Company number: 00025932

# **LCH LIMITED**

# ANNUAL REPORT AND FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 DECEMBER 2017

# Financial statements for the year ended 31 December 2017

# **Company information**

#### **Board of Directors**

Type of director	<u>Name</u>	<u>Note</u>
Executive	Martin Pluves (CEO)	
Executive	Daniel Maguire	Appointed 30 October 2017
Executive	Dennis McLaughlin	
Executive	Suneel Bakhshi	Resigned 18 October 2017
Independent	Leonard (Lex) Hoogduin (Chairman)	
Independent	Shona Milne	
Independent	Graham Wright	
Independent	Ronaldus (Ron) Berndsen	Appointed 1 January 2018
Independent	Laurie Adams	Appointed 1 February 2018
Independent	lan Abrams	Resigned 1 September 2017
Independent	Jonathan Eliot	Resigned 31 May 2017
Group shareholder representative	Nikhil Rathi (LSEG)	
Group shareholder representative	Matt Jerman	
Group shareholder representative	Susan O'Flynn	
Group shareholder representative	John Shay	Appointed 9 May 2017; resigned 11 July 2017

### Secretary

Robert Franklin

### **Auditors**

Ernst & Young LLP 25, Churchill Place London E14 5EY

# **Registered office**

Aldgate House 33 Aldgate High Street London EC3N 1EA

Telephone:

+44 (0) 20 7426 7000

 $Registered\ in\ England,\ number:\ 00025932$ 

LCH Limited (the Company) is a wholly owned subsidiary of LCH Group Holdings Limited and is a member of the LCH group of companies. The Company's ultimate parent is London Stock Exchange Group plc (LSEG).

# LCH Limited Financial statements for the year ended 31 December 2017 Strategic report

#### **Business model**

The Company's principal activity during the year continued to be the provision of central counterparty (CCP) and related services to clearing members as a part of the LCH Group.

The Company is a leading multinational clearing house. The Company 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 major exchanges and platforms as well as a range of over-the-counter (OTC) markets.

As a Central Counterparty (CCP), the Company 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, the Company owns the defaulter's risk and becomes accountable for its liabilities. Fundamental to the Company's risk processes 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, the Company processes all cash flows and marks the trade or book to market, calling variation and initial margin in relation to the prevailing risk of the overall portfolio.

The Company 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 volumes or values cleared. In non-OTC markets, all users pay a fee based on volumes cleared. Net treasury income is earned on cash and securities held for margin and default funds.

The Company continues to satisfy the requirements of the Bank of England as a Recognised Clearing House in the UK and the requirements of all other regulatory bodies to whose rules it is subject (note 23). It provides CCP clearing services in respect of a broad range of cash and derivative products traded on or through various exchanges and trading platforms in the UK, Europe, Asia and the US as well as those traded in the OTC markets.

### Strategic objectives

The Company's strategic objectives are:

- to provide market leading risk management and clearing solutions
- to manage our members' and clients' risk by providing effective and efficient clearing services
- to promote a safe and stable financial market foremost in all that we do

The strategy for achieving these objectives is to continue to offer our proven risk management capabilities across a range of asset classes with a commitment to partner with our members to develop the services that make markets more efficient and safer.

#### Key performance indicators

Financial and non-financial key performance indicators utilised by the directors to measure progress are as follows:

	2017	2016	Variance
SwapClear			
Notional cleared (\$ trillion)	874	666	31%
Client trades ('000)	1,228	952	29%
ForexClear notional cleared (\$ billion)	11,226	3,191	252%
Fixed Income: notional cleared (€ trillion)	44	37	18%
Listed Derivatives: contracts cleared (million)	7.0	5.9	19%
Cash Equities: trades cleared (million)	561.3	463.7	21%
Average cash collateral (€ billion)	66.5	54.6	22%

Discussion of the key performance indicators is included in the development and performance section below.

#### **Performance**

2017 saw LCH benefit from various regulatory requirements incentivising clearing, such as the Uncleared Margin Rules (UMR), alongside the development of existing and new services. An example of this is the introduction of clearing for five G10 currency pairs at ForexClear, LCH's foreign exchange clearing service.

LCH won 11 awards in 2017, including Risk Magazine's Clearing House of the Year for the fifth consecutive year and Futures and Option World's (FOW) International Awards Clearing House of the Year for Europe and Asia.

Total income in constant currency terms rose 23% as a result of increased net treasury income, volumes in OTC client clearing and strong growth in RepoClear.

OTC derivatives clearing revenue was €239.6 million, an increase of 20% on a constant currency basis (2016: €208.7 million). The increase in OTC clearing revenue came largely from the growth in SwapClear client clearing.

OTC clearing has benefitted from the implementation of the UMR in the US from September 2016, and in Europe from February 2017.

Thresholds for users with gross notional amount of uncleared OTC derivatives initially set at €3 trillion / \$3 trillion, and are expected to reduce each year; and by September 2020 almost all the market will be covered with a threshold set at €8 billon / \$8 billion.

Non-OTC clearing revenue was €50.8 million, up 10% on a constant currency basis, driven by strong growth in fixed income volumes cleared. Other revenue which includes compression services and fees for managing non cash collateral, increased by 48% to €17.0 million (2016: €11.5 million).

The Company has decided to include an earnings before interest, tax, depreciation and amortisation (EBITDA) measure in its income statement for the first time. The Company believes that EBITDA more closely reflects the actual cash earnings of the Company during the year and is a useful measure for management. For 2017, EBITDA was €197.0 million (€192.3 million after non-underlying items) up 52% on 2016. Profit before tax and non-underlying items of €145.7 million for the year is up 31% on 2016 (2016:€111.3 million). Profit before tax of €141.0 million is up 34% on 2016 (€105.0 million).

Cost of sales for 2017 has increased to €104.8 million (2016: €73.2 million) reflecting the growth in SwapClear and other businesses.

Operating expenses before non-underlying items decreased by 15% to €180.0 million (2016: €206.2 million). Operating expenses including non-underlying items decreased by 15% to €184.7 million (2016: €212.7 million).

Financial statements for the year ended 31 December 2017 Strategic report (continued)

#### **OTC Clearing**

#### **SwapClear**

SwapClear is a global market leader in OTC interest rate swap (IRS) clearing, offering buy and sell-side clients access to unparalleled liquidity provided by 105 members, capital efficiencies from compression services and a system of rigorous risk management.

2017 was another strong year for SwapClear with total notional cleared increased by 31% to a record US\$874 trillion (2016: US\$666 trillion), with client clearing increasing 46% to a record US\$203 trillion (2016: US\$139 trillion) and client trades up 29% to a record 1,228,000 (2016: 952,000).

Factors driving growth have included regulatory changes such as mandated EU client clearing and the UMR, increased activity amongst existing members and clients, the onboarding of new clients, and increased use of compression services. Interest rates changes in the US and UK were also favourable, driving increases in trading volumes. In 2018, LCH will further expand its SwapClear product offering, with plans to introduce non-deliverable interest rate swaps in Chinese yuan, Korean won, and Indian rupee, subject to regulatory approval.

SwapClear's compression services allow members and clients to reduce the number of trades in their portfolios. This simplifies the management of their positions and frees up valuable capital that would otherwise be held as margin. 2017 saw notional compressed increase by 59% to a record US\$609 trillion (2016: US\$384 trillion), as the services continue to deliver significant value to their users. SwapClear's proprietary compression services grew, and demonstrating our open access approach, the compression services of Quantile Technologies, Capitalab and TriOptima AB are all now Approved Compression Service Providers (ACSP).

Inflation swap clearing, launched in 2015, saw volumes cleared increase by almost 200% with a total of US\$3.2 trillion in notional cleared in 2017 (2016: US\$1.1 trillion).

#### **ForexClear**

ForexClear is LCH's service clearing foreign exchange (FX) non-deliverable forwards (NDF) for 12 Emerging Market currencies and, launched in November 2017, five G10 currencies. 2017 also started to see regular flows from client clearing. ForexClear membership increased to 30 members (2016: 25) while notional cleared increased strongly by 252% to US\$11.2 trillion (2016: US\$3.2 trillion). This remains only a small part of the FX market with less than 1% cleared, but the appetite to clear is growing as the ForexClear service is widened.

In 2018, ForexClear is to launch a clearing service for deliverable OTC FX options, in partnership with settlement provider CLS, subject to regulatory approval. In 2018 and beyond, new phases of UMR are expected to lead to increased use of central clearing and other services such as compression services.

#### **Non-OTC Clearing**

#### RepoClear

Clearing in repo and cash bond markets increased to €37 trillion in 2017 (2016: €31 trillion). RepoClear clears across 13 government bond markets including London Stock Exchange Group's (LSEG) MTS bond markets and third party venues.

In 2017, RepoClear launched Sponsored Clearing, a service offering buy-side firms direct access to LCH, enabling firms to reduce their risk and maximise balance sheet efficiencies. This year, RepoClear has also extended its service in LCH SA to offer clearing for cash and repo trades on German bunds and Belgian government bonds, allowing members to benefit from risk offsets in euro-based repos through T2S.

### **Listed Derivatives and Cash Equities**

The Listed Derivatives venues cleared by LCH include London Stock Exchange Derivatives Market (LSEDM). Contracts cleared in 2017 increased by 19% to 7.0 million (2016: 5.9 million).

In Equities, LCH, one of Europe's largest equities CCP by volume cleared, offered the broadest venue coverage of any European equity CCP, clearing for 24 trading venues. The number of trades cleared in 2017 increased by 21% to 561.3 million (2016: 463.7 million).

#### Net treasury income

Net treasury income is the result of interest earned on cash assets lodged with the clearing house as margin and default funds. Users of LCH post cash and receive an overnight interest rate, less an agreed spread. The level of funds held is primarily driven by volumes cleared and volatility in the market. Income is also driven by short-term interest rates, predominantly in the US dollar, euro and UK sterling money markets. As collateral collected in both cash and non-cash continues to grow alongside increased usage of LCH's services, this leads to higher levels of net treasury income. A focus on risk diversification and efficiency has meant LCH has increased the number of counterparties used for investment, including more use of central banks and a number of pension funds. The type of investment has also expanded to increase usage of floating rate notes and reverse repos. The added diversity has helped to improve the rate earned and to make that rate more stable and predictable.

Average cash collateral held increased 22% to €66.5 billion (2016: €54.6 billion). Total net treasury income for LCH for 2017 increased by 32% to £94.7 million (2016: £71.9 million). LCH can also benefit from changes in interest rates, such as the recent increases made by the US Federal Reserve and the Bank of England, with short-term interest rates, 30 or 60 days, being higher than the overnight rates.

#### **Future developments**

Overall focus will be on efficiency, resiliency, growth and innovation to support LCH as "The Markets' Partner". LCH will continue to provide best in class risk management with its open access and customer driven business model.

2018 key developments by service include:

- ForexClear will launch FX options, while further increasing clearing of recently launched G10 products and expanding client clearing
- SwapClear will extend portfolio margining (LCH Spider) to allow long-term interest rate futures to be offset with eligible swaps and short-term interest rate futures
- Launch clearing of non- deliverable interest rate swaps, and initiate clearing of new rate indices of SONIA and SOFR
- RepoClear will continue to increase Sponsored Membership
- Equities and Listed Derivatives to deliver term CFDs

#### Principal risks and uncertainties

The Company's activities expose it to a number of risks, principally market risk (financial market volatility, interest rate risk, foreign exchange risk), sovereign risk, credit risk, liquidity risk and pension risk. The Company manages these risks through various control mechanisms and its approach to risk management is to be prudent yet responsive to changes in the risk environment.

Note 2 provides descriptions of these risks and details the means by which the Company mitigates them.

Details of the Company's capital management processes are provided in note 23.

By order of the Board

Lex Hoogduin Chairman 28 February 2018

# Financial statements for the year ended 31 December 2017

#### **Directors' report**

The directors of LCH Limited (the Company), registered in England and Wales with company number 00025932, present their report to the shareholder, together with the audited financial statements for the year ended 31 December 2017.

#### **Directors**

The current directors and changes made during the year ended 31 December 2017 and subsequently are detailed on page 1.

#### Indemnity of directors

Directors are entitled to be indemnified by the Company against all costs, charges, losses and liabilities incurred by them in the proper exercise of their duties. Directors who have resigned during the year may also benefit from the same indemnity arrangement.

# Transactions with directors and related parties

Details of transactions with related parties are set out in note 25. There were no transactions, other than those disclosed in note 18, with directors during the year.

#### Staff

It is the policy of the Company as a whole to ensure that no staff members or job applicants face discrimination on the grounds of ethnic origin, colour, religion, gender, sexual orientation, age or disability. Should an employee become disabled during his or her career with the Company every effort will be made to ensure continuing employment.

Staff involvement is encouraged through regular meetings and information is shared with staff through web based communication.

The Company recognises its responsibilities to provide a safe working environment for its staff and measures are in place to ensure that the appropriate health and safety at work regulations are strictly observed in all workplaces.

#### **Dividends**

On 20 February 2018, the Board of Directors proposed a dividend of €0.3610 per share (€113.0 million), which is scheduled for shareholder approval and payment in March 2018.

On 1 March 2017, the directors of the Company recommended a final dividend for the year ended 31 December 2016 of €0.2268 per ordinary share. On 1 March 2017, the shareholder approved the dividend, and €71.0 million was paid to the shareholder on 28 March 2017.

