £120 million), driven by increased number of counterparties and changing interest rate environments
- SwapClear total notional cleared surpassed US$1 quadrillion, up 23%, with client trades cleared up by 21% to 1.5 million and compression up by 27% to US$773 trillion
- ForexClear clearing increased by 54%, to US$17.2 trillion. Membership increased to 32 (2017: 30)
- Fixed income clearing increased to €98.7 trillion in nominal value cleared
- Cash equity clearing volumes increased by 1% to 810 million trades
- LSEG increased its majority stake in LCH Group to 82.6% (2017: 65.9%)

Introduction

LCH is a leading multinational clearing house, with clearing operations in the UK, Eurozone, US and an expanding presence in the Asia-Pacific region. LCH provides services to mitigate counterparty risk across multiple asset classes for clearing members and their clients, operating through an open access model that clears for the Group's markets and other major exchanges and platforms as well as a range of OTC markets.

LCH sits in the middle of a trade as the buyer to every seller and the seller to every buyer. If either party defaults on the trade, LCH owns the defaulter's risk and becomes accountable for its liabilities. Fundamental to LCH's risk process is its collection of quality collateral from clearing members and clients as insurance to recover or replace defaulted risk. During the life of a trade, or that of a portfolio of trades, LCH processes all cash flows and marks the trade or book to market, calling variation and initial margin in relation to prevailing risk of the overall portfolio.

LCH earns its revenue in the OTC derivatives markets by charging members either an annual fee for all clearing or a lower annual fee with variable fees based on volume. Additional fees are levied for services such as compression. Clients pay a fee based on OTC volume cleared. In non-OTC markets, all users pay a fee based on volumes or value cleared. Net Treasury Income is earned on cash and securities held for margin and default funds.

At LSEG's June 2017 Investor Update event, a target was set for OTC Clearing revenue to achieve double-digit growth continuing to 2019 and for LCH's adjusted EBITDA margin to increase from 36% in 2016 to c.50%. Double-digit growth in OTC Clearing has been achieved in 2017 and 2018, with confidence that this will continue in 2019. LCH's adjusted EBITDA margin reached 46% for 2018, making good progress towards the 2019 target.

In 2018, we further increased our majority stake in LCH Group from 65.9% to 82.6% following the sale by certain minority shareholders.

LCH won 12 awards across 2018, including Clearing House of the Year at the Financial News Trading & Technology Awards and the Asia Risk Awards, demonstrating LCH's truly global presence.

LCH continued to benefit from regulatory global incentives, such as the further roll out of the Uncleared Margin Rules (UMR). The changing interest rate environment, particularly in the US, has also contributed to LCH's performance in 2018. Alongside these external factors, LCH continues to develop and expand its product offering, with the launch of Non-Deliverable Interest Rate Swaps in SwapClear, Deliverable FX Options in ForexClear, an Index Options exercise platform in CDSClear, and LCH's portfolio margining service, Spider, which was expanded to allow Long-Term Interest Rate futures to be offset with eligible swaps and Short Term Interest Rate futures, while SwapAgent saw its first swaptions trades processed and cross-currency compression.

In 2019, LCH plans to launch clearing for Non-Deliverable FX Options in ForexClear, main market Euronext stocks traded on Turquoise in EquityClear for LCH SA, introduce RepoClear Sponsored Clearing for LCH SA and increase the number of currencies cleared in Non-Deliverable Interest Rate Swaps in SwapClear.

Total income in constant currency terms was up 18% with good performance in SwapClear client clearing, RepoClear volumes and strong growth in Net Treasury Income. On a reported basis, income increased by 18% to £662 million (2017: £562 million).

OTC derivatives clearing revenue was up 16% at £268 million, an increase of 17% on a constant currency basis (2017: £231 million). The increase in OTC clearing revenue came largely from the growth in SwapClear client clearing across all major currencies.

OTC clearing has benefitted from the initial implementation of UMR in the US from September 2016, and Europe from February 2017. New phases of UMR in 2019 and 2020 are expected to lead to increased use of central clearing, as more clients and banks need to meet increased margin requirements for bilateral trades with greater efficiencies available by submitting the trade to a clearing house.

Non-OTC clearing revenue was £136 million, up 2% on a constant currency basis (2017: £133 million), driven by strong growth in fixed income volumes cleared. Other revenue, which includes compression services and fees for managing non-cash collateral, increased by 22% to £83 million (2017: £68 million).

In February 2019, LCH Ltd was recognised as a third country CCP under EMIR Article 25 to provide EU customers with continued access in a no-deal scenario. Accordingly, LCH Ltd announced that it intends to continue to offer all clearing services for all products and services to all members and clients after 29 March 2019.

The Bank of England has accepted a formal application from LCH SA for recognition as a non-UK CCP in the UK which is condition for entry into the UK's temporary recognition regime.

OTC Clearing

SwapClear

SwapClear is the global market leader for OTC Interest Rate Swap (IRS) clearing. At the year's end, the service had 110 members providing a deep pool of liquidity across 23 currencies. Both buy-side and sell-side users of SwapClear can achieve capital efficiencies from compression while still being subject to a rigorous risk management system.

2018 was a landmark year for SwapClear with total notional cleared surpassing US$1 quadrillion (2017: US$874 trillion). Client clearing also saw record levels, with notional cleared increasing 27% to US$259 trillion (2017: US$203 trillion) and client trades increasing by 21% to 1,487,000 (2017: 1,227,000). Inflation swap clearing saw volumes cleared increase 32% with a total of US$4.2 trillion in notional cleared in 2018 (2017: US$3.2 trillion).

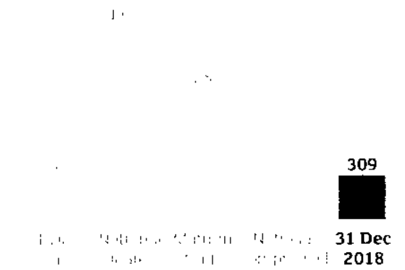
The launch of Non-Deliverable Interest Rate Swaps in 5 currencies has also contributed to higher volumes in 2018. 3 more currencies are due to be added to the service in 2019, subject to regulatory approval.

Volume growth has been driven by many factors including continued roll out of UMR leading to new clients being onboarded and a changing interest rate environment in the US and UK increasing activity in the swaps market. As regulatory tailwinds are largely behind us, SwapClear volumes will be driven mostly by the market environment and continued expansion of the product suite going forward.

SwapClear – Client: no. of cleared trades
thousands

SwapClear – Total notional cleared
US$ tn

SwapClear – Compression volumes
US$ tn



SwapClear offers its own and third party compression services which reduces the number of trades and overall notional value of portfolios by netting down compatible positions, freeing up more capital that would have otherwise been held on customers' balance sheets. Notional compressed continues to increase, rising 27% to US$773 trillion in total across all services in 2018 (2017: US$609 trillion), as members and clients see the sustained value delivered by its use with capital savings in 2018 estimated to be US$39.5 billion.

LCH SwapAgent, launched in 2017, provides processing, margining and settlement for non-cleared derivatives by utilising our clearing infrastructure. In 2018, SwapAgent's cross-currency basis swap service saw over US$50 billion notional processed, completed its first interest rate swaption trades and facilitated its first cross-currency compression run.

US$1,077tn

Total notional cleared at SwapClear in 2018

Post Trade Services

ForexClear

ForexClear is LCH's foreign exchange (FX) derivative clearing service for non-deliverable and deliverable products. Clearing is offered for 17 currency pairs of non-deliverable forwards (NDFs) and, since July 2018, deliverable FX options, spot and forwards for 8 *currency pairs in collaboration with CLS's settlement* service. This year, ForexClear membership increased to 32 members (2017: 30) while notional cleared grew by 54% to US$17.2 trillion (2017: US$11.2 trillion). In October ForexClear received an extension to its clearing licence from the Japanese FSA to clear NDFs on behalf of banks and clients based in Japan. ForexClear also saw the first use of its compression service in Q4 with US$4.5 billion of cleared notional compressed.

In 2019, ForexClear expects to extend deliverable FX *clearing services and add non-deliverable options to* the product suite, alongside increasing numbers of clients and members, driven by the expansion of products and continued roll out of UMR.

CDSClear

CDSClear clears the broadest range of European and US credit default swaps (CDS) products allowing margin offsets to provide opportunities for increased capital efficiency. 100 index series and 500 single name CDS contracts are eligible for clearing. LCH SA, which operates CDSClear, is registered as a CCP in Europe under EMIR, and as a Derivative Clearing Organization (DCO) with the Commodity Futures Trading Commission (CFTC) and a Clearing Agency *with the SEC in the US.*

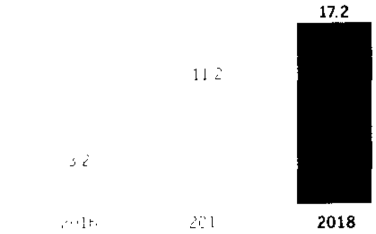
Following the launch of Credit Index Options (CIO) clearing in December 2017, CDSClear introduced an electronic exercise platform for CIOs in November 2018. This platform will allow both buy-side and sell-side users to reduce operational risk when exercising these products. Membership rose in 2018, with the total number of members now at 16 (2017: 13) providing increased liquidity to the service. Further members are expected to join the service in 2019.

Total notional cleared increased to €612 billion (2017: €549 billion) supported by the continued roll out of UMR.

US$17.2tn

Total notional cleared at ForexClear in 2018

ForexClear – notional cleared
US$ tn



Non-OTC Clearing

RepoClear

In 2018, RepoClear reached a record nominal value cleared of €96.7 trillion (2017: €67.5 trillion). Volumes in RepoClear rose 13%, largely as a result of strong growth in the underlying Repo market.

RepoClear clears across 13 *government bond* markets including the Group's MTS bond markets and third-party venues. LCH SA, based in Paris, has expanded its capabilities with the aim of acting as a single CCP for Euro debt clearing. In early 2019, the remaining 8 Euro debt markets that currently offer clearing in the London based LCH Ltd will also begin to offer clearing through LCH SA, enabling members to benefit from netting and use Euroclear, Clearstream or T2S settlement in a CSD of their choice.

Sponsored Clearing went live in 2017 and the first members have been using the service, with plans to increase our product offering as well as roll out to LCH SA in 2019.

EquityClear and Listed Derivatives

EquityClear clears for over 20 trading venues demonstrating our commitment to an Open Access approach. The number of trades cleared in 2018 increased by 1% to 810 million (2017: 805 million). In Q1 2019, EquityClear SA will extend its service to offer the clearing of main market Euronext stocks traded on Turquoise.

The Listed Derivatives venues cleared by LCH *include London Stock Exchange Derivatives Market* (LSEDM) and Euronext Derivatives Markets. In 2018 the number of contracts cleared increased by 4% to 152.9 million (2017: 146.9 million). Clearing of LSEDM contracts will cease in June 2019, as they are withdrawn from the trading platform.

Net Treasury Income

Net Treasury Income is the result of interest earned on cash assets lodged with the clearing house, on margin and default funds. Users of LCH post cash and receive an overnight interest rate less a spread. The level of funds held is primarily driven by *market risk under management, volumes cleared* and market volatility. Income is also driven by short-term interest rates predominantly in the US Dollar, Euro and UK Sterling money markets, including floating rate notes and reverse repos. Focus on risk dispersion and efficiency means we have increased the number of counterparties used for investment with more use of central bank accounts and a number of pension funds.

Average cash collateral held increased 3% to €86.7 billion (2017: €84.5 billion). Total Net Treasury Income for LCH for 2018 increased by 45% to £175 million (2017: £120 million) due to the expansion of counterparties and active management of asset *allocation* as well as *the changing interest rate* environment, particularly in the US, where short-term interest rates have been higher than the overnight rate.

Cash collateral held – daily average
€ bn

€86.7bn

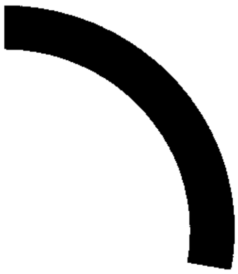
Average daily cash collateral held

Post Trade Services

Income

£145m

2017: £151m



Clearing (CC&G)
28%

Settlement, Custody & other (Monte Titoli)
42%

Net Treasury Income
30%

FURTHER INFORMATION
Market trends and our response for Post Trade Services: CC&G and Monte Titoli can be found on pages 14–17. Profitability of each segment can be found in the Financial Review on pages 41–47. A glossary of terms can be found on pages 176–178

Key Summary

– Income for the year fell by 4% to £145 million (2017: £151 million) on a reported basis and by 5% on a constant currency basis. This was, in part, as a result of a change in reporting of £10 million T2S costs, previously cost of sales and now netted off against revenues

– Net Treasury Income increased by 2% to £43 million and 1% on a constant currency basis

– Contracts cleared by CC&G rose 3% to 111.9 million

– Monte Titoli assets held under custody of €3.29 trillion, up 1%

Introduction

Post Trade Services in Italy are crucial to the securities trading industry. Our post trade businesses, Monte Titoli and CC&G, provide the markets with settlement, depository, custody, risk and collateral management, clearing and central counterparty (CCP) services to mitigate risk and ensure the efficient running of capital markets. These services become increasingly important in volatile market conditions and our continued strong service across this year emphasises the high quality of our risk management and post trade processes.

CC&G clearing earns revenue by charging a fee per trade or derivative contract cleared, and Net Treasury Income is earned on cash and securities held for margin and default funds. Monte Titoli settlement revenue is earned by charging a fee per trade settled and lodged for registration into the buyer's name. Its custody fees are paid by companies based on market capitalisation and issuance, with fees paid by intermediaries including banks and CCPs based on balance of assets held in custody.

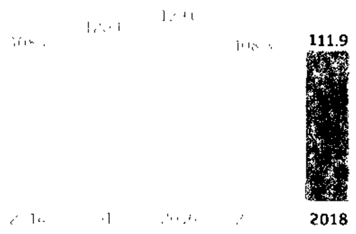
Clearing (CC&G)

CC&G is the Group's Italian-based provider of risk management, open access clearing and CCP services to numerous markets, including Borsa Italiana's markets, CME Group's BrokerTec and Hi-MTF. CC&G eliminates counterparty risk by sitting in the middle of a trade as the buyer to every seller and the seller to every buyer. CC&G provides services across a diverse range of asset classes including equities, ETFs, derivatives, close-end funds and fixed income. CC&G has an interoperability agreement with LCH SA for European bond and Repo markets.

On a constant currency basis, clearing revenues increased by 5% and on a reported basis rose by 6% to £41 million (2017: £39 million) due, in part, to higher volumes on platforms served by CC&G. Equity and derivatives contract volumes cleared were up by 3% to 111.9 million (2017: 108.3 million).

Post Trade Services

CC&G – Trades and contracts cleared
m



With 149 clearing members, of which 54% are international, CC&G has a global reach. This is illustrated by its continued engagement with other exchanges, delivering CCP advisory projects for Casablanca Stock Exchange in June 2018 and Bucharest Stock Exchange in November 2018, in addition to its ongoing cooperation with CCP Austria.

CC&G – Initial margin held
€ bn (average daily)

Net Treasury Income (NTI) is the income generated by CC&G investing the cash margin it holds. In 2018 average daily initial margin fell by 1% to €11.0 billion (2017: €11.1 billion). NTI increased by 2% to £43 million (2017: £42 million), up 1% on a constant currency basis.

The Bank of England, under the Temporary Recognition Regime (TRR), will allow CC&G to continue to offer clearing services and activities in the UK if the UK leaves the EU with no implementation period, as a third country CCP for up to 3 years extendable by HM Treasury in increments of 12 months.

Settlement, Custody and other (Monte Titoli)
Monte Titoli, LSEG's Italian based Central Securities Depositary (CSD), is a leading provider of efficient and secure settlement, custody, asset servicing, collateral management and issuer services to a domestic and international client base of 180 users and 2,480 issuers.

Settlement, custody and related revenues fell by 14% on a constant currency basis and, on a reported basis, by 13% to £61 million (2017: £70 million). This was mostly as a result of the pass through of T2S costs. In 2017 these were treated as cost of sales but in 2018 they were netted off against revenues. This resulted in a reduction of revenues by £10 million in 2018.

Monte Titoli – Settlement instructions
m

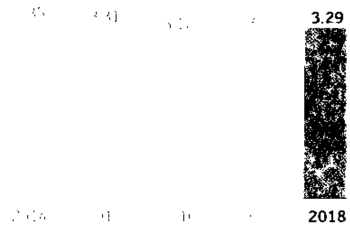
Monte Titoli manages a wide range of financial instruments, with €3.29 trillion assets under custody (2017: €3.27 trillion). 45.4 million settlement instructions were processed in 2018, up 2% on the previous year (2017: 44.6 million). Monte Titoli continues to provide an efficient settlement system with a year-end settlement rate of approximately 97% of settled transactions (2017: 97%).

€11.0bn

Average daily initial margin held

Monte Titoli filed its application to operate under new European CSD Regulation (CSD-R) in September 2017. Granting of the new licences under CSD-R are now expected in the second half of 2019. CSD-R aims to harmonise certain aspects of the settlement cycle and settlement discipline and to provide a set of common requirements for CSDs operating securities settlement systems across the EU.

Monte Titoli – Assets under custody
€ tn (annual average)



Monte Titoli continues to increase its international focus through its T2S Gateway service, to provide customers with settlement, asset servicing and fiscal services.

2018 saw the development of a new programme in Monte Titoli, Agility and Growth 2020. The 3 year plan has 2 pillars: the review of core processes through automation, and innovation, in line with wider group investment in new technologies. Monte Titoli has implemented business analytics on cloud platforms. MT-X, Monte Titoli's interactive dashboard for managing and monitoring of the custody service and domestic and international asset servicing, was also enhanced in 2018 to provide a simpler, more efficient end-user experience for clients.

€3.29tn

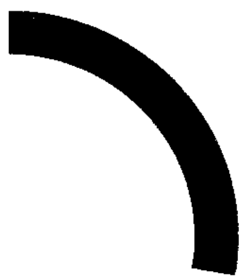
Monte Titoli assets under custody

Capital Markets

Revenues

£407m

2017: £391m



Primary Markets
28%

Secondary Markets
– equities
41%

Secondary Markets
– fixed income
derivatives and other*
31%

FURTHER INFORMATION
Market trends and our response for Capital Markets can be found on pages 14–17. Profitability of each segment can be found in the Financial Review on pages 41–47. A glossary of terms can be found on pages 176–178. LSEG is a minority shareholder of CurveGlobal; the results of CurveGlobal are not consolidated by the Group.

Revenues in 2018 increased by 4% to £407 million (2017: £391 million) and was up 4% on a constant currency basis

- In 2018, accounting standard IFRS 15 came into force, the total revenue impact of which was a reduction of £13 million in Primary Markets. For more information see Note 2 in the Financial Statements
- 177 new companies joined our markets in the year (2017: 196)
- UK cash equity average daily value traded increased by 9% to £5.8 billion

Borsa Italiana cash equity average daily number of trades increased by 2% to 282,000

Turquoise Plato Block Discovery value traded increased 70% to €92.5bn (2017: €54.5bn)

Introduction

The Group's capital markets business facilitates a wide range of domestic and international companies' raising of capital by providing well-regulated and highly liquid markets across our London, Milan and pan-European trading platforms.

Our range of primary markets provides choice for issuers and investors, enabling companies to raise capital efficiently and increase their visibility with a wide group of customers and investors. Our secondary markets create a deep pool of liquidity and allow active and efficient trading of equity, fixed income and derivative products through our high performance trading platforms.

Issuers admitted to our primary markets are charged admission fees and annual fees based on the market value of the securities listed.

In secondary markets a fee is charged based on value traded for UK equities, Turquoise and MTS fixed income markets. On other markets, Italian equities, derivatives and retail fixed income, a fee is charged per trade or contract traded.

LSEG is a leading European exchange with a range of listing and trading venues. Investors in large, small and mid-caps can benefit from the deep liquidity of our markets, with a single connection to our markets to trade throughout the day on our Lit order books, our closing auctions or with potential price improvement at the mid point on Turquoise Plato.

Primary Markets

Summary

2018 saw 177 companies admitted to our markets (2017: 196) raising a total of £8.4 billion through new equity at admission (2017: £14.4 billion). 79 companies listed on our Main Market (2017: 83). 65 companies were admitted to AIM in London following a strong previous year (2017: 80). In Italy we welcomed 33 new companies to our markets (2017: 33) of which 27 were admitted to AIM Italia.

2018 saw continued strength in the number of international companies listing in London, making up 30% of new issues for the year and maintaining our position as a leading global listing venue for international companies. These included Kazatomprom, a core part of Kazakhstan's privatisation programme and the world's leading uranium producer which raised £311 million and Vivo Energy, a leading retailer and marketer of Shell-branded fuels in Africa raising £548 million and the first company to list after being identified in the Group's 'Companies to Inspire Africa' report. In addition, we welcomed a number of dual listings such as Nova Ljubljanska Banka from Slovenia which raised £493 million and Gran Tierra, a Canadian energy company.

Capital Markets

In 2018, we welcomed Aston Martin Lagonda, a British producer of luxury sports cars, to the Premium Segment of the Main Market with a market capitalisation of £4.3 billion. The listing of financial services companies AJ Bell and Amigo Holdings also demonstrated the diversity of our listings from around the UK. We continued to attract a growing number of innovative technology firms with 21 technology IPOs in London in 2018, of which 13 were admitted to AIM. This included the Czech Republic company Avast, a leading global cybersecurity provider which raised £602 million and was the largest tech IPO in Europe, and FinTech firms such as Funding Circle, a global platform providing small business loans which raised £300 million in primary proceeds.

In Italy, Borsa Italiana welcomed 33 new companies raising €2 billion, of which over half came from a record number of listings on AIM Italia. This included SPAXS, a Special Purpose Acquisition Company (SPAC) operating in the Italian financial services sector, which raised €600 million, making it the largest IPO on Borsa Italiana in 2018.

Primary Markets launched a new portal in 2018 to service our listed companies, lsegissuerservices.com, that enables each issuer to have a dedicated digital space to tell their story and includes a Marketplace ecosystem to provide products and services to our community. The Marketplace already features around 30 partners offering a range of corporate services to issuers. LSEG Issuer Services also hosted the inaugural Cyber Security Masterclass, demonstrating the Group's commitment to fostering connectivity, partnership and innovation among market participants.

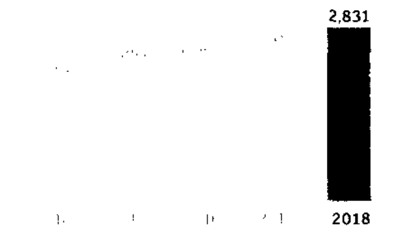
At a Group level, LSEG was placed in the top 3 globally for number of issuances in IPOs and further offerings. The total capital raised across our equity markets through new and further issues amounted to £29 billion (2017: £44 billion). At year end, there were a total of 2,467 companies on our markets (2017: 2,485) with a total market capitalisation of £2,856 billion (2017: £3,317 billion).

Equity money raised – Group
£ bn

Exchange Traded Products
Our Exchange Traded Products (ETP) markets continue to be leading listing venues in Europe. In 2018, 323 new ETPs were listed in London (2017: 177) and 191 on our Italian ETFPlus market (2017: 147) across a wide range of asset classes including equity, fixed income and commodities and in a variety of trading currencies. These new listings brought the total number of ETPs listed on our markets to 2,831 (2017: 2,482).

In 2018, we welcomed 8 new ETP issuers, China Post Global, 111 Funds, Tabula, Expat, HANetf, Legal and General, Kraneshares and Finex Funds to our London market and 3 to our Italian ETFPlus market, Candriam, Franklin Templeton and JP Morgan Asset Management. This brings the total number of issuers to 52 across the Group.

Exchange Traded Products – Group
number listed at year end



AIM
As the world's leading international growth market, AIM provides small and medium sized enterprises (SMEs) with access to a deep pool of highly liquid capital. Since launching in 1995, over 3,800 companies have been admitted to AIM in the UK, raising more than £110 billion. In 2018 both AIM and AIM Italia were the first growth markets in Europe to be officially recognised as European SME Growth Markets under legislation introduced within MiFID II.

In 2018, 65 companies were admitted to AIM in the UK, raising £1.6 billion (2017: 80 companies raised £1.6 billion). This year was another strong year for further issues, with £3.9 billion raised on AIM through follow on fundraisings by existing issuers (2017: £4.8 billion). 60% of all the money ever raised on AIM has been through follow-on issues, demonstrating the long-term relationships that exist between AIM companies and their investors.

Market capitalisation of companies listed – Group
£ bn

As of year-end, the total number of companies on the market was 923 (2017: 960) with a total market value of £91 billion (2017: £107 billion).

AIM Italia welcomed 27 new companies to its market in 2018 (2017: 24) raising €1.3 billion, bringing the total number of companies on its market to 113 (2017: 95) with a combined market value of €6.6 billion (2017: €5.6 billion). This included high-end children's wear brand Monnalisa, which graduated from our Elite programme raising €18 million.

ELITE
ELITE is LSEG's innovative international business support and capital raising programme designed for ambitious, high growth SMEs. In 2018, the ELITE global community surpassed 1,000 companies representing 40 countries (2017: 700 companies across 27 countries). Demonstrating our commitment to supporting global SME growth, ELITE has developed new partnerships, including agreements in the US, Lebanon and Brazil. In 2018, 11 ELITE companies joined LSEG public markets across Italy and the UK, bringing the total number up to 24 since launch.

ELITE Club Deal, the private placement platform that streamlines the capital raising for ELITE companies, supported 11 firms in the year to raise a combined amount of €136 million.

£29bn

Equity money raised on our markets

Fixed Income

LSE continues to be a leading global venue for international debt fundraising, including issues in Indian Rupee, Chinese RMB, Sukuk bonds and Indonesian Rupiah, raising over £4.5 billion in 2018. In total, 2,074 bonds raised £347 billion, 53% of which was raised by international issuers.

2018 saw 54 new green and sustainable bonds listed on our markets, reinforcing LSEG's status as a leading centre for green and sustainable financing. The Industrial and Commercial Bank of China (ICBC) issued the largest green bond ever in London, which raised a total of £1.2 billion, and China Construction Bank issued the first Sustainability Bond listing on LSE's International Securities Market. The total number of green and sustainable bonds now listed on our markets is 165, and these have raised almost £60 billion.

Secondary Markets

Equity Trading

Equity trading in the UK was up 9% to £1.46 trillion in 2018 (2017: £1.34 trillion), while the average daily value traded was up 9% to £5.8 billion (2017: £5.3 billion). In Italy, the average daily number of trades increased by 2% to 282,000 (2017: 276,000). The uplift in volumes is largely due to a combination of market volatility and client trading allocation following the introduction of MiFID II.

In 2019, London Stock Exchange is due to launch a pan-European request for quote (RFQ) for cash equities. RFQs have traditionally been used in less liquid asset classes such as fixed income, where the buy side send an RFQ to a number of dealers. The new RFQ will automatically match to the best price.

The Shanghai-London Stock Connect, a service to trade Chinese shares in London and UK listed shares in Shanghai, is progressing with ongoing preparations for launch.

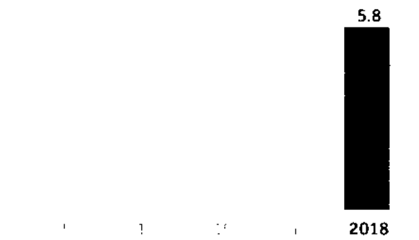
£5.8bn

LSE average daily value traded

177

companies were admitted to our markets

LSE – average daily value traded
£ bn



In 2018, TRADEcho published over 44 million reports, successfully assisting its client base in transitioning to MiFID II, and has applied for trading licences in Amsterdam to allow continued service regardless of the outcome of the negotiations between the European Commission and the UK Government.

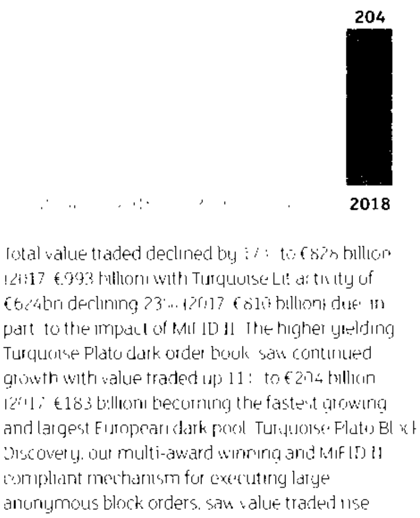
Borsa Italiana – average daily number of trades
thousands

Turquoise

Turquoise is our majority owned pan-European MTF in partnership with the user community, which celebrated its 10 year anniversary of trading in 2018. With a single connection to LSE's data centre, sell side or buy side clients can trade 4,500 European shares from 19 countries. This includes the largest issuers on AIM, international depositary receipts, ETFs, European rights issues and Euronext Growth stocks with an Open Access model that allows clearing through a choice of interoperable CCPs, including LCH. Turquoise operates 2 order books: Turquoise Lit - a continuous order book and Turquoise Plato - offering potential price improvement via mid-point trading in non-displayed services, like Turquoise Plato Uncross and Turquoise Plato Block Discovery, and pre-trade displayed Turquoise Plato Lit Auctions.

Turquoise lit book – total value traded
€ bn

Turquoise Plato dark book – total value traded
€ bn



Total value traded declined by 17% to €828 billion (2017: €993 billion) with Turquoise Lit activity of €624bn declining 23% (2017: €810 billion) due, in part, to the impact of MiFID II. The higher yielding Turquoise Plato dark order book, saw continued growth with value traded up 11% to €204 billion (2017: €183 billion) becoming the fastest growing and largest European dark pool. Turquoise Plato Block Discovery, our multi-award winning and MiFID II compliant mechanism for executing large anonymous block orders, saw value traded rise by 70% to €92.5 billion (2017: €54.5 billion).

Following consultations with buy-side customers, Turquoise announced that from November 2018 it would be the first MTF to remove the rebate fee structure on its continuous lit markets while at the same time reducing aggressive order fees by half. This demonstrates our alignment with customers on quality and ongoing improvements, illustrating Turquoise's approach to customer partnership and innovation.

Turquoise was honoured to feature in The Parliamentary Review 2018 as a Finance sector example "Highlighting best practice".

Turquoise has applied for trading licences in Amsterdam to ensure continued service regardless of the outcome of the negotiations between the European Commission and the UK Government.

Capital Markets

Exchange Traded Products

The Group has reaffirmed its position as the largest exchange by value traded for ETP order book trading in Europe following a record year in 2018 due in part, to continued global growth in ETP assets. Total ETP value traded across our markets rose by 14% to £202 billion (2017: £178 billion). ETP trading accounts for around 7% of equity trading on LSE and 14% on Borsa Italiana. ETPs trade on our platforms in 4 currencies including Chinese Renminbi.

Exchange Traded Products – total value traded
£ bn

Derivatives

Derivatives volumes on our markets increased in 2018 with 42.8 million contracts traded (2017: 40.7 million) supported by increased volumes in Italy during market volatility. IDEM, the Group's Italian derivatives market, saw trading volumes rise by 6% to 36.2 million contracts (2017: 34.1 million). London Stock Exchange Derivatives Market (LSEDM) saw volumes remain flat with 6.6 million contracts traded (2017: 6.6 million). In December 2018, LSEDM announced its intent to increase its focus on supporting CurveGlobal going forward and will withdraw equity derivatives contracts from the platform by June 2019.

CurveGlobal

CurveGlobal is an interest rate derivatives venture between London Stock Exchange Group, Cboe, and a number of leading dealer banks launched in September 2016. CurveGlobal has seen over 5 million lots trade on the platform since launch with open interest at 348,000 lots at the end of the year in mostly European Short-Term Interest Rate futures (STIRs). CurveGlobal launched the first 3-month SONIA futures contract in April 2018 to aid the UK transition from LIBOR benchmark, and has since seen over 550,000 lots traded.

Clearing of CurveGlobal products is offered through LCH, allowing trading participants access to a single default fund across OTC and listed rates derivatives, and portfolio margin through LCH Spider. In November, LCH Spider II launched cross margining of European Long Term Interest Rate futures (LTIRs) enabling the offset of LTIRs, STIRs and OTC positions to reduce risk in participants' portfolios and increase margin efficiency. As LSEG is a minority shareholder of CurveGlobal, the results of CurveGlobal are not consolidated by the Group.

550,000

SONIA future contracts traded at CurveGlobal

MTS Repo
€tn

Fixed Income

MTS is a leading regulated electronic trading platform for European wholesale Government Bonds and other types of fixed income securities. MTS Repo, which offers liquidity across European Repo markets, saw a 13% rise in value traded to €87.4 trillion (2017: €77.? trillion). MTS Cash and BondVision's value traded fell by 11% to €3.3 trillion (2017: €3.7 trillion).

In 2018, MTS was selected by the Johannesburg Stock Exchange (JSE) to power South Africa's first electronic government bond trading platform. This relationship is a first for MTS in African sovereign bond markets. MTS also launched a new trading venue for Slovakian government bonds, becoming the 20th market operated by MTS from Europe.

MTS BondsPro, a US registered electronic corporate bond trading platform, saw volumes grow by 30% in 2018. MTS has partnered with BondCliQ, a new corporate bond market data solution, to combine MTS pricing information with BondCliQ's transactional data and institutional quotes to deliver a real time view of the entire US corporate bond market.

In May, MTS announced that it will be establishing and operating 2 new MTF markets (EBM and MTS Cash Domestic) in Italy, which will be operational from 1 March 2019. These will replace the 2 MTF markets of the same names, currently operated by EuroMTS from the UK. This will allow MTS to continue to service its clients regardless of the outcome of the negotiations between the European Commission and the UK Government. EuroMTS Limited will continue to operate its other market services from the UK.

Our retail bond markets, including MOT in Italy, which is the most liquid and heavily traded retail fixed income platform in Europe, EuroTLX and the UK Order Book for Retail Bonds (ORB), continued to provide liquid markets despite a difficult low interest rate environment. Total trades for the year were 5.1 million (2017: 5.7 million) with value traded at €205 billion (2017: €264 billion).

Technology Services

Revenue

£65m

2017: £91m

FURTHER INFORMATION
Market trends and our response for Technology Services can be found on pages 14–17. Profitability of each segment can be found in the Financial Review on pages 41–47. A glossary of terms can be found on pages 176–178.

Key Summary

- Technology revenues increased by 7% on an organic and constant currency basis, but were down by 28% on a reported basis to £65 million (2017: £91 million) largely due to the disposals of Exactpro and MillenniumIT ESP
- New shared services office opened in Bucharest, Romania, to compliment the Group's centre in Sri Lanka
- LSEG Technology successfully implemented Settlement and Central Securities Depository functionality for Singapore Exchange (SGX) in 2018

Introduction

LSEG Technology provides the Group and its customers, including banks, specialist trading firms and other capital market venues with resilient high-speed, low latency trading platforms, post trade platforms, real time market data and surveillance products and services.

LSEG Technology

Our cash equity and retail bond markets run on the latest version of the Millennium Exchange trading platform. This technology has reduced our cost base and enabled customers to benefit from enhanced functionality and our co-location services. This has allowed us to meet the needs of our customers quickly and cost effectively. We have implemented solutions for over 40 organisations and exchanges worldwide.

LSEG Business Services Limited (BSL), our shared services company, provides a range of resilient and efficient technology and corporate services Group-wide. In addition to reducing costs by leveraging low-cost centres, BSL encourages Group-wide process standardisation and best practice adoption. The BSL shared services model is scalable and has been expanded to reflect our growing global business as 2018 saw the introduction of a new near-shore Romanian delivery centre in Bucharest complementing the Group's existing shared services centre in Sri Lanka. The global expansion and integration will continue to enable the Group to utilise the full range of our services, including data and analytics capabilities internally, as well as for our customers.

LSEG Technology successfully implemented Settlement and Central Securities Depository functionality for Singapore Exchange (SGX) in 2018. Built upon the same technical and hardware framework as a clearing module implemented at SGX in 2017, this functionality provides a fully integrated and complementary set of post trade solutions which enables SGX to align to global market practices with the introduction of T+2 into the Singapore market.

With an expected launch in H1 2019, LSEG Technology will implement the Millennium Exchange matching engine as the underlying technology for ATOM Group's new digital asset exchange venue, AAX.

The Group continues to assess opportunities and risks arising from emerging technologies throughout FinTech, working with regulators, industry consortiums and specialist tech firms in areas such as distributed ledger and blockchain technology, machine learning, big data and cloud computing.

The Group has adopted a cloud-first strategy, leveraging the potential of cloud technologies to reduce operational costs, deliver system scalability and support our global footprint, with one of these initiatives implemented for Monte Titoli in 2018. We also continue to rationalise our data management through big data technologies, a common data architecture and consistent governance model.

In 2018 the Group developed client-led enhancements to the Millennium Exchange platform including an Auto-RFQ market model. The average daily volume of transactions for 2018 was 72 million (2017: 53 million).

Through our Millennium Exchange technology, our UK cash equity trading platform continues to exhibit good technical performance, with the trading systems available with 99.99% uptime during the year (2017: 100%). On 7 June, LSE identified a technical software issue that was preventing some members from entering orders into the pre-open auction system. To preserve the integrity of the market, LSE decided to delay the market open by an hour.

In December 2017 and January 2018, LSEG completed the divestments of MillenniumIT ESP and Exactpro respectively.

Our wider responsibility

The Group fulfils vital economic and social roles in enabling businesses and economies to fund innovation, manage risk and create jobs. As such, integrity and trust remain at the core of what we do.

Below, we summarise our approach to Corporate Sustainability (CS), including non-financial reporting disclosures, and highlight some of the developments over the past year. We have also produced a separate, detailed 2018 CS report, which can be viewed at www.lseg.com/about-london-stock-exchange-group/corporate-responsibility.

Our Approach

Our CS approach underlies our corporate purpose, and has 2 core objectives:

- To play an essential role in supporting global financial stability and sustainable global economic growth
- To ensure our corporate behaviour and actions are consistent with good practice while generating long-term value creation

Our CS strategy is defined by 6 impact areas that direct the Group's focus in all CS activities, which are executed through 4 pillars: our markets, our services, our people, and our communities.

To develop and achieve the Group CS objectives and targets, the Group CFO established a Group CS Committee in 2011, appointing its Chair, and the Group strategic CS pillar leads. Each pillar lead then established dedicated working teams drawn from business areas across the group, which are integral to the governance of the overall CS programme. This framework allows us to set coherent objectives with Group-wide impact. This is applied to all CS initiatives to identify the issues most relevant and important for the Group by cross-referencing items against this framework internally, and externally against the UN Sustainable Development Goals (SDGs) and Global Reporting Initiative (GRI) materiality definitions.

By involving representatives from the business areas, ESG factors can be directly fed into product development and formation of services across the Group. Further information on how ESG considerations are tied to our business model and operations can be found in our CS report.

We have seen good progress in our CS performance with our external CS ratings remaining in the top quartile when ranked against peers in the Dow Jones Sustainability Index (DJSI). As our business expands and diversifies, we continue to review our approach to sustainability. Our objectives for each of our 6 impact areas are set out in the Looking Ahead section of our CS Report.

CS Impact Framework

CS Strategy

Convene	Grow	Disclose	Transition	Develop	Sustain
We leverage our position at the centre of capital markets to facilitate dialogue and catalyse action towards the development of sustainable finance	We will help small and medium-sized enterprises (SMEs) raise capital and fund investments to create employment worldwide	We will provide investors with information and tools to assess the ESG performance of companies to enable incorporation into engagement and investment	We work with issuers and investors to provide solutions that accelerate and manage the transition to a low carbon and sustainable economy	We will employ and invest in the development of a highly diverse global workforce to deliver on our sustainable vision	We will help the less advantaged in communities worldwide to develop business skills and to support the environment

CS Pillars

Our Markets	Our Services	Our People	Our Communities
Supporting the sustainable growth of companies for long-term economic prosperity	Enabling informed investment decisions and transparent markets operations	Recruiting and developing diversified talent to fulfil their potential	Empowering people, enriching communities

Risks

We continue to assess the materiality of ESG and related risks to LSEG and look to further integrate these considerations into our Enterprise-wide Risk Management framework in 2019. While we recognise the importance of Environment, Human Rights and Anti-bribery and corruption (ABC) risks, these are not currently considered principal risks for the Group. Certain matters in relation to our employees are identified as principal risks for the Group. In 2018, further steps have been taken to mitigate this risk. More information on our principal risks can be found on pages 48 – 57 and details of the principal risks arising from employees can be found on page 57.

Environment

As a Group, we recognise that we must use resources in ways that deliver the long-term sustainability and profitability of the business and have a positive impact on the environment. We are taking such factors into account in developing products and services that support these aims through companies listed on our markets. The Group's primary greenhouse gas (GHG) emissions arise from energy, waste and water in our offices and data centres around the world, from staff travel, and indirectly from our supply chain. We are aware of the risks and opportunities for our business arising from climate change, and have developed measures to address them. We will actively monitor these changes so that we can adapt and respond as necessary.

During the reporting period, we achieved an 18% reduction in our absolute carbon emissions and a 16% reduction in carbon emissions per Full Time Employee (FTE). This is a slower rate of change to 2017, where LSEG achieved a 43% reduction in carbon emissions per FTE. This was due to significant action in 2017, where 64% of the Group's electricity was produced by natural renewable energy sources.

Managing our environmental impact

Our Environmental Management Group (EMG) guides the Group's environmental strategy, and is responsible for setting Group wide targets, and managing and continually seeking to improve our environmental performance. The EMG reports performance quarterly via our Intranet and annually discloses verified emissions on our website, in our CS and Annual Reports, and in response to CDP (Carbon Disclosure Project) and DJSI. The Group's ESG performance is also assessed by FTSE4Good.

Its responsibilities also include:

- Increasing efficiency and reducing consumption in areas including energy, water and paper usage, waste management and business travel
- Ensuring that environmental considerations are incorporated in the Group's purchasing policy and procurement decisions, including new developments, projects and materials
- Engaging with clients, suppliers and community partners to promote environmental best practice

David Warren, the Group's CFO, reports to the Board on environmental issues.

Methodology and Verification

We report all of the emission sources required under the Companies Act 2006 (Strategic Report and Directors' Reports) Regulations 2013. These sources fall within our consolidated financial statement. We do not have responsibility for any emission sources that are not included in our consolidated statement.

The Scope 1, 2 and 3 emissions disclosed here and in the Directors' Report have been externally verified by SGS against the requirements of the WRI/WBCSD GHG Protocol – Corporate Accounting and Reporting Standard. Conduct of the verification met the requirements of ISO 14064-3:2006. Full details and the verification statement are available on our website.

Our emissions are calculated using GHG Protocol Corporate Accounting and Reporting Standard (revised edition) and UK Government Environmental Reporting Guidelines, including mandatory greenhouse gas emissions reporting guidance. We use DEFRA UK Government GHG Conversion Factors for our UK sites, and for extrapolated data, business travel, water and waste. Local GHG Protocol emissions factors are used to calculate energy emissions for international sites where available.

Global 2018 GHG Emissions

tCO_2e – Tonnes of carbon dioxide equivalent	2018	2017[1]	% change
Total Group Carbon Footprint	[illegible]	[illegible]	[illegible]
– per m[illegible]	[illegible]	[illegible]	[illegible]
– per FTE	[illegible]	[illegible]	[illegible]
– per £m Revenue	[illegible]	[illegible]	[illegible]
Scope 1	[illegible]	[illegible]	[illegible]
Scope 2	[illegible]	[illegible]	[illegible]
Scope 3	[illegible]	[illegible]	[illegible]
Scope 3 (Electricity Transmission and Distribution)	[illegible]	[illegible]	[illegible]

[illegible]

In addition to monitoring our environmental impact, we have set environmental targets for the next financial year including energy, water, waste and travel as well as long-term science-based targets out to 2030. More information on these as well as full details of our emissions and reporting methodology can be found in our CS report.

	2020 Target	Progress against 2020 Target
Overall	Reduce tCO_2e by [illegible]% per £m Revenue and per FTE	Reduction of [illegible] per £m Revenue and reduction of [illegible] per FTE
Data Centres	Reduce tCO_2e and Water by [illegible]% per £m Revenue	Reduction of [illegible]% tCO_2e and reduction of 30% m[illegible] per £m Revenue
Office	Reduce tCO_2e and Water by 20% per £m Revenue	Reduction of [illegible]% tCO_2e and reduction of 57% m[illegible] per £m Revenue
Business Travel	Reduce tCO_2e by 20% per £m Revenue and per FTE	Reduction of 18% per £m Revenue and increase of [illegible]% per FTE
Waste and Paper	Reduce Total Waste by [illegible]% per £m Revenue	Reduction of [illegible]% per £m Revenue

Our wider responsibility

Task Force on Climate-related Financial Disclosures (TCFD)

Supporting the call for more effective climate-related financial disclosures to inform longer term investment decision, in June 2017 LSEG signed a statement of support for the recommendations of the TCFD established by the Financial Stability Board

The table below, by cross-referencing relevant disclosures, summarises LSEG's current TCFD alignment.

			References
GOVERNANCE	Information on LSEG's governance around climate-related risks and opportunities	– Board oversight of the Group Corporate Responsibility Policy – Group CFO reports to LSEG Board on environmental matters – Group CS Committee includes a number of Executive Committee members including an LSEG Board member – EMG responsible for setting Group-wide targets and managing and continually seeking to improve our environmental performance	– Group Corporate Responsibility Policy Governance section – LSEG CS Report 2018 Environment section, page 31
STRATEGY	Information on the impacts of climate-related risks and opportunities on LSEG's business, strategy and financial planning	– Impact of low-carbon transition and rise of green industries monitored by FTSE Russell through Green Revenues data model – LSEG sets targets for business operations for 2020 and 2030	– LSEG CS Report 2018 Environment section, page 31–34 – FTSE Russell Green Revenues data model
RISK MANAGEMENT	Information on how LSEG identifies and manages climate-related risks	– In 2018, LSEG further aligned its approach to climate-related risks and opportunities with the TCFD framework following a review by a specialist consultancy	– LSEG 2018 CDP Response Risk and Opportunities section questions C2.1–C2.4
METRICS AND TARGETS	Metrics and targets used by LSEG to assess and manage relevant climate-related risks and opportunities	– Physical risk metrics are associated with LSEG environmental programme targets – Transition risk metrics: levels of ESG disclosures on our markets – Transition opportunities metrics: exposure of our markets to the green economy	– LSEG CS Report 2018 Environment section, pages 31–34 – LSEG CS Report 2018 Our Markets section, pages 14–25 – FTSE Russell Report: Investing in the Global Green Economy: busting common myths – 30 May 2018

Social

People

LSEG fully recognises its responsibilities to its people and their importance to our business model as noted earlier in this report on page 11 and by the Chairman and CEO. The Group continues to nurture a culture that reflects its values of partnership, innovation, integrity and excellence and supports colleagues' professional development. We have taken a number of steps to understand how our people at all levels of seniority currently view our culture, and have used the insights gained to improve our assessment and development of leaders and our engagement with employees.

We also continue to support both diversity and wellbeing across all our global locations. In 2018, we made progress via several initiatives outlined below across Recruitment, Professional Development, Learning, Employee Engagement, Diversity and Wellbeing. While this is a multi-year effort, we believe these initiatives will reap rich rewards and support a culture that fully embraces our Group's values.

The LSEG Board receives updates on matters relating to employees, including through the CEO's reports to the Board. See the Board's report on Corporate Governance on pages 62–68 for further information.

Recruitment and Retention

Attracting, developing and retaining the skills we need to deliver our strategy is vital to the Group. In 2018, reflecting our commitment to diversity and inclusion we increased the proportion of female candidates being recruited from 31% in 2017 to 37% in 2018. The proportion of employees moving roles within the Group also increased, from 14% to 23%, as we sharpened our focus on internal mobility across the Group.

Our Graduate and Early Career Programme continues to help fuel our growth and diversification. We now have almost 100 graduates on programmes globally, and this year hosted over 150 internships across 6 countries and added new locations. Gender diversity was a focus of pipeline development at this level too: throughout 2018, events were held to encourage women into finance and technology, resulting in 44% female representation across the global graduate and intern classes.

Our graduate programmes provide structured learning and professional development opportunities through traditional classroom training, mobile learning, networking opportunities, on the job experience and formal industry qualifications. In 2019, we will also pilot a Spring week programme for first year students studying STEM (science, technology, engineering and mathematics) subjects to encourage broader engagement. More detail on the breakdown of our employees can be found on page 35 of the CS report.

Professional Development

Futures, our global Career Framework, was launched across all divisions and functions in 2018. It objectively and transparently sets out the skills, knowledge and behaviours required for every role in the organisation, from entry-level Associate roles through to those on our Group Executive Committee. The launch of Futures is an important milestone for LSEG, providing clarity and reinforcing our values. As a single consistent framework it will enable us to track diversity and help us to increase internal mobility, creating the conditions for more cross-divisional moves.

In addition to connecting employee behaviours with Group values, Futures allows us to calibrate individual performance against like-skilled peers. Data available for performance assessments now includes 360-degree feedback for Executive Committee members and 'Have Your Say' feedback for Managing Directors, and we have further plans for developing a Group-wide culture of constructive feedback.

We continue to invest in leadership skills in order to maintain a strong succession pipeline and strengthen our leadership group. During 2018, senior leaders participated in elite external development programmes such as Wavelength Connect, while in some divisions we also invested in internal leadership team programmes.

The Mentor Exchange, our internal mentoring programme launched in 2016, was extended from the UK, Italy and US to France and Sri Lanka; we now have 600 mentors and mentees connected. The programme supports our diversity agenda, as well as our emphasis on developing and retaining colleagues within the Group. LSEG's Women Inspired Network (WIN), now in its fourth year, continues to nurture female talent at all levels across our offices in Canada, France, Italy, Malaysia, Sri Lanka, the UK and US. More information on WIN can be found in the CS report on page 22. In addition, 50 LSEG colleagues have joined the 30% Club cross-company mentoring scheme to date.

Learning Opportunities

Throughout 2018 our learning management system, The Learning Exchange, successfully delivered blended solutions across all LSEG locations including our recently opened Bucharest office. The Learning Exchange reaches all LSEG colleagues globally, enabling them to access content and sign up for courses.

To meet business needs, core offerings are focused on supporting line managers in managing change, coaching and developing their teams. A practical and flexible delivery approach was consistently adopted, maximising impact by providing real time, in-house webinars and delivering courses by video conferencing as well as face to face. This enabled colleagues from every LSEG location to participate and encouraged everyone to take ownership of their career.

Employee Engagement

Employee engagement continues to be of paramount importance to the Group and we are committed to acting on the results of our regular 'Have Your Say' global employee surveys. In 2018 more than 3 quarters of colleagues (76%) took time to share their views, and our engagement index of 75 was driven by a strong sense of pride in LSEG as an employer.

Following the 2018 survey, we have identified 4 key areas of focus for 2019: Vision and Purpose, Collaboration, Leadership and Career Development. We believe action in these areas will enable us to increase engagement levels, support collaboration and optimise career development within the Group. We expect to launch the next global employee survey during 2019.

Giving colleagues the opportunity to meet with LSEG's leaders and help shape the Group's future success is important to us. To facilitate this, we have a variety of colleague forums, employee engagement committees and representative bodies in place globally.

In the UK, the Colleague Forum supports all UK based employees and is co-chaired by the CEOs of LSE plc and LCH Ltd. It meets regularly to discuss and contribute to a number of key business initiatives and business change programmes, including people-focused initiatives launched as our wellbeing programme. ACTIVE, an initiative launched by the Colleague Forum, simplifies access to our existing colleague sports and leisure clubs and we are exploring expansion to other key Group locations in 2019.

Diversity and Inclusion

LSEG is committed to a culture based on collaboration and innovation. Diversity and Inclusion (D&I) is critical to this as it helps to create an environment in which all opinions and ideas can be heard. It is also an important element in attracting and retaining talented people. Developing our D&I approach supports the Group's focus on developing a single, unified culture and builds on our core values.

Colleagues are recruited and supported in their careers regardless of age, gender, nationality, culture or personal characteristics. We strive to inspire people in all their diversity to pursue careers with the Group, and we encourage industry-wide change to promote equal opportunity. In 2018 we conducted disability access audits, and introduced parent/carer support. In 2019 we also plan to provide dedicated space and resources for prayer and reflection. All colleagues complete inclusion awareness e-learning on joining the Group and in 2018 we expanded our manager training to embed modules which build the skills to champion inclusive leadership and equal opportunity for all.

Gender Diversity

	Female	Male
LSEG plc Board	[illegible]	10
LSEG Subsidiary Boards	[illegible]	[illegible]
Executive Committee and Leadership Teams	134	[illegible]
All other colleagues	[illegible]	[illegible]
Total colleagues	[illegible]	[illegible]

[illegible]

Note [illegible]

A report on gender pay gap was published in March 2019. The report can be found here: **www.lseg.com/about-london-stock-exchange-group/corporate-responsibility**

Wellbeing

The 2018 global employee survey showed that the Group is making progress on the Wellbeing initiatives it introduced in 2017. High percentages of respondents reported feeling supported, comfortable about being themselves at work and well able to balance work and home life.

In 2018 we signed up to the 'Time to Change' Employer Pledge, affirming our commitment to support mental wellbeing in the workplace. This was reflected in the programme of events we ran throughout the year, including the Wellbeing Speaker Series in which specialists in Sleep, Resilience and Nutrition shared their insights with colleagues.

We are taking steps to improve access to flexible working for our colleagues. Our Workplace Choice programme continues its phased rollout with positive feedback on productivity, team relationships, client service, engagement and work-life balance.

Our wider responsibility

Reward

LSEG's reward strategy focuses both on the short term, through an annual bonus scheme linked to our global performance management approach, and on the medium term through share schemes aimed at senior management and the wider workforce. The Long-Term Incentive Plan, details of which can be found on page 92, aligns the performance and reward of senior management with the Group's ongoing performance and growth.

Sharesave, our employee share ownership scheme, is available to all permanent employees across France, Hong Kong, Italy, Malaysia, Sri Lanka, the UK and the US. Colleagues can save up to £500 or equivalent per month, with the option after 3 years of using their accumulated savings to buy LSEG shares.

During 2018, more than 580 employees across 5 countries benefitted from Sharesave maturities including share price appreciation of c.120%, reflecting the Group's performance over the previous 3 years. Participation was extended further, with almost 1,000 employees joining the 2018 scheme, which increased overall participation to 54% of eligible employees.

Community

LSEG works to ensure that as our global reach expands, we continue to benefit the communities we operate in. To achieve this, we have an active programme of engagement with governments, inter-governmental agencies and regulators to promote ESG disclosure and sustainable practices. We aim to promote local communities and the environment where we have a significant presence.

London Stock Exchange Group Foundation provides a primary channel for the Group's charitable giving as well as a focal point for staff engagement with local charities. In 2018, the Group donated £1,254,000 to the LSEG Foundation, and £207,000 directly to a number of charities. The Foundation's approach and positioning is aligned with the overall Group CS strategy, while recognising the global reach of LSEG's business model, more information on this can be found in the CS report on page 27. UNICEF remains the Group's global charity partner and we continue to support the community investment programme. New charity partners were selected in France and Italy in 2018, more information on these partners can be found in the CS Report under Our Communities.

Governance

LSEG remains committed to upholding the highest standards of corporate governance and business integrity throughout our operations. In 2018, we have again complied with all the UK Corporate Governance Code's provisions. Our Board will continue to ensure that it provides effective leadership and promotes uncompromising ethical standards. For further information on governance see pages 69–71.

Given the size and scope of our businesses, we face a wide and expanding universe of risks. Our presence in Post Trade services provides direct and indirect exposure to financial market volatility. We also face technology risks including cyber threats, as well as macro-economic, political, and regulatory risks. Pursuing our growth strategy in this dynamic environment requires best-in-class risk management. Our governance and risk management structures have evolved to meet this need (see pages 48 and 62 for further details).

Policies

A Group-wide Policy Framework has been established. Each policy contains the following:

- Risk definition and identification
- Risk Appetite and Tolerances
- Minimum Standards and Risk Management Activities

All Group level policies are approved by the Executive Committee as a minimum and other Committees and Boards as defined in the Enterprise-wide Risk Management Framework. Policies are subject to annual review, which may be approved by the Policy Owner and Executive Sponsor if there are no material changes.

Polices are implemented and managed in accordance with the Enterprise-wide Risk Management framework and 3 lines of defence operating model. All Group Policies are published on Bond, the internal online intranet site, available to all staff. Material Policy breaches are reported to the Board, the Executive Committee and relevant sub-Committees.

Given their relevance for our industry and associated risks, we provide below a brief comment on the outcomes of the following policies, deemed to be most relevant to our corporate sustainability processes:

- Financial Crime
- Anti-bribery and Corruption
- Group Information Security
- Business Continuity Management

In the case of all policies stated above, compliance with which is regularly monitored, the outcome is that there have been no breaches material to LSEG in 2018. More details on these policies can be found on page 38 of the CS report.

Our Code of Conduct and Corporate Responsibility policy, both published on **www.lseg.com**, are underpinned by LSEG's values and behaviours and a number of policies that embed sustainability into our day to day operations.

LSEG relies on the skills and decision-making capabilities of our employees and their adherence to the highest behavioural standard to ensure the quality of our product and service offering. All new and existing LSEG employees are provided with training on the Group's core policies, including all the key regulatory and legal requirements. The Group has maintained a 100% completion rate across all compliance training delivered in the 2018 period.

Human Rights

LSEG adheres to the UN Guiding Principles on Business and Human Rights together with the International Labour Organization Conventions and Recommendations within our working environment in each location where we operate. The Group strongly supports these conventions which promote freedom of association and equality and abolish forced labour and child labour. Human rights considerations are also included in our Supplier Code of Conduct and Group Corporate Responsibility Policy.

Our updated risk assessment and research in 2018 has again indicated that LSEG operates in an industry where the risk of modern slavery and human trafficking is inherently low. However, we operate as a global business and therefore recognise the risks of partnering with a varied spectrum of global suppliers and of slavery occurring deeper in those complex supply chains.

The Group has a zero-tolerance approach to modern slavery. Our 2018 'Slavery and Human Trafficking statement' which will be published on our website on the 29th March 2019, describes the steps taken during 2018 to improve our supply chain management and procurement processes and procedures. Suppliers that make up the top 75% of spend were reviewed for modern slavery risks in 2016.

The most recent version of our modern slavery statement can be found at **www.lseg.com/about-london-stock-exchange-group/corporate-*responsibility/modern-slavery-act-statement***

Financial review

The financial review covers the financial year ended 31 December 2018.

Commentary on performance uses variances on a continuing organic and constant currency basis, unless otherwise stated. Constant currency is calculated by rebasing 2017 at 2018 foreign exchange rates. Sub-segmentation of revenues are unaudited and are shown to assist the understanding of performance.

David Warren
Group Chief Financial Officer

Highlights

- Total income of £2,135 million (2017: £1,955 million) increased by 9% and total revenue of £1,911 million (2017: £1,766 million) increased by 7%
- Adjusted EBITDA[1] of £1,066 million (2017: £915 million) increased by 13%
- Adjusted operating profit[1] of £931 million (2017: £812 million) increased by 11%
- Operating profit of £751 million (2017: £626 million) increased by 14%
- Adjusted basic earnings per share[1] of 173.8 pence (2017: 148.7 pence) increased by 17%
- Basic earnings per share of 138.3 pence (2017: 153.6 pence) decreased by 10%
- Total dividend per share of 60.4 pence (2017: 51.6 pence) increased by 17%

There were no discontinued operations in 2018.

[illegible]

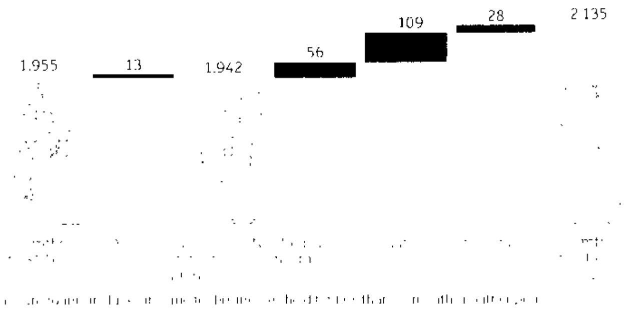
Revenue	12 months ended Dec 2018 Continuing £m	Discontinued £m	Total £m	12 months ended Dec 2017 Continuing £m	Discontinued £m	Total £m	Variance (Continuing) %	Variance at organic and constant currency[2] %
Information Services	841	–	841	[illegible]	–	[illegible]	[illegible]	[illegible]
Post Trade Services – LCH	487	–	487	[illegible]	–	[illegible]	13	[illegible]
Post Trade Services – CC&G and Monte Titoli	102	–	102	[illegible]	–	[illegible]	[illegible]	[illegible]
Capital Markets	407	–	407	391	–	391	4	4
Technology Services	65	–	65	91	–	91	(28)	[illegible]
Other	9	–	9	9	–	9	[illegible]	[illegible]
Total revenue	**1,911**	–	**1,911**	[illegible]		[illegible]	8	7
Net treasury income through CCP businesses	218	–	218	[illegible]	–	[illegible]	34	[illegible]
Other income	6	–	6	[illegible]		5	[illegible]	[illegible]
Total income	**2,135**	–	**2,135**	1,955		[illegible]	[illegible]	[illegible]
Cost of sales	(227)	–	(227)	[illegible]		[illegible]	[illegible]	[illegible]
Gross profit	**1,908**	–	**1,908**	[illegible]		[illegible]	[illegible]	[illegible]
Operating expenses before depreciation, amortisation and impairment	(834)	–	(834)	[illegible]		[illegible]	[illegible]	[illegible]
Share of loss after tax of associates	(8)	–	(8)	[illegible]		[illegible]	[illegible]	[illegible]
Adjusted earnings before interest, tax, depreciation, amortisation and impairment[1]	**1,066**	–	**1,066**	915	–	915	17	[illegible]
Depreciation, amortisation and impairment	(135)	–	(135)	(103)		(103)	31	[illegible]
Adjusted operating profit[1]	**931**	–	**931**	812	–	812	15	[illegible]
Profit on disposal of business	–	–	–	7	–	7	–	–
Amortisation of purchased intangible assets and non-underlying items	(180)	–	(180)	[illegible]	[illegible]	[illegible]	8	[illegible]
Operating profit	**751**	–	**751**	626	[illegible]	603	20	[illegible]
Adjusted basic earnings per share[1]	**173.8p**	–	**173.8p**	148.7p	–	148.7p	17	–
Basic earnings per share	**138.3p**	–	**138.3p**	153.6p	[illegible]	146.4p	10	–

[illegible]

Note [illegible]

Financial review

Total Income
£ m



Information Services

Revenue	12 months ended Dec 2018 £m	12 months ended Dec 2017 £m	Variance %	Variance at organic and constant currency[1] %
FTSE Russell	**631**	546	15	8
Real Time Data	**94**	94	-	-
Other Information Services	**116**	96	[illegible]	14
Total revenue	**841**	736	14	9
Cost of sales	**(70)**	(62)	13	8
Gross profit	**771**	674	14	9
Operating expenses before depreciation, amortisation and impairment	**(302)**	(274)	10	–
Earnings before interest, tax, depreciation, amortisation and impairment[2]	**469**	400	17	–
Depreciation, amortisation and impairment	**(29)**	(17)	73	
Operating profit[2]	**440**	383	15	–

Information Services provides global index products, real time pricing data, product identification, reporting and reconciliation services. Revenue was £841 million (2017: £736 million).

FTSE Russell's revenue was £631 million (2017: £546 million). On a reported basis, revenue increased 15%, and growth on an organic and constant currency basis was 8%. This is slightly behind our growth target but nonetheless is a good performance, driven by strong subscription renewal rates and data sales as well as increases in average AUM levels in benchmarked ETFs and other investable products. The year end AUM levels were reduced following weaker global equity market performance in the final quarter, which also had a consequential effect on the FTSE Russell revenue growth rate. FTSE Russell benefitted from a first full year contribution from The Yield Book.

Real Time Data revenue decreased by 1% year on year. The number of terminals decreased by 3% to 174,000 (2017: 180,000) although the revenue impact of this was partially offset by increases in enterprise licensing.

Other Information Services revenues increased by 2[illegible]% as a result of growth in UnaVista, SEDOL and LEI issuance. UnaVista growth was driven by user base and volume expansion in regulatory reporting following MiFID II implementation at the beginning of 2018 which also led to an increased demand for LEI issuance. SEDOL growth was driven by continued recurring licence growth.

Cost of sales rose by 8%, mainly as a result of increased data charges and partnership costs, both related to growth in FTSE Russell revenues.

On a reported basis, operating expenses excluding depreciation, amortisation and impairment (D&A) increased by 10% to £302 million (2017: £274 million), and D&A rose 73% to £29 million (2017: £17 million) reflecting a full year contribution of The Yield Book cost base and continued investment to support growth. Operating profit margin expansion on 2017 was partially diluted by the lower margin contribution from The Yield Book. The Group remains on track to achieve cost synergies announced as part of The Yield Book acquisition.

Reported operating profit rose by 15% to £440 million (2017: £383 million).

Post Trade Services – LCH

Revenue	12 months ended Dec 2018 £m	12 months ended Dec 2017 £m	Variance %	Variance at constant currency %
OTC	**268**	231	16	17
Non-OTC	**136**	123	[illegible]	[illegible]
Other	**83**	68	[illegible]	[illegible]
Total revenue	**487**	431	[illegible]	[illegible]
Net treasury income	**175**	120	45	46
Other income	**–**	10	-	–
Total income	**662**	562	[illegible]	18
Cost of sales	**(123)**	(88)	40	39
Gross profit	**539**	474	14	14
Operating expenses before depreciation, amortisation and impairment	**(235)**	(229)	3	–
Earnings before interest, tax, depreciation, amortisation and impairment[2]	**304**	245	24	-
Depreciation, amortisation and impairment	**(62)**	(51)	22	
Operating profit	**242**	194	24	

Post Trade Services – LCH comprises the Group's majority owned global clearing business. Total income was £662 million (2017: £562 million).

OTC clearing revenue increased by 17%, driven by SwapClear, predominantly in client clearing with trade volume increasing by 21% to 1,487,000 (2017: 1,227,000). ForexClear's launch of FX options clearing in July, the first FX clearing service with connected physical FX settlement, also contributed to growth. 2018 performance is in line with the Group's double-digit growth revenue target for OTC clearing.