On 3 October 2017, the Company paid an interim dividend of €0.1278 per ordinary share (€40.0 million) to its shareholder.

#### **Financial instruments**

Details of the Company's financial instruments are provided in note 19.

#### **Future developments**

The future developments for the Company are discussed in detail in the strategic report.

Financial statements for the year ended 31 December 2017 Directors' report (continued)

# Going concern and liquidity risk

The directors have made an assessment of the Company's ability to continue as a going concern and to meet current and future regulatory capital requirements and are satisfied that it has the resources to continue in business for the foreseeable future, being at least 12 months from the date on which these accounts were approved by the Board. Contracts for the majority of the exchanges for which the Company clears have a notice period of at least one year. It has a large number of clearing members and is not unduly reliant on any single clearing member or group of clearing members.

Furthermore, the directors are not currently aware of any material uncertainties that may cast significant doubt upon the Company's ability to continue as a going concern. Therefore the financial statements continue to be prepared on the going concern basis.

### **Government grants**

The Company has applied for government grants in the form of tax credits for research and development work carried out. The amounts have been recognised in the results of the Company when it is deemed likely that the credits will be received (note 24). The Company carries out research and development into software for future use.

#### **Brexit**

On 23 June 2016 the UK voted to exit the EU. The Company as a member of the EU or European Economic Area (EEA), relies on a number of rights that are available to it 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. The Company has 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.

#### Disclosure of information to the auditors

Each of the persons who is a director at the date of approval of this report confirms that:

- so far as the director is aware there is no relevant audit information of which the Company's auditors are unaware
- the director has taken all steps that they ought to have taken as director in order to make themselves aware of any
  relevant audit information and to establish that the Company's auditors are aware of that information

### **Auditors**

Ernst & Young LLP are deemed to have been reappointed as the Company's auditor under the provisions of the Companies Act 2006.

By order of the Board

Lex Hoogduin Chairman 28 February 2018

# LCH Limited Financial statements for the year ended 31 December 2017 Statement of directors' responsibilities

The directors are responsible for preparing the strategic report, directors' report and financial statements in accordance with applicable United Kingdom law and those International Financial Reporting Standards (IFRSs) as adopted by the European Union.

Under company law the directors must not approve the financial statements unless they are satisfied that they present fairly the financial position, financial performance and cash flows of the Company for that period. In preparing the 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
- provide additional disclosures when compliance with specific requirements in IFRSs is insufficient to enable users to understand the impact of particular transactions, other events and conditions on the Company's financial position and financial performance
- state that the Company has complied with IFRSs, subject to any material departures disclosed and explained in the financial statements
- make judgements and estimates that are reasonable and prudent

The directors are responsible for keeping adequate accounting records which disclose with reasonable accuracy at any time the financial position of the Company and enable them to ensure that the financial statements comply with the Companies Act 2006. They are also responsible for safeguarding the assets of the Company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

#### Opinion

We have audited the financial statements of LCH Limited for the year ended 31 December 2017 which comprise of the Income statement, the Statement of comprehensive income, the Statement of financial position, the Statement of cash flows, the Statement of changes in equity and the related notes 1 to 25, including a summary of significant accounting policies. The financial reporting framework that has been applied in their preparation is applicable law and International Financial Reporting Standards (IFRSs) as adopted by the European Union.

In our opinion, the financial statements:

- give a true and fair view of the company's affairs as at 31 December 2017 and of its profit for the year then ended;
- have been properly prepared in accordance with IFRSs as adopted by the European Union; and
- have been prepared in accordance with the requirements 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 company in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the FRC's Ethical Standard, 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.

#### 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.

### Conclusions relating to going concern

We have nothing to report in respect of the following matters in relation to which the ISAs (UK) require us to report to you where:

- the directors' use of the going concern basis of accounting in the preparation of the financial statements is not appropriate; or
- the directors have not disclosed in the financial statements any identified material uncertainties that may cast significant doubt about the company's ability to continue to adopt the going concern basis of accounting for a period of at least twelve months from the date when the financial statements are authorised for issue.

#### Other information

The other information comprises the information included in the annual report, 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.

# Independent auditor's report to the members of LCH Limited (continued) for the year ended 31 December 2017

We have nothing to report in this regard.

### Opinions on other matters prescribed by 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 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 company and its environment obtained in the course of the audit, we have not identified material misstatements in the strategic report or 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 financial statements are not in agreement with the accounting records and returns; or
- 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 8, 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 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 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.

A further description of our responsibilities for the audit of the financial statements is located on the Financial Reporting Council's website at https://www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditor's report.

Emst 1 You LLP

**David Canning-Jones** (Senior statutory auditor) for and on behalf of Ernst & Young LLP, Statutory Auditor London 28 February 2018

# Independent auditor's report to the members of LCH Limited (continued) for the year ended 31 December 2017

#### Notes:

- 1. The maintenance and integrity of the LCH Limited web site is the responsibility of the directors; the work carried out by the auditors does not involve consideration of these matters and, accordingly, the auditors accept no responsibility for any changes that may have occurred to the financial statements since they were initially presented on the web site.
- 2. Legislation in the United Kingdom governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

LCH Limited
Financial statements for the year ended 31 December 2017
Income Statement

			2017			2016	
	Note	Underlying €'m	Non- underlying €'m	Total €'m	Underlying €′m	Non- underlying €'m	Total €′m
Clearing fees		290.4		290.4	256.4	-	256.4
Other fee income		82.1	-	82.1	77.3	-	77.3
Revenue sharing arrangements		(0.2)	-	(0.2)	(0.6)	-	(0.6)
Revenue		372.3		372.3	333.1	-	333.1
Treasury income	19	508.3	-	508.3	250.3	-	250.3
Treasury expense	19	(413.6)		(413.6)	(178.4)	_	(178.4)
Net treasury income		94.7		94.7	71.9	-	71.9
Settlement and other income	<del></del>	34.2		34.2	22.7	0.2	22.9
Settlement fees payable		(19.4)		(19.4)	(18.3)		(18.3)
Net settlement and other income		14.8		14.8	4.4	0.2	4.6
Total income		481.8	<del></del>	481.8	409.4	0.2	409.6
Revenue share costs		(90.6)	-	(90.6)	(59.6)	-	(59.6)
Other cost of sales		(14.2)	-	(14.2)	(13.6)		(13.6)
Total cost of sales	lija.	(104.8)	-	(104.8)	(73.2)	15.	(73.2)
Gross profit		377.0	-	377.0	336.2	0.2	336.4
Operating expenses	4	(180.0)	(4.7)	(184.7)	(206.2)	(6.5)	(212.7)
Earnings before interest, tax, depreciation and amortisation		197.0	(4.7)	192.3	130.0	(6.3)	123.7
Depreciation and amortisation	4	(48.3)	-	(48.3)	(29.4)	-	(29.4)
Operating profit		148.7	(4.7)	144.0	100.6	(6.3)	94.3
Finance income	6	0.3		0.3	13.8	-	13.8
Finance expense	6	(3.3)	-	(3.3)	(3.1)	-	(3.1)
Profit before taxation		145.7	(4.7)	141.0	111.3	(6.3)	105.0
Taxation	7	(28.8)	0.9	(27.9)	(22.6)	1.3	(21.3)
Profit for the year		116.9	(3.8)	113.1	88.7	(5.0)	83.7

The results for both years are in respect of continuing operations.

The notes on pages 19 to 63 form an integral part of these financial statements.

Comparatives have been re-presented to reflect earnings before interest, tax, depreciation and amortisation (EBITDA) by separately identifying depreciation and amortisation with no impact to profit before tax or after tax for the year.

	Note	2017 €′m	2016 €′m
			02.7
Profit for the year		113.1	83.7
Amounts that may subsequently be reclassified to profit or loss:			
Revaluation of available for sale assets		5.7	4.6
Amounts reclassified to the income statement in the year		(0.7)	1.5
Deferred tax relating to revaluation of available for sale assets	7	(0.8)	(0.9)
Amounts that will not subsequently be reclassified to profit for the year:			
Current tax relating to revaluation of available for sale assets	7	-	(0.2)
Remeasurement gains/(losses) on UK defined benefit plan	18	60.5	(31.0)
Deferred tax relating to remeasurement of the UK defined benefit plan	7	(21.1)	11.5
Other comprehensive income for the year, net of tax		43.6	(14.5)
Total comprehensive income for the year, net of tax		156.7	69.2

The results for both years are in respect of continuing operations.

The notes on pages 19 to 63 form an integral part of these financial statements.

LCH Limited
Financial statements for the year ended 31 December 2017
Statement of financial position

		2017	201
	Note	€'m	€'m
Assets			
Non-current assets			
Intangible assets	8	162.3	150.3
Property, plant and equipment	10	16.6	18.6
Deferred tax asset	7	-	6.1
Trade and other receivables	13	0.7	0.9
Employment benefits	18	62.5	2.1
Total non-current assets		242.1	178.0
Current assets		-	
Balances with clearing members	12	346,587.7	118,045.3
Trade and other receivables	13	166.7	196.5
Clearing business cash and cash equivalents	14	43,668.3	45,171.5
Cash and cash equivalents	14	706.1	669.9
Clearing business other financial assets	19	19,269.6	20,716.8
Total current assets		410,398.4	184,800.0
Total assets		410,640.5	184,978.0
Current liabilities			
Balances with clearing members	12	(401,198.2)	(175,907.9)
Trade and other payables	15	(224.3)	(225.2)
Interest bearing loans and borrowings	16	(45.6)	(96.1)
Income tax payable		(11.7)	(7.7)
Default funds	17	(8,467.6)	(8,105.2)
Total current liabilities		(409,947.4)	(184,342.1)
Non-current liabilities		(100,000,000,000,000,000,000,000,000,000	(201)012.27
Deferred tax liability	7	(17.0)	_
Trade and other payables	15	(3.6)	(11.7)
Total non-current liabilities		(20.6)	(11.7)
Total liabilities		(409,968.0)	(184,353.8)
Net assets		672.5	624.2

LCH Limited
Financial statements for the year ended 31 December 2017
Statement of financial position (continued)

	Note	2017 €′m	2016 €′m
Capital and reserves			212.0
Called up share capital	21	313.0	313.0
Share premium	21	41.2	41.2
Capital redemption reserve	21	5.1	5.1
Retained earnings	21	313.2	264.9
Total equity		672.5	624.2

Lex Hoogduin

Chairman

**Martin Pluves** 

**Chief Executive Officer** 

The notes on pages 19 to 63 form an integral part of these financial statements.

The financial statements were approved by the Board on 28 February 2018.

LCH Limited
Financial statements for the year ended 31 December 2017
Statement of cash flows

	Note	2017 €'m	2016 €′m
Cash flows arising from operating activities			
Profit for the year		113.1	83.7
Taxation expense		27.9	21.3
Finance income		(0.3)	(13.8)
Finance expense		3.3	3.1
Depreciation and amortisation		48.3	29.4
Share-based payments expense		3.2	5.2
Decrease/(increase) in trade and other receivables		30.0	(111.8)
Increase/(decrease) in trade and other payables		(9.0)	21.7
Unrealised fair value losses on financial instruments		1.5	1.0
Research and development tax credit		(0.2)	(0.7)
Profit on disposal of subsidiary		(5.2)	(0.2)
Increase in clearing business cash and cash equivalents		1,503.2	(17,159.0)
(Increase)/decrease in fair value of member assets		(228,542.4)	2,688.6
Increase in fair value of member liabilities		225,290.3	18,010.1
Increase in default funds		362.4	2,873.0
Net cash (outflow)/inflow from operations		(1,168.7)	<del></del> -
Tax paid		(20.3)	6,451.6
Net cash (outflow)/inflow from operating activities	<u></u>	(1,189.0)	(16.9) 6,434.7
Investing activities			
Investment in intangible assets		(54.0)	(74.1)
Purchase of property, plant and equipment		(4.3)	(8.9)
Redemption/(Purchase) of clearing business other financial assets		1,447.2	(6,294.1)
Proceeds from sale of subsidiary company		-	0.2
Dividends received and capital returned		<del>-</del>	32.5
Net cash inflow/(outflow) from investing activities		1,388.9	(6,344.4)
Financing activities			
Loan amounts (repaid)/received		(50.5)	96.1
Interest received		0.2	1.3
Interest paid		(3.6)	(3.0)
Dividends paid		(111.0)	(89.0)
Share-based payments contribution		(2.4)	(5.2)
Finance lease principal payments		-	(0.4)
Net cash outflow from financing activities		(167.3)	(0.2)

LCH Limited
Financial statements for the year ended 31 December 2017
Statement of cash flows (continued)

	Note	2017 €′m	2016 €′m
Increase in cash and cash equivalents	323.77	32.6	90.1
Cash and cash equivalents at 1 January		669.9	575.4
Effects of foreign exchange movements		3.6	4.4
Cash and cash equivalents at 31 December		706.1	669.9
Cash and cash equivalents at 31 December comprise:			
Investments in secured short-term deposits		677.9	477.5
Cash at bank and in hand		28.2	192.4
	14	706.1	669.9

The notes on pages 19 to 63 form an integral part of these financial statements.