Non-OTC clearing revenue increased by 2%, reflecting continued good performance in RepoClear. Clearing in repo and cash bond markets increased 13% to €98.7 trillion (2017: €87.5 trillion).

Other revenue, which includes fees from non-cash collateral management and from compression services, grew by 21%.

Net treasury income increased by 46% to £175 million. The growth reflects a 3% rise in average cash collateral held to €86.7 billion (2017: €84.5 billion), expansion of counterparties and active asset allocation, as well as wider spreads due to the changing interest rate environment, particularly in the US.

Cost of sales increased 39%, mainly due to growth in SwapClear and the associated increase in share of surplus. Gross profit increased by 14% to £539 million.

On a reported basis, operating expenses excluding D&A increased by 3% and D&A increased 22%, driven by investment to support growth.

LCH EBITDA margin increased by 2 percentage points to 46% (2017: 44%), moving towards the target of approaching 50% by 2019.

Reported operating profit increased by 24% to £242 million (2017: £194 million).

Post Trade Services – CC&G and Monte Titoli

Revenue	12 months ended Dec 2018 £m	12 months ended Dec 2017 £m	Variance %	Variance at constant currency %
Clearing (CC&G)	**41**	39	5	5
Settlement, Custody and Other (MT)	**61**	[illegible]	(13)	(14)
Inter-segmental revenue	**1**	[illegible]	(50)	(50)
Total revenue	**103**	110	(7)	(7)
Net treasury income (CC&G)	**43**	42	2	1
Total income	**146**	152	(4)	(5)
Cost of sales	**(7)**	(17)	(62)	(61)
Gross profit	**139**	135	3	[illegible]
Operating expenses before depreciation, amortisation and impairment	**(47)**	(59)	(20)	
Earnings before interest, tax, depreciation, amortisation and impairment[2]	**92**	82	12	–
Depreciation, amortisation and impairment	**(9)**	(11)	[illegible]	–
Operating profit[2]	**83**	71	17	

[illegible]

Post Trade Services provides clearing (CC&G), settlement and custody activities (both Monte Titoli). Total income (excluding inter-segmental income) was £145 million (2017: £151 million).

CC&G clearing revenues increased by 5% due to growth in derivatives clearing volumes, mirroring trading performance on the Italian IDEM market. Monte Titoli revenues decreased by 14%. This headline decline reflects a change in reporting of settlement activity, with revenues and cost of sales for settlement through the T2S system now netted within revenues, amounting to £10 million in 2018 (2017: £10 million). Underlying Monte Titoli revenues were flat year on year.

CC&G generates net treasury income by investing the cash margin held, retaining any surplus after members are paid a return on their cash collateral contributions. Net treasury income increased by 1% as a result of a wider spread. The average daily initial margin at €11.0 billion is 1% lower than 2017 (2017: €11.1 billion).

Cost of sales decreased by 62%, largely due to the change of accounting, netting the cost of T2S settlement within revenues.

On a reported basis, operating expenses excluding D&A decreased by 10% and D&A decreased 21%, driven by lower IT costs from efficiency measures combined with the absence of globeSettle costs in 2018 following closure of the business in 2017.

Reported operating profit increased by 17% to £83 million (2017: £71 million).

Capital Markets

Revenue	12 months ended Dec 2018 £m	12 months ended Dec 2017 £m	Variance %	Variance at constant currency %
Primary Markets	**113**	110	3	4
Secondary Markets – Equities	**169**	163	4	4
Secondary Markets – Fixed Income, Derivatives and Other	**125**	118	6	5
Total revenue	**407**	391	4	4
Cost of sales	**(16)**	(16)	2	3
Gross profit	**391**	375	4	4
Operating expenses before depreciation, amortisation and impairment	**(189)**	(181)	4	
Share of loss after tax of associates	**(1)**	-		
Earnings before interest, tax, depreciation, amortisation and impairment[1]	**201**	194	4	–
Depreciation, amortisation and impairment	**(17)**	(14)	18	–
Operating profit[1]	**184**	180	2	

[illegible]

Capital Markets comprises Primary and Secondary Market activities. Revenue was £407 million (2017: £391 million).

Financial review

Primary Markets revenue remained resilient, despite the impact of Brexit uncertainty and the change in revenue recognition under IFRS 15 which resulted in a reduction of £13 million in the year. The total amount of capital raised across our markets, through both new and further issues, decreased by 35% to £28.7 billion (2017: £44.2 billion). There was a 10% decrease in the number of new issues across our markets to 177 (2017: 196). ETF admissions in the UK have doubled in 2018 reflecting both a spike in activity in Q2 and general growth from 2017, in line with a global trend toward increased passive investment strategies.

In Secondary Markets, the UK average order book daily value traded rose by 9% to £5.8 billion (2017: £5.3 billion) mainly resulting from higher volatility. Italian equity trading volumes increased by 2% mainly driven by increased macroeconomic uncertainty on the Italian market, with 282,000 trades per day (2017: 276,000). Trading on Turquoise, our pan-European equities platform, decreased by 18% with an average daily equity value traded of €3.2 billion (2017: €3.9 billion). Lower performance in Turquoise Lit Book service was partly offset by Turquoise Plato benefitting from an increase in large in scale trading activity.

Fixed Income, Derivatives and Other revenue increased by 5%. The positive growth reflects a 6% increase in derivatives volumes on the Italian IDEM market. Fixed Income saw a 13% increase in MTS Repo and a decline of 11% in MTS Cash and BondVision notional value.

Cost of sales decreased by 3% primarily driven by lower rebates in Turquoise Lit trading.

On a reported basis operating expenses excluding D&A increased by 4% to £189 million (2017: £181 million) while D&A increased 18% to £17 million (2017: £14 million).

Reported operating profit increased by 3% to £184 million (2017: £180 million).

Technology Services

	12 months ended Dec 2018 £m	12 months ended Dec 2017 £m	Variance %	Variance at organic and constant currency[1] %
Revenue	**65**	91	(28)	7
Inter-segmental revenue	**21**	20	5	9
Total revenue	**86**	111	(22)	8
Cost of sales	**(9)**	(29)	(69)	21
Gross profit	**77**	82	(6)	6
Operating expenses before depreciation, amortisation and impairment	**(59)**	(77)	(23)	
Earnings before interest, tax, depreciation, amortisation and impairment	**18**	5		
Depreciation, amortisation and impairment	**(20)**	(7)	–	–
Operating profit / (loss)[2]	**(2)**	(2)	[illegible]	–

1 [illegible]
2 [illegible]

Technology Services provides server location solutions, client connectivity and software products for the Group and third parties. Third party revenue was £65 million (2017: £91 million).

Revenue increased by 7% driven by an expanding product suite and higher sales volumes.

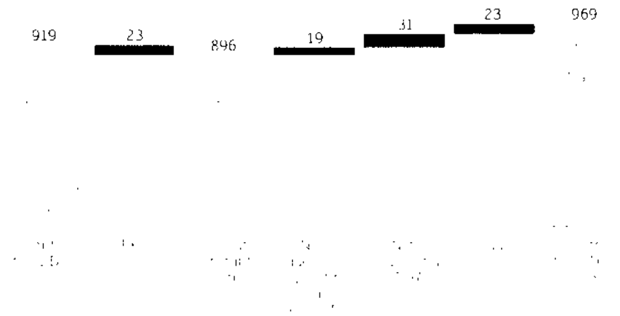
On a reported basis, operating expenses excluding D&A decreased by 23% to £59 million (2017: £77 million), and D&A increased from £7 million in 2017 to £20 million, driven by continued Group technology investment and centralisation of costs.

The Technology segment made a reported loss of £2 million (2017: £2 million loss).

Operating Expenses

Group operating expenses (including D&A) before amortisation of purchased intangible assets and non-underlying items were £969 million (2017: £919 million).

Operating Expenses
£m



Operating expenses increased by 6%. While this is higher than our target of 4%, expenses excluding D&A were well controlled, increasing by only 2% to £834 million (2017: £816 million) primarily driven by IT costs and property costs as the Group continues to invest in new products, information security and infrastructure enhancements to support growth. D&A increased by 30% to £135 million in 2018 (2017: £103 million), reflecting investment in new products and efficiency projects. D&A costs will continue to increase in 2019 as a result of the Group's continued investment. D&A costs will also increase on the adoption of IFRS 16, which requires the Group to recognise lease amounts on the balance sheet and amortise the right to use the asset, rather than reporting lease expenses as operating costs. Consequently, we expect D&A to increase to c.£195 million for 2019. Inorganic expenses increased by 83% to £23 million with a full year's recognition of The Yield Book costs, offset by the absence of disposed businesses (SPS, MillenniumIT ESP and Exactpro). The Group remains on track to achieve cost synergies announced as part of The Yield Book acquisition.

In 2019, the Group will implement a headcount programme to drive further integration, remove role duplication, reduce number of contractors and continue to invest in lower cost centres. This will affect a net c.5% of global headcount (net c.250 employees) and generate a run-rate cost saving of c.£30 million per annum. There will be a one-off cost to implement the programme in 2019 of c.£30 million.

Share of Loss after Tax of Associates

The £8 million loss primarily reflects the Group's 43.36% minority share of the operating loss of CurveGlobal. CurveGlobal volumes continued to grow and open interest at the end of 2018 was up 115% to 348,000 contracts (2017: 162,000 contracts). The Group recognised a further £1 million share of loss on the Group's share of the HUB Exchange funding platform, which is currently still in a start-up phase.

Non-underlying Items

Non-underlying items before tax decreased by £6 million to £180 million (2017: £186 million). Non-underlying items in 2018 included amortisation of purchased intangible assets of £154 million (2017: £153 million) and £5 million of asset write-offs as these were no longer required following the integration of The Yield Book into the Group. Other non-underlying items included £9 million of transaction-related costs (2017: £25 million) and £12 million of integration costs (2017: £8 million).

Finance Income and Expense and Taxation

Net finance costs were £66 million, up £4 million on the prior year. IFRS 16 changes will add £4 million to net finance costs in 2019. In October 2019 a £250 million bond with a coupon of 9.125% per annum is due for repayment.

The effective tax rate (ETR) for the year in respect of continuing underlying operations and including the effect of prior year adjustments, is 21.6% (2017: 22.4%). This reflects the continued reductions in the UK statutory rate, reduction in the impact of Italian tax on intercompany dividends, the mix of profits in the Group and finalisation of prior year tax returns.

The underlying ETR for 2018 excluding prior year adjustments was 21.9% (2017: 23.4%). Assuming a similar mix of profits, the ETR for 2019 is likely to remain consistent with 2018 at c.22%.

Cash Flow and Balance Sheet

The Group's business continued to be strongly cash generative during the year, with cash generated from operations of £969 million (2017: £852 million).

At 31 December 2018, the Group had net assets of £3,698 million (2017: £3,752 million). The central counterparty clearing business assets and liabilities within LCH and CC&G largely offset each other but are shown gross on the balance sheet as the amounts receivable and payable are with different counterparties.

Net debt

Year ended 31 December	2018 £m	2017 £m
Gross borrowings	**2,203**	1,953
Cash and cash equivalents	**(1,510)**	[illegible]
Net derivative financial liabilities	**47**	[illegible]
Net debt	**740**	[illegible]
Regulatory and operational cash	**1,120**	[illegible]
Operating net debt	**1,860**	[illegible]

At 31 December 2018, the Group had operating net debt of £1,860 million after setting aside £1,120 million of cash and cash equivalents held to support regulatory and operational requirements, including cash and cash equivalents at LCH Group and amounts covering regulatory requirements at other LSEG companies. The total capital amounts have increased year on year reflecting strong cash generation at regulated entities and to meet the requirements of MiFID II regulations and IFRS 15 accounting standards.

The Group's operating net debt increased primarily due to the purchase of additional shares in LCH Group and continued organic investment in the Group's businesses.

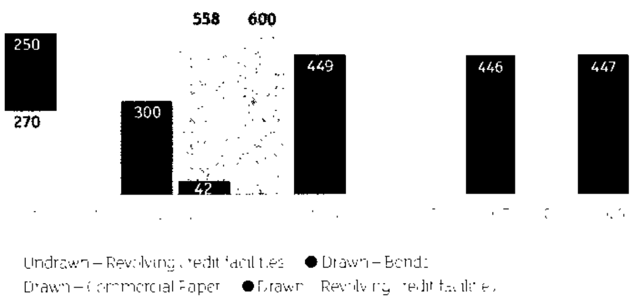
In February 2018, the Group commenced issuance under its newly arranged £1 billion Euro Commercial Paper Programme, further diversifying its sources of liquidity and reducing borrowing costs. Outstanding issuances at 31 December 2018 of €300 million (£270 million) have short dated maturities and may be reissued upon maturity in line with the Group's liquidity requirements.

In December 2018, the Company issued a €500 million bond under its updated £2.5 billion Euro Medium Term Notes Programme further extending its debt maturity profile. The bond is unsecured and due for repayment in December 2027. Interest is paid annually in arrears in December each year. The coupon on the bond is fixed at 1.75% per annum.

The Group retained total committed bank facilities of £1.2 billion during the financial year. The maturity of the 5 year £600 million facility arranged in December 2017 was extended during the period for a year to December 2023, with a further 1 year extension option available to the Group, subject to lender approval. The Group continues to be well positioned to fund future growth. Strong cash generation combined with over £880 million of undrawn committed bank lines (after taking into account committed, swingline backstop coverage for the €300 million euro commercial paper in issuance) as at 31 December 2018, and scope for further refinancing in 2019 and beyond, has underpinned the Group's debt capital base and bolstered its financial flexibility.

Financial review

Debt maturity profile
£ m



The Group's interest cover, the coverage of net finance expense by EBITDA (consolidated earnings before net finance charges, taxation, impairment, depreciation and amortisation, foreign exchange gains or losses and non underlying items), increased to 16.1 times in the 12 months to 31 December 2018 (31 December 2017: 15.5 times) reflecting stronger earnings. Net leverage (operating net debt to EBITDA updated to account for the EBITDA of acquisitions or disposals undertaken in the period) increased to 1.8 times at 31 December 2018 (31 December 2017: 1.7 times) but remains within the Group's targeted range of 1-2 times.

The Group's long term credit ratings remained at A3 and A- with Moody's and S&P respectively, with Moody's maintaining its outlook as stable and S&P raising its outlook to positive on the back of improved business diversification into fast growing market segments, strong cashflow generation and improving margins.

In respect of pension liabilities, during the year an Alternative Funding Framework was agreed by the Board and Trustee to achieve self-sufficiency of UK Defined Benefit pension schemes by 2023 through increased contributions, investment de-risking and liability management, providing greater security for members.

Foreign exchange

	2018	2017
Spot £/€ rate at 31 December	**1.11**	1.12
Spot £/US$ rate at 31 December	**1.27**	1.35
Average £/€ rate for the year	**1.13**	1.14
Average £/US$ rate for the year	**1.34**	1.29

The Group's principal foreign exchange exposure arises as a result of translating its foreign currency earnings, assets and liabilities into LSEG's reporting currency of Sterling. For the 12 months to 31 December 2018, the main exposures for the Group were its European based Euro reporting businesses and its US based operations, principally Russell Indexes, Mergent and The Yield Book. A 10 euro cent movement in the average £/€ rate for the year and a 10 cent movement in the average £/US$ rate for the year would have changed the Group's operating profit for the year before amortisation of purchased intangible assets and non-underlying items by approximately £25 million and £29 million, respectively.

The Group continues to manage its translation risk exposure by, where possible, matching the currency of its debt to the currency of its earnings, to ensure its key financial ratios are protected from material foreign exchange rate volatility.

Earnings per share
The Group delivered a 17% increase in adjusted basic earnings per share, which excludes amortisation of purchased intangible assets and non underlying items, to 173.8 pence (2017: 148.7 pence). Basic earnings per share were 138.3 pence (2017: 146.4 pence).

Dividend
The Board is proposing a final dividend of 43.2 pence per share, which together with the interim dividend of 17.2 pence per share paid to shareholders in September 2018, results in a 17% increase in the total dividend to 60.4 pence per share. The final dividend will be paid on 29 May 2019 to shareholders on the register as at 3 May 2019.

Financial Targets

At an Investor Update event in June 2017 the Group set out financial targets as below and continues to make progress against the targets, as referenced earlier in the text.

While there has been, and will continue to be, a strong focus on cost discipline, the Group no longer expects to achieve the target 4% CAGR increase in operating expenses (including D&A) for 2017-19, due to the ongoing investment in the Group to support growth and efficiency. As a result, and despite good momentum towards achievement, the Group does not expect to meet the target Group EBITDA margin of c.55% in 2019. The other targets in respect of revenue growth at LCH OTC clearing and FTSE Russell, as well as the EBITDA margin for LCH, remain in place for 2019.

Financial Targets to 2019		Update
FTSE Russell	**Double-digit growth to continue** Sustainable and attractive margins over the same period	**2018: Up 15%** on a reported basis **up 8%** on an organic and constant currency basis
LCH	**Double-digit OTC revenue growth to continue**	**2018: Up 16%** on a reported basis **up 17%** on an organic and constant currency basis
	Accelerating EBITDA margin growth – approaching 50% by 2019	**2018: 45.9%**
LSEG	**Operating expenses held at c.4% p.a.** increase while the Group continues to deliver revenue growth and improved margins	**2018: 6%** on an organic and constant currency basis – 4% target includes depreciation which is expected to grow further so target is not achievable in 2019 if we continue to invest – Excluding depreciation we will achieve the target in 2019
	EBITDA margin of c.55%	**2018: 49.9%** – Margin improvement remains a focus but continuation of investment means target unlikely to be met in 2019

Capital Management Framework

The Group has reviewed its Capital Management Framework, which remains broadly unchanged (shown below). The Group continues to focus on maintaining a prudent balance sheet while also continuing to deploy capital for select organic and inorganic investments. Returns to shareholders, including share buy backs, will continue to be kept under review.

Prudent Balance Sheet management Maintain existing leverage target of 1.0–2.0x Net Debt / EBITDA	– Flexibility to operate within this range for normal investment/development and to go above this range in the short term for compelling strategic opportunities – Manage credit rating, debt profile and regulatory requirements
Investment for growth Preserve flexibility to pursue growth both organically and through bolt-on/strategic M&A	– Selective inorganic investment opportunities – meeting high internal hurdles – Continued organic investment
Ordinary dividend policy Progressive ordinary dividend policy	– Progressive dividend – reflects confidence in strong future financial position – Operating in target 2.5–3.0x dividend cover range – Interim dividend payment of 1/3 of prior full year dividend results
Other capital returns	– Continue to keep other returns under review

Principal risks and uncertainties

The management of risk is fundamental to the successful execution of our Strategic Plan and to the resilience of our operations. During 2018 the Group successfully adapted its systems, processes and controls, adjusting to several significant changes in the regulatory environment including MiFID II and the introduction of the EU Benchmark Regulations. The Group continues to support its key markets and deliver stable and resilient services that meet our clients' needs. In prior years, within this section, we have included descriptions of our strategic risk objectives, our current risk focus, a narrative description of our risk appetite, how LSEG's risk management framework operates, as well as an overview of the CCPs risk management and operations. As LSEG's risk culture, objectives, appetite, governance and operations are well established, these descriptions naturally do not significantly change from year to year.

FURTHER DETAIL

Detailed information can be found in our risk management oversight supplement. Please visit **www.lseg.com/about-london-stock-exchange-group/risk-management-oversight**

LSEG Risk Governance

OVERVIEW OF PRINCIPAL RISKS:

Strategic Risks

Global economy
Regulatory change and compliance
Competition
Transformation
Reputation/Brand/IP

Financial Risks

Credit risk
Market risk
Liquidity risk
Capital risk

Operational Risks

Technology
Model risk
Security threats – Physical
Security threats – Cyber
Change management
Settlement and custodial risks
Employees

KEY:

▲ Risk Level Increasing ▬ Risk Level Static ▼ Risk Level Decreasing

STRATEGIC RISKS

Risks related to our strategy (including the implementation of strategic initiatives and external threats to the achievement of our strategy). The category also includes risks associated with reputation or brand values.

RISK DESCRIPTION | MITIGATION | RISK LEVEL

Global economy

Risk level: ▲

As a diversified markets infrastructure business, we operate in a broad range of equity, fixed income and derivative markets servicing clients who increasingly seek global products and solutions. If the global economy underperforms, lower activity in our markets may lead to lower revenue.

Economic data and inflation concerns have dominated central bank official rate actions. The Federal Open Market Committee (FOMC) increased the Fed Funds target rate 4 times during 2018. In November the Bank of England (BoE) increased the Bank Rate to 0.75%. Meanwhile the European Central Bank (ECB) has left rates unchanged at zero and has announced that its quantitative easing programme will end by the end of 2018. The expected economic growth could fail to materialise and higher rates could lead to a slowdown.

Ongoing geopolitical tensions continue to add uncertainty in the markets which may impact confidence and activity levels. This is being be monitored closely.

Mitigation

The footprint of the Group continues to broaden, further improving the geographical diversification of the Group's income streams which serves to mitigate the risks of a localised economic downturn. Furthermore, income streams across the business divisions of the Group comprise annuity and fee based recurring revenues to balance against more cyclical and market driven activity.

The Group performs regular analysis to monitor the markets and the potential impacts of market price movements on the business. Activities include Key Risk Indicator tracking, stress testing, and hedging. We continue to actively monitor the ongoing developments following the result of the UK referendum on leaving the EU. Committees have been established to assess and address areas of impact on our operations and the Group has formulated contingency plans with the objectives of continuity of market function and customer service in the event of a hard no deal Brexit.

The Financial Risk Committee closely monitors and analyses multiple market stress scenarios and action plans in order to minimise any impacts stemming from a potential deterioration of the macroeconomic environment. The stress scenarios are regularly reviewed and updated in response to changes in macroeconomic conditions. Additional ad hoc analysis such as special credit reviews of counterparties are presented to the Financial Risk Committee for consideration where events dictate.

For more information, see Market trends and our response on pages 14–17 and Note 3 to the accounts, Financial Risk Management on pages 133–137

RISK DESCRIPTION	MITIGATION	RISK LEVEL
Regulatory change and compliance		

Regulatory change and compliance

The Group and its exchanges, other trading venues, CCPs, index administrators, central securities depositories, trade repositories and other regulated entities operate in areas that are highly regulated by governmental, competition and other regulatory bodies.

Brexit – The UK vote in 2016 to leave the EU introduced significant uncertainty concerning the political and regulatory environment, the UK's future relationship with the EU, and the overall impact on the UK and European economies both in the short and medium term. Negotiations between the UK and the EU continue but the UK's final exit terms are unclear. The lack of agreement between the UK and the EU increases the risk of a 'no deal' scenario. The effects of Brexit (including those that may follow an extension to the Article 50 process) are uncertain, and could adversely affect the Group's businesses, operations, financial condition and cash flows.

LSEG companies conducting regulated activities in the EU or with customers in the EU are subject to EU regulation. The Group is executing contingency plans to maintain continuity of service to customers and orderly functioning of its markets, including incorporation of new entities in the EU27 and applications for authorisation within the EU27 for certain Group businesses. The Group also has a structured Brexit programme to engage with UK, EU and US Brexit policy leads to advise on financial market infrastructure considerations. However, the complexity and the lack of clarity of the application of a hard Brexit may decrease the effectiveness or applicability of some of these contingency plans. As is the case with all change, these contingency plans introduce some execution risk.

Regulation Impacting CCPs – Regulatory initiatives with the potential to impact cleared derivatives markets and CCPs continue through international standard setters and regulators in the EU and US and other major jurisdictions. Our primary focus remains on development of a coherent, cross-border regulatory framework for market access to global CCPs, including appropriate access rules under the EMIR review, likely to be finalised in H1 2019. As part of this review, EMIR 2.2 introduces the option to impose enhanced supervision or deny the recognition of third country CCPs that are of systemic importance for the EU, which could have implications for the Group's CCPs. Proper calibration of EU rules on CCP Recovery and Resolution and harmonisation with other key jurisdictions is also a key priority and could likely have an impact on the Group's CCPs.

MiFID II/MiFIR – Together with MiFIR, its accompanying regulation, MiFID II came into force on 3 January 2018. LSEG delivered a series of key technological and procedural changes to prepare for smooth implementation. ESMA has signalled that reviewing the implementation of MiFID II/R is a priority and it is likely to propose amendments with potential impacts on the Group, particularly in the areas of trading transparency and market data. The third country access rules for trading venues and market participants continue to be evaluated in 2019 and could also have a potential to impact access to our trading venues in the UK and EU.

Prudential Capital Rules – In December 2017, the Basel Committee on Banking Supervision (BCBS) published final recommendations on the Basel III Framework, which as currently drafted could adversely impact the cleared derivatives industry. One area of primary importance is the treatment of customer margin under the Leverage Ratio. BCBS is considering reviewing its approach on this issue which would be a positive development for market participants and therefore the Group. The European Commission also proposed a prudential regime for investment firms which may affect the ability of proprietary trading firms to provide liquidity on LSEG markets. However, the nature of final political agreement on the proposal is highly uncertain.

MITIGATION

Changes in the regulatory environment form a key input into our strategic planning, including the political impact on our growth strategies, both organic and inorganic. We monitor regulatory developments continually and engage directly with regulatory and governmental authorities at national, EU and international levels. The Group has developed contingency plans to address the UK's exit from the EU and monitors developments closely.

We continue to develop our relationships with the key political stakeholders in the EU, North America and Asia. Potential impacts from regulatory change are assessed and, depending on the impact, opportunities are developed and mitigating strategies and actions are planned.

The Group has executed the following contingency plans for its business. Following the EC Implementing decision for UK CCPs on 19 December 2018, it was announced on 18 February 2019 that LCH Ltd has been recognised by ESMA as a third country CCP under Article 25 of EMIR. This recognition will apply from 30 March 2019 until 30 March 2020 in the absence of a withdrawal agreement with the UK in accordance with Article 50(2) of the Treaty on European Union. This recognition confirms LCH Ltd's ability to continue to offer all clearing services for all products and services to all members and clients after 29 March 2019 in a no-deal Brexit scenario. LCH reserves its right to take any action it considers appropriate at any time, should there be a material change in circumstances. In addition, LCH SA and CC&G are allowed under the Bank of England Temporary Recognition Regime (TRR) to clearing services and activities in the UK for up to 3 years in a 'no deal' scenario.

In June 2018, Turquoise Global Holdings Europe B.V. submitted an application for authorisation as an investment firm to operate a multilateral trading facility (MTF) in the Netherlands. Similarly, also in June 2018, UnaVista TRADEcho B.V. submitted an application for authorisation as a Data Reporting Services Provider (DRSP) in the Netherlands, under which it will operate an approved reporting mechanism (ARM) and an approved publication arrangement (APA). Both applications are in advanced stages and we anticipate receiving regulatory authorisations imminently.

In addition, MTS has established 2 MTF markets in Italy to replace certain markets operated by EuroMTS in the UK.

Principal risks and uncertainties

RISK DESCRIPTION

Regulatory change and compliance (continued)

Benchmark Regulation – Regulatory focus on the role of benchmarks in the market and regulation of benchmark providers continues to increase in several major jurisdictions around the world. FTSE International Limited, was authorised by the UK's Financial Conduct Authority (FCA) in 2018 as a Benchmark Administrator under the European Benchmark Regulation. In May 2018, the European Commission proposed several sustainable finance legislative proposals, which could potentially impact sustainable indices. Benchmark Administrators located outside of the EU will likely have to elect an established method for EU users to access their benchmarks after the BMR transitional period ends this year.

Financial Transactions Tax (FTT) – Some EU member states are considering a possible Financial Transaction Tax (FTT), which could adversely impact volumes in financial markets. During 2018 little progress was made, but efforts continue to finalise the measure.

Information and cyber security standards – In many of our key regulatory jurisdictions, there is an increasing legislative and regulatory focus on cyber security and data protection which could impact our operations and compliance models. LSEG supports the regulatory efforts on these issues as they increase the standards for clients, vendors and other third parties with whom we interact. We continue to support regional and global efforts to harmonise these standards to avoid conflicting or duplicative requirements for market infrastructure providers and our market participants.

Regulation of Emerging Technology – Regulators are considering the application of existing or new frameworks around the development of innovative financial services technologies, which are important for maintaining the resilience in the market and allowing innovation with emerging technology. We are monitoring these efforts closely as they have potential to impact industry behaviour and potential application of emerging technology to our businesses.

Changes in the regulatory environment form a key input into our strategic planning including the political impact on our growth strategies, both organic and inorganic. We monitor regulatory developments continually and engage directly with regulatory and governmental authorities at local, regional and national levels.

The Group has developed contingency plans to address the UK's exit from the EU and monitors developments closely. We continue to develop our relationships with the key government and regulatory stakeholders in all relevant jurisdictions. Potential impacts from regulatory change are assessed and, depending on the impact, opportunities are developed, and mitigating strategies and actions are planned and executed.

As the various regulatory initiatives progress, there will be greater certainty with regard to their likely final form. The Group continues to focus on remaining well positioned to respond to regulatory developments and further opportunities exist for the Group to deliver solutions to help the market address the changing regulatory environment including those linked with the departure of the UK from the EU.

The Group continues to maintain systems and controls to mitigate compliance risk. Compliance policies and procedures are regularly reviewed to ensure that Group entities and staff are compliant with applicable laws and regulations and uphold our corporate standards. All staff across the Group are subject to mandatory compliance training.

Compliance Risk – There is a risk that one or more of the Group's entities may fail to comply with the laws and regulatory requirements (incl. GPDR) to which it is, or becomes, subject. In this event, the entity in question may be subject to censures, fines and other regulatory or legal proceedings.

For more information on regulatory changes, see Market trends and our response on pages 14–17

MITIGATION

Potential impacts from regulatory change are assessed and, depending on the impact, opportunities are developed, and mitigating strategies and actions are planned and executed. LSEG's key objectives are maintaining London's position as a global financial hub and providing continuity of stable financial infrastructure services. As the various regulatory initiatives progress, there will be greater certainty with regard to their likely final form. The Group continues to focus on remaining well positioned to respond to regulatory developments and further opportunities exist for the Group to deliver solutions to help the market address the changing regulatory environment including those linked with the departure of the UK from the EU.

The Group continues to maintain systems and controls to mitigate compliance risk. Compliance policies and procedures are regularly reviewed to ensure that Group entities and staff are compliant with applicable laws and regulations and uphold our corporate standards. All staff across the Group are subject to mandatory compliance training.

RISK LEVEL

▲

RISK DESCRIPTION

Competition

The Group operates in a highly competitive and global industry. Continued consolidation has fuelled competition including between peers and service providers in different geographical areas.

The Group's Information Services business faces competition from a variety of sources, notably from index providers which offer indices and other benchmarking tools which compete with those offered by the Group as well as from other venues that offer market data relating to securities that are traded on the Group's equity markets. As the Information Services offering diversifies and seeks to meet customer needs for new data sources, segments and asset classes, it is facing a broader range of competitors.

In Post Trade Services, we continue to see increased clearing activity of OTC derivative products across a number of asset classes, reflecting the attractiveness of the Group's current customer offering and open access philosophy, however competitors may be able to respond more quickly to changing market conditions or develop products that are preferred by customers. The Group's track record of working with customers and other financial market infrastructure providers including the user focused model in LCH, will help us to continue to deliver innovative new products and services to seek to meet evolving customer needs.

Our Capital Markets operations face continuing risk from competitors' commercial and technological offerings. There is strong competition for primary listings and capital raises from other global exchanges and regional centres. Private equity, venture capital and new options such as crowd funding and crypto-currencies are increasingly being considered as alternatives methods of capital formation for issuers. We maintain a dedicated international team who promote the benefits of listing on our markets to international issuers, the global advisory community and other stakeholders. The Group will need to continue strong and collaborative dialogue with customers and other relevant industry stakeholders to ensure it remains responsive to changing requirements and is able to react in a timely manner.

If competitors are quicker to access and deploy technology innovations such as artificial intelligence (AI), machine learning and analytics, they may achieve a valuable advantage which may impact the attractiveness of the Group's offering and its relative profitability. Our integrated and business led approach to technology innovation help us to manage this risk and the Group is well advanced in investigating and applying numerous new technology innovations across its business portfolio.

In Technology Services, there is intense competition across all our current activities and in some of our growth areas, in addition to strong incumbent providers. New entrants are increasing from both within and outside of our traditional competition base and some consolidation is evident. Start-ups, which may be sponsored by existing LSEG competitors or customers, are introducing new technology and commercial models to our customer base to which we need to respond with new products and services of our own. Continual client dialogue, facilitated through our partnership approach and investment in product management and innovation are critical to understanding and managing the impact of changing customer requirements in our technology and other business lines.

MITIGATION

Competitive markets are, by their very nature, dynamic, and the effects of competitor activity can never be fully mitigated. Senior management and a broad range of customer-facing staff in all business areas are actively engaged with clients to understand their evolving needs and motivations. We have established a Group Relationship Programme to co-ordinate this across Group businesses globally.

The Group undertakes constant market monitoring and pricing revision to mitigate risks and ensure we are competitive. Commercial initiatives are aligned with our clients and this is complemented by an ongoing focus on technology operations and innovation.

RISK LEVEL

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Principal risks and uncertainties

RISK DESCRIPTION	MITIGATION	RISK LEVEL
Transformation The Group is exposed to transformation risks (risk of loss or failure resulting from business/integration transformation or integration). This derives from internal (organic) change and change required by the integration of acquisitions whereby the Group targets specific synergy benefits, necessitating change to operating models, business models, technology and people. A failure to successfully align the businesses of the Group may lead to an increased cost base without a commensurate increase in revenue, a failure to capture future product and market opportunities, and risks in respect of capital requirements, regulatory relationships and management time. The additional effort related to M&A and post-transaction alignment activities could have an adverse impact on the Group's day to day performance and/or key strategic initiatives which could damage the Group's reputation and financial performance. The size and complexity of acquisitions in the past 6 years have increased the Group's change management and transformation risks. However, it allows the Group to compete on a global scale and it has diversified its revenue footprint by industry / product and customer base.	The Group's exposure to transformation risk is mitigated through the application of the Group's Enterprise Risk Management Framework (ERMF) to deploy consistent, appropriate Risk Management across the Group, both during and post-acquisition. The governance of the Group following a merger or acquisition is aligned and strengthened as appropriate. Oversight during transformation is provided by a Steering Committee comprising Executive Committee members and chaired by the Chief Financial Officer with reports to the Board Risk Committee and the Board. The Group has an effective track record of integrating acquisitions and delivering tangible synergies, supported by robust governance and programme management structures through the Group's Change Framework to mitigate change related risks.	▲
Reputation/Brand/IP A number of the Group's businesses have iconic national brands that are well recognised at international as well as at national levels. The strong reputation of the Group's businesses and their valuable brand names are a key selling point. Any events or actions that damage the reputation or brands of the Group, such as those propagated via social media or caused by its misuse, could adversely affect the Group's business, financial condition and operating results. Failure to protect the Group's intellectual property rights adequately could result in costs for the Group, negatively impact the Group's reputation and affect the ability of the Group to compete effectively. Further, defending or enforcing the Group's intellectual property rights could result in the expenditure of significant financial and managerial resources, which could adversely affect the Group's business, financial condition and operating results.	LSEG has policies and procedures in place which are designed to ensure the appropriate use of the Group's brands and to maintain the integrity of the Group's reputation. LSEG actively monitors the use of its brands and other intellectual property, including monitoring for internet brand impersonation and social media sentiment, in order to prevent, identify and address any infringements. The Group protects its intellectual property by relying upon a combination of trademark laws, copyright laws, patent laws, trade secret protection, confidentiality agreements and other contractual arrangements with its affiliates, clients, customers, suppliers, strategic partners and others.	—

FINANCIAL RISKS

The risk of financial failure, reputational loss, loss of earnings and/or capital as a result of investment activity, lack of liquidity, funding or capital, and/or the inappropriate recording, reporting and disclosure of financial results, taxation or regulatory information.

RISK DESCRIPTION

Credit risk

Clearing

CCPs in the Group are exposed to credit risk as a result of their clearing activities. A default by a CCP clearing member that could not be managed within the resources of the defaulted clearing member could adversely affect that CCP's revenues and its customers' reputation. CCPs authorised in the EU are required to make a proportion of their regulatory capital available to cover default losses after the defaulter's resources have been exhausted and prior to allocation of losses to non-defaulters and so, in extreme circumstances, a default could lead to a call on the Group CCPs' own capital (skin-in-the-game). CCPs may also be exposed to credit exposure to providers of infrastructure services such as Central Securities Depositaries (CSDs) and commercial banks providing investment and operational services.

In addition, certain CCPs within the Group have interoperability margin arrangements with other CCPs requiring collateral to be exchanged in proportion to the value of the underlying transactions.

The relevant clearing provider entities within the Group are therefore exposed to the risk of a default of other CCPs under such arrangements.

Non-Clearing

CCPs and other parts of LSEG Group are also exposed to credit risk as a result of placing money with investment counterparties on both a secured and unsecured basis. Losses may occur due to the default of either the investment counterparty or of the issuer of bonds bought outright or received as collateral. The Group's credit risk also relates to its customers and counterparties being unable to meet their obligations to the Group either in part or in full.

MITIGATION

Clearing

As CCP members continue to work towards strengthening of their balance sheets, the risk to LSEG CCPs of a member default reduces, although continuing geopolitical uncertainty continues and the banking sectors of some countries remain stressed. The financial risks associated with clearing operations are further mitigated by:

- Strict CCP membership rules including supervisory capital, financial strength and operational capability
- The maintenance of prudent levels of margin and default funds to cover exposures to participants. Members deposit margin computed at least daily, to cover the expected costs which the clearing service would incur in closing out open positions in a volatile market in the event of the member's default. A default fund sized to cover the default of the 2 members with the largest exposures in each service using a suite of extreme but plausible stress tests mutualises losses in excess of margin amongst the clearing members
- Regular 'Fire Drills' are carried out to test the operational soundness of the CCPs' default management processes

Infrastructure providers are regularly assessed in line with policy.

Non-Clearing

Policies are in place to ensure that investment counterparties are of good credit quality, and at least 95% of CCP commercial bank deposits are secured. CCP and non-CCP counterparty concentration risk is consolidated and monitored daily at the Group level and reported to the Executive Committee and to the Board Risk Committee, including limits and status rating.

Group companies make a judgement on the credit quality of their customers based upon the customer's financial position, the recurring nature of billing and collection arrangements and historically a low incidence of default.

RISK LEVEL

—

For more information on this risk see the Post Trade Services section of the Segmental Review on pages 26–28, and Note 3 to the accounts, Financial Risk Management on pages 133–137.

Market risk

Clearing

The Group's CCPs assume the counterparty risk for all transactions that are cleared through their markets. In the event of default of their clearing members, therefore, credit risk will manifest itself as market risk. As this market risk is only present in the event of default this is referred to as 'latent market risk'. The latent market risk includes interest rate risk, foreign exchange risk, equity risk and commodity price risk as well as country risk, issuer risk and concentration risk. This risk is greater if market conditions are unfavourable at the time of the default.

Non-Clearing

The Group is exposed to foreign exchange risk as a result of its broadening geographical footprint. There are, however, also benefits of global diversification including reduced exposure to local events such as the UK Brexit vote and the geopolitical tensions.

The Group is exposed to interest rate risk through its borrowing activities and treasury investments. Further changes in interest rates in 2019 may increase the Group's exposure to these risks.

MITIGATION

Clearing

The margins and default funds referred to previously are sized to protect against latent market risk. The adequacy of these resources is evaluated daily by subjecting member and customer positions to 'extreme but plausible' stress scenarios encapsulating not only historical crises, but theoretical forward looking scenarios and decorrelation events. All our CCPs are compliant with the appropriate regulatory requirements regarding margin calculations, capital and default rules. Latent market risk is monitored and managed on a day-to-day basis by the risk teams within the clearing services. Committees overseeing market risks meet on a regular basis.

Non-Clearing

Foreign exchange (FX) risk is monitored closely and translation risk is managed by matching the currency of the Group's debt to its earnings to protect key ratios and partially hedge currency net assets. FX derivatives including cross-currency swaps are used under a control framework governed by LSEG Board approved policy.

The split between floating and fixed debt is managed to support the Group's target of maintaining an interest coverage ratio that underpins a good investment grade credit rating.

Authorised derivatives can be used to transform fixed rate bond debt, to supplement a mix of short dated commercial paper and floating rate loan borrowings, to achieve the Group's policy objective.

RISK LEVEL

—

For more information on this risk, see Note 3 to the accounts, Financial Risk Management on pages 133–137.

Principal risks and uncertainties

RISK DESCRIPTION | MITIGATION | RISK LEVEL

Liquidity risk

Clearing

There are 2 distinct types of risk to which the Group's CCPs are exposed to that are commonly referred to as liquidity risk – market liquidity risk and funding liquidity risk. The former is the risk that it may be difficult or expensive to liquidate a large or concentrated position and is addressed under market risk. The latter is the risk that the CCP may not have enough cash to pay variation margin to non-defaulters or to physically settle securities delivered by a non-defaulter that cannot be on sold to a defaulter and this is the subject of this section.

The Group's CCPs collect clearing members' margin and/or default funds contributions in cash and/or in highly liquid securities. To maintain sufficient ongoing liquidity and immediate access to funds, the Group's CCPs deposit the cash received in highly liquid and secure investments, such as sovereign bonds and reverse repos, as mandated under EMIR, securities deposited by clearing members are therefore held in dedicated accounts with CSDs and/or International Central Securities Depositaries (ICSDs). The Group's CCPs also hold a small proportion of their investments in unsecured bank and money market deposits subject to the limitations imposed by EMIR. The successful operation of these investment activities is contingent on general market conditions and there is no guarantee that such investments may be exempt from market losses.

Non-Clearing

Liquidity risk in a non-clearing context is the risk that the firm may be unable to make payments as they fall due.

Mitigation

Clearing

The Group's CCPs have put in place regulatory compliant liquidity plans for day-to-day liquidity management, including contingencies for stressed conditions. The Group's CCPs have multiple layers of defence against liquidity shortfalls including intraday margin calls, minimum cash balances, access to contingent liquidity arrangements and, for certain CCPs, access to central bank liquidity.

Under the ERMF, CCP investments must be made in compliance with the Group CCP Financial Risk Policy (as well as the policies of the CCPs themselves). These policies stipulate a number of Risk Management standards including investment limits (secured and unsecured) and liquidity coverage ratios. Committees overseeing CCP investment risk meet regularly.

Each CCP monitors its liquidity needs daily under stressed and unstressed assumptions and reports to the Group Financial Risk Committee each month.

Non-Clearing

Requirements for liquidity including headroom requirements are set out in the Group's Board approved Treasury Policy. The Group maintains appropriately sized liquidity facilities and monitors its requirements on an ongoing basis. Stressed facility headroom is assessed using plausible downside business projections.

Group Treasury risk is monitored daily and is managed within the constraints of a Board approved policy by the Group Treasury team and is overseen by the Treasury Committee (a sub-Committee of the Financial Risk Committee, both chaired by the CFO). An update on Group Treasury risks and actions is provided monthly to the Financial Risk Committee and to each meeting of the Board Risk Committee.

Risk level: —

For more information on this risk, see Note 3 to the accounts, Financial Risk Management on pages 133–137.

Capital risk

Principal risks to managing the Group's capital are:

- In respect of regulated entities, capital adequacy compliance risk (the risk that regulated entities do not maintain and report sufficient qualifying capital to meet regulatory requirements) and capital reporting compliance risk (the risk that regulated entities fail to comply with capital reporting and regulatory obligations). If a regulated entity in the Group fails to ensure that sufficient capital resources are maintained to meet regulatory requirements, this could lead to loss of regulatory approvals and/or financial sanctions.
- In respect of regulated and unregulated entities, commercial capital adequacy and quality risk (the risk that Group and solo entities do not maintain both sufficient quantity and quality of capital to meet commercial requirements) and investment return risk (the risk that capital is held in subsidiaries or invested in projects that generate a return that is below the Group's cost of capital).
- Availability of debt or equity capital (whether specific to the Group or driven by general financial market conditions).

Mitigation

The Group's Capital Management Policy provides a framework to ensure the Group maintains suitable capital levels (both at Group and solo entity levels) and effectively manages the risks thereof. The Group's Treasury Policy recognises the need to observe regulatory requirements in the management of the Group's resources.

The Risk Appetite approved by the Board includes components related to the Group's leverage ratios and capital risks. Key Risk Indicators are monitored regularly. The Group maintains an ongoing review of the capital positions of its regulated entities to ensure that they operate within capital limits which are overseen by the Financial Risk Committee, the Executive Committee and the Board. The Group can manage its capital structure by varying returns to shareholders, issuing new shares or increasing or reducing borrowings. The Board reviews dividend policy and funding capacity on a regular basis and the Group maintains comfortable levels of debt facility headroom.

The Group regularly assesses debt and equity markets to maintain access to new capital at reasonable cost. The Group is mindful of potential impacts on its key metrics when considering changes to its capital structure.

Risk level: —

For more information on this risk, see Note 3 to the accounts, Financial Risk Management on pages 133–137.

OPERATIONAL RISKS

The risk of loss, or other adverse consequences to the business, resulting from inadequate or failed internal processes, people and systems, or from external events

RISK DESCRIPTION	MITIGATION	RISK LEVEL
Technology Robust, secure and stable technology performing to high levels of availability continues to be critical to the Group's businesses. Technology failures may impact our clients and the orderly running of our markets, potentially leading to a loss of trading or clearing volumes or impacting our information services activities. The Group continues to consolidate its technology delivery and operation capabilities through its LSEG Technology and LSEG Business Services companies respectively. Continued efforts to consolidate to LSEG Technology solutions and a homogeneous technology stack may increase systemic technology risk as components and development are shared or similar in build. Furthermore, increased demand on LSEG Technology as a mission-critical supplier may result in over stretch resources to meet both the requirements of the Group and those of third parties. The Group also has dependencies on a number of third parties for the provision of hardware, software and networks for elements of its trading, clearing, settlement data and other systems.	The performance and availability of the Group's systems are constantly reviewed and monitored to prevent problems arising and, where possible, ensure a prompt response to any potential service-impacting incident. The Group continues actively to identify, manage and mitigate risks associated with the consolidation of technology development and operations. Regular rigorous business impact and operational risk scenario analysis are performed in conjunction with the Group Risk, Group Business Continuity and Crisis Management functions to identify, assess and remedy potential system and governance vulnerabilities. In addition, all technology solutions are comprehensively tested by both LSEG Technology and third-party quality assurance providers as appropriate; functional, non-functional, user-acceptance and other testing is performed across a number of technical environments to ensure products are ready for deployment. The Group's technology teams mitigate the risk of resource over-stretch by ensuring prioritisation of key development and operations activities, and resource utilisation and allocation are kept under constant review. The LSEG Technology systems are designed to be software and hardware fault tolerant and alternative systems are available in the unlikely event of multiple failures from which the system is unrecoverable. The Group actively manages relationships with key strategic technology suppliers to avoid any breakdown in service provision which could adversely affect the Group's businesses. Where possible the Group has identified alternative suppliers that could be engaged in the event of a third party failing to deliver on its contractual commitments. The Group actively monitors new technological developments and opportunities such as blockchain and Artificial Intelligence (AI).	—

For more information, see the Technology Services section of the Segmental Review on pages 35

RISK DESCRIPTION	MITIGATION	RISK LEVEL
Model risk The Group defines model risk as the risk that a model may not capture the essence of the events being modelled, or inaccuracies in the underlying calculation potentially resulting in adverse consequences resulting from decisions based on incorrect or missed model outputs.	LSEG's businesses have in place robust formalised model validation processes to ensure our models are fit for purpose and appropriately developed, implemented, maintained and documented.	—
Security threats – Physical The Group is reliant upon secure premises to protect its employees and physical assets as well as appropriate safeguards to ensure uninterrupted operation of its IT systems and infrastructure. Terrorist attacks and similar activities directed against our offices, operations, computer systems or networks could disrupt our markets, harm staff, tenants and visitors, and severely disrupt our business operations. Civil or political unrest could impact companies within the Group. Long-term unavailability of key premises could lead to the loss of client confidence and reputational damages.	Security threats are treated very seriously. The Group has robust physical security arrangements. The Group is supported by relevant governmental organisations in our key areas of operation. Security teams respond to intelligence received and liaise closely with police and global government agencies. Across major hubs covering the UK, Europe, the Americas and Asia, the Group maintains close monitoring of geopolitical threats through a third-party security monitoring service. Where events are detected, response support services are mobilised to support as required. The Group has well established and regularly tested business continuity and crisis management procedures. The Group assesses its dependencies on critical suppliers and ensures robust contingency measures are in place.	—

Principal risks and uncertainties

RISK DESCRIPTION	MITIGATION	RISK LEVEL
Security threats – Cyber The threat of cybercrime has the potential to have an adverse impact on our business. Public and private organisations continue to be targeted by increasingly sophisticated cyber-attacks. Threats such as ransomware, theft of customer data and distributed denial of service attacks were increasingly significant to the financial industry as a whole in 2018. Such threats could result in the loss of data integrity or disruption to our operations and client-facing services. Additionally, new emerging technologies for the Group such as cloud computing could impact our cyber security risk profile. The Group's technology and operational support providers, internal and third-party, could suffer a security breach resulting in the loss or compromise of sensitive information (both internal and external) or loss of services. Such a breach could materialise as a result of weaknesses in system controls or processes, or through the inadvertent or malicious actions of employees, contractors or vendors. A major information security breach that results in data and intellectual property loss, system unavailability or sensitive data leakage, could have a significant negative impact on our reputation, financial results and the confidence of our clients and could lead to fines and regulatory censure.	The Group continues to invest in and enhance its information security control environment, cyber defences and operational processes, including its recovery capability, as it delivers its Board approved Cyber Security Strategy. Extensive IT measures aligned to the National Institute of Standards and Technology (NIST) control framework are in place to prevent, detect and respond to cyber security threats such as third-party risks, sophisticated malware, system vulnerabilities and access control, as well as enhancing our security event detection and incident response processes. Security training and awareness of our people remains a key component of the control framework. Regular testing of security controls and incident response processes is undertaken, both internally and externally to provide assurance over the effectiveness of cyber security controls and recovery processes. Information Security teams monitor intelligence and liaise closely with global Government agencies as well as industry forums and regulators to help improve our ability to respond to the evolving threats faced by us and our industry.	▲
Change management The considerable change agenda exposes the Group to the risk that change is either misaligned with the Group's strategic objectives or not managed effectively within time, cost and quality criteria. In turn this could lead to an adverse impact on the operation of core services, and revenue growth, as well as damaging the Group's reputation. The volume of simultaneous change could also lead to a loss of client goodwill if execution is not managed appropriately and supported with adequate operating models to operationalise new services. Synergies and cost benefits may not be delivered to anticipated levels. The volume of change is driven by both internal and external factors. Internal factors include the diversification strategy of the Group and its drive for technology innovation, consolidation and operational resilience. External factors include the changing regulatory landscape and requirements which necessitate changes to our systems and processes.	The risks associated with change are mitigated by effective implementation of the Group's Change framework. This includes Board oversight across the Group's change portfolio and project pipeline, to ensure these align to the Group and Divisional strategies and support our financial plans. Appropriate governance and executive oversight is exercised over individual programmes and projects based on the scale, complexity and impact of the change to confirm compliance with the approved project management policy and to manage budget, resource, escalations, risks, issues and dependencies. For software specific development, software design methodologies, testing regimes and test environments are continuously being enhanced to minimise implementation risk.	—
Settlement and custodial risks The Group's CCPs are exposed to operational risks associated with clearing transactions and the management of collateral, particularly where there are manual processes and controls. While the Group's CCPs have in place procedures and controls to prevent failures of these processes, and to mitigate the impact of any such failures, any operational error could have a material adverse effect on the Group's reputation, business, financial condition and operating results. The Group provides routing, netting and settlement and custody services through its CSD to ensure that securities are settled in a timely and secure manner. There are operational risks associated with such services, particularly where processes are not fully automated.	In addition to the technology model and change management risks, the Group's CCPs are also exposed to Operational risk. Operational risk is minimised via highly automated processes reducing administrative activities while formalising procedures for all services. The operations of the settlement service are outsourced to the European Central Bank (TARGET2-Securities). The CSD mitigates IT risks by providing for redundancy of systems, daily backup of data, fully updated remote recovery sites and SLAs with outsourcers. Monte Titoli Business Continuity Plan covers all the critical operational processes and related activities.	—

For more information, see the Chairman's statement on pages 4–5 and the Chief Executive's statement on pages 6–9.

RISK DESCRIPTION	MITIGATION	RISK LEVEL
Employees The calibre and performance of our leaders and colleagues is critical to the success of the Group. The Group's ability to attract and retain key personnel is dependent on several factors. This includes (but not exclusively): organisational culture and reputation, prevailing market conditions, compensation packages offered by competing companies, and any regulatory impact thereon. These factors also encompass the Group's ability to continue to have appropriate variable remuneration and retention arrangements in place, which help drive strong business performance and alignment to long-term shareholder value and returns, impact the size of the local labour force with relevant experience, and the number of businesses competing for such talent. Whilst the Group focuses very carefully on the attraction and retention of talent, if unsuccessful it may adversely affect the Group's ability to conduct its business through an inability to execute business operations and strategies effectively. Whilst our preparations are comprehensive in relation to Brexit, a common risk across the Group is the uncertainty surrounding the status of the EU citizens in the UK and UK citizens in the EU. Employee-related risks are assessed and monitored as sustainability risks within our Enterprise Risk Management Framework. Please see also Our Wider Responsibility for details regarding employee matters.	We focus on a number of strategic initiatives to ensure we attract and retain the right calibre of talent for our business and continue to facilitate a culture of high performance. We have a rigorous in-house recruitment and selection process to ensure that we are bringing the best possible talent into the organisation in terms of their skills, technical capabilities, cultural fit and potential. We aim to remove barriers to our colleagues' overall sense of engagement, proactively measuring how satisfied they are with their working experience at LSEG, and the extent to which they would recommend it as a place to work, via our bi-annual engagement 'Have Your Say' survey. We also measure colleague sentiment when they join the organisation via our joiners' survey and via an exit survey for those who choose to move on. We use this feedback to inform our plans for improvement, and to identify and resolve any barriers to performance and engagement in the workplace. We recognise that the overall wellbeing of our colleagues is vital for our continued performance and have introduced a proactive approach to wellbeing in the UK, which we are in the process of rolling out globally. This looks to improve wellbeing across 5 dimensions: physical, mental, financial, social purpose, and work life balance. In 2018 we also launched the new Speak Up campaign, designed to provide our colleagues with the confidence to speak up and raise concerns when they witness or suspect inappropriate behaviour, misconduct or wrongdoing that conflicts with our values. Career development remains a key enabler for success, and we have a carefully managed learning and development budget which enables us to take a coordinated approach and focus investment in the development of colleagues. We provide colleagues with a range of courses, materials and tools to support them in owning their development. In 2018 we launched our global career framework, Futures, which outlines all roles in our organisation, helping our colleagues understand how to navigate the opportunities that exist across the Group and the development steps they need to take to progress. We also offer additional investment to identified key talent and executives, for instance by providing coaches for key senior successors. In terms of talent management, we always look to promote internally where possible. We undertake a comprehensive annual review of critical roles, and ensure we have succession plans in place to minimise the impact of losing critical personnel. We monitor the attrition in each division and country, in addition to any critical colleague turnover, so that appropriate mitigation can be taken where needed. Performance management plays a key role in mitigating retention and performance risk at LSEG, and the Group operates a robust performance management and appraisal process for all colleagues, which links to how we utilise incentives and compensation to drive organisational performance. This assesses performance against financial objectives, strategic deliverables and the extent to which colleagues' role model the Group's values and behaviours. In terms of other reward approaches, critical high performers are offered Long Term Incentive Plans, aligned with the fulfilment of the Group's strategic goals and increases in shareholder value. We also regularly benchmark our reward, benefits and incentive systems to ensure they are competitive. LSEG continuously engages with the EU and the UK regulators to minimise the impact of Brexit on our colleagues.	—

For more information, see Our wider responsibility on pages 36–40 and Remuneration Report on pages 82–100

Board of Directors

Board structure as at 31 December 2018

- Chairman, who was independent on appointment
- 1 Senior Independent Director
- 7 other Independent Non-Executive Directors
- 3 Executive Directors

Director Changes During The Year

David Schwimmer was appointed as Chief Executive Officer and Executive Director on 1 August 2018.

The following Directors were appointed as Independent Non-Executive Directors during the year: Marshall Bailey OBE (25 September 2018), Professor Kathleen DeRose (28 December 2018) and Ruth Wandhöfer (22 October 2018).

The following Directors stepped down during the year: Professor Lex Hoogduin (25 September 2018), David Nish (30 November 2018) and Mary Schapiro (11 October 2018).

Additionally, on 1 January 2019 Don Robert was appointed as an Independent Non-Executive Director and will become Chairman at the end of the Company's AGM on 1 May 2019, a copy of his Biography is also included in this section of the Annual Report.

A short biography is provided for each Board Director listed on pages 59–61. More detailed biographies for the Board of London Stock Exchange Group plc are available on the company's website at **www.lseg.com/about-london-stock-exchange-group/london-stock-exchange-group-board**

Committee membership key

A [illegible] N [illegible]
R [illegible] R [illegible]
G [illegible] ■ [illegible]

Sir Donald Brydon CBE
Chairman of the Company and the Nomination Committee
[illegible]

N R

Key areas of experience: [illegible]

Relevant past experience: [illegible]

Other current appointments: [illegible]

David Schwimmer
Group Chief Executive Officer.
[illegible]

G

Key areas of experience: [illegible]

Relevant past experience: [illegible]

Other current appointments: [illegible]

David Warren
Group Chief Financial Officer.
[illegible]

G

Key areas of experience: [illegible]

Relevant past experience: [illegible]

Other current appointments: [illegible]

Raffaele Jerusalmi
Executive Director, Chief Executive Officer of Borsa Italiana and Director of Capital Markets
[illegible]

G

Key areas of experience: [illegible]

Relevant past experience: [illegible]

Other current appointments: [illegible]

Board of Directors

Committee membership key

- **A** Audit
- **R** Remuneration
- **G** Group Executive
- **N** Nomination
- **R** Risk
- ■ Committee Chairman

Jacques Aigrain
Independent Non-Executive Director and Chairman of the Remuneration Committee.
Appointed to the Board in May 2013 — A R

Key areas of experience: Client management, corporate finance, corporate governance, post trade and clearing, investment management, mergers and acquisitions, strategy.

Jacques brings significant expertise and knowledge of global post trade and clearing and investment management to the Board. He also holds a PhD in Economics from the University of Paris (Sorbonne).

Relevant past experience: Jacques was Chairman of LCH Group Holdings Limited from 2010 to 2015. He has also been a Non-Executive Director of Resolution Ltd, a Supervisory Board member of Deutsche Lufthansa AG, a Non-Executive Director of the Qatar Financial Centre Authority and a Non-Executive Director of Swiss International Airlines AG (a subsidiary of Deutsche Lufthansa AG). Jacques was also Chief Executive Officer of Swiss Re from 2006 to 2009.

Prior to 2001 (when he joined Swiss Re), Jacques spent 20 years with JP Morgan Chase, working in the New York, London and Paris offices.

Other current appointments: Jacques is currently a Senior Advisor at Warburg Pincus LLC, Chairman of LyondellBasell Industries NV, Chairman of Self Trade Bank S.A.U. and a Non-Executive Director of WPP plc.

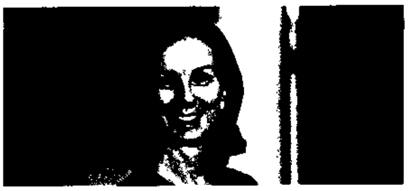
Marshall Bailey OBE
Independent Non-Executive Director.
Appointed to the Board in September 2018 — R N

Key areas of experience: Banking and capital markets, insurance, and government regulation.

Marshall has almost 30 years' experience in the financial services sector and substantial experience of leading complex international committees and boards. In addition to being a member of the LSEG Board, he is also currently Chairman of the Group subsidiary, LCH Group Holdings Limited.

Relevant past experience: Marshall was previously an Independent Director on the Board of UK Financial Investments Ltd ("UKFI"), the government body overseeing the UK government's ownership of financial assets after the 2008 financial crisis. He also had an active role in setting codes of conduct for the Fixed Income Currencies and Commodities ("FICC") markets, working with the Market Participants Group of the Bank for International Settlements ("BIS"). Marshall volunteers on the Board of the CFA Society of the UK as well as the East End Community Foundation in Tower Hamlets. He was previously a Non-Executive Director of Chubb European Group and stepped down from this role at the end of 2018.

Other current appointments: Marshall is Chairman of the Financial Services Compensation Scheme. He is also Chairman of CIBC World Markets Plc in London and he is the Representative for the Public Investment Fund in Saudi Arabia on the Board of the National Commercial Bank in Jeddah.



Professor Kathleen DeRose
Independent Non-Executive Director.
Appointed to the Board in December 2018

Key areas of experience: FinTech, financial markets, asset management.

Having spent 30 years working in global finance and asset management, Kathleen brings significant FinTech and global financial market expertise to the Board.

Relevant past experience: Kathleen previously held a number of senior roles at Credit Suisse Group AG from 2010-2015 including Managing Director (Head of Business Strategy and Solutions, Investment Strategy and Research, Private Banking Wealth Management). Prior to that she was Managing Director (Head of Global Investment Process, Asset Management).

Other roles Kathleen has undertaken have included: Managing Partner, Head of Portfolio Management and Research at Hagin Investment Management (2006 to 2010) and Managing Director, Head of Large Cap Equities at Bessemer Trust (2003 to 2006). Prior to 2003, Kathleen also held a number of roles at Deutsche Bank (1991 to 2003), where she became a Managing Director of the Bank, and at JPMorgan Chase (formerly Chase Manhattan Bank) (1983 to 1991).

In addition to her senior executive positions, Kathleen served as a board member of EDGE (Economic Dividends for Gender Equality) from 2014 to 2015, and she was founding Chair of Evolute Group AG from 2016 to 2017.

Other current appointments: Kathleen is a Non-Executive Director of Evolute Group AG, and a Clinical Associate Professor of Finance at The New York University Leonard N. Stern School of Business where she leads the FinTech programme and is the Fubon FinTech Director.

Paul Heiden
Senior Independent Director and Chairman of the Audit Committee
Appointed to the Board in June 2010 — A N R R

Key areas of experience: Corporate finance and accounting, technology and engineering, corporate governance and risk, commercial manufacturing and supply chain.

Paul is a chartered accountant and provides the Board and the Audit Committee with relevant financial expertise, gained through a long career of senior finance and management roles across a wide range of business sectors.

Relevant past experience: Paul was previously a Non-Executive Director of United Utilities Group plc, Bunzl plc and Filtrona plc and Non-Executive Chairman of A-Gas (Orb) Limited, Talaris Topco Limited and Intelligent Energy Holdings plc.

Paul was Chief Executive Officer of FKI plc from 2003 to 2008, Executive Director of Rolls-Royce plc from 1997 to 1999 and Group Finance Director of Rolls-Royce plc from 1999 to 2003. He also held previous senior finance roles at Hanson plc and Mercury Communications.

Other current appointments: Paul is a Non-Executive Director of Meggitt plc (a position he will retire from on 25 April 2019).

Stephen O'Connor
Independent Non-Executive Director and Chairman of the Risk Committee.
Appointed to the Board in June 2015 **R A N**

Key areas of experience: OTC derivatives, risk management, capital markets, clearing, corporate finance.

Stephen brings international expertise in clearing and counterparty risk management to the Board. He has worked extensively with global regulators in the area of financial services market reform.

Relevant past experience: Stephen was Chairman of the International Swaps and Derivatives Association from 2011 to 2014. Stephen also worked at Morgan Stanley for 20 years, where he was a member of the Fixed Income Management Committee and held senior roles including Global Head of Counterparty Portfolio Management and Global Head of OTC Client Clearing.

Stephen was a member of the High-Level Stakeholder Group for the UK Government's review of the Future of Computer Trading in Financial Markets and served as Vice Chairman of the Financial Stability Board's Market Participants Group on Financial Benchmark Reform. Stephen was formerly a member of the US Commodity Futures Trading Commission (CFTC) Global Markets Advisory Committee. He was a Non-Executive Director of OTC DerivNet Ltd from 2009 to 2015 and was Chairman from 2013 to 2015.

Other current appointments: Stephen serves as Chairman of Quantile Technologies Limited. He is a member of the Scientific Advisory Board of the Systemic Risk Centre at LSE. Stephen is also a Non-Executive Director of the FICC Markets Standards Board Limited and HSBC Bank plc where he became Chairman of the bank in August 2018.

Val Rahmani
Independent Non-Executive Director
Appointed to the Board in December 2017 **R R**

Key areas of experience: Technology, technical risk management, innovation, corporate governance, strategy.

Val brings significant expertise and knowledge of technology and technical risk management to the board gained from almost 30 years with IBM and 4 years as CEO of a cyber security start up.

Val has wide-ranging experience as a senior executive in the technology sector fulfilling the role of general manager, board member, start-up mentor, management consultant and public speaker. Val holds a DPhil in Chemistry from the University of Oxford.

Relevant past experience: Val is a former Non-Executive Director of Aberdeen Asset Management plc and Teradata Corporation.

Other current appointments: Val currently serves as a Non-Executive Director and member of the Audit Committee at RenaissanceRe Holdings Limited. She is also a Non-Executive Director of Computer Task Group Inc. where she chairs the Compensation Committee and serves as a member of the Audit and Governance Committees. Val is a Non-Executive Director and member of the Compensation Committee of the private company Entrust Datacard and a Non-Executive Director of the early stage company Ridgeway. Val runs the Innovation Panel for Standard Life Aberdeen.

Don Robert
Independent Non-Executive Director (Chairman of the Company with effect from 1 May 2019).
Appointed to the Board on 1 January 2019 **N**

Key areas of experience: Data and analytics, technology, international business, financial services, mergers and acquisitions.

Don is currently Chairman of Experian plc (he will step down at the later of the conclusion of Experian's AGM in July 2019 or when a successor is in place) and a Non-Executive Director of the Court of Directors, Bank of England (he will step down on 1 May 2019).

Don brings to the Board a strong track record in the global financial services sector and a deep understanding of technology, data and analytics as well as regulatory knowledge gained from the Bank of England role.

Relevant past experience: Don joined Experian plc in 2001. Prior to his appointment as Chairman in 2014, he was Group Chief Executive Officer from 2006 to 2014 having previously held various other senior roles including Chief Executive Officer of Experian North America.

Previous senior roles include: President of Credco Inc., Chairman of the US Consumer Data Industry Association, Director and Trustee of the National Education and Employer Partnership Taskforce, Non-Executive Director, First Advantage Corporation, Senior Independent Director at Compass Group plc.

Other current appointments: Chairman of Achilles Group Limited and Chairman of Validis Holdings Limited. Don is a Visiting Fellow at Oxford University.

Andrea Sironi
Independent Non-Executive Director
Appointed to the Board in October 2016 **R N**

Key areas of experience: Finance, financial risk management, banking regulation.

Andrea provides significant banking and finance experience to the Board.

Relevant past experience: Andrea was an Independent Non-Executive Director of UniCredit Group until February 2018. He was a Non-Executive Director of Banco Popolare Società Cooperativa, SAI Securities S.p.A. and Cogentech S.c.a.r.l. He has been the Vice Chairman of Banca Aletti & C. S.p.A. from April 2011 to October 2012. He has also been a Member of the Fed Academic Advisory Board from June 2009 to June 2016.

Other current appointments: Andrea is the Chairman of Borsa Italiana S.p.A., a subsidiary of the London Stock Exchange Group. He is also Vice President of Bocconi University, Italy, where he was Rector from 2012 to 2016 and where he is currently also a Professor of Banking and Finance.

Ruth Wandhöfer
Independent Non-Executive Director.
Appointed to the Board in October 2018 **A R**

Key areas of experience: Banking, financial services, fintech and market regulation.

Ruth brings to the Board significant knowledge of both the business and banking regulatory landscape in addition to considerable expertise in regulatory and technology change within complex businesses.

Ruth's career spans more than 15 years in financial services which includes a decade spent at the global investment bank, Citi.

Relevant past experience: Ruth was previously Global Head of Regulatory & Market Strategy for Citi Treasury and Trade Solutions from 2012-2018, having previously held other senior roles since joining Citi in 2007.

Prior to joining Citi, Ruth worked for the European Banking Federation from 2003-2007 where she was a Policy Adviser for Securities Services and Payments.

Ruth has held a number of industry board and working group positions in the UK and Europe.

Other current appointments: Ruth is a Non-Executive Director of Pendo Systems Inc. and Permanent TSB Group Holdings PLC. She is a Member of the Advisory Board of the European Association for Biometrics and a Founding Member of the Global Blockchain Business.

Corporate governance

"Good governance is about helping to ensure the Company is well run"

Sir Donald Brydon CBE
Chairman

Dear Shareholders,
The Board of the Group is committed to ensuring that it provides effective leadership and promotes uncompromising ethical standards. One of the ways in which the Board achieves this is by requiring that good governance principles and practices are adhered to throughout the Company. The Board has determined that the following is a helpful summary of its role.

Good governance is about helping to ensure the Company is well run. It involves being satisfied that an effective internal framework of systems and controls is put in place which clearly defines authority and accountability and promotes success while permitting the management of risk to appropriate levels.

It also involves the exercise of judgement as to the definitions of success for the Group, the levels of risk we are willing to take to achieve that success and the levels of delegation to the Executive. The exercise of this judgement is the responsibility of the Board and involves consideration of processes and assumptions as well as outcomes.

It also involves the creation of a sensitive interface for the views of shareholders and other stakeholders to be given appropriate consideration when reaching these judgements.

The Board plays the central role in the appointment of the right Chief Executive and encouraging the development of the appropriate culture in the Company.

The Executive team is required to provide such information to the Board as the Board needs to enable it to exercise its judgement over these matters. It must also evidence appropriate process. There is a very fine distinction between the approval of processes and their definition. Only exceptionally would the Board intervene to initiate or define.

The Board also sets the tone for the Group. The way in which it conducts itself, its attitude to ethical matters, its definition of success and the assessment of appropriate risk all define the atmosphere and culture within which the Executive Team and all employees work.

Good corporate governance is not about adhering to codes of practice (although adherence may constitute a part of the evidence of good governance) but rather about the exercise of a mind set to do what is right. One of the challenges facing any Board is the way in which the Non-Executive and the Executive Directors interact. It is clear that they each have the same legal responsibility, but it is generally unrealistic to expect Executive Directors to speak individually with the same freedom as the Non-Executive Directors. Equally, Executive Directors who just "toe the executive line" in contradiction to their own views may not be effectively contributing to good governance. A well-functioning Board needs to find the right balance between hearing the collective executive view, being aware of the natural internal tensions in an executive team and allowing independent input from the Non-Executive Directors.

One of the consequences of both increasing the watchdog role of the Board and finding this balance between individuality and team behaviour is driving more and more Boards to have fewer and fewer Executive Directors. In our circumstances, the consequent Board construction works effectively and an appropriate balance is struck.

Notwithstanding the tensions created by many external expectations, which may be wholly or in part unrealistic, a successful Board should, ideally, be composed of a diverse group of respected, experienced and competent people who coalesce around the common purpose of promoting the long-term success of the Company, provide a unified vision of the definitions of success and appropriate risk, endeavour to support management (i.e. honestly criticise at times but encourage all the time) and create confidence in all stakeholders in the integrity of the business.

Donald Brydon

Sir Donald Brydon CBE
Chairman
1 March 2019

Compliance with the UK Corporate Governance Code 2016 (the "Code") and its statement requirements
Throughout the financial year ended 31 December 2018 and to the date of this report, London Stock Exchange Group plc has complied with the provisions of the Code. The Code is publicly available at the website of the UK Financial Reporting Council at www.frc.org.uk. This corporate governance section of the Annual Report and Accounts describes how we have applied the principles of the Code.

This report is intended to give shareholders a clear and comprehensive picture of the Group's governance arrangements and how they operated during the year.

Pages 62–66 set out details of the areas of our focus during the year, followed by the Committee Reports. Descriptions of how we complied with the main principles of the Code are set out on pages 69–71.

A new UK Corporate Governance Code applies to financial periods starting on or after 1 January 2019. As is required by the law we will begin reporting under that Code in our next annual report.

Board responsibilities

The LSEG Board is collectively responsible for the long-term, sustainable success of LSEG and the delivery of sustainable value to its shareholders and contributing to wider society.

The Board:

- provides leadership of the Company within a framework of prudent and effective controls;
- sets strategic aims of LSEG and its subsidiaries and ensures necessary resources are in place for these to be met;
- reviews financial and business performance; and
- leads the development of the Company's culture, values and standards, ensuring that its obligations to shareholders and others are met.

Our Committees

The Board has delegated to its Committees responsibility for maintaining effective governance in relation to Audit, Nomination, Remuneration and Risk. Full details of the Committees' responsibilities are detailed within the respective Committee reports on pages 72–100.

Board and Standing Committee meetings 2018

The Board held 10 Board meetings of which 6 were scheduled meetings and 4 were additional meetings.

A table of attendance at Board and standing Committee meetings is set out below. In addition, 2 meetings of committees were convened to consider transactions during the year.

The table shows the number of meetings attended against the number of meetings each Director was eligible to attend.

Name of Director	Board	Audit	Nomination	Remuneration	Risk
Sir Donald Brydon CBE	10/10		[illegible]	7/8	
Jacques Aigrain	[illegible]	4/4	3/5	8/8	
Marshall Bailey OBE	[illegible]		[illegible]	[illegible]	
Professor Kathleen DeRose	[illegible]				
Paul Heiden	8/10	4/4	10/10	[illegible]	[illegible]
Raffaele Jerusalmi	10/10				
Stephen O'Connor	10/10	4/4	[illegible]		[illegible]
Val Rahmani	10/10			[illegible]	[illegible]
David Schwimmer	4/4				
Andrea Sironi	[illegible]		[illegible]		[illegible]
Ruth Wandhöfer	[illegible]	1/1			[illegible]
David Warren	10/10				
Directors who left during the year					
Professor Lex Hoogduin	3/6				
Mary Schapiro	8/8		6/8	5/5	
David Nish	9/9	3/3			4/4

[illegible]

Attendance at Board Meetings

When Directors have not been able to attend meetings, they received and reviewed the relevant meeting papers. Where they had comments or concerns on the matters to be discussed, they provided these to the Chairman of the Board or Committee in advance of the meeting. The Chairman of the Board engages with Directors between Board meetings to discuss business and strategic issues.

When arranging meetings at short notice, every attempt is made to accommodate Directors' diaries, however, inevitably, not all Directors are able to attend all such meetings. The majority of meetings where Directors have been unable to attend were additional meetings.

Many Directors also attended Committee Meetings where they were not members of the relevant Committee. These attendances are not recorded in the above table. The Board believes this assists in developing understanding of all issues by the Directors.

As part of its ongoing development the Board visits the Group's overseas sites. In 2018, it visited the Group's businesses and met with members of the workforce in Milan and New York.

During its visit to New York, the Board spent time with local management and members of the workforce from a number of the Group's business divisions, receiving updates on key business and strategic initiatives. The Board uses these events to engage with a wide cross section of employees to better understand their perspective on the business. The Board will continue to develop ways of engaging with the workforce in 2019.

On a number of occasions throughout the year, the Chairman met Non-Executive Directors without Executive Directors present in particular to discuss succession planning in relation to the Chief Executive Officer and other Non-Executive positions. The Board also met without the presence of the Chairman in particular to discuss succession planning in relation to the Chairman. Throughout the year the Chairman also met with Non-Executive Directors individually to discuss other business-related matters.

Comprehensive Board and Committee papers, comprising an agenda and formal reports and briefing papers are sent to Directors in advance of each formal meeting. Directors are continually updated with written and verbal reports, from senior executives and external advisors.

Corporate governance

Matters considered by the Board

Each of the regular meetings includes a wide ranging report from the Chief Executive Officer and a report from the Chief Financial Officer on the Group's financial performance. Reports from the Committee Chairmen, updates on major projects and certain administrative matters are also reported at each Board meeting.

A table of the principal matters considered by the Board during the year is provided below.

How the Board spent its time during the year

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Strategy and Business Updates												
LSEG CEO Update			●	●		●		●		●		●
LSEG CFO Update			●	●		●		●		●		●
2018 Strategic Objectives			●									●
M&A Update				●		●				●		
Technology Strategy						●						
LSEG Strategy										●		●
Acquisition of FTSE TMX			●	●	●							
Update on US Business and ISC												●
Italian Business Update						●						
Acquisition of additional holding in LCH								●				
Report from Committee Chairs												
Audit			●	●		●		●		●		●
Nomination			●	●		●		●		●		●
Remuneration			●	●		●		●		●		●
Risk			●	●		●		●		●		●
Financial reporting and dividends												
Final Dividend			●									
Preliminary Results			●									
Audit Exemption for LSEG Subs			●									
Q1 Trading Statement			●									
Treasury Policy						●						
Interim Dividend								●				
Interim Results								●				
Intercompany financing arrangements										●		
Euro Medium Term Notes										●		
2019 Budget and Business Plan												●
Risk, regulatory and compliance												
MiFID II			●									
Brexit Contingency planning			●	●				●		●		●
Risk Report			●					●				
Risk Appetite				●				●				
Cyber Security Update						●						

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Governance and stakeholders												
Share Issuance and Hedging approach for employee share schemes			●									
Notice of AGM			●									
Authorisation of Directors' interests			●									
Directors' Independence			●									
Modern Slavery Act			●									
Corporate Governance Code 2018			●					●				●
RAG and TAG Updates				●						●		
Pensions – Long Term Strategy				●		●						
Culture						●						●
Subsidiary Policy						●						
Workforce Engagement												●
Committee Terms of Reference												●
Board Composition and Succession Planning												
Board and Executive Succession Planning				●		●						●

Board Independence

The Board has concluded that all Non-Executive Directors are independent in character and judgement. In assessing each director, the Board considers whether there are relationships or circumstances which are likely to affect or could appear to affect a Director's judgement.

In evaluating Directors' independence the Board has taken into consideration the guidance provided by the Code including the requirement for a Company to state its reasons that a director has served on the Board for more than 9 years from the date of their first election.

Paul Heiden has served on the Board since June 2010 and will offer himself for re-election at the AGM but then intends to retire from the Board when a successor as Chair of the Audit Committee has been appointed.

The Board considers that an individual's independence cannot be determined solely on the basis of a particular period of service and the Board believes that Mr Heiden continues to demonstrate independence of character and judgement. The Board is also mindful that Mr Heiden has not served on the Board concurrently for a period of 9 years with the Chief Executive Officer and Chief Financial Officer. The Board will continue to benefit from his experience and knowledge resulting from the length of service, particularly as the Board has undergone a period of change, as well as his wider business experience. More information around the Board's succession planning process can be found in the Report of the Nomination Committee at pages 72–73.

In line with the Code all directors are subject to annual re-election.

Corporate governance

BOARD EFFECTIVENESS AND LEADERSHIP

2018 Effectiveness Review

The Board carried out an internal review of its own effectiveness and that of its Committees and Directors. The evaluation process was conducted by the Group Company Secretary using a detailed questionnaire. The results of the review will be used to assist the Board in the future development of the Board, its Committees and its individual Directors.

The Board identified that the key areas for Board development were:

- **Knowledge of the business for all directors and training for new directors** – Board members wanted to increase their understanding and knowledge of the Group particularly as a number of new directors joined the Board in 2018.
- **Rotation of Non-Executive Directors** – 2018 was an unusual year with 3 NEDs leaving and 5 directors appointed. The Nomination Committee met early in 2019 to further consider this topic and the new Chairman and the Board in 2019 will continue to focus on this topic during 2019.

2017 Effectiveness Review

The 2017 Effectiveness Review (which was externally facilitated) identified areas for the Board to focus on in 2018. These are summarised below, together with the resulting actions taken in 2018.

Area	Description	Summary of actions identified and taken
Engagement	Greater engagement with the business outside of Board meetings to improve understanding of business activity and depth of executive talent.	Greater engagement between Non-Executive Directors and the business including: Sessions meeting with employees from the Group and receiving presentations on the business; A session meeting with the US business including employees from the Information Services Division, UK and corporate functions receiving presentations on the business; and Non-Executive Directors held meetings outside of Board meetings including with staff from the Information Services Division, Risk and Technology.
Induction and Training	Strengthening of Induction and Training.	Expansion of the Induction Programme and the introduction of more business-led training sessions.
Board Composition and Interaction	Review of Board membership and balance to ensure that it is equipped to meet the competitive landscape and technological changes faced by the Group. Further strengthen relationships between directors.	The Nomination Committee and Board have reviewed the Board's composition and changes to membership are detailed in the Nomination Committee Report on pages 72–73.
Structural Fine-Tuning of Advisory Committees	Improve impact of the Regulatory Advisory Group ("RAG") and the Technology Advisory Group ("TAG").	The Board received presentations from the chair of TAG and the new chair of the RAG which during the year had been reconstituted under the chairmanship of Baroness Bowles and had undertaken a review of its terms of reference.

In 2018 the Board engaged Simon Collins, a former UK Chairman and Senior Partner of KPMG LLP, to carry out a review of the CEO Succession Process. The Board shared a summary of key conclusions with shareholders at last year's AGM. The Board has taken a number of steps in 2018 to address the conclusions and themes of the review. These are described throughout this year's Annual Report and include:

- **Monitoring behaviour** – Monitoring behaviour – a 360° feedback process to understand Executive leadership and culture has been implemented for Executive Directors and the Executive Committee and a balanced scorecard approach will be implemented in 2019. All aspects of this scorecard will be taken into account by the Remuneration Committee.
- **Culture** – During 2018 the Board sought to deepen its understanding of employees' perceptions of the Group's culture through feedback via leadership and employee engagement surveys. This has helped the Board and Executive to develop measures to support the development of the desired behaviours and culture throughout the Group. This will continue to be a focus in 2019. More detail can be found in Our Wider Responsibility section on pages 36–40.
- **Workforce Engagement** – More opportunities have been developed for Non-Executive Directors to engage with management and employees to understand their perspectives and views and this will continue to be an area of focus in 2019.
- **Succession Planning** – More detail on the Board's approach to this can be found in the Report of the Nomination Committee on page 73.

Relations with shareholders

We believe that regular and ongoing engagement with our key stakeholders and, in particular, our shareholders is extremely important for good corporate governance. The Group's Investor Relations (IR) function, reporting to the Chief Financial Officer, manages an ongoing shareholder engagement programme throughout the year. Executive management and the IR team engage with investors through meetings and presentations to discuss strategy, performance and other matters.

The Chairman, Senior Independent Director and Chairmen of each Board Committee are also available to meet major investors, typically to discuss corporate governance matters.

In 2018, senior executive management and the IR team met with over 500 institutional debt and equity investors through one-to-one and group meetings or calls. In addition the Chairman and Senior Independent Director met a small number of investors, principally on general corporate governance matters, and the Chairman of the Remuneration Committee consulted with a number of shareholders on remuneration matters.

The Board receives a report on IR matters at each of its scheduled meetings including feedback from investors, market expectations of financial performance and updates on share register composition. Sell-side analyst research notes are circulated to the Board following publication. The Group's corporate brokers and a specialist IR advisory firm also provide the Board with advice on market sentiment, input on market communications and share register analysis.

In addition to information on financial and operational performance, the Group engages with shareholders and relevant shareholder advisory agencies on environmental, social and governance (ESG) matters. The Group produces an annual Corporate Sustainability report that details its approach to ESG matters **www.lseg.com/about-london-stock-exchange-group/corporate-responsibility**.

The Group's AGM provides the opportunity for all shareholders to meet and to put questions to the Board Directors. Procedures for the AGM (and any General Meeting) are compliant with the Code, with voting by way of a poll to ensure all shareholders' views are taken into account.

The IR section of the Group's website (**www.lseg.com/investor-relations**) is a primary source of regularly updated information about the Group. All financial reports and statements, news releases, presentations and other documents including regulatory news service disclosures are available on the website together with a list of analysts producing research on the Company and a summary of analysts' forecasts of performance. Recognising that joining our preliminary and interim results calls is not always possible (not least for our non-UK shareholders) recordings of these calls are accessible to all shareholders via the Group website.

Conflicts of interest

The Company's Articles of Association allow the Board to authorise conflicts of interest that may arise and to impose such limits or conditions as it thinks fit.

The Group has established procedures whereby actual and potential conflicts of interest are regularly reviewed, appropriate authorisation is sought prior to the appointment of any new Director and new conflicts are addressed appropriately. The decision to authorise a conflict of interest can only be made by non-conflicted Directors and, in making such decisions, the Directors must act in a way they consider, in good faith, would be most likely to promote the Company's success.

Indemnities

Directors have the benefit of indemnity arrangements from the Company in respect of liabilities incurred as a result of their office and execution of their powers, duties and responsibilities. The Company maintained a Directors' and Officers' liability insurance policy throughout the year. This policy covers the Directors for any such liabilities in respect of which they are not indemnified by the Company and, to the extent to which it has indemnified the Directors, also covers the Company. This insurance cover has been renewed. Neither the Company's indemnity nor insurance provides cover for a Director in the event that the Director is proved to have acted fraudulently or dishonestly.

Risk Management and Internal Control

The Board is responsible for the Group's risk management framework and maintaining an appropriate system of internal controls. A Board approved Enterprise-wide Risk Management Framework and Group Risk Appetite Statement are central to the Group's Risk Management process. The Risk Management Framework is updated on an ongoing basis in response to changes in the Group's business and associated risks. The Group Risk Appetite statement is approved annually as part of the Group's strategic planning process.

The Audit Committee and Risk Committee assist the Board in discharging its responsibilities by reviewing and assessing the Group's Risk Management Framework, system of internal controls and risk management process on a regular basis. Refer to the reports of the Audit Committee on pages 74–79 and the Risk Committee on pages 80–81 for further detail on their oversight activities during the year.

The system of internal controls is designed to facilitate the management of the Group and its businesses within the Board's risk appetite rather than eliminate the risk of failure to achieve the Group's objectives, and can only provide reasonable, but not absolute, assurance against material misstatement or loss, fraud or breaches of laws and regulations.

Executive management is accountable for risk identification, evaluation, mitigation, monitoring and reporting in accordance with the framework. A divisional internal control and Risk Management self-certification process is also performed semi-annually. Each business unit is required to confirm that it is in compliance with the Group's policies and governance procedures and managing its risk within appetite; exceptions are reported to the Audit Committee and Risk Committee.

Further Information

Further detail on the Group's risk management oversight can be found on **www.lseg.com/about-london-stock-exchange-group/risk-management-oversight.** An overview of the Principal Risks and Uncertainties of the Group is provided on pages 48–57.

Corporate governance

Internal Controls

Management structure

The Group operates a matrix structure designed to optimise resource allocation and organisational capacity. The Board has delegated the day-to-day running of the Group to the Group Chief Executive Officer and he is supported in this role by the Group Executive Committee, which he chairs. Each Executive Committee member is responsible for one of the Group's operating divisions or a major area of strategic importance. The Executive Committee meets regularly to review business and financial performance, risk exposure and to approve key decisions. Each legal entity is responsible for engaging with its local regulators and monitoring and ensuring regulatory compliance.

Policies and Procedures

A framework of Group-wide policies establish the principles, minimum standards and risk management activities LSEG requires the Group's businesses and functions to follow to manage their business within risk appetite. All Group-level policies are approved by the Executive Committee, and may also require approval or ratification from the Audit Committee, the Risk Committee and the Board. The Group runs a rolling programme of mandatory online training courses for all employees covering matters including ethical conduct, risk and control management, regulatory requirements and the group policies.

Financial Control

The Group has a robust system of financial control which has been enhanced during 2018 by the continued roll-out and implementation of the Group wide financial system in response to the increased size and footprint of the group. An appropriate framework of delegated authorities is in place.

Comprehensive financial planning, reporting and review procedures are in place with an annual budget and 3-year business plan approved by the Board. Financial and key performance indicators are reviewed against operational budgets on a monthly basis at a group, divisional and business unit level. The Chief Financial Officer's management reports are shared with the Board and any key issues are reviewed at each Board meeting.

The Executive Investment Committee monitors capital expenditures across the Group and helps the Executive Committee approve and prioritise projects.

The Executive Financial Risk Committee oversees risks related to capital investments, tax, counterparties and through its Treasury Committee the activities of the Group's Treasury function.

The Treasury Committee operates within a Board approved policy framework and meets regularly to review the management of the Group's credit, market and liquidity risks. Material group counterparty exposures are assessed regularly including through a Group-wide centralised counterparty risk Value at Risk model. Further details on financial risk management are provided in Note 3 to the accounts.

Internal Audit

The Internal Audit function provides independent assurance to the Board and other key stakeholders over the adequacy and effectiveness of the Group's system of internal controls, the governance model and the Enterprise-wide Risk Management Framework. The function is the third line of defence in the Group's risk control structure and has no operational responsibilities over the entities or processes which it reviews.

The independence of the Internal Audit function from Executive Management is ensured through the following measures:

- The Group Head of Internal Audit reports directly to the Chairman of the Audit Committee and has direct access to the Chairman of the Board. For administrative matters the Group Head of Internal Audit has a secondary reporting line to the Chief Financial Officer.
- The Chairman of the Audit Committee and Chief Financial Officer jointly assess the performance of the Group Head of Internal Audit.
- The Audit Committee approves the Internal Audit annual budget.

Further details on the Internal Audit function can be found in the internal audit charter which is available on the Group's website at **www.lseg.com/about-london-stock-exchange-group/corporate-responsibility/governance**

Conclusion

The Board confirms that, through the Audit Committee and the Risk Committee it has reviewed the operation and effectiveness of the Group's system of internal controls throughout 2018 and up to the date of approval of this Annual Report and Accounts. The Board has satisfied itself that a robust assessment of the principal risks facing the Company, including those that would threaten its business model, future performance and liquidity, have been carried out during the year. Necessary actions have been or are being taken to remedy any significant failings or weaknesses identified during these reviews. The Board is satisfied that the Risk Management process and system of internal controls conform with the FRC's 2014 Risk management, internal control and related financial and business reporting.

FURTHER INFORMATION

Further detail on the Group's risk management oversight can be found on **www.lseg.com/about-london-stock-exchange-group/risk-management-oversight.** An overview of the Principal Risks and Uncertainties of the Group is provided on pages 48–57.

Complying with the provisions of the Code

The Group is committed to the highest standards of corporate governance and business integrity in all its activities. Throughout the year, the Company has complied with all principles of the Code.

The Code sets out guidance in the form of main principles and more specific provisions for good governance in relation to Board leadership, effectiveness, accountability, remuneration and relations with shareholders. Further information on the Code, its applicability, the principles and their provisions can be found on the Financial Reporting Council's website, at www.frc.org.uk. This table forms part of the Corporate Governance Statement on page 101 of the Directors' Report.

A. Leadership

A.1 Role of the Board

The Board is the principal decision-making forum for the Group and is responsible to shareholders for achieving the Group's strategic objectives and delivering sustainable growth in shareholder value. Directors act in a way they consider will promote the long-term success of the Company, by constructively challenging and supporting the development of the Group's strategy, for the benefit of shareholders as a whole, with regard to the interests of the Group's employees, the impact of the business on the community and environment and the interests of other stakeholders. The Board manages the overall control of the Group's affairs with reference to the formal schedule of matters reserved for the Board. This schedule is available on the Company's website at **www.lseg.com/about-london-stock-exchange-group/corporate-responsibility/governance**

The Board views the brands and reputations of its subsidiaries as important assets of the Group. Accordingly, protection of the brand and reputation of the Group, including ensuring that subsidiaries continue to meet local legal and regulatory requirements, is also a key part of the Board's role as is setting the culture and values of the Group. The matters considered by the Board in 2018 are summarised on page 64.

Board Committees

The Company ensures that all Committees are provided with sufficient resources to undertake their duties. All Committees have written terms of reference which are available from the corporate responsibility section on the Company's website at **www.lseg.com/about-london-stock-exchange-group/corporate-responsibility**. The matters considered by the Audit, Nomination, Remuneration and Risk Committees are summarised in the reports of those Committees.

A.2 Division of Responsibilities

The roles of Chairman and Chief Executive Officer are distinct and separate with a clear division of responsibilities. The Chairman is responsible for the running and leadership of the Board and ensuring its effectiveness. The Chief Executive Officer has delegated authority from, and is responsible to, the Board for managing the Group's business with the power for further delegation in respect of matters which are necessary for the effective running and management of the Group's business. The current key responsibilities of both the Chairman and Chief Executive Officer (as well as the Senior Independent Director) were reviewed during the year by the Board and are summarised below.

Chief Executive Officer

- Leading and promoting the Company's purpose, culture, values and behaviours throughout the business and externally and ensuring employees act in accordance with these
- Demonstrating Leadership and Commitment in relation to the principles set out in the Code of Conduct and requiring compliance from employees at all levels
- Leading and promoting the profitable and sustainable development of the Group in accordance with the strategy and direction set by the Board
- Running the Group's business and providing leadership to the executive management of the Group's businesses and chairing the Executive Committee
- With the support of the Executive team, proposing and developing the Group's strategy, multi-year financial plan, budget and overall commercial objectives for approval of the Board
- Together with the Executive team implementing the decisions of the Board and, where applicable, of its Committees
- Providing information and advice on succession planning to the Chairman, the Nomination Committee and (as applicable) members of the Board particularly in respect of the Executive Directors and their direct reports
- Acting as the primary representative of the Company in its engagements with its stakeholders

Complying with the provisions of the Code

A.3 Chairman

Leading the Board and ensuring it is effective and setting clear expectations concerning the company's purpose, culture, values and behaviours and the style and tone of Board discussions. Ensuring the Board monitors and assesses the Executive's performance against these culture values and behaviours. Promoting the highest standards of integrity, probity and corporate governance throughout the Group and specifically at Board level.

– Promoting the Company's Code of Conduct at Board level and with the Company's wider stakeholders.

Ensuring that all directors are enabled to play their full part in bringing their skills and experience to the Board. Encouraging active engagement by all the members of the Board.

– Running the Board and ensuring clear structure for, and the effective running of, the Board and its Committees including regularity, frequency and length of meetings.

Being the guardian of the Board's decision making processes and (through the Chief Executive) ensuring effective implementation of Board decisions.

– Ensuring that the Board as a whole is enabled to play a full and constructive part in the review and approval of the Group's strategy, multi-year financial plan, budget and overall objectives.

– Chairing the Nomination Committee and, in that role, initiating change and succession planning in Board appointments in order to retain and build an effective and complementary Board, and facilitate the appointment of effective and suitable members and chairs of Board Committees.

– Ensuring that there is effective communication by the Company with its shareholders and other key stakeholders, principally by the Chief Executive Officer (and other Executive management) and also, as appropriate, by the Chairman himself and the Senior Independent Director, and ensuring that the members of the Board develop an understanding of the views of the shareholders, the employees and other stakeholders.

Ensuring that the performance of the Board as a whole, each of its Committees and each individual Director as regards their Board and/or Committee role(s) is formally and rigorously evaluated on a regular basis and at least annually. Acting on the results of such evaluation by recognising the strengths and addressing the weaknesses of the Board and feeding back to each director the results of the reviews and ensuring appropriate action plans are put in place and implemented as a result of the Board evaluation.

– Taking the lead in preparing objectives for the Board annually by gathering inputs from all Board members and for monitoring the Board's success in meeting those objectives.

– Setting clear performance objectives (covering style of management and outcome-based objectives) for the Chief Executive annually at the start of each year and obtaining the Board's agreement to these. Agreeing with the Chief Executive Officer annual performance objectives similarly for Executive Directors.

Making certain that the Board determines the nature and extent of the significant risks the company is willing to embrace in the implementation of its strategy.

A full list of the responsibilities for the Chairman of the Group and the Group Chief Executive Officer can be found at **www.lseg.com/about-london-stock-exchange-group/corporate-responsibility/governance**

A.4 Non-Executive Directors

Non-Executive Directors are required to challenge constructively and help develop proposals on strategy, scrutinise the performance of management in meeting agreed goals and objectives and monitor the reporting of performance. They should satisfy themselves on the integrity of financial information and that financial controls and systems of risk management are robust and defensible.

Non-Executive Directors are responsible for determining appropriate levels of remuneration for executive directors and have a principal role in appointing and, where necessary, removing executive directors, and in succession planning. The Board should appoint one of the Independent Non-Executive Directors to be the Senior Independent Director (Mr Paul Heiden is the Senior Independent Director).

The responsibilities of the Senior Independent Director include meeting major shareholders as an alternative contact to the Chairman, Chief Executive or Chief Financial Officer. A summary of the Senior Independent Director's responsibilities can be found at **www.lseg.com/about-london-stock-exchange-group/corporate-responsibility/governance**

B. Effectiveness

B.1 The Composition of the Board

There is a strong non-executive element on the Board, and the Non-Executive Directors provide deep corporate experience and knowledge which they apply to their understanding of the Group and its strategy.

The Board has concluded that all Non-Executive Directors are independent in character and judgement; more information on how the Board assesses independence can be found on page 65.

B.2 Appointments to the Board

The Board has a formal, rigorous and transparent procedure for the appointment of new Directors to the Board. The Board has established a Nomination Committee which leads the process for Board appointments and makes recommendations to the Board. The Report from the Nomination Committee on pages 72–73, outlines the changes to the Board that took place during the year. The Board normally uses an external search consultancy for appointments.

B.3 Commitment

The other significant commitments of the Board are set out on pages 59–61. The Board is satisfied that these do not conflict with their duties and time commitments as Directors of the Company.

B.4 Development

Directors are encouraged to continually update their skills and knowledge of the business, and briefings are regularly given at Board meetings on particular parts of the business. The Board also continued its practice of undertaking formal visits to its overseas businesses so that the Directors can experience key aspects of the Group's operations first hand.

Each new Director joining the Board is offered an induction programme covering the key business areas of the Group and including meetings with members of the Executive Committee, other senior managers and external advisers. Directors are *encouraged to meet with executives on an ongoing basis to better understand* each of the business areas together with the Group's governance, financial and legal framework.

B 5 Information and Support

The Directors have full access to the advice and services of the Group Company Secretary, who is responsible for advising the Board on corporate governance matters. Directors also have access to independent professional advice if they judge it necessary to fulfil their responsibilities as Directors.

B.6 Evaluation

The Board conducts an annual evaluation of its effectiveness and acts on the results of the review. During the year the Board carried out an internal review of its own effectiveness and that of its Committees and Directors. The evaluation process was conducted by the Group Company Secretary using a detailed questionnaire. The results of that review are detailed on page 66 of the Corporate Governance Report.

B 7 Re-Election

Each Director is subject to election at the first AGM following their appointment. In line with the Code, all Directors are subject to annual re-election.

C. Accountability

C 1 Financial and Business Reporting

A statement of the Directors' responsibilities regarding the financial statements, including the status of the Group and Company as a going concern is set out on page 105 of this report. An explanation of the Group's strategy and business model, together with relevant risks and performance risks and performance metrics are set out on pages 10–17. A further statement is provided on page 105 confirming that the Board considers that the Annual Report and Accounts, taken as a whole, is fair, balanced and understandable and provides the information necessary for shareholders to assess the Group and Company's position, performance, business model and strategy.

C 2 Risk Management and Internal Control

The Board has overall responsibility for the sponsorship of a strong risk culture across the Group and for determining the nature and extent of the principal risks it is willing to take in achieving its strategic objectives. It approves the Risk Appetite each year as part of the strategic business objectives, and ensures there is an ongoing process for identifying, evaluating, and managing the principal risks faced by the Company. The Board has delegated a number of responsibilities to the Risk Committee including oversight of internal Risk Management processes.

The report from the Risk Committee can be found on pages 80–81.
In accordance with paragraph C.2.2 of the Code an explanation of how the Directors have assessed the prospects of the Company is included in the section headed Financial viability statement on page 104.

C3 Audit Committee and Auditors

The Audit Committee Report on pages 74–79 sets out details of the composition of the Committee, including the expertise of members, and outlines how the Committee has discharged its responsibilities during 2018. The Board has delegated a number of responsibilities to the Audit Committee, including oversight of the Group's financial reporting processes and management of the external auditor.

D. Remuneration

D.1 The Level and Components of Remuneration

The Directors' Remuneration Report on pages 82–100 outlines the activities of the Remuneration Committee during 2018 and the implementation of the Remuneration Policy during 2018 (including salary, bonus and share awards and payments for loss of office paid to Directors). The Remuneration Policy was subject to a binding shareholder vote at the 2017 AGM and was passed with over 98% support. It is available on the Group's website at **www.lseg.com/investor-relations/shareholder-services/agm-information**. There have been no changes to the policy during the financial year. Under Schedule 8 of The Large and Medium-sized Companies and Groups (Accounts and Reports) (Amendment) Regulations 2013, the Remuneration Policy Report must be approved by a binding shareholder vote at least once every 3 years.

D 2 Procedure

The Board has delegated responsibilities to the Remuneration Committee including the remuneration of the Chairman and Executive Directors.

E. Relations with Shareholders

E.1 Dialogue with Shareholders

The Company maintains an active shareholder engagement programme managed through the Group's IR function. The IR programme provides regular opportunity for contact with existing and potential shareholders, as well as sell-side analysts that produce investment research relating to the Group. IR activities include meetings, calls, presentations and information releases on a regular basis throughout the year, based around the Group's financial reporting calendar and following major corporate events and news flow. For more detail on the Group's IR activities, please see page 67 of the Corporate Governance Report.

E.2 Constructive Use of General meetings

The Group's AGM provides the opportunity for all shareholders to meet the Directors and to put questions to the Board. Procedures for the AGM (and any General Meeting) are compliant with the Code, with voting by way of a poll to ensure all shareholders' views are taken into account.

Report of the Nomination Committee

Sir Donald Brydon CBE
Chairman of the Nomination Committee

***The Nomination Committee members as at 31 December 2018 were*:**
Sir Donald Brydon CBE, Paul Heiden, Stephen O'Connor, Marshall Bailey OBE (with effect from 18 October 2018), and Andrea Sironi (with effect from 18 October 2018). Don Robert was appointed to the Committee with effect from 1 January 2019. Andrea Sironi and Jacques Aigrain were asked to participate in the Committee for the search for a new Chairman. Mary Schapiro was a member of the Committee until 11 October 2018.

The Group Company Secretary is the Secretary to the Committee and attends all meetings. The Group Chief Executive Officer, Head of Human Resources and external advisers attend where requested by the Committee.

Purpose

The Committee is responsible for monitoring the balance of skills, knowledge and experience, and diversity of the Board, making recommendations to the Board of new appointments to the Board and overseeing executive succession planning and talent development.

2018 priorities

At the start of 2018, the Committee identified 3 key priorities:

- Identify a new CEO for recommendation to the Board
- Commence a search for a new Chairman
- *Review succession plans for the Executive team and the Board*

The Committee met 10 times during the year and, in addition, Committee members also met with director candidates. I am pleased to confirm that these efforts have resulted in the priorities being met, as described in this report.

Appointment of a new Group Chief Executive

Following a comprehensive global search supported by a recruitment consultant Egon Zehnder, David Schwimmer was appointed as the Group's new Chief Executive Officer. A thorough process was followed prior to David's appointment which was inclusive of all Non-Executive Directors and the Interim Chief Executive Officer and included:

- A role description was developed with Board input and approval
- An initial long list was prepared and candidates interviewed by the Chairman. Notes of all interviews at all stages of the process were shared with all Non-Executive Directors and the Interim Chief Executive Officer
- The Nomination Committee, Non-Executive Directors and the Interim Chief Executive Officer interviewed a short list of candidates with a selection of candidates then interviewed by all non-executive directors
- The results of these interviews were then considered alongside references and a third party assessment of each candidate
- A final recommendation was endorsed by the Board

In making the appointment the Board considered that David brings a strategic perspective on the drivers of growth and innovation in financial markets infrastructure. He has extensive experience leading diverse and high performing teams in dynamic markets. He also brings deep experience in capital markets combined with an understanding of and commitment to the collaborative culture desired by the Board.

Chairman Succession

As announced in November 2017, I said that I would not stand for re-election in 2019. During the year, the Nomination Committee, led by Senior Independent Director Paul Heiden and joined by Jacques Aigrain and Andrea Sironi, managed the process to identify a successor. Search consultants MWM were engaged to support the recruitment process. I did not participate in the Nomination Committee for the purpose of identifying my successor.

A role description was developed with input from all board directors. This was then used to identify a long list of candidates. A thorough process was conducted involving the extended Nomination Committee interviewing a wide selection of candidates before making a recommendation to the Board. The recommended candidate met with all directors before the Board confirmed the appointment of Don Robert in December 2018. The Board considered that Don's proven track *record as a FTSE100 Chair and Board director combined with a deep* understanding of technology, data and analytics would benefit the Board and the Group. Don joined the Board as a Non-Executive Director on 1 January 2019 and will assume the role of Chairman following the Company's Annual General Meeting on 1 May 2019.

Succession Planning

Non-Executive Directors

During the year, the Board reviewed the skills, experience and length of tenure and diversity of the Board. A skills-map was used to help identify gaps and make recommendations to the Board on future succession requirements.

During the year the Board appointed Ruth Wandhofer, who has a background in banking, regulatory and emerging technologies, and Professor Kathleen DeRose who has a background in both asset management and financial technology. The Committee was assisted in its search resulting in those appointments by 11fs, a specialist digital technology advisory business and search consultants Inzito respectively. The process involved interviews with Committee members and the Chief Executive Officer.

Marshall Bailey OBE was appointed as Chairman of LCH Group and also joined the Board of LSEG following the decision of Professor Lex Hoogduin to focus his involvement on the LCH subsidiary boards in response to regulatory governance requirements. Marshall was appointed following a selection and interview process conducted jointly with the Nomination Committee of LCH Group. Egon Zehnder were also engaged to assist in this process.

Lex Hoogduin, David Nish and Mary Schapiro stepped down from the Board during the year.

The Board also refreshed membership of each of its committees during the year. David Nish was chair of the Audit Committee and Paul Heiden agreed to resume that role until a successor is appointed as Audit Committee Chair.

Executive Succession Planning

During the year the Committee reviewed succession plans and evaluated immediate, emergency and pipeline succession for Executive Directors and Executive Committee roles. The Committee discussed the plans with the Group Chief Executive and including, where there were gaps in succession readiness, agreeing development requirements.

Oversight of the development of a diverse executive talent pipeline will remain a key priority for the Committee during 2019.

Use of External Consultancies

MWM, Inzito and 11fs do not have any additional connection with LSEG. Egon Zehnder also provides general recruitment services to London Stock Exchange Group.

Diversity

The Board is committed to diversity on the Board and throughout the Group and a copy of its diversity policy can be found at **www.lseg.com/about-london-stock-exchange-group/corporate-responsibility/governance**

We support the proposals of the Hampton Alexander Review to achieve 33% female representation by 2020. At the executive level, the Group is as a signatory to the UK Treasury Women in Finance Charter. See **www.lseg.com/about-london-stock-exchange-group/corporate-responsibility/women-finance-charter** for further details.

During the year, the Board's gender diversity increased with the appointment of 2 additional female directors, Ruth Wandhofer and Professor Kathleen DeRose, taking the number of female Board directors to 3.

The Board's membership reflects a wide range of skills and business experience, drawn from a number of industries, which is critical for bringing both the expertise required and to enable different perspectives to be brought to Board discussions. The combination of these factors means that the Board benefits from a diverse range of competencies, perspectives and thoughts, providing an ability to challenge on strategic issues and a dynamic environment for decision making.

Donald Brydon

Sir Donald Brydon CBE
Chairman
1 March 2019

Report of the Audit Committee

Paul Heiden
Chairman of the Audit Committee

The Audit Committee members as at 31 December 2018 were: Paul Heiden (Senior Independent Non-Executive Director), Jacques Aigrain, Ruth Wandhöfer and Stephen O'Connor. We believe that the Committee as a whole continues to have competence relevant to the sector in which the Group operates.

This report is intended to give an overview of the role and activities of the Audit Committee in assisting the Board to fulfil its oversight responsibilities relating to the monitoring of the effectiveness of the system of internal control and risk management, the independence and effectiveness of the external auditor and the integrity of the Group's financial statements. It details the activities, discussions and decisions that enabled the Audit Committee to fulfil its responsibilities effectively during 2018.

During the year, as part of its key priorities, the Committee

- Continued to monitor the tax and accounting implications and the integration of the acquisitions of The Yield Book and Citi Fixed Income Indices divisions of Citigroup.

  Received and discussed the external audit management letter from Ernst & Young LLP (EY). The letter highlighted a number of areas for improvement, in particular regarding contract management and debtor risk management and reporting and *the US tax function. These were noted by the Committee for follow-up.*
- Reviewed the effectiveness of the external auditor based on their qualifications, expertise, resources, level of independence, execution of their audit plan and the *quality of their conclusions and recommendations. On the basis of their own* interaction with EY and that of management, the Audit Committee confirmed that the services provided by EY were appropriate and in compliance with relevant auditor independence and integrity rules.
- Received and discussed reports from Executives on the key business and infrastructure initiatives of the Group including the growth of the FTSE business, IT operations and the cybersecurity programme.
- Had in depth conversations with the local executives in Italy at the June meeting held in Milan and with US executives at the December meeting held in New York.
- Reviewed the impact of multiple increases in equity interest in the LCH group to a stake of 82.6% in the LCH Group as of 31 December 2018.
- Reviewed the financial impact of the disposal of Exactpro.
- Reviewed the updated Group Treasury Policy and recommended it for approval by the full Board.
- Noted the response from the Financial Reporting Council (FRC) in relation to LSEG's reply to its review of the annual report and accounts for the year ended 31 December 2016. The FRC had communicated that the Group's responses and explanations to the matters it had raised were acceptable and understood.
- Discussed a number of internal audit reports during the year and satisfied itself that management action plans were in place to address the recommended improvements within reasonable deadlines. The Audit Committee also reviewed an external independent report on the internal audit methodology and satisfied itself of the adequacy of the internal audit function.

- Approved the 2019 internal audit universe, internal audit plan, internal audit risk appetite and budget and resources for the Internal Audit function. The Committee also approved the updated internal audit charter and discussed alternatives to improve the coordination of all assurance functions.
- Continued to monitor the alignment of the control environment of recent acquisitions with the Group internal control framework. It satisfied itself that these acquisitions were being integrated according to plan and were meeting the financial objectives of the Group. Where gaps were identified the Committee requested remediation plans to be put in place.
- Continued to monitor the status of the implementation of the new Group-wide financial reporting system throughout the year and satisfied itself that the project continues to improve the process for financial reporting.
- Discussed the implementation of the new "UK Payment Practices and Performance" regulation.
- Discussed the implications and impact of the implementation of the new accounting standards, IFRS 15 on revenue recognition, IFRS 9 on the recognition and impairment of financial assets and IFRS 16 on the accounting of leases and (IFRS 15 and IFRS 9 became effective starting 1 January 2018 while IFRS 16 became effective on 1 January 2019).
- Reviewed the impact of the implementation of the GMP (Guaranteed Minimum Pension) equalisation on the Group's defined benefit pension scheme.
- Approved a parent guarantee from LSEG (The Group) for a selection of direct and indirect subsidiaries in order to obtain audit exemption for the subsidiaries under section 479A–479C of the Companies Act 2006.
- Reviewed the enhanced whistleblowing arrangements of the Group including the appointment of the Chair of the Audit Committee as the independent whistleblowing champion, an upgraded external whistleblowing line and new internal policies and procedures. A "Speak Up" campaign was conducted across the Group in November 2018 to increase the awareness of the organisation about whistleblowing; and
- Following a review of the Audit Committee's terms of reference, responsibility for oversight of treasury matters was transferred to the Risk Committee.

Priorities in the forthcoming year will include:

- Receiving assurance that the control environment remains robust to support the continued growth and diversification of the Group's activities, including all major projects, as well as key processes such as business continuity planning and disaster recovery and cybersecurity programmes;
- Monitoring the progress of the alignment of assurance activities across the internal audit, third party assurance providers and the risk function;
- Monitoring the progress of the integration of newly acquired businesses;
- Monitoring the progress of management actions recommended within the external audit management letter from EY;
- Receiving early and continuous understanding of the impact of the Group's acquisitions and divestitures on financial and tax accounting;
- Continuing to assess the impact of developments in accounting standards and the related implementation; and
- Continuing to monitor progress on the key IT and infrastructure projects of the Group.

Paul Heiden
Chairman of the Audit Committee
1 March 2019

Report of the Audit Committee

Role and responsibilities of the Audit Committee

1. Financial reporting

The Committee recommends the financial statements of the Group to the Board, including the annual and half-yearly reports, preliminary results announcements and any other formal announcement relating to its financial performance, reviewing the significant financial reporting judgements that they contain.

2. Internal controls and Risk Management systems

The Committee keeps under review the effectiveness of the Group's system of Internal Control and Risk Management. The Audit Committee makes recommendations to the Board regarding the effectiveness of the Group's Internal Control and Risk Management systems and recommends to the Board the statements to be included in the Annual Report concerning internal controls and Risk Management (in collaboration with the Risk Committee). The Committee also monitors and reviews the effectiveness of the Group's Internal Audit function ensuring that it has adequate resources and appropriate access to information to perform its function independently from executive management.

3. External auditor

The Committee oversees the relationship with the external auditor. The Committee reviews and approves the annual audit plan, ensures that it is consistent with the Committee's view of the scope of the audit engagement and reviews the findings of the audit with the external auditor. The Committee monitors and reviews the objectivity and independence of the external auditors including the non-audit activities performed by the auditors for the Group (see the external auditors fees section below for more details). The Committee ensures that the external audit services contract is put out to tender on a periodic basis in line with existing best practices and regulation (the current external auditor was appointed in 2014 following a tender process overseen by the Audit Committee). The Committee oversees the selection process for new auditors and if an auditor resigns the Committee investigates the issues leading to this and decides whether any action is required.

4. Other matters

Whistleblowing and fraud

The Committee reviews the Group's arrangements for its employees to raise concerns, in confidence, about possible wrongdoing in financial reporting or other matters. The Committee ensures that these arrangements allow proportionate and independent investigation of such matters and appropriate follow up action. The Committee also reviews annually the Group's procedures for detecting fraud and for the prevention of bribery.

Composition and meetings

The Committee meets the requirements of the Code. It is comprised of 4 independent Non-Executive Directors. It is chaired by Paul Heiden who is a qualified chartered accountant with a career in a variety of senior finance roles. The skills and experience of each Committee member are provided in the Board of Directors section on pages 59 – 61.

The Chief Financial Officer, Group Financial Controller, Group Head of Internal Audit, Group Chief Risk Officer and the external auditor are standing invitees to all Audit Committee meetings. In addition, various other members of management are invited from time to time to present specific matters relevant to the Committee's remit. The Chairman of the Board also attends the Committee on a regular basis.

Further details on the functions and responsibilities of the Audit Committee can *be found in the Committee's Terms of Reference (dated 1 January 2019) which are* reviewed annually and available from the Group Company Secretary or in the corporate governance section of the Group's website at **www.lseg.com/about-london-stock-exchange-group/corporate-responsibility/governance**

Activities in 2018

The Committee met 4 times during the year. The Committee maintains a formal agenda which ensures that all matters for which the Committee is responsible are considered at the appropriate meeting. The agenda for each meeting was determined by the key events of the annual financial reporting cycle, the risks identified by the Committee and the standing items under its Terms of Reference. The following provides details on how the Committee discharged its responsibilities during the year as set out in its Terms of Reference.

Financial matters:

With regards to financial matters, the Committee reviewed, discussed and *approved the half-year and full year financial results. It reviewed, discussed and* approved key accounting judgements, the annual review for goodwill impairment and assessment of indicators of impairment on purchased intangible assets, *management's* view of commitments and contingencies and the adequacy of the proposed disclosures. For more details on the main discussions and decisions reached by the Committee on financial matters, see the section below entitled "Significant matters impacting the financial statements" and "Other topics of discussion in respect to the financial statements".

Internal controls

The Committee continued to exercise disciplined oversight of the effectiveness of the Group's internal controls throughout the year. It fulfilled its responsibilities by reviewing and discussing regular reports from the external auditor, the Internal Audit and Risk Management functions as well as from external experts, including:

- Reports on compliance with the Code – internal controls (including whistleblowing) at half year and year end
- Quarterly updates on internal audit plans including internal control issues raised and management actions to remedy the deficiencies
- Annual report on the performance of the Internal Audit function at the first Audit Committee of the year

The Committee obtained additional comfort by meeting with the Group Head of Internal Audit at each Audit Committee meeting without executive management present.

The activities of the Committee related to internal controls enabled it to satisfy itself that the Internal Audit function is independent, objective and adequately staffed to perform its duties. In addition, the Committee assessed the effectiveness of the Internal Audit function throughout the year using qualitative and quantitative indicators including:

- Completeness of the audit universe and the audit plan
- Quality of the methodology (updated at least once a year)
- Quality of the audit reports and the issues raised
- Consistency of the audit issues raised and their ratings
- Feedback from executive management on specific audits
- Key performance indicators such as percentage of the audit plan completed, duration of audits, distribution of audit ratings, percentage of past due actions and percentage of self-identified issues

The Committee relied on the assurance process throughout the year to recommend to the full Board that it could report to shareholders on the effectiveness of the Group's internal control system. The Board statement can be found on page 105.

Oversight of the external auditor

The Committee assessed the effectiveness of the external audit process, including the independence and quality of the Group's external auditor (EY), throughout the year. The Committee relied on its own judgment supported by the following evidence:

- The Committee received a report from management on their own evaluation of the effectiveness of the external auditor
- It received reports from EY on the status of their 2018 plan and the results of their work. The external auditor's reports were discussed at each Committee meeting and their views and opinions used to challenge decisions by Group Finance
- Evidence of matters referred for specialist review, technical review and quality control
- The Committee also held separate meetings with EY at each Committee meeting without management being present

Based on all evidence presented, the Audit Committee satisfied itself that the external audit has been conducted independently and effectively with the appropriate rigor and level of testing.

Having considered the performance of EY for the past 4 years, the Audit Committee recommended to the Board in 2018 that a resolution for the reappointment of EY as the Company's external auditor for the year ending 31 December 2019 be proposed to shareholders at the AGM in May 2019.

EY were appointed as our external auditors in 2014. The Group intends to put the external audit out to tender every 10 years and no later than 2023. The lead audit partner and other key partners identified are required to rotate every 5 years. Other partners are required to rotate every 7 years. Maurice McCormick took over as lead audit partner in 2018 from David Canning Jones.

The Committee approved the EY audit plan, the methodology used, the scope of the audit by location, the risks and areas of focus as well as the materiality threshold for the Group and the threshold for reporting unadjusted audit differences.

The Committee has complied with the relevant parts of the Competition and Markets Authority Final Order on the statutory audit market for the year ended 31 December 2018.

Report on external auditor's fees and safeguards on non-audit services

The Committee has a formal policy governing the engagement of the auditors to provide non-audit services which is reviewed on an annual basis.

This policy prohibits certain activities from being undertaken by the auditors, such as: accounting/bookkeeping services, internal auditing, certain tax and payroll services, executive recruitment and remuneration services and more generally any work where a mutuality of interest could compromise the independence of the auditors. The policy also places restrictions on the employment of former employees of the auditors. Recognising however that the auditors are best placed to undertake certain work of a non-audit nature, the policy permits the provision of audit-related services and permitted non-audit services with the prior approval of the Committee.

A breakdown of audit and non-audit service fees paid and payable to the external auditor for the year ended 31 December 2018 and prior year is provided below and in Note 38 to the financial statements.

	Year ended 31 December 2018 £m	Year ended 31 December 2017 £m
Audit services		
Audit of parent and consolidated financial statements	**1**	1
Audit of subsidiary companies	**2**	2
Non-audit services	**1**	1
Total	**4**	4

Note [illegible]

Report of the Audit Committee

The Committee reviewed each of these individual appointments on their merits. Prior to EY being engaged, the review process involved considering management's assessment of:

- the threats to independence and objectivity resulting from the provision of such services
- which accounting firms had the appropriate experience and expertise to undertake the work
- whether there were any conflicts of interest for EY
- whether the conflicts of interest that existed for other potential firms, who were either advising other parties to the transactions or were auditors of the other company, could be appropriately managed
- the quantum of non-audit fees in the context of the overall audit fee and relative significance to EY in the context of its total client fees

In each case, the Audit Committee concluded, on the balance of risks, that the appointment of EY to perform certain non-audit services represented the most effective, secure and efficient way of obtaining the necessary advice and services given their knowledge of our business and the Group's structure and accounting and tax affairs, together with their wider knowledge of our industry sector.

Other matters:
As part of its regular annual activities, the Committee assessed its own effectiveness and reviewed and updated its Terms of Reference to reflect the division of responsibilities with the Group Risk Committee, the changes in the Group and the corporate governance context. The resulting modifications to the functioning of the Committee resulting from these activities have been reflected in the Committee's Terms of Reference effective 1 January 2019 (available at **www.lseg.com/about-london-stock-exchange-group/corporate-responsibility/governance**).

Significant matters impacting the financial statements

Significant matters for January – December 2018	How the Committee reviewed these matters and what decisions were taken
Revenue recognition	The Audit Committee reviewed the external auditors' comments on the recognition of revenues in the secondary capital markets trading area, fees or revenue share clearing arrangements and information services revenue accruals (see EY audit opinion on pages 106–114). The Audit Committee was satisfied that sufficient analysis had been performed in this area to demonstrate that there was no evidence that any manipulation of revenues had taken place.
Expenses related to internally developed software	The activity of the Group in relation to the internal development of software has expanded significantly over time. The capitalisation of software development expenses involves management judgment against criteria set out in IFRS. Where indicators of impairment are identified or where an asset has not been brought into use, a full impairment assessment is performed at the reporting date. The Audit Committee reviewed the methodology used by Group Finance to capitalise software development expenses and satisfied itself that it was adequate and in conformity with IFRS. The Audit Committee also considered possible indicators of impairment for the significant internally developed software and came to the conclusion that no impairment should be recorded.
Goodwill and acquired intangibles impairment assessment	The Audit Committee considered the approach and methodology applied to performing the detailed annual goodwill impairment assessment as well as the assessment for indicators of impairment of other purchased intangible assets as required under IAS 36, including the key assumptions for short and long term growth rates, cash flow expectations and the discount rates used for the Group's cost of capital as well as key business indicators. The impairment review was also an area of focus for the external auditors, who reported their findings to the Committee. Details of the impairment review can be found in Note 1 to the financial statements on pages 122–128.

Other topics of discussion in respect to the financial statements:

Increase in equity interest in LCH Group

During 2018, LSEG has increased its equity interest in LCH Group from 65.9% at the end of 2017 to 82.6% at 31 December 2018. The Audit Committee reviewed the accounting entries of the transaction to satisfy itself that the impact of the transaction was correctly reflected in the Group accounts.

Receivables

The Audit Committee discussed the quality and profile of the Group's debtors across all its businesses as well as the provisioning methodology for bad debtors. The Committee recognised that the client billing structure is complex, but the implementation of the Oracle accounting system has enabled a much improved standardisation of the analysis and reporting processes on receivables. The Audit Committee agreed with the new proposed provisioning methodology using a simplified approach as per IFRS 9.

IFRS 15 treatment for admission and listing services fees

The Audit Committee discussed the clarification guidance from the IFRS Interpretations Committee (IFRIC) regarding the impact of adopting IFRS 15 on admission and listing services provided by the Capital Markets Primary Markets business. The IFRIC recommended that a stock exchange admission fees should be deferred under IFRS 15 and recognised as revenue in the income statement over the period in which the Group provides the listing services. The Audit Committee satisfied itself that it understood the implications of IFRS 15 on the Group's financial statements.

Commitments and contingencies:

The Audit Committee considered the facts and circumstances surrounding commitments and contingencies for the Group. The Committee agreed that no provision is needed to be recorded in the financial statements. See Note 32 to the financial statements on page 166.

Non-underlying items:

The Committee discussed and agreed on the classification of non-underlying items in the financial statements for the year. These are presented in Note 8 to the financial statements on page 142.

Financial viability statement

In order to meet the requirements of the UK Governance Code, the Board needs to explain how it has assessed the prospects of the Group taking into account the current position and principal risks, and over what period they have done so along with why they consider that period to be appropriate.

The Audit Committee discussed the key elements required to make the statement, i.e.

- Deciding on the appropriate period to cover
- Identifying and describing the relevant evidence and assumptions and ensuring that the various planning scenarios were realistic, taking into account the business, industry and macro-economic factors
- Making an assessment that is appropriate to the Company's circumstances
- Applying appropriate stress testing and reverse stress testing

The Audit Committee satisfied itself that the Board of Directors was in a position to make the statement using the Group stress testing methodology.

The Financial viability statement can be found within the Directors' Report on page 104.

Fair, balanced and understandable Annual Report

The Audit Committee satisfied itself that the Annual Report is fair, balanced and understandable and has presented its conclusions to the Board. In order to reach its conclusions, the Committee examined the following criteria:

– Fair

- The Annual Report does not omit important or sensitive elements necessary to understand the strategy, performance and business model of the Group
- Segmental reporting accurately describes the various activities of the Group and their relative contributions to the strategy, performance and business model of the Group
- The messages in the Strategic Report and the CEO and Chairman's reports are consistent with the financial reporting section

– Balanced

- There is an appropriate balance between the required statutory accounting metrics and Group-specific adjusted measures
- The messages in all sections appropriately balance the favourable and less favourable events and trends affecting the strategy and performance of the Group
- The principal risks presented in the Strategic Report on pages 48–57 accurately reflect the risk registers which are used to set the risk appetite and the strategy of the Group, including those risks which would threaten its business model, future performance, solvency and liquidity

– Understandable

- There is a clear and comprehensive framework for the Annual Report
- The key messages are adequately highlighted in simple language avoiding specialised terms and acronyms wherever possible
- There is a glossary of technical terms and acronyms used frequently across the report
- The relevant information for shareholders is easy to find and appropriately cross-referenced where necessary without additional clutter (the 2018 Annual Report comprises 180 pages compared to the 170 pages of the 2017 report)
- The various sections taken together present a consistent and easy to comprehend overview of the strategy, performance and business model of the Group

Report of the Risk Committee

Stephen O'Connor
Chairman of the Risk Committee

The Risk Committee members as at 31 December 2018 were Stephen O'Connor, Paul Heiden, Ruth Wandhöfer, Val Rahmani and Andrea Sironi. *Stuart Lewis (Chief Risk Officer, Deutsche Bank AG)* acts as a special adviser to the Committee and is a standing invitee to meetings of the Risk Committee.

This report is intended to give an overview of the role of the Risk Committee in assisting the Board to fulfil its oversight responsibilities relating to risk management and the adequacy of the systems of internal controls in place to mitigate key risks.

During the year ended 31 December 2018, the Committee met 5 times. In addition to its regular reviews of the Group's risk profile, risk appetite, and emerging risks, the Committee focused on programmes to further embed the information security framework. The Committee also monitored specific operational incidents and resilience programmes in place. It also monitored the FTSE Russell indices to comply with the new EU Benchmarks Regulations (BMR).

The Committee closely monitored the continued strengthening of the Group Risk Framework during the year including enhancements made to the cyber security framework and the Economic Capital measure. The monitoring of the Group's risk culture, which represents the foundation of the strong risk management capabilities within the Group, is considered at each meeting.

In order to avoid potential duplication of coverage and, more importantly, to reduce the potential for non-coverage of important risk matters, by either the Audit or the Risk Committees, there is a cross membership of both chairmen of the Audit and of the Risk Committees.

Priorities in the forthcoming year will involve the continued monitoring of geopolitical risks, cyber security threats, operational resilience, behaviour and culture throughout the Group and the monitoring and delivery of the Group's Brexit plans as the UK defines its future relationship with its key partners.

The Committee will continue to review, on a rotational basis, the risk profile and execution risks of each of the Group's main lines of business and key subsidiaries.

The Committee will also continue to oversee the evolution of the Group's risk culture across the Group and its subsidiaries to ensure the Board maintains effective risk management oversight and control.

Stephen O'Connor
Chairman of the Risk Committee
1 March 2019

Composition and responsibilities

The Committee is chaired by Stephen O'Connor who provides recent and relevant financial and risk management experience developed during a career in a variety of senior executive roles in the financial services industry. In addition, the Board is satisfied that each member of the Committee has the skills and experience necessary to enable the Committee to discharge its responsibilities effectively. The names, skill and experience of the members of the Risk Committee are provided on pages 59–61.

The Chief Financial Officer, the Chief Risk Officer and the Group Head of Internal Audit are standing invitees to all Risk Committee meetings. The Committee's terms of reference, which are approved by the Board and reviewed on an ongoing basis, are available from the Group Company Secretary or in the corporate governance section of the Group's website at **www.lseg.com/about-london-stock-exchange-group/corporate-responsibility/governance**.

The Committee maintains non-executive responsibility for high level risk related matters and risk governance. As part of its mandate, the Committee reviews the risk profile of the Group on a regular basis and comments on the adequacy of the processes in place to identify and report on key risks. It also reviews the risk profile of the major Group subsidiaries/divisions on an individual basis. It advises the Board on the Company's overall risk appetite, tolerance and strategy and keeps under review the adequacy of the Enterprise-wide Risk Management Framework and its use in the decision-making process, which includes the review of parameters used in the models and methodology adopted. It sets the standards for the accurate and timely reporting of key risks and risks of critical importance, such as risks relating to technology, cyber security, business continuity and disaster recovery, CCP operations, counterparty and reputational risks. It also receives reports on compliance with relevant regulatory requirements for each regulated entity of the Group.

Activities

The Committee maintains a formal agenda which ensures that all matters for which the Committee is responsible are considered at the appropriate meeting. During the year, the Committee discharged its responsibilities as set out in its terms of reference by:

- Providing robust reviews of principal risks
- Monitoring strategy, planning and preparations for Brexit
- Reviewing risk exposures of the Company and emerging risks
- Reviewing and recommending to the Board the Group Risk Appetite including stress tests and challenging the scenario results
- Reviewing of the Group's Economic Capital model
- Monitoring the implementation of the MiFID II compliance programme across all our relevant businesses
- Monitoring the implementation of the EU-BMR compliance programme in FTSE Russell
- Monitoring of the cyber security framework and enhancement programmes and approval of related policies
- Monitoring the delivery of actions to manage risks within risk appetite
- Monitoring the Mergent and The Yield Book post acquisition business integration within the Information Services Division
- Reviewing and monitoring matters relating to operational resilience
- Reviewing regulatory compliance reports and the actions in place to ensure ongoing compliance
- Reviewing the adequacy and effectiveness of the systems of the internal controls in place to manage key risks including the review of management's assessment of information security, financial crime, cyber-crime and data management risks as well as management's mitigating actions
- Ensuring the effectiveness of the Group's Enterprise-wide Risk Management Framework and of the Risk function
- Reviewing the pension plan strategy
- Overseeing the adequacy of the counterparty limits and ad hoc counterparty credit risk analysis performed as required
- Reviewing detailed reports of the risk profiles of the Group's material businesses including the Information Services Division and GTS
- Monitoring compliance with the Group risk management procedures as described in the section on internal controls on page 67
- Reviewing the adequacy of the Group's Business Continuity Management plans and management programme
- Approving and recommending for approval key policies relating to risk and the terms of reference for the Risk Committee
- Monitoring the Executive performance report on risk culture (awareness, transparency and accountability) which is also shared with the Remuneration Committee
- Monitoring the roll out of the mandatory training programme on ethics, risks, controls and compliance

Risk Management function

The Risk Management function is headed by the Chief Risk Officer who oversees all aspects of risk management in the Group. She reports to the Chief Executive Officer and, for independence purposes, to the Chairman of the Risk Committee. The Committee approves the remit of the Risk Management function and ensures it has adequate independence to perform its duty. The Committee must be consulted on the appointment or the dismissal of the Chief Risk Officer.