LCH Limited
Financial statements for the year ended 31 December 2017
Statement of changes in equity

			Capital		
	Called up share capital €'m	Share premium €'m	redemption reserve €'m	Retained earnings €'m	Total €'m
Shareholder's equity at 1 January 2016	313.0	41.2	5.1	283.5	642.8
Profit for the year to 31 December 2016	m i	.= = -	-	83.7	83.7
Other comprehensive expense	-		-	(14.5)	(14.5)
Total comprehensive income		T ( T - )		69.2	69.2
Dividends paid				(89.0)	(89.0)
Share-based payments contribution	10 mm	-	-	5.2	5.2
Share-based payments expense net of tax			· · · · · ·	(4.0)	(4.0)
Shareholder's equity at 31 December 2016	313.0	41.2	5.1	264.9	624.2
Profit for the year to 31 December 2017	2 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			113.1	113.1
Other comprehensive income			-	43.6	43.6
Total comprehensive income				156.7	156.7
Dividends paid	Table Service	- 1		(111.0)	(111.0)
Share-based payments contribution		-	-	3.2	3.2
Share-based payments expense net of tax	10-10 H - 10-10		-	(0.6)	(0.6)
Shareholder's equity at 31 December 2017	313.0	41.2	5.1	313.2	672.5

The notes on pages 19 to 63 form an integral part of these financial statements.

### 1. Summary of significant accounting policies and basis of preparation

#### **Basis of preparation**

These financial statements have been prepared in accordance with IFRSs and Interpretations Committee (IFRIC) interpretations issued by the International Accounting Standards Board (IASB) effective for 2017 reporting and endorsed by the EU, and with those parts of the Companies Act 2006 applicable to companies reporting under IFRS.

The financial statements have been prepared under the historical cost convention as modified by the valuation of financial assets and liabilities held at fair value. A summary of significant accounting policies is set out below, together with an explanation of changes to previous policies on the adoption of new accounting standards.

The Company uses a columnar format for the presentation of its income statement. This aids the understanding of its results by presenting profit for the year before any non-underlying items. Non-underlying items include non-recurring items which do not form part of the Company's ongoing trading position and other items that due to their size and nature are regarded as non-underlying. Underlying profit is reconciled to profit before taxation on the face of the income statement.

The Company has also chosen to include earnings before interest, tax, depreciation and amortisation (EBITDA) on the face of the income statement to allow a better understanding of the Company's cash related earnings. The 2016 results have been re-presented accordingly. There is no change to the profit for the year as a result of this change.

The Company has changed the level of offsetting for its clearing member assets and liabilities and to adopt an appropriate level under consideration of IAS 32 guidance for member balance netting. The offsetting will now be at an ISIN level instead of Depository and so there is less offsetting under the IAS 32 rules.

The financial statements are presented in millions of euros except where otherwise indicated.

#### **Presentational currency**

The Company's financial statements are presented in euros, which is the functional currency of the Company.

# Judgements and key sources of estimation uncertainty

The preparation of financial statements in conformity with IFRSs requires the use of judgements, estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Although these judgements and estimates are based on management's best knowledge of the amount, event or actions, actual results ultimately may be different.

#### Estimates

The key sources of estimation uncertainty that have a significant risk of causing material adjustments to the carrying amounts of assets and liabilities within the next financial year are:

- The measurement of defined benefit pension obligations. Measurement of defined benefit pension obligations
  requires estimation of inflation as well as mortality rates, the expected return on assets and the choice of a
  suitable discount rate (see note 18).
- The measurement of the provision for corporation taxes. The Company recognises liabilities for the estimated tax
  charge at the period end. Where the final tax liability is different from that estimate such differences are
  reflected in the period in which such determination is made. Income tax provisions are recognised on the basis
  that the relevant tax authorities are fully aware of any situations giving rise to uncertainty.
- The measurement of the clearing member balances. The Company nets significant balances where there is a legal right of offset and an intention to settle net and discloses the net balances in the statement of financial position. However, as the Company acts as principal in these trades and has an equal liability for every asset, there is no material risk to the net asset position of the Company, should these estimates prove to be inaccurate.

# LCH Limited Financial statements for the year ended 31 December 2017 Notes to the financial statements (continued)

#### **Judgements**

- The Company uses its judgement to carry out the offsetting within clearing member balances. The carrying values of the balances are offset at what the Company considers an appropriate level to arrive at the net balances reported in the statement of financial position. The Company has aligned the basis of estimation for its CCP subsidiaries to ensure the principles are applied using a consistent methodology across similar assets and liabilities. The basis will be reviewed from time to time to ensure the approach used is the most appropriate.
- The Company has recognised a pension asset on the LCH section of the UK LSEG pension fund. The Trust Deed provides the Company with an unconditional right to a refund of surplus plan assets on a winding up of the scheme and the Company believes this amount to be recoverable in current circumstances. Should the asset be derecognised, there would be no impact to the income statement, with all movements recognised in the statement of other comprehensive income. The recognition of the asset will be kept under review, particularly in the light of any developments in IFRIC 14.

#### **Investments**

The Company recognises its investments in subsidiaries at cost less the value of any impairment provision that may be necessary. Income is recognised from these investments in relation to any distributions received.

#### **Foreign currencies**

Monetary assets and liabilities denominated in currencies other than the functional currency of the Company are translated into the functional currency of the Company at the rates of exchange ruling on the statement of financial position date and the resulting exchange differences are recorded in the income statement.

Transactions in foreign currencies are recorded at the prevailing foreign exchange rates on the date of the transaction in the income statement and are not revalued.

In the statement of cash flows, cash flows denominated in foreign currencies are translated into the functional currency of the Company at the average exchange rates for the year or at the rate prevailing at the time of the transaction where more appropriate.

#### Intangible assets

Intangible assets are initially recognised at cost and are capitalised on the statement of financial position. Where assets are acquired as a result of a business acquisition or the negotiation of an operating agreement, fair values are attributed to the assets acquired. Following initial recognition, the assets are amortised at rates calculated to write off their cost on a straight line basis over their estimated useful lives.

An internally generated intangible asset arising from the Company's business development is created if the asset can be identified, its cost measured reliably and it is probable that it will generate future economic benefits. Amortisation is charged from the date the developed product, service, process, or system is available for use. Self-developed software is amortised over periods between three and five years.

#### Property, plant and equipment

Property, plant and equipment is initially recognised at cost and capitalised in the statement of financial position and is stated at cost less accumulated depreciation and accumulated impairment losses. Depreciation is provided on all property, plant and equipment at rates calculated to write off the cost, less estimated residual value based on current prices, of each asset over its expected useful life as follows:

- leasehold refurbishment over the term of the lease (up to a maximum of ten years)
- computer equipment and purchased software over three to five years
- office equipment and other fixed assets between three and five years

# Financial statements for the year ended 31 December 2017 Notes to the financial statements (continued)

An item of property, plant and equipment is derecognised upon disposal or when no future economic benefits are expected to arise from continued use of the asset. Any gain or loss arising on derecognition of the asset (calculated as the difference between the net disposal proceeds and the carrying amount of the item) is included in the income statement in the year the item is derecognised.

#### Impairment of intangible assets and property, plant and equipment

Intangible assets in the course of development are subject to an annual impairment review or a more frequent review if there are events or changes in circumstances that indicate that the carrying amount of the asset may not be fully recoverable. Other intangible assets and property, plant and equipment are subject to an impairment review if there are events or changes in circumstances that indicate that the carrying amount of the fixed asset may not be fully recoverable.

For the purpose of impairment testing assets are allocated to cash generating units monitored by management, usually at statutory company level. The impairment review involves a comparison of the carrying amount of the asset allocated to the related cash generating units with its recoverable amount, which is the higher of fair value less costs to sell and value in use. Fair value less costs to sell is calculated by reference to the amount at which the asset could be disposed of less the costs associated with the sale.

Value in use is calculated by discounting the expected future cash flows obtainable as a result of the assets continued use, including those resulting from its ultimate disposal, at a market based discount rate on a pre-tax basis. The carrying values of intangible assets or property, plant and equipment are written down by the amount of any impairment and this loss is recognised in the income statement in the year in which it occurs.

#### **Financial instruments**

The Company classifies its financial instruments into the following categories: financial assets and liabilities at fair value through profit or loss, available for sale assets, loans and receivables, cash and short-term deposits, trade and other payables, interest bearing loans and borrowings and derivative financial instruments.

Financial assets and liabilities at fair value through profit or loss are financial assets which are either acquired for trading purposes, or as designated by management. Financial instruments held in this category are initially recognised and subsequently measured at fair value with transaction costs taken directly to the income statement. Changes in fair value are recorded within net treasury income. Interest earned or incurred is accrued in interest income or expense within net treasury income, or finance income or cost according to the purpose of the financial instrument.

Balances with clearing members are included in this category upon initial recognition and are recorded on a settlement date basis. Financial assets and liabilities are offset and the net amount reported in the statement of financial position 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.

Available for sale assets are non-derivative financial assets with fixed or determinable payments and fixed maturities which the Company may sell before maturity. After initial measurement available for sale financial assets are subsequently measured at fair value. Changes in fair value are recorded within other comprehensive income until the asset is sold or matures, when the whole amount will be recognised in the income statement.

Securities sold under agreements to repurchase at a specified future date are not derecognised from the statement of financial position as the Company retains substantially all the risks and rewards of ownership. The corresponding cash received is recognised in the statement of financial position as an asset with a corresponding obligation to return it, including accrued interest as a liability, reflecting the transaction's economic substance as a loan to the Company. The difference between the sale and repurchase prices is treated as interest expense and is accrued over the life of the agreement using the effective interest rate method.

Conversely, securities purchased under agreements to resell at a specified future date are not recognised in the statement of financial position. The consideration paid, including accrued interest, is recorded in the statement of financial position, reflecting the transaction's economic substance as a loan by the Company. The difference between the purchase and resale

# Financial statements for the year ended 31 December 2017 Notes to the financial statements (continued)

prices is recorded in interest income and is accrued over the life of the agreement using the effective interest rate method.

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. After initial recognition at fair value, loans and receivables are subsequently measured at amortised cost using the effective interest rate method, less allowance for impairment.

Cash and short-term deposits comprise cash in hand and current balances with banks and similar institutions which are readily convertible to known amounts of cash and which are subject to insignificant risk of changes in value and have an original maturity of three months or less. For the purposes of the cash flow statement cash and cash equivalents are as defined above, but with an original maturity of three months or less, net of bank overdrafts (which are included within interest bearing loans and borrowings in current liabilities on the statement of financial position). Own cash represents the cash and short-term deposits that form part of the Company's working capital. The remainder is held on behalf of members.

Other financial assets include government backed certificates of deposit issued by banks, notes and treasury bills directly issued by state or national governments. These assets are initially recognised and subsequently measured at fair value.

Interest bearing loans and other borrowings and default funds are initially recorded at fair value. Subsequent measurement is at amortised cost using the effective interest method, and amortised cost is calculated by taking into account any discount or premium on the issue and costs that are an integral part of the effective interest rate.

The Company establishes fair value using recognised valuation techniques. These include the use of externally available market prices, discounted cash flow analysis and other valuation techniques commonly used by market participants. Where discounted cash flow analysis and other valuation techniques are used assumptions are validated against market observable inputs.

#### Default fund and margin deposits

Default fund contributions paid by clearing members are in cash. Clearing members may elect to use cash or securities to cover initial margin requirements; realised variation margin may only be covered in cash. Members may pledge securities directly using a bilateral delivery mechanism. Cash initial margin, variation margin and default fund deposits are reflected in the statement of financial position as assets and liabilities.

The amount of margin deposits on hand will fluctuate over time as a result of, among other things, the extent of open positions held at any point in time by market participants in contracts and the margin rates then in effect for such contract.

Non-cash initial margin is not reflected in the statement of financial position. These non-cash assets are held in safekeeping, and the Company does not take legal ownership of the assets as the risks and rewards remain with the clearing member, unless and until such time as the clearing member defaults on its obligations to the Company.

#### Derecognition of financial assets and financial liabilities

A financial asset or liability is generally derecognised when the contract that gives rise to it is settled, sold, cancelled or expires. Where an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as a de-recognition of the original liability and the recognition of a new liability, such that the difference in the respective carrying amounts together with any costs or fees incurred are recognised in the income statement.

#### **Taxation**

Deferred and current tax assets and liabilities are only offset when they arise in the same reporting tax group and where there is both a legal right of offset and the intention to settle on a net basis or to realise the asset and settle the liability simultaneously.

Income tax relating to items recognised directly in other comprehensive income is charged or credited as appropriate to other comprehensive income and there is no effect on profit for the year.

# Financial statements for the year ended 31 December 2017 Notes to the financial statements (continued)

#### Current tax

Current tax assets and liabilities for current and prior periods are measured at the amount expected to be recovered from or paid to relevant taxation authorities. The tax rates and tax laws used to compute the amount are those that are enacted or substantively enacted by the date on which the Board approves the financial statements.

#### Deferred tax

Deferred income tax is provided using the liability method on temporary differences at the statement of financial position date between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes using tax rates and laws enacted or substantively enacted by the date on which the Board approves the financial statements.

Deferred tax liabilities are recognised for all temporary differences. Deferred income tax assets are recognised for all deductible temporary differences to the extent that it is probable that taxable profit will be available against which the deductible temporary differences can be utilised, except where the deferred income tax asset arises through investments in subsidiaries and it is not probable that the temporary differences will reverse in the foreseeable future.

#### **Provisions**

Provisions are recognised for current obligations arising as consequences of past events where it is probable that a transfer of economic benefits will be necessary to settle the obligation and it can be reliably estimated. All provisions, except for those arising under pension liabilities, are undiscounted where the effect of discounting would be immaterial.