Directors' Remuneration Report

Jacques Aigrain
Chairman of the
Remuneration
Committee

The Remuneration Committee members as at 31 December 2018 were: **Jacques Aigrain (Chair), Marshall Bailey, Donald Brydon, Paul Heiden and Val Rahmani. The Committee's remit includes the remuneration of the Chairman of the Group, Executive Directors and Senior Management, as well as overseeing arrangements for all employees.**

On behalf of the Board, I am pleased to present the Directors' Remuneration Report for the financial year ended 31 December 2018.

Context

As explained in our 2017 Directors' Remuneration Report, we incorporated a number of enhancements into our Remuneration Policy for operation in 2018 to ensure that our policy continues to align executive remuneration and shareholders' long-term interests.

- The mandatory deferral of 50% of bonus is into shares only.

  A 2 year holding period applies in addition to the current 3 year performance period of the Long Term Incentive Plan ("LTIP"), resulting in a total 5 year period from the date of grant, and

- The Minimum Shareholding Requirement ("MSR") has been increased from 200% to 300% of base salary.

As the elements were deemed preferential to shareholders, we did not seek formal approval for a new policy but we appreciated shareholder support for our approach. Our Remuneration Policy was last presented to shareholders for a binding vote in April 2017 and as such, we will present a revised Remuneration Policy for shareholder approval at our 2020 AGM. During 2019 we will continue to *engage with shareholders and undertake a thorough review of our policy and* performance measures, with corporate governance best practice and shareholder expectations in mind.

Within the framework of our existing policy, we have addressed the conclusions of the Collins report in relation to culture. To demonstrate the importance of behaviours in evaluating performance and reward, a 360° feedback process has been implemented for Executive Directors and the Group Executive team. This feedback is a core component of the assessment of the personal element of the FY2018 bonus award. Furthermore, from FY2019, an individual scorecard will be implemented for the Executive Directors and the Group Executive team. More detail is provided in the "Operation of 2019 annual bonus" section on the following page and in our Annual Report on Remuneration on page 91.

Performance in the year

The Committee continues to place great importance on ensuring that there is a clear link between pay and performance, including a focus on culture, adherence *to the Group's risk framework, and that our remuneration outcomes are reflective* of this wider context.

The Group has continued to execute on our strategy against an uncertain political and macroeconomic backdrop in 2018, and achieved a strong financial and operational performance while working closely with our customers to deliver new products and services. Total income from continuing operations rose to £2,135 million, *up 9%. AOP increased by £119 million (15%) to £931 million and operating* profit increased 20% to £751 million.

This performance reflects strong growth in our FTSE Russell and LCH OTC clearing businesses, supported by a robust Capital Markets performance against challenging market conditions.

- Our Information Services Division's revenue for FY2018 was £841 million (2017: £736 million), within which FTSE Russell has continued to perform strongly with a 15% increase in revenue to £631 million (2017: £546 million).

  LCH's income for FY2018 increased 18% to £662 million (2017: £562 million). SwapClear saw a 23.5% increase in clearing volumes, clearing a total US$1,077 trillion (2017: US$874 trillion) for its members and their clients. The FX options service went live in July 2018.

  In our Capital Markets business, revenues increased 4% to £407 million (2017: £391 million) and 177 new companies were admitted to our markets in the year, down 10% on 2017.

  Income for Post Trade services in Italy decreased 4% to £145 million (2017: £151 million).

- *FY2018 revenue for the Technology Services division was £65 million* (2017: £91 million), largely due to the disposal of 2 non-core technology businesses, MillenniumIT ESP and Exactpro.

The Group produced strong financial results as it executes its strategy to deliver best-in-class capabilities, drive global growth and develop our partnership approach.

Bonus outcomes for Executive Directors

As a result of the Group's performance and individual contribution, the Committee determined that the Executive Directors will be awarded bonuses of between 73.5% and 76% of their maximum opportunity.

Share plan vesting

100% of the LTIP awards made in 2015 vested during 2018. AEPS increased from 105.3p (12 months to end December 2014, further to the change in financial year) to 148.7p over the period to the end of December 2017, resulting in 100% of the AEPS element vesting. TSR increased by 69% over the period to April 2018, resulting in 100% of the TSR element vesting.

As shown in our 'Single total figure of remuneration' table, the AEPS element of the LTIP awards made in 2016 will vest at 79.2%. Based on performance to date it is forecast that the TSR element will vest in full, however this will be confirmed following the end of the performance period in March 2019 and will be disclosed in our FY2019 DRR. The achievement of stretching targets year on year has delivered significant value. These vesting outcomes reflect AEPS growth of 16.9% year on year and 10.3% compound annual growth rate ("CAGR") over the 3 year performance period, and annualised TSR performance to date for these 2016 grants is 20.[illegible]% p.a., incorporating share price growth of 7[illegible]% in 2018.

During 2018 more than 580 employees across five countries benefited from the maturity of our Sharesave scheme vesting including share price appreciation reflective of the Group's performance over the previous three years. During 2018 almost 1,000 employees joined the latest Sharesave scheme which increased overall participation to 54% of eligible employees. The Committee is pleased with these levels of participation and the alignment of employees to the Group's future success.

Salary review for Executive Directors

During the year, the Committee conducted its annual review of the base salary levels of our Executive Directors.

David Schwimmer was appointed as CEO on 1 August 2018. As was announced, his remuneration package includes an annual salary of £775,000. The Committee determined that there will be no increase in 2019. Further details of Mr Schwimmer's remuneration arrangements as CEO are provided in the 'Remuneration arrangements for the Chief Executive Officer' sections on pages 84 and 91.

The Committee has decided not to increase the salaries of Mr Warren, Chief Financial Officer or Mr Jerusalmi, Chief Executive Officer of Borsa Italiana and Director of Capital Markets.

LTIP awards to be made in 2019

LTIP awards will be granted in 2019 under our 2014 shareholder approved plan.

David Schwimmer will be granted a LTIP award of 300%, David Warren will be granted a LTIP award of 275% and Raffaele Jerusalmi will be granted a LTIP award of 250% of salary in 2019, reflecting their importance to the Group and providing strong alignment to its performance.

The Committee has given extensive consideration to the LTIP target ranges applicable to the 2019 grant, in particular for AEPS growth, and sought the views of shareholders and shareholder governance bodies during the year. Further detail is provided in the Annual Report on Remuneration on page 92.

Operation of 2019 annual bonus

The operation of the 2019 annual bonus will continue to be focused on financial targets, strategic initiatives and personal contribution. Further to our commitment to ensure a greater focus on the development of the Group's culture, for 2019 onwards an individual scorecard will be implemented for the Executive Directors and the Group Executive team. The Committee determined that within this scorecard there is a greater proportion assessing cultural objectives and behavioural performance (including 360° feedback) to allow for a stronger emphasis on how the individuals achieved their targets.

Further detail is provided in the Annual Report on Remuneration on page 91.

Corporate governance developments

The updated UK Corporate Governance Code and accompanying Guidance on Board Effectiveness introduce a number of future requirements for accounting periods beginning on or after 1 January 2019. We are also mindful of the legislative changes requiring UK listed companies to report on the ratio of CEO pay to their wider workforce, provide an explanation of discretion used in the year, and illustrate scenarios of share price growth. The Committee is cognisant of these developments and have detailed our intentions with respect to key items in the Annual Report on Remuneration on page 93. During 2019 we will undertake a thorough review of our policy and enhance where necessary with the updated Code, investor body guidelines and shareholder expectations in mind.

Directors' Remuneration Report

Summary of key executive remuneration decisions

Role		Chief Executive Officer (appointed 1 August 2018)	Chief Financial Officer	Executive Director, CEO of Borsa Italiana & Director of Capital Markets
Name		David Schwimmer	David Warren	Raffaele Jerusalmi
Previous salary (with effect from 1 April 2018)		£775,000	£500,000	€515,000
Annual salary (with effect from 1 April 2019)		£775,000 (+0%)	£500,000 (+0%)	€525,000 (+2%)
Bonus for financial year ending 31 December 2018	% of salary	171% of salary	151% of salary	147% of salary
	% of maximum	76%	75.5%	73.5%
	£ total amount	£550,000	£931,000	€772,000
	Of which 50% is deferred	£276,000	£465,500	€386,000
Max. bonus opportunity (% of salary)		[illegible]	200%	200%
LTIP award (subject to performance)		300% of salary (£2,325,000)	275% of salary (£1,375,000)	Sterling equivalent of 250% of salary (€1,312,500) at prevailing rate at time of grant

1. [illegible]
2. [illegible]

Remuneration arrangements for the Chief Executive Officer

David Schwimmer was appointed as CEO of the Group on 1 August 2018. As announced at the time of appointment, his remuneration is designed to support the long term interests of the Group. The terms of the remuneration package are detailed in the Annual Report on Remuneration on page 91 and reflect the market aligned enhancements made to our Remuneration Policy published with the 2017 Annual Report.

David Warren's 'step-up' allowance granted for the duration of his appointment as interim CEO ceased at the time of the CEO's appointment on 1 August 2018. From this date Mr Warren reverted to a base salary of £500,000 in relation to his role as Chief Financial Officer.

Remuneration arrangements for the incoming Chairman

As announced on 14 December 2018, Don Robert was appointed as a Non Executive Director of the Board of the Group on 1 January 2019. He will succeed Sir Donald Brydon CBE as Chairman of the Group after the conclusion of the AGM on 1 May 2019. Mr Robert's fee as a Non Executive Director is £75,000. When he succeeds Mr Brydon as Chairman his fee will be £525,000 reflecting the systemic importance of the Group as well as the experience, skills and time commitment required for the role.

Concluding remarks

The Committee continues to ensure the Group's approach to remuneration takes into account best practice and market trends in the financial services sector and wider market while continuing to support the commercial needs of the Group, the interests of shareholders and of all other stakeholders. We look forward to continued engagement with our shareholders during 2019 as we review and develop our Remuneration Policy ahead of a binding shareholder vote at our 2020 AGM.

Jacques Aigrain
Chairman of the Remuneration Committee
1 March 2019

Introduction

This report has been prepared in accordance with Schedule 8 to The Large and Medium-sized Companies and Groups (Accounts and Reports) Regulations 2008 (as amended), and the relevant sections of the Listing Rules.

Remuneration Policy Report

The Remuneration Policy Report was subject to a binding shareholder vote at the 2017 AGM and was passed with 98.5% support.

We incorporated a number of enhancements to our policy from 2018 to align with good market practice and a summary of the Policy Report (including these enhancements) was included in our 2017 Directors' Remuneration Report as part of our 2017 Annual Report. The full Remuneration Policy Report is set out in the 2016 Directors' Remuneration Report which can be found on our website: **www.lseg.com/investor-relations/presentations-and-webcasts/annual-reports.**

There have been no changes to the policy during the financial period. We will present our Remuneration Policy Report for a binding shareholder vote at our 2020 AGM.

Annual Report on Remuneration (pages 86–100)

This section sets out how remuneration arrangements have been operated during the past financial year (12 months from January to December 2018) and also provides details on how we intend to operate our policy during the coming year FY2019. This report will be put to an advisory vote at the 2019 AGM.

The Annual Report on Remuneration includes detail on the employment terms for the Chief Executive Officer (see further detail on page 91), which are in accordance with the existing shareholder-approved Remuneration Policy and reflect the market-aligned enhancements made to our policy published with the 2017 Annual Report.

Directors' Remuneration Report

Annual Report on Remuneration

This section sets out how remuneration arrangements have operated during the past financial year (FY2018), and also provides details on how we intend to operate our policy during the coming year (FY2019). This report will be put to an advisory vote at the 2019 AGM. The information from this page 86 to page 100 has been audited where required under the regulations and is indicated as audited where applicable.

Single total figure of remuneration for Executive Directors (Audited)

Single total figure of remuneration	David Schwimmer FY2018 £000	% of total	FY2017 £000	% of total	David Warren FY2018 £000	% of total	FY2017 £000	% of total	Raffaele Jerusalmi[12] FY2018 £000	% of total	FY2017 £000	% of total
Fixed pay												
Salary	323		–		617		502		463		453	
Flexible benefit allowance	6		–		20		20		28		27	
Benefits	174				90		134		267		230	
Pension	48[3]		–		124		121		205[9]		295	
Other	1,050				851	25%	776	21%	964	32%	1,005	30%
	1,601	74%	–	n/a								
Pay for performance												
Annual bonus	552				931		827		683		727	
Long-term incentive	–				1,656		2,129		1,407		1,661	
	552	26%	–		2,587	75%	2,956	79%	2,091	68%	2,388	70%
Total remuneration	**2,153**		–		**3,439**		**3,732**		**3,055**		**3,393**	

Notes to the table:

1 Value for Long Term Incentives shown for FY2018 represents estimated value of share awards granted in 2016 that vest in March 2019. The estimate is based on the confirmed 79.2% vesting of the EPS element and forecast 100% vesting of the TSR element, which will be confirmed in March 2019. The value is based on a 3-month average share price from 1 October 2018 to 31 December 2018 being £41.49.

David Schwimmer

2 Benefits include the cash value of private medical, income protection and life assurance plus expatriate allowances, one-off relocation costs and commuting expenses (including car transportation where appropriate) with associated taxes.

3 Annual pension allowance of 15% of salary.

4 A one-off payment of £1,050k to be made in March 2019 to compensate for the forfeiture of cash compensation for 2018 from his previous employer. There are no other buy-outs.

David Warren

5 Benefits include the cash value of private medical, income protection and life assurance plus expatriate allowances and commuting expenses whilst interim CFO (including car transportation where appropriate) with associated taxes.

6 Annual pension allowance of 25% of salary.

7 52,104 Performance shares vested on 3 April 2018 at £40.86 per share. This equates to £2,128,969.

Raffaele Jerusalmi

8 Benefits represent the cash value of private medical, disability and life insurance cover, luncheon vouchers, car and fuel benefit.

9 Pension: mandatory INPS contributions calculated on salary, benefits and bonus for the 12-month period.

10 Trattamento di Fine Rapporto mandatory arrangements calculated on salary, capped benefits, bonus and shares and paid into Mr Jerusalmi's pension plan for the 12-month period.

11 40,659 Performance shares vested on 3 April 2018 at £40.86 per share. This equates to £1,661,327.

12 FY2018 rate of £1 = €1.13 and FY2017 rate of £1 = €1.14.

Additional notes to the Single total figure of remuneration (Audited)

Fixed pay

Base salary

When reviewing Executive Director salaries, and in line with our policy, the Committee considers multiple reference points including companies in the FTSE 100, the broader Financial Services sector and other international exchange groups.

Benefits

A flexible benefits plan is offered, in which individuals have certain core benefits (such as private medical, life assurance, income protection and, additionally in Italy only, disability, illness, accident, car, fuel allowance and luncheon vouchers) together with (in the UK) a taxable cash allowance which can be spent on elective benefits (such as additional medical, life or dental cover).

Where received as a cash supplement, this allowance is not used to calculate bonus payments or pension contributions. Benefits are reviewed periodically to ensure they remain affordable and competitive. Executives are eligible to participate in the Group's HMRC approved SAYE Scheme (or international equivalent).

David Schwimmer receives a flexible benefits allowance of £15,000 per annum. In addition he receives benefits in kind which include private health care, permanent health insurance and life assurance arrangements. Mr Schwimmer also has access to the non-exclusive use of a chauffeur driven motor car.

As an expatriate from the US to UK, David Schwimmer receives the following:

- Contribution to the costs of his relocation from the US to the UK, including transportation of personal effects up to $30,000 from the US to London, and reasonable immigration expenses.
- For the first 3 years of employment, an annual allowance of $150,000 in respect of accommodation expenses.
- Tax preparation and filing assistance in the US and the UK.

  The Group will meet the costs of repatriating Mr Schwimmer's effects back to the US if it terminates his employment other than in circumstances such as serious misconduct which would justify summary termination.
- For the first 5 years of employment, an annual allowance of $50,000 to cover flights between London and the US for Mr Schwimmer and his family.

David Warren receives a flexible benefits allowance of £20,000 per annum, which is unchanged since last year. In addition he receives benefits in kind which include private health care, permanent health insurance and life assurance arrangements.

As an expatriate from the US to UK, David Warren receives the following:

- Tax preparation and filing assistance in the US and the UK.

  The Group will meet the costs of repatriating Mr Warren's effects back to the US if it terminates his employment other than in circumstances such as serious misconduct which would justify summary termination.
- An annual allowance of £30,000 net per annum to cover flights between London and New York for Mr Warren and his family.

Raffaele Jerusalmi receives benefits in kind that include private medical, disability and life insurance cover, luncheon vouchers, car and fuel. He also contributes towards the Italian mandatory national insurance system.

There are no contractual malus or clawback provisions in place in relation to benefits.

Executive Directors are covered by the Directors' and Officers' insurance and indemnification.

Retirement Benefits

In the UK, pension provision for our Executive Directors takes the form of a non-consolidated cash allowance; only base salary is used to calculate pension entitlement and no other pension supplements apply.

David Schwimmer receives an allowance equivalent to 15% of base salary as a taxable cash supplement.

David Warren receives an allowance equivalent to 25% of base salary as a taxable cash supplement.

Raffaele Jerusalmi accrues mandatory state pension (INPS) benefits in Italy. Actual benefit due at retirement is set out by the applicable Italian legislation in force from time to time. Under the Italian TFR, he receives contributions which are funded by the Company at a rate fixed by local law and which are paid to Mr Jerusalmi's private pension plan. Both INPS and TFR contributions are included in the Single total figure of remuneration table on the previous page.

Bonus awarded for FY2018

Executive Directors are eligible to receive an annual bonus based on meeting or exceeding bonus targets that are set at the beginning of the year, looking at the Group's financial performance, strategic deliverables and their personal contribution.

The Committee also receives input from the Risk Committee with regard to performance related to risk culture (awareness, transparency and accountability) when assessing remuneration decisions.

The operation of the FY2018 annual bonus is as per last year. The Group bonus pool continues to be assessed against 60% financial performance and 40% against strategic deliverables. The Committee considers AOP to be of particular significance for the Group and believes it should continue to be the main financial measure for annual bonus plan purposes. As per 2017, the maximum bonus opportunity is 225% of salary for the Chief Executive Officer and 200% of salary for other Executive Directors.

The Executive Directors' awards are funded from the Group bonus pool; their individual awards are based on an assessment of their contribution weighted against 55% Group AOP, 35% against strategic deliverables and 10% delivery against personal objectives as determined by the Board. In accordance with the focus on culture, 360° feedback has been implemented to demonstrate the importance of behaviours in assessing performance and reward. This feedback forms part of the assessment of the personal element of the award.

Directors' Remuneration Report

Determination of Bonus for FY2018

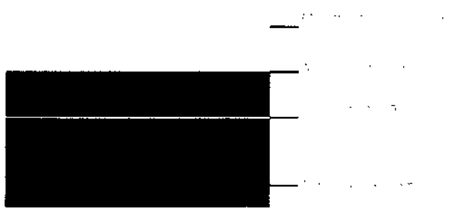
The Committee determined the overall Group bonus pool with reference to the 12 month performance period ending 31 December 2018. The performance measures and targets are set out below:

		Actual performance	Target	Performance relative to target	Maximum percentage of bonus	Actual percentage of bonus
FY2018 Group Bonus Pool	**Group AOP**	FY2018 AOP of £931m	FY2018 AOP of £884m	Above target	60%	45%
	Strategic Deliverables	– Strategic increase of shareholding in LCH Group from 68% to 82.6%. – Leadership of regulatory engagement – navigation and execution of Brexit strategy through extensive engagement with regulatory, government and client stakeholders across FMI and clearing agendas, full operational readiness across multiple outcome scenarios. – Evaluation of culture and key steps taken to improve approach e.g. 360° feedback, surveys. – Robust management and substantial growth of core business during and subsequent to CEO appointment. – Extensive new products and services launched in reinforcement of Open Access and market challenging solutions, including Shanghai London Stock Connect, ForexClear and FX Options. – Progress made towards our stretch goal to increase female representation for senior management and our overall population to 40% globally by the end of 2020. Almost two thirds of key senior appointments in 2018 were female. 50% of new NED appointments in 2018 were female. – Continued strategic upscaling of BSL in Sri Lanka and launch of nearshoring site in Bucharest. – Full implementation of MiFID II on Day One. – Strengthen and diversify debt capital structure to facilitate investment and acquisitions. – Board and Trustees agree Alternative Funding Framework – self sufficiency to UK DB pension schemes by 2023; and – ELITE reached its 1,000 Companies milestone.		Above target	40%	30%
	Total				**100%**	**75%**

[illegible]

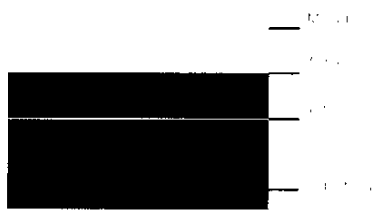
Group adjusted operating profit performance

% of total bonus



Strategic deliverables performance

% of total bonus



Chief Executive Officer

The Group produced strong financial results as it executes its strategy to deliver best-in-class capabilities, drive global growth and develop our partnership approach.

David Schwimmer joined the Group on 1st August 2018, replacing David Warren who was operating as interim CEO. Since joining, David completed a review of the Group, business model and its performance. He has overseen sustained and robust growth in the business and continued the Group's openness to innovation and open access strategy, demonstrated by the launch of numerous new products and services. The Group has strategically increased its shareholding of LCH Group from 68% to 82.6% and in January 2019, the purchase of a 4.9% minority stake in Euroclear was announced, which will strengthen our existing operational and commercial relationship to the benefit of our respective customers.

In addition, the Group's shared services company (BSL) has expanded with the establishment of a new business services centre in Romania, continuing to develop resilient and efficient operations.

David has established strong relationships with key regulators and government officials in the major territories where the Group operates. He has led the careful execution of the post Brexit strategy through extensive engagement with regulatory, government and client stakeholders such that the Group has full operational readiness across multiple outcome scenarios.

David has been a visible role model for the greater focus on culture and behaviour for the Group and has demonstrated strong core leadership values as well as the importance of the principles of collaboration, innovation and integrated execution for the Group. A 360° review process has been implemented for the Group Executive team and David has encouraged and fostered a culture of openness and feedback.

Chief Financial Officer

David Warren reverted to his position as CFO on 1st August 2018, having stepped down from his position as interim CEO. David provided vital continuity and leadership during the period of transition for the Group and maintained core growth across the core businesses.

David has led the Group's strong financial performance in 2018, supporting new growth opportunities while maintaining a focus on investment discipline and cost control. During the year the Group commenced issuance through the £1bn Euro CP programme and in December the Group issued a €500m Euro denominated bond to replace short dated facilities at a significantly lower borrowing cost. During the period Standard & Poor's maintained its long term rating and improved the outlook from stable to positive on the back of improved business diversification into fast growing market segments, strong cashflow generation and improving margins. Furthermore, the agreement of the Alternative Funding Framework will enable the self-sufficiency of UK DB pension schemes by 2023 through investment de-risking and liability management.

David was also central to the Group's M&A activities in the year, which included the increase of our shareholding of LCH Group by 17% across 2 transactions, a 16% minority stake in AcadiaSoft and the buy out of the minority stake to take ownership of FTSE TMX Debt Capital Markets Limited to 100%, further strengthening the Group's Fixed Income capabilities.

Executive Director, CEO of Borsa Italiana & Director of Capital Markets

In addition to his responsibilities as an Executive Director for the Group, Raffaele Jerusalmi has led our Capital Markets and Post Trade divisions in Italy. Against a challenging macroeconomic backdrop and low levels of volatility he has delivered solid performance and continued to promote innovation through new initiatives. Capital markets had a 4% increase in revenues to £407 million (2017: £391 million).

The Group welcomed 177 companies to our markets in the year, raising a combined total of £28.6 billion (2017: £44.2 billion) in new and further issues. This has been achieved despite significant levels of uncertainty in both the political situations in our key UK and Italian markets, which has required significant engagement with key stakeholders. Furthermore, ELITE reached its 1,000 companies milestone in 2018 and has become a global programme spanning 40 countries, supporting the growth and internationalisation of SMEs across the world.

Other notable achievements in 2018 include: the full implementation of MiFID II on Day One, the launch of innovative new products and services such as the Shanghai London Stock Connect, and the selection of MTS by the Johannesburg Stock Exchange (JSE) to power South Africa's first electronic government bond trading platform.

Based on the above context and an assessment of individual performance, the Remuneration Committee awarded bonuses to each of the Executive Directors as follows:

Role		Chief Executive Officer (appointed on 1 August 2018)	Chief Financial Officer	Executive Director, CEO of Borsa Italiana & Director of Capital Markets
Bonus for FY2018	% of salary	171% of salary	151% of salary	147% of salary
	% of maximum	76%	75.5%	73.5%
	£ total amount	£552,000	£931,000	€772,000
	Of which 50% is deferred	£276,000	£465,500	€386,000
Bonus Component	Financial Performance (55%)	75% of maximum	75% of maximum	75% of maximum
	Strategic Deliverables (35%)	75% of maximum	75% of maximum	75% of maximum
	Personal Objectives (10%)	85% of maximum	80% of maximum	60% of maximum

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Directors' Remuneration Report

Compulsory deferral under existing Remuneration Policy

In accordance with the enhancements made to our policy for operation from 2018 Executive Directors must compulsorily defer 50% of their bonus into shares for a period of 2 years. In accordance with the terms of his appointment, the CEO must compulsorily defer for a period of 3 years. This provision applies to the FY2018 bonus amount as shown in the table above. Dividend equivalents will be paid in respect of deferred shares on vesting.

Long term incentive plan (LTIP)

All subsisting LTIP awards have been made under the 2014 LTIP.

Awards granted in April 2015 with a performance period ended in FY2018

The performance period for the absolute TSR element of the Performance Share awards ended in April 2018. The awards granted in 2015 were based on absolute TSR performance in the 3 years from grant, and adjusted EPS performance in the 36-month performance period to December 2017. Over the period, annualised absolute TSR performance in the 3 years to April 2018 was 19.2% per annum and therefore vested at 100% for this element. The Company also delivered average adjusted EPS growth of 12.9% per annum over the performance period and therefore vested at 100%. The vesting price as at 3 April 2018 was £40.86.

Awards granted in March 2016 with a performance period ending in FY2019

The value shown in the single figure table on page 86 for the financial year ending December 2018 represents the estimated value of the 2016 awards which will vest in March 2019. The estimate is based on the confirmed 79.2% vesting of the EPS element and forecast 100% vesting of the TSR element, which will be confirmed in March 2019. The estimated value is based on a 3-month average share price from 1 October 2018 to 31 December 2018. The final vesting outcome (including the actual share price at vesting) following the end of the performance period will be disclosed in the next Annual Report on Remuneration covering FY2019.

The performance conditions applying to awards granted in March 2016 are as follows:

EPS element (50%) – average adjusted EPS growth	TSR element (50%) – absolute TSR growth	Proportion of relevant element which vests
Less than 6% p.a.	Less than 6% p.a.	0%
6% p.a.	6% p.a.	25%
12% p.a. or more	14% p.a. or more	100%
Straight-line pro-rating applies between these points		

LTIP Awards Granted in FY2018 (Audited)

Awards during FY2018 were granted in April under the LTIP and were made with a value of 300% of salary for David Warren and 275% of salary for Raffaele Jerusalmi (at rate of £1 = €1.14). David Schwimmer was granted an award in August following his appointment as CEO and was made with a value of 300% of salary. The same EPS and TSR performance conditions and vesting schedules described above for 2016 awards also apply to these 2018 awards.

		Chief Executive Officer (appointed on 1 August 2018)	Chief Financial Officer	Executive Director, CEO of Borsa Italiana & Director of Capital Markets
2014 LTIP (Nil-cost performance options) granted on 26 April 2018 and 8 August 2018[2]	**% of salary**	300% of salary	300% of salary	275% of salary
	Face value	£2,325,000	£1,500,000	£1,262,461 (being sterling equivalent of €1,443,750 on date of grant)
	Share price[1]	£45.39	£42.73	£42.73
	Number of LTIP shares granted	51,2[illegible]	35,104	29,545

1. [illegible]
2. [illegible]

Other share plans (SAYE)

All UK employees, including Executive Directors, are eligible to participate in the HM Revenue & Customs approved Save As You Earn Scheme (SAYE). Under the rules of the SAYE, participants can save up to £500 each month for a period of 3 years. At the end of the saving period, savings may be used to acquire shares by exercising the related option.

The options may be granted at an exercise price which represents a discount of up to 20% to market value at the date of invitation. No performance conditions are attached to SAYE options. There is also an International Sharesave Plan (ISP) which is designed to provide share options to Group employees, including Executive Directors, who are not based in the UK on similar terms to the options that are available to UK employees through the SAYE. Employees in France, Hong Kong, Italy, Malaysia, Sri Lanka and the US participate in the ISP. As a core component of our employee proposition and benefits offering it acts as a modest retention tool with over 50% of eligible employees participating globally.

Remuneration arrangements for the Chief Executive Officer

David Schwimmer was appointed as CEO of the Group on 1 August 2018. As announced at the time of appointment, his remuneration is designed to support the long term interests of the Group. Mr Schwimmer's remuneration arrangements are summarised below:

- Annual salary of £775,000;
- Bonus opportunity of 225% of salary with a mandatory deferral of 50% of bonus into shares for a 3 year period, pro-rated for 2018;
- A 2018 LTIP grant of 300% of salary, which will vest based on performance over a 3 year period as assessed by the Committee. The award is subject to a 2 year post-vesting holding period, resulting in a total 5 year deferral period from the date of grant;
- Minimum Shareholding Requirement ("MSR") of 300% of salary, required to be reached within 5 years of appointment;
- Standard UK benefits and a cash allowance of 15% of salary in lieu of pension;
- Relocation support for a fixed period, including housing allowance; and
- A one-off payment of £1,050k to be made in March 2019 to compensate for the forfeiture of cash compensation for 2018 from his previous employer. There are no other buy-outs.

The terms of the remuneration package reflect the enhancements made to our Remuneration Policy published with the 2017 Annual Report.

David Warren's 'step-up' allowance, granted for the duration of his appointment as interim CEO, ceased at the time of the CEO's appointment on 1 August 2018. From this date Mr Warren continued to receive a base salary of £500,000 in relation to his role as Chief Financial Officer.

Implementation of the Remuneration Policy during 2019 (1 January 2019 to 31 December 2019)

Base salary operation

During the year, the Committee conducted its annual review of the base salary levels of our Executive Directors.

The Committee has decided not to increase the salaries of the Executive Directors.

Base salaries effective from 1 April 2019 are set out in the table below:

Annual salary	With effect from 1 April 2018	With effect from 1 April 2019
David Schwimmer	£775,000	£775,000 (+0%)
David Warren	£500,000	£500,000 (+0%)
Raffaele Jerusalmi	€525,000	€525,000 (+0%)

Annual bonus operation

- As per prior years, for FY2019 the Group bonus pool will be determined based on performance measures weighted 60% Group AOP and 40% strategic deliverables to be assessed over a 12 month performance period.
- The Executive Directors' awards are funded from the Group bonus pool. For FY2019 onwards the performance of the Executive Directors and Group Executive team will be assessed as part of a scorecard. This scorecard will align the bonus assessment with the construct of the Group bonus pool (60% against Group AOP, 40% against strategic deliverables). This increases the proportion of individual pay aligned to financial performance (55% increased to 60%). The 'strategic' element will include key Group strategic initiatives as well as personal and divisional objectives.

  Further to our commitment to ensure a greater focus on the development of culture for the Group, the Committee determined that within this scorecard there should be a greater proportion assessing behavioural performance, to allow for a stronger emphasis on how the individuals achieved their targets. A 360° feedback process will inform part of the assessment of the personal element of the scorecard.
- 50% of any bonus payment for Executive Directors and the Group Executive team will be paid in March 2020. The remaining 50% will be deferred into shares for a period of 2 years for Executive Directors. In accordance with the terms of his appointment, the CEO must compulsorily defer for a period of 3 years.
- The minimum shareholding requirement for Executive Directors is 3x base salary and 2x base salary for the Group Executive team.
- Deferred awards are subject to malus provisions. Bonuses already paid out under the Deferred Bonus Plan and vested awards are subject to clawback (e.g. in cases of material misstatement or gross misconduct) with judgement applied by the Committee.

  For good leavers, awards will usually vest at the normal vesting date and in full unless the Committee determines to scale back the award based on any factors deemed relevant. Where an individual is not considered to be a good leaver, unvested awards will lapse.
- The implementation of the scorecard and bonus deferral for the Group Executive team provides greater alignment with the Executive Directors. In addition, it is in accordance with the revised UK Corporate Governance Code which calls for remuneration committees to determine remuneration for senior management and to more closely align incentives with culture.

Directors' Remuneration Report

Long Term Incentive Plan:
Awards are intended to be made in 2019 under the 2014 LTIP as described in our Remuneration Policy Report. The 2019 LTIP awards will be granted under our enhanced Remuneration Policy as set out in our 2017 Directors' Remuneration Report as part of our 2017 Annual Report and will therefore be subject to a 2 year holding period in addition to the 3 year performance period, resulting in a total 5 year period from the date of grant.

Malus and clawback provisions will apply to these awards, allowing the Committee to reduce subsisting awards or request the refund of already paid or vested awards in certain circumstances (e.g. material misstatement or gross misconduct). The 2019 awards will vest 3 years after the grant date subject to absolute TSR and adjusted EPS performance measures as follows:

EPS element (50%) – average adjusted EPS growth	TSR element (50%) – absolute TSR growth	Proportion of relevant element which vests
Less than 6% p.a.	Less than 6% p.a.	0%
6% p.a.	6% p.a.	25%
12% p.a. or more	14% p.a. or more	100%
Straight-line pro-rating applies between these points		

The absolute TSR and adjusted EPS performance measures applicable to the 2019 grant are unchanged from 2018, as set out in the table. The Committee has given extensive consideration to the LTIP target ranges, in particular for AEPS growth and sought the views of shareholders and shareholder governance bodies during the year. The decision was based on a number of factors, which are summarised below:

- The absolute increase in underlying AOP required to deliver 12% CAGR is extremely stretching over a 3-year cycle and achievement of such would continue to represent class leading performance and significant value creation for shareholders.
- This level of performance must also be delivered against an increasingly competitive and challenging market backdrop of macroeconomic and geopolitical uncertainty.
- The targets should be considered in the context of significant and sustained profit growth performance over several 3-year cycles to date, making each successive set of targets ever more difficult to achieve than the last.

During 2019 we will undertake a thorough review of our policy including the performance measures and metrics of our LTIP. This review will be undertaken in consultation with our shareholders and brought to the 2020 AGM for approval.

Awards to be made during 2019
Based on the context and an assessment of individual performance, the Remuneration Committee intends to make grants to each of the Executive Directors under the 2014 LTIP as set out below:

Role		Chief Executive Officer (appointed 1 August 2018)	Chief Financial Officer	Executive Director, CEO of Borsa Italiana
2019 LTIP award (subject to performance)	% of salary	300% of annual salary	225% of annual salary	250% of salary
	Amount	£2,325,000	£1,275,000	Sterling equivalent of €1,312,500 (at prevailing FX rate at time of grant)

Corporate governance developments

The updated UK Corporate Governance Code and accompanying Guidance on Board Effectiveness introduce a number of future requirements for accounting periods beginning on or after 1 January 2019. We are cognisant of these developments and have outlined our intentions with respect to key items below.

- The Code calls for a post-employment shareholding policy. Our current approach in this respect is that awards granted under the LTIP will vest on the normal vesting date on a 'wait and see' basis and are not accelerated for leavers. As a result, a 'good leaver' will hold these shares post-employment. The addition of the 2 year post-vesting holding period following the performance period of the LTIP in 2018 lengthens the post-employment shareholding period. It also results in a total vesting and holding period of 5 years, which is in accordance with the Code. Furthermore, awards granted to Executive Directors under the Deferred Bonus Plan are now made 100% into shares and vest on the normal vesting date which, for 'good leavers', will be post employment. The Committee will review this approach during 2019.

- The Code recommends that pension commitments for Executive Directors should be aligned with those available to the workforce. This has also been called for in recent shareholder and investor governance body guidelines. In determining the remuneration package for the CEO, the Committee acknowledged this trend and reduced the pension allowance to 15% (25% allowance granted to previous incumbent). The Code recognises that altering existing contractual commitments may not be practical, however the Investment Association notably requests the reduction of pension commitments for incumbents as well as new hires. The Committee will review this principle during 2019 with consideration of market practice and further clarification.

- The Code calls for remuneration committees to determine director and senior management remuneration and to review workforce remuneration and the alignment of incentives with culture. As detailed in the 'Annual bonus operation' section on page 91, an individual scorecard is being implemented from 2019 for our Group Executive team as well as our Executive Directors. This will provide the Committee with greater structure in determining the bonus of senior management as well as allow for a greater focus on culture and behaviours. The Committee also reviews broader workforce policies and practices in order to support decisions on executive pay. For example, a Group-wide reward framework has been developed, which establishes the compensation structure, elements and leverage for each career stage in the organisation. This facilitates greater oversight of the Committee of remuneration for the wider workforce.

We are also mindful of the legislative change requiring UK listed companies to report and provide commentary on the ratio of CEO pay to their wider workforce. The first mandatory disclosure is for the 2019 performance year, which is the Directors' Remuneration Report published in 2020. The Committee has decided not to publish the Group's ratio early in light of our atypical situation and necessary hybrid calculation, whereby our CEO joined during the year and our interim CEO also served as an Executive Director during the year. Rather, we will publish our first pay ratio in 2020, in line with the legislation and with a 'full-year' CEO as the baseline. Our 2019 report to be published in 2020 will also reflect the new legislation that requires an explanation of discretion used in the year, an estimate of remuneration that is attributable to share price growth, and an illustration in our new Remuneration Policy of the impact of potential future share price increases on executive pay outcomes.

Our Remuneration Policy was last presented to shareholders for a binding vote in April 2017 and as such, we will present a revised policy for shareholder approval at our 2020 AGM. During 2019 we will undertake a thorough review of our policy and enhance where necessary with the updated Code, investor body guidelines and shareholder expectations in mind.

Non-Executive Directors' fees for 2019

Non-Executive Director fees were last revised with effect from 1 January 2018. The Committee reviewed these fees during 2018 and no changes are being proposed for 2019, with the exception of the Group Chairman. As announced on 14 December 2018, Don Robert was appointed as a Non-Executive Director of the Board of the Group on 1 January 2019 and will succeed Donald Brydon as Chairman of the Group after the conclusion of the AGM on 1 May 2019. His fee as Group Chairman will be £525,000, reflecting the systemic importance of the Group as well as the experience, skills and time commitment required for the role. The fee schedule for 2019 is therefore as follows:

Fees	With effect from 1 Jan 2018	With effect from 1 Jan 2019	With effect from 1 May 2019
Group Chairman	£400,000	£400,000	£525,000
Senior Independent Director	£145,000	£145,000	£145,000
Non-Executive Director base fee (inclusive of Committee membership)	£75,000	£75,000	£75,000
Audit / Remuneration / Risk Committee Chairman	£30,000	£30,000	£30,000

Directors' Remuneration Report

Non-Executive Directors' Remuneration

Non-Executive Directors' remuneration is determined by the Board and is neither performance related nor pensionable. The Chairman's fee is determined by the Remuneration Committee. The fees for Non-Executive Directors are set at a level which is intended to recognise the significant responsibilities of Directors and to attract individuals with the necessary experience and ability to make an important contribution to the Company's affairs. Comparisons are made with fees paid at FTSE 100 companies.

Travel and other appropriate expenses with associated taxes (including fees incurred in obtaining professional advice) incurred in the course of performing their duties are reimbursed to the Chairman and to the Non-Executive Directors.

The Chairman and the Non-Executive Directors do not participate in any of the Company's annual bonus or LTIP plans and are not entitled to any payments on termination.

Certain Non-Executive Directors are entitled to receive fees from subsidiary companies, details of which are set out below.

The original date of appointment as Directors of the Company is as follows:

Name	Date Appointed	Date of letter of appointment	Time to expiry	Notice period	Date of resignation	LSEG Committee membership/chairmanship	Other subsidiaries/committees
Paul Heiden	04/06/2010	04/06/2016	03/06/2019	None		SID, Audit Chair, Nomination, Remuneration, Risk	LSE plc
Jacques Aigrain	01/05/2013	01/05/2016	30/04/2019	None		Audit, Remuneration Chair	LCH (Remuneration Committee)
Stephen O'Connor	12/06/2013	12/06/2016	11/06/2019	None		Audit, Nomination, Risk Chair	SP plc
Sir Donald Brydon CBE	15/06/2015	19/06/2015 as Director 01/07/2015 as Chairman	End of AGM 2019	6 months		Group Chairman, Nomination Chair, Remuneration	LSE plc Chairman
Andrea Sironi	01/10/2016	01/10/2016	30/09/2019	None		Risk, Nomination	Borsa Italiana Chairman, LSEG Italia Chairman
Val Rahmani	20/12/2017	20/12/2017	19/12/2020	None		Risk, Remuneration	
Marshall Bailey OBE	25/09/2018	25/09/2018	24/09/2021	None		Nomination, Remuneration	LCH Group Chairman
Ruth Wandhöfer	22/10/2018	22/10/2018	21/10/2021	None		Audit, Risk	
Kathleen DeRose	28/12/2018	28/12/2018	27/12/2021	None		None	
Directors who stood down from the Board during the year:							
Lex Hoogduin	04/12/2015	04/12/2015	03/12/2018	None	25/04/2018	None	LCH Ltd and SA Chairman
Mary Schapiro	01/07/2015	01/07/2015	30/06/2018	None	17/10/2018	Nomination, Remuneration	Regulatory Advisory Group Chair
David Nish	04/12/2015	04/12/2015	03/12/2018	None	30/11/2018	Audit, Risk	

1. [illegible]

Non-Executive Directors' Remuneration Table (Audited)

	FY2018 LSEG Fees £000	FY2018 Other Fees[1] £000	FY2018 Total Fees £000	FY2018 Taxable benefits[2] £000	FY2018 Total £000	FY2017 LSEG Fees £000	FY2017 Other Fees[1] £000	FY2017 Total Fees £000	FY2017 Taxable benefits[2] £000	FY2017 Total £000
Paul Heiden	145	–	145	18	163	[illegible]	–	[illegible]	[illegible]	[illegible]
Jacques Aigrain	105	5	110	10	120	[illegible]		[illegible]	[illegible]	[illegible]
Stephen O'Connor	105	–	105	–	105	[illegible]		[illegible]	–	[illegible]
Dr Donald Brydon CBE	400	–	400	1	401	[illegible]		[illegible]	[illegible]	[illegible]
Andrea Sironi	75	142	217	12	228	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Val Rahmani	75	–	75	34	109	[illegible]	–	[illegible]		[illegible]
Marshall Bailey	20	60	80	–	80	–	–		–	–
Ruth Wandhöfer	15	–	15	–	15	–	–	–		–
Kathleen DeRose	–	–	–	–	–	–	–	–		
Directors who stood down from the Board during the year:										
Lex Hoogduin	65	201	266	42	308	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Mary Schapiro	59	20	78	95	173	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
David Nish	87	–	87	11	98	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total Non-Executive Directors' fees	1,151	427	1,578	221	1,799	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

Directors' Remuneration Report

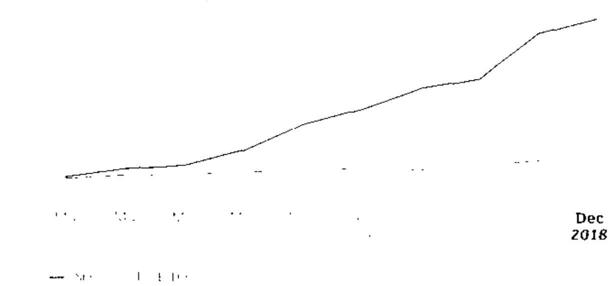
Alignment between pay and performance

Total Shareholder Return (TSR) performance

The following graph shows, for the financial period ended 31 December 2018 and for each of the previous 9 financial periods, the TSR on a holding of the Company's ordinary shares of the same kind and number as those by reference to which the FTSE 100 is calculated. The TSR graph represents the value, at 31 December 2018, of £100 invested in London Stock Exchange Group plc on 31 March 2009, compared with the value of £100 invested in the FTSE 100 Index over the same period. As a member of the FTSE 100, we have chosen the FTSE 100 Index as it is currently the most relevant index for benchmarking our performance over the 10 financial periods.

TSR chart v FTSE 100 over 10 financial periods

Total Return rebased (Apr-09=100)



Historic levels of CEO pay

Period ended. *(12 months unless otherwise stated)*	CEO	CEO Single total figure of remuneration £000	Annual bonus payout against maximum opportunity %	Long-term incentive vesting rates against maximum opportunity %
31 December 2018	David Schwimmer	[illegible]	75	–
29 November 2017	Xavier Rolet	5,799	79	100
31 December 2016	Xavier Rolet	6,880	91	91
31 December 2015	Xavier Rolet	6,526	95	94
9 months ended 31 December 2014	Xavier Rolet	4,587	83	[illegible]
31 March 2014	Xavier Rolet	6,363	93	100
31 March 2013	Xavier Rolet	6,015	89	100
31 March 2012	Xavier Rolet	5,245	100	[illegible]
31 March 2011	Xavier Rolet	2,134	89	–
31 March 2010	Xavier Rolet	1,573	71	
	Clara Furse	460	[illegible]	0

[illegible]

Percentage change in remuneration of CEO

The table below shows the percentage year-on-year change in salary, benefits and *annual bonus for the CEO compared to the average of the representative sample of* UK employees (all LSEG UK employees). Where appropriate, amounts have been annualised to provide a like-for-like comparison.

	Salary %	Benefits %	Annual Bonus %
CEO	-3%	35%	7%
Average pay of Group UK employees	[illegible]	7%	[illegible]

Notes

[illegible]

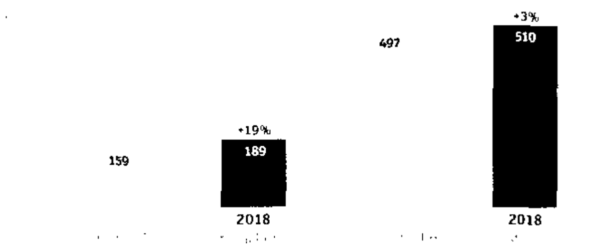
Relative importance of spend on pay

The table below shows the relative FY2018 versus FY2017 expenditure of the Group on Dividends versus Total Employee Costs. These figures are underpinned by amounts from the Notes to the Financial Statements at the back of this report.

Year-on-year increases (%)	FY2018 £m	FY2017 £m	Annual Increase %
Dividends Paid in Financial Period	189	159	19
Total Employee Costs	510	497	3

Relative importance of spend on pay

£ m



Statement of Directors' shareholdings and share interests as at 31 December 2018 (Audited)

David Warren and Raffaele Jerusalmi currently own shares outright and at a level exceeding their revised minimum required shareholding of 3x base salary based on a share price of £40.62, being the closing share price on 31 December 2018. Current shareholdings are summarised in the following table.

	Shares held	Options held[1]					
	Owned Outright	Unvested and subject to performance conditions	Unvested and subject to continued employment[2]	Vested but not exercised	Requirement (% salary)	Shareholding as at 31 December 2018 (% salary)[3]	Requirement met
Executive Directors							
David Schwimmer		51,222			300	–	N/A
David Warren	94,329	125,827	23,063	–	300	866	Yes
Raffaele Jerusalmi	52,130	105,693	–	–	[illegible]	[illegible]	[illegible]
Non-Executive Directors							
Paul Heiden	3,818			–	–	–	N/A
Jacques Aigrain		–	–	–	–	–	N/A
Stephen O'Connor	–	–	–	–	–	–	N/A
Sir Donald Brydon CBE	5,000	–	–				N/A
Andrea Sironi	–				–	–	N/A
Val Rahmani				–	–	–	N/A
Marshall Bailey		–	–	–	–	–	N/A
Ruth Wandhöfer	–	–	–	–			N/A
Kathleen DeRose	–	–	–				N/A
Directors who stood down from the Board during the year:							
Lex Hoogduin		–	–	–	–	–	N/A
Mary Schapiro		–	–	–	–	–	N/A
David Nish	1,065	–	–	–	–	–	N/A

[illegible]

Note [illegible]

Directors' Interests in Ordinary Shares – Beneficial, Family and any Connected Persons Interests (Audited)

	Ordinary Shares Held		Options with performance conditions[1]		Options without performance conditions[2,3]		Total Interests	
	31 December 2018	31 December 2017	31 December 2018	31 December 2017	31 December 2018	31 December 2017	31 December 2018	31 December 2017
Executive Directors								
David Schwimmer	**–**		**51,222**		–	–	**51,222**	–
David Warren	**94,329**	[illegible]	**125,827**	140,827	**23,063**	27,323	**243,219**	[illegible]
Raffaele Jerusalmi	**52,130**	[illegible]	**105,693**	[illegible]	**–**	–	**157,823**	[illegible]
Non-Executive Directors								
Paul Heiden	**3,818**	[illegible]	–	–	**–**	–	**3,818**	[illegible]
Jacques Aigrain	–	–	–	–	**–**		**–**	-
Stephen O'Connor	–	–	–	–	**–**		**–**	
Sir Donald Brydon CBE	**5,000**	5,000	–	–	**–**		**5,000**	5,000
Andrea Sironi	–	–	–	-	–	–	–	-
Val Rahmani	–				–	–	**–**	–
Marshall Bailey					–	–	**–**	–
Ruth Wandhöfer		–	–		–	–	**–**	–
Kathleen DeRose	–	–	–	–	**–**		**–**	
Directors who stood down from the Board during the year:								
Lex Hoogduin	–		–		–	–	–	–
Mary Schapiro	–	-	–	–	–		–	–
David Nish	**1,065**	1,065	–	–	–	-	**1,065**	1,065

[illegible]

Note [illegible]

Long Term Incentive Plan table

The 2014 Long Term Incentive Plan has one element applicable to Executive Directors: a conditional award of Performance shares.

The awards are dependent on Absolute TSR performance for 50% of the award, with the other 50% dependent on an Adjusted EPS growth target. Details of performance conditions are set out on page 92.

The table below sets out the Executive Directors' Long Term Incentive Plan awards (including the exercise of vested shared in FY2018), as at 31 December 2018.

	Date of award	Price at award date (£)	At start of year	Award during the year	Vested during year	Lapsed during year	At end of year	Vesting date	Price at vesting date (£)	Value at vesting date (£)	Exercise date	Price at exercise date[3] (£)	Value at exercise date (£)	Comment
			Number of shares											
David Schwimmer	05/08/2018	45.39	–	51,22[illegible]	–	–	51,22[illegible]	04/08/2021	–	–	–	–	–	
David Warren	02/04/2015	24.47	52,104	–	52,104	–	–	03/04/2018	40.86	2,128,96[illegible]	17/04/2018	41.82	2,178,734	FY2018 Actual[2]
	17/03/2016	28.70	44,555		–	–	44,555	18/03/2019	**41.49**	**1,656,334**	–	–	–	**FY2019 Estimate[1]**
	03/04/2017	[illegible]	46,168	–		–	46,168	03/04/2020	–		–			
	26/04/2018	42.73	–	35,104		–	35,104	26/04/2021				–	–	
			142,827	35,104	52,104		125,827	–	–	2,128,96[illegible]	–		2,178,734	FY2018 Actual
										1,656,334				**FY2019 Estimate[1]**
Raffaele Jerusalmi	02/04/2015	24.47	40,659		40,659	–		03/04/2018	40.86	1,661,327	17/04/2018	41.8[illegible]	1,700,[illegible]	FY2018 Actual[2]
	17/03/2016	28.70	37,860	–		–	37,860	15/03/2019	**41.49**	**1,407,447**		–	–	**FY2019 Estimate[1]**
	03/04/2017	[illegible]	38,288		–	–	38,288	03/04/2020	–	–	–	–	–	
	26/04/2018	42.73	–	29,545	–	–	29,545	26/04/2021				–	–	
			116,807	29,545	40,659	–	105,693		–	1,661,327	–	–	1,700,[illegible]	FY2018 Actual
										1,407,447				**FY2019 Estimate[1]**

1. [illegible]
2. [illegible]
3. [illegible]

Note [illegible]

Remuneration Committee – Governance

The Remuneration Committee is appointed by the Board and comprises the Chair and 4 independent Non-Executive Directors. The Committee's remit includes the remuneration of the Chairman of the Group, Executive Directors and Senior Management, as well as overseeing arrangements for all employees. Please see pages 20–21 for details of the Group's Executive Committee.

At least 3 members of the Committee are considered to be independent. Details of the Committee's remit and activities are set out in this Directors' Remuneration Report. The Committee has written terms of reference which are available from the Group Company Secretary or at the corporate governance section of the Company's website at **www.lseg.com/about-london-stock-exchange-group/corporate-responsibility/governance**

During the financial period ending 31 December 2018, the Committee held 4 scheduled meetings and 4 additional meetings. The additional meetings were focused on succession for the Board and the Chief Executive Officer.

Here is a summary of the items they discussed.

	Routine	**Non-Routine**
February 2018	– FY2017 Performance and Bonus approval – FY2018 LTIP grants and anticipated vesting of previous LTIP and DBP schemes – Performance and determination of former CEO and Executive Committee members' remuneration – FY2017 Directors' Remuneration Report – LCH Remuneration Committee proposals – Regulatory and governance updates	– Shareholder consultation relating to Remuneration Policy enhancements – Gender pay reporting and disclosure – Treatment of acquisitions and disposals
March 2018	– N/A	– CEO joining terms
June 2018	– Governance update – FY2017 Directors' Remuneration Report – Shareholder feedback – FY2018 Performance and Bonus update – FY2018 LTIP grants and anticipated vesting of previous LTIP and DBP schemes – Regulatory update – Gender pay update – LCH Remuneration Committee updates – FY2018 Remuneration Committee calendar	– Below the Board remuneration framework
July 2018	– N/A	– NED fees
September 2018	– Governance update – FY2018 Performance and Bonus update – Anticipated vesting of previous LTIP and DBP schemes – LCH Remuneration Committee updates – FY2019 Remuneration Committee calendar	– Below the Board remuneration framework – CEO performance objectives – Performance and remuneration implications of future
November 2018	– N/A	– Chairman fee
December 2018	– Governance update – FY2018 Directors' Remuneration Report key themes – FY2018 Performance and Bonus update – FY2019 Bonus considerations – FY2019 LTIP grants and anticipated vesting of previous LTIP and DBP schemes – 2019 salary review – LCH Remuneration Committee updates	
January 2019	– N/A	– ExCo terms
February 2019 Meetings which took place during FY2019 will be repeated in next year's report	– Governance update – FY2018 Performance and Bonus approval – FY2019 Bonus considerations – FY2019 LTIP grants and anticipated vesting of previous LTIP and DBP schemes – Performance and determination of CEO and Group Executives' remuneration – FY2018 Directors' Remuneration Report – Gender pay reporting and disclosure – LCH Remuneration Committee proposals	

To assist the Committee, the results of market surveys are made available. Where appropriate, the Committee invites the views of the Chief Executive Officer, Chief Financial Officer, Group Head of Human Resources and the Chief Risk Officer via the Risk Committee. None of these individuals nor the Chairman participated in any discussion relating to their own remuneration.

Directors' Remuneration Report

Statement of shareholder voting

The table below sets out the results of the vote on the Directors' Remuneration Report at the 2017 and 2018 AGMs

	Votes for		Votes against			
	Number	%	Number	%	Votes cast	Votes withheld
Remuneration Policy Report (2017 AGM)	25[illegible],081,916	96.48	[illegible]886,744	[illegible]	255,968,660	6,200,579
Annual Report on Remuneration (2018 AGM)	[illegible]230,556	94.09	16,148,64[illegible]	5.9[illegible]	273,40[illegible],[illegible]13	[illegible]983,063

Advisors

The Remuneration Committee continues to be mindful of recommendations from *key stakeholders, including institutional investor bodies. The Committee consults* with major shareholders on any key decisions taken.

Deloitte LLP is the principal advisor appointed by the Committee to provide independent advice on executive remuneration policy and practice, and reviews the implementation of our approved policy against current and emerging corporate governance best practice. During 2015, the Committee undertook a competitive tender process for the role of Remuneration Committee advisor and re-appointed Deloitte as its principal advisor with effect from 1 April 2016.

During the year, Deloitte LLP received £14[illegible],300 (excluding VAT) based on actual *time spent for these services. Separately, other parts of Deloitte LLP also advised* the Company during 2018 in relation to tax, internal audit, consulting and transaction support services. Deloitte is a founder member of the Remuneration Consultants Group and, as such, voluntarily operates under the code of conduct in relation to executive remuneration consulting in the UK. The Committee is satisfied that the advice provided by Deloitte LLP is independent and objective.

Outside appointments

Executive Directors are allowed to accept appointments as Non-Executive *Directors of other companies with the prior approval of the Chairman. Approval* will only be given where the appointment does not represent a conflict of interest with the Company's activities and where the wider exposure gained will be beneficial to the development of the individual. Executive Directors may retain fees to encourage them to seek out the development opportunities and valuable experience afforded by these appointments and in recognition of the personal responsibility Executives assume in such roles and we would disclose these fees.

At present, none of the Executive Directors are in receipt of additional fees.

No payments were made for loss of office during the year and no payments were made to past directors.

Signed on behalf of the Board of Directors

Jacques Aigrain
Chairman of the Remuneration Committee
1 March 2019

Directors' Report

The Directors of the Company are pleased to present their Annual Report to shareholders, together with the financial statements for the year ended 31 December 2018 with comparatives for the year ended 31 December 2017.

The following sections of the Annual Report are incorporated into this Directors' Report by reference:

- The information that fulfils the requirements of the Strategic Report (including the Financial Review) can be found on pages 2–57
- Board of Directors on pages 59–61

Results

The Group made a profit before taxation from continuing operations, before amortisation of purchased intangible assets and non-underlying items for the year, of £865 million (2017: £750 million). After taking into account amortisation of purchased intangible assets and non-underlying items, the profit of the Group before taxation for the year from continuing operations was £683 million (2017: £564 million). Profit after taxation from continuing operations for the year was £553 million (2017: £586 million).

During the year there were no businesses classified as discontinued operations. During the prior year the discontinued profit before taxation, before amortisation of purchased intangible assets and non-underlying items for the year, was £nil. After taking into account amortisation of purchased intangible assets and non-underlying items, the profit of the discontinued operations for the prior year was £23 million. Loss after taxation from discontinued operations for the prior year was £25 million.

Dividends

The Directors are recommending a final dividend for the year of 43.2 pence (2017: 37.2 pence) per share which is expected to be paid on 29 May 2019 to shareholders on the register on 3 May 2019. Together with the interim dividend of 17.2 pence (2017: 14.4 pence) per share paid in September 2018, this produces a total dividend for the period of 60.4 pence (2017: 51.6 pence) per share estimated to amount to £210 million (2017: £179 million).

Share capital

As at 31 December 2018, the Company had 350,604,102 ordinary shares in issue with a nominal value of 6 pence each, representing 100% of the total issued share capital.

The Company holds 2,434,685 of its ordinary shares in Treasury. Therefore the total number of voting rights in the company is 348,169,417. The figure 348,169,417 may be used by shareholders as the denominator for the calculations by which they will determine if they are required to notify their interest in, or a change to their interest in, the Company under the FCA's Disclosure Guidance and Transparency Rules.

During the year, the Company issued 72,763 new ordinary shares and transferred 1,359,900 ordinary shares out of treasury, to settle employee share scheme awards.

Share rights

The rights and obligations attached to the Company's ordinary shares are set out in the Company's Articles of Association, copies of which can be obtained from Companies House in the UK or by writing to the Group Company Secretary.

No shareholder shall be entitled to vote at a general meeting, either in person or by proxy, in respect of any share held by him or her unless all monies presently payable by him or her in respect of that share have been paid. In addition, no shareholder shall be entitled to vote, either in person or by proxy, if he or she has been served with a notice under section 793 of the Companies Act 2006 (concerning interests in those shares) and has failed to supply the Company with the requisite information.

Other than restrictions considered to be standard for a UK listed company there are no limitations on the holding or transfer of ordinary shares in the Company, both of which are governed and regulated by the Company's Articles of Association and applicable legislation and regulation. The Company is not aware of any agreements between holders of shares that may result in restrictions on the transfer of shares or on voting rights.

Corporate Governance Statement

The Company's Corporate Governance Report and the reports of the Audit, Nomination and Risk Committees are set out on pages 62–81 and are, together with the information on share rights set out above, incorporated into this Corporate Governance Statement by reference.

Articles of Association

The Company's Articles of Association may only be amended by special resolution at a general meeting of the shareholders. The Company's Articles of Association contain provisions relating to the appointment and removal of Directors.

Substantial Shareholders

As at 1 March 2019 the Company had been notified of the following interests amounting to more than 3% in the issued share capital of the Company in accordance with DTR 5 of the FCA's Disclosure Guidance and Transparency Rules:

Qatar Investment Authority	[illegible]
BlackRock Inc	6.9%
The Capital Group Companies Inc	[illegible]
Lindsell Train Limited	[illegible]

Authority to Purchase Shares

The authority for the Company to purchase in the market up to 34,673,675 of its ordinary shares (representing 10% of the issued share capital of the Company as at the latest practicable date before publication of the Notice of the Company's last AGM) granted at the Company's last AGM expires on the date of the forthcoming AGM. Shareholders will be asked to give a similar authority to purchase shares at the forthcoming AGM.

Directors' Report

Authority to Issue Shares
Subject to the provisions of the Companies Act 2006 and without prejudice to any rights attached to any existing shares or class of shares, any share may be issued with such rights or restrictions as the Company may by ordinary resolution determine or, subject to and in default of such determination, as the Board shall determine

Authority to Allot Shares
The authority conferred on the Directors at last year's AGM to allot shares in the Company up to a maximum nominal amount of £7,996 448 (representing 33.3% of the issued share capital of the Company (excluding treasury shares) as at the latest practicable date before publication of the Notice of the Company's last AGM) or, in connection with a pre-emptive offer to existing shareholders by way of a rights issue, up to a maximum nominal amount of £15,992 897 (representing 66.6% of the issued share capital of the Company (excluding treasury shares) as at the latest practicable date before publication of the Notice of the Company's last AGM), expires on the date of the forthcoming AGM. Shareholders will be asked to give a similar authority to allot shares at the forthcoming AGM

Directors' interests
Directors' interests in the shares of the Company as at 31 December 2018, *according to the register maintained under the Companies Act 2006, are set out in* the Directors' Remuneration Report on page 97. No company in the Group was during or at the end of the year party to any contract of significance in which any Director was materially interested

Directors' indemnity
Details of qualifying third party indemnity provisions (as defined by section 234 of the Companies Act 2006) in force during the course of the year ended 31 December 2018 can be found on page 67. Such qualifying third party indemnity provisions remain in force as at the date of approving this Directors' Report

Employees
Information on the Company's wider responsibilities in relation to employees including the Company's approach to human rights and diversity is given on page 38–40, a description and the outcomes relating to the Company's employee engagement survey 'Have Your Say' can be found on page 39, and information on the Group's share schemes is provided in the Directors' Remuneration Report on pages 90–91. The Company provides an induction programme for new employees, including training employees on health and safety and a range of development programmes for all employees to develop their skills and knowledge. The Group gives full consideration to applications for employment from persons with a disability where the candidate's particular aptitudes and abilities are consistent with and adequately meet the requirements of the role. The Group encourages and assists employees with a disability with training, career development and promotion opportunities, and where existing employees become disabled, our policy is to provide continuing employment and training *wherever possible. Where changes to working practices or structure affect staff* staff are consulted and given the appropriate support. All employees are provided with information on matters of concern to them in their work, through regular briefing meetings and internal publications. To inform employees of the economic and financial factors affecting our business, regular updates are posted on our intranet and engagement events are hosted, such as 'Townhall' style meetings with members of our Executive Committee, providing a briefing of specific areas of the business

Environment
As a Group, we recognise that we must use resources in ways that deliver the long-term sustainability and profitability of the business and have a positive impact on the environment. We are taking such factors into account in developing products and services that support these aims through companies listed on our markets. The Group's primary greenhouse gas (GHG) emissions arise from energy, waste and water in our offices and data centres around the world, from staff travel, and indirectly from our supply chain. We are aware of the risks and opportunities for our business arising from climate change, and have developed measures to address them. We will actively monitor these changes so we can adapt and respond as necessary

During the reporting period, we achieved an 18% reduction in our absolute carbon emissions and a 16% reduction in Carbon Emissions per Full Time Employee (FTE). This is a slower rate of change to 2017, where LSEG achieved a 43% reduction in carbon emissions per FTE. This was due to significant action in 2017, where 64% of the Group's electricity was moved to production by 100% natural renewable energy sources

We are taking an active approach to emissions management, with our global Environmental Management Group measuring GHG impacts across *our property portfolio, including managed offices where possible. We report* beyond the mandatory reporting guidelines to include Scope 3 emissions. Performance is reported quarterly via our intranet, and we annually disclose verified emissions on our website, in our CS and Annual Reports, and in response to CDP (Carbon Disclosure Project) and DJSI. The Group's ESG performance is also assessed by FTSE4Good

In June 2017, the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD) released its reporting recommendations. The Group signed the TCFD statement of support, affirming its commitment to support the recommendations, and sees them as an important step in driving improved global consistency in voluntary global reporting standards. More information on how the Group aligns to TCFD can be found in our wider responsibilities on page 38

Global 2018 GHG Emissions

tCO_2e – Tonnes of carbon dioxide equivalent	2018	2017[1]	% change
Total Group Carbon Footprint	17 864	[illegible] 866	(18)
– per m²	0.201	0.235	(15)
– per FTE	[illegible]	3.98	(16)
– per £m Revenue	9.37	11.[illegible]	(25)
Scope 1	1 41[illegible]	1 919	(26)
Scope 2	7 13[illegible]	11 694	(39)
Scope 3	8 79[illegible]	[illegible]	[illegible]
Scope 3 (Electricity Transmission and Distribution)	527	922	(43)

1 [illegible]

4 [illegible]

In addition to monitoring our environmental impact, we have set environmental targets for the next financial year and long-term science-based targets that include energy, water, waste and travel. More information on these as well as full details of emissions and reporting methodology can be found in our CS report

Political Donations

During the year the Group did not make any political donations to EU or non-EU organisations or incur any political expenditure.