#### **Share capital**

Called up share capital comprises ordinary shares. Other capital reserves are described in note 21. Other instruments are classified as liabilities if there is an obligation to transfer economic benefits and if not they are included in shareholder's funds. The finance cost recognised in the income statement in respect of capital instruments other than equity shares is allocated to periods over the term of the instrument at a constant rate on the carrying amount.

The share premium comprises the difference between the issue proceeds of shares and their nominal value.

#### **Revenue recognition**

Clearing fee income and rebates, together with other fee income and net settlement fees, are recognised on a transaction by transaction basis, or in cases where there is a fixed annual fee, monthly in arrears, in accordance with the Company's fee scales net of all applicable sales taxes. For some business lines, revenue is charged in advance and in these cases only the proportion of revenue earned in the period is recognised.

Non-cash collateral fees are charged on non-cash collateral provided by clearing members and are included in other fee income.

Net treasury income is the total of income earned on the cash and other financial assets held that have been generated from clearing member activity, less interest on clearing members' margin and other monies lodged with the Company. Interest expense or income is recorded using the effective interest rate method, which is the rate that exactly discounts estimated future cash payments or receipts through the expected life of the financial instrument to the net carrying amount of the financial instrument.

In conditions where negative interest rates apply, the Company recognises interest paid on cash and other assets as an expense and interest received on clearing members' margin as income.

Revenue sharing arrangements – amounts deducted from revenue

Amounts deducted from revenue relate to surplus or revenue share arrangements whereby, as part of an operating agreement, amounts are due back to either the other party to the operating agreement or the actual clearing customers.

# Financial statements for the year ended 31 December 2017 Notes to the financial statements (continued)

#### Cost of sales

Items of expense that are directly attributable to creating a product or provide a service that directly generates revenue or has the ability to generate revenue are classified as cost of sales.

Revenue sharing arrangements - cost of sales

Revenue share costs relate to revenue share arrangements with clearing members where the revenue share is not limited to the amount of revenues receivable from the specific clearing members. As such this has been classified within cost of sales, as it arises, rather than as a deduction from revenue.

Where a liability has been created following the recognition of assets used to generate a revenue share, it will be recognised in the income statement on a systematic basis over the useful life of those assets and offset against the related revenue share costs.

#### **Employee benefits**

The Company operated a defined benefit pension scheme for its UK employees which required contributions to be made to a separate trustee administered fund. This was closed to new members from 30 September 2009 and curtailed on 31 March 2013.

The cost of providing benefits under the defined benefit plan is determined using the projected unit method. Under this method each participant's benefits under the scheme are estimated based on the total pension to which each participant is expected to become entitled at retirement. The liability is the total present value of the individuals' attributed benefits for the valuation purposes at the measurement date and is based on actuarial advice. Past service costs are recognised in the income statement on a straight line basis over the vesting period or immediately if the benefits have vested. When a settlement or a curtailment occurs, the change in the present value of the scheme liabilities and the fair value of the plan assets reflects the gain or loss which is recognised in the income statement.

The net interest amount charged to profit or loss is calculated using actuarial assumptions fixed at the start of the annual report period and the defined benefit liability and asset value at the start of the annual reporting period adjusted for the actual contributions and benefit payments made during the period.

Actuarial gains and losses are recognised in full in the statement of comprehensive income in the period in which they occur. The defined benefit pension liability in the statement of financial position comprises the total for each plan of the present value of the defined benefit obligation (using a discount rate based on high quality corporate bonds that have been rated at AA or equivalent status), less the fair value of plan assets out of which the obligations are to be settled directly. Fair value is based on market price information, and in the case of quoted securities is the published bid market price.

The Company also operates a defined contribution section of the pension plan in the UK which has been open since January 2010 for new staff. The contribution payable to a defined contribution plan is in proportion to the services rendered to the Company by the employees and is recorded as an expense in the income statement within employee benefits as incurred.

The Company receives some employee services by way of management charges from other group companies. These costs are not treated as staff costs but are shown within other operating expenses.

#### Share-based compensation

The Company operates share-based compensation plans for employees, settled in shares of the ultimate parent company, London Stock Exchange Group plc. The charge to the income statement is determined by the fair value of the options granted or shares awarded at the date of grant as an indirect measure of the value of employee services received by the Company and recognised over the relevant vesting period.

The share-based compensation plans are accounted for as equity settled. The Company does record a cost for these transactions, representative of the fact that the Company has received a capital contribution from LSEG which has been

# Financial statements for the year ended 31 December 2017 Notes to the financial statements (continued)

spent on share-based compensation, with the corresponding credit recorded in equity. A debit will then also be recorded in equity and an intercompany payable recorded reflecting the Company's investment.

#### Leases

Leases of property, plant and equipment where a significant portion of the risks and rewards of ownership are retained by the lessor are classified as operating leases. Rentals payable under operating leases are charged in the income statement on a straight line basis over the lease term. Lease incentives are recognised over the lease term. Where a lease becomes onerous the full value of net future costs is immediately recognised in the income statement.

#### Fair value measurement

The Company measures financial instruments such as derivatives at fair value at each balance sheet date.

Fair value is the price that would be received to sell an asset or paid to transfer a liability between market participants in an orderly arm's length transaction at the measurement date. The fair value measurement is based on the presumption that the transaction to sell the asset or transfer the liability takes place either in the principal market for the asset or liability or in the absence of a principal market, in the most advantageous market for the asset or liability. The fair value of an asset or a liability is measured using the assumptions that market participants would use when pricing the asset or liability, assuming that market participants act in their economic best interest.

The Company uses valuation techniques that are appropriate in the circumstances and for which sufficient data are available to measure fair value, maximising the use of relevant observable inputs and minimising the use of unobservable inputs. All assets and liabilities for which fair value is measured or disclosed in the financial statements are categorised within the fair value hierarchy, described in note 19.

For assets and liabilities that are recognised in the financial statements on a recurring basis, the Company determines whether transfers have occurred between levels in the hierarchy by re-assessing categorisation (based on the lowest level input that is significant to the fair value measurement as a whole) at the end of each reporting period. For the purpose of fair value disclosures, the Company has determined classes of assets and liabilities on the basis of the nature, characteristics and risks of the asset or liability and the level of the fair value hierarchy as explained above.

#### Non-underlying items

Items of income and expense that are material by size and/or nature or items that 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 helps give an indication of the sustainable performance of the Company.

#### **Government grants**

Grants receivable are recognised in the income statement over the period in which the expenses are incurred when there is an expectation that the amounts will be received.

### New accounting standards, amendments and interpretations

Standards issued and adopted for the financial year beginning 1 January 2017

The following amendments have been issued by the IASB and IFRIC and have been adopted during the year:

Amendments to IAS12: Recognition of Deferred Tax Assets for Unrealised Losses 1 January 2017
Amendments to IAS7: Disclosure Initiative 1 January 2017

# Financial statements for the year ended 31 December 2017 Notes to the financial statements (continued)

Standards issued but not effective for the financial year beginning 1 January 2017 and not early adopted

The following standards, amendments and interpretations have been issued by the IASB and IFRIC but have not been adopted:

	Effective date for periods beginning on or after
Amendments to IFRS 2:Classification and Measurement of Share-based payment*	1 January 2018
Amendments to IFRS 4: Applying IFRS 9 Financial Instruments with IFRS 4 Insurance Contracts	1 January 2018
Amendments to IAS 40:Transfers for Investment Property*	1 January 2018
Amendments to IAS 28:Long-term Interests in Associates and Joint Ventures*	1 January 2019
Amendments to IFRS 9: Prepayment Features with Negative Compensation*	1 January 2019
IFRIC 22 Foreign Currency Transactions and Advance Consideration*	1 January 2018
IFRIC 23 Uncertainty over Income Tax Treatments*	1 January 2019
IFRS 9 Financial Instruments	1 January 2018
IFRS 15 Revenue from Contracts with Customers (and later clarifications)	1 January 2018
IFRS 16 Leases	1 January 2019
IFRS 17 Insurance Contracts*	1 January 2021
IFRS 14 Regulatory Deferral Accounts*	Deferred

<sup>\*</sup> subject to EU endorsement

#### IFRS 15 Revenue from Contracts with Customers

IFRS 15 Revenue from Contracts with Customers introduces new accounting principles for revenue recognition for all types of sales of goods or services. It is effective from 1 January 2018 and as a result the Company will adopt IFRS 15 in the 2018 financial statements. IFRS 15 provides a single, principles-based five-step model to be applied to all sales contracts, based on the transfer of control of goods and services to customers, and replaces the separate models for goods, services and construction contracts currently included in IAS 11 Construction Contracts and IAS 18 Revenue.

Based on the assessment, the key areas of judgement expected on initial adoption of IFRS 15 are in relation to: (i) the timing of revenue recognition for services provided; (ii) the measurement of variable consideration which changes against factors outside of the Company's control; and (iii) how performance obligations are satisfied in contracts providing several services to customers.

The Company will continue to assess the impact during 2018, but does not expect any material changes to the timing of revenue being recognised.

#### IFRS 9 Financial Instruments

IFRS 9 Financial Instruments is effective for the year ending 31 December 2018 and will simplify the classification of financial assets for measurement purposes, but is not anticipated to have a significant impact on the financial statements.

#### IFRS 16 Leases

IFRS 16 Leases is effective for the year ending 31 December 2019 and will require all leases to be recognised on the balance sheet. Currently, IAS 17 Leases only requires leases categorised as finance leases to be recognised on the balance sheet, with leases categorised as operating leases not recognised. In broad terms, the impact will be to recognise a lease liability and corresponding asset for the operating lease commitments set out in note 20.

#### 2. Risk management

#### Introduction

The Company's activities expose it to a number of financial risks, principally market risk (financial market volatility, interest rate risk, foreign exchange risk), sovereign risk, credit risk and liquidity risk. In addition to the financial risks, the Company is also exposed to other risks such as operational, legal, compliance and reputational risk. The Company manages these risks through various control mechanisms and its approach to risk management is to be prudent yet responsive to changes in the risk environment.

Overall responsibility for risk management rests with the Company's Board. Day to day responsibility is delegated to the Chief Risk Officer, who ensures effective delegation to the executives in the Company on the basis of risk policies which are calibrated to the Board's risk appetite and are discussed and agreed by the Company's Risk Committee and Board. The application of these policies is undertaken by the business functions as the first line of defence and by the risk management team forming the second line of independent assurance, who control and manage the exposures arising from the various clearing activities. The continued appropriateness of risk policies and key risk data are regularly reviewed by the Risk Committee and Board, and audits of processes within risk management are undertaken periodically.

#### Enterprise Risk Management framework

Each of the risks identified in this section are governed by the Risk Governance Framework, issued and refreshed at least annually by the Board. The framework describes the overall risk appetite of the Company, defines each risk type and specifies ownership and the tolerance levels. The framework also requires that all risks are measured, monitored and reported periodically via an Enterprise Risk Management framework coordinated by the Chief Risk Officer.

For each of the principal risk types, a description and outline of the risk management approach is provided below.

# Financial market volatility (latent market risk)

### Risk description

Volatility within the financial markets in which the Company operates can adversely affect its earnings and its ability to meet its business objectives. The Company runs a balanced position in all cleared contracts and runs no significant market risk unless a clearing member defaults. In such an event, the Company faces market risk which is correlated to clearing member positions and market conditions.

#### Risk management approach

The market and credit risk management policies of the Company are reviewed and approved by its Risk Committee and Board at least annually. A variety of measurement methodologies, including both empirical and analytical margin models, stress testing and scenario analysis, are used daily to quantify and assess the levels of credit and market risk to which the Company is exposed, and hence the amount of resources that should be held to cover such risks, under both normal and extreme, but plausible, market conditions.

Initial margins for all clearing services are calibrated and back-tested to a 99.7% confidence level. This has the effect of reducing the probability of loss from the default of a clearing member with the worst acceptable credit to the level of an AAA rated credit over a 12 month time horizon.

Potential market risk is reduced by collecting variation margin on marked to market positions and by establishing initial margin requirements which are the Company's estimate of likely future market risk under normal and stressed market conditions, calibrated to a 99.7% confidence level for all products. Variation margin add-ons are calculated for clearing member specific concentration, liquidity, wrong way risk and credit risk. Both variation and initial margin are collected daily and replenished intraday subject to credit related thresholds.

# Financial statements for the year ended 31 December 2017 Notes to the financial statements (continued)

The Company accepts both cash in major currencies and high quality liquid non-cash collateral to cover margin requirements. The list of acceptable non-cash collateral issuers is restricted and haircuts are set for each security type taking into account market, credit, foreign exchange, country and liquidity risks and are calibrated to a 99.7% confidence level. All non-cash collateral is revalued daily.

As at 31 December 2017 the total margin liability of clearing members amounted to €132.9 billion (2016: €124.0 billion), against which the Company had received €55.0 billion (2016: €56.3 billion) in cash and €77.9 billion (2016: €67.7 billion) in non-cash securities. The maximum margin liability during the year was €139.7 billion (2016: €129.2 billion).

New applicants for clearing must meet strict credit, financial and operational criteria, which are regularly, reviewed as part of the Company's risk policies. All clearing members are assigned an Internal Credit Score (ICS) and the ICS methodology is subject to independent validation at least annually.

The Company also requires all clearing members to contribute to pre-funded default funds to be used should the margins of a defaulted clearing member not fully cover close out costs. Supplementary financial resources include a proportion of the Company's own capital and further clearing member contributions to ensure the continuity of ongoing operations. The pre-funded default funds are segregated by clearing service and sized to be sufficient at all times to cover the default of the two clearing member groups giving rise to the greatest losses above margin under a wide range of plausible scenarios of extreme market conditions.

As at 31 December 2017 the total of clearing member contributions to the default funds amounted to €8.5 billion (2016: €8.1 billion) (note 17). The maximum amount during the year was €10.0 billion (2016: €8.3 billion). Clearing members are committed to contribute further amounts in the event of a clearing member default equivalent to approximately twice this amount.

The models which calculate margins, collateral haircuts, counterparty credit scores and default fund contributions are independently validated at least annually and meet all applicable regulatory requirements.

#### Sovereign risk

#### Risk description

Distress amongst sovereigns through market concerns over the levels of government debt and the ability of certain governments to service their debts over time could have adverse effects on the value and liquidity of the Company's cleared products, margin collateral and investments, and on the clearing membership, their clients, and the financial industry as a whole.

#### Risk management approach

Specific risk frameworks manage sovereign risk for both fixed income clearing and margin collateral, and all clearing members' portfolios are monitored regularly against a suite of sovereign stress scenarios which model escalations in sovereign risk. In addition, investment limits and both counterparty and clearing membership monitoring frameworks are sensitive to changes in economic and financial market indicators, to ensure that the Company is able to measure, monitor and mitigate exposures to sovereign risk and respond quickly to actual or anticipated changes.

The Risk Committee and Board continually monitor such risks and the sovereign risk framework continues to protect the Company against potentially severe market volatility in the sovereign debt markets.

The Company has investments in the following Sovereigns (or equivalent issuer) as at 31 December 2017:

	201	17	2016		
Sovereign (or equivalent)	Investment value € billion	Proportion	Investment value € billion	Proportion	
USA	13.4	37%	13.9	46%	
Netherlands	8.1	22%	5.7	19%	
UK	7.2	20%	4.4	14%	
France	4.2	12%	2.4	8%	
Switzerland	1.6	4%	1.0	3%	
EU	0.8	2%	1.0	3%	
Germany	0.5	1%	0.8	3%	
Belgium	0.2	1%	0.8	3%	
Other	0.1	1%	0.5	1%	
Total	36.1	100%	30.5	100%	

The above total includes all other financial assets of €19,269.6 million (2016: €20,716.8 million) along with central bank cash deposits.

#### Credit risk

#### Risk description

Credit risk is the risk that a counterparty of the Company will be unable or unwilling to meet a financial commitment to the Company. Credit risk exposure arises as a direct result of the reinvestment of the cash which the Company holds, primarily as part of its CCP activities, in collecting margin and default fund contributions from its clearing members.

### Risk management approach

The Company's investment portfolio is invested in accordance with clear risk policies which require secure investment of a significant portion of the portfolio either via reverse repurchase agreements with credit and financial institutions, receiving high quality government, government guaranteed or supranational securities as collateral, by investing directly in such securities or by the placement of cash with central banks.

The Investment Risk Policy requires that securities received as collateral are subject to a haircut on their market value, that the average maturity of the portfolio will not exceed two years, and that while cash may be deposited on an unsecured basis, this can only be short term with high quality banking institutions and limited to a 12 month average of 5% and a maximum of 10% of all credit institution investment.

The amount of the Company's capital at risk to the default of a banking institution or the issuer of a debt instrument is limited to €15.0 million by the non-default loss provision to be used in respect of losses that arise other than from a clearing member's default and which threaten the central counterparty's solvency introduced in response to the revision of UK CCP Recognition Requirements which became effective on 1 May 2014. Treasury default losses in excess of €15.0 million would be allocated among clearing members.

The investment portfolio at 31 December 2017 was €63.6 billion (2016: €66.6 billion), of which 99.5% (2016: 99.8%) was invested securely with an overall average maturity of 73 days (2016: 68 days). The maximum portfolio size during the year was €74.1 billion (2016: €71.3 billion). Note 19 contains further analysis of the investment portfolio including by type and fair value hierarchy.

All counterparties, including clearing members, interoperating CCPs, investment counterparties, custodians and settlement and payment institutions, sovereigns and central banks, are assessed according to an internal credit scoring framework. This framework incorporates elements of the counterparty's financial profile, including funding, liquidity, capital and profitability, and a detailed operational capability assessment. The scoring framework is independently validated at least annually and is continuously monitored for performance. Minimum credit scores are set for joining any clearing service and also for institutions to be eligible for investment or as interoperating CCPs and payment, settlement and custodial intermediaries. These minimum credit scores are set within the risk policies which are reviewed and approved by the Board annually. Risk policy also requires that increased margins be applied to clearing members when their credit score deteriorates below the entry level. Other actions may include reduced credit tolerances and forced reduction of exposures.

The Company currently interoperates with several other CCPs in Europe for cash cleared products. Interoperability with another CCP poses risks similar to the risks to which the Company is exposed with its clearing members. Credit risk is managed according to the same credit assessment framework applied to clearing members and other counterparties. To cover the latent market risk arising on interoperating exposures, all interoperating CCPs are subject to daily margining. Under European regulations, CCPs are not permitted to contribute to another CCP's default fund but equivalent margin add-ons are applied to interoperating exposures which ensure full protection is pre-funded at all times.

The maximum credit risk exposure relating to financial assets is represented by the carrying value as at the statement of financial position date.

#### Analysis by credit rating

The table below shows the Company's clearing member balances and investment portfolio by reference to the credit rating of the counterparty. The treasury portfolio includes cash at bank and other financial assets.

	Note	2017 €′m	2016 €′m
Fair value of transactions with clearing members (ratings assi	gned with reference to major a	gencies)	
Clearing members rated AAA		50.1	17,467.9
AA		54,167.8	2,445.1
AA-		49,831.6	6,506.6
A+		86,417.3	9,897.6
A		89,572.9	54,430.8
A-		7,536.6	19,653.0
BBB+		58,177.6	5,461.5
ВВВ		796.4	46.2
Other, < BBB		-	1,200.8
Unrated		0.8	456.6
	12	346,551.1	117,566.1
Company investment portfolio (ratings assigned with reference	e to major agencies)		
AAA/AA+/AA- Government backed		35,981.1	30,497.2
AA/AA+/AAA Secured		873.3	3,484.3
AA/AA+/AAA Unsecured			-
AA-/A+/A/A-/BBB+ Secured		26,469.1	32,463.3
A+/AA- Unsecured		292.4	113.4
		63,615.9	66,558.2

# Financial statements for the year ended 31 December 2017 Notes to the financial statements (continued)

The total credit risk of the Company is represented by the total financial assets of the Company as disclosed in note 19.

#### **Concentration risk**

#### Risk description

Concentration risk may arise through having large connected individual exposures and significant exposures to groups of counterparties whose likelihood of default is driven by common underlying factors.

#### Risk management approach

Direct concentration risk arises in several areas of the Company's activities, and in order to avoid excessive concentrations of risk the Company maintains a diversified portfolio of high quality liquid investments and uses a diversified range of custodians, payment and settlement banks and agents.

Indirect concentration risks, conditional upon a clearing member default, are managed under risk policy through various means, including margin add-ons for large concentrated positions, restrictions on certain non-cash collateral issuers and limits on aggregated exposures to member groups across clearing and investment activities.

The largest concentration of investment exposures as at 31 December 2017 was 21% of the total investment to the US Government (2016: 21% to the US Government).

#### **Procyclicality**

#### Risk description

Systemically important CCPs recognise that they have an important responsibility towards their clearing members and other market participants to ensure that their actions do not unnecessarily amplify existing market stresses. Indeed, risk mitigating actions that are excessively procyclical are undesirable to the Company from a narrow risk management perspective as well as from a macro-economic and regulatory perspective.

### Risk management approach

The Company acknowledges that while some level of procyclicality may be unavoidable, as it must protect itself by ensuring adequate margins are held against risk, standards have been introduced for ensuring that procyclicality concerns are appropriately addressed in the risk framework and the margin, haircut and credit scoring models. These standards require all models which are used for setting the levels of resources called from participants, and which therefore may be sources of procyclical outputs, to be tested using an extended period of historical inputs.

#### Interest rate risk

#### Risk description

The Company is exposed to interest rate risk arising from the cash and investment balances it maintains, the margin and default fund balances it holds from clearing members and the loans and borrowings it has issued.

#### Risk management approach

Interest bearing assets are generally invested for a longer term than the interest bearing liabilities, whose interest rate is generally reset daily. This makes treasury income vulnerable to volatility in overnight rates and shifts in spreads between overnight and term rates. Interest rate exposures are managed within defined risk appetite parameters against which sensitivities are monitored daily. The risk to the Company's capital is managed within interest rate risk limits expressed as a percentage of the Company's capital and calculated under stressed scenarios.

# Financial statements for the year ended 31 December 2017 Notes to the financial statements (continued)

#### Interest rate sensitivity analysis

The Company aims to minimise its exposure to interest rate fluctuations. Any exposure is predominantly due to the mismatch between the Company's interest bearing assets and interest bearing member liabilities. Since the return paid on member liabilities is generally reset to prevailing market interest rates on an overnight basis, the Company is exposed for the time it takes to reset the interest rates on its investments and the shifts in spreads between overnight and term rates. The maximum fixed exposure on any asset in the treasury portfolio is one year and the portfolio is subject to an overall interest rate risk limit.

The following table shows the estimated impact of the exposure described in the paragraph above on profit after tax and on retained earnings within shareholder's equity:

	2017			2016		
	+25bp €′m	+50bp €′m	+100bp €′m	+25bp €′m	+50bp €′m	+100bp €′m
Net exposure of cash and member margin balances	(5.3)	(10.6)	(21.2)	(11.4)	(22.7)	(45.4)
Tax effect of above	1.1	2.1	4.2	2.3	4.6	9.2
Decrease in profit after tax	(4.2)	(8.5)	(17.0)	(9.1)	(18.1)	(36.2)
	-25bp €′m	-50bp €′m	-100bp €′m	-25bp €′m	-50bp €′m	-100bp €′m
Net exposure of cash and member margin balances	5.3	10.6	21.2	11.4	22.7	45.4
Tax effect of above	(1.1)	(2.1)	(4.2)	(2.3)	(4.6)	(9.2)
Increase in profit after tax	4.2	8.5	17.0	9.1	18.1	36.2

#### Liquidity risk

#### Risk description

Liquidity risk is the risk that the Company is unable to meet its payment obligations when they fall due.

Liquidity risk exists as a result of day to day operational flows such as repayments of cash collateral to clearing members, provision of liquidity to facilitate settlement and cash flows resulting from investment activity. In the case of a clearing member default, the Company must transfer or liquidate the defaulter's portfolio. This default management process may give rise to additional liquidity requirements to meet losses arising from portfolio hedging or close out as well as fulfilling the defaulter's settlement and margin obligations until the portfolio is fully closed out or transferred.

#### Risk management approach

Liquidity risk is managed by ensuring that the Company has sufficient cash to meet its payment obligations supported by facilities to meet short term imbalances between available cash and payment obligations. The Company maintains liquidity buffers against expected daily operational liquidity needs, based on the maximum relevant liquidity outflow observed from an extensive data history, and against the modelled default of the two clearing member groups with the largest liquidity requirements when additional liquidity will be required so that the Company can continue to meet its obligations to clearing members and other counterparties.

The Company's liquidity management is subject to strict minimum liquidity targets set by senior executives within its Risk and Collateral & Liquidity Management (CaLM) departments. These targets are reviewed regularly and reported to the Risk Committee and Board. On a day to day basis CaLM is tasked with ensuring that the Company can meet its financing needs at

# Financial statements for the year ended 31 December 2017 Notes to the financial statements (continued)

all times, in particular to ensure the business continues to operate smoothly even in the event of the default of one or more clearing members.

The ability to access liquidity under extreme market conditions is modelled daily. Liquid resources include available cash balances and secured financing facilities. The Company uses central bank money where such facilities are available to it as a CCP and are practicable as determined through internal review.

The table below analyses the Company'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 are the contractual undiscounted cash flows.

As at 31 December 2017	Less than three months €'m	months to one year €'m	One to five years €'m	Total €'m
Fair value of transactions with clearing members	(338,797.8)	(7,753.3)		(346,551.1)
Initial margin and other clearing member balances	(54,647.1)		-	(54,647.1)
Default fund		(8,467.6)	-	(8,467.6)
Trade and other payables	(100.4)	(100.0)	(3.6)	(204.0)
Interest bearing loans and borrowings	(45.6)	-	-	(45.6)
As at 31 December 2016	Less than three months €'m	Three months to one year €'m	One to five years €'m	Total €′m
Fair value of transactions with clearing members Initial margin and other clearing member	(115,911.7)	(1,652.5)	(1.9)	(117,566.1)
balances	(58,354.1)		, - J, -	(58.354.1)
Default fund		(8,105.2)	L.	(8,105.2)
Trade and other payables	(131.2)	(70.8)	(2.3)	(204.3)

For the default funds, the tenor of the liability is matched with the interest reset dates of the asset. The weighted average maturity of the total treasury portfolio is 90 days (2016: 68 days), with strict risk criteria related to interest rate exposure being applied.

Interest due on the financial liabilities is based upon rates set on a daily basis.