It remains the Company's policy not to make political donations or to incur political expenditure; however, the application of the relevant provisions of the Companies Act 2006 is potentially very broad in nature and, as last year, the Board is seeking shareholder authority to ensure that the Group does not inadvertently breach these provisions as a result of the breadth of its business activities, although the Board has no intention of using this authority. As with previous years the Board is proposing that shareholders pass a resolution at the forthcoming AGM to authorise the Group to:

- make political donations to political parties and independent election candidates not exceeding £100,000 in total;
- make political donations to political organisations other than political parties not exceeding £100,000 in total; and
- incur political expenditure not exceeding £100,000 in total,

provided that in any event the aggregate amount of any such donations and expenditure made or incurred by the Group shall not exceed £100,000.

Notwithstanding the Company's policy not to make political donations, we recognise the rights of our employees to participate in the political process. Their rights to do so are governed by the applicable laws in the countries in which we operate. For example, in the US under the Federal Election Campaign Act, US employees can establish non-partisan political action committees known as "PACs" that encourage voluntary employee participation in the political process. PACs are a common feature of the US political system and operate independently of any political party or candidate.

LSEG US Holdco, Inc. operates a PAC for US employees. Consistent with US law, LSEG US Holdco, Inc. pays for the PAC's administrative expenses, providing such support is not considered to be a political donation or expenditure under US law. In accordance with the applicable law the PAC is funded entirely by voluntary contributions from eligible employees. All decisions on the amounts and recipients of contributions are directed by a steering committee comprising employees eligible to contribute to the PAC.

During the year, a total of US$19,000 was donated to political organisations by the LSEG US Holdco, Inc. employee operated PAC. All LSEG US Holdco, Inc. contributions will be reviewed for legal compliance and will be publicly reported in accordance with US election laws.

Significant agreements

- The following are significant agreements to which the Company is a party that take effect, alter or terminate upon a change of control of the Company following a takeover bid:

- **SwapClear**
  LCH, along with a number of investment banks, is party to an agreement for the clearing of OTC interest rate swaps in relation to the SwapClear business. Such arrangements contain certain provisions that entitle the banks to terminate the agreement on a change of control of the Company.

- **Facility Agreement**
  The Company has entered into 2 syndicated, committed, revolving facility agreements dated 9 November 2015 and 11 December 2017 which provide an aggregate £1.2 billion of flexible financing capacity. The facilities are partially drawn and sized to provide comfortable headroom to the Group. The terms of the above agreements are consistent and appropriate for an investment grade borrower including change of control provisions which, if triggered, allow the Facility Agent, upon instructions from the majority lenders, to cancel the facility and declare all outstanding loans under the agreement, together with accrued interest and all other amounts accrued, due and payable.

- **Notes**
  The Company has issued to the wholesale fixed income market £250 million of Sterling notes due in 2019, and under its Euro Medium Term Notes Programme (the value of which the Company increased from £2 billion to £2.5 billion during the course of 2018), three €500 million tranches of euro notes due in 2024, 2027 and 2029. The notes contain a 'redemption upon change of control' provision which, if triggered by the combination of a change of control and, within 120 days thereafter, a credit rating downgrade to non-investment grade, allows note holders to exercise their option to require the Company to redeem the notes and pay any accrued and unpaid interest due.

- **Retail Bond Issue**
  The Company has issued £300 million in Sterling denominated retail bonds under the Euro Medium Term Notes Programme referred to above, which are due in 2021. The retail bonds contain change of control provisions which, if triggered by the combination of a change of control and, within 120 days thereafter, a credit rating downgrade to non-investment grade, allow the holder of these bonds to have the option to require the Company to repay early or to purchase the bonds of that holder at their face value together with the accrued interest.

- **Employee Share Plans**
  The rules of the Company's employee share plans set out the consequences of a change of control of the Company on employees' rights under the plans. Generally such rights will vest on a change of control and participants will become entitled to acquire shares in the Company (although in certain circumstances the Remuneration Committee has the discretion to defer vesting and to require rights to be exchanged for equivalent rights over the acquiring company's shares).

Directors' Report

Events since the balance sheet date
On 30 January 2019 the Group acquired a 4.92% equity interest in Euroclear Holding SA/NV share capital for £242 million. The transaction was funded from existing cash and debt facilities.

On 25 February 2019, the Group acquired a 7.3% equity interest in Nivaura Limited for £2 million, a UK based FinTech specialising in developing end-to-end automation and distributed ledger technology solutions for capital raising and administration.

Employee Benefit Trust
As at 31 December 2018, the trustee of the London Stock Exchange Employee *Benefit Trust, which is an independent trustee, held 573,672 shares under the* terms of the trust for the benefit of employees and former employees of the Company and its subsidiaries. The trust is a discretionary trust and the shares are held to meet employees' entitlements under the Company's share plans. *Employees have no voting rights in relation to the unencumbered shares while* they are held in trust. The trustee has full discretion to exercise the voting rights attaching to the unencumbered shares or to abstain from voting. Shares acquired by employees through the Company's employee share plans rank equally with the ordinary shares in issue and have no special rights.

Branches outside the UK
Certain of the Company's subsidiaries have established branches in a number of different countries in which they operate.

Financial Risk Management
The use of financial instruments by the Group and the Group's Financial Risk Management have been specifically considered by the Directors, and relevant disclosures appear in Principal Risks and Uncertainties, on pages 48–57 of this Annual Report, and in the Notes to the Financial Statements, on pages 133–137 of this Annual Report, and in each case are incorporated by reference into this Directors' Report.

Directors' statement as to disclosure of information to auditors
In accordance with Section 418(2) of the Companies Act 2006, the Directors confirm, in the case of each Director in office at the date the Directors' Report is approved as listed on pages 59–61, that:

- so far as the Director is aware, there is no relevant audit information of which the Company's auditors are unaware;
- he/she has taken all the steps that he/she ought to have taken as a Director in order to make himself or herself aware of any relevant audit information and to *establish that the Company's auditors are aware of that information.*

Financial viability statement
In accordance with provision C.2.2 of the Code, the Directors confirm that they have a reasonable expectation that the Group will continue to operate and meet its liabilities, as they fall due, for the next 3 years. A period of 3 years has been chosen for the purpose of this viability statement, in line with the Group's business plan. The Directors' assessment has been made with reference to the Group's current position and prospects, the Group's 3-year business plan, the Group's risk appetite and the expected impact of a selected group of severe but plausible downside scenarios.

The business plan makes certain assumptions about the performance of the core revenue streams and segments, using existing product lines as well as assumptions on take up of new product lines, assumptions on appropriate levels of investment to support expected performance, known inorganic activity, the ability to refinance debt as required, and expected returns to shareholders.

The plan is stress tested using a selected group of severe but plausible downside scenarios as determined relevant by the Group Risk Committee, over the full 3-year plan period. Impacts on the performance of core revenue streams and segments are modelled through business inputs, with appropriate mitigating factors also considered.

The impact on the Group's cash flows, liquidity headroom, and debt covenants are detailed throughout the 3-year period in each scenario. No scenario over the 3-year period leads to a breach in Group covenants or an inability to meet the Group's obligations through insufficient headroom. Further, a reverse stress test has been completed, to evaluate the financial impacts required to breach the Group Risk Committee's risk appetite.

FURTHER INFORMATION
Stress testing capabilities are detailed in the risk management oversight supplement that can be found on: **www.lseg.com/about-london-stock-exchange-group/risk-management-oversight**

Going Concern
The Group's business activities, together with the factors likely to affect its future development, performance and position and its objectives and policies in managing the financial risks to which it is exposed and its capital are set out in the Strategic Report on pages 2–57. The Directors' statement in relation to going concern is set out in the Statement of Directors' Responsibilities on page 105.

Future developments
The Executive Management team monitors future development and market trends affecting the Group and its subsidiaries on an ongoing basis. Details of these developments and trends and the potential implications for the Group can be found in the "Market trends and our response" section of the Annual Report (pages 14–17).

Auditors
A resolution to reappoint Ernst & Young LLP as the Company's auditors will be proposed at the AGM.

Strategic Report
The Strategic Report (pages 2–57) was approved by the Board on 28 February 2019 and signed on its behalf.

By Order of the Board

Lisa Condron
Group Company Secretary
1 March 2019

Statement of Directors' responsibilities

The Directors are responsible for preparing the Annual Report, the Directors' Remuneration Report and the financial statements in accordance with applicable law and regulations.

Company law requires the Directors to prepare financial statements for each financial year. The Directors have prepared the Group and Company financial statements in accordance with International Financial Reporting Standards (IFRSs) as adopted by the European Union and applicable law.

Under company law, the Directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of the affairs of the Group and the Company and of the profit or loss for that year.

In preparing those financial statements, the Directors are required to:

- select suitable accounting policies in accordance with IAS 8: Accounting Policies, Changes in Accounting Estimates and Errors and then apply them consistently;
- present information, including accounting policies, in a manner that provides relevant, reliable, comparable and understandable information;
- make judgements and estimates that are reasonable;
- provide additional disclosures when compliance with the specific requirements in IFRSs as adopted by the European Union is insufficient to enable users to understand the impact of particular transactions, other events and conditions on the Group and the Company's financial position and financial performance;
- state whether the Group and the Company financial statements have been prepared in accordance with IFRSs as adopted by the European Union, subject to any material departures disclosed and explained in the financial statements; and
- prepare the financial statements on the going concern basis, unless it is inappropriate to presume that the Group and the Company will continue in business.

The Directors confirm that they have complied with the above requirements in preparing the financial statements.

The Directors are responsible for keeping adequate accounting records that are sufficient to show and explain the Group and the Company's transactions and disclose with reasonable accuracy at any time the financial position of the Company and the Group and to enable them to ensure that the financial statements and the Directors' Remuneration Report comply with the Companies Act 2006, other applicable laws and regulations, including the requirements of the Listing Rules and the Disclosure Guidance and Transparency Rules, and, as regards the Group financial statements, Article 4 of the IAS Regulation. The Directors are also responsible for safeguarding the assets of the Company and the Group and for taking reasonable steps for the prevention and detection of fraud and other irregularities.

The Directors are responsible for the maintenance and integrity of the corporate and financial information on the Company's website.

Legislation in the United Kingdom governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

The Group's business activities, together with the factors likely to affect its future development, performance and position are set out in the Overview and Strategic Report sections of the Annual Report on pages 2–57. In particular, the current economic conditions continue to pose a number of risks and uncertainties for the Group and these are set out in Principal Risks and Uncertainties on page 48.

The Financial Risk Management objectives and policies of the Group and the exposure of the Group to capital risk, credit risk, market risk and liquidity risk are discussed on pages 53–54. The Group continues to meet Group and individual entity capital requirements and day-to-day liquidity needs through the Group's cash resources and available credit facilities. The combined total of committed facilities and bonds issued at 31 December 2018 was £3,103 million (2017: £2,638 million), with first maturing due in October 2019, described further in the Financial Review on pages 41–47.

The Directors have reviewed the Group's forecasts and projections, taking into account reasonably possible changes in trading performance, which show that the Group has sufficient financial resources. On the basis of this review, and after making due enquiries, the Directors have a reasonable expectation that the Company and the Group have adequate resources to continue in operational existence for the foreseeable future. Accordingly, they continue to adopt the going concern basis in preparing the financial statements.

Each of the Directors, whose names and functions are set out on pages 59–61 of this Annual Report confirms that, to the best of their knowledge and belief:

- the Group and the Company financial statements, which have been prepared in accordance with IFRSs as adopted by the EU, give a true and fair view of the assets, liabilities, financial position and profit or loss of the Company and the Group taken as a whole;
- the report of the Directors contained in the Annual Report includes a fair review of the development and performance of the business and the position of the Company and the Group taken as a whole, together with a description of the principal risks and uncertainties that they face; and
- they consider that the Annual Report and Accounts 2018, taken as a whole, is fair, balanced and understandable and provide the information necessary for shareholders to assess the Group and the Company's performance, business model and strategy.

By Order of the Board

Lisa Condron
Group Company Secretary
1 March 2019

Independent Auditor's Report to the members of London Stock Exchange Group plc

Opinion

In our opinion

- *London Stock Exchange Group plc's (the "Company", the "Group") consolidated* financial statements and parent company financial statements (the "financial statements") give a true and fair view of the state of the Group's and of the parent company's affairs as at 31 December 2018 and of the Group's profit for the year then ended
- the Group financial statements have been properly prepared in accordance with International Financial Reporting Standards (IFRS) as adopted by the European *Union (EU)*;
- the parent company financial statements have been properly prepared in accordance with IFRS as adopted by the EU as applied in accordance with the provisions of the Companies Act 2006; and
- the financial statements have been prepared in accordance with the requirements of the Companies Act 2006 and, as regards the Group financial statements, Article 4 of the IAS Regulation

We have audited the financial statements of London Stock Exchange Group plc which comprise

Group	Parent company
Consolidated balance sheet as at 31 December 2018	Balance sheet as at 31 December 2018
Consolidated income statement for the year then ended	Statement of changes in equity for the year then ended
Consolidated statement of comprehensive income for the year then ended	Statement of cash flows for the year then ended
Consolidated statement of changes in equity for the year then ended	Related Notes 1 to 35 to the financial statements including a summary of significant accounting policies
Consolidated statement of cash flows for the year then ended	
Related Notes 1 to 38 to the financial statements including a summary of significant accounting policies	
Tables within the Directors' Remuneration Report identified as audited on pages 86–100	

The financial reporting framework that has been applied in their preparation is applicable law and IFRSs as adopted by the EU and, as regards the parent company financial statements, as applied in accordance with the provisions of the Companies Act 2006

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) *and applicable law. Our responsibilities under those standards are* further described in the Auditor's responsibilities for the audit of the financial statements section of our report below. We are independent of the Group and parent company in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the Financial Reporting Council's (FRC) Ethical Standard as applied to listed public interest entities, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion

Conclusions relating to principal risks, going concern and viability statement

We have nothing to report in respect of the following information in the annual report, in relation to which the ISAs (UK) require us to report to you whether we have anything material to add or draw attention to

- the disclosures in the Annual Report set out on pages 48–57 that describe the principal risks and explain how they are being managed or mitigated;
- the directors' confirmation set out on page 104 in the Annual Report that they have carried out a robust assessment of the principal risks facing the entity, *including those that would threaten its business model, future performance,* solvency or liquidity;
- the directors' statement set out on page 103 in the financial statements about whether they considered it appropriate to adopt the going concern basis of accounting in preparing them, and their identification of any material uncertainties to the entity's ability to continue to do so over a period of at least 12 months from the date of approval of the financial statements;
- whether the directors' statement in relation to going concern required under the Listing Rules in accordance with Listing Rule 9.8.6R(3) is materially inconsistent with our knowledge obtained in the audit; or
- the directors' explanation set out on page 104 in the Annual Report as to how they have assessed the prospects of the entity, over what period they have done so and why they consider that period to be appropriate, and their statement as to whether they have a reasonable expectation that the entity will be able to continue in operation and meet its liabilities as they fall due over the period of their assessment, including any related disclosures drawing attention to any necessary qualifications or assumptions

Overview of our audit approach

Key audit matters	– Risk that goodwill and purchased intangible assets may be impaired – Risk that expenses related to internally developed software are capitalised inappropriately or that internally developed software is impaired – Risk of fraud in recognition of revenue in secondary capital markets trading, revenue share for clearing arrangements, and information services revenue accrual – Application of IFRS 15 to primary capital markets admission fees
Audit scope	– *We performed an audit of the complete financial* information of 7 components and audit procedures on specific balances for a further 14 components – The components where we performed full or specific audit procedures accounted for 95% of unadjusted pre-tax profit, 95% of adjusted pre-tax profit, [illegible]% of revenue and 100% of total assets
Materiality	– Overall Group materiality is £35.5m which represents [illegible]% of adjusted pre-tax profit from continuing operations, calculated by including the impact of the amortisation of purchased intangible assets, but excluding other non-underlying items as disclosed in Note 8 of the financial statements

Key audit matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements of the current period and include the most significant assessed risks of material misstatement (whether or not due to fraud) that we identified. These matters included those which had the greatest effect on: the overall audit strategy, the allocation of resources in the audit; and directing the efforts of the engagement team. These matters were addressed in the context of our audit of the financial statements as a whole, and in our opinion thereon, and we do not provide a separate opinion on these matters.

Risk

Risk that goodwill and purchased intangible assets may be impaired

Balance of £4.2 billion (prior year comparative £4.2 billion)

The Group holds significant intangible assets on its balance sheet, including goodwill, customer relationships, brands, software licenses and intellectual property.

We have determined the valuation of these intangible assets to be a key audit matter due to the size of the goodwill and purchased intangible assets as at 31 December 2018 and the involvement of significant judgement by management in determining the valuation of the intangible assets.

On an annual basis management are required to perform an impairment assessment for goodwill and to assess for indicators of impairment in respect of purchased intangible assets. Where indicators of impairment of purchased intangible assets are identified, a full impairment assessment is performed. These assessments involve significant management judgement in the application of valuation models and assumptions.

As a consequence there is a greater risk of misstatement in these balances, either by fraud or error, including through the potential override of controls by management.

Refer to the Report of the Audit Committee (page 79), Accounting policies (page 126) and Notes 4 and 15 of the Financial Statements (pages 138 and 145–148)

The risk has neither increased nor decreased in the current year.

Our response to the risk

We have confirmed our understanding of the impairment assessment process and assessed the design effectiveness of key controls, concluding that a substantive audit approach should be adopted.

For material cash generating units (CGUs), we examined the cash flow forecasts which support management's impairment assessment and tested compliance with the requirements of IAS 36 'Impairment of Assets'. We assessed the reasonableness of those forecasts and the evidence supporting the underlying assumptions by comparing to Board approved budgets, considering prior periods' budget accuracy, comparing the expected growth rates to relevant market expectations, and considering recent market developments, including changes in tax rates.

In respect of purchased intangible assets, we tested management's assessment as to whether indicators of impairment exist as at the balance sheet date by reference to factors specific to each class of assets. Examples included customer retention rates within specific business lines and the current return made on intellectual property.

We tested the weighted average cost of capital (WACC) discount rates assigned to each of the CGUs, as well as the long term growth rates (LTGR), with reference to our understanding of the business, comparisons to other similar companies and broader market considerations.

The WACC discount rates and LTGR applied within each impairment model were critically assessed by EY valuation specialists, including comparison to economic and industry forecasts where appropriate. We considered evidence available to support the WACC discount rates and LTGR used, and assessed consistency with findings from other areas of the audit. Using EY valuation specialists, we assessed specific inputs in the determination of the WACC discount rates, including the risk-free rate, equity beta and market/size premium, along with gearing and cost of debt. We benchmarked the inputs against observed risk rates in the markets where the Group operates. We also performed sensitivity analysis on the cash flow forecasts and other key inputs to the impairment model (including WACC discount rates, LTGR and customer retention rates), to understand the impact that reasonably possible changes to key assumptions would have on the overall carrying value of the goodwill and purchased intangible assets at the balance sheet date.

We performed recalculations of the amortisation of purchased intangible assets, and assessed that the amortisation policy had been appropriately applied. We also assessed the appropriateness of the remaining amortisation period by comparing management's forecasts against historic data.

In addition to the above procedures, we performed overall analytical procedures and journal entry testing in order to identify and test the risk of misstatement arising from management override of controls.

We performed full and specific scope audit procedures over this risk area in 8 components, which covered 99.8% of the risk amount.

Key observations communicated to the Audit Committee

We concluded that the WACC discount rates, LTGR, customer retention rates and cash flow forecasts used by management in the impairment assessment are within a reasonable range as at 31 December 2018.

We did not identify any additional factors that would lead to a revision of the amortisation periods applied for purchased intangible assets. We concluded that the carrying value of goodwill and purchased intangible assets is fairly stated as at 31 December 2018.

Independent Auditor's Report to the members of London Stock Exchange Group plc

Risk	Our response to the risk	Key observations communicated to the Audit Committee
Risk that expenses related to internally developed software are capitalised inappropriately, or that internally developed software is impaired *Balance of £0.[illegible] billion, prior year comparative £0.3 billion* The capitalisation of expenses to internally developed software involves management's judgement when making their assessment of capitalisation against criteria set out in IFRS as adopted by the EU. The Group is required to review capitalised software assets for impairment whenever events or changes in circumstances indicate that their carrying amounts may not be recoverable, and at least annually, review whether there is any change in their expected useful lives. Where indicators of impairment are identified or where an asset has not been brought into use, a full impairment assessment is performed at the reporting date. Such assessments involve management judgement in the application of valuation models and assumptions. In addition, as internally generated assets move closer to the end of their useful life, the risk of impairment may increase. As a consequence, there is a greater risk of misstatement in this balance either by fraud or error including through the potential override of controls by management. *Refer to the Report of the Audit Committee (page 78), Accounting policies (page 125) and Note 15 of the Financial Statements (pages 145–148).* The risk has increased in the current year as the activity of the Group in relation to internally developed software has expanded significantly.	We confirmed our understanding of the capitalisation and impairment assessment processes and assessed the design and operating effectiveness of key controls. We concluded that the controls were designed, implemented and operating effectively, and therefore took a controls-reliance approach. For a sample of additions we have agreed amounts capitalised to underlying documentation, including, as appropriate, timesheets, invoices and other evidence to confirm that the costs were incurred and meet the capitalisation criteria of IAS 38 Intangible Assets. For a sample of assets not yet brought into use we have inspected management's impairment assessment and tested the key assumptions used within the assessment, such as the WACC discount rates, LTGR and cash flow forecasts where applicable. We have also gained an understanding of the status of related projects and reviewed project progress reports for potential indicators of impairment. We also performed sensitivity analysis on the cash flow forecasts and other key inputs to the impairment model (including WACC discount rates and LTGR) to understand the impact that reasonably possible changes to key assumptions would have on the overall carrying value of the internally generated software at the balance sheet date. We have assessed the appropriateness of the amortisation period based on economic lives and management's best estimates of future performance, amortisation method and residual value. We have, in addition, performed overall analytical procedures and journal entry testing in order to identify and test the risk of misstatement arising from management override of controls. We performed full and specific scope audit procedures over this risk area in 9 components, which covered 94.2% of the risk amount.	We concluded that the assessment performed by management met the capitalisation criteria set out in IFRS as adopted by the EU. We concluded that the WACC discount rates, LTGR, and cash flow forecasts used by management in the impairment assessment are within a reasonable range as at 31 December 2018, where applicable. We did not identify indicators of impairment for internally developed software which had not already been impaired by management. We did not identify any additional factors that would lead to a revision of the remaining useful lives applied for internally developed software. We concluded that the carrying value of internally developed software is fairly stated as at 31 December 2018.

Risk

Risk of fraud in recognition of revenue in secondary capital markets trading, revenue share for clearing arrangements, and information services revenue accruals

Secondary capital markets – Balance of £[illegible] billion (prior year comparative £[illegible] billion)

Revenue share for clearing arrangements – Balance of £[illegible] billion (prior year comparative £[illegible] billion)

Information services revenue accruals – Balance of £[illegible] billion (prior year comparative £[illegible] billion)

Compensation tied to the performance of the entity may create an incentive for management to manipulate results.

We have determined this to be a key audit matter having identified [illegible] revenue streams with heightened risk of misstatement.

- Secondary capital markets revenue for certain business lines involve multiple pricing structures based on product types, customer activity and volumes. This complexity leads to a heightened risk that revenue may not be recognised appropriately either as a result of fraud or error.
- Contracts relating to revenue sharing in respect of clearing arrangements between the Group's central counterparty (CCPs) and third party participants in some cases involve complex calculations to determine the appropriate level of revenue to recognise within the Group.
- Information services revenue accruals (presented within contract assets) can require estimation, for instance based on prior billings or preliminary usage.

As a consequence there is a greater risk of misstatement in these balances, either by fraud or error, including through the potential override of controls by management.

Refer to the Report of the Audit Committee (page 78), Accounting policies (page 124) and Note [illegible] of the Financial Statements (pages 138-140).

The risk has neither increased nor decreased in the current year.

Our response to the risk

We confirmed our understanding of the secondary capital markets trading, revenue share clearing arrangements and information services revenue accruals processes and evaluated the design effectiveness of key controls.

We evaluated whether the revenue recognition policy is appropriate and in accordance with IFRS as adopted by the EU. We also performed cut-off testing to gain assurance that revenue was recognised in the correct period.

Secondary capital markets trading

For the secondary capital markets trading process, we performed testing of the operating effectiveness of key controls in [illegible] full scope component. For this component we concluded that the controls were designed, implemented and operating effectively, and therefore took a controls based approach. We adopted a substantive audit approach in the other in-scope components.

We increased our standard sample size for transactional testing to respond to the risk of fraud. We agreed a random selection of transactions back to supporting audit evidence such as invoices and cash receipts. Where appropriate, we also recalculated the fee charged and checked back to the pricing policy and relevant tariff schedule.

We reconciled trading platform data to the general ledger and tested material topside adjustments.

We also used analytical tools to identify outliers in large volumes of transactional data for focused follow up testing. This analysis included comparing the fee per transaction to volume of stock traded and investigating any particularly high values which were outliers to the overall population.

Revenue share for clearing arrangements

We tested the operating effectiveness of key controls over the revenue share clearing arrangement process, where relevant and we concluded that the controls were designed, implemented and operated effectively. We adopted a substantive audit approach for the remaining revenue share arrangements.

We tested revenue sharing calculations for all material business lines by checking for consistency with the underlying contracts. We also used analytical procedures in the analysis of the related revenue streams. This included analysing monthly trading volumes and their correlation with monthly revenue recognised, and anomalies identified were investigated.

Information services revenue accruals

We adopted a substantive audit approach in relation to the information services revenue accruals process.

We selected a sample of revenue accruals using a lower testing threshold when compared to our standard testing approach. For the selected samples, we obtained supporting evidence, including customer consent for accrued amounts.

For revenue based on assets under management ('AUM'), we tested the calculations on a sample basis and checked back to the supporting agreements. We also validated the AUM used in the calculation to an independent third party source.

For Q4 accruals based on Q3 information, we tested the appropriateness of using Q3 information for purposes of the year end accruals. We also performed corroborative testing to invoices raised post year end and cash collected where applicable.

We performed full and specific scope audit procedures over this risk area in [illegible] components, which covered [illegible]% of the risk amount.

Key observations communicated to the Audit Committee

We concluded that the revenue recognised related to secondary capital markets trading, revenue share for clearing arrangements and information services revenue accruals for the year ended 31 December 2018 is fairly stated.

Independent Auditor's Report to the members of London Stock Exchange Group plc

Risk	Our response to the risk	Key observations communicated to the Audit Committee
Application of IFRS 15 to primary capital markets admission fees IFRS 15 'Revenue from contracts with customers' came into effect from 1 January 2018. Previously, the Group recognised admission fees relating to the listing of equity instruments on the date that listing occurred. The Group evaluated the application of IFRS 15 to admission fees and had regard to the IFRIC decision issued on 12 September 2018. Consequently, the Group evaluated services of initial admission and ongoing access to the market as one performance obligation and changed the accounting policy to recognise revenue over the listing period. This change led to the Group recording a £111 million adjustment to opening retained earnings and contract liabilities, as well as the recognition of a £27 million deferred tax asset. Our audit procedures focused on the impact of the application of the new standard to primary market admission fee revenue as it requires estimation techniques to derive the period over which admission fee revenue is deferred and subsequently amortised. *Refer to the Report of the Audit Committee (page 78), Accounting policies (page 124) and Notes 2 and 4 of the Financial Statements (pages 129, 132 and 133).* This has been identified as a new key audit matter for the current year due to the implementation of IFRS 15 from 1 January 2018.	We assessed the revised accounting policy for revenue recognition for compliance with the new accounting standard and the IFRIC decision. We understood and tested the model used to calculate the period over which revenue is deferred and subsequently amortised including the various inputs to the model such as the average life of a customer admitted to the exchange, historical revenue data and associated impact on deferred tax. We adopted a fully substantive approach. We assessed the disclosures within the Annual Report and Accounts for compliance with the requirements of IFRS 15. We performed audit procedures in all full scope components that were impacted by the implementation of IFRS 15.	We concluded that the opening adjustments made as at 1 January 2018 and subsequent revenue recognised related to primary capital markets admission fees, associated contract liability and disclosures for the year ended 31 December 2018 are fairly stated.

In the prior year, our auditor's report included a key audit matter in relation to "Risk that the implementation of the Oracle finance system could lead to errors in data integrity, accounting or financial reporting". As the implementation had been completed for all entities prior to the start of the current period (except for LCH SA), the audit team did not assess this to be a key audit matter for the 2018 audit.

In addition to this, the prior year audit report included the key audit matter "Risk that the acquisition of businesses was accounted for incorrectly" which predominantly related to the acquisitions of Mergent Inc and The Yield Book Inc occurring in 2017. During 2018, there have been no significant business combinations and so this was no longer identified as a key audit matter.

An overview of the scope of our audit

Tailoring the scope

Our assessment of audit risk our evaluation of materiality and our allocation of performance materiality determine our audit scope for each entity within the Group Taken together, this enables us to form an opinion on the Group financial statements We take into account size, risk profile, the organisation of the Group and effectiveness of Group-wide controls, changes in the business environment and other factors such as recent Internal Audit findings when assessing the level of work to be performed at each entity

In assessing the risk of material misstatement to the Group financial statements, and to ensure we had adequate quantitative coverage of significant accounts in the financial statements, of the 132 reporting components of the Group, we selected 21 components covering entities headquartered within the United Kingdom, United States of America, Italy, France and Sri Lanka, which represent the principal business units within the Group

Of the 21 components selected, we performed an audit of the complete financial information of 7 components ("full scope components") which were selected based on their size or risk characteristics For the remaining 14 components ("specific scope components"), we performed audit procedures on specific accounts within that component that we considered had the potential for the greatest impact on the significant accounts in the Group financial statements either because of the size of these accounts or their risk profile

Scope	Procedures performed by	Number of components
Full	Primary team	4
Full	Component teams	3
Specific	Primary team	13
Specific	Component team	1
Total		**21**

Details of the 4 components which were audited by component teams are set out below

Component	Headquartered location	Scope	Auditor
London Stock Exchange Group Holdings Italy S p A	Italy	Full	EY
LSEG US Holdco Inc [1]	United States of America	Full	EY
LCH S.A	France	Full	EY and BDO
Millennium Information Technologies (Private) Limited	Sri Lanka	Specific	EY

1 Some specific accounts within LSEG US Holdco Inc were audited by the EY primary audit team

The reporting components where we performed audit procedures accounted for 95% (2017 94%) of the Group's pre-tax profit, 95% (2017 97%) of the Group's adjusted pre-tax profit measure used to calculate materiality (see page 112), 97% (2017: 99%) of the Group's Revenue and 100% (2017 100%) of the Group's Total assets

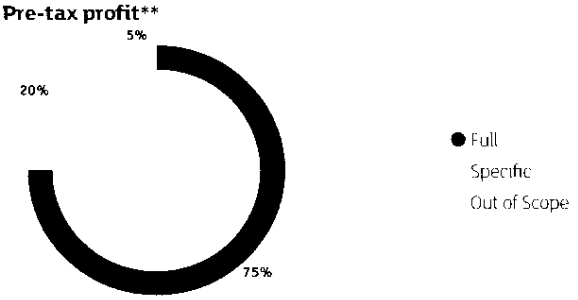
For the current year, the full scope components contributed 75% (2017 70%) of the Group's pre-tax profit, 77% (2017 72%) of the Group's adjusted pre-tax profit, 95% (2017 93%) of the Group's Revenue and 100% (2017 100%) of the Group's Total assets

The specific scope component contributed 20% (2017 27%) of the Group's pre-tax profit, 18% (2017 22%) of the Group's adjusted pre-tax profit, 2% (2017 6%) of the Group's Revenue and less than 1% (2017 1%) of the Group's Total assets The audit scope of these components may not have included testing of all significant accounts of the component but will have contributed to the coverage of significant accounts tested for the Group

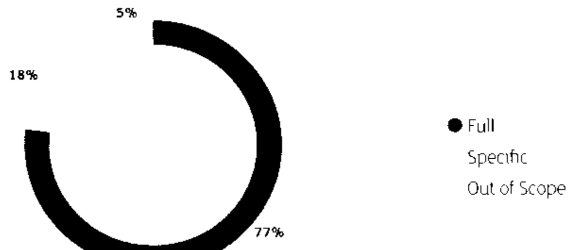
The remaining 72 components together represent less than 5% of the Group's pre-tax profit adjusted pre-tax profit revenue and total assets For these components we performed other procedures including analytical review and testing of consolidation journals and intercompany eliminations, to respond to potential risks of material misstatement to the Group financial statements

The charts below illustrate the coverage obtained from the work performed by our audit teams

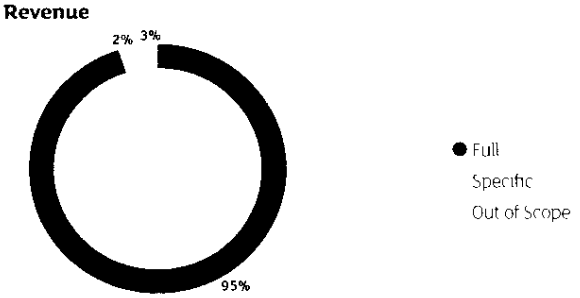
Pre-tax profit**



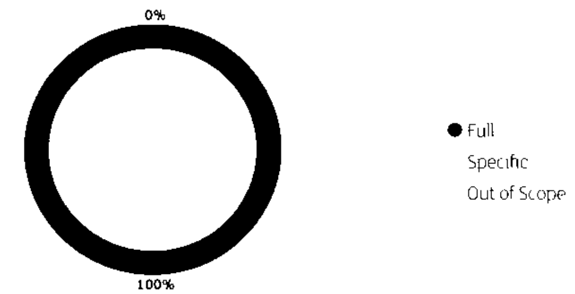
Adjusted pre-tax profit**



Revenue



Total assets



** The percentages were calculated based on absolute values

Independent Auditor's Report to the members of London Stock Exchange Group plc

Changes from the prior year

All full scope components remain consistent. In the prior year we identified 18 specific scope components. Specific scope components have been re-assessed as the contribution of these smaller parts of the business to the Group financial statements varies each year.

Involvement with component teams

In establishing our overall approach to the Group audit, we determined the type of work that needed to be undertaken at each of the components by us, as the primary audit engagement team, or by component auditors from other EY global network firms or other firms operating under our instruction.

Of the 7 full scope components, audit procedures were performed on 4 of these directly by the primary audit team. For the 3 full scope and 1 specific scope components, where the work was performed by component auditors, we determined the appropriate level of involvement to enable us to determine that sufficient audit evidence had been obtained as a basis for our opinion on the Group as a whole.

The Group audit team continued to follow a programme of planned visits that has been designed to ensure that the Senior Statutory Auditor visits the principal locations of the Group.

During the current year's audit cycle, visits were undertaken by the Senior Statutory Auditor and/or other senior members of the primary audit team to the following locations:

Component	Location	Scope	Number of visits
London Stock Exchange Group Holdings Italia S.p.A.	Milan, Italy	Full	1
LSEG US Holdco Inc	New York, United States of America	Full	2
LCH S.A.	Paris, France	Full	2

These visits involved discussing the audit approach with the component team and any issues arising from their work, as well as meeting with local management. In addition, we participated in planning and closing meetings and reviewed selected key audit working papers. The primary team interacted regularly with the component teams where appropriate during various stages of the audit, reviewed key working papers and were responsible for the scope and direction of the audit process. This, together with the additional procedures performed at Group level, gave us appropriate evidence for our opinion on the Group financial statements.

Our application of materiality

We apply the concept of materiality in planning and performing the audit, in evaluating the effect of identified misstatements on the audit and in forming our audit opinion.

Materiality

The magnitude of an omission or misstatement that, individually or in the aggregate, could reasonably be expected to influence the economic decisions of the users of the financial statements. Materiality provides a basis for determining the nature and extent of our audit procedures.

We determined overall materiality for the Group to be £35.5 million (2017: £30.0 million), which is 5% (2017: 5%) of adjusted pre-tax profit from continuing operations, calculated by including the impact of amortisation of purchased intangible assets, but excluding other non-underlying items as disclosed in Note 8 of the financial statements.

We determined materiality for the Parent Company to be £7.1 million (2017: £5.6 million), which is based on the allocated performance materiality for purposes of the Group audit. This allocated materiality is based on the relative scale and risk of the Parent Company to the Group as a whole, and our assessment of the risk of misstatement at the Parent Company.

We consider the basis of our materiality to be one of the important considerations for shareholders of the Company in assessing the financial performance of the Group. It is linked to the key earnings measures discussed when the Group presents the financial results. In addition to non-underlying items, the Group also excludes amortisation of purchased intangibles to present adjusted operating profit; this amount is not excluded from our materiality calculation.

Our overall materiality threshold provided a basis for determining the nature, timing and extent of risk assessment procedures, identifying and assessing the risk of material misstatement and determining the nature, timing and extent of further audit procedures. Our evaluation of materiality requires professional judgement and necessarily takes into account qualitative as well as quantitative considerations implicit in the definition.

Starting basis
- £684.9 million
- Profit before tax from continuing operations

▼

Adjustments
- £25.6 million
- Exclude non-underlying items, mostly costs related to the ongoing restructuring of LCH, integration of the acquired businesses Mergent Inc. and The Yield Book and Citi Fixed Income Indices and costs for potential M&A transactions

▼

Adjusted basis
- £710.6 million
- Adjusted pre-tax profit from continuing operations but including amortisation of purchased intangible assets

▼

Materiality
- Materiality of £35.5 million (5% of materiality basis)

During the course of our audit, we reassessed initial materiality and made adjustments based on the final financial performance of the Group.

Performance materiality

The application of materiality at the individual account or balance level. It is set at an amount to reduce to an appropriately low level the probability that the aggregate of uncorrected and undetected misstatements exceeds materiality.

On the basis of our risk assessments, together with our assessment of the Group's overall control environment, our judgement was that performance materiality was 50% (2017: 50%) of our planning materiality, namely £17.6 million (2017: £15.0 million). We have set performance materiality at this percentage (which is the lowest in the range) due to misstatements which were identified in the prior year audit. Our approach is designed to have a reasonable probability of ensuring that the total of uncorrected and undetected misstatements does not exceed our overall materiality of £35.3 million (2017: £30.0 million) for the Group financial statements as a whole.

Audit work at component locations for the purpose of obtaining audit coverage over significant financial statement accounts is undertaken based on a percentage of total performance materiality. The performance materiality set for each component is based on the relative scale and risk of the component to the Group as a whole and our assessment of the risk of misstatement at that component.

In the current year, the performance materiality allocated to components was as follows:

Component	Allocated performance materiality £m
London Stock Exchange Group plc	[illegible]
London Stock Exchange plc	[illegible]
LCH Limited	[illegible]
LCH SA	[illegible]
London Stock Exchange Group Holdings Italia S.p.A	8.9
LSEG US Holdco Inc	9.5
FTSE International Limited	[illegible]
All specific scope components	[illegible]

Reporting threshold

An amount below which identified misstatements are considered to be clearly trivial.

We agreed with the Audit Committee that we would report to them all uncorrected audit differences in excess of £1.8 million (2017: £1.6 million), which is set at 5% of planning materiality, as well as differences below that threshold that, in our view, warranted reporting on qualitative grounds.

We evaluate any uncorrected misstatements against both the quantitative measures of materiality discussed above and in light of other relevant qualitative considerations in forming our opinion.

Other information

The other information comprises the information included in the annual report set out on pages 2–105, including the Strategic Report (including Highlights, Chairman's Statement, CEO's statement, What we do – our business model, Overview of Group activities, Market trends and our response, Strategy in action, Executive management team, Segmental review, Our Wider Responsibility, Financial review, and Principal risks and uncertainties), Governance information and disclosures (including Board of Directors, Corporate governance, Complying with the provisions of the Code, Report of the Nomination Committee, Report of the Audit Committee, Report of Risk Committee, Directors' Remuneration Report, Directors' Report and Statement of Directors' responsibilities) other than the financial statements and our auditor's report thereon. The directors are responsible for the other information.

Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in this report, we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether there is a material misstatement in the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of the other information, we are required to report that fact.

We have nothing to report in this regard.

In this context, we also have nothing to report in regard to our responsibility to specifically address the following items in the other information and to report as uncorrected material misstatements of the other information where we conclude that those items meet the following conditions:

- Fair, balanced and understandable set out on page 105 – the statement given by the directors that they consider the Annual Report and financial statements taken as a whole is fair, balanced and understandable and provides the information necessary for shareholders to assess the Group's performance, business model and strategy, is materially inconsistent with our knowledge obtained in the audit; or
- Audit Committee reporting set out on page 74–79 – the section describing the work of the audit committee does not appropriately address matters communicated by us to the Audit Committee; or
- Directors' statement of compliance with the UK Corporate Governance Code set out on pages 62, 69–71 and 101 – the parts of the directors' statement required under the Listing Rules relating to the company's compliance with the UK Corporate Governance Code containing provisions specified for review by the auditor in accordance with Listing Rule 9.8.10R(2) do not properly disclose a departure from a relevant provision of the UK Corporate Governance Code.

Opinions on other matters prescribed by the Companies Act 2006

In our opinion, the part of the Directors' Remuneration Report to be audited has been properly prepared in accordance with the Companies Act 2006.

In our opinion, based on the work undertaken in the course of the audit:

- the information given in the Strategic Report and the Directors' Report for the financial year for which the financial statements are prepared is consistent with the financial statements; and
- the Strategic Report and the Directors' Report have been prepared in accordance with applicable legal requirements.

Matters on which we are required to report by exception

In the light of the knowledge and understanding of the Group and the parent company and its environment obtained in the course of the audit, we have not identified material misstatements in the strategic report or the directors' report.

We have nothing to report in respect of the following matters in relation to which the Companies Act 2006 requires us to report to you if, in our opinion:

- adequate accounting records have not been kept by the parent company, or returns adequate for our audit have not been received from branches not visited by us; or
- the parent company financial statements and the part of the Directors' Remuneration Report to be audited are not in agreement with the accounting records and returns; or

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- certain disclosures of directors' remuneration specified by law are not made, or
- we have not received all the information and explanations we require for our audit

Responsibilities of directors

As explained more fully in the directors' responsibilities statement set out on page 105, the directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the directors determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the directors are responsible for assessing the Group and parent company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Group or the parent company, or to cease operations, or have no realistic alternative but to do so.

Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

Explanation as to what extent the audit was considered capable of detecting irregularities, including fraud

The objectives of our audit, in respect to fraud, are: to identify and assess the risks of material misstatement of the financial statements due to fraud; to obtain sufficient appropriate audit evidence regarding the assessed risks of material misstatement due to fraud, through designing and implementing appropriate responses; and to respond appropriately to fraud or suspected fraud identified during the audit. However, the primary responsibility for the prevention and detection of fraud rests with both those charged with governance of the entity and management.

Our approach was as follows:

- We obtained an understanding of the legal and regulatory frameworks that are applicable to the Group and determined that the most significant are the UK Companies Act 2006, UK Corporate Governance Code 2016, The Financial Conduct Authority's ("FCA") Listing Rules, other relevant FCA rules and regulations, and tax legislation (governed by HM Revenue and Customs).
- We understood how the Group is complying with those frameworks by making enquiries of senior management, including the Global General Counsel, the Chief Risk Officer, the Head of Compliance and the Group Head of Internal Audit. We also reviewed significant correspondence between the Group and regulatory bodies, reviewed minutes of the Board, Risk Committee, and gained an understanding of the Group's approach to governance, demonstrated by the Board's approval of the Group's governance framework and the Board's review of the Group's risk management framework and internal control processes.
- We assessed the susceptibility of the Group's financial statements to material misstatement, including how fraud might occur by considering the controls that the Group has established to address risks identified by the Group, or that otherwise seek to prevent, deter or detect fraud. We also considered performance and incentive plan targets and their potential to influence management to manage earnings or influence the perceptions of investors.
- Based on this understanding we designed our audit procedures to identify non-compliance with such laws and regulations. Our procedures involved inquiries of senior management, legal counsel, the compliance officer and internal audit, review of significant correspondence with regulatory bodies and minutes of meetings of the Board and certain Board committees, and focused testing, as referred to in the Key Audit Matters section above.
- The Group operates in the exchange and CCP industries which are regulated environments. As such, the Senior Statutory Auditor reviewed the experience and expertise of the engagement team to ensure that the team had the appropriate competence and capabilities, which included the use of experts where appropriate.
- The FCA has regulatory oversight over London Stock Exchange plc and certain other entities within the Group. The Bank of England ("BOE") supervises CCPs in the UK and therefore regulates LCH Limited. In addition, local regulatory bodies in France and Italy regulate other subsidiaries of the Group, including: LCH SA which is regulated by L'Autorité de Contrôle Prudentiel et de Résolution ("ACPR"), Banque de France ("BDF") and the Autorite des Marches Financiers ("AMF"); and Borsa Italiana S.p.A., Cassa Di Compensazione e Garanzia S.p.A. ("CC&G"), EuroTLX SIM S.p.A., MTS Società per il Mercato dei Titoli di Stato S.p.A. ("MTS") and Monte Titoli S.p.A. which are all regulated by Commissione Nazionale per la Società e la Borsa and Banca d'Italia.

A further description of our responsibilities for the audit of the financial statements is located on the FRC's website at **https://www.frc.org.uk/auditorsresponsibilities**. This description forms part of our auditor's report.

Other matters we are required to address

- We were appointed by the Company on 12 June 2014 to audit the financial statements for the 9 months period ended 31 December 2014 and subsequent financial periods. The period of total uninterrupted engagement including previous renewals and reappointments is 5 years, covering the 9 months period ended 31 December 2014 to the year ended 31 December 2018.
- The non-audit services prohibited by the FRC's Ethical Standard were not provided to the Group or the parent company and we remain independent of the Group and the parent company in conducting the audit.
- The audit opinion is consistent with the additional report to the Audit Committee.

Use of our report

- This report is made solely to the Company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the Company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Company and the Company's members as a body, for our audit work, for this report, or for the opinions we have formed.

Ernst & Young LLP

Maurice McCormick (Senior Statutory Auditor)
for and on behalf of Ernst & Young LLP, Statutory Auditor
London
1 March 2019

1. [illegible]
2. [illegible]

Consolidated income statement

Year ended 31 December 2018	Notes	2018 Underlying £m	2018 Non-underlying £m	2018 Total £m	2017 Underlying £m	2017 Non-underlying £m	2017 Total £m
Continuing operations							
Revenue	[illegible]	1,911	–	1,911	[illegible]		[illegible]
Net treasury income through CCP business	[illegible]	218	–	218	[illegible]		[illegible]
Other income	[illegible]	6	–	6	[illegible]	–	[illegible]
Total income		2,135	–	2,135	[illegible]	–	[illegible]
Cost of sales	[illegible]	(227)	–	(227)	[illegible]	–	[illegible]
Gross profit		1,908	–	1,908	[illegible]		[illegible]
Expenses							
Operating expenses before depreciation, amortisation and impairment	[illegible]	(834)	(21)	(855)	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	–	–	–		7	–
Share of loss after tax of associates	[illegible]	(8)	–	(8)	[illegible]		–
Earnings before interest, tax, depreciation, amortisation and impairment		1,066	(21)	1,045	[illegible]	[illegible]	[illegible]
Depreciation, amortisation and impairment	[illegible]	(135)	(159)	(294)	[illegible]	[illegible]	[illegible]
Operating profit/(loss)		931	(180)	751	[illegible]	[illegible]	[illegible]
Finance income		13	–	13	[illegible]	–	[illegible]
Finance expense		(79)	–	(79)	[illegible]	–	[illegible]
Net finance expense	[illegible]	(66)	–	(66)	[illegible]	–	[illegible]
Profit/(loss) before tax from continuing operations		865	(180)	685	[illegible]	[illegible]	[illegible]
Taxation	[illegible]	(187)	55	(132)	[illegible]	[illegible]	[illegible]
Profit/(loss) for the year from continuing operations		678	(125)	553	[illegible]	[illegible]	[illegible]
Discontinued operations							
Loss after tax for the year from discontinued operations	[illegible]	–	–	–	–	[illegible]	[illegible]
Profit/(loss) for the year		678	(125)	553	[illegible]	[illegible]	[illegible]
Equity holders							
Profit/(loss) for the year from continuing operations		603	(123)	480	[illegible]	17	[illegible]
Loss for the year from discontinued operations	[illegible]	–	–	–	–	[illegible]	[illegible]
Profit/(loss) for the year attributable to equity holders		603	(123)	480	[illegible]	[illegible]	[illegible]
Non-controlling interests							
Profit/(loss) for the year attributable to non-controlling interests from continuing operations		75	(2)	73	[illegible]	[illegible]	[illegible]
Profit/(loss) for the year attributable to non-controlling interests		75	(2)	73	[illegible]	[illegible]	[illegible]
		678	(125)	553	[illegible]	[illegible]	[illegible]
Earnings per share attributable to equity holders							
Basic earnings per share	[illegible]			138.3p			[illegible]
Diluted earnings per share	[illegible]			136.0p			[illegible]
Adjusted basic earnings per share	[illegible]			173.8p			[illegible]
Adjusted diluted earnings per share	[illegible]			170.8p			[illegible]
Earnings per share for continuing operations attributable to equity holders							
Basic earnings per share	[illegible]			138.3p			[illegible]
Diluted earnings per share	[illegible]			136.0p			[illegible]
Adjusted basic earnings per share	[illegible]			173.8p			[illegible]
Adjusted diluted earnings per share	[illegible]			170.8p			[illegible]
Dividend per share in respect of the financial year							
Dividend per share paid during the year	[illegible]			17.2p			[illegible]
Dividend per share declared for the year	[illegible]			43.2p			[illegible]

The notes on pages 122 to 175 form an integral part of these consolidated financial statements.

Consolidated statement of comprehensive income

Year ended 31 December 2018	Notes	2018 £m	2017 £m
Profit for the financial year		**553**	[illegible]
Other comprehensive income/(loss):			
Items that will not be subsequently reclassified to profit or loss			
Defined benefit pension scheme remeasurement (loss)/gain	[illegible]	**(12)**	[illegible]
Income tax relating to these items	10	**5**	[illegible]
		(7)	[illegible]
Items that may be subsequently reclassified to profit or loss			
Net investment hedges		**(55)**	3
Debt instruments at fair value through other comprehensive income			
– Net loss from changes in fair value		**(21)**	
– Net gains reclassified to the consolidated income statement on disposal		**4**	–
Investments in equity instruments under IAS 39			
– Net gain from changes in fair value		**–**	1
– Net gains reclassified to the consolidated income statement on disposal		–	[illegible]
Exchange gain/(loss) on translation of foreign operations		**168**	[illegible]
Income tax relating to these items	[illegible]	**4**	
		100	[illegible]
Other comprehensive gains net of tax		**93**	[illegible]
Total comprehensive income for the financial year		**646**	[illegible]
Attributable to non-controlling interests		**74**	81
Attributable to equity holders		**572**	482
Total comprehensive income for the financial year		**646**	[illegible]

The notes on pages 122 to 175 form an integral part of these consolidated financial statements

Balance sheets

At 31 December 2018	Notes	Group 2018 £m	Group 2017 £m (revised)[1]	Company 2018 £m	Company 2017 £m
Assets					
Non-current assets					
Property, plant and equipment	[illegible]	**149**	[illegible]	–	–
Intangible assets	[illegible]	**4,687**	[illegible]	–	–
Investment in associates	[illegible]	**25**	[illegible]	**7**	[illegible]
Investment in subsidiary companies	[illegible]	–		**6,506**	[illegible]
Deferred tax assets	[illegible]	**42**	[illegible]	–	–
Derivative financial instruments	[illegible]	–	–	–	–
Investments in financial assets	[illegible]	**31**	[illegible]	–	–
Retirement benefit asset	[illegible]	**46**	[illegible]	–	
Other non-current receivables	[illegible]	**30**	[illegible]	**25**	[illegible]
Contract assets	[illegible]	**3**	–	–	–
		5,013	[illegible]	**6,538**	[illegible]
Current assets					
Trade and other receivables	[illegible]	**644**	[illegible]	**600**	[illegible]
Contract assets	[illegible]	**141**	–	–	–
Clearing member financial assets		**764,411**	[illegible]	–	–
Clearing member cash and cash equivalents		**70,927**	[illegible]	–	–
Clearing member business assets	[illegible]	**835,338**	[illegible]	–	–
Current tax		**147**	[illegible]	–	–
Investments in financial assets	[illegible]	**53**	[illegible]	–	
Cash and cash equivalents	[illegible]	**1,510**	[illegible]	**6**	[illegible]
		837,833	[illegible]	**606**	[illegible]
Assets held for sale	[illegible]	–	[illegible]	–	
Total assets		**842,846**	[illegible]	**7,144**	[illegible]
Liabilities					
Current liabilities					
Trade and other payables	[illegible]	**538**	[illegible]	**402**	[illegible]
Contract liabilities	[illegible]	**153**		–	
Derivative financial instruments	[illegible]	**30**	–	**30**	–
Clearing member business liabilities	[illegible]	**835,508**	[illegible]	–	–
Current tax		**61**	[illegible]	–	
Borrowings	[illegible]	**561**	[illegible]	**544**	[illegible]
Provisions	[illegible]	**2**	[illegible]	–	
		836,853	[illegible]	**976**	[illegible]
Non-current liabilities					
Borrowings	[illegible]	**1,642**	[illegible]	**1,642**	[illegible]
Derivative financial instruments	[illegible]	**17**	[illegible]	**17**	[illegible]
Contract liabilities	[illegible]	**118**		–	
Deferred tax liabilities	[illegible]	**475**	[illegible]	–	–
Retirement benefit obligations	[illegible]	**22**	[illegible]	–	–
Other non-current payables	[illegible] 25	**11**	[illegible]	–	–
Provisions	[illegible]	**10**	[illegible]	–	
		2,295	[illegible]	**1,659**	[illegible]
Total liabilities		**839,148**	[illegible]	**2,635**	[illegible]
Net assets		**3,698**	[illegible]	**4,509**	[illegible]

Balance sheets

At 31 December 2018	Notes	Group 2018 £m	Group 2017 £m (revised)[1]	Company 2018 £m	Company 2017 £m
Equity					
Capital and reserves attributable to the Company's equity holders					
Ordinary share capital	30	**24**	24	**24**	24
Share premium	30	**965**	964	**965**	964
Retained earnings		**424**	419	**1,701**	1,724
Other reserves		**1,930**	1,820	**1,819**	1,819
Total shareholders' funds		**3,343**	3,227	**4,509**	4,531
Non-controlling interests		**355**	525	–	–
Total equity		**3,698**	3,752	**4,509**	4,531

1 [illegible]

The Company recorded profit for the year of £141 million (2017: £36 million).

The notes on pages 122 to 175 form an integral part of these consolidated financial statements.

The financial statements on pages 115 to 175 were approved by the Board on 28 February 2019 and signed on its behalf by:

David Schwimmer
Chief Executive Officer

David Warren
Chief Financial Officer

London Stock Exchange Group plc
Registered number 5369106

1 March 2019

Cash flow statements

Year ended 31 December 2018	Notes	Group 2018 £m	Group 2017 £m	Company 2018 £m	Company 2017 £m
Cash flow from operating activities					
Cash generated from operations	[illegible]	969	[illegible]	39	[illegible]
Interest received		3	[illegible]	1	[illegible]
Interest paid		(76)	[illegible]	(67)	[illegible]
Royalties paid		(2)		–	
Corporation tax paid		(173)	[illegible]	–	–
Withholding tax received/(paid)		1	[illegible]	–	–
Net cash inflow/(outflow) from operating activities		**722**	[illegible]	**(27)**	[illegible]
Cash flow from investing activities					
Purchase of property, plant and equipment	14	(50)	[illegible]	–	–
Purchase of intangible assets	15	(144)	[illegible]	–	
Proceeds from sale of businesses	[illegible]	58	[illegible]	–	
Cash disposed as part of the sale of businesses		(2)	[illegible]	–	–
Acquisition of businesses	[illegible]	3	[illegible]	–	–
Cash inflow from acquisition of businesses	33	–	[illegible]	–	–
Investment in subsidiaries	17	–	–	(408)	[illegible]
Investment in associates	[illegible]	(28)	[illegible]	(12)	
Proceeds from the disposal of financial assets		–	–	–	–
Investment in financial assets		–	[illegible]	–	–
Net cash outflow from investing activities		**(163)**	[illegible]	**(420)**	[illegible]
Cash flow from financing activities					
Dividends paid to shareholders	12	(189)	[illegible]	(189)	[illegible]
Dividends paid to non-controlling interests		(42)	[illegible]	–	
Purchase of treasury shares relating to share buyback		–	[illegible]	–	[illegible]
Redemption of preferred securities		–	[illegible]	–	–
Acquisition of non-controlling interests		(452)	[illegible]	–	–
Proceeds from investment by non-controlling interests		–	[illegible]	–	
Loans to subsidiary companies		–	–	–	[illegible]
Repayments received on loans to subsidiary companies		–	–	335	
Loans from subsidiary companies		–		74	[illegible]
Purchase of own shares by the employee benefit trust		(4)	[illegible]	–	–
Proceeds from exercise of employee share options		7	[illegible]	6	[illegible]
Funds gifted to the employee benefit trust		–	–	–	[illegible]
Proceeds from the issue of bonds		445	[illegible]	445	[illegible]
Arrangement fee paid		(4)	[illegible]	(4)	[illegible]
Proceeds from the issue of commercial paper		255	–	255	
Repayments made towards bank credit facilities		(489)	[illegible]	(474)	[illegible]
Additional drawdowns from bank credit facilities		–	[illegible]	–	[illegible]
Repayments of finance lease		(2)	–	–	–
Net cash (outflow)/inflow from financing activities		**(475)**	[illegible]	**448**	[illegible]
Increase/(decrease) in cash and cash equivalents		**84**	[illegible]	**1**	[illegible]
Cash and cash equivalents at beginning of year		1,382	[illegible]	4	[illegible]
Exchange gain on cash and cash equivalents		44	15	1	[illegible]
Cash and cash equivalents at end of year		**1,510**	[illegible]	**6**	[illegible]
Cash and cash equivalents at end of year from continuing operations	[illegible]	1,510	[illegible]	6	[illegible]
Cash and cash equivalents classified as held for sale		–	[illegible]	–	–
Cash and cash equivalents at end of year		**1,510**	[illegible]	**6**	[illegible]

The notes on pages 122 to 175 form an integral part of these consolidated financial statements.

Group cash flow does not include cash and cash equivalents held by the Group's Post Trade operations on behalf of its clearing members for use in its operation as manager of the clearing and guarantee system. These balances represent margins and default funds held for counterparties for short periods in connection with this operation.

Statements of changes in equity

Year ended 31 December 2018

Group	Notes	Ordinary share capital £m	Share premium £m	Retained earnings £m	Other reserves £m	Total attributable to equity holders £m	Non-controlling interests £m	Total equity £m
		Attributable to equity holders						
31 December 2016		24	961	259	1,862	3,106	508	3,614
Profit for the year		–	–	505	–	505	56	561
Other comprehensive income/(loss) for the year				49	(72)	(23)	25	2
Issue of shares	30		3		–	3	–	3
Final dividend relating to the year ended 31 December 2016	13	–	–	(109)	–	(109)	–	(109)
Interim dividend relating to the year ended 31 December 2017	13			(50)	–	(50)	–	(50)
Dividend payments to non-controlling interests		–		–			(19)	(19)
Employee share scheme expenses		–	–	31		31		31
Tax in relation to employee share scheme expenses		–	–	12	–	12	–	12
Purchase of non-controlling interest within acquired subsidiary		–	–	(21)	–	(21)	(89)	(110)
Purchase by non-controlling interest		–	–	(36)	–	(36)	44	8
Share buyback		–	–	(201)	–	(201)	–	(201)
Disposal of business					30	30	–	30
31 December 2017 (as previously presented)		24	964	419	1,820	3,227	525	3,752
Impact of adopting new accounting standards	2	–	–	(95)	–	(95)		(95)
1 January 2018 (restated)		24	964	324	1,820	3,132	525	3,657
Profit for the year		–	–	**480**	–	**480**	**73**	**553**
Other comprehensive (loss)/income for the year		–	–	**(18)**	**110**	**92**	**1**	**93**
Issue of shares	30	–	**1**	–	–	**1**	–	**1**
Final dividend relating to the year ended 31 December 2017	13	–	–	**(129)**	–	**(129)**	–	**(129)**
Interim dividend relating to the year ended 31 December 2018	13	–	–	**(60)**	–	**(60)**	–	**(60)**
Dividend payments to non-controlling interests		–	–	–	–	–	**(42)**	**(42)**
Employee share scheme expenses		–	–	**38**	–	**38**	–	**38**
Tax in relation to employee share scheme expenses		–	–	**7**	–	**7**	–	**7**
Purchase of non-controlling interest within acquired subsidiary		–	–	**(218)**	–	**(218)**	**(202)**	**(420)**
31 December 2018		**24**	**965**	**424**	**1,930**	**3,343**	**355**	**3,698**

The notes on pages 122 to 175 form an integral part of these consolidated financial statements.

Shares held in the Employee Benefit Trust to settle exercises on employee share awards were 573,672 (2017: 944,495).

Employee share scheme expenses include costs related to the issue and purchase of own shares for employee share schemes of £(4) million (2017: £(29) million), subscriptions, net of sundry costs, received on the vesting of employee share schemes of £6 million (2017: £2 million) and equity settled share scheme expenses for the year of £36 million (2017: £38 million).

Purchase of non-controlling interests in the year relates to the acquisition of shareholdings in LCH Group and FTSE TMX Global Debt Capital Markets Limited. The consideration transferred in relation to the LCH Group transaction was £413 million cash and resulted in the Group recognising an additional £195 million interest attributable to its equity holders. The consideration transferred in relation to FTSE TMX Global Debt Capital Markets Limited was £39 million cash and resulted in the Group recognising an additional £39 million interest attributable to its equity holders.

During the prior year the Group completed the purchase of shareholdings from non-controlling equity holders in a number of the Group's subsidiaries, notably the LCH Group, MTS S.p.A. and Gatelab S.r.l.

Other reserves comprise the following:

- Merger reserve of £1,305 million (2017: £1,305 million): a reserve arising on consolidation when the Company issued shares as part of the consideration to acquire subsidiary companies.
- Capital redemption reserve of £514 million (2017: £514 million): a reserve set up as a result of a court approved capital reduction.
- Reverse acquisition reserve of £(512) million (2017: £(512) million): a reserve arising on consolidation as a result of the capital reduction scheme.
- Foreign exchange translation reserve of £740 million (2017: £575 million): a reserve reflecting the impact of foreign currency changes on the translation of foreign operations.
- Hedging reserve of £(117) million (2017: £(62) million): a reserve representing the cumulative fair value adjustment recognised in respect of net investment and cash flow hedges undertaken in accordance with hedge accounting principles.

Year ended 31 December 2018

Company	Notes	Ordinary share capital £m	Share premium £m	Retained earnings £m	Capital redemption reserve £m	Merger reserve £m	Total attributable to equity holders £m
		Attributable to equity holders			Other reserves		
31 December 2016		[illegible]	961	[illegible]	514	1,305	[illegible]
Profit for the year		–	–	[illegible]	–	–	[illegible]
Issue of shares	30	–	3	–	–	–	3
Final dividend relating to the year ended 31 December 2016	13	–	–	(109)	–	–	(109)
Interim dividend relating to the year ended 31 December 2017	13			(50)	–		(50)
Employee share scheme expenses		–		36	–		36
Share buyback		–	–	[illegible]	–		[illegible]
31 December 2017		24	964	1,724	514	1,305	4,531
Profit for the year		–	–	**141**	–	–	**141**
Issue of shares	30	–	**1**	–	–	–	**1**
Final dividend relating to the year ended 31 December 2017	13	–	–	**(129)**	–	–	**(129)**
Interim dividend relating to the year ended 31 December 2018	13	–	–	**(60)**	–	–	**(60)**
Employee share scheme expenses		–	–	**25**	–	–	**25**
31 December 2018		**24**	**965**	**1,701**	**514**	**1,305**	**4,509**

Employee share scheme expenses of the Company include movement in the fair value of loan balances with the Employee Benefit Trust of £(15) million (2017: £(1) million), costs relating to the issue of own shares for employee share schemes of £(2) million (2017: £(3) million), subscriptions received on the vesting of employee share schemes of £6 million (2017: £2 million) and equity-settled share scheme expenses for the year of £36 million (2017: £38 million).

The merger reserve of £1,305 million (2017: £1,305 million) is a potentially distributable reserve arising on consolidation when the Company issued shares as part of the consideration to acquire subsidiary companies.

The capital redemption reserve of £514 million (2017: £514 million) is a non-distributable reserve set up as a result of a court approved capital reduction.

The notes on pages 122 to 175 form an integral part of these financial statements.

Notes to the financial statements

1. Basis of preparation and accounting policies

The Group's consolidated and the Company's financial statements are prepared in accordance with International Financial Reporting Standards (IFRSs) and IFRS Interpretations Committee (IFRIC) interpretations endorsed by the European Union (EU), and with those parts of the Companies Act 2006 applicable to companies reporting under IFRS.

The principal accounting policies applied in the preparation of these financial statements are set out below. These policies have been consistently applied to all the periods presented, unless otherwise stated.

The financial statements are prepared under the historical cost convention as modified by the revaluation of assets and liabilities held at fair value and on the basis of the Group's accounting policies.

The Group uses a columnar format for the presentation of its consolidated income statement. This enables the Group to aid the reader's understanding of its results by presenting profit for the year before any non-underlying items. Non-underlying items include amortisation of purchased intangible assets and other income or expenses not considered to drive the operating results of the Group. This is the profit measure used to calculate adjusted earnings per share. Profit before non-underlying items is reconciled to profit before taxation on the face of the income statement.

The Company is a public company, incorporated and domiciled in England and Wales. The address of its registered office is 10 Paternoster Square, London, EC4M 7LS.

As permitted by Section 408 of the Companies Act 2006, the Company's income statement has not been included in these financial statements.

Consolidation

The consolidated financial statements comprise the financial statements of the Company and its subsidiary companies with all inter-company balances and transactions eliminated, together with the Group's attributable share of the results of associates. The results of subsidiary companies sold or acquired in the period are included in the income statement up to, or from, the date that control passes. Control is achieved when the Group is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee.

The acquisition of subsidiary companies is accounted for using the acquisition method. The cost of the acquisition is measured at the aggregate of the fair values, at the date of exchange, of assets given, liabilities incurred or assumed and equity instruments issued by the Group in exchange for control of the acquiree. Upon completion of the Group's fair value exercise, comparatives are revised up to 12 months after the acquisition date for the final fair value adjustments. Further details are provided in Note 33. Adjustments to fair values include those made to bring accounting policies into line with those of the Group.

The Group applies a policy of treating transactions with non-controlling interests through the economic entity model. Transactions with non-controlling interests are recognised in equity. Where the non-controlling interest has an option to dispose of their holding to the Group, then the amounts potentially due are recognised at their fair value at the balance sheet date.

A disposal group qualifies as a discontinued operation if it is a component of an entity that either has been disposed of, or is classified as held for sale and:

a) represents a separate major line of business or geographical area of operations;

b) is part of a single coordinated plan to dispose of a separate major line of business or geographic area of operations; or

c) is a subsidiary acquired exclusively with a view to resale.

Discontinued operations are excluded from the results of continuing operations and are presented as a single amount as profit or loss after tax from discontinued operations in the income statement. Comparatives are also re-presented to reclassify disposed businesses or held for sale businesses which meet the criteria for discontinued operations.

Investments in subsidiary companies' shares, loans and other contributions are recognised at cost. These are reviewed for impairment when events indicate the carrying amount may not be recoverable and are accounted for in the Company's financial statements at cost less accumulated impairment losses.

Recent accounting developments

The following standards and amendments were endorsed by the EU and have been adopted in these financial statements:

- IFRS 9, 'Financial instruments' on classification and measurement and amendments regarding general hedge accounting
- IFRS 15, 'Revenue from contracts with customers'
- Amendment to IFRS 2, 'Share-based payment' on classification and measurement of share-based payment transactions
- IFRIC 22, 'Foreign currency transactions and advance consideration'

The impact of adopting IFRS 9 and IFRS 15 on the Group's financial results is described in detail in Note 2. The adoption of the other standards did not have a material impact on the results of the Group.

The following standards and interpretations have been issued by the International Accounting Standards Board (IASB) and IFRIC but have not been adopted either because they were not endorsed by the EU at 31 December 2018 or they are not yet mandatory and the Group has not chosen to early adopt. The Group plans to adopt these standards and interpretations when they become effective. The impact on the Group's financial statements of the future standards, amendments and interpretations is still under review, and where appropriate, a description of the impact of certain standards and amendments is provided below.

International accounting standards and interpretations	Effective date
IFRS 16, 'Leases'	1 January 2019
IFRIC 23, 'Uncertainty over Income Tax Treatments'	1 January 2019
Amendments to IAS 28, 'Long-term Interests in Associates and Joint Ventures'	1 January 2019
Amendments to IAS 19, 'Plan amendment, Curtailment or Settlement'	1 January 2019
Amendments to IFRS 9, 'Prepayment features with negative compensation'	1 January 2019
IFRS 17, 'Insurance Contracts'	1 January 2021

With the exception of IFRS 16, the changes in the other standards are not expected to have a material effect on the Group.

IFRS 16 Leases

IFRS 16 Leases is effective for the year ending 31 December 2019 and will require all lease amounts to be recognised on the balance sheet. Currently, IAS 17 Leases only requires lease amounts categorised as finance leases to be recognised on the balance sheet, with leases categorised as operating leases not recognised. The Group expects to recognise right of use assets of £145 million, and investment in lease assets of £3 million and a corresponding lease liabilities of £190 million on 1 January 2019 in relation to property leases. Differences of £42 million between the leased assets and liabilities will be recognised in opening reserves on transition to the new standard.

Amounts previously recognised in operating expenses in relation to lease expenses will be recognised as a combination of depreciation and lease interest expense. This will affect earnings before interest, tax, depreciation and amortisation and impairment (EBITDA) and profit before tax on adoption. The expected impact is as follows:

Estimated effect on the income statement	**Increase/ (decrease) £m**	**Description**
Operating expenses before depreciation, amortisation and impairment	**(31)**	Amounts formerly recognised as rent
Earnings before interest, tax, depreciation, amortisation and impairment	**31**	
Depreciation	**26**	Depreciation of the right of use asset
Finance expense	**4**	Finance expense on lease liabilities
Finance income	–	Finance income on investment in lease
Depreciation and net finance expense	**30**	
Profit before tax	**1**	Net effect on profit
Estimated effect on the balance sheet		
Right of use asset	**145**	Net book value of right of use assets
Investment in lease	**3**	Present value of future rent receipt
Total assets	**148**	
Lease liabilities	**190**	Present value of future lease obligations
Total liabilities	**190**	
Net assets	**(42)**	Net effect on net assets
Retained earnings	**(42)**	
Total equity	**(42)**	Opening balance adjustment on adoption
Basic and adjusted earnings per share	**0.3p**	

Costs relating to items that do not qualify as leased assets under the new standard because they are short-term arrangements or low value items will continue to be recognised in operating expenses.

Notes to the financial statements

Accounting policies

Income Statement

Revenue

The Group adopted IFRS 15 'Revenue from contracts with customers' with effect 1 January 2018. The impact of adopting the standard is detailed in Note 2.

The main source of the Group's revenue is through fees for services provided. Revenue is measured based on the consideration specified in a contract with a customer. Amounts deducted from revenue relate to discounts, value added tax and other sales related taxes, revenue share arrangements whereby as part of an operating agreement amounts are due back to the customer and pass-through costs where the Group has arrangements to recover specific costs from its customers with no mark up.

The Group recognises revenue as services are performed and as it satisfies its obligations to provide a product or service to a customer. Further details of the Group's revenue accounting policy are set out below.

Information Services

The Information Services segment generates revenues from the provision of information and data products including indexes, benchmarks, real time pricing data and trade reporting and reconciliation services.

Data subscription and index licence fees are recognised over the licence or usage period as the Group meets its obligation to deliver data consistently throughout the licence period. Services are billed on a monthly, quarterly and annual basis.

Other information services include licences to the regulatory news service and reference data business. Revenue from licences that grant the right to access intellectual property are recognised over time, consistent with the pattern of the service provision and how our performance obligation is satisfied throughout the licence period. Revenues from other *information services including revenues from the sale of right to use licences are recognised at the point the licence is* granted or service is delivered.

Post Trade – LCH, CC&G and Monte Titoli

Revenue in the Post Trade segments are generated from clearing, settlement, custody and other post trade services.

Clearing, settlement and custody services generate fees from trades or contracts cleared and settled, compression and custody services which are recognised as revenue at the point when the service is rendered on a per transaction basis. Services are billed on a monthly basis.

Other post trade services include revenue from client connectivity services which is recognised as revenue on a straight line basis over the service period as this reflects the continuous transfer of services.

Capital Markets

Revenues in the Capital Markets segment are generated from Primary and Secondary market services.

***Primary market initial admission and the ongoing* listing services** *represent one performance obligation and the* Group recognises revenue from initial admissions and further issues over a period the Group provides the listing services. All admission fees are billed to the customer at the time of admission to trading and become payable when invoiced.

Primary markets annual fees, secondary markets membership and subscription fees are generally paid in advance on the first day of the membership or subscription period. The Group recognises revenue on a straight-line basis over the period to which the fee relates, as this reflects the extent of the Group's progress towards completion of the performance obligation under the contract.

Revenue from **secondary market trading and associated capital market services** is recognised as revenue on a per transaction basis at the point that the service is provided.

Technology

Technology revenue is generated from contracts to develop capital market technology solutions, software licences, network connections and hosting services.

Capital markets software licences contracts contain multiple deliverables for the provision of licences and software installation and ongoing maintenance services. The transaction price for each contract is allocated to these performance obligations based upon the relative standalone selling price. Revenue is recognised based on the actual service provided during the reporting period as a proportion of the total services to be provided. This is determined by measuring the inputs consumed in delivering the service (for example, material and actual labour) relative to the total expected input consumption over the contract. This best reflects the transfer of assets to the customer which generally occurs as the Group incurs costs on the contract.

Network connections and service hosting revenues are recognised on a straight-line basis over the period to which the fee relates as this reflects the continuous transfer of technology services and measures the extent of progress towards the completion of the performance obligation.

Other

Fees are generated from the provision of events and media services, and are typically recognised as revenue at the point the service is rendered and becomes payable when invoiced.

Customer contracts across the Group that contain a single performance obligation at a fixed price do not require variable consideration to be constrained or allocated to multiple performance obligations. However, certain businesses in the Group provide services to customers under a tiered and tariff pricing structure that generates a degree of variability in the revenue streams from the contract. Where the future revenue from a contract varies due to factors that are outside of the Group's control, the Group limits the total transaction price at contract inception and recognises the minimum expected revenue guaranteed by the terms of the contract over the contract period. *Any variable element is subsequently recognised in the period in which the variable factor occurs.*

As permitted by the practical expedient in IFRS 15, the Group does not adjust the promised amount of consideration for the effects of significant financing components in contracts where the Group expects at contract inception, the period between the transfer of a promised good or service to a customer and when the customer pays for that service to be 1 year or less.

Other income
Other income typically relates to property rental income and property service charges.

Cost of sales
Cost of sales comprises data and licence fees, data feed costs, expenses incurred in respect of revenue share arrangements and costs incurred in the MillenniumIT business that are directly attributable to the construction and delivery of customers' goods or services, and any other costs linked and directly incurred to generate revenues and provide services to customers.

Revenue share expenses presented within cost of sales relate to arrangements with customers where the revenue share payment is not limited to the amount of revenues receivable from the specific customer.

Contract costs
Incremental costs of obtaining a customer contract, such as sales commissions paid to employees, are recognised as an intangible asset if the benefit of such costs is expected to be longer than 1 year. The associated asset is amortised over the period from which a customer benefits from existing software technology supporting the underlying product or service, which the Group has determined to be between 3 to 5 years and is presented as an intangible asset in the Group's consolidated balance sheet. The Group amortises the contract costs over the period from which a customer benefits from existing software technology supporting the underlying product or service.

The Group also applies the practical expedient in IFRS 15 to recognise the incremental cost of obtaining a contract as an expense when incurred, if the amortisation period is 1 year or less.

Net treasury income
Income recognised through the CCP clearing business includes net treasury income earned on margin and default funds, held as part of the risk management process. Net treasury income is the result of interest earned on cash assets lodged with the clearing house, less interest paid to the members on their initial margin and default fund contributions. Net treasury income is shown separately from the Group revenues on the face of the income statement to distinguish this income stream from revenues arising from the Group's other activities and provides the reader with a greater understanding of the operating activities of the Group. Where negative interest rates apply, the Group recognises interest paid on cash assets as a treasury expense and interest received on clearing member's margin as treasury income.

Non-underlying items
Items of income and expense that are material by size and/or nature and are not considered to be incurred in the normal course of business are classified as non-underlying items on the face of the income statement within their relevant category. The separate reporting of these items together with amortisation of purchased intangible assets helps give an indication of the Group's sustainable performance. Non-underlying items are disclosed in Note 8.

Pension costs
The Group operates defined benefit and defined contribution pension schemes. For the defined benefit schemes the service cost, representing benefits accruing to employees, is included as an operating expense. The interest cost and expected return on plan assets is calculated by applying the discount rate to the net defined benefit liability or asset at the start of each annual reporting period. Actuarial gains and losses arising from experience adjustments, changes in actuarial assumptions or differences between actual and expected returns on assets are recognised at each period end net of tax in the statement of comprehensive income. The net asset or liability recognised on the balance sheet comprises the difference between the present value of pension obligations and the fair value of scheme assets. For defined contribution schemes, the expense is charged to the income statement as incurred.

Share-based compensation
The Group operates a number of equity settled share-based compensation plans for employees. The charge to the income statement is determined by the fair value of the options granted or shares awarded at the date of grant and recognised over the relevant vesting period.

Foreign currencies
The consolidated financial statements are presented in Sterling, which is the Company's presentation and functional currency. Foreign currency transactions are converted into the functional currency of the reporting entity using the rate ruling at the date of the transaction. Foreign exchange gains or losses resulting from the settlement of such transactions and from the translation at year-end rates of monetary assets and liabilities denominated in foreign currencies are recognised in the income statement, except for differences arising on pension fund assets or liabilities which are recognised in other comprehensive income.

The results and financial position of all Group entities that have a functional currency different from the presentation currency are converted into the presentation currency as follows:

a) assets and liabilities including goodwill, purchased intangible assets and fair value adjustments are converted at the closing balance sheet rate;

b) income and expenses are translated and recorded in the income statement at the average rate for the period; and

c) all resulting exchange differences are recognised as a separate component of equity.

On consolidation, exchange differences arising from the translation of the net investment in foreign operations, and of borrowing and other currency instruments designated as hedges of such investments, are taken to shareholders' equity. When a foreign operation is partially disposed of or sold, exchange differences that were recorded in equity are recognised in the income statement as part of the gain or loss on sale.

Finance income and expense
Finance income and expense comprise interest earned on cash deposited with financial counterparties and interest paid on borrowings which reflect the agreed market based or contractual rate for each transaction undertaken during the financial period, and calculated using the effective interest rate method. In conditions where negative interest rates apply, the Group recognises interest paid on cash deposits as an expense and interest received on liabilities as income.

Recurring fees and charges levied on committed bank facilities, cash management transactions and the payment services provided by the Group's banks, are charged to the income statement as accrued. Credit facility arrangement fees are capitalised and then amortised back to the income statement over the term of the facility subject to projected utilisation. Fees and charges are included within other finance costs.

Fair value gains and losses on financial instruments include the movement in the market valuations of derivative instruments held as fair value hedges.

Notes to the financial statements

Balance Sheet

Property, plant and equipment

Property, plant and equipment are included in the financial statements at cost less accumulated depreciation and any provision for impairment.

Land is not depreciated. Freehold buildings, fixed plant and plant and equipment are depreciated to residual value on a straight-line basis over the estimated useful economic lives of the assets which are as follows:

a) Freehold buildings – 30 to 50 years

b) Fixed plant – 3 to 20 years, and

c) Plant and equipment – 3 to 15 years

Leasehold properties and improvements are included at cost and depreciated to residual value over the shorter of the period of the lease or the useful economic life of the asset.

Investment in associates

An associate is a company over which the Group has significant influence. Significant influence is the power to participate in the financial and operating policy decisions of the company but is not control nor joint control over those policies.

The Group's investments in associates are accounted for using the equity method. The Company accounts for its investments in associates at cost, less any impairments recognised through the income statement.

Under the equity method, investments are initially recognised at cost and adjusted thereafter to recognise the Group's share of the post-acquisition profits or losses and if applicable, the Group's share of movements in other comprehensive income. Dividends received or receivable from associates are recognised as a reduction in the carrying amount of the investment.

The Group and Company's investments in associates are assessed for impairment at each balance sheet date. Where indicators of impairment are identified a full impairment assessment is performed. Any difference between the recoverable amount of the associate and its carrying value is recognised as an impairment loss within 'Share of profit or loss of associates' in the Group consolidated income statement.

Leases

Leases in which a significant portion of the risks and rewards of ownership are retained by the lessor are classified as operating leases. Payments made under operating leases are charged to the income statement on a straight line basis. Lease incentives are spread over the term of the lease.

The Group leases certain plant and equipment and licences where the Group has substantially all the risks and rewards of ownership. These are classified as finance leases. Finance leases are capitalised at the lease's commencement at the lower of the fair value of the leased property and the present value of the minimum lease payments.

Each lease payment is apportioned between the finance charge and the liability so as to achieve a constant interest rate on the finance balance outstanding. Plant and equipment acquired under finance leases is depreciated over the shorter of the useful life of the asset and the lease term.

Intangible assets

Goodwill is initially measured at cost, being the excess of the aggregate of the consideration transferred and the amount recognised for non controlling interests, and any previous interest held, over the net identifiable assets acquired and liabilities assumed. If the fair value of the net assets acquired is in excess of the aggregate consideration transferred, then the difference is recognised in profit or loss as a gain on purchase.

On the acquisition of a business, fair values are attributed to the assets and liabilities acquired. These may include brand names, customer and supplier relationships, software licences and intellectual property, all of which are recorded as intangible assets and held at cost less accumulated amortisation. These assets are amortised on a straight line basis over their useful economic lives which are as follows:

a) Customer and supplier relationships – 2 to 25 years (material assets are amortised over a life exceeding 15 years);

b) Brand names – 10 to 25 years (material assets are amortised over a life of 25 years); and

c) Software licences and intellectual property – 2 to 25 years (the majority of material assets are amortised over a life not exceeding 5 years).

The useful economic lives are based on management's best estimates such as attrition rates on customer relationships, product upgrade cycles for software and technology assets, market participant perspective for brands and pace of change of regulation for business.

Third party software costs for the development and implementation of systems which enhance the services provided by the Group are capitalised and amortised over their estimated useful economic lives of 3 to 5 years.

Internal product development expenditure is capitalised if the costs can be reliably measured, the product or process is technically and commercially feasible, future economic benefits are probable and the Group has sufficient resources to complete the development and to use or sell the asset. The assets are recorded at cost including labour, directly attributable costs and any third party expenses, and amortised over their useful economic lives of 3 to 7 years.

Intangible assets are assessed for any indicators of impairment at each balance sheet date. Where indicators of impairment for a particular intangible asset are identified, a full impairment assessment is performed, with any diminution in value recognised in the income statement. For assets with an indefinite useful life a full impairment assessment is performed annually. When performing any impairment assessment, in addition to considering matters particular to the relevant Group business area, management evaluates the overall value of the asset from the perspective of a market participant. Accordingly, any reduction in value is recorded to ensure the intangible asset is held at fair value.

Current and non-current classification

Current assets comprise assets held primarily for trading purposes, cash and cash equivalents, and assets expected to be realised within 1 year from the reporting date, or intended for trade or consumption and realised in the course of the Group's operating cycle. All other assets are classified as non-current assets.

Current liabilities comprise liabilities held primarily for trading purposes, liabilities expected to be settled in the course of the Group's operating cycle and those liabilities due within 1 year from the reporting date. All other liabilities are classified as non current liabilities.

Current and deferred taxation

The current income tax charge is calculated on the basis of the tax laws enacted or substantively enacted at the balance sheet date in the countries where the Company and its subsidiaries operate and generate taxable income.

Full provision is made, using the liability method, for temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the financial statements. Deferred taxation is determined using tax rates that are substantively enacted at the balance sheet date and are expected to apply when the asset is realised or liability settled. Deferred tax assets are recognised to the extent it is probable that they will be recoverable against future taxable profits.

Financial instruments

On 1 January 2018, the Group adopted IFRS 9 'Financial instruments'. The impact of adopting the new standard is detailed in Note 2.

The Group classifies its financial instruments as fair value through profit or loss (FVPL), fair value through other comprehensive income (FVOCI) or amortised cost. The classification depends on the Group's business model for managing its financial instruments and whether the cash flows generated are 'solely payments of principal and interest' (SPPI).

Initial recognition:

- *Financial assets at amortised cost* are financial assets that are held in order to collect the contractual cash flows and the contractual terms give rise to cash flows that are solely payments of principal and interest. The Group's cash and cash equivalents and trade and other receivables fall within this category. Clearing member trading balances relating to sale and buy back transactions and other receivables from clearing members of the CCP businesses also fall within this category.

  Financial assets at fair value through other comprehensive income (FVOCI) are assets where the objective is achieved by both collecting the contractual cash flows or selling the asset. The contractual cash flows received are solely payments of principal and interest. This category includes investments in financial assets and quoted debt instruments (predominantly government bonds) held by the CCP businesses of the Group which are used under the business model to both collect the contractual cash flows and also to sell. Any profit or loss recognised in other comprehensive income on debt instruments is recycled to the income statement if the asset is sold. Any profit or loss on an equity investment remains in retained earnings and is not recycled through the income statement.

  Financial assets at fair value through profit or loss (FVPL) include all other financial assets not classified as amortised cost or FVOCI. This category includes CCP businesses' clearing member trading balances comprising derivatives, equity and debt instruments that are marked to market on a daily basis. There is no change to the previous treatment for these instruments.

- *Financial liabilities at fair value through profit or loss (FVPL)* are liabilities that must be held at fair value. This includes all the CCP businesses' clearing member trading balances, comprising derivatives, equity and debt instruments, which are marked to market on a daily basis.

  Financial liabilities at amortised cost are all financial liabilities that are not included within financial liabilities at FVPL. This comprises the Group's trade and other payables balances, borrowings and other payables to clearing members.

Subsequent measurement:

The Group adopts a forward-looking approach to estimate impairment losses on financial assets. An expected credit loss (ECL) is calculated based on the difference between the contractual cash flows due and the expected cash flows. The difference is discounted at the asset's original effective interest rate and recognised as an allowance against the original value of the asset.

- *Financial assets at amortised cost* – the ECL for trade receivables, contract assets and cash and cash equivalents is calculated using IFRS 9's simplified approach using lifetime ECL. The allowance is based on the Group's historic experience of collection rates, adjusted for forward-looking factors specific to each counterparty and the economic environment at large to create an expected loss matrix.

  The ECL on other financial assets held at amortised cost is measured using the general approach. The Group calculates an allowance based on the 12-month ECL at each reporting date until there is a significant increase in the financial instrument's credit risk, at which point the Group will calculate a loss allowance based on the lifetime ECL, as described above for FVOCI assets.

- *Financial assets at fair value through other comprehensive income (FVOCI)* – the Group's financial assets held at FVOCI consist of high quality government bonds that have a low credit risk. The Group's policy is to calculate a 12-month ECL on these assets. If there is a significant increase in credit risk, then a lifetime ECL will be calculated. A significant increase in credit risk is considered to have occurred when contractual payments are more than 30 days past due.

- *Financial assets at fair value through profit or loss (FVPL)* – no ECL is calculated for assets held at FVPL as any expected loss is already recognised in the fair value.

Financial assets and liabilities are offset and the net amount reported in the balance sheet when there is a legally enforceable right to offset the recognised amounts and there is an intention to settle on a net basis or realise the asset and settle the liability simultaneously.

Cash and cash equivalents comprises cash at bank, short term deposits and investments in money market funds, and other instruments and structures that are readily convertible to known amounts of cash and are subject to insignificant risk of changes in value.

Clearing member cash and cash equivalents represents amounts received from the clearing members to cover initial and variation margins and default fund contributions that are not invested in bonds. These amounts are deposited with banks (including central banks) or invested securely in overnight reverse repurchase contracts (reverse repos).

Fair value measurement

All assets and liabilities for which fair value is measured are categorised within the fair value hierarchy which is described in detail in Note 20.

For assets and liabilities that are recognised at fair value on a recurring basis, the Group determines whether transfers have occurred between levels in the hierarchy by re-assessing categorisation at each balance sheet date.

Derivative financial instruments and hedging activities

Derivatives are initially recognised at fair value on the date a derivative contract is entered into and are subsequently re-measured at their fair value at each balance sheet date. The method of recognising the resulting gain or loss depends on whether or not the derivative is designated as a hedging instrument, and if so the nature of the item being hedged.

The Group applies fair value hedge accounting for hedging interest rate risk on borrowings. Any gain or loss is recognised in the income statement within finance expense.

The Group designates as cash flow hedges both foreign currency derivatives and hedges of interest rate movements associated with highly probable forecast transactions. Any gain or loss on the hedging instrument relating to the effective portion of the hedge is recognised in equity.

The Group hedges a proportion of its net investment in its foreign subsidiaries by designating Euro and US Dollar borrowings and derivative instruments as net investment hedges.

In order to qualify for hedge accounting, a transaction must meet strict criteria as regards documentation, effectiveness, probability of occurrence and reliability of measurement. The Group documents at the inception of the transaction the relationship between hedging instruments and hedged items, as well as its risk management objectives and strategy for undertaking various hedging transactions. Effectiveness testing is conducted at each reporting date and at the commencement and conclusion of any hedge in order to verify that the hedge continues to satisfy all the criteria for hedge accounting to be maintained. The ineffective portion is recognised in the income statement within finance costs.

Amounts accumulated in equity are recycled in the income statement in the period when the hedged item affects profit or loss (for example, when the forecast transaction that is hedged takes place). When a hedging instrument expires or is sold, or when a hedge no longer meets the criteria for hedge accounting, any cumulative gain or loss existing in equity at that time remains in equity and is recognised when the forecast transaction is ultimately recognised in the income statement. When a forecast transaction is no longer expected to occur, the cumulative gain or loss that was reported in equity is immediately transferred to the income statement.

Notes to the financial statements

Trade and other receivables
Trade receivables are initially recognised at fair value and subsequently at amortised cost, less any loss allowance. The Group's approach to calculating credit loss allowances is described above within the financial instruments policy.

Recoveries of amounts previously written off are credited in the income statement.

Other receivables are initially recognised at fair value and subsequently at amortised cost, less any loss allowance as described above.

Contract assets
Contract assets are recognised when the Group has the conditional right to consideration from a customer in exchange for goods or services transferred.

Contract assets are transferred to and presented as trade receivables when the entitlement to payment becomes unconditional and only the passage of time is required before payment is due.

Assets and liabilities held for sale
Assets and liabilities are classified as assets held for sale when their carrying amount is to be recovered principally through a sale transaction and a sale is considered highly probable. They are stated at the lower of carrying amount and fair value less costs to sell.

Contract liabilities
Revenue relating to future periods is classified as a contract liability on the balance sheet to reflect the Group's obligation to transfer goods or services to a customer for which it has received consideration, or an amount of consideration is due, from the customer.

Contract liabilities are amortised and recognised as revenue in the income statement over the period the services are rendered.

Borrowings
Borrowings are initially recorded at the fair value of amounts received, net of direct issue costs and transaction costs (including upfront facility fees). Subsequently these liabilities are carried at amortised cost, and interest is charged to the income statement over the period of the borrowings using the effective interest rate method. Similarly, direct issue costs and transaction costs (including upfront facility fees) are charged to the income statement over the period of the borrowings using the effective interest rate method.

Preference shares
Preference shares or components of preference shares are classified on initial recognition as a financial liability or equity based on the terms of the contract. They are classified as a financial liability if the terms impose a contractual obligation to deliver cash.

Provisions
A provision is recognised where there is a present obligation, whether legal or constructive, as a result of a past event for which it is probable that a transfer of economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation.

The amount recognised as a provision is the present value of the best estimate of the expenditure required to settle the present obligation at the end of the reporting period, i.e. the present value of the amount that the Group would rationally pay to settle the obligation at the balance sheet date or to transfer it to a third party.

Property provisions are made in the financial statements at the lower of the cost of fulfilling lease commitments for property space surplus to business requirements after taking into account income from sub-letting, and any compensation or penalties arising from failure to fulfil the lease commitments.

All provisions are discounted where the time value of money is considered material. When discounting is used, the increase in the provision due to the passage of time is recognised as a finance expense.

Commitments to purchase non-controlling interests
Where the Group has granted put options to non-controlling interest shareholders these are treated as liabilities as the Group has no control over whether these options are exercised or not. The amounts due are recognised at fair value and are revalued on each balance sheet date. When the liability is recognised initially, the redemption amount is reclassified from non-controlling interests. The changes in the fair value of the liability are recognised in the income statement. Changes in the measurement of the liability that do not change the relative interests in the subsidiary company that are held by the parent and the non-controlling interest shareholder are not equity transactions.

Equity and related items
Share capital
The share capital of the Company includes balances relating to the Company's ordinary equity shares, own shares held by the Employee Benefit Trust and treasury shares held by the Company.

When the Company issues new shares to the Employee Benefit Trust at par, the share capital of the Company is increased by the par value of these own shares and a corresponding deduction or debit is recorded to the employee share scheme reserves within retained earnings.

From time to time, the Company may also issue new shares to the Employee Benefit Trust to satisfy vesting of specific employee share schemes. These shares may be issued at a subscription price above par value, reflecting the option cost payable by the participant in the employee share scheme. In such instances, the share capital of the Company is increased by the par value of these own shares and the difference between the subscription price and the par value of the own share is recorded in share premium. A corresponding deduction or debit is recognised in the employee share scheme reserves within retained earnings.

Shares reacquired by the Company from the open market as part of share buyback programmes are referred to as treasury shares and are held by the Company. The consideration payable is deducted from retained earnings.

The par value of the treasury shares is then recorded as a transfer from the Company's ordinary equity shares to treasury shares within share capital.

No gain or loss is recognised by the Company in the income statement on the purchase, sale, issue or cancellation of the Company's own shares held by the Employee Benefit Trust and treasury shares.

Dividend distributions
Dividend distributions to the Company's equity holders are recognised as a liability in the Group financial statements in the period in which the dividends are approved by the Company's shareholders. The Group maintains a sustainable progressive dividend policy. The interim dividend will generally be payable each year in September and final dividend in May. The Group's dividend policy determines that the interim dividend is calculated as one-third of the prior full year dividend.

2. Adoption of new accounting standards and interpretations

On 1 January 2018 the Group adopted IFRS 15 'Revenue from contracts with customers' (IFRS 15) and IFRS 9 'Financial instruments' (IFRS 9). The impact of adopting the new standards has been reflected through transition adjustments to the Group's opening retained earnings at the start of the current year, as presented in the consolidated statement of changes in equity. The table below provides a summary of the impact at the date of transition.

			Transition adjustments				
	Notes	As previously reported 31 December 2017 £m	IFRS 15 Capital Markets – Revenue £m	IFRS 15 Contract costs £m	IFRS 15 Other[1] £m	IFRS 9 £m	After adoption 1 January 2018 £m
Intangible assets (revised)	[illegible]	4,589	–	12	–	–	4,601
Trade and other receivables (revised)	[illegible]	689	–	–	–	10	699
Deferred tax assets	[illegible]	38	27	–	–	–	65
Accrued income	[illegible]	154			(154)		–
Contract assets	[illegible]	–		–	156		156
Other assets		736,5[illegible]	–	–	–	–	736,5[illegible]
Total assets		**741,980**	**27**	**12**	**–**	**10**	**742,029**
Deferred income	[illegible]	104			(104)	–	–
Contract liabilities	[illegible]	–	139		104		244
Deferred tax liabilities	[illegible]	502	–	2			506
Other liabilities		737,622	–	–	–	–	737,622
Total liabilities		**738,228**	**139**	**2**	**–**	**3**	**738,372**
Share capital, share premium and other reserves		2,808				–	2,808
Retained earnings		419	(112)	10		–	324
Non-controlling interests		525	–		–		525
Total equity		**3,752**	**(112)**	**10**	**–**	**7**	**3,657**

1. [illegible]
2. [illegible]

Further details on the impact of each of the new accounting standards is provided below.

IFRS 15 Revenue from contracts with customers – impact of adoption

The Group adopted IFRS 15 with effect from 1 January 2018. This new accounting standard requires the Group to recognise revenue when the Group transfers promised goods or services to customers in an amount that reflects the consideration to which the Group expects to be entitled in exchange for those goods or services. The new guidance requires more detailed revenue disclosures and policies to identify the Group's performance obligations to customers.

The Group has adopted IFRS 15 prospectively from 1 January 2018 under the modified retrospective approach, and consequently the comparative amounts in the Group's consolidated financial statements remain unchanged and are reported under IAS 18 'Revenue' (IAS 18). As permitted by IFRS 15, the Group applied the new standard to contracts that were not completed as at the 1 January 2018 transition date.

IFRS 15 has impacted the Group's consolidated financial statements from 1 January 2018 in the following ways:

Capital Markets – Revenue

In the period since issuing its Interim Report on 2 August 2018, the Group received clarification guidance from the IFRIC regarding the impact of adopting IFRS 15 on admission and listing services provided by the Group's Primary Markets businesses, within the Capital Markets segment. Under IAS 18, initial admission fees were recognised at the time of admission to trading. On conversion to IFRS 15, with the effect back-dated to 1 January 2018, the Group treats the initial admission and the ongoing listing service as one performance obligation and recognises revenue from initial admissions and further issues over the period the Group provides the listing service. This is estimated to be between 12 and 4 years dependent on the nature of the listing and the service provided. As a result the Group recorded a £112 million adjustment to opening retained earnings as at 1 January 2018, as presented in the consolidated statement of changes in equity comprising a £139 million increase in the total contract liabilities, representing admission fee revenues previously recognised as revenue prior to transition which are now deferred, and a consequential £27 million increase in deferred tax assets.

Revenues deferred as at 1 January 2018 result in a recovery of tax paid at the prevailing rate on adoption of IFRS 15 by means of a reduction in the corporation tax payable due to the relevant tax authorities. The Group will subsequently incur corporation tax charge as the deferred revenues from initial admission and further issue fees are recognised in the income statement.

All new and further listing fees will continue to be billed and the cash collected upfront. In the first year of adoption of IFRS 15, the Group's cash and cash equivalent position will incrementally benefit from a reduction in corporation tax payable to the relevant tax authorities than what would have otherwise been payable had the new accounting standard not been adopted.

Notes to the financial statements

Contract costs

The adoption of the new standard required the Group's incremental sales commission costs that were previously expensed when incurred, to be capitalised when they are expected to be recovered. The capitalised contract costs are amortised over the period from which a customer benefits from existing software technology supporting the underlying product or service which the Group has determined to be between 3 to 5 years. As a result the Group recorded a £10 million adjustment to opening retained earnings as at 1 January 2018, as presented in the consolidated statement of changes in equity comprising a £12 million increase in the intangible assets from capitalising sales commissions previously expensed prior to transition, and a consequential £2 million increase in deferred tax liabilities.

The table below shows the amounts by which the Group's financial statements are affected as at and for the year ended 31 December 2018 as a result of adopting IFRS 15.

Year ended 31 December 2018

Effect on the income statement	IFRS 15 reported £m	Capital Markets Revenue £m	Contract costs £m	IAS 18 £m
Total income	2,135	13	–	2,148
Cost of sales	(227)	–	–	(227)
Gross profit	**1,908**	**13**	**–**	**1,921**
Operating expenses before depreciation, non-acquisition software amortisation and impairment	(855)	–	(10)	(865)
Depreciation, non-acquisition software amortisation and impairment	(294)	–	6	(288)
Operating profit/(loss)	**751**	**13**	**(4)**	**760**
Net finance expense	(66)	–	–	(66)
Profit/(loss) before tax	**685**	**13**	**(4)**	**694**
Taxation	(132)	(2)	1	(133)
Profit/(loss) for the year	***553***	***11***	***(3)***	***561***

At 31 December 2018

Effect on the balance sheet	IFRS 15 reported £m	Capital Markets Revenue £m	Contract costs £m	IAS 18 £m
Intangible assets	4,687	–	(16)	4,671
Current tax	147	(29)	2	120
Other assets	838,012	–	–	838,012
Total assets	**842,846**	**(29)**	**(14)**	**842,803**
Contract liabilities	271	(152)	–	119
Deferred tax liabilities	475	–	(1)	474
Other liabilities	838,402	–	–	838,402
Total liabilities	**839,148**	**(152)**	**(1)**	**838,995**
Share capital, share premium and other reserves	2,919	–	–	2,919
Retained earnings	424	123	(13)	534
Non-controlling interests	355	–	–	355
Total equity	**3,698**	**123**	**(13)**	**3,808**

Year ended 31 December 2018

Effect on the earnings per share attributable to equity holders	IFRS 15 reported	Capital Markets Revenue	Contract costs	*IAS 18*
Basic earnings per share	**138.3p**	**3.2p**	**(0.9p)**	**140.6p**
Diluted earnings per share	**136.0p**	**3.1p**	**(0.8p)**	**138.3p**
Adjusted basic earnings per share	**173.8p**	**3.2p**	**(0.9p)**	**176.1p**
Adjusted diluted earnings per share	**170.8p**	**3.1p**	**(0.8p)**	**173.1p**

IFRS 9 Financial instruments – impact of adoption

On 1 January 2018 the Group adopted IFRS 9 'Financial instruments' and applied the standard retrospectively. The Group has elected to continue to apply hedge accounting under IAS 39 'Financial Instruments: Recognition and Measurement'.

The Group has not restated comparative amounts in the financial statements, as this would require the use of hindsight in factors influencing measurement such as fair values and expected credit loss calculations and therefore is prohibited by the standard. Instead the Group has recognised any differences between the carrying amounts measured in accordance with IFRS 9 at the date of transition with previously reported carrying amounts in the opening retained earnings of the current period. This has resulted in a £7 million adjustment to opening retained earnings as at 1 January 2018, as presented in the consolidated statement of changes in equity. This comprises a £10 million reduction in the provision for impairment of trade receivables and a £1 million reversal of contract liabilities (prior to the adoption of IFRS 15 referred to as 'deferred income') previously provided for as the Group modified its previous impairment model to an expected credit loss approach which takes into account historic collection rates as well as forward looking information, and a consequential £2 million increase in deferred tax liability.

Amounts presented in the Group's consolidated financial statements as at 31 December 2017 have been updated to adopt the new terminology under IFRS 9. The previously reported 'loans and receivables' and 'available for sale at fair value through other comprehensive income' categories are now referred to as 'financial assets at amortised cost' and 'financial assets at fair value through other comprehensive income' (FVOCI) respectively in Note 20.

The new standard requires financial instruments to be classified as fair value through profit or loss (FVPL), fair value through other comprehensive income (FVOCI) or amortised cost, each of which are explained further below. The classification depends on the Group's business model for managing its financial instruments and whether the cash flows generated are 'solely payments of principal and interest' (SPPI):

- *Financial assets at amortised cost* are assets that are held to collect the contractual cash flows (solely payments of principal and interest); this includes the Group's cash and cash equivalents and trade and other receivables. Clearing member trading balances relating to sale and buy back transactions and other receivables from clearing members within the Central Counterparty (CCP) businesses also fall within this category. At the date of transition, £164,906 million previously reported as loans and receivables are now referred to as financial assets at amortised cost.
- *Financial assets at fair value through other comprehensive income (FVOCI)* are assets used by the business mainly to collect the contractual cash flows, but also to be sold from time to time. This category includes investments in financial assets and quoted debt instruments (predominantly government bonds) held by the CCP businesses. Previously these assets were classified as either 'available for sale at FVOCI' or 'FVPL'. At the date of transition, £3,652 million of other financial assets of the CCP clearing businesses previously designated as FVPL were reclassified as FVOCI with no change in valuation, and £16,541 million of assets previously designated as available for sale at FVOCI are now referred to as FVOCI with no change in valuation. Any profit or loss recognised in other comprehensive income on debt instruments is recycled to the income statement if the asset is sold. Any profit or loss on an equity investment remains in other comprehensive income and is not recycled.
- *Financial assets at fair value through profit or loss (FVPL)* are either assets that are designated as FVPL on recognition or that are traded on a regular basis. This category includes derivative instruments held by the Group and CCP clearing member trading balances comprising derivatives, equity and debt instruments that are marked to market on a daily basis. There is no change to the previous treatment for these instruments. At the date of transition £549,691 million of assets remained as FVPL.

  Financial liabilities at amortised cost are all financial liabilities that are not included within financial liabilities at FVPL. This comprises the Group's trade and other payables balances and borrowings as well as clearing member trading balances related to sale and buy back transactions and other payables to clearing members. There was no change on the previous treatment for these instruments.
- *Financial liabilities at fair value through profit or loss (FVPL)* includes all the CCP clearing member trading balances, comprising derivatives, equity and debt instruments, which are marked to market on a daily basis, along with any derivative instruments held by the Group. There was no change to the previous treatment for these instruments.

IFRS 9 adopts a new approach to calculating impairment losses on financial instruments, with the Group required to adopt a forward-looking approach to estimate expected credit losses (ECLs). ECLs are based on the difference between the contractual cash flows due and the expected cash flows; the difference is then discounted at the asset's original effective interest rate. The impact of the new approach on the Group's financial statements is as follows:

- *Financial assets at amortised cost* – the ECL for trade receivables, contract assets and cash and cash equivalents is calculated using IFRS 9's simplified approach using lifetime ECL. The new provision is calculated using an expected loss matrix which has been developed using the Group's historic experience of collection rates, adjusted for forward looking factors specific to each counterparty and the economic environment at large. Applying this approach to the trade receivables as at 31 December 2017 created a lower provision than previously recognised; accordingly a £7 million net of tax credit to the opening reserves has been recognised in the consolidated statement of changes in equity. There is no expected loss on cash and cash equivalents on transition to the new standard.
- *Financial assets held at FVOCI* – the Group's financial assets held at FVOCI are largely held by the CCP businesses and consist of high quality government bonds that have a low credit risk. The Group's policy is to calculate a 12-month ECL on these assets. If there is a significant increase in credit risk, then a lifetime ECL will be calculated. A significant increase in credit risk is considered to have occurred when contractual payments are more than 30 days past due. As at the date of adoption, the Group has determined that the 12-month ECL on these assets is nil, and there have been no significant increases in credit risk, and therefore no lifetime ECL has been calculated for these assets.

  Expected credit losses on the remaining financial assets are measured using the general approach. The Group calculates an allowance based on the 12-month ECL at each reporting date until there is a significant increase in the financial instrument's credit risk, at which point the Group will calculate a loss allowance based on the lifetime ECL, as described above for FVOCI assets. The expected loss in the year was nil.
- *Financial assets at fair value through profit or loss (FVPL)* – in accordance with IFRS 9, no ECLs are required for assets held at FVPL.

Notes to the financial statements

The table below illustrates the changes to the classification of the Group's financial assets under IFRS 9 and IAS 39 at the date of initial application of IFRS 9

Instrument	Description	IAS 39	IFRS 9
Assets			
Clearing member financial assets			
– Clearing member trading assets	Sale and buyback transactions	Amortised cost	**Amortised cost**
– Clearing member trading assets	All other clearing member trading assets	FVPL	**FVPL**
– Other receivables from clearing members	Interest and margin receipts due	Amortised cost	**Amortised cost**
– Other financial assets	Investments relating to cash collateral held	FVPL or Available for sale	**FVOCI**
Cash and cash equivalents	Cash and cash of clearing members	Amortised cost	**Amortised cost**
Trade and other receivables including non-current receivables	Trade receivables and other receivables	Amortised cost	**Amortised cost**
Contract assets	From contracts with customers	Amortised cost	**Amortised cost**
Investments in financial assets	Typically comprise investments in government debt	Available for sale	**FVOCI**
Derivative financial instruments	Both assets and liabilities	FVPL	**FVPL**
Liabilities			
Clearing member financial liabilities			
– Clearing member trading liabilities	Sale and buyback transactions	Amortised cost	**Amortised cost**
– Clearing member trading liabilities	All other clearing member trading liabilities	FVPL	**FVPL**
– Other payables to clearing members	Interest and margin payments due	Amortised cost	**Amortised cost**
Trade and other payables including other non-current payables	Trade payables, accruals and deferred consideration	Amortised cost	**Amortised cost**
Borrowings	Bank borrowings and other forms of financing	Amortised cost	**Amortised cost**

3. Financial risk management

The Group seeks to protect its financial performance and the value of its business from exposure to capital, credit, concentration, country, liquidity, settlement, custodial and market (including foreign exchange, cash flow and fair value interest rate) risks.

The Group's financial risk management approach is not speculative and adopts a '3 lines of defence' model. It is performed both at a Group level, where the treasury function identifies, evaluates and hedges financial risks from a Group perspective and also locally, where operating units manage their regulatory and operational risks. This includes clearing operations at the Group's CCPs (at LCH Group and CC&G) that adhere to local regulation and operate under approved risk and investment policies.

The Group Chief Risk Officer's team provides assurance that the governance and operational controls are effective to manage risks within the Board-approved risk appetite, supporting a robust Group risk management framework. The Financial Risk Committee, a sub-committee of the Group Executive Committee and chaired by the Chief Financial Officer, meets monthly to oversee the consolidated financial risks of the Group. In addition, the Treasury Committee, a sub-committee of the Financial Risk Committee (which is also chaired by the Chief Financial Officer), meets regularly to monitor the management of, and controls around foreign exchange, interest rate, credit and concentration risks and the investment of excess liquidity in addition to its oversight of the Group's funding arrangements. Both committees provide the Group's senior management with assurance that the treasury and risk operations are performed in accordance with Group Board approved policies and procedures. Regular updates on a range of key criteria, as well as new developments, are provided through the Enterprise Wide Risk Management Framework to the Group Risk Committee. See 'Risk Management Oversight Supplement' for further detail on the Group's risk framework on our website at **www.lseg.com/about-london-stock-exchange-group/risk-management-oversight**

On 23 June 2016 the UK voted to exit the EU. The UK companies within the Group, as members of the EU or European Economic Area (EEA), rely on a number of rights that are available to them to conduct business with other EU or EEA members. This includes, without limitation, the right for UK CCPs to offer clearing services to EU regulated firms under EMIR, and the right for UK trading venues to offer services to members in the EU or EEA. The Group companies have analysed the potential impacts and considered contingency plans that they may choose to execute should these rights not be replaced by rights that persist outside EU membership.

Capital risk

Risk description

The Group is profitable and strongly cash generative and its capital base comprises equity and debt capital.

However, the Group recognises the risk that its entities may not maintain sufficient capital to meet their obligations or they may make investments that fail to generate a positive return or value enhancing return.

The Group comprises regulated and unregulated entities. It considers that:

- increases in the capital requirements of its regulated companies; or
- negative yields on its investments of cash; or
- the availability of debt or equity driven by its own performance or financial market conditions

either separately or in combination are the principal risks to managing its capital.

Risk management approach

The Group focuses upon its overall cost of capital as it seeks, within the scope of its risk appetite, to provide superior returns to its shareholders, fulfil its obligations to the relevant regulatory authorities and other stakeholders and ensure that it is not overly dependent upon short and medium term debt that might not be available at renewal. Maintaining access to capital and flexibility to invest in growth is a key management consideration.

The Group can manage its capital structure and react to changes in economic conditions by varying returns to shareholders, issuing new shares or increasing or reducing borrowings. The Board reviews dividend policy and funding capacity on a regular basis and the Group maintains comfortable levels of debt facility headroom. A summary of the Group's capital structure is presented below.

Book value of capital	31 December 2018 £m	31 December 2017 £m
Total shareholders' funds	**3,343**	[illegible]
Group consolidated debt	**2,203**	[illegible]

Whilst the Company is unregulated, the regulated entities within the Group monitor for compliance with the capital requirements set by their respective competent authorities and the terms of reference of the Financial Risk Committee includes oversight of the Group's Capital Management Policy. The Capital Management Policy seeks to ensure that compliance with local regulation is maintained and that there is a robust evaluation undertaken by the Group's Investment Committee of the impact of new investments across the Group on its capital position. Regulated entities within the Group have to date predominantly issued equity and held cash to satisfy their local regulatory capital requirements.

We believe that capital held by Group companies is sufficient to comfortably support current regulatory frameworks. The level of amounts set aside for these purposes remains subject to ongoing review with regulators, particularly in Europe. The aggregate of the Group's regulatory and operational capital is shown below.

Regulatory and operational capital	31 December 2018 £m	31 December 2017 £m
Total regulatory and operational capital	**1,203**	1,147
Amount included in cash and cash equivalents	**1,120**	1,042

The total capital amounts have increased year on year reflecting strong cash generation at regulated entities and to meet the requirements of MiFID II regulation and IFRS 15 accounting changes.

To maintain the financial strength to access new capital at a reasonable cost and sustain an investment grade credit rating, the Group monitors its net leverage ratio which is operating net debt (i.e. net debt after excluding cash and cash equivalents set aside for regulatory and operational purposes) to pro forma adjusted EBITDA (Group consolidated earnings before net finance charges, taxation, impairment, depreciation and amortisation, foreign exchange gains or losses and non-underlying items, pro rated for acquisitions or disposals undertaken in the period) against a target range of 1-2 times. The Group is also mindful of potential impacts on the key metrics employed by the credit rating agencies in considering increases to its borrowings.

As at 31 December 2018, net leverage was 1.5 times (2017: 1.7 times) and remains well within the Group's target range. The Group is comfortably in compliance with its bank facility ratio covenants (net leverage and interest cover) and these measures do not inhibit the Group's operations or its financing plans.

Notes to the financial statements

Credit and concentration risk

Risk description

The Group's credit risk relates to its customers and counterparties being unable to meet their obligations to the Group either in part or in full, including:

- customer receivables;
- repayment of invested cash and cash equivalents; and
- settlement of derivative financial instruments.

In their roles as CCP clearers to financial market participants, the Group's CCPs guarantee final settlement of transactions acting as buyer towards each seller and as seller towards each buyer. They manage substantial credit risks as part of their operations including unmatched risk positions that might arise from the default of a party to a cleared transaction. For more information see 'Principal Risks and Uncertainties' pages 46 to 57.

Notwithstanding regulations that require CCPs to invest predominantly in secured instruments or structures (such as government bonds and reverse repos), CC&G and the LCH Group CCPs continue to be able to maintain up to 5% of their total deposits at commercial banks on an unsecured basis. Through this potential for its CCPs to invest on an unsecured basis (as well as by certain other regulated and unregulated operations observing agreed investment policy limits), the Group may continue to face some risk of direct loss from a deterioration or failure of one or more of its unsecured investment counterparties.

Concentration risk may arise through Group entities having large individual or connected exposures to groups of counterparties whose likelihood of default is driven by common underlying factors. This is a particular focus of the investment approach at the Group's CCPs.

Risk management approach

Group

Credit risk is governed through policies developed at a Group level. Limits and thresholds for credit and concentration risk are kept under review.

Group companies make a judgement on the credit quality of their customers based upon the customers' financial position, the recurring nature of billing and collection arrangements and, historically, a low incidence of default. Furthermore, the Group is exposed to a large number of customers and so concentration risk on its receivables is deemed by management as low.

Non-CCP entities

Credit risk associated with cash and cash equivalents is managed by limiting exposure to counterparties with credit rating levels below policy minimum thresholds, potentially overlaid by a default probability assessment. Except where specific approval is arranged to increase this limit for certain counterparties, investment limits of between £100 million and £25 million apply for periods between 12 months and 1 week depending on counterparty credit rating and default probability risk. Derivative transactions and other treasury receivable structures are undertaken or agreed with well capitalised counterparties and are authorised by policy to limit the credit risk underlying these transactions.

CCPs

To address market participant and latent market risk, the Group's CCPs have established financial safeguards against single or multiple defaults. Clearing membership selection is based upon supervisory capital, technical and organisational criteria. Each member must pay margins computed and collected at least daily, to cover the exposures and theoretical costs which the CCP might incur in order to close out open positions in the event of a member's default. Margins are calculated using established and internationally acknowledged risk models and are debited from participants' accounts through central bank accounts and via commercial bank payment systems. Minimum levels of cash collateral are required and non-cash collateral is revalued daily.

		31 December 2018 £bn	31 December 2017 £bn
Clearing members' margin liability		**(175)**	(151)
Collateral security	Cash	**81**	73
	Non-cash	**94**	78
Maximum aggregate margin liability for the year		**(181)**	(161)

Clearing members also contribute to default funds managed by the CCPs to guarantee the integrity of the markets in the event of multiple defaults in extreme market circumstances. Amounts are determined on the basis of the results of periodic stress testing examined by the risk committees of the respective CCPs. Furthermore, each of the Group's CCPs reinforces its capital position to meet the most stringent relevant regulatory requirements applicable to it including holding a minimum amount of dedicated own resources to further underpin the protective credit risk framework in the event of a significant market stress event or participant failure. An analysis of the aggregate clearing member contributions to default funds across the CCPs is shown below.

Clearing member contributions to default funds	31 December 2018 £bn	31 December 2017 £bn
Aggregate at year end	**17**	10
Maximum during the year	**19**	18

Investment counterparty risk for CCP margin and default funds is managed by investing the cash element in instruments or structures deemed 'secure' by the relevant regulatory bodies including through direct investments in highly rated, regulatory qualifying sovereign bonds and supra-national debt, investments in tri-party and bilateral reverse repos (receiving high quality government securities as collateral) and, in certain jurisdictions, deposits with the central bank. The small proportion of cash that is invested unsecured is placed for short durations with highly rated counterparties where strict limits are applied with respect to credit quality, concentration and tenor.

	31 December 2018 £bn	31 December 2017 £bn
Total investment portfolio	**94**	87
Maximum portfolio size during the year	**103**	95
Additional portfolio information		
Weighted average invested securely	**98%**	99%
Weighted average maturity days	**49**	74

Associated liquidity risks are considered in the investment mix and discussed further below.

To address concentration risk, the Group maintains a diversified portfolio of high quality liquid investments and uses a broad range of custodians, payment and settlement banks and agents. The largest concentration of treasury exposures as at 31 December 2018 was 17% of the total investment portfolio to the French Government (2017: 24% to the French Government).

Country risk

Risk description	Risk management approach
Losses can result from the risk that certain governments may be unable or find it difficult to [illegible] their debts. This could have adverse effects, particularly on the Group's CCPs, potentially impacting cleared products, margin collateral, investments, the clearing members' [illegible] and the financial industry as a whole.	Specific risk frameworks manage country risk from fixed income, clearing and margin collateral and all clearing members are monitored regularly against a suite of severe but stress scenarios. Investment limits and counterparty and clearing membership monitoring are sensitive to changes in ratings and other financial market indicators to ensure the Group's CCPs are able to measure, monitor and mitigate exposures to sovereign risk and respond quickly to anticipated changes. Risk Committees maintain an ongoing watch over these risks and the associated policy frameworks to protect the Group against potentially severe volatility in the sovereign debt markets. The Group's sovereign exposures of [illegible] billion, primarily at the end of the financial reporting period, are shown below.

Group Aggregate Sovereign Treasury Exposures

Country	2018 £bn	2017 £bn
France	**16**	[illegible]
USA	**9**	[illegible]
Netherlands	**7**	–
UK	**4**	[illegible]
Switzerland	**3**	[illegible]
EU	**3**	–
Italy	**2**	[illegible]
Germany	**1**	

Liquidity, settlement and custodial risk

Risk description

The Group's operations are exposed to liquidity risk to the extent that they are unable to meet their daily payment obligations.

In addition, the Group's CCPs and certain other Group companies must maintain a level of liquidity consistent with regulatory requirements to ensure the smooth operation of their respective markets and to maintain operations in the event of a single or multiple market stress event or member failure. This includes the potential requirement to liquidate the position of a clearing member under a default scenario including covering the associated losses and the settlement obligations of the defaulting member.

The Group is exposed to the risk that a payment or settlement bank could fail or that its systems encounter operational issues, creating liquidity pressures and the risk of possible default on payment or receivable obligations.

The Group uses third party custodians to hold securities and is therefore exposed to the custodian's insolvency, its negligence, a misuse of assets or poor administration.

Risk management approach

Group

The combined Group businesses are profitable, generate strong free cash flow and its operations are not significantly impacted by seasonal variations. The Group maintains sufficient liquid resources to meet its financial obligations as they fall due and to invest in capital expenditure, make dividend payments, meet its pension commitments, support acquisitions or repay borrowings. With the exception of regulatory constraints impacting certain entities, funds can generally be lent across the Group and cash earnings remitted through dividend payments. This is an important component of the Group Treasury cash management policy and approach.

Management monitors forecasts of the Group's cash flow and overlays sensitivities to these forecasts to reflect assumptions about more difficult market conditions or stress events.

Non-CCP entities

Treasury policy requires that the Group maintains adequate credit facilities provided by a diversified lending group to cover its expected funding requirements and ensure a minimum level of headroom for at least the next 24 months. The financial strength of lenders to the Group is monitored regularly.

During the year ended 31 December 2018, the Group extended the maturity of its 2017 arranged 5 year £600 million committed revolving credit facility by another year to 2024 and issued a €500 million bond due in 2027 further extending its debt maturity profile. It also issued Euro commercial paper under its newly established €1 billion programme, further diversifying its sources of liquidity, with €300 million in issuance at the end of the financial year. At 31 December 2018, £1,155 million (2017: £675 million) of the Group's bank facilities were unutilised, providing swingline backstop coverage for the €300 million Euro commercial paper in issuance and financing flexibility more broadly for the Group.

CCPs

The Group's CCPs maintain sufficient cash and cash equivalents and in certain jurisdictions have access to central bank refinancing or commercial bank liquidity support credit lines to meet the cash requirements of the clearing and settlement cycle. Revised regulations require CCPs to ensure that appropriate levels of back-up liquidity are in place to underpin the dynamics of a largely secured cash investment requirement ensuring that the maximum potential outflow under extreme market conditions is covered (see Credit and concentration risk section above). The Group's CCPs monitor their liquidity needs daily under normal and stressed market conditions.

Where possible, the Group employs guaranteed delivery versus payment settlement techniques and manages CCP margin and default fund flows through central bank or long-established, bespoke commercial bank settlement mechanisms. Monies due from clearing members remain the clearing members' liability if the payment agent is unable to effect the appropriate transfer. In addition, certain Group companies, including the CCPs, maintain operational facilities with commercial banks to manage intraday and overnight liquidity.

Custodians are subject to minimum eligibility requirements, ongoing credit assessment, robust contractual arrangements and are required to have appropriate back up contingency arrangements in place.

The table below analyses the Group's financial liabilities into relevant maturity groupings based on the remaining period from the balance sheet date to the contractual maturity date. The amounts disclosed in the table reflect the contractual undiscounted cash flows. The borrowings line includes future interest on debt that is not accrued for in relation to bonds that are not yet due.

At 31 December 2018	Less than 1 year £m	Between 1 and 2 years £m	Between 2 and 5 years £m	Over 5 years £m	Total £m
Borrowings	**601**	**34**	**373**	**1,435**	**2,443**
Trade and other payables	**509**	**–**	**–**	**–**	**509**
Clearing member business liabilities	**835,508**	**–**	**–**	**–**	**835,508**
Derivative financial instruments	**30**	**–**	**–**	**17**	**47**
Other non-current liabilities	**–**	**7**	**3**	**1**	**11**
	836,648	**41**	**376**	**1,453**	**838,518**

Notes to the financial statements

Liquidity, settlement and custodial risk

Risk description

Risk management approach

At 31 December 2017	Less than 1 year £m	Between 1 and 2 years £m	Between 2 and 5 years £m	Over 5 years £m	Total £m
Borrowings	556	299	364	951	2,170
Trade and other payables	471	–	–	–	471
Clearing member business liabilities	734,981	–	–	–	734,981
Derivative financial instrument		29	–	–	29
Other non-current liabilities		34	12	3	49
	736,008	362	376	954	737,700

Market risk – Foreign Exchange

Risk description

The Group operates primarily in the UK, Europe and North America, but also has growing and strategically important businesses in Asia and other alliances and investments across the globe. Its principal currencies of operation are Sterling, Euro and US Dollars.

Group companies generally invoice revenues, incur expenses and purchase assets in their respective local currencies. As a result, foreign exchange risk arises mainly from the translation of the Group's foreign currency earnings, assets and liabilities into its reporting currency, Sterling, and from occasional high value intragroup transactions. Exceptions exist including at MillenniumIT (a Sri Lankan Rupee reporting entity which invoices a material proportion of its revenues in US Dollars) and at certain operations of the LCH Group (a Euro reporting subsidiary which generate material revenue in Sterling and US Dollars and incur material costs in Sterling).

Intragroup dividends and the currency debt interest obligations of the Company may create short-term transactional FX exposure but play their part in controlling the level of translational FX exposures the Group faces.

The Group may be exposed from time to time to FX risk associated with strategic investments in, or divestments from, operations denominated in currencies other than Sterling.

Risk management approach

The Group seeks to match the currency of its debt liabilities to the currency of its earnings and cash flows which, to an extent, protects its key ratios (net leverage and interest coverage) and balances the currency of its assets with its liabilities. In order to mitigate the impact of unfavourable currency exchange rate movements on earnings and net assets, non-Sterling cash earnings are centralised and applied to matching currency debt and interest payments, and, where relevant, interest payments on Sterling debt re-denominated through the use of cross-currency swaps.

A material proportion of the Group's debt is held in or swapped into Euros and US Dollars as noted below:

Currency of debt	31 December 2018 £m	31 December 2017 £m
Euro-denominated drawn debt	**1,631**	921
Euro-denominated cross currency interest rate swaps	**(361)**	[illegible]
US Dollar-denominated drawn debt	**–**	–
US Dollar-denominated cross currency interest rate swaps	**631**	[illegible]

The cross-currency interest rate swaps are directly linked to Sterling and Euro fixed debt. The Euro and US Dollar denominated debt, including the cross currency swaps, provides a hedge against the Group's net investment in Euro and US Dollar denominated entities.

As at 31 December 2018, the Group's designated hedges of its net investments were fully effective.

Whilst transactional foreign exchange exposure is limited, the Group hedges material transactions in accordance with Group Treasury policy, which requires cash flows of more than £5 million or equivalent per annum to be hedged, with appropriate derivative instruments or by settling currency payables or receivables within a short timeframe. Where appropriate, hedge accounting for derivatives is considered in order to mitigate material levels of income statement volatility.

In addition to projecting and analysing its earnings and debt profile by currency, the Group reviews sensitivities to movements in exchange rates which are appropriate to market conditions. The Group has considered movements in the Euro and the US Dollar over the year ended 31 December 2018 and year ended 31 December 2017 and, based on actual market observations between its principal currency pairs, has concluded that a 10% movement in rates is a reasonable level to illustrate the risk to the Group. The impact on post-tax profit and equity for the years ended 31 December is set out in the table below:

		2018		2017	
		Post-tax profit £m	Equity £m	Post-tax profit £m	Equity £m
Euro	Sterling weaken	**(2)**	**(16)**	4	21
	Sterling strengthen	**2**	**15**	(3)	(19)
US Dollar	Sterling weaken	**7**	**(45)**	6	(49)
	Sterling strengthen	**(7)**	**41**	(5)	35

This reflects foreign exchange gains or losses on translation of Euro and US Dollar denominated financial assets and financial liabilities including Euro and US Dollar denominated cash and borrowings.

The impact on the Group's operating profit for the year before amortisation of purchased intangible assets and non underlying items, of a 10 Euro cent and 10 US Dollar cent movement in the Sterling-Euro and Sterling-US dollar rates respectively, can be seen below:

		2018 £m	2017 £m
Euro	Sterling weaken	**27**	25
	Sterling strengthen	**(23)**	(21)
US Dollar	Sterling weaken	**31**	26
	Sterling strengthen	**(27)**	(22)

Market risk – Cash Flow and Fair Value Interest Rate Risk

Risk description	Risk management approach
The Group's interest rate risk arises through the impact of changes in market rates on cash flows associated with cash and cash equivalents, investments in financial assets and borrowings held at floating rates. The Group's CCPs face interest rate exposure through the impact of changes in the reference rates used to calculate member liabilities versus the yields achieved through their predominantly secured investment activities.	Group interest rate management policy is focused on [illegible] the Group's credit rating and maintaining compliance with bank covenant requirements. To support this objective a minimum coverage of interest expense by EBITDA of [illegible] times and a maximum floating rate component of 50% of total debt are targeted. This approach reflects: - a focus on the Group's [illegible] gross debt rather than its net debt given the material cash and cash equivalents held for regulatory purposes; - the short duration allowed for investments of cash and cash equivalents held for regulatory purposes, which in the main generate low investment yields; - a view currently maintained that already low market yields are unlikely to move materially lower; and - the broad natural hedge of floating rate borrowings provided by the significant balances of cash and cash equivalents held effectively at floating rates of interest. At 31 December 2018 consolidated net interest expense cover by EBITDA was measured over the 12 month period at 16.0 times (2017: 15.5 times) and the floating rate component of total debt was 14% (2017: 17%). In the Group's CCPs, interest bearing assets are generally invested in secured instruments or structures and for a longer term than interest bearing liabilities, whose interest rate is reset daily. This makes net investment revenue vulnerable to volatility in overnight rates and shifts in spreads between overnight and term rates. Interest rate exposures, and the risk to CCP capital, are managed within defined risk appetite parameters against which sensitivities are monitored daily. In its review of the sensitivities to potential movements in interest rates, the Group has considered interest rate volatility over the last year and projections for rates over the next 12 months and has concluded that a 1 percentage point upward movement (with a limited prospect of material downward movement) reflects a reasonable level of risk to current rates. At 31 December 2018, at the Group level, if interest rates on cash and cash equivalents and borrowings had been 1 percentage point higher with all other variables held constant, post tax profit for the year would have been £[illegible] million higher (2017: £[illegible] million higher), mainly as a result of higher interest income on floating rate cash and cash equivalents partially offsetting higher interest expense on floating rate borrowings. At 31 December 2018, at the CCP level, in aggregate, if interest rates on the common interest bearing member liability benchmarks of Eonia, Fed Funds and Sonia for Euro, US Dollar and Sterling liabilities respectively, had been 1 percentage point higher with all other variables held constant, the daily impact on post tax profit for the Group would have been £[illegible] million lower (2017: £[illegible] million lower). This deficit is expected to be recovered as investment yields increase as the portfolio matures and is reinvested.

Notes to the financial statements

4. Significant judgements and estimates

Judgements and estimates are regularly evaluated based on historical experience current circumstances and expectations of future events

Estimates:

For the year ended 31 December 2018 the following areas require the use of estimates

Impairment of purchased intangible assets, goodwill and investment in subsidiaries – these assets form a significant part of the balance sheet and are key assets for the cash generating business in the Group The recoverable amounts of relevant cash generating units are based on value in use calculations using management's best estimate of future performance and estimates of the return required by investors to determine an appropriate discount rate Details are provided in Note 15

Defined benefit pension asset or liability – determined based on the present value of future pension obligations using assumptions determined by the Group with advice from an independent qualified actuary Sensitivity analysis is provided in Note 19, and

Estimated service period for admission and listing services within the Primary Markets business the Group determines the estimated period for admission services using historical analysis of listing durations in respect of the companies on our markets The estimated service period inherently incorporates an element of uncertainty in relation to the length of a customer listing which is subject to factors outside of the Group's control The estimated service periods are provided in Note 2 and are reassessed at each reporting date to ensure the period reflects the Group's best estimates The Group estimates that a 1 year decrease in the deferral period would cause an estimated £5 million increase in revenue and a 1 year increase in the deferral period would cause an estimated £4 million decrease in revenue recognised in the year

Judgements:

In preparing the financial statements for the year ended 31 December 2018 the following judgement has been made

Clearing member trading assets and trading liabilities – The Group uses its judgement to carry out the offsetting within clearing member balances The carrying values of the balances are offset at what the Group considers an appropriate level to arrive at the net balances reported in the balance sheet The Group has an aligned approach for its CCP subsidiaries to ensure the principles applied are consistent across similar assets and liabilities The approach is reviewed on a timely basis to ensure the approach used is the most appropriate Details of amounts offset are provided in Note 21

5. Segmental information

The Group is organised into operating units based on its service lines and has 6 reportable segments Information Services Post Trade Services – LCH Post Trade Services CC&G and Monte Titoli, Capital Markets Technology Services and Other These segments generate revenue in the following areas.