#### Foreign exchange risk

#### Risk description

The Company incurs the majority of its expenses in UK sterling, while earning revenues and treasury income in several major currencies. This then exposes the Company to foreign exchange risk; this is primarily because the Company translates net assets and liabilities arising in other currencies (principally UK sterling and US dollars) to its functional currency.

# Financial statements for the year ended 31 December 2017 Notes to the financial statements (continued)

#### Risk management approach

The Company converts surplus foreign currency balances to euros where practicable on a monthly basis. This partially mitigates the impact of exchange rate fluctuations on the Company's financial performance. Any exchange differences on the translation of net assets and liabilities that remain are recorded in the income statement.

The Company has no designated hedges, but seeks to manage its risk by matching currency liabilities against monetary assets. The Company's income statement and regulatory capital volatility as a result of exchange rate movements are monitored.

#### Foreign exchange sensitivity

The Company reviews sensitivities to movements in exchange rates which are appropriate to market conditions. As at 31 December 2017, the Company has considered movements in UK sterling and US dollars during 2017 and has concluded that a 10% movement in rates is a reasonable level to measure the risk to the Company. At 31 December 2017, if the euro had weakened or strengthened by 10% against UK sterling and/or US dollar with all other variables held constant, the impact on post tax profit for the year ended 31 December 2017 and on equity at 31 December 2017 is set out, with comparatives, in the table below. Movements in other currencies and entities are not significant.

The table below also includes the impact on equity if the euro had moved 10% against UK sterling and the US Dollar.

	2017	2016		
	Post tax	Post tax		
	profit	Equity	profit	Equity
	€′m	€′m	€′m	€'m
UK sterling – euro strengthen	(4.5)	(4.2)	1.8	0.6
UK sterling – euro weaken	4.5	4.2	(2.2)	(0.7)
US dollar – euro strengthen	(3.0)	(0.6)	(0.8)	(0.4)
US dollar – euro weaken	3.0	0.6	1.0	0.4

If the average euro exchange rate for the year ended 31 December 2017 had moved 10p against UK sterling and 10 cents against US dollar, this would have changed the Company's operating profit for the year by up to €14.6 million (2016: €3.3 million).

### Settlement risk

#### Risk description

Settlement risk is the risk that the Company makes a payment or delivery without simultaneously receiving the delivery or payment from the counterparty.

### Risk management approach

The Company materially mitigates this risk through the use of guaranteed and irrevocable delivery versus payment mechanisms where available.

#### Settlement bank risk

### Risk description

The Company is exposed to the risk that a settlement bank could fail, creating credit losses and liquidity pressures for the Company.

# Financial statements for the year ended 31 December 2017 Notes to the financial statements (continued)

#### Risk management approach

The Company uses a combination of central bank, payment agent and commercial settlement bank models. The policy requires that only minimal unsecured balances at commercial settlement banks are permitted to remain overnight, with the majority placed with central banks. Any such unsecured balances reduce commercial bank deposit limits. Intraday credit exposures to commercial concentration banks are also monitored and closely controlled.

For monies due from clearing members, if the payment agent or commercial settlement bank is not able to transfer funds to the Company, the clearing members remain liable for the fulfilment of their payment obligations to the Company.

Risk policies specify minimum credit scores for all payment and settlement intermediaries and that these are monitored continually, with a full counterparty credit review conducted annually and a full due diligence exercise carried out at least every two years. The counterparty credit scores are derived from the framework described under credit risk above.

#### **Custody risk**

#### Risk description

Custody risk is the risk of loss on securities in safekeeping as a result of the custodian's insolvency, negligence, misuse of assets, poor administration or inadequate record keeping.

#### Risk management approach

Although the risk of insolvency of central securities depositories or custodian banks used by the Company is low, the Company mitigates this risk through a due diligence framework which ensures that appropriate legal arrangements and operational processes are in place. In addition, policy sets minimum eligibility requirements, and requires regular credit assessment and back-up contingency arrangements to be in place.

#### Capital risk

#### Risk description

Capital risk is the risk that the Company may not maintain sufficient capital to meet its obligations. This includes the risks that regulators may increase capital requirements or that own capital levels may become eroded. Capital is specifically allocated, and therefore at risk ahead of clearing member resources, in the event of either a clearing member or investment counterparty default. In addition, capital may be at risk to operational losses in excess of insurance protection.

#### Risk management approach

The Company's approach to capital management and a review of the current regulatory requirements are detailed in note 23. In addition:

- the default waterfalls for each clearing service feature the Company's own capital, to be utilised after the defaulted clearing member's collateral and default fund contributions and before the balance of the mutualised default funds and further, non-prefunded, resources available from the clearing members. In aggregate this capital at risk is equivalent to 25% of regulatory capital requirement for the Company
- the non-default loss provision for the Company (as detailed on page 29 limits the amount of capital at risk to the investment default/loss of a banking institution or the issuer of a debt instrument to €15 million for this entity
- the Company can manage its capital structure by varying returns to its shareholder, issuing new shares or increasing or reducing borrowings

Financial statements for the year ended 31 December 2017

Notes to the financial statements (continued)

#### Pension risk

Pension risk arises from the potential deficit in the Company's defined benefit pension plan due to a number of factors such as mortality rates or changes in inflation assumptions. The scheme is exposed to inflation, interest rate risks and changes in the life expectancy for members. As the schemes' assets include a significant investment in equity shares, the Company is exposed to equity market risk.

The pension scheme is UK-based and is governed under the relevant laws and managed by the Trustees who are required to undertake a formal funding valuation every three years and, where assets are deemed to be insufficient, to agree a schedule of contributions to be paid by the Company to make good any shortfall over a period of time. Details of the pension scheme and assumptions used in valuing their assets and liabilities are included in note 18.

#### Operational risk

#### Risk description

Operational risk is the risk of loss arising through failures associated with personnel, processes or systems or from external events. It is inherent in every business organisation and covers a wide spectrum of issues. First line operational risk is managed by the business, for example through procedures, documentation of processes, independent authorisation and reconciliation of transactions.

#### Risk management approach

The Company has adopted a framework, supported by tailored enterprise-wide software, systematically to identify, assess, monitor and manage operational risks. This is achieved through self assessment of risks and controls using a comprehensive risk and control library, the collection and analysis of loss data and the development of key risk indicators as appropriate, enabling the embedding of operational risk awareness within the corporate culture. An independent department performs second line operational risk management, validating the self-assessments of risks and controls and reporting on operational risk to senior management and the Board.

Business operations are subject to a programme of internal audit reviews, which are independent of line management, and the results are reported directly to the Company's senior management and Audit Committee. Following each review, management will put in place an action plan to address any issues identified. Internal Audit evaluates the adequacy and effectiveness of the Company's systems of internal control, as well as the level of compliance with policies, and reports, in addition to management's own combined assurance reporting, to the Audit Committee and senior management. Any significant weaknesses are reported to the Board.

The Company maintains comprehensive contingency plans to support its operations and ensure business continuity. These facilities are regularly tested.

#### Other risks

### Legal, compliance and regulatory risk

These risk categories include the risk arising from the potential that unenforceable contracts, lawsuits, or adverse judgements can disrupt or otherwise negatively affect the operations or condition of the organisation, and the risk of loss of license or other penalties imposed due to non-compliance with regulations governing clearing house activities in each jurisdiction in which the Company operates.

It is the responsibility of the Heads of the Legal, Regulatory and Compliance functions to provide assurance to the Board that these risks are measured and monitored, while the responsibility for any mitigation actions resides with the relevant business and functional heads.

# Financial statements for the year ended 31 December 2017 Notes to the financial statements (continued)

In the normal course of business, the Company receives 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 Company (and is measureable), a provision is made representing the expected cost of settling such claims.

#### Reputational risk

The maintenance of the Company's strong reputation is key to its continued profitability and is the responsibility of the Board, management and staff. In particular the efficiency, reliability and effectiveness of the day to day operations of the Company are paramount to its reputation.

#### Business and strategic risks

Business risk is the risk of loss or of profit decrease where declining volumes lead to lower revenues which cannot be offset by adjusting variable costs within a reasonable time period, while strategic risk is the risk of reduction in earnings or capital arising from adverse business decisions, improper implementation of decisions, or lack of responsiveness to industry changes. Business heads are responsible for managing these risks and liaising closely with the Board when issues arise.

#### **Brexit**

The Company relies on the right for UK CCPs under EMIR to offer clearing services to EU regulated firms. The Company has analysed the potential impacts of the UK's exit from the EU and has considered contingency plans that may be implemented should these rights not be replaced by equivalent rights outside of EU membership.

# Project risk and business continuity, information security and cyber risks

These risk categories include the risk to earnings and capital arising from project execution deficiencies, the risk of loss arising from the disruption of critical business or IT processes due to adverse circumstances or events, and the risk that valuable and sensitive LCH data is compromised, lost or misused. The Heads of dedicated business functions and of each business are responsible for managing these risks.

#### Model risk

This is the risk that, for example, a margin model may not capture the essence of the stress loss/events being modelled, or that there are mistakes in the underlying calculation, which may result in systemic under-margining for the products in question. Model risk management is the responsibility of the heads of business lines which place reliance on the models, and is effected through appropriate testing and maintenance of the models and in particular through the strict governance required for model change, including independent expert validation and senior executive approval. Board approval is required for material changes to important models.

#### Default management risk

This is the risk arising from not having a well defined and rehearsed process in place prior to a default event, leading to inefficiencies in the handling of a default such that a material deterioration in the market value of assets held may result in the erosion of CCP capital and the default funds.

For each service, it is the responsibility of the business head to ensure that a functioning Default Management Group is in place in accordance with the group default management policy and guidelines (owned by the CRO). Fire drill tests are held regularly to assess the CCP default management process and identify any areas for improvement.

The most significant exchange rates for the Company are as follows:

	2017 Closing rate	2017 Average rate	2016 Closing rate	2016 Average rate
Euro (€) to US dollar (\$)	1.20	1.13	1.05	1.11
Euro (€) to pound sterling (£)	0.89	0.88	0.85	0.82

# 4. Operating expenses

The following items are included in operating expenses before depreciation and amortisation (includes non-underlying items; a full analysis is given in note 5):

2017	2016
€'m	€′m
116.0	128.2
4.5	4.2
5.0	(1.6)
59.2	81.9
184.7	212.7
6.3	4.9
	1.4
2.6	-
39.4	23.1
48.3	29.4
0.3	0.3
	€'m  116.0  4.5  5.0  59.2  184.7  6.3  - 2.6  39.4  48.3

LCH Limited
Financial statements for the year ended 31 December 2017
Notes to the financial statements (continued)

5. Non-underlying items		
, <b>,</b>	2017	2016
	€'m	€′m
Restructuring programme	(4.7)	(6.5)
Profit on sale of subsidiary		0.2
Total non-underlying items	(4.7)	(6.3)
Tax effect of non-underlying items	0.9	1.3
Net non-underlying items	(3.8)	(5.0)

During 2016, the board approved a three year restructuring programme to improve the efficiency of the Company.

In December 2016, the Company sold its investment in its subsidiary to its parent for consideration of €0.2 million.

## 6. Finance income and expense

6. Finance income and expense	2017 €′m	2016 €′m
Dividends received		12.2
Interest received on cash and cash equivalents		0.1
Interest received on intercompany loan balances	0.2	0.3
Net finance income on pension assets	0.1	1.2
Finance income	0.3	13.8
Interest paid on cash and cash equivalents	(3.3)	(3.1)
Net finance (expense)/income	(3.0)	10.7

The Company attracts negative interest rates on some of its cash deposits and intercompany loans.

7. Taxation		
7. Taxation		
The major components of taxation expense are:		
	2017 €'m	2016 €′m
Current tax		
United Kingdom current tax charge	(27.8)	(18.9)
Adjustments in respect of current tax in previous years	1.3	0.2
Overseas current tax charge	(0.2)	(0.7)
Adjustments in respect of current taxation in previous years	-	0.1
Total current tax	(26.7)	(19.3)
Deferred tax		
Deferred tax relating to the origination and reversal of temporary differences	0.1	(1.2)
Deferred tax effect of future rate changes	(0.1)	(0.3)
Adjustment in respect of deferred tax in previous years	(1.2)	(0.5)
Deferred tax	(1.2)	(2.0)
Tax expense reported in the income statement	(27.9)	(21.3)
Statement of comprehensive income		
Deferred tax relating to remeasurement of UK defined benefit pension plan	(21.1)	11.5
Tax relating to revaluation of available for sale assets	(0.8)	(1.1)
Tax (expense)/credit reported in the statement of comprehensive income	(21.9)	10.4
Statement of changes in equity		
Tax allowance on share awards in excess of expense recognised	1.8	1.2
Tax credit reported directly in equity	1.8	1.2

## Reconciliation of tax expense

The income statement tax charge for the year differs from the standard rate of corporation tax in the UK as explained below:

	2017 €′m	2016 €′m
Accounting profit before taxation	141.0	105.0
Tax at UK statutory corporation tax rate of 19.25% (2016: 20.0%)	(27.1)	(21.0)
Effect of:		
Disallowed expenses	0.1	-
Non-taxable income		2.0
Adjustments in respect of prior periods	0.1	(0.2)
Remeasurement of deferred tax – change in corporation tax rate	(0.1)	(0.9)
Higher rate of tax on overseas earnings	-	(0.4)
Provision for diverted profits tax (DPT)	(1.3)	(1.0)
Release of OTC provision	0.5	- U U I I
Foreign exchange adjustment	(0.1)	0.2
Total tax charge	(27.9)	(21.3)
Effective corporate tax rate	19.8%	20.3%

The UK Finance Bill 2016 enacted in September 2016 reduced the standard rate of corporation tax from 20% to 19% effective from 1 April 2017 and 17% effective from 1 April 2020. Accordingly the UK deferred tax balances at December 2017 have been stated at 19% or 17% dependent on when the timing differences are expected to reverse.