- **Information Services** – Subscription and licence fees for data and index services provided
- **Post Trade Services – LCH** – Fees based on CCP and clearing services provided, non-cash collateral management and net interest earned on cash held for margin and default funds
- **Post Trade Services – CC&G and Monte Titoli** Clearing fees based on trades and contracts cleared, net interest earned on cash securities held for margin and default funds and fees from settlement and custody services.
- **Capital Markets** – Admission fees from initial listing and further capital raises annual fees charged for securities traded on the Group's markets and fees from our secondary market services
- **Technology Services** – Capital markets software licences and related IT infrastructure network connection and server hosting services, and
- **Other** – Includes events and media services

The Executive Committee monitors the operating results of its business units separately for the purpose of making decisions about resource allocation and performance assessment

Sales between segments are carried out at arm's length and are eliminated on consolidation.

Segmental disclosures for the year ended 31 December 2018 are as follows:

	Information Services £m	Post Trade Services – LCH £m	Post Trade Services – CC&G and Monte Titoli £m	Capital Markets £m	Technology Services £m	Other £m	Eliminations £m	Group £m
Revenue from external customers	841	487	102	407	65	9	–	1,911
Inter-segmental revenue	–	–	1	–	21	–	(22)	–
Revenue	841	487	103	407	86	9	(22)	1,911
Net treasury income through CCP business	–	175	43	–	–	–	–	218
Other income	–	–	–	–	–	6	–	6
Total income	841	662	146	407	86	15	(22)	2,135
Cost of sales	(70)	(123)	(7)	(16)	(9)	(2)	–	(227)
Gross profit	771	539	139	391	77	13	(22)	1,908
Share of loss after tax of associate	–	–	–	(1)	–	(7)	–	(8)
Earnings before interest, tax, depreciation, amortisation and impairment	469	304	92	201	18	(5)	(13)	1,066
Underlying depreciation, amortisation and impairment	(29)	(62)	(9)	(17)	(20)	(2)	4	(135)
Operating profit/(loss) before non-underlying items	440	242	83	184	(2)	(7)	(9)	931
Amortisation of purchased intangible assets								(159)
Other non-underlying items								(21)
Operating profit								751
Net finance expense								(66)
Profit before tax from continuing operations								685

Revenue from external customers principally comprises fees for services rendered of £1,837 million (2017: £1,668 million) and Technology Services of £65 million (2017: £91 million).

Net treasury income through CCP businesses of £218 million (2017: £162 million) comprises gross interest income of £1,025 million (2017: £813 million) less gross interest expense of £807 million (2017: £651 million). During the year the Group recognised a total of £106 million (2017: £74 million) of net treasury income on financial assets and liabilities held at amortised cost comprising £732 million (2017: £559 million) gross treasury income and £626 million (2017: £485 million) gross treasury expense, and £112 million net gain (2017: £88 million net gain) on assets held at fair value comprising £293 million (2017: £254 million) fair value gain and £181 million (2017: £166 million) fair value loss.

Presented within revenue are net settlement expenses from the CCP business of £2 million (2017: £1 million expense) which comprise gross settlement income of £24 million (2017: £22 million) less gross settlement expense of £26 million (2017: £23 million).

The Group's revenue from contracts with customers disaggregated by segment, major product and service line, and timing of revenue recognition for the year ended 31 December 2018 is shown below.

	Information Services £m	Post Trade Services – LCH £m	Post Trade Services – CC&G and Monte Titoli £m	Capital Markets £m	Technology Services £m	Other £m	Group £m
Revenue from external customers							
Major product & service lines							
FTSE Russell Indexes	631	–	–	–	–	–	631
Real time data	94	–	–	–	–	–	94
Other information services	116	–	–	–	–	–	116
Clearing	–	487	41	–	–	–	528
Settlement, custody and other	–	–	61	–	–	–	61
Primary capital markets	–	–	–	113	–	–	113
Secondary capital markets – Equities	–	–	–	169	–	–	169
Secondary capital markets – Fixed income, derivatives and other	–	–	–	125	–	–	125
Capital markets software licences	–	–	–	–	65	–	65
Other	–	–	–	–	–	9	9
Total revenue from contracts with customers	841	487	102	407	65	9	1,911
Timing of revenue recognition							
Services satisfied at a point in time	45	479	93	237	2	8	864
Services satisfied over time	796	8	9	170	63	1	1,047
Total revenue from contracts with customers	841	487	102	407	65	9	1,911

The disaggregated revenue table presented above for the year ended 31 December 2018 is a new requirement as a result of the Group adopting IFRS 15 on 1 January 2018. The Group has used the modified retrospective approach to transition to IFRS 15 and therefore no comparative disclosures are presented.

Notes to the financial statements

Segmental disclosures for the year ended 31 December 2017 are as follows

	Information Services £m	Post Trade Services – LCH £m	Post Trade Services – CC&G and Monte Titoli £m	Capital Markets £m	Technology Services £m	Other £m	Eliminations £m	Group £m
Revenue from external customers	[illegible]	452	109	391	91	9		1,768
Inter-segmental revenue	–	–	1	–	20	–	(21)	–
Revenue	736	452	110	391	111	9	(21)	1,768
Net treasury income through CCP business	–	112	40	–	–		–	152
Other income	–	10		–	–	15	–	25
Total income	736	[illegible]	150	391	111	24	(21)	[illegible]
Cost of sales	(62)	(88)	(17)	(16)	(29)	(3)	–	(215)
Gross profit	674	474	133	[illegible]	82	[illegible]	(21)	1,740
Share of loss after tax of associates	–		–	–	–	(9)	–	(9)
Earnings before interest, tax, depreciation, amortisation and impairment	409	245	82	194	5	1	[illegible]	915
Underlying depreciation, amortisation and impairment	[illegible]	(51)	(11)	(14)	(7)	(6)	[illegible]	(103)
Operating profit/(loss) before non-underlying items	383	194	71	180	[illegible]	(5)	(9)	812
Amortisation of purchased intangible assets								(153)
Other non-underlying items								(33)
Operating profit								626
Net finance expense								(62)
Profit before taxation from continuing operations								564

Geographical disclosures

	2018 £m	2017 £m
Revenue from external customers		
UK	**1,092**	994
USA	**348**	276
Italy	**316**	[illegible]
France	**109**	[illegible]
Other	**46**	71
Total	**1,911**	1,768

	2018 £m	2017 (revised)[1] £m
Non-current operating assets		
UK	**1,149**	1,107
USA	**2,226**	[illegible]
Italy	**1,271**	[illegible]
France	**61**	58
Other	**154**	[illegible]
Total	**4,861**	4,723

1 [illegible]

Non-current operating assets consist of property, plant and equipment, intangible assets and investment in associates.

6. Expenses by nature

Expenses comprise the following

	Notes	2018 £m	2017 £m
Underlying items			
Employee costs	7	**510**	[illegible]
IT costs		**136**	[illegible]
Other costs		**188**	[illegible]
Operating expenses before depreciation, amortisation and impairment		**834**	[illegible]
Underlying depreciation, amortisation and impairment	14, 15	**135**	[illegible]
Total operating expenses		**969**	[illegible]

Other costs include foreign exchange gains of £[illegible] million (2017: £17 million loss)

7. Employee costs

Employee costs comprise the following

	Note	2018 £m	2017 £m
Salaries and other benefits		**387**	[illegible]
Social security costs		**62**	[illegible]
Pension costs	[illegible]	**25**	[illegible]
Share based compensation		**36**	[illegible]
Total		**510**	[illegible]

Staff costs include the costs of contract staff who are not on the payroll but fulfil a similar role to employees

The average number of employees in the Group from total operations was

	2018	2017
UK	**1,628**	[illegible]
USA	**659**	[illegible]
Italy	**612**	[illegible]
France	**166**	[illegible]
Sri Lanka	**1,025**	[illegible]
Other	**315**	[illegible]
Total	**4,405**	[illegible]

Average staff numbers are calculated from the date of acquisition for subsidiary companies acquired in the year and up to the date of disposal for businesses disposed in the year

The Company had no employees in the year (2017: nil)

Notes to the financial statements

8. Non-underlying items

	Notes	2018 £m	2017 £m
Amortisation and impairment of intangible assets	14, 15	**159**	153
Transaction costs		**9**	[illegible]
Restructuring costs		**–**	7
Integration costs		**12**	[illegible]
Profit on disposal of businesses		**–**	(7)
Total affecting operating profit		**180**	186
Tax effect on items affecting profit before tax			
Deferred tax on amortisation of purchased intangible assets		**(33)**	(184)
Current tax on amortisation of purchased intangible assets		**(11)**	[illegible]
Tax effect on other items		**(11)**	4
Total tax effect on items affecting profit before tax		**(55)**	(190)
Total charge/(credit) to continuing operations income statement		**125**	(4)
Loss after tax from discontinued operations	11	**–**	25
Total charge to income statement		**125**	21

During the year the Group incurred a £154 million (2017: £153 million) amortisation charge in relation to purchased intangible assets and £5 million (2017: nil) asset write-off expense comprising £3 million software (see Note 15) and £2 million IT hardware (see Note 14) work in progress assets which are no longer required for development as a result of the integration of Yield Book into the Group.

Transaction costs comprise charges incurred for services relating to potential merger and acquisition transactions.

Integration costs in the current and prior year relate to the activities to integrate the Mergent and Yield Book businesses into the Group.

In the prior year, the Group incurred restructuring costs in relation to the LCH Group.

In the prior year, the Group disposed of Information Services Professional Solutions (ISPS) a business line of BIt Market Services S.p.A. for a cash consideration of €10 million (£9 million). The profit on disposal was £5 million, and the net assets disposed contained brands, intellectual property and work-in-progress assets, used for carrying out the ISPS business along with identified agreements with suppliers and clients and employment relationships. The remaining £2 million profit on disposal in the prior year related to the sale of the Millennium Enterprise Systems Integration business, a business that formed part of the Technology Services segment and the MillenniumIT cash generating unit, for cash consideration of £5 million.

The loss after tax on discontinued operations in the prior year relates to the disposal of the Russell Investment Management business. See Note 11 for further details.

Further details on the recognition of deferred tax in relation to the amortisation of purchased intangible assets are provided in Note 18.

9. Net finance expense

	Notes	2018 £m	2017 £m
Finance income			
Expected return on defined benefit pension scheme assets	19	**1**	–
Bank deposit and other interest income		**8**	3
Other finance income		**4**	5
		13	8
Finance expense			
Interest payable on bank and other borrowings		**(72)**	(63)
Defined benefit pension scheme interest cost	19	**(1)**	(2)
Other finance expenses		**(6)**	(5)
		(79)	(70)
Net finance expense		**(66)**	(62)

Bank deposit and other interest income includes negative interest earned on the Group's borrowings. Interest payable includes amounts where the Group earns negative interest on its cash deposits.

During the year the Group recognised a total of £66 million (2017: £60 million) of net interest expense on financial assets and liabilities held at amortised cost, comprising £12 million (2017: £8 million) gross finance income and £78 million (2017: £68 million) gross finance expense. Presented within finance income and finance expense are amounts in relation to defined benefit pension schemes which are measured at fair value.

10. Taxation

The standard UK corporation tax rate was 19% (19.25% for the year ended 31 December 2017).

Taxation charged to the income statement	Note	2018 £m	2017 £m
Current tax			
UK corporation tax for the year		**53**	[illegible]
Overseas tax for the year		**107**	[illegible]
Adjustments in respect of previous years		**(12)**	[illegible]
		148	[illegible]
Deferred tax	[illegible]		
Deferred tax for the year		**15**	[illegible]
Adjustments in respect of previous years		**2**	[illegible]
Deferred tax arising on amortisation of purchased intangible assets		**(33)**	[illegible]
Taxation charge/(credit)		**132**	[illegible]

The adjustments in respect of previous years' corporation tax are mainly in respect of tax returns submitted to relevant tax authorities

Taxation on items not credited/(charged) to income statement	2018 £m	2017 £m
Current tax credit		
Tax allowance on share options/awards in excess of expense recognised	**5**	6
	5	6
Deferred tax credit/(charge)		
Tax on defined benefit pension scheme remeasurement	**5**	[illegible]
Tax allowance on share options/awards in excess of expense recognised	**2**	4
Tax on movement in value of investments in financial assets	**4**	[illegible]
	16	[illegible]

Factors affecting the tax charge for the year

The income statement tax charge for the year differs from the standard rate of corporation tax in the UK of 19% (2017: 19.25%) as explained below

	2018 £m	2017 £m
Profit before taxation from continuing operations	**685**	[illegible]
Loss before taxation from discontinued operations	–	[illegible]
	685	[illegible]
Profit multiplied by standard rate of corporation tax in the UK	**130**	[illegible]
Income not taxable/expense not deductible	**(7)**	[illegible]
Adjustment arising from change in tax rates	–	[illegible]
Overseas earnings taxed at higher rate	**25**	[illegible]
Adjustments in respect of previous years	**(10)**	–
Adjustment arising from change in tax rates on amortisation of purchased intangible assets	**(2)**	[illegible]
Deferred tax previously not recognised	**(4)**	[illegible]
	132	[illegible]
Income tax from continuing operations	**132**	[illegible]
Income tax attributable to discontinued operations	–	[illegible]

The UK Finance Bill 2016 was enacted in September 2016, reducing the standard rate of corporation tax further to 17% effective from 1 April 2020. Accordingly, the UK deferred tax balances at December 2018 have been stated at 19% or 17% dependent on when the temporary differences are expected to reverse. The deferred tax balances in other countries are recognised at the substantively enacted rates at the balance sheet date

Uncertain tax positions

The Group does not have any uncertain tax positions as at 31 December 2018. In the prior year an amount of £2 million was provided for in respect of uncertain tax positions in relation to an uncertainty arising from the introduction of UK Diverted Profits Tax. The Group no longer considers this amount to be uncertain

EU State Aid

The Group is monitoring developments in relation to the EU's ongoing State Aid investigation into the UK's Controlled Foreign Company (CFC) regime and whether the rules constitute unlawful State Aid

The Group has made claims under the CFC legislation for practical reasons, however given that the Group's financing activities are properly established and operated in accordance with EU and local law as well as the OECD's transfer pricing guidelines, we do not anticipate any significant impact should a finding of unlawful State Aid be ultimately upheld

Therefore, the Group does not currently consider that any provision is required in relation to EU State Aid

The Group will continue to monitor the position as the review develops

Notes to the financial statements

11. Discontinued operations and assets held for sale

On 17 January 2018, the Group completed the sale of Exactpro Systems Limited and its subsidiaries (Exactpro) for an aggregate consideration of £6 million, comprising a purchase price of £3 million and an unconditional waiver on £3 million of deferred consideration payable to the Exactpro purchasers recognised on the acquisition of Exactpro by the Group.

A total of £6 million of Exactpro assets were disposed and comprised goodwill, property, plant and equipment, trade receivables, cash and accumulated foreign exchange translation reserve.

The Exactpro business was part of the Technology Services segment and was contained within a standalone CGU.

Exactpro was classified as a disposal group held for sale in the Group's 31 December 2017 balance sheet.

Discontinued operations

As previously reported, on 31 May 2016 the Group completed the sale of the Russell Investment Management business to TA Associates and Reverence Capital Partners for US$1,150 million (£794 million) total consideration, of which US$150 million consideration was deferred and payable in cash instalments until 31 December 2022. In the prior year, the Group incurred a non-underlying loss before tax of US$29 million (£23 million) (loss after tax of US$31 million (£25 million)) relating to the disposal of the Russell Investment Management business comprising a US$21 million (£17 million) adjustment to the disposal balance sheet relating to tax balances at the disposal date and an US$8 million (£6 million) reduction to the net proceeds received on disposal as a result of the finalisation of the completion statement, which resulted in a US$2 million (£2 million) cash payment by the Group. During the prior year, the Group also recognised US$18 million (£13 million) current tax and other receivables in relation to the disposed business. The disposal accounting and final tax position will be finalised on completion of the relevant tax returns.

There were no cash flows generated or incurred by discontinued operations from operating, investing or financing activities in the year ended 31 December 2018 (2017: nil).

12. Earnings per share

Earnings per share is presented on 4 bases: basic earnings per share, diluted earnings per share, adjusted basic earnings per share, and adjusted diluted earnings per share. Basic earnings per share is in respect of all activities and diluted earnings per share takes into account the dilution effects which would arise on conversion or vesting of all outstanding share options and share awards under the Employee Share Ownership Plan (ESOP). Adjusted basic earnings per share and adjusted diluted earnings per share exclude amortisation of purchased intangible assets and non-underlying items to enable a better comparison of the underlying earnings of the business with prior periods.

	2018	2017		
	Total	Continuing	Discontinued	Total
Basic earnings per share	**138.3p**	153.6p	(7.2p)	146.4p
Diluted earnings per share	**136.0p**	150.1p	(7.1p)	143.0p
Adjusted basic earnings per share	**173.8p**	148.7p	–	148.7p
Adjusted diluted earnings per share	**170.8p**	145.3p		145.3p

Profit and adjusted profit for the financial year attributable to the Company's equity holders

	2018	2017		
	Total £m	Continuing £m	Discontinued £m	Total £m
Profit/(loss) for the financial year attributable to the Company's equity holders	**480**	530	(25)	505
Adjustments:				
Non-underlying items:				
Amortisation and impairment of intangible assets	**159**	153	–	153
Transaction costs	**9**	25		25
Restructuring costs	**–**	7	–	7
Integration costs	**12**	8	–	8
Profit on disposal of businesses	**–**	(13)	23	10
Other adjusting items:				
Tax effect of amortisation of purchased intangible assets and non-underlying items	**(55)**	(190)	2	(188)
Amortisation of purchased intangible assets, non-underlying items and taxation attributable to non-controlling interests	**(2)**	(13)	–	13
Adjusted profit for the financial year attributable to the Company's equity holders	**603**	513	–	513
Weighted average number of shares – million	**347**			345
Effect of dilutive share options and awards – million	**6**			8
Diluted weighted average number of shares – million	**353**			353

The weighted average number of shares excludes those held in the Employee Benefit Trust and treasury shares held by the Group.

13. Dividends

	2018 £m	2017 £m
[illegible]	–	[illegible]
[illegible]	–	[illegible]
[illegible]	129	–
[illegible]	60	–
	189	[illegible]

Dividends are only paid out of available distributable reserves.

The Board has proposed a final dividend in respect of the year ended 31 December 2018 of 43.2p per share which is estimated to amount to £156 million, to be paid in May 2019. This is not reflected in the financial statements.

14. Property, plant and equipment

	Land & Buildings		Fixed plant, other plant and equipment	
Cost:	Freehold £m	Leasehold £m	£m	Total £m
31 December 2016	[illegible]	[illegible]	[illegible]	[illegible]
Additions	–	–	[illegible]	[illegible]
Acquisition of subsidiaries	–	–	[illegible]	[illegible]
Disposals	[illegible]	[illegible]		[illegible]
Disposal of business	[illegible]	–	[illegible]	[illegible]
Reclassification to assets held for sale	–	–	[illegible]	[illegible]
Transfers	[illegible]	[illegible]	[illegible]	[illegible]
Foreign exchange	[illegible]	[illegible]	[illegible]	[illegible]
31 December 2017	[illegible]	[illegible]	[illegible]	[illegible]
Additions	**5**	**8**	**44**	**57**
Disposals	**–**	**(5)**	**(4)**	**(9)**
Write-off	**–**	**–**	**(2)**	**(2)**
Transfers	–	–	**(3)**	**(3)**
Foreign exchange	**(1)**	–	–	**(1)**
31 December 2018	**55**	**55**	**251**	**361**
Accumulated depreciation and impairment:				
31 December 2016	[illegible]	[illegible]	[illegible]	[illegible]
Charge for the year	–	[illegible]	[illegible]	[illegible]
Impairment	1			1
Disposal of business			[illegible]	[illegible]
31 December 2017	[illegible]	[illegible]	[illegible]	[illegible]
Disposals	**–**	**(5)**	**(4)**	**(9)**
Charge for the year	**–**	**4**	**27**	**31**
31 December 2018	**29**	**36**	**147**	**212**
Net book values:				
31 December 2018	**26**	**19**	**104**	**149**
31 December 2017	[illegible]	[illegible]	[illegible]	[illegible]

As at 31 December 2018, the Group held no items of equipment under finance leases (2017: nil).

Transfers relate to reclassification of property, plant and equipment to other asset classes and reallocations of work in progress assets between property, plant and equipment types.

During the year the Group incurred a £2 million (2017: nil) asset write-off expense presented as a non-underlying item in the Group's consolidated income statement in relation to IT hardware work in progress which is no longer required for development as a result of the integration of Yield Book into the Group.

The Company has no property, plant and equipment (2017: nil).

Notes to the financial statements

15. Intangible assets

		Purchased intangible assets				
Cost:	Goodwill £m	Customer relationships £m	Brands £m	Software, licences and intellectual property £m	Software and other £m	Total £m
31 December 2016	2,097	1,732	971	434	502	5,736
Acquisition of subsidiaries (revised)	288	151	57	168	11	675
Additions	–	–	–	–	143	143
Disposal of business	(1)	–	–	–	(8)	(9)
Disposals	–	(15)	(3)	(12)	(9)	(39)
Reclassification to assets held for sale	(3)					(3)
Transfer of asset			–	–	(1)	(1)
Foreign exchange	(4)	(20)	(65)	(6)	14	(81)
31 December 2017 (revised)	2,377	1,848	960	584	652	6,421
Impact of adopting new accounting standard (Note 2)		–	–	–	26	26
1 January 2018 (restated)	2,377	1,848	960	584	678	6,447
Additions	**–**	**–**	**–**	**–**	**187**	**187**
Disposals	**–**	**(6)**	**–**	**(14)**	**(4)**	**(24)**
Transfer of asset	**–**	**–**	**–**	**–**	**3**	**3**
Write-off	**–**	**–**	**–**	**–**	**(5)**	**(5)**
Foreign exchange	**70**	**50**	**45**	**12**	**13**	**190**
31 December 2018	**2,447**	**1,892**	**1,005**	**582**	**872**	**6,798**
Accumulated amortisation and impairment:						
31 December 2016	500	482	122	277	231	1,612
Amortisation charge for the year		90	38	25	76	229
Disposal of business	–	–	–	–	(6)	(6)
Disposals	–	(15)	(3)	(12)	(9)	(39)
Foreign exchange	21	9	(6)	1	11	36
31 December 2017 (as previously presented)	521	566	151	291	303	1,832
Impact of adopting new accounting standard (Note 2)	–	–	–	–	14	14
1 January 2018 (restated)	521	566	151	291	317	1,846
Amortisation charge for the year	**–**	**91**	**39**	**24**	**102**	**256**
Impairment	**–**	**–**	**–**	**–**	**1**	**1**
Disposals	**–**	**(6)**	**–**	**(14)**	**(4)**	**(24)**
Write-off	**–**	**–**	**–**	**–**	**(1)**	**(1)**
Foreign exchange	**7**	**11**	**7**	**3**	**5**	**33**
31 December 2018	**528**	**662**	**197**	**304**	**420**	**2,111**
Net book values:						
31 December 2018	**1,919**	**1,230**	**808**	**278**	**452**	**4,687**
31 December 2017 (revised)	1,856	1,282	809	293	349	4,589

Goodwill

During the current year, the Group completed the exercise of attributing fair value adjustments to the assets and liabilities acquired in the Yield Book business combination. As a result, final fair value adjustments have been made to the previously presented provisional fair values for Yield Book at 31 December 2017 arising from a reduction in the value of purchase consideration of £1 million and an increase in other receivables of £1 million. The impact of these final fair value adjustments resulted in a decrease in goodwill of £1m to amounts previously disclosed in our 31 December 2017 Annual Report, reducing the total goodwill on acquisition of the Yield Book business from £215 million to £214 million. The impact of these final fair value adjustments have been incorporated with effect from the acquisition date of the Yield Book business and the comparative 31 December 2017 balance sheet and related notes have been revised. Further details are provided in Note 33. The revised total goodwill arising on acquisition of the Mergent and Yield Book businesses is £289 million.

In the prior year, the Group disposed of the Millennium Enterprise Systems Integration business, which resulted in a reduction of £1 million in goodwill.

In the prior year, the Group classified Exactpro as a disposal group held for sale which resulted in £3 million of goodwill being reclassified as an asset held for sale. Further details are provided in Note 11.

The goodwill arising on consolidation represents the growth potential and assembled workforces of the Italian Group, LCH Group, FTSE Group, MillenniumIT, the US Information Services Group and Turquoise. The Company has no intangible assets (2017: none).

Purchased intangible assets

The fair values of the purchased intangible assets were principally valued using discounted cash flow methodologies and are being amortised over their useful economic lives, which do not normally exceed 25 years. The Group's purchased intangible assets include:

Customer relationships

These assets have been recognised on acquisition of major subsidiary companies by the Group. The amortisation period remaining on these assets are between 6 to 24 years.

Brands

Brands have been recognised in a number of major acquisitions, including FTSE, LCH, Russell and Yield Book. Included within brands are trade names relating to the acquisition of Frank Russell Group of £583 million (2017: £574 million). The remaining amortisation period on these assets are between 4 to 24 years.

Software, licences and intellectual property

These assets have been recognised on acquisition of subsidiary companies and have a remaining amortisation period of 3 to 19 years.

There are no other individual purchased intangible assets with a carrying value that is considered material to each asset class.

Software and other

As a part of the business operating model the Group develops technology solutions where software products are developed internally, for use within the Group or to sell externally. The cost of self-developed software products in the year includes £135 million (2017: £94 million) representing assets not yet brought into use. No amortisation has been charged on these assets and instead they are tested for impairment annually.

During the year, additions relating to internally generated software amounted to £175 million (2017: £143 million).

Following a review of software assets, the Group has recognised net write-offs of £4 million in relation to assets not yet brought into use and £1 million impairment. The £5 million income statement charge comprises £3 million non-underlying asset write-off expense, £1 million underlying write-off expense and £1 million underlying impairment charge (2017: nil).

Other amounts represent the internally built and developed trading systems within the various business lines, licences and capitalised contract costs. In general these assets have a useful economic life of up to 5 years.

The carrying value of licences held under finance leases at 31 December 2018 was £6 million (2017: £7 million).

During the year, the Group capitalised £10 million of incremental contract costs in respect of revenue generating contracts with customers and recognised a £6 million amortisation charge relating to contract cost assets. No impairment was recognised in the year in relation to contract cost assets.

Transfers in the year relate to £3 million reclassification of property, plant and equipment to software intangible assets.

Notes to the financial statements

Impairment tests for goodwill

Goodwill has been allocated for impairment testing purposes to 10 cash generating units (CGUs).

The recoverable amounts of these CGUs have been determined based on value in use calculations using discounted cash flow forecasts based on business plans prepared by management for a 3-year period ending 31 December 2021, and then projected for a further 2 years to 31 December 2023. Cash flows beyond this period are extrapolated using the estimated long-term growth rates and applying the pre-tax discount rates referred to below.

The amount of the net book value of goodwill allocated to each CGU is set out below:

	Net book value of goodwill				Pre-tax discount rate used in value in use calculations	
	31 December 2017 £m	Reallocation £m	Foreign exchange £m	31 December 2018 £m	2018	2017
Italian Group:						
Capital Markets	257	142	6	405	12.3%	12.6%
Information Services	142	(142)	–	–	–	12.7%
Technology Services	23	–	1	24	10.5%	11.4%
Post Trade Services	437	–	6	443	13.2%	13.4%
MillenniumIT	1	–	–	1	20.0%	20.7%
Turquoise	9	–	–	9	9.7%	9.7%
FTSE Group	191	–	–	191	9.6%	10.1%
LCH Group	126	–	2	128	10.4%	[illegible]
US Information Services Group:						
Frank Russell Group	399	–	30	429	10.5%	11.9%
Yield Book (revised)	204	–	13	217	10.5%	9.5%
Mergent	67	–	5	72	10.0%	[illegible]
	1,856	–	63	1,919		

During the year the Group reassessed the Italian Group's cash generating units and concluded that the previously reported Information Services Italian CGU was no longer operating on a standalone basis and generating independent cash inflows. This resulted in the transfer of £142 million into the Italian Capital Markets CGU.

Management has based its value in use calculations for each CGU on key assumptions about short and medium term revenue and cost growth, long-term economic growth rates (used to determine terminal values) and pre-tax discount rates.

The values assigned to short and medium term revenue and cost growth assumptions are based on the business plans prepared by management for a 3-year period ending 31 December 2021. The assumptions are derived from an assessment of current trends, anticipated market and regulatory developments, discussions with customers and suppliers, and management's experience. These factors are considered in conjunction with the Group's long-term strategic objectives to determine appropriate short and medium growth assumptions.

Long-term growth rates assumed to be 1.9% for each of the Italian CGUs (2017: 1.6%), 9.0% for MillenniumIT (2017: 9.4%), 3.9% for each of the US Information Services CGUs (2017: 3.8%) and 3.5% for the other CGUs (2017: 3.7%) represent management's internal forecasts based on external estimates of GDP and inflation analysis for the 10-year period 1 January 2014 to 31 December 2023, and do not exceed the long-term average growth rates for the countries in which the CGUs operate.

Pre-tax discount rates are based on a number of factors including the risk free rates in Italy, France, Sri Lanka, USA and the UK as appropriate, the Group's estimated market risk premium and a premium to reflect the inherent risks of each of the CGUs.

Based on the results of the impairment tests performed, management believes there is no impairment of the carrying value of the goodwill in any CGU.

Value in use calculations for each CGU are sensitive to changes in short and medium term revenue and cost growth assumptions, long-term growth rates and pre-tax discount rates.

Management believes goodwill allocated to each CGU is unlikely to be materially impaired under reasonable changes to key assumptions. The excess of value in use over carrying value is determined by reference to the net book value as at 31 December 2018. Revenue and cost sensitivities assume a 5% change in revenues or costs for each of the 5 years in the value in use calculations.

16. Investment in associates

	Group £m	Company £m
31 December 2016	[illegible]	[illegible]
Acquisitions and investment	[illegible]	[illegible]
Share of loss after tax	[illegible]	–
Impairment	[illegible]	[illegible]
31 December 2017	[illegible]	[illegible]
Acquisitions and investments	**28**	**12**
Share of loss after tax	**(8)**	–
Impairment	**–**	**(8)**
31 December 2018	**25**	**7**

During 2018, the Group acquired a 1[illegible]% equity interest in AcadiaSoft, Inc, a provider of margin automation solutions, for US$22 million (£16 million) cash consideration. The Group also made additional investments in Curve Global for £12 million cash consideration, which maintained the Group's equity interest at 43.38%.

During the prior year, the Group increased its equity interest in Curve Global to 43.38% through a non-cash contribution of £9 million and acquired a 27.35% equity interest in The Hub Exchange Limited, a provider of enterprise-grade platforms for investment networks, for £2 million cash consideration.

17. Investment in subsidiary companies

Company	Shares £m	Other £m	Total £m
31 December 2016	[illegible]	[illegible]	[illegible]
Investment in LSE Group Holdings (Italy) Limited	94	–	94
Investment in LSEG US Holdco Inc	[illegible]	–	[illegible]
Investment in LSEH Luxembourg Ltd	[illegible]	[illegible]	[illegible]
Other movements		[illegible]	[illegible]
31 December 2017	[illegible]	[illegible]	[illegible]
Investment in London Stock Exchange (C) Limited	**382**	**–**	**382**
Investment in London Stock Exchange Reg Holdings Limited	**10**	**–**	**10**
Investment in LSEGH US FT Inc	**16**	**–**	**16**
31 December 2018	**5,489**	**1,017**	**6,506**

Other includes amounts invested in subsidiary companies by way of capital contributions and awards granted under the Group's share schemes.

Principal subsidiaries:	Principal activity	Country of incorporation	Country of principal operations	% equity and votes held
Held directly by the Company:				
London Stock Exchange plc	Recognised investment exchange	England and Wales	England and Wales	[illegible]
Held indirectly by the Company:				
Banque Centrale de Compensation (LCH SA)	CCP clearing services	France	France	[illegible]
Borsa Italiana S.p.A	Recognised investment exchange	Italy	Italy	[illegible]
Cassa di Compensazione e Garanzia S.p.A	CCP clearing services	Italy	Italy	99.99
Elite S.p.A	Business support programme	Italy	Italy	74.99
Frank Russell Company	Market index provider	USA	USA	[illegible]
FTSE International Ltd	Market index provider	England and Wales	England and Wales	[illegible]
LCH Limited	CCP clearing services	England and Wales	England and Wales	[illegible]
Mergent Inc	Business and financial information provider	USA	USA	[illegible]
Monte Titoli S.p.A	Pre-settlement, settlement and centralised custody	Italy	Italy	[illegible]
Millennium IT Software (Private) Limited	IT solutions provider	Sri Lanka	Sri Lanka	[illegible]
MTS S.p.A	Wholesale fixed income trading	Italy	Italy	62.53
The Yield Book Inc	Fixed income indices and analytics	USA	USA	[illegible]
Turquoise Global Holdings Ltd	Multilateral trading facility	England and Wales	England and Wales	[illegible]

Under Regulation 7 of The Partnerships (Accounts) Regulations 2008, the Group elected not to prepare partnership accounts for its indirect partnership interest in London Stock Exchange Connectivity Solutions LP as its results are contained in the consolidated group accounts.

A full list of subsidiaries is provided in Note 38.

Notes to the financial statements

Material non-controlling interests

The LCH Group is the only subsidiary that has material non-controlling interests within the Group

On 23 February 2018 the Group acquired an additional 2.04% interest of LCH Group Holdings Limited from non-controlling interests for cash consideration of €35 million (£31 million). This increased the Group's holding to 67.97%. On 17 December 2018 the Group acquired a further 14.64% for cash consideration of €425 million (£382 million), increasing the Group's holding in LCH Group Holdings Limited to 82.61%. Both amounts have been recognised as movements within non-controlling interests in the statement of changes in equity

Summarised financial information for material non-controlling interests	2018 £m	2017 £m
Profit for the year attributable to non-controlling interests	**63**	49
Total comprehensive income attributable to non-controlling interests	**65**	77
Dividend paid to non-controlling interests in the year	**(37)**	(11)

Summarised balance sheet	2018 £m	2017 £m
Non-current assets	**548**	542
Current assets	**684,787**	621,834
Current liabilities	**(684,071)**	(621,125)
Non-current liabilities	**(41)**	(99)
Total equity	**1,223**	1,142
Attributable to:		
Equity holders of the company	**967**	721
Non-controlling interests	**256**	421
	1,223	1,142

The balances above include goodwill, purchased intangible assets and associated amortisation, impairments and deferred tax attributable to non-controlling interests

Net (decrease)/increase in cash and cash equivalents	**(87)**	62

The summarised total comprehensive income of the LCH Group is provided below. This information is based on amounts excluding goodwill, purchased intangible assets and associated amortisation and impairments attributable to non-controlling interests

Summarised statement of total comprehensive income	2018 £m	2017 £m
Total income	**662**	561
Profit for the year	**188**	139
Other comprehensive income excluding exchange on translation of foreign operations	**(15)**	38
Total comprehensive income excluding exchange translation of foreign operations	**173**	177
Gains on translation of foreign operations	**16**	35
Total comprehensive income	**189**	212
Attributable to:		
Equity holders of the company	**124**	127
Non-controlling interests	**65**	85
	189	212

Subsidiaries exempt from audit

The following UK subsidiaries will take advantage of the audit exemption set out within section 479A of the Companies Act 2006 for the year ended 31 December 2018

Company Name	Registration number
London Stock Exchange Group Holdings Limited	5795363
London Stock Exchange Reg Holdings Limited	7378551
London Stock Exchange (C) Limited	7343390
London Stock Exchange Group (Services) Limited	3313035
LSEG (M) Financing Limited	10532155
FTSE (Australia) Limited	6182374
FTSE International (France) Limited	3793705
FTSE International (Italy) Limited	6858736
FTSE (Japan) Limited	4511214
LSEG Employment Services Limited	9100832
SSC Global Business Services Limited	7584392
LSEG Technology Limited	7484865
Gatelab Limited	6606847

18. Deferred tax

The movements in deferred tax assets and liabilities during the year are shown below.

Group	Accelerated tax depreciation £m	Acquisition deferred tax and amortisation £m	Provisions and other temporary differences £m	Total £m
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Transfer between categories	4	–	(4)	–
Deferred tax recognised on acquisition of businesses	[illegible]	[illegible]	[illegible]	[illegible]
Tax credited/(charged) to the income statement	[illegible]	[illegible]	[illegible]	[illegible]
Tax charged/credited to other comprehensive income				
– defined benefit scheme remeasurement gain	–		[illegible]	[illegible]
– investments in equity instruments under IAS 39	–		[illegible]	[illegible]
– foreign exchange	[illegible]	[illegible]		[illegible]
Allowance on share options/awards – to equity	–	–	–	–
Disposal of business	[illegible]	–	–	–
31 December 2017	9	(484)	11	(464)
Impact of adopting new accounting standards (Note 1)	–	–	23	23
1 January 2018 (restated)	**9**	**(484)**	**34**	**(441)**
Tax credited/(charged) to the income statement	**(2)**	**33**	**(15)**	**16**
Tax (charged)/credited to other comprehensive income				
– defined benefit scheme remeasurement gain	–	–	**5**	**5**
– movements in debt instruments at fair value through other comprehensive income	–	–	**4**	**4**
– foreign exchange	–	**(19)**	–	**(19)**
Allowance on share options/awards – to equity	–	–	**2**	**2**
31 December 2018	**7**	**(470)**	**30**	**(433)**
Assets at 31 December 2018	**7**	–	**35**	**42**
Liabilities at 31 December 2018	–	**(470)**	**(5)**	**(475)**
Net assets/(liabilities) at 31 December 2018	**7**	**(470)**	**30**	**(433)**
Assets at 31 December 2017	9	–	29	38
Liabilities at 31 December 2017	–	(484)	(18)	(502)
Net assets/(liabilities) at 31 December 2017	9	(484)	11	(464)

The deferred tax assets are recoverable against future taxable profits and are due after more than 1 year.

The net deferred tax asset of £30 million (2017: £11 million) in respect of provisions and other temporary differences relates to assets on share-based payments of £15 million (2017: £14 million), retirement benefits liabilities of £10 million (2017: £13 million), interest payable of £15 million (2017: nil), assets on trading losses of £8 million (2017: £5 million), withholding tax liabilities on distributable reserves of subsidiary companies of £4 million (2017: £5 million) and assets on other provisions and temporary differences of £6 million (2017: £12 million).

The purchased intangible assets of the acquired subsidiaries create a deferred tax liability due to the difference between their accounting and tax treatment. This liability is amortised at the same rate as the purchased intangible assets.

The Group has unrecognised deferred tax assets in respect of losses of £17 million (2017: £18 million) within certain Group subsidiaries. The assets would be recognised in the future only if suitable taxable income were to arise within the Group.

There was no deferred tax in the Company (2017: nil).

Notes to the financial statements

19. Retirement benefit obligations

The Group operates separate defined benefit and defined contribution schemes. The assets of the defined benefit and defined contribution schemes are held separately from those of the Group.

In the UK, the defined benefit scheme is administered by trustees with the assets primarily being managed by Legal & General Investment Management Limited, PIMCO Europe Limited, Ruffer LLP, Schroder Investment Management Limited, and a 'buy-in' insurance asset with Pension Insurance Corporation.

On 5 September 2016 the London Stock Exchange Retirement Plan (LSERP) and the LCH Pension Scheme in the UK (LCH UK) underwent a sectionalised merger into a new London Stock Exchange Group Pension Scheme (LSEGPS). The scheme maintains separate LCH and LSE Sections.

The assets of the LSEGPS are held by the trustees who are responsible for the scheme's governance. The schemes are invested in a wide range of assets in the UK and overseas, which seek to balance risk and investment return, through investment managers appointed by the scheme's trustees. The plan assets do not include any of the Group's own financial instruments, nor any property occupied by, or other assets used by, the Group.

The 'Other plans' relate to the severance and leaving indemnity scheme Trattamento di Fine Rapporto (TFR) operated by the Italian Group in accordance with Italian law, the employee benefit and retirement plan operated by MillenniumIT and other pension commitments of the LCH Group outside of the UK.

The only schemes operated by FTSE International and US entities are defined contribution schemes recorded in Other plans.

All schemes are governed by the local regulatory framework and employment laws in the country in which they operate.

The Company has no retirement benefit obligations.

Defined benefit schemes

United Kingdom

The LSE section of LSEGPS was a non-contributory defined benefit scheme that closed to new members in 1999. With effect from 31 March 2012, the LSERP also closed to accrual of future benefits for active members and it has been agreed that the benefits already accrued for affected members will remain linked to their salary with the Group.

The LCH section of LSEGPS was closed to new members from 30 September 2009. It was closed to further employee contributions and accrual of future benefits from 31 March 2013 with the defined contribution section remaining open until April 2017, when the Legal & General master trust was provided to all UK employees.

Pension scheme obligations and costs are determined by an independent qualified actuary on a regular basis using the projected unit credit method. The obligations are measured by discounting the best estimate of future cash flows to be paid out by the scheme and are reflected in the Group balance sheet.

Overseas

LCH Group also operates retirement indemnity and long service award schemes in Paris, for which the scheme obligations are calculated by an independent qualified actuary. They also operate an independent defined benefit scheme in Porto, assumed in 2006. Updated valuations of these funds are carried out by an independent qualified actuary.

The TFR operated by the Italian Group is classified as an unfunded defined benefit scheme for funds accumulated prior to 1 July 2007. The service cost, representing deferred salaries accruing to employees, was included as an operating expense and was determined by law at 6.91% of salary payments subject to certain adjustments. The scheme obligation comprises accumulated service costs and is revalued by law at a rate equal to 75% of 'national life price index +1.5%' by an independent qualified actuary. Since 1 July 2007, the Group retains no obligation, as contributions are made directly into Italian state funds in the manner of a defined contribution scheme.

The employee benefit and retirement plan operated by MillenniumIT is classified as an unfunded defined benefit plan. The net obligation in respect of this plan is the amount of future benefit that employees have earned in return for their service in the current and prior periods. Once an employee is continuously employed for more than 5 years, he or she is entitled to a payment equivalent to half a month's gross salary multiplied by the number of years in service at MillenniumIT.

The principal risks to which the defined benefit schemes expose the Group arises from an increase in pension liability.

The pension liabilities could increase in the following circumstances:

- if increases in the plan liabilities are not accompanied by corresponding increases in the plan assets;
- if investment returns are lower than assumed in assessing the adequacy of plans;
- if inflation is higher than expected, increasing liabilities through indexing of pension payments; and
- the risk that members live longer than expected, increasing the length of time for which pensions have to be paid, potentially due to a medical breakthrough.

Such an increase in pension liabilities could lead to an increase in pension deficit. Defined benefit schemes are normally revalued by actuaries every 3 years. Where any material funding gap is identified by this process, the Trustees will agree a schedule of contributions with the sponsor company. Such contributions would result in financial impact to the Group.

In addition, with regard to the LSE Section of LSEGPS, the Group is exposed to the credit of the buy-in insurance provider. A failure of the buy-in insurance provider would reduce the pension assets and could thus also lead to a pension deficit or an increase in pension deficit and the need for contributions from the Group.

Defined contribution schemes

In the UK the only pension scheme open to employees is a defined contribution scheme provided by Legal & General. Following a pension consultation from April 2017 all UK employees are eligible to participate in the same pension scheme. A core contribution of 8% of basic salary is paid by the Group who will also match employee contributions up to 4% of basic salary.

Amounts recognised in the income statement from continuing operations are as follows:

	Notes	2018 LSERP £m	2018 LCH UK £m	2018 Other plans £m	2018 Total £m	2017 LSERP £m	2017 LCH UK £m	2017 Other plans £m	2017 Total £m
Defined contribution schemes		(4)	(4)	(10)	(18)	[illegible]	[illegible]	[illegible]	[illegible]
Defined benefit scheme – current past service cost and expenses		(1)	–	(6)	(7)	[illegible]	[illegible]	[illegible]	[illegible]
Total pension charge included in employee costs	7	(5)	(4)	(16)	(25)	[illegible]	[illegible]	[illegible]	[illegible]
Net finance expense/income	9	(1)	1	–	–	[illegible]	–		[illegible]
Total recognised in the income statement		(6)	(3)	(16)	(25)	[illegible]	[illegible]	[illegible]	[illegible]

Defined benefit assets/(obligations) for pension schemes

	2018 LSERP £m	2018 LCH UK £m	2018 Other plans £m	2018 Total £m	2017 LSERP £m	2017 LCH UK £m	2017 Other plans £m	2017 Total £m
Fair value of assets:								
Equities								
– Quoted	–	62	–	62	–	66		66
– Not quoted	–	42	–	42		48		48
Bonds								
– Quoted	14	17	1	32	[illegible]	[illegible]	[illegible]	[illegible]
– Not quoted	140	121	–	261	148	[illegible]	–	[illegible]
Property	6	–	–	6	[illegible]	–		[illegible]
Cash	15	2	–	17	[illegible]	[illegible]	–	[illegible]
Pension buy in policy	180	–	–	180	184	–	–	[illegible]
Total fair value of assets	355	244	1	600	[illegible]	264	1	[illegible]
Present value of funded obligations	(361)	(198)	(17)	(576)	[illegible]	[illegible]	(17)	[illegible]
(Deficit)/surplus	(6)	46	(16)	24	[illegible]	56	(16)	[illegible]

As at 31 December 2018 the Group has recognised a net defined benefit asset of £46 million (2017: £56 million asset) in relation to the LCH UK scheme on the basis that the Group has access to the surplus in the event of wind-up of the scheme and therefore no asset ceiling has been applied to the net surplus recognised. Further, no minimum funding commitments are associated with the plan.

UK pension plan actuarial assumptions are set out below:

	2018 LSERP	2018 LCH UK	2017 LSERP	2017 LCH UK
Inflation rate – RPI	3.2%	3.2%	[illegible]	[illegible]
Inflation rate – CPI	2.0%	2.0%	[illegible]	[illegible]
Rate of increase in salaries	3.2%	n/a	[illegible]	[illegible]
Rate of increase in pensions in payment	3.6%	2.2%	[illegible]	[illegible]
Discount rate				
– Non-insured	3.0%	3.0%	[illegible]	[illegible]
– Insured	2.7%	n/a	[illegible]	n/a
Life expectancy from age 60 (years)				
– Non-retired male member	28.1	28.1	[illegible]	[illegible]
– Non-retired female member	30.6	30.5	30.6	[illegible]
– Retired male member	27.2	27.5	[illegible]	[illegible]
– Retired female member	29.4	29.2	[illegible]	[illegible]

The mortality assumptions are based on S2PA tables published by the Institute and Faculty of Actuaries adjusted to take account of projected future improvements in life expectancy from the Self Administered Pension Scheme (SAPS) mortality survey which was published in 2008. We have used an allowance for CMI 2017 projections and applied a 1.25% for the male and female long term trend rate in respect of future mortality improvements.

Sensitivities

The sensitivities regarding the principal assumptions used to measure the LSERP and LCH UK scheme obligations are:

Assumption	Change in assumption	2018 Impact on scheme obligations LSERP	2018 Impact on scheme obligations LCH UK	2017 Impact on scheme obligations LSERP	2017 Impact on scheme obligations LCH UK
Inflation rate (CPI) and salary increase	Increase by 0.5%	Increase by £3m	Increase by £6m	Increase by £7m	Increase by £6m
Rate of increase in pensions payment	Increase by 0.5%	Increase by £21m	Increase by £11m	Increase by £24m	Increase by £13m
Discount rate	Increase by 0.5%	Reduce by £24m	Reduce by £19m	Reduce by £29m	Reduce by [illegible]
Mortality rate	Increase by 1 year	Increase by £14m	Increase by £6m	Increase by £14m	Increase by £6m

Notes to the financial statements

The sensitivity analysis above has been determined based on a method that extrapolates the impact on defined benefit obligations as a result of reasonable changes in key assumptions occurring at the end of the reporting period

The impact of the salary increase assumption as a standalone sensitivity has an immaterial impact on the scheme obligations

Changes in the present value of the defined benefit obligations during the year

	2018				2017			
	LSERP £m	LCH UK £m	Other plans £m	Total £m	LSERP £m	LCH UK £m	Other plans £m	Total £m
Benefit obligation as at beginning of year	376	208	17	601	410	253	16	679
Pension expense								
Past/current service cost	1	–	6	7		–	7	7
Interest cost	10	6	–	16	11	7		18
Subtotal included in the income statement	11	6	6	23	11	7	7	25
Remeasurement (gains)/losses								
Actuarial gains – financial assumptions	(10)	(8)	(1)	(19)	(9)	(11)	(1)	(21)
Actuarial gains – demographic assumptions	(3)	–	–	(3)	(13)	(11)	–	(24)
Actuarial losses/(gains) – experience	3	1	–	4	(6)	(22)		(28)
Subtotal included in total comprehensive income	(10)	(7)	(1)	(18)	(28)	(44)	(1)	(73)
Benefits paid	(16)	(9)	(5)	(30)	(17)	(7)	(5)	(29)
Foreign exchange	–	–	–	–		(1)	–	(1)
Benefit obligation as at end of year	361	198	17	576	376	208	17	601

Movement in fair value of scheme assets during the year

	2018				2017			
	LSERP £m	LCH UK £m	Other plans £m	Total £m	LSERP £m	LCH UK £m	Other plans £m	Total £m
Fair value of scheme assets as at beginning of year	356	264	1	621	350	255	1	606
Pension income								
Interest income	9	7	–	16	9	7	–	16
Subtotal included in the income statement	9	7	–	16	9	7	–	16
Remeasurement (losses)/gains								
(Loss)/return on plan assets excluding interest income	(9)	(21)	–	(30)	11	9		20
Subtotal included in total comprehensive income	(9)	(21)	–	(30)	11	9	–	20
Contributions by employer	15	3	–	18	4		–	4
Expenses	–	–	–	–	(1)	–	–	(1)
Benefits paid	(16)	(9)	–	(25)	(17)	(7)	–	(24)
Fair value of scheme assets as at end of year	355	244	1	600	356	264	1	621

The actual loss on plan assets was £14 million (2017: gain £36 million)

Defined benefit actuarial gains and losses recognised

The experience adjustments and the effects of changes in actuarial assumptions of the pension scheme during the year are recognised in the statement of comprehensive income

	2018			2017		
	LSERP £m	LCH UK £m	Other plans £m	LSERP £m	LCH UK £m	Other plans £m
Recognised up to beginning of year	(29)	44	1	(68)	(9)	–
Net actuarial gains/(losses) recognised in the year	1	(14)	1	39	53	1
Cumulative amount recognised at end of year	(28)	30	2	(29)	44	1

The last actuarial valuations of the UK defined benefit scheme were carried out as at 31 December 2017 by an independent qualified actuary. According to the schedule of contributions of these valuations, LSE plc has funded its defined benefit scheme deficit £14 million in 2018 and is expected to pay £14 million per annum into the LSE Section in years 2019 to 2022 and LCH Limited is expected to pay £3 million per annum into the LCH Section in years 2019 to 2022

The weighted average duration of the LSERP defined benefit obligation at the end of the reporting period is estimated to be 21 years and 11.5 years for non-insured and insured, respectively. The weighted average duration of the LCH UK defined benefit obligation at the end of the reporting period is estimated to be 24 years

20. Financial assets and financial liabilities

Financial instruments by category

The financial instruments of the Group and Company are categorised as follows

31 December 2018	Group				Company		
	Financial assets at amortised cost £m	Financial assets at fair value through OCI £m	Financial assets at fair value through profit or loss £m	Total £m	Financial assets at amortised cost £m	Financial assets at fair value through profit or loss £m	Total £m
Financial assets							
Clearing member financial assets							
– Clearing member trading assets	[illegible]	–	[illegible]	**742,456**	–	–	–
– Other receivables from clearing members	[illegible]			**2,261**		–	–
– Other financial assets	–	[illegible]		**19,694**	–	–	–
– Clearing member cash and cash equivalents	[illegible]	–	–	**70,927**		–	–
Clearing member business assets	[illegible]	[illegible]	[illegible]	**835,338**	–	–	–
Trade and other receivables	[illegible]	–	–	**621**	[illegible]	–	**622**
Cash and cash equivalents	[illegible]			**1,510**	[illegible]	–	**6**
Investments in financial assets	–	[illegible]	–	**84**	–	–	–
Contract assets	[illegible]			**144**	–		–
Total	**213,616**	**19,778**	**604,303**	**837,697**	**628**	–	**628**

There were no transfers between categories during the year

Prepayments within trade and other receivables are not classified as financial instruments

31 December 2018	Group			Company		
	Financial liabilities at amortised cost £m	Financial liabilities at fair value through profit or loss £m	Total £m	Financial liabilities at amortised cost £m	Financial liabilities at fair value through profit or loss £m	Total £m
Financial liabilities						
Clearing member financial liabilities						
– Clearing member trading liabilities	[illegible]	[illegible]	**742,456**	–		–
– Other payables to clearing members	[illegible]	–	**93,052**			–
Clearing member business liabilities	[illegible]	[illegible]	**835,508**			–
Trade and other payables	[illegible]	[illegible]	**520**	[illegible]	–	**402**
Borrowings	[illegible]	–	**2,203**	[illegible]	–	**2,186**
Derivative financial instruments	–	[illegible]	**47**	–	[illegible]	**47**
Total	**233,918**	**604,360**	**838,278**	**2,588**	**47**	**2,635**

There were no transfers between categories during the year

Social security and other tax liabilities within trade and other payables, and contract liabilities are not classified as financial instruments

The financial instruments of the Group and Company at the previous year's balance sheet date were as follows

31 December 2017	Group				Company		
	Financial assets at amortised cost £m	Financial assets at fair value through OCI £m	Financial assets at fair value through profit or loss £m	Total £m	Financial assets at amortised cost £m	Financial assets at fair value through profit or loss £m	Total £m
Financial assets							
Clearing member financial assets							
– Clearing member trading assets	[illegible]	–	[illegible]	[illegible]	–	–	–
– Other receivables from clearing members	[illegible]			[illegible]	–	–	–
– Other financial assets		[illegible]	[illegible]	[illegible]	–	–	
– Clearing member cash and cash equivalents	[illegible]	–		[illegible]	–	–	
Clearing member business assets	[illegible]	[illegible]	[illegible]	[illegible]	–	–	–
Trade and other receivables restated	[illegible]	–		[illegible]	[illegible]	–	[illegible]
Cash and cash equivalents	[illegible]			[illegible]	[illegible]	–	–
Investments in financial assets		[illegible]		[illegible]	–	–	
Derivative financial instruments	–	–	[illegible]	4		4	4
Total	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4	[illegible]

[illegible]

There were no transfers between categories during the prior year

Prepayments within trade and other receivables are not classified as financial instruments

Notes to the financial statements

31 December 2017	Group			Company		
	Financial liabilities at amortised cost £m	Financial liabilities at fair value through profit or loss £m	Total £m	Financial liabilities at amortised cost £m	Financial liabilities at fair value through profit or loss £m	Total £m
Financial liabilities						
Clearing member financial liabilities:						
– Clearing member trading liabilities	98,076	549,874	647,950	–	–	–
– Other payables to clearing members	87,031		87,031		–	–
Clearing member business liabilities	185,107	549,874	734,981	–	–	–
Trade and other payables	502	18	520	275	–	275
Borrowings	1,953	–	1,953	1,921		1,921
Derivative financial instruments	–	29	29	–	29	29
Total	187,562	549,921	737,483	2,196	29	2,225

Deferred income, social security and other tax liabilities within trade and other payables are not classified as financial instruments.

Financial liabilities as at 31 December 2017 have been re-presented to exclude provisions, which are no longer classified as a financial liability.

The following table provides the fair value measurement hierarchy of the Group's financial assets and liabilities as at 31 December 2018.

31 December 2018	Group			
	Quoted prices in active markets (Level 1) £m	*Significant observable inputs* (Level 2) £m	*Significant unobservable inputs* (Level 3) £m	Total fair value £m
Financial assets measured at fair value:				
Clearing member trading assets:				
Derivative instruments	4,958	8	–	**4,966**
Non-derivative instruments	6	599,331		**599,337**
Other financial assets	19,694	–		**19,694**
Fair value of clearing member business assets	24,657	599,340		**623,997**
Investments in financial assets	84			**84**

The Company had derivative assets of nil (2017: £4 million). All derivatives assets in the Company were cross-currency swaps and were classified as Level 2 in the fair value hierarchy.

31 December 2018	Group			
	Quoted prices in active markets (Level 1) £m	Significant observable inputs (Level 2) £m	Significant unobservable inputs (Level 3) £m	Total fair value £m
Financial liabilities measured at fair value:				
Clearing member trading liabilities				
Derivative instruments	4,958	8		**4,966**
Non-derivative instruments	5	599,332		**599,337**
Fair value of clearing member business liabilities	4,963	599,340		**604,303**
Deferred consideration			10	**10**
Derivatives used for hedging:				
– Cross-currency interest rate swaps	–	47		**47**

The Company had derivative liabilities of £47 million (2017: £29 million). All derivative liabilities in the Company are the same as for the Group.

The following table provides the fair value measurement hierarchy of the Group's financial assets and liabilities as at 31 December 2017

31 December 2017	Group			
	Quoted prices in active markets (Level 1) £m	**Significant observable inputs (Level 2) £m**	**Significant unobservable inputs (Level 3) £m**	**Total fair value £m**
Financial assets measured at fair value:				
Clearing member trading assets				
Derivative instruments	[illegible]	[illegible]	–	[illegible]
Non-derivative instruments	14	[illegible]		[illegible]
Other financial assets	[illegible]	–		[illegible]
Fair value of clearing member business assets	[illegible]	[illegible]	–	[illegible]
Investment in financial assets – debt	[illegible]	–		[illegible]
Derivatives designated as hedges				
– Cross currency interest rate swaps		[illegible]	–	[illegible]

31 December 2017	Group			
	Quoted prices in active markets (Level 1) £m	**Significant observable inputs (Level 2) £m**	**Significant unobservable inputs (Level 3) £m**	**Total fair value £m**
Financial liabilities measured at fair value:				
Clearing member trading liabilities				
Derivative instruments	[illegible]	[illegible]		[illegible]
Non-derivative instruments	14	542,469	–	542,483
Fair value of clearing member business liabilities	[illegible]	[illegible]	–	[illegible]
Deferred consideration	–	–	[illegible]	[illegible]
Derivatives used for hedging:				
– Cross currency interest rate swaps	–	[illegible]	–	[illegible]

The Group uses the following hierarchy for determining and disclosing the fair value of financial instruments by valuation technique:

- Level 1: quoted (unadjusted) prices in active markets for identical assets or liabilities
- Level 2: other techniques for which all inputs which have a significant effect on the recorded fair value are observable, either directly or indirectly; and
- Level 3: techniques which use inputs which have a significant effect on the recorded fair value that are not based on observable market data

For assets and liabilities classified as Level 1, the fair value is based on market price quotations at the reporting date.

For assets and liabilities classified as Level 2, the fair value is calculated using one or more valuation techniques (e.g. the market approach or the income approach) with market observable inputs. The selection of the appropriate valuation techniques may be affected by the availability of the relevant inputs as well as the reliability of the inputs. The inputs may include currency rates, interest rate and forward rate curves and net asset values. The results of the application of the various techniques may not be equally representative of fair value, due to factors such as assumptions made in the valuation.

There have been no transfers between Level 1 and Level 2 during the current and prior period.

When observable market data is not available, the Group uses one or more valuation techniques (e.g. the market approach or the income approach) for which sufficient and reliable data is available. These inputs used in estimating the fair value of Level 3 financial instruments include expected timing and level of future cash flows, timing of settlement, discount rates and net asset values of certain investments.

The Group has classified deferred consideration in relation to put options over the non-controlling interests of subsidiaries as Level 3 in the hierarchy for determining the fair value, due to the significant inputs used in the valuation that are not based on observable data. The valuation of the deferred consideration is set out in the terms of the option agreement, where the cash flow forecasts of the underlying business over the deferred consideration payment period are discounted at the Group's pre-tax cost of debt. The key inputs into the valuation of the deferred consideration are cash flow forecasts over a 5-year period from the date of acquisition and the discount rate.

During the year, the Group made a fair value gain of £8 million on deferred consideration liabilities classified as Level 3 in the fair value hierarchy, as a result of the revaluation of the amounts due. For the remaining deferred consideration liabilities classified as Level 3 as at 31 December 2018, a 10% increase or decrease in the total cash flows or a 1% change in the discount rate applied would not have a material effect on the valuation of the amounts payable.

The Group does not consider there to be any alternative assumptions that will be used in the valuation of the liability.

With the exception of Group borrowings, management has assessed that the fair value of financial assets and financial liabilities categorised as 'Financial assets at amortised cost' and 'Financial liabilities at amortised cost' approximate their carrying values. The fair value of the Group's borrowings is disclosed in Note 27.

The Group's financial assets and liabilities held at fair value consist largely of securities restricted in use for the operations of the Group's CCPs as managers of their respective clearing and guarantee systems. The nature and composition of the clearing member assets and liabilities are explained in the accounting policies section in Note 1.

As at 31 December 2018, there were no provisions for impairment in relation to any of the clearing member's financial assets (2017: nil) and none of these assets were past due (2017: nil).

Notes to the financial statements

Hedging activities and derivatives

In September 2017 the Group issued €1 billion of bonds in two €500 million tranches maturing in 2024 and 2029. At the same time €700 million worth of these bonds was swapped on a coordinated basis into US$836 million through a series of 9 cross-currency interest rate swaps. These instruments effectively exchange some of the principal and coupon amounts of the 2024 and 2029 €500 million bonds from Euros into US Dollars in order to more closely match the Group's currency of borrowings to the currency of its net assets and earnings. These swaps have been designated as a hedge of the Group's net investment in its US Dollar reporting subsidiaries and qualify for effective hedge accounting. These swaps have been recognised at fair value as non-current financial liabilities of £17 million (2017: £4 million asset) at 31 December 2018. The remaining €300 million of bonds outstanding provide a hedge of the Group's net investments in Euro denominated subsidiaries and qualify for effective hedge accounting.

Current derivative financial liabilities of £30 million (2017: £29 million) represent the fair value of the cross currency interest rate swaps comprising 6 contracts totalling €300 million notional (2017: €300 million). These instruments effectively exchange the obligations and coupons of the 2019 £250 million bond from Sterling into Euros in order to more closely match the currency of borrowings to the Group's currency of net assets and earnings. This also results in a reduction in balance sheet translation exposure on Euro denominated net assets and the protection of Sterling cash flows. These swaps have been designated as a hedge of the Group's net investment in the Italian Group and qualify for effective hedge accounting.

For the year ended 31 December 2018, the Group recognised a net £22 million loss on mark to market of these derivatives in reserves (2017: £5 million loss).

Through the financial year the Company drew on its committed bank facilities in Euro and US Dollars and issued Euro denominated Commercial Paper. These drawings and issuances were designated as hedges of the Group's net investment in Euro and US Dollar denominated subsidiaries.

For the year ended 31 December 2018, the Group recognised a net £33 million revaluation loss on Euro and US Dollar borrowings in the Company in reserves (2017: £8 million gain).

Foreign exchange forward contracts were arranged during the year to hedge the fair value of Euro and US Dollar denominated exposures. These contracts forward buy and sell payables and receivables denominated in Euros and US Dollars, with the mark to market adjustments offsetting the revaluation of the underlying hedged item in the income statement. They also offer more predictable cash flows to the Group at maturity. At 31 December 2018, payables of €34 million (2017: €19 million) and US$43 million (2017: US$10 million), and receivables of US$69 million (2017: nil) were hedged forward into the next financial year. The market value of the derivatives was nil (2017: nil) in aggregate.

21. Offsetting financial assets and financial liabilities

The Group reports financial assets and financial liabilities on a net basis on the balance sheet where there is a legally enforceable right to offset the recognised amounts and there is an intention to settle on a net basis, or to realise the asset and settle the liabilities simultaneously.

The following table shows the impact of netting arrangements on all financial assets and liabilities that are reported net on the balance sheet as at 31 December 2018:

31 December 2018	Gross amounts £m	Amount offset £m	Net amount as reported £m
Other financial assets	867,201	(859,535)	7,666
Repurchase agreements	823,180	(88,390)	734,790
Total assets	**1,690,381**	**(947,925)**	**742,456**
Other financial liabilities	(892,461)	884,795	(7,666)
Reverse repurchase agreements	(823,180)	88,390	(734,790)
Total liabilities	**(1,715,641)**	**973,185**	**(742,456)**

The impact of netting arrangements on all financial assets and liabilities that are reported net on the balance sheet as at 31 December 2017 is as follows:

31 December 2017	Gross amounts £m	Amount offset £m	Net amount as reported £m
Other financial assets	980,465	(973,067)	7,398
Repurchase agreements	729,833	(89,281)	640,552
Total assets	1,710,298	(1,062,348)	647,950
Other financial liabilities	(1,000,100)	992,702	(7,398)
Reverse repurchase agreements	(729,833)	89,281	(640,552)
Total liabilities	(1,729,933)	1,081,983	(647,950)

All offset amounts are held in Clearing member trading assets and Clearing member trading liabilities within the Group's financial instruments.

As CCPs, the Group's operating companies sit in the middle of members' transactions and hold default funds and margin amounts as a contingency against the default of a member. As such, further amounts are available to offset in the event of a default reducing the asset and liability of £742,456 million (2017: £647,950 million) to nil.

22. Trade and other receivables

		Group		Company	
	Notes	2018 £m	2017 £m (revised)[1]	2018 £m	2017 £m
Non-current					
Deferred consideration		**28**	[illegible]	–	–
Amounts due from Group companies	[illegible]	**–**	–	**25**	[illegible]
Other receivables		**2**	[illegible]	**–**	–
		30	[illegible]	**25**	[illegible]
Current					
Trade receivables		**432**	[illegible]	**–**	
Less: provision for impairment of receivables		**(11)**	[illegible]	–	–
Trade receivables – net		**421**	[illegible]	–	–
Amounts due from Group companies	[illegible]	**–**		**525**	[illegible]
Amounts due from associates	[illegible]	**1**	–	–	–
Group relief receivable		**–**	–	**68**	[illegible]
Deferred consideration		**28**	[illegible]	**–**	[illegible]
Other receivables		**141**	[illegible]	**4**	[illegible]
Prepayments		**53**	[illegible]	**3**	1
Accrued income		–	[illegible]	–	[illegible]
		644	[illegible]	**600**	[illegible]
Total		**674**	[illegible]	**625**	[illegible]

The carrying amount of the Group's current trade and other receivables, including £141 million (2017: nil) of the Group's current contract assets presented in Note 23, are denominated in the following currencies:

	2018 £m	2017 £m (revised)[1]
Sterling	**361**	[illegible]
Euro	**117**	[illegible]
US Dollar	**288**	[illegible]
Other currencies	**19**	[illegible]
	785	[illegible]

[illegible]

Movements in the Group's provision for expected credit losses on trade receivables are as follows:

	Note	2018 £m	2017 £m
31 December as previously reported		**21**	[illegible]
Adoption of new accounting standard	[illegible]	**(10)**	
1 January restated		**11**	[illegible]
Provision for impairment of receivables		**2**	1
Receivables written off during the year as uncollectable		**(1)**	[illegible]
Amounts recovered in the year		**(1)**	–
31 December		**11**	[illegible]

The creation and release of the provision for impaired receivables have been included in operating expenses in the income statement. Amounts charged to the allowance account are written off when there is no expectation of recovering additional cash.

The other classes within trade and other receivables and the other categories of financial assets do not contain impaired assets.

Notes to the financial statements

23. Contract assets

	2018 £m
Non-current	**3**
Contract assets	**3**
Current	**141**
Contract assets	**141**
Total	**144**

1. [illegible]

Contract assets primarily relate to the Group's rights to consideration for work completed but not invoiced at the reporting date.

During the year, the Group recognised no impairment losses in relation to contracts assets.

Changes to the Group's contract assets during the year were as follows:

	Note	2018 £m
1 January	2	**156**
Amounts billed in the period		**(153)**
Services provided in the period		**138**
Foreign exchange		**3**
31 December		**144**

The contract asset tables presented above for the year ended 31 December 2018 are a new requirement as a result of the Group adopting IFRS 15 on 1 January 2018. The Group has used the modified retrospective approach to transition to IFRS 15 and therefore no comparative disclosures are presented.

24. Cash and cash equivalents

	Group		Company	
	2018 £m	2017 £m	2018 £m	2017 £m
Cash at bank	**701**	578	**1**	4
Short-term deposits	**809**	803	**5**	–
	1,510	1,381	**6**	4

Cash and cash equivalents are held with authorised counterparties of a high credit standing, in secured investments at LCH Group companies and at CC&G and unsecured interest bearing current and call accounts, short term deposits and AAA rated money market funds elsewhere in the Group. Management does not expect any losses from non-performance by the counterparties holding cash and cash equivalents, and there are no material differences between their book and fair values. Cash and cash equivalents do not include amounts held by the CCPs on behalf of their clearing members.

At 31 December 2018, cash and cash equivalents shown above include £1,120 million (2017: £1,042 million) of amounts held by regulated entities for regulatory and operational purposes. Total amounts set aside for regulatory and operational purposes include current investments in financial assets of £53 million (2017: £19 million) and non-current investments in financial assets of £31 million (2017: £86 million).

All amounts are subject to regular reviews with regulators in the UK, France and Italy.

25. Trade and other payables

	Note	Group		Company	
		2018 £m	2017 £m	2018 £m	2017 £m
Non-current					
Deferred consideration		–	38	–	
Other non-current payables		**11**	11	–	
		11	49	**–**	–
Current					
Trade payables		**52**	50	**1**	–
Amounts owed to Group companies	36	**–**	–	**366**	251
Social security and other taxes		**29**	23	**–**	–
Other payables		**102**	128	**22**	16
Accruals		**355**	293	**13**	8
Deferred income		–	104	**–**	–
		538	598	**402**	275
Total		**549**	647	**402**	275

1. [illegible]

26. Contract liabilities

	2018 £m
Non-current	
Contract liabilities	**118**
	118
Current	
Contract liabilities	**153**
	153
Total	**271**

[illegible]

Contract liabilities primarily relate to the consideration received from customers for which services have not yet been rendered.

Changes in the Group's contract liabilities balances during the year were as follows:

	Notes	2018 £m
31 December 2017 (as previously presented)	5	**104**
Adoption of new accounting standards	[illegible]	**140**
1 January 2018 (restated)		**244**
Revenue recognised in the income statement		**(134)**
Increases due to consideration received, (excluding amounts recognised as revenue during the year)		**160**
Foreign exchange		**1**
31 December 2018		**271**

We estimate that the Group's contract liabilities will be recognised in the following periods after 31 December 2018:

	Information Services £m	Post Trade Services – LCH £m	Post Trade Services – CC&G and Monte Titoli £m	Capital Markets £m	Technology Services £m	Group £m
Less than 1 year	**99**	**1**	**3**	**48**	**2**	**153**
More than 1 year but less than 5 years	–	–	–	**78**	–	**78**
More than 5 years	–	–	–	**40**	–	**40**
Contract liabilities as at end of year	**99**	**1**	**3**	**166**	**2**	**271**

The contract liability tables presented above for the year ended 31 December 2018 are a new requirement as a result of the Group adopting IFRS 15 on 1 January 2018. The Group has used the modified retrospective approach to transition to IFRS 15 and therefore no comparative disclosures are presented.

27. Borrowings

	Group 2018 £m	Group 2017 £m	Company 2018 £m	Company 2017 £m
Current				
Bank borrowings	**41**	[illegible]	**24**	49
Commercial paper	**270**		**270**	
Bonds	**250**		**250**	
	561	[illegible]	**544**	[illegible]
Non-current				
Bonds	**1,642**	[illegible]	**1,642**	[illegible]
	1,642	[illegible]	**1,642**	[illegible]
Total	**2,203**	[illegible]	**2,186**	[illegible]

Notes to the financial statements

The Group has the following committed bank facilities and unsecured notes

Type	Expiry Date	Notes/Facility £m	Carrying value at 31 December 2018 £m	Interest rate percentage at 31 December 2018 %
Drawn value of Facilities				
Multi-currency revolving credit facility	Nov 2022	600	**42**	LIBOR + 0.45
Multi-currency revolving credit facility	Dec 2023	600	**(1)**	LIBOR + 0.3
Total Committed Bank Facilities			**41**	
Commercial paper	Jan 2019	270	**270**	(0.260)
Bond due October 2019	Oct 2019	250	**250**	9.125
Bond due November 2021	Nov 2021	300	**300**	4.750
Bond due September 2024	Sep 2024	451	**449**	0.875
Bond due December 2027	Dec 2027	451	**446**	1.750
Bond due September 2029	Sep 2029	451	**447**	1.750
Total Bonds			**1,892**	
Total Committed Facilities and Unsecured Notes			**2,203**	

[illegible]

The carrying values of drawn bank facilities, commercial paper and bonds at 31 December 2018 were £41 million (2017: £522 million), £270 million (2017: nil) and £1,892 million (2017: £1,431 million) respectively.

Current borrowings

The Group retained total committed bank facilities of £1,200 million during the financial year. The 5 year £600 million facility arranged in December 2017 was extended for a year to December 2023, with a further 1 year extension option available to the Group, subject to lender approval. These facilities were partially drawn at 31 December 2018 with carrying value of £41 million (2017: £522 million) which includes £2 million of deferred arrangement fees (2017: £3 million).

In February 2018, the Group commenced issuance under its newly arranged £1 billion Euro Commercial Paper Programme. Outstanding issuances at 31 December 2018 of €300 million (£270 million) (2017: nil) may be reissued upon maturity in line with the Group's liquidity requirements.

In June 2009, the Company issued a £250 million bond which is unsecured and is due for repayment in October 2019. Interest is paid semi-annually in arrears in April and October each year. The issue price of the bond was £99.548 per £100 nominal. The coupon on the bond is dependent on the Company's credit ratings with Moody's and Standard & Poor's, which were unchanged at A3 and A- respectively. The bond coupon remained at 9.125% per annum throughout the financial year.

Cassa di Compensazione e Garanzia S.p.A. (CC&G) has direct intra-day access to refinancing with the Bank of Italy to cover its operational liquidity requirements in the event of a market stress or participant failure. In addition, it has arranged commercial bank back-up credit lines with a number of commercial banks, which totaled €420 million at 31 December 2018 (2017: €420 million), for overnight and longer durations to broaden its liquidity resources consistent with requirements under the European Markets Infrastructure Regulation (EMIR).

LCH SA has a French banking licence and is able to access refinancing at the European Central Bank to support its liquidity position. LCH Limited is deemed to have sufficient fungible liquid assets to maintain an appropriate liquidity position, and has direct access to certain central bank facilities to support its liquidity risk management in accordance with the requirements under the EMIR. In accordance with the Committee on Payments and Market Infrastructures (CPMI), International Organization of Securities Commissions (IOSCO) and Principles for Financial Market Infrastructures (PFMIs), many Central Banks now provide for CCPs to apply for access to certain Central Bank facilities.

In addition, a number of Group entities have access to uncommitted operational, money market and overdraft facilities which support post trade activities and day-to-day liquidity requirements across its operations.

Non-current borrowings

In November 2012, the Company issued a £300 million bond under its Euro Medium Term Notes Programme (launched at the same time) which is unsecured and is due for repayment in November 2021. Interest is paid semi-annually in arrears in May and November each year. The issue price of the bond was £100 per £100 nominal. The coupon on the bond is fixed at 4.75% per annum.

In September 2017, the Company issued €1 billion of bonds in two €500 million (£451 million) tranches under its updated Euro Medium Term Notes Programme. The bonds are unsecured and the tranches are due for repayment in September 2024 and September 2029 respectively. Interest is paid annually in arrears in September each year. The issue prices of the bonds were €99.602 per €100 nominal for the 2024 tranche and €99.507 per €100 nominal for the 2029 tranche. The coupon on the respective tranches is fixed at 0.875% per annum and 1.75% per annum respectively.

In December 2018, the Company issued a €500 million (£451 million) bond under its updated Euro Medium Term Notes Programme. The bond is unsecured and due for repayment in December 2027. Interest is paid annually in arrears in December each year. The issue price was €99.547 per €100 nominal. The coupon on the bond is fixed at 1.75% per annum.

Fair values

The fair values of the Group's borrowings are as follows

Group	2018 Carrying value £m	2018 Fair value £m	2017 Carrying value £m	2017 Fair value £m
Borrowings				
– within 1 year	**561**	**561**	[illegible]	[illegible]
– after more than 1 year	**1,642**	**1,914**	[illegible]	[illegible]
[illegible]	**2,203**	**2,475**	[illegible]	[illegible]

The fair values of the Company's borrowings are as follows

Company	2018 Carrying value £m	2018 Fair value £m	2017 Carrying value £m	2017 Fair value £m
Borrowings				
– within 1 year	**544**	**544**	[illegible]	[illegible]
– after more than 1 year	**1,642**	**1,914**	[illegible]	[illegible]
[illegible]	**2,186**	**2,458**	[illegible]	[illegible]

Borrowings are classified as Level 2 in the Group's hierarchy for determining and disclosing the fair value of financial instruments. The fair values of borrowings are based on discounted cash flows using a rate based on borrowing cost. Floating rate borrowings bear interest at an agreed margin over the appropriate inter-bank reference rate.

The carrying amounts of the Group's borrowings are denominated in the following currencies

Currency	2018 Drawn £m	2018 Swapped £m	2018 Effective £m	2017 Drawn £m	2017 Swapped £m	2017 Effective £m
Sterling	**572**	**(270)**	**302**	[illegible]	[illegible]	[illegible]
Euro	**1,631**	**(361)**	**1,270**	[illegible]	[illegible]	[illegible]
US Dollar	**–**	**631**	**631**	–	[illegible]	[illegible]
Total	**2,203**	**–**	**2,203**	[illegible]		[illegible]

The carrying amounts of the Company's borrowings are denominated in the following currencies

Currency	2018 Drawn £m	2018 Swapped £m	2018 Effective £m	2017 Drawn £m	2017 Swapped £m	2017 Effective £m
Sterling	**572**	**(270)**	**302**	[illegible]	[illegible]	[illegible]
Euro	**1,614**	**(361)**	**1,253**	[illegible]	[illegible]	[illegible]
US Dollar	**–**	**631**	**631**	–	[illegible]	[illegible]
Total	**2,186**	–	**2,186**	[illegible]	–	[illegible]

28. Analysis of net debt

	Group 2018 £m	Group 2017 £m	Company 2018 £m	Company 2017 £m
Due within 1 year				
Cash and cash equivalents	**1,510**	[illegible]	**6**	–
Bank borrowings	**(41)**	[illegible]	**(24)**	[illegible]
Commercial paper	**(270)**		**(270)**	
Bonds	**(250)**		**(250)**	
Derivative financial liabilities	**(30)**	–	**(30)**	–
	919	[illegible]	**(568)**	[illegible]
Due after 1 year				
Bonds	**(1,642)**	[illegible]	**(1,642)**	[illegible]
Derivative financial assets	**–**	[illegible]	**–**	[illegible]
Derivative financial liabilities	**(17)**	[illegible]	**(17)**	[illegible]
Total net debt	**(740)**	[illegible]	**(2,227)**	[illegible]

Reconciliation of net cash flow to movement in net debt

	Group 2018 £m	Group 2017 £m	Company 2018 £m	Company 2017 £m
Increase/(decrease) in cash in the year	**84**	216	**1**	(5)
Bond issue proceeds	(445)	(685)	(445)	(885)
Redemption of preferred securities	–	157	–	–
Commercial paper issuance	(255)	–	(255)	–
Additional drawdowns from bank credit facilities	–	(242)	–	(215)
Repayments made towards bank credit facilities	489	67	474	[illegible]
Utilisation of drawn funds for financing activities	–	103	–	–
Change in net debt resulting from cash flows	**(127)**	(554)	**(225)**	(1,1[illegible])
Foreign exchange movements	4	[illegible]	(40)	(2)
Movement on derivative financial assets and liabilities	(22)	(6)	(22)	6
Bond valuation adjustment	3	5	3	5
Movement in bank credit facility arrangement fees	(1)	1	(1)	1
Reclassification of cash to assets held for sale	–	(3)	–	–
Net debt at the start of the year	(597)	(341)	(1,942)	(839)
Net debt at the end of the year	**(740)**	(597)	**(2,227)**	(1,942)

29. Provisions

Group	Property £m	Other £m	Total £m
1 January 2018	10	–	10
Utilised during the year	(1)	–	(1)
Unwinding of discount on provision	1	–	1
Provisions no longer required	(1)	–	(1)
Additional charge in the year	1	2	3
31 December 2018	**10**	**2**	**12**
Current	1	1	2
Non current	9	1	10
31 December 2018	**10**	**2**	**12**

The property provision represents the estimated net present value of future costs for lease rentals and dilapidation costs less the expected receipts from sub letting space which is surplus to business requirements. The leases have between 1 and 10 years to expiry.

Other provisions primarily relate to the expected costs arising on the restructuring and integration of the Mergent and Yield Book businesses into the Group.

The Company has no provisions (2017: nil).

30. Share capital and share premium

Ordinary shares issued and fully paid

	Number of shares millions	Ordinary shares[1] £m	Share premium £m	Total £m
1 January 2017	351	24	961	985
Issue of shares to the Employee Benefit Trust	–		3	3
31 December 2017	351	24	964	988
Issue of shares to the Employee Benefit Trust	1	–	1	1
31 December 2018	**351**	**24**	**965**	**989**

1 The ordinary shares of 6 pence

The Board approved the allotment and issue of 72,763 ordinary shares of par value 6 pence at a weighted average exercise price of 2,042 pence to the Employee Benefit Trust (2017: 224,965 ordinary shares of par value 6 pence at 1,251 pence), to settle employee 'Save As You Earn' share plans. This generated a premium of £1 million (2017: £3 million).

Included within the current year Ordinary Share Capital of 351 million shares are 2 million treasury shares, recorded at par.

31. Net cash flow generated from operations

	Notes	Group 2018 £m	Group 2017 £m	Company 2018 £m	Company 2017 £m
Profit before tax from continuing operations		685	[illegible]	112	[illegible]
[illegible] before tax from discontinued operations	[illegible]	–	[illegible]	–	–
Profit before tax		**685**	[illegible]	**112**	[illegible]
Adjustments for depreciation, amortisation and impairments:					
Depreciation and amortisation	[illegible]	287	[illegible]	–	–
Impairment of software	[illegible]	5	–	–	
Impairment of property, plant and equipment	[illegible]	2	[illegible]	–	
Adjustments for other non-cash items:					
[illegible]	[illegible]	–	[illegible]	–	–
[illegible]	[illegible]	–	[illegible]	–	–
Gain on disposal of financial assets		–	[illegible]	–	–
Other gains on disposal of assets		–	[illegible]	–	
Share of loss of associates	[illegible]	8	[illegible]	–	
Impairment of investment in associate	[illegible]	–		8	[illegible]
Net finance expense	[illegible]	66	[illegible]	61	[illegible]
Share scheme expense		36	[illegible]	–	–
[illegible]		3	–	–	
Movement in pensions and provisions		(19)	[illegible]	–	–
Net foreign exchange differences		30	[illegible]	52	[illegible]
Dividend income	[illegible]	–	–	(320)	[illegible]
Movements in working capital:					
Decrease in inventories		–	[illegible]	–	–
(Increase)/decrease in trade and other receivables and contract assets		(107)	[illegible]	38	[illegible]
Increase/(decrease) in trade and other payables and contract liabilities		3	[illegible]	66	[illegible]
Movement in other assets and liabilities relating to operations:					
Increase in clearing member financial assets		(101,678)	[illegible]	–	–
Increase in clearing member financial liabilities		101,646	[illegible]	–	
Movement in derivative assets and liabilities		2	[illegible]	22	[illegible]
Unrealised gain on the revaluation of financial assets		–	[illegible]	–	–
Cash generated from operations		**969**	[illegible]	**39**	[illegible]
Comprising:					
Ongoing operating activities		978	[illegible]	46	[illegible]
Non-underlying items		(9)	[illegible]	(7)	[illegible]
		969	[illegible]	39	[illegible]

Movement in financial liabilities arising from financing activities

	As at 1 January 2018 £m	Cash flows £m	Foreign exchange £m	Other £m	31 December 2018 £m
Bank borrowings	522	(489)	7	1	41
Bonds	1,431	445	18	(2)	1,892
Commercial paper	–	255	15	–	270
Finance lease liabilities	7	(2)	–	–	5
Derivative financial instruments	25	–	–	22	47
	1,985	209	40	21	2,255

Notes to the financial statements

32. Commitments and contingencies

The Group and Company have no contracted capital commitments or any other commitments not provided for in the financial statements as at 31 December 2018 (2017: nil).

In the normal course of business, the Group and the Company receive legal claims in respect of commercial, employment and other matters. Where a claim is more likely than not to result in an economic outflow of benefits from the Group or the Company, a provision is made representing the expected cost of settling such claims.

33. Business combinations

Acquisitions in the year to 31 December 2018

There were no business combinations during the year ended 31 December 2018.

Acquisitions in the year to 31 December 2017

The Group made 2 acquisitions in the year ended 31 December 2017.

Mergent

On 3 January 2017, the Group acquired the entire share capital of Mergent, a leading global provider of business and financial information on public and private companies, for total cash consideration of US$147 million (£119 million). The acquisition will support the growth of FTSE Russell's core index offering, supplying underlying data and analytics for the creation of a wide range of indexes.

On completion of the fair value exercise in the prior year, the Group recognised £74 million of goodwill and £69 million of purchased intangible assets arising on the acquisition of Mergent.

Yield Book

On 31 August 2017, the Group acquired the entire share capital of the Yield Book business, a leading global provider of fixed income indexes and analytics. The cash consideration paid by the Group at completion was US$679 million (£525 million). The acquisition enhances and complements LSEG's Information Services data and analytics offering, building on FTSE Russell's US market presence and fixed income client base globally.

In the prior year, the Group recognised £215 million in provisional goodwill and the provisional fair value of net assets identified was £310 million, including £307 million of other intangible assets.

Subsequent to the year ended 31 December 2017, the purchase price exercise was finalised whereby the Group received £3 million (US$4 million) cash consideration from the vendor and resulted in a £1 million reduction in the total purchase consideration paid by the Group on acquisition of the Yield Book business. The £3 million (US$4 million) cash consideration received in the year ended 31 December 2018 was offset against a £2 million other receivable already recognised within the provisional fair values reported on the Group's balance sheet at 31 December 2017. A final fair value adjustment for an additional £1 million other receivable was recognised in the acquisition balance sheet compared to the provisional fair value amounts previously presented in our 31 December 2017 Annual Report. Consequently, the Group recognised a £1 million decrease in goodwill from amounts previously disclosed at 31 December 2017, bringing the total goodwill on acquisition of the Yield Book business to be £214 million.

The impact of these final fair value adjustments have been incorporated with effect from the acquisition date of the Yield Book business and the comparative 31 December 2017 balance sheet and related notes have been revised.

34. Leases

Operating lease commitments – Group as lessee

The Group leases various office properties under non-cancellable operating leases. The total future minimum lease payments under non-cancellable operating leases are due as follows:

	Property	
Leases expiring in:	**2018 £m**	**2017 £m**
Less than 1 year	**35**	[illegible]
More than 1 year but less than 5 years	**126**	[illegible]
More than 5 years	**60**	[illegible]
	221	[illegible]

Operating lease payments of £33 million (2017: £32 million) were charged to the income statement in the year in relation to property.

Operating lease commitments – Group as lessor

The total future minimum lease payments expected to be received under non-cancellable operating leases for property where the Group is lessor are due as follows:

	Property	
Leases expiring in:	**2018 £m**	**2017 £m**
Less than 1 year	**4**	5
More than 1 year but less than 5 years	**11**	[illegible]
More than 5 years	**2**	[illegible]
	17	[illegible]

Finance lease commitments – Group as lessee

The Group has finance lease contracts for certain distribution licences. Future minimum lease payments under finance leases together with the present value of the net minimum lease payments are as follows:

	2018		2017	
Leases expiring in:	**Minimum payments £m**	**Present value of payments £m**	**Minimum payments £m**	**Present value of payments £m**
Less than 1 year	**(4)**	**(4)**	[illegible]	[illegible]
More than 1 year but less than 5 years	**(1)**	**(1)**	[illegible]	[illegible]
Total minimum lease payments	**(5)**	**(5)**	[illegible]	[illegible]
Less amounts representing finance charge	**–**	**–**	–	–
Present value of minimum lease payments	**(5)**	**(5)**	[illegible]	[illegible]

The Company has no lease commitments (2017: none).

Finance lease commitments – Group as lessor

The Group and Company has no finance lease contracts as a lessor (2017: none).

Notes to the financial statements

35. Share schemes

The London Stock Exchange Group Long Term Incentive Plan (LTIP), approved at the 2014 AGM, has 2 elements, a conditional award of Performance Shares and an award of Matching Shares linked to investment by the executive of annual bonus in the Company's shares – the latter element is not applicable to executive directors. Vesting of these awards is dependent upon the Company's total shareholder return performance and adjusted basic earnings per share. Further details are provided in the Remuneration Report on pages 82 to 100. Awards are granted at nil cost to employees.

The SAYE Option Scheme and International Sharesave Plan (SAYE Scheme) provide for grants of options to employees who enter into a SAYE savings contract and options were granted at 20 per cent below fair market value during the year.

The Group has an employee benefit discretionary trust to administer the share plans and to acquire the shares to meet commitments to Group employees. At the year end, 573,672 (2017: 944,495) shares were held by the trust, funded in part by an interest-free loan from the Group and in part by the issue of 72,763 (2017: 224,965) shares and transfer of 1,359,900 (2017: 1,757,774) shares held in treasury.

The Company has no employees but, in accordance with IFRS 10 'Consolidated financial statements', has the obligation for the assets, liabilities, income and costs of the employee benefit trust and these have been consolidated in the Group's financial statements. The cost of the Group's shares held by the trust are deducted from retained earnings.

Movements in the number of share options and awards outstanding and their weighted average exercise prices are as follows:

	Share options		SAYE Scheme		LTIP	
	Number	Weighted average exercise price £	Number	Weighted average exercise price £	Number	Weighted average exercise price £
31 December 2016	3,447	6.85	892,542	17.96	5,577,663	0.17
Granted	–	–	453,437	31.11	2,387,638	
Exercised	(1,771)	5.63	(425,784)	14.41	(1,881,434)	–
Lapsed/forfeited	–	–	(52,622)	20.87	(575,195)	–
31 December 2017	1,676	8.94	867,873	26.40	5,438,872	–
Granted	–	–	208,598	34.37	1,335,947	–
Exercised	–	–	(206,738)	20.59	(1,659,249)	–
Lapsed/forfeited	–	–	(76,746)	27.88	(320,648)	–
31 December 2018	**1,676**	**8.94**	**792,987**	**29.87**	**4,794,922**	**–**
Exercisable at:						
31 December 2018	**1,676**	**8.94**	**9,940**	**28.05**	**–**	**–**
31 December 2017	1,676	8.94	9,964	18.27	[illegible]	–

The weighted average share price of London Stock Exchange Group plc shares during the year was £42.62 (2017: £35.32).

The range of exercise prices and weighted average remaining contractual life of awards and options outstanding are as follows

	31 December 2018		31 December 2017	
	Number outstanding	Weighted average remaining contractual life Years	Number outstanding	Weighted average remaining contractual life Years
Share options				
Between £5 and £9	**1,676**	–	[illegible]	–
SAYE				
Between £11 and £[illegible]	–	–	[illegible]	–
Between £[illegible] and £[illegible]	**188,218**	**0.1**	[illegible]	[illegible]
More than £[illegible]	**604,769**	**1.6**	[illegible]	[illegible]
LTIP				
Nil	**4,794,922**	**1.2**	[illegible]	[illegible]
Total	**5,589,585**	**1.3**	[illegible]	[illegible]

The fair value of share awards and share options granted during the year was determined using a stochastic valuation model The key assumptions used in the valuation were as follows

	Performance Shares			Matching Shares	Restricted Share Award		Share Save Plan
	26-Apr-18	08-Aug-18	02-Oct-18	10-Apr-17	26-Apr-18	02-Oct-18	17-May-18
Grant date share price	**£42.97**	**£45.10**	**£45.19**	**£42.97**	**£42.97**	**£45.19**	**£44.98**
Expected life	**3 years**	**3 years**	**3 years**	**3 years**	**0.8 years to 2.8 years**	**1.0 year to 1.7 years**	**3.3 years**
Exercise price	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**£34.37 to £34.67**
Dividend yield	**1.6%**	**1.5%**	**1.5%**	**1.6%**	**1.6%**	**1.5%**	**1.2%**
Risk-free interest rate	**0.9%**	**0.8%**	**0.9%**	**0.9%**	**0.73% to 0.92%**	**0.75% to 0.80%**	**1.0%**
Volatility	**25%**	**25%**	**24%**	**25%**	**16.6% to 25.4%**	**16.3% to 17%**	**25%**
Fair value	–	–	–	–	**£41.05 to £42.39**	**£44.02 to £44.50**	**£12.81 to £12.99**
Fair value TSR	**£17.37**	**£16.18**	**£14.95**	**£17.37**	**n.a.**	**n.a.**	**n.a.**
Fair value EPS	**£40.96**	**£43.08**	**£43.15**	**£40.96**	**n.a.**	**n.a.**	**n.a.**

The approach adopted by the Group in determining the fair value for the Performance and Matching Shares granted during the year was based on a Total Shareholder Return pricing model which incorporates TSR and EPS performance conditions and references the vesting schedules of the awards

For all other share awards including the Share Save Plan the Black Scholes model was used

The significant inputs into both models are the share price at grant date expected volatility dividend yields and annual risk-free interest rate The volatility assumption is based on the historical 3-year volatility as at the date of grant The risk free interest rate represents the yield available on a UK zero coupon government bond on the date of grant for a term commensurate with the vesting period of the award The expected life refers to the time from the date of grant to the date the awards vest Holders of share awards and share options are not entitled to receive dividends declared during the vesting period

Notes to the financial statements

36. Transactions with related parties

Key management compensation

Compensation for Directors of the Company and key personnel who have authority for planning, directing and controlling the Group

	2018 £m	2017 £m
Salaries and other short-term benefits	**11**	13
Pensions	**1**	[illegible]
Share based payments	**14**	[illegible]
	26	35

Other directors' interests

One director has a 40.5% (2017: 45%) equity interest in Quantile Technologies Limited who are an approved compression service provider for the Group's LCH Limited subsidiary. The Group operated a commercial arrangement with Quantile Technologies Limited and all transactions were carried out on an arm's length basis. During the year there was no income or expenses recognised as part of the agreement (2017: nil).

Inter-company transactions with subsidiary undertakings

The Company has loans with some subsidiary undertakings. Details as at 31 December 2018 are shown in the table below.

Loan counterparty	Amount (owed to)/ due from as at 2018	2017	Term	Interest rate as at 31 December 2018	Interest (charge)/credit 2018	2017
London Stock Exchange plc	***£(198)m***	*£(130)m*	*25 years from May 2006 with five equal annual repayments commencing in May 2017*	*LIBOR plus 1% per annum*	***£(5)m***	*£(3)m*
London Stock Exchange Employee Benefit Trust	**£25m**	£27m	Repayable on demand	Non-interest bearing	**–**	–
London Stock Exchange Group Holdings (Italy) Limited	**€(11)m**	–	Fifth anniversary of the initial utilisation date which was April 2018	EURIBOR plus 1.5% per annum	**€(1)m**	–
London Stock Exchange Group Holdings Limited	**£226m**	£24[illegible]m	Tenth anniversary of the initial utilisation date which was October 2009	LIBOR plus 4.0% per annum	**£12m**	£10m
London Stock Exchange Group Holdings Limited	–	–	Tenth anniversary of the initial utilisation date which was October 2009	LIBOR plus 4.1% per annum	–	US$[illegible]m
London Stock Exchange Group Holdings Limited	–	€[illegible]m	Tenth anniversary of the initial utilisation date which was October 2009	EURIBOR plus 4.0% per annum	**–**	–
London Stock Exchange Reg Holdings Limited	**–**	€1m	Fifth anniversary of the initial utilisation date which was July 2016	EURIBOR plus 1.2% per annum	–	
London Stock Exchange Reg Holdings Limited	**£20m**	£[illegible]m	Fifth anniversary of the initial utilisation date which was July 2018	LIBOR plus 1.5% per annum	**–**	
London Stock Exchange (C) Limited	**–**	€1[illegible]m	Fifth anniversary of the initial utilisation date which was May 2017	EURIBOR plus 1.5% per annum	–	
London Stock Exchange Group Holdings (Luxembourg) Ltd	**US$(24)m**	US$[illegible]m	Fifth anniversary of the initial utilisation date which was December 2014	LIBOR plus 1.5% per annum	**US$(3)m**	–
LSEG Employment Services Limited	**£137m**	£[illegible]m	*Fifth anniversary of the initial utilisation date which was January 2015*	LIBOR plus 1.2% per annum	**£2m**	£1m
London Stock Exchange Group Services Limited	**£71m**	£67m	Fifth anniversary of the initial utilisation date which was January 2016	LIBOR plus 0.9% per annum	**£2m**	

During the year, the Company charged in respect of employee share schemes £9 million (2017: £10 million) to LSEG Employment Services Limited, £5 million *(2017: £6 million) to LCH Group, £5 million (2017: £6 million) to the London Stock Exchange Group Holdings Italia S.p.A. group of companies, £3 million* (2017: £2 million) to the FTSE Group, £7 million (2017: £5 million) to London Stock Exchange Group Holdings, Inc., £5 million (2017: £8 million) to London Stock Exchange plc, £1 million (2017: £1 million) to Millennium Group and £1 million (2017: £nil million) to other subsidiaries of the Group.

During the year the Company received dividends of £163 million from LSE Group Holdings (Italy) Ltd and £157 million from LSLGH (Luxembourg) Ltd. The Company recognised £7 million income (2017: £32 million) and £61 million expenses (2017: £49 million) with Group undertakings in relation to corporate recharges. At 31 December 2018, the Company had £67 million (2017: £106 million) other receivables due from Group companies and other payables of £144 million (2017: £116 million) owed to Group undertakings.

Transactions with associates

In the year ended 31 December 2018, the Group recognised £1 million revenue (2017: £4 million) from its associates and as at 31 December 2018, the Group had £1 million receivable from its associates (2017: nil).

All transactions with subsidiaries and associates were carried out on an arm's length basis.

37. Events after the reporting period

On 30 January 2019 the Group acquired a 4.92% equity interest in Euroclear Holding SA/NV share capital for £242 million. The transaction was funded from existing cash and debt facilities.

On 25 February 2019 the Group acquired a 7.5% equity interest in Nivaura Limited for £2 million, a UK-based fintech specialising in developing end-to-end automation and distributed ledger technology solutions for capital raising and administration.

38. Other statutory information

Auditors' remuneration payable to Ernst and Young LLP and its associates comprises the following:

	2018 £m	2017 £m
Audit of parent and consolidated financial statements	1	[illegible]
Audit of subsidiary companies	2	[illegible]
Non-audit services	1	[illegible]
Total	**4**	[illegible]

Ernst and Young LLP provided non-audit services of £0.6 million, 15% of total fees (2017: £0.6 million, 15% of total fees). This comprised of audit related assurance services of £0.5 million (2017: £0.5 million) and other non-audit services of £0.1 million (2017: £0.1 million).

Further details of the services provided by Ernst and Young LLP are given in the Report of the Audit Committee on pages 74–79.

Directors' emoluments comprise the following:

	2018 £m	2017 £m
Salary and fees	3	3
Performance bonus	2	[illegible]
Gains made on share awards	3	
Benefits	1	[illegible]
	9	[illegible]
Contributions to defined contribution schemes	–	[illegible]
	9	[illegible]

During the year no Directors (2017: 1) had retirement benefits accruing under defined contribution schemes and 1 Director (2017: 1) had retirement benefits accruing under a defined benefit scheme.

Further details of Directors' emoluments are included in the Remuneration Report on pages 82 to 106.

Notes to the financial statements

Related undertakings

A list of the Group's subsidiaries as at 31 December 2018 is given below including the percentage of each class held and the Group's ownership percentages.

The share ownership percentage records the percentage of each subsidiary's share capital owned within the LSEG Group. Shares owned directly by LSEG plc are listed as being a 'direct' shareholding, shares owned by other LSEG Group companies are listed as an 'indirect (group interest)' shareholding. Where more than 1 LSEG Group company owns shares in a subsidiary these interests have been added together. The ultimate economic interest percentage on the other hand does not show actual share ownership. It records LSEG plc's effective interest in the subsidiary, allowing for situations where subsidiaries are owned by partly owned intermediate subsidiaries.

All subsidiaries are consolidated in the Group's financial statements.

Name of subsidiary undertaking	Country of incorporation	Registered office address	Identity of each class of share held in the subsidiary undertaking	Direct or indirect holding	Share ownership %	LSEG plc ultimate economic interest %
BANQUE CENTRALE DE COMPENSATION (LCH SA)	France	18 Rue du Quatre-Septembre 75002 Paris, France	Ordinary	Indirect (group interest)	88.91	73.45
Bit Market Services S.p.A.	Italy	Piazza degli Affari 6, 20123 Milano, Lombardia, Italy	Ordinary	Indirect (group interest)	99.99	[illegible]
Bondclear Limited	England and Wales	Aldgate House, 33 Aldgate High Street London, England and Wales, EC3N 1EA	Ordinary	Indirect (group interest)	100	82.61
Borsa Italiana S.p.A.	Italy	Piazza degli Affari 6, 20123 Milano, Lombardia, Italy	Ordinary	Indirect (group interest)	99.99	99.99
Cassa Di Compensazione e Garanzia S.p.A. (CC&G)	Italy	Via Tomacelli 146, 00186 Rome, Italy	Ordinary	Indirect (group interest)	100	99.99
CommodityClear Limited	England and Wales	Aldgate House, 33 Aldgate High Street London, England and Wales, EC3N 1EA	Ordinary	Indirect (group interest)	100	82.61
Elite Club Deal Limited	England and Wales	10 Paternoster Square, London England and Wales, EC4M 7LS	Ordinary	Indirect (group interest)	100	74.99
Elite S.p.A.	Italy	Piazza degli Affari 6, 20123 Milano, Lombardia, Italy	Ordinary	Indirect (group interest)	75	74.99
Elite SIM S.p.A.	Italy	Piazza degli Affari 6, 20123 Milano, Lombardia, Italy	Ordinary	Indirect (group interest)	100	74.99
EquityClear Limited	England and Wales	Aldgate House, 33 Aldgate High Street London, England and Wales, EC3N 1EA	Ordinary	Indirect (group interest)	100	82.61
EuroMTS Limited	England and Wales	10 Paternoster Square London, England and Wales, EC4M 7LS	Ordinary	Indirect (group interest)	100	[illegible]
EuroTLX SIM S.p.A.	Italy	Piazza degli Affari 6, 20123 Milano, Lombardia, Italy	Ordinary	Indirect (group interest)	70	69.99
ForexClear Limited	England and Wales	Aldgate House, 33 Aldgate High Street London, England and Wales, EC3N 1EA	Ordinary	Indirect (group interest)	100	82.61
Frank Russell Company	United States	c/o United Agent Group Inc, West 505 Riverside Avenue #500, Spokane, Spokane County, WA 99201, United States	Common	Indirect (group interest)	100	100
FTSE (Australia) Limited	England and Wales	10 Paternoster Square London, England and Wales, EC4M 7LS	Ordinary	Indirect (group interest)	100	100
FTSE (Beijing) Consulting Limited	China	Room 10D-H, 6/F Dongwai Diplomatic Building 23 Dongzhimenwai Dajie, Beijing, China	Ordinary	Indirect (group interest)	100	100
FTSE (Japan) Limited	England and Wales	10 Paternoster Square London, England and Wales, EC4M 7LS	Ordinary	Indirect (group interest)	100	100
FTSE Americas, Inc.	United States	c/o United Agent Group Inc, 15 North Mill Street Nyack, Rockland County, NY 10960, United States	Ordinary	Indirect (group interest)	100	100
FTSE China Index Ltd	Hong Kong	6th Floor, Alexandra House, 18 Chater Road Central Hong Kong	Ordinary	Indirect (group interest)	100	100
FTSE Fixed Income LLC	United States	c/o United Agent Group Inc, 3411 Silverside Road Tatnall Building #104, Wilmington, New Castle County, DE, 19810, United States	Member interest	Indirect (group interest)	100	100
FTSE Global Debt Capital Markets Inc.	Canada	Suite 2400, 333 Bay Street, Toronto, ON M5H 2T6, Canada	Ordinary	Indirect (group interest)	100	[illegible]
FTSE Global Debt Capital Markets Limited	England and Wales	10 Paternoster Square, London, England and Wales, EC4M 7LS	Ordinary	Indirect (group interest)	100	100
FTSE International (France) Limited	England and Wales	10 Paternoster Square London, England and Wales, EC4M 7LS	Ordinary	Indirect (group interest)	100	100
FTSE International (Hong Kong) Limited	Hong Kong	6th Floor Alexandra House, 18 Chater Road Central Hong Kong	Ordinary	Indirect (group interest)	100	100
FTSE International (Italy) Limited	England and Wales	10 Paternoster Square, London, England and Wales, EC4M 7LS	Ordinary	Indirect (group interest)	100	100
FTSE International (MEA) Ltd	United Arab Emirates	Unit 1550, Level 15, Gate Building, DIFC PO Box 121208, Dubai, United Arab Emirates	Ordinary	Indirect (group interest)	100	100
FTSE International Brasil Representacoes LTDA	Brazil	Edificio Argentina, Praia de Botafogo 228, 16 andar, Sala1617, Rio de Janeiro, Brazil	Ordinary	Indirect (group interest)	100	100
FTSE International Limited	England and Wales	10 Paternoster Square London, England and Wales, EC4M 7LS	Ordinary	Indirect (group interest)	100	100

Name of subsidiary undertaking	Country of incorporation	Registered office address	Identity of each class of share held in the subsidiary undertaking	Direct or indirect holding	Share ownership %	LSEG plc ultimate economic interest %
FTSE International (Taiwan) Limited	Taiwan	12F No 415 [illegible], Taipei City, Taiwan	Ordinary	Indirect (group interest)	100	100
FTSE Mexico Sociedad de Responsabilidad Limitada de Capital Variable	Mexico	Paseo de los Tamarindos 400 [illegible] Bosques de las Lomas, Mexico City [illegible], Mexico	Ordinary	Indirect (group interest)	100	100
GateLab Limited	England and Wales	10 Paternoster Square, London, England and Wales, EC4M 7LS	Ordinary	Indirect (group interest)	100	100
Gatelab S.r.l.	Italy	[illegible], Italy	Ordinary	Indirect (group interest)	100	100
[illegible] S.A.	Luxembourg	10 Rue De Bitbourg, L-1273 Luxembourg	Ordinary	Indirect (group interest)	100	100
International Commodities Clearing House Limited	England and Wales	Aldgate House, 33 Aldgate High Street, London, England and Wales, EC3N 1EA	Ordinary	Indirect (group interest)	100	82.61
Intrinsic Research Systems Inc.	United States	c/o United Agent Group Inc. 3411 Silverside Road, Tatnall Building #104, Wilmington, New Castle County, DE 19810, United States	Ordinary A	Indirect (group interest)	100	100
			Ordinary B	Indirect (group interest)	100	100
LCH Limited	England and Wales	Aldgate House, 33 Aldgate High Street, London, England and Wales, EC3N 1EA	Ordinary	Indirect (group interest)	100	82.61
LCH Group Holdings Limited	England and Wales	Aldgate House, 33 Aldgate High Street, London, England and Wales, EC3N 1EA	Ordinary (Non voting)	Indirect (group interest)	[illegible]	82.61
			Ordinary (Voting)		<0.01	–
LCH.Clearnet LLC	United States	c/o United Agent Group Inc. 3411 Silverside Road, Tatnall Building #104, Wilmington, New Castle County, Delaware 19810, United States	Units	Indirect (group interest)	100	82.61
LCH GP Limited	England and Wales	Aldgate House, 33 Aldgate High Street, London, England and Wales, EC3N 1EA	Ordinary	Indirect (group interest)	100	82.61
LCH Clearnet Group Limited	England and Wales	Aldgate House, 33 Aldgate High Street, London, England and Wales, EC3N 1EA	Ordinary	Indirect (group interest)	100	82.61
LCH Pensions Limited	England and Wales	Aldgate House, 33 Aldgate High Street, London, England and Wales, EC3N 1EA	Ordinary	Indirect (group interest)	100	82.61
LCH PLF Limited	England and Wales	Aldgate House, 33 Aldgate High Street, London, England and Wales, EC3N 1EA	Ordinary	Indirect (group interest)	100	82.61
London Stock Exchange (C) Limited	England and Wales	10 Paternoster Square, London, England and Wales, EC4M 7LS	£ Ordinary	Direct	100	100
			€ Ordinary	Direct	100	–
London Stock Exchange Connectivity Solutions LP	England and Wales	10 Paternoster Square, London, England and Wales, EC4M 7LS	Partnership	Indirect (group interest)	100	100
London Stock Exchange Group Services Limited	England and Wales	10 Paternoster Square, London, England and Wales, EC4M 7LS	Ordinary	Direct	100	100
London Stock Exchange Group Holdings Italia Limited	England and Wales	10 Paternoster Square, London, England and Wales, EC4M 7LS	Ordinary	Direct	100	100
London Stock Exchange Group Holdings (R) Limited	England and Wales	10 Paternoster Square, London, England and Wales, EC4M 7LS	Ordinary	Direct	100	100
London Stock Exchange Group Holding Italia S.p.A.	Italy	Piazza degli Affari 6, 20123 Milan, Lombardia, Italy	Ordinary	Indirect (group interest)	100	100
London Stock Exchange Group Holdings Limited	England and Wales	10 Paternoster Square, London, England and Wales, EC4M 7LS	Ordinary	Direct	100	100
London Stock Exchange LEI Limited	England and Wales	10 Paternoster Square, London, England and Wales, EC4M 7LS	Ordinary	Indirect (group interest)	100	100
London Stock Exchange plc	England and Wales	10 Paternoster Square, London, England and Wales, EC4M 7LS	Ordinary	Direct	100	100
London Stock Exchange Reg Holdings Limited	England and Wales	10 Paternoster Square, London, England and Wales, EC4M 7LS	Ordinary	Direct	100	100
LSEG (M) Financing Limited	England and Wales	10 Paternoster Square, London, England and Wales, EC4M 7LS	Ordinary	Indirect (group interest)	100	100
LSEG Business Services Colombo (Private) Limited	Sri Lanka	Trace Expert City, Maradana, Colombo 10, Sri Lanka	Ordinary	Indirect (group interest)	100	100
LSEG Business Services Limited	England and Wales	10 Paternoster Square, London, England and Wales, EC4M 7LS	Ordinary	Indirect (group interest)	100	100
LSEG (EUR) Limited	England and Wales	10 Paternoster Square, London, England and Wales, EC4M 7LS	Ordinary	Indirect (group interest)	100	100
LSEG Business Services RM S.R.L.	Romania	6? Iuliu Maniu Blvd., Building 6.1, 3rd – 4th floor, District 6, Bucharest, Romania	Ordinary	Indirect (group interest)	100	100
LSEG Employment Services Limited	England and Wales	10 Paternoster Square, London, England and Wales, EC4M 7LS	Ordinary	Indirect (group interest)	100	100
LSEG Information Services (US) Inc	United States	c/o United Agent Group Inc. 3411 Silverside Road, Tatnall Building #104, Wilmington, New Castle County, DE 19810, United States	Ordinary	Indirect (group interest)	100	100

Notes to the financial statements

Name of subsidiary undertaking	Country of incorporation	Registered office address	Identity of each class of share held in the subsidiary undertaking	Direct or indirect holding	Share ownership %	LSEG plc ultimate economic interest %
LSEG Ireland Limited	Ireland	10 Earlsfort Terrace, Dublin D02 T380, Ireland	Ordinary	Indirect (group interest)	100	100
LSEG Ireland 2 Limited	Ireland	1 Stokes Place, St Stephen's Green, Dublin 2, D02 DE03, Ireland	Ordinary	Indirect (group interest)	100	100
LSEG Ireland 3 Limited	Ireland	1 Stokes Place, St Stephen's Green, Dublin 2, D02 DE03, Ireland	Ordinary	Indirect (group interest)	100	100
LSEG LuxCo 1 S.à r.l	Luxembourg	19 Rue De Bitbourg, L-1273 Luxembourg	Ordinary	Indirect (group interest)	100	100
LSEG LuxCo 2 S.à r.l	Luxembourg	19 Rue De Bitbourg, L-1273 Luxembourg	Ordinary	Indirect (group interest)	100	100
LSEG Malaysia Sdn. Bhd	Malaysia	Level 19-1, Menara Milenium, Jalan Damanlela, Pusat Bandar Damansara, W.P. Kuala Lumpur, 50490, Malaysia	Ordinary	Indirect (group interest)	100	100
LSEG Pension Trustees Limited	England and Wales	10 Paternoster Square, London, England and Wales, EC4M 7LS	Ordinary	Indirect (group interest)	100	100
LSEG Technology Limited	England and Wales	10 Paternoster Square, London, England and Wales, EC4M 7LS	Ordinary	Indirect (group interest)	100	100
LSEG US Holdco, Inc	United States	c/o United Agent Group Inc. 3411 Silverside Road Tatnall Building #104, Wilmington, New Castle County, DE, 19810, United States	Common	Direct	100	100
LSEGH (I) LLC	United States	c/o United Agent Group Inc. 3411 Silverside Road Tatnall Building #104, Wilmington, New Castle County, DE, 19810, United States	Ordinary	Indirect (group interest)	100	100
LSEGH Luxembourg Limited	England and Wales	10 Paternoster Square, London, England and Wales, EC4M 7LS	Ordinary	Direct	100	100
LSEGH, Inc	United States	c/o United Agent Group Inc. 3411 Silverside Road Tatnall Building #104, Wilmington, New Castle County, DE, 19810, United States	Ordinary	Indirect (group interest)	100	100
LSEGH US PT, Inc	United States	c/o United Agent Group Inc. 3411 Silverside Road Tatnall Building #104, Wilmington, New Castle County, DE, 19810, United States	Common	Direct	100	100
Marché de Titres France (MTS France)	France	18 Rue du Quatre-Septembre 75002 Paris, France	Ordinary	Indirect (group interest)	100	62.53
M-CCP Holdings, Inc	United States	c/o United Agent Group Inc. 3411 Silverside Road Tatnall Building #104, Wilmington, New Castle County, DE, 19810, United States	Ordinary	Indirect (group interest)	100	100
M-CCP Parent, Inc	United States	c/o United Agent Group Inc. 3411 Silverside Road Tatnall Building #104, Wilmington, New Castle County, DE, 19810, United States	Ordinary	Indirect (group interest)	100	100
Mergent Japan K.K.	Japan	1-5-1, Otemachi First Square East Tower 11F, Otemachi, Chiyoda-ku, Tokyo 1-5-1	Ordinary	Indirect (group interest)	100	100
Mergent, Inc	United States	c/o United Agent Group Inc. 3411 Silverside Road Tatnall Building #104, Wilmington, New Castle County, DE, 19810, United States	Ordinary	Indirect (group interest)	100	100
Millennium Information Technologies (India) (Private) Limited	India	83-C Mittal Towers, Nariman Point, Mumbai, 400 021 India	Ordinary	Indirect (group interest)	100	100
Millennium IT (USA) Inc	United States	c/o United Agent Group Inc. 3411 Silverside Road Tatnall Building #104, Wilmington, New Castle County, DE, 19810, United States	Common	Indirect (group interest)	100	100
Millennium IT Services (Private) Limited	Sri Lanka	65/2 Sir Chittampalam A Gardiner Mawatha, Colombo 02, Sri Lanka	Ordinary	Indirect (group interest)	100	100
Millennium IT Software (Canada), Inc	Canada	Suite 2401, 333 Bay Street, Toronto, Ontario, Canada	Common	Indirect (group interest)	100	100
Millennium IT Software (Private) Limited	Sri Lanka	No. 1 Millennium Drive, Malabe, Sri Lanka	Ordinary	Indirect (group interest)	100	100
Monte Titoli S.p.A	Italy	Piazza degli Affari 6, 20123 Milano, Lombardia, Italy	Ordinary	Indirect (group interest)	98.86	98.87
MTS S.p.A	Italy	Via Tomacelli 146, 00186 Rome, Italy	Ordinary	Indirect (group interest)	62.53	62.53
MTS Markets International Inc	United States	c/o United Agent Group Inc. 3411 Silverside Road Tatnall Building #104, Wilmington, New Castle County, DE, 19810, United States	Ordinary	Indirect (group interest)	100	62.53
MTSNext Limited	England and Wales	10 Paternoster Square, London, England and Wales, EC4M 7LS	Ordinary	Indirect (group interest)	100	100
Repoclear Limited	England and Wales	Aldgate House, 33 Aldgate High Street, London, England and Wales, EC3N 1EA	Ordinary	Indirect (group interest)	100	82.61

Name of subsidiary undertaking	Country of incorporation	Registered office address	Identity of each class of share held in the subsidiary undertaking	Direct or indirect holding	Share ownership %	LSEG plc ultimate economic interest %
[illegible] Global Business Services Limited	England and Wales	10 Paternoster Square London England and Wales EC4M 7LS	Ordinary	Indirect (group interest)	[illegible]	[illegible]
Stock Exchange Holdings Limited, The	England and Wales	10 Paternoster Square London England and Wales EC4M 7LS	Ordinary	Indirect (group interest)	[illegible]	[illegible]
SwapAgent Limited	England and Wales	Aldgate House 33 Aldgate High Street London England and Wales EC3N 1EA	Ordinary	Indirect (group interest)	[illegible]	[illegible]
SwapClear Limited	England and Wales	Aldgate House 33 Aldgate High Street London England and Wales EC3N 1EA	Ordinary	Indirect (group interest)	[illegible]	[illegible]
The London Clearing House Limited	England and Wales	Aldgate House 33 Aldgate High Street London England and Wales EC3N 1EA	Ordinary	Indirect (group interest)	[illegible]	[illegible]
London Produce Clearing House Limited, The	England and Wales	Aldgate House 33 Aldgate High Street London England and Wales EC3N 1EA	Ordinary	Indirect (group interest)	[illegible]	[illegible]
The London Stock Exchange Retirement Plan Trustee Company Limited	England and Wales	10 Paternoster Square London England and Wales EC4M 7LS	Ordinary	Indirect (group interest)	100	100
The Yield Book Inc.	United States	c/o United Agent Group Inc. 3411 Silverside Road Tatnall Building #104 Wilmington New Castle County DE 19810 United States	Common	Indirect (group interest)	100	[illegible]
Turquoise Global Holdings Europe B.V.	Netherlands	679 Keizersgracht Amsterdam 1017DV Netherlands	Ordinary	Indirect (group interest)	100	51.36
Turquoise Global Holdings Limited	England and Wales	10 Paternoster Square London England and Wales EC4M 7LS	Ordinary A	Indirect (group interest)	[illegible]	[illegible]
			Ordinary B	–		
Turquoise Global Holdings US Inc.	United States	c/o United Agent Group Inc. 3411 Silverside Road Tatnall Building #104 Wilmington New Castle County DE 19810 United States	Ordinary	Indirect (group interest)	100	51.36
Turquoise SwapMatch Limited	England and Wales	10 Paternoster Square London England and Wales EC4M 7LS	Ordinary A	Indirect (group interest)	[illegible]	[illegible]
			Ordinary B		[illegible]	–
UnaVista Limited	England and Wales	10 Paternoster Square London England and Wales EC4M 7LS	Ordinary	Indirect (group interest)	100	100
UnaVista TRADEcho B.V.	Netherlands	679 Keizersgracht Amsterdam 1017DV Netherlands	Ordinary	Indirect (group interest)	100	100
Yield Book Software BRE LLC	United States	c/o United Agent Group Inc. 3411 Silverside Road Tatnall Building #104 Wilmington New Castle County DE 19810 United States	Member Interest	Indirect (group interest)	[illegible]	[illegible]
Yield Book Tangible Property BRE LLC	United States	c/o United Agent Group Inc. 3411 Silverside Road Tatnall Building #104 Wilmington New Castle County DE 19810 United States	Member Interest	Indirect (group interest)	[illegible]	[illegible]

The Group's associate undertakings were:

Associate name	Country of incorporation	Registered office address	Identity of each class of share held in the subsidiary undertaking	Direct or indirect holding	Share ownership % held by the Parent Company	Group ultimate economic interest %
AcadiaSoft Inc.	United States	c/o The Corporation Trust Company, 1209 Orange Street, Wilmington New Castle 19801 United States	Convertible Preferred	Indirect (group interest)	15.67	15.67
Curve Global Limited	England and Wales	10 Paternoster Square London England and Wales EC4M 7LS	Ordinary A	Direct	[illegible]	43.38
			Ordinary B		–	–
MTS Associated Markets S.A.	Belgium	Rue des Comediens 16-22 1000 Brussels Belgium	Ordinary	Indirect (group interest)	[illegible]	[illegible]
The Hub Exchange Limited	England and Wales	443 Finchley Road London England and Wales NW[illegible]	Ordinary	Indirect (group interest)	[illegible]	[illegible]

Glossary

AIM
The Group's market for smaller and growing companies established in London and in Italy as AIM Italia

Borsa Italiana (BIt)
Borsa Italiana S.p.A., the Group's Italian exchange business

Buy-side
Includes asset managers, hedge funds and institutional and retail investors

CAGR
Compound annual growth rate

CCP
Central Counterparty – stands between 2 parties to a trade to eliminate counterparty risk by ensuring that settlement takes place

CC&G
Cassa di Compensazione e Garanzia S.p.A., the Group's Italian subsidiary which manages the Italian CCP for equity, derivative, commodity and fixed income trades

CDSClear
LCH's over-the-counter credit default swap (CDS) clearing service

Central Securities Depository (CSD)
An entity that enables securities to be processed, settled and held in custody

Central Securities Depositories Regulation (CSDR)
EU regulations framework to harmonise CSD operations

Company or LSEG or London Stock Exchange Group
London Stock Exchange Group plc and its subsidiaries

CONSOB
Commissione Nazionale per le Società e la Borsa, Italy's official body for regulating and supervising companies and trading infrastructure providers

CurveGlobal
An interest rate derivatives venture between LSEG and a number of major dealer banks together with Cboe

Dark Pool
Electronic trading networks developed by regulated venues such as Regulated Markets, MTFs and by OTC broker dealers to enable the matching of orders between buyers and sellers without pre-trade transparency (non-displayed) until the trade is complete

Depositary Receipts/Global Depositary Receipts (GDR)
Tradable certificates representing ownership of a number of underlying shares, mainly for companies in developing or emerging markets

Derivatives
Tradable financial instruments whose value is determined by the value of underlying instruments, this could be equity, an index, an interest rate product or any other tradable instrument

- **Exchange traded derivatives (ETD)** Listed derivatives traded on an electronic trading venue such as an exchange and cleared through a clearing house
- ***Over the counter (OTC)*** *Derivatives are negotiated privately between 2 parties* and may be cleared through a clearing house

EBITDA
Earnings before interest, tax, depreciation and amortisation

European Market Infrastructure Regulation (EMIR)
European legislation on regulation of clearing of derivatives, and the operation and governance of CCPs and trade repositories

European Benchmark Regulation (EU BMR)
European regulation on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds. It applied from 1 January 2018

ESOP
Employee Share Option Plan

ETF
Exchange Traded Fund – low-cost and flexible investments that track indices and sectors

ETP
Exchange traded products including Exchange traded funds (ETFs) and commodities (ETCs)

ELITE
The Group's international programme and platform to help ambitious companies prepare and structure for further growth and investment, while providing these businesses access to an extensive community of advisers, investors and business leaders

ELITE Club Deal
An online private placement platform designed to streamline the capital raising process for companies

EuroTLX
The Group's 70% subsidiary which owns and operates a European MTF for the trading of fixed income securities in retail size and investment products distributed to retail clients

FCA
Financial Conduct Authority, the current regulator of conduct of providers of financial services in the UK and of UK trading venues such as Recognised Investment Exchanges (RIEs) and MTFs

ForexClear
LCH's over-the-counter foreign exchange clearing service

FTSE Group or FTSE Russell
FTSE International Limited and its subsidiaries, the Group subsidiary that is a leading global provider of index and analytics solutions

FTSE 100 Index
The index developed by FTSE of leading UK quoted companies

FTSE MIB Index
The index developed by FTSE of leading Italian quoted companies

Group
The Company and its Group Undertakings

Group undertakings
Group undertakings shall be construed in accordance with s1161 of the Companies Act 2006 and, in relation to the Company

International Central Securities Depository (ICSD)
An entity that enables international securities to be processed, settled and held in custody

IDEM
The Group's Italian Derivatives Market, trading contracts based on equities and related indices

IOB
International Order Book – the Group's electronic trading service for international securities

International Organisation of Securities Commission (IOSCO)
IOSCO sets out recommendations, Principles for Financial Benchmarks, with the objective to address conflicts of interest in the benchmark-setting process, enhance the reliability of benchmark determinations, and promote transparency and openness

IPO
Initial Public Offering – the process whereby companies join our markets and raise capital for the first time

LCH or LCH Group
LCH Group Limited and its subsidiaries, the Group's 82.6% owned global clearing and risk management business. LCH Limited is based in London and LCH SA is based in Paris

LCH Spider
Portfolio margining tool for cleared OTC products and listed interest rate futures

LSE
London Stock Exchange plc

LSEG
London Stock Exchange Group plc

LSEG Business Services Limited (BSL)
Our shared services company providing a range of technology and corporate functions Group-wide

Main Market
The market for companies which have been admitted to trading on the London Stock Exchange's principal market, and in Italy, the market for companies listed on Borsa Italiana's principal MTA market

Mergent Inc.
LSEG completed the acquisition of Mergent Inc., a provider of business and financial data on public and private companies, in January 2017 and has been integrated within FTSE Russell

MiFID or Markets in Financial Instruments Directive
EU Directive introduced in November 2007 to harmonise cross-border trading of equities, providing greater choice of trading venues

MiFID II
The revised MiFID and the accompanying Markets in Financial Instruments Regulation – better known as MiFID II and MiFIR – came into effect across all EU member states from January 2018. MiFID II is intended to build on the achievements of MiFID I, with the aim of making financial markets more open, efficient, resilient and transparent

Millennium Exchange
MillenniumIT's multi-asset trading platform, deployed for the UK, Italian and Turquoise equities markets

Glossary

MillenniumIT
MillenniumIT Information Technologies (Pvt) Limited the Group's subsidiary that is the developer of flexible, low cost, high performance trading platforms and financial markets software serving both the Group's own businesses and third parties

Monte Titoli
Monte Titoli S.p.A. the Group's Italian Central Securities Depository and settlement provider

MOT
Mercato Obbligazionario Telematico is the Group's Italian retail bond trading platform

MTS
Societa per il Mercato dei Titoli di Stato S.p.A., the Group's 60.36% subsidiary which owns and operates an electronic trading platform for European and US fixed income securities

Multilateral Trading Facility (MTF)
Alternative electronic trading systems as categorised under MiFID

Organic and constant currency basis
Growth rates which exclude acquisitions and disposals and by rebasing 2017 at 2018 exchange ratesand selling in financial instruments in accordance with rules, authorised under provisions of MiFID

OTC
Over-the-counter trades in financial instruments executed outside a Regulated Market or MTF – see also Derivatives

Primary Market
The listing of securities for the first time via an IPO or introduction of existing securities

Regulated Market
A multilateral system which brings together multiple third-party buying

Repo
Repurchase Agreement – the process of borrowing money by combining the *sale and subsequent repurchase of an asset, traded through MTS and cleared* through CC&G or LCH

RNS
Regulatory News Service the Group's Primary Information Provider, for dissemination of regulatory and non-regulatory news to the market

Secondary Market
The public market on which securities once issued are traded

SEDOL
The Group's securities identification service

Smart Beta (also known as Factor indices)
An alternative index-based methodology that seeks to enhance portfolio returns or reduce portfolio risk, or both. Smart beta indices have rules-based strategies designed to provide focused exposure to specific factors, market segments or investment strategies. These may include volatility indices, defensive and high dividend yield indices, or a combination of fundamentals

SwapClear
LCH's over-the-counter interest rate swap clearing service

SwapAgent
LCH's service designed to simplify the processing, margining and settlement of non-cleared derivatives

TARGET2-Securities (T2S)
Initiative led by the European Central Bank to provide a platform for settlement of bonds and equities traded in the Eurozone

The Yield Book
The Yield Book provides fixed income analytics that enables market makers and institutional investors to perform portfolio analysis and risk management. LSEG acquired The Yield Book in August 2017 and incorporated it within FTSE Russell

Turquoise
Turquoise Global Holdings Limited, the Group's 51.36% owned pan-European MTF equity trading subsidiary, a venture between the Group and 12 global investment bank clients

UnaVista
The Group's web based matching, reconciliation and data integration engine *that provides matching of post trade data in a simple, automated process and* the Trade Repository approved by ESMA under EMIR

Investor Relations

Shareholder services

Equiniti registrars Shareview service

Shareholders who hold London Stock Exchange Group shares in certificated form or within an Equiniti Investment Account or ISA can access Shareview. Shareview is a free service provided by our registrars, Equiniti. It may be accessed through the internet at: **www.shareview.co.uk**

By creating a Shareview portfolio, shareholders will gain online access to information about their London Stock Exchange Group shares and other investments including:

– Direct access to information held for you on the share register including share movements

– A daily indicative valuation of all investments held in your portfolio

– A range of information and practical help for shareholders

To register at Shareview shareholders will need their shareholder reference (which can be found on your share certificate) and they will be asked to select their own personal identification number. A user ID will then be posted to them.

If shareholders have any problems in registering their portfolio for the Shareview service, contact Equiniti on 0371 384 2233. For calls from outside the UK, contact Equiniti on +44 (0)121 415 7065.

Group's share price service

To obtain share price information for London Stock Exchange Group plc, see our website at: **www.lseg.com**

By clicking on the Investor Relations tab, you will find the Company's share price, historical closing prices and volumes and an interactive share price graph.

Substantial Shareholders

As at 1 March 2019 the Company had been notified of the following interests amounting to more than 3% in the issued share capital of the Company in accordance with DTR 5 of the FCA's Disclosure Guidance and Transparency Rules.

Qatar Investment Authority	[illegible]
BlackRock, Inc.	6.9%
The Capital Group Companies, Inc.	[illegible]
Lindsell Train Limited	[illegible]

Financial calendar (provisional)

Preliminary Results (for year end 31 December 2018)	1 March 2019
AGM	1 May 2019
Q1 Interim Management Statement (revenues only)	1 May 2019
Ex-dividend date for final dividend	2 May 2019
Final dividend record date	3 May 2019
Final dividend payment	24 May 2019
Half year end	30 June 2019
Interim Results	August 2019
Financial year end	31 December 2019
Preliminary Results	February 2020

The financial calendar is updated on a regular basis throughout the year.

Please refer to our website **www.lseg.com/investor-relations** and click on the shareholder services section for up-to-date details.

The Group's AGM for the year ended 31 December 2018 will be held on 1 May 2019 at Hilton London Bankside Hotel, Bear Lane, London SE1 0UH, starting at 10.30am.

Investor Relations contacts

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Visit the Investor Relations section of our website for up-to-date information including the latest share price, announcements, financial reports and details of analysts and consensus forecasts: **www.lseg.com/investor-relations**

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