The decrease in the effective tax rate (ETR) for the Company from 20.3% in 2016 to 19.8% in 2017 is related to the deferred tax assets derecognised in the prior year. The current year's ETR is likely to continue in future years.

An amount of €2.8 million (2016: €5.2 million) has been provided for uncertain tax positions in respect of discussions with the tax authorities with regard to the uncertainty surrounding the introduction of diverted profits tax. An amount of €3.6 million provided for in previous years relating to the derecognition of OTC assets is no longer considered uncertain.

Exchange differences have arisen on the translation of the closing sterling tax balances which are due to HMRC in the UK.

LCH Limited
Financial statements for the year ended 31 December 2017
Notes to the financial statements (continued)

	Statement of				
	financial position			Income statement	
	2017 €'m	2016 €'m	2017 €′m	2010 €′n	
Post-employment benefits	(21.5)	(0.7)	(20.9)	(1.6	
Reduced depreciation for tax purposes	2.9	4.3	(1.3)	(1.0	
Deferred compensation	0.6	8.0	(0.2)		
Share-based payments	2.7	2.6	0.1	0.	
Revaluation of available for sale assets	(1.7)	(0.9)	(0.8)		
Deferred tax charge			(23.1)	(2.0	
Deferred tax (liability)/asset	(17.0)	6.1			
OF STATE OF THE ST			2017 €'m	2016 €′m	
Net deferred tax asset/(liability) at 1 January	- V-1		6.1	(4.0	
Deferred tax in income statement			(1.2)	(2.0)	
Deferred tax relating to share based payments			0.1	0.6	
Deferred tax relating to remeasurement losses on UK defined benefit po	ension plan		(21.9)	10.6	
Foreign exchange translation			(0.1)	0.9	
Net deferred tax (liability)/asset at 31 December			(17.0)	6.1	
B. Intangible assets					
Self-developed software and licences			2017 €′m	201€ €′m	
Cost			111 411 -		
At 1 January			259.5	188.9	
Additions			54.0	74.1	
Asset Transfer			(0.2)		
Disposals				(2.1)	
Write down			<u> </u>	(1.4)	
At 31 December			313.3	259.5	
Accumulated amortisation					
At 1 January			109.2	88.2	
Amortisation charge for the year			39.4	23.1	
Asset Transfer			(0.2)		
mpairment			2.6	-	
Disposal			= <u>-</u>	(2.1)	
At 31 December			151.0	109.2	

The portion of capitalised self-developed software costs disclosed above that relates to software not currently brought into use amounted to €76.5 million (2016: €53.2 million). No amortisation has been charged during the year against these assets (2016: nil), but instead they are tested for impairment (note 9). A write down of the cost of these assets of €2.6 million (2016: €1.4 million) has been recognised in the year.

#### 9. Impairment testing of intangible assets

The Company carries out annual impairment testing on software not currently brought into use in December of each year, or more often if circumstances show that an impairment may be likely.

For intangible assets, impairment is assessed by reviewing the carrying value of the asset against its recoverable amount, which is determined by value in use calculations for the relevant cash generating unit using discounted cash flow projections.

#### **Assumptions**

The key assumptions used in the valuations relate to discounted cash flow projections prepared by management covering a five year period. The cash flow projections are based on the Company's budget for 2018 and the approved plan for the two financial years following the last financial year in the budget. Cash flows beyond this period are extrapolated using the estimated long term growth rates and applying the pre-tax discount rates.

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, as follows:

- i) The values assigned to short and medium term revenue and cost growth are based on the 2018 budget and the Group approved plan. 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 Company's long-term strategic objectives to determine appropriate short and medium term growth assumptions
- ii) Long-term growth rates of 3.7% (2016: 2%) represent management's internal forecasts based on external estimates of GDP and inflation
- iii) The pre-tax discount rate of 11.1% (2016: 11.6%) is based on a number of factors including the risk-free rate, the Company's estimated market risk premium and a premium to reflect inherent risks

## Impairment results

Having completed the tests as described above, self-developed software assets were found to be impaired by €2.6 million (2016: €1.4 million).

#### **Sensitivity analysis**

Reasonably possible changes in key assumptions and rates are detailed below and the impact on the impairment recognised noted:

As at 31 December 2017	Base case	Adjusted	Increase to impairment €'m
Reduction in clearing revenues	various	-10%	-
Pre-tax discount rate	11.1%	14.1%	

LCH Limited
Financial statements for the year ended 31 December 2017
Notes to the financial statements (continued)

	Leasehold	Computer	Office	
	refurbishment	equipment	equipment	Total
As at 31 December 2017	€'m	€'m	€′m	€′m
Cost				
At 1 January	9.4	39.5	3.7	52.6
Additions		3.3	1.0	4.3
Asset transfer	(1.0)	1.0	-	-
Disposals	<u> </u>	(0.4)	(0.3)	(0.7)
At 31 December	8.4	43.4	4.4	56.2
Accumulated depreciation				
At 1 January	4.5	25.8	3.7	34.0
Depreciation charge for the year	0.8	5.5		6.3
Disposals	_	(0.4)	(0.3)	(0.7)
At 31 December	5.3	30.9	3.4	39.6
Net book value at 31 December	3.1	12.5	1.0	16.6
	an			
	Leasehold refurbishment	Computer	Office	~
As at 31 December 2016	returbishinent €'m	equipment €'m	equipment €'m	Total €′m
Cost		The Person		CIII
At 1 January	9.4	41.3	3.9	54.6
Additions	0.3	8.6		8.9
Disposals	(0.3)	(10.4)	(0.2)	(10.9)
At 31 December	9.4	39.5	3.7	52.6
Accumulated depreciation				
At 1 January	3.9	32.1	3.9	39.9
Depreciation charge for the year	0.8	4.1		4.9
Disposals	(0.2)	(10.4)	(0.2)	(10.8)
At 31 December	4.5	25.8	3.7	34.0
Net book value at 31 December	4.9	13.7	_	18.6
1. Investment in subsidiaries				
1. mvestment in subsidiaries				
			2017 €′m	2016 €′m
ost at 1 January				20.3
apital repayment			-	(20.3
isposal			The state of the s	
ost at 31 December				

In November 2016, the Company's former subsidiary company, LCH.Clearnet (Luxembourg) S.à.r.l. (Luxco), undertook a capital reduction and as a result repaid the Company capital of €20.3 million.

On 16 December 2016, the Company sold its 51% holding in Luxco to its parent company, LCH Group Holdings Limited, for consideration of €0.2 million realising a profit on disposal of €0.2 million.

The Company has taken advantage of the exemption from preparing consolidated financial statements afforded by section 400 of the Companies Act 2006 as its parent company, LCH Group Holdings Limited, prepares consolidated financial statements which are publicly available.

The Company owns the following dormant companies that are not material.

Company name	Principal activity	Country of incorporation
BondClear Limited	Dormant	England and Wales
SwapClear Limited	Dormant	<b>England and Wales</b>
LCH Pensions Limited	Trustee company	<b>England and Wales</b>
RepoClear Limited	Dormant	<b>England and Wales</b>
CommodityClear Limited	Dormant	<b>England and Wales</b>
EquityClear Limited	Dormant	<b>England and Wales</b>
The London Clearing House Limited	Dormant	<b>England and Wales</b>
LCH.Clearnet Group Limited (formerly LCH Group Holdings		
Limited)	Dormant	England and Wales
ForexClear Limited	Dormant	<b>England and Wales</b>
International Commodities Clearing House Limited	Dormant	<b>England and Wales</b>
The London Produce Clearing House Limited	Dormant	England and Wales

The Company has representative offices in the USA and Australia and a branch in Japan.

#### 12. Balances with clearing members

Aug 10 + 100 - 110	2017	2016
	€'m	€′m
Assets		
Fair value of transactions with clearing members	346,551.1	117,566.1
Other clearing member balances	36.6	479.2
	346,587.7	118,045.3
Liabilities		
Fair value of transactions with clearing members	(346,551.1)	(117,566.1)
Initial margin and other clearing member balances	(54,647.1)	(58,341.8)
	(401,198.2)	(175,907.9)

The balances due from clearing members recorded in the statement of financial position of €346,551.1 million (2016: €117,566.1 million) are fully secured by collateral held by the Company.

At 31 December 2017 the total of fully collateralised loans in respect of fixed income transactions was €344,810 million (2016: €114,791.0 million). This collateral has in turn been passed on to fixed income counterparties to secure the Company's liabilities in respect of fixed income contracts.

The total net amount of non-cash collateral not recognised on the balance sheet, including that in respect of initial margin, at 31 December 2017 was €77,885.6 million (2016: €67,740.6 million).

13. Trade and other receivables		
	2017	2016
	€′m	€′m
Non-current		
Other receivables	0.7	0.9
Current		
Trade receivables:		
Fees receivable	34.2	33.1
Interest accrued on investment portfolio	43.7	26.5
	77.9	59.6
Provision for doubtful debts		(0.1)
Margin receivable on repurchase contracts	51.1	110.0
Prepayments	7.8	7.9
Amount owed by parent companies	8.9	9.8
Amount owed by fellow subsidiary companies	21.0	9.3
R. 6.5	166.7	196.5

For 2017, the Company has improved the analysis of the trade and other receivables: the 2016 analysis has been represented in the new format to allow better comparison. There is no change to the total trade and other receivables.

A doubtful debt provision of €0.1 million was brought forward. This was fully utilised during the year and no new provisions were established in relation to specific uncertain accounts during 2017.

## 14. Cash and cash equivalents

	2017 €′m	2016 €′m
Cash at bank and in hand	28.2	192.4
Short-term deposits	677.9	477.5
Cash and cash-equivalents	706.1	669.9
Clearing business cash at bank	16,402.1	9,243.0
Clearing business short-term deposits	27,266.2	35,928.5
Clearing business cash and cash-equivalents	43,668.3	45,171.5
The second of th	44,374.4	45,841.4

The short-term deposits are collateralised by sovereign and investment grade corporate securities in accordance with eligibility criteria approved by the Risk Committee.

€74.0 million (2016: €76.0 million) of own cash is restricted as the Company's own resources to be used in the default waterfall. This is allocated by default fund on a pro-rata basis as follows at 31 December 2017: SwapClear €49.2 million, RepoClear €10.1 million, ForexClear €12.3 million, Equities / Listed Derivatives €2.2 million and Commodities €0.2 million.

The remaining cash represents the balance of default funds and margin monies placed on deposit for the purpose of earning treasury income.

15. Trade and other payable		
	2017	2016
	€'m	€'m
Non-current		
Accruals	0.3	2.2
Other payables	3.3	9.5
	3.6	11.7
Current	6.3	F 4
Trade payables	6.3	5.4
Other taxation and social security	12.5	10.3
Accruals	33.2	48.2
Amount owed to parent companies	20.0	2.3
Amount owed to fellow subsidiary companies	36.3	19.1
Deferred income	2.0	3.5
Margin on reverse repurchase investments	-	56.3
Other payables	114.0	80.1
	224.3	225.2
Other payables include amounts accrued under the Company's revenue share agreements.		
16. Interest bearing loans and borrowings	8	
	2017	2016
	€'m	€′m
Current		
Loan from parent company	45.6	96.1

In November 2016, the Company signed a five year revolving credit facility with its parent company which is repayable with three month's notice. Interest is charged on the loan at market rates.

## 17. Default funds

The purpose of the default funds is to absorb any losses incurred by the Company in the event of clearing member default if margin collateral is insufficient to cover the management and close out of the positions of the defaulting clearing member. Default funds are segregated to cover the different business lines of the Company. The total default funds held by the Company at 31 December 2017 were €8,467.6 million (2016: €8,105.2 million).

#### 18. Employee benefits

## i) Staff costs

All employees and directors	2017	2016
	€'m	€'m
Salaries and other benefits	93.3	101.5
Social security costs	10.0	10.4
Share-based payment costs	2.9	5.2
Pension costs	6.2	7.5
Staff costs before non-underlying items	112.4	124.6
Staff costs included in non-underlying items (note 5)	3.6	3.6
Total staff costs	116.0	128.2
Average monthly number of staff employed	641	698

Staff costs and the average number of staff include the costs of contract staff who are not on the payroll, but fulfil a similar role to employees.

Key management personnel	2017 €′m	2016 €′m
Remuneration and other short-term benefits	4.9	5.5
Deferred bonus and other long-term benefits	0.8	0.9
Share-based payment costs	1.7	1.8
Pension contributions	0.2	0.3
Compensation for loss of office	1.2	0.3
Aggregate emoluments of key management personnel	8.8	8.8

The costs above include deferred bonuses, other long-term incentive plan (LTIP) awards and share-based payment costs on an accrued basis.

Key management personnel consists of the executive directors and certain senior staff who are regarded as running the business on a day to day basis.

Directors' remuneration	2017 €′m	2016 €′m
Total remuneration	2.5	2.5

<sup>\*</sup>The directors' remuneration for 2016 has been restated to exclude the share-based payments recognised in the year.

Remuneration of directors who are also directors of other LCH Group companies is charged by way of a management charge from LCH Group Holdings Limited and is included above.

The costs above include deferred bonuses, other LTIP awards and share-based payment costs when they vest or become payable.

# Financial statements for the year ended 31 December 2017 Notes to the financial statements (continued)

The highest paid director received total remuneration of €671,974 (2016: €782,666) in the year.

Three directors are a deferred member of the Company's defined benefit pension scheme. Contributions of €91,904 (2016: €112,016) have been made on behalf of four (2016: three) directors to a defined contribution scheme.

Four (2016: three) directors, including the highest paid director, participate in the share-based award schemes detailed below.

Independent non-executive directors received fees for their services. The Board determines fees that reflect the level of individual responsibilities, attendance of meetings and membership of Board committees. Non-executive directors representing shareholders did not receive fees.

#### ii) Share-based payments

Company employees were eligible to participate in one or more of the following London Stock Exchange Group (LSEG) share option based arrangements during the financial year:

- a. The LSEG Long Term Incentive Plan 2014 (LSEG LTIP)
- b. The LCH Group Long Term Incentive Plan (LCH LTIP)
- c. The LSEG SAYE Option Scheme and LSEG International Sharesave Plan (together SAYE plans)
- d. The LSEG Restricted Share Award Plan 2008 (Restricted Plans)

The **LSEG LTIP** has two elements, an award of Performance Shares and a conditional award of Matching Shares, which is linked to a co-investment being made by the executive. Awards are made in the form of nil-cost options. Under the Matching Shares arrangement, selected executives may invest up to the value of 50% of their net-of-tax base salary in LSEG shares (Invested Value). The Invested Value is then matched with a performance related Matching Share award, matched 2:1 on a pre-tax basis (up to a maximum Matching Share award of 100% of pre-tax base salary).

Vesting of the LSEG LTIP awards is dependent upon LSEG's absolute total shareholder return (TSR) performance and adjusted basic earnings per share growth (EPS) (50% on each) over a three year period. The following targets applied to options granted in 2017:

EPS element (50%): Average growth over 3 years	TSR element (50%): Absolute growth over 3 years	Proportion of element that vests
More than 12% p.a.	More than 14% p.a.	100%
6% p.a.	6% p.a.	25%*
Less than 6% p.a.	Less than 6% p.a.	0%

<sup>\*</sup> Straight line pro-rating applies between this trigger and 100% vesting.

The LCH LTIP also has two elements, an award of Performance Shares and a conditional award of Matching Shares, which is linked to a co-investment being made by the executive. The Matching Shares element only applies to selected senior management. The Performance Shares are available to a wider group of executives. Awards are made in the form of nil-cost options. Under the Matching Shares arrangement, selected executives may invest up to the value of 50% of their net-of-tax base salary in LSEG shares (Invested Value). The Invested Value is then matched with a performance related Matching Share award, matched 2:1 on a pre-tax basis (up to a maximum Matching Share award of 100% of pre-tax base salary).

Vesting of the LCH LTIP award is initially dependent upon the achievement of a risk management gateway. If this is achieved, the degree of vesting of the award is assessed against three conditions, measured independently over three years:

# Financial statements for the year ended 31 December 2017 Notes to the financial statements (continued)

#### Awards prior to 2017

- 1) Regulatory metric: a qualitative assessment of LCH Group performance on regulatory matters (comprising up to 34% of the award)
- 2) Cost metric: a quantitative assessment of qualifying cost savings during the performance period (comprising up to 33% of the award)
- 3) **EBIT metric:** a quantitative assessment of LCH Group earnings before interest and tax (EBIT) performance at the end of the performance period (comprising up to 33% of the award)

#### Awards for 2017 onwards

- 1) Resiliency metric: a qualitative assessment of performance on regulatory matters and enterprise risk incorporating operational risk (comprising up to 34% of the award)
- 2) Efficiency metric: a quantitative assessment of EBITDA margin performance period at the end of the performance period (comprising up to 33% of the award)
- 3) **Growth metric:** a quantitative assessment of earnings before interest and tax (EBIT) performance at the end of the performance period (comprising up to 33% of the award)

For Internal Audit, Risk and Compliance participants, the Cost/Efficiency and EBIT/Growth metrics do not apply. Assuming the risk management gateway is achieved, the vesting of the award is assessed against the Regulatory/Resiliency metric only.

The risk management gateway will be assessed by the LCH Group Remuneration Committee ('Committee') who will assess if the LCH Group has managed its risk effectively over the three year period. The award lapses in full if any of the LCH Group CCPs suffers an aggregate loss of more than €12 million (Higher Level Losses). Equally, if, during the performance period any of the LCH Group CCPs suffers losses below this level or circumstances arise in the reasonable opinion of the Committee that have or could have resulted in a significant adverse event which did or could have materially damaged future business operations, the Committee shall determine whether management could or should have taken action to prevent such circumstances and may lapse the award accordingly.

The Regulatory metric shall vest at 100% if it is determined that LCH Group management actions in relation to regulatory matters were wholly effective during the performance period. If it is determined that management actions in relation to regulatory matters were not wholly effective during the performance period, then the Remuneration Committee shall determine a lesser level of vesting as it deems appropriate.

In order for the portion of the Performance Share or Matching Share Award subject to the Cost metric to vest, the Committee must determine the amount of cumulative net consolidated cost savings of London Stock Exchange Group achieved over the performance period by reference to specified cost saving projections and adjustments set out in the rules of the Plan.

The Cost and EBIT metrics shall vest as follows:

Cost metric: amount of qualifying	Efficiency metric: EBITDA	EBIT/Growth metric: EBIT level	Percentage of shares that vest
cost savings determined to have	margin level		Shares that vest
been achieved			
2014 award:			
€100 million or more		€120 million or more	100%
€75 million		€106 million	62.5%
€50 million		€92 million	25%
Below €50 million		Below €92 million	0%
2015 award:			
€50 million or more		€152 million or more	100%
€40 million		€138 million	62.5%
€30 million		€124 million	25%
Below €30 million		Below €124 million	0%
2016 award:			
€60 million or more		€230 million or more	100%
€50 million		€200 million	62.5%
€40 million		€170 million	25%
Below €40 million		Below €170 million	0%
2017 award:	2017 award:		
N/A	53% or more	€337 million or more	100%
	48%	€306 million	62.5%
	41%	€275 million	25%
	Below 41%	Below €275 million	0%

Straight line vesting applies between the relevant percentages listed above in respect of the Cost and EBIT metrics.

At the end of the performance period, the Committee shall calculate LCH Group EBIT and EBITDA for the last financial year in the performance period, as approved by the LCH Group Limited Audit Committee. EBIT means earnings before interest, tax and non-underlying items, as reported in the consolidated accounts for LCH Group Limited, subject to such adjustments as the Remuneration Committee considers necessary to take account of matters that it considers to be appropriate. EBITDA margin means earnings before interest, tax, depreciation and amortisation.

If circumstances occur, which, in the reasonable opinion of the Committee, justify a reduction to awards granted the Committee may at its discretion reduce an award or not grant future awards. In the event that an award has already vested, the Committee may determine that a repayment is made. The circumstances and timeframe in which the Committee may consider it appropriate to exercise such discretions are covered in the Plan Rules.

The **SAYE** scheme provides for grants of options to employees who enter into a SAYE savings contract; options are granted at 20% below fair market value. The scheme is available to employees based in the UK and US (and approved by HMRC in the UK). The options vest in full after three years, providing the employee remains employed by the LCH Group or the wider LSEG group of companies.

The **Restricted Plan** allow for grants to be made in the form of conditional awards over ordinary shares of LSEG, in the form of nil-cost options to certain executives. The vesting of such awards granted to date under the plans are conditional upon tenure. No grants have been made under the Retention Plan in the year.

Movements in the number of share options and awards outstanding and their weighted average exercise price in GBP are as follows:

	LSEG LTIP	LCH LTIP		ed average ercise price	Restricted Plans
	Number	Number	Number	(£)	Number
1 January 2016	172,375	535,754	205,091	14.07	63,972
Granted in year	19,031	321,360	33,231	20.42	10,423
Exercised in year	<u>-</u>	-	(3,879)	14.20	(40,488)
Lapsed/forfeited in year	(1,392)	(122,468)	(51,867)	13.74	(15,398)
31 December 2016	190,014	734,646	182,576	15.60	18,509
Granted in year	16,996	220,253	73,212	31.11	8,720
Net transfers	3,706	(143,117)	(20,738)	19.00	(7,076)
Exercised in year	(130,727)	(120,138)	(110,239)	13.84	(2,683)
Lapsed/forfeited in year	(28,177)	(96,779)	(6,092)	19.52	
31 December 2017	51,812	594,865	118,719	27.37	17,470

1,131 of the options were exercisable as at 31 December 2017 (2016: 13,642). The weighted average exercise price is nil for all other schemes except the SAYE. The weighted average share price of LSEG plc shares during the year was £35.32 (2016: £26.96). Transfers in or out relate to staff who are either newly employed or no longer employed directly by the Group, but whose options have not been forfeited as they were or remain employees of other LSEG companies.

The range of exercise prices and weighted average remaining contractual life of awards and options outstanding are as follows:

As at 31 December 2017	Number outstanding	Weighted average remaining contractual life Years
LSEG LTIP - nil	51,812	0.6
LCH LTIP - nil	594,865	1.3
SAYE – between £10.01 and £20.00	635	
SAYE – between £20.01 and £30.00	44,872	0.4
SAYE - over £30.01	73,212	1.9
Restricted Plans - nil	17,470	1.1
Total	782,866	1.4

The fair value of share options granted during the year was determined using a stochastic valuation model. The key assumptions used in the valuation were as follows:

LSEG LTIP LCH LTIP

LCH Limited
Financial statements for the year ended 31 December 2017
Notes to the financial statements (continued)

Grant date	Matching shares 10/04/2017	Performance shares 03/04/2017	Matching shares 10/04/2017
Grant date share price (£)	32.27	31.91	32.27
Expected life (years)	3.0	3.0	3.0
Dividend yield	1.34%	1.35%	1.34%
Risk-free interest rate	0.16%	0.16%	0.16%
Volatility	25.5%	25.6%	25.5%
Fair value TSR (£)	12.29	22	-
Fair value EPS (£)	31.00	-	-
Fair value non-market conditions (£)	-	30.64	31.00

	SAYE	Restricted Plans
Grant date	03/10/2017	17/11/2017
	38.75	38.46
Grant date share price (£)	30.73	
Expected life (years)	3.33	0.9 - 2.8
Exercise price (£)	31.11	
Dividend yield	1.18%	1.19%
Risk-free interest rate	0.67%	0.4% - 0.56%
Volatility	25.5%	14.6% - 26.3%
Fair value non-market conditions (£)	10.21	37.19 – 38.06

The volatility is based on a statistical analysis of LSEG's weekly share price since its flotation in July 2001.

The fair value for LSEG LTIP performance and matching shares granted during the year is based on a total shareholder return (TSR) pricing model which takes into account the TSR vesting conditions. All other fair values of options granted are based on a Black-Scholes model. Holders of share awards and share options are not entitled to receive dividends declared during the vesting period.

#### iii) Pension commitments

#### **Defined contribution scheme**

The Company pays fixed contributions to the defined contribution scheme and there is no legal or constructive obligation to pay further contributions. The assets of the plan are held separately from those of the Company in a fund under the control of the trustees. The total expense charged to the income statement of €5.4 million (2016: €6.9 million) represents contributions payable to the plan by the Company at rates specified in the rules of the plan.

#### **Defined benefit scheme**

The Company operated a defined benefit pension scheme for its employees in the UK (now the LCH defined benefit section of the LSEG Pension Scheme), which required contributions to be made to a separate trustee administered fund. This was closed to new members from 30 September 2009 and closed to further employee contributions on 31 March 2013. The LCH Pension Scheme was merged into the new London Stock Exchange Group Pension Scheme on 5 September 2016. The scheme maintains separate LCH and LSEG sections with the Company sponsoring only the LCH section. The last actuarial valuation of the LCH UK defined benefit scheme was carried out as at 30 June 2013 by an independent qualified actuary. LCH section is currently in discussion on the results of the valuation as at 31 December 2016, which is being finalised and which may result in an adjustment to future contributions to the plan following completion during 2018.

The valuations of the UK scheme conducted for financial reporting purposes are based on the triennial actuarial valuation as at 30 June 2013. The other schemes were subject to a full valuation at 31 December 2016. A summary of the principal

assumptions used is detailed below. The Company is not aware of any events subsequent to 31 December 2016, which would have a material impact on the results of the valuation. There was no impact of the asset ceiling test.

Weighted average assumptions to determine benefit obligations

2017	2016
2.00/	2.70/
	2.7%
n/a	n/a
3.2%	3.3%
2.2%	2.3%
2017	2016
27.6	28.1
28.2	29.7
29.3	30.4
30.5	32.2
	2.8% n/a 3.2% 2.2% 2017 27.6 28.2 29.3

The discount rate for the scheme has been determined from a curve of AA corporate bond rates by duration which is consistent with the estimated weighted average duration of the scheme's liabilities at around 22.5 years. Scheme assets are stated at their market value at the respective statement of financial position dates.

# Changes in benefit obligation

2017	2016
€′m	€′m
296.8	236.0
	-
The second of the second	
7.6	8.1
(12.3)	(3.3)
(12.3)	94.3
(25.6)	-
(8.3)	(5.7)
(12.2)	(32.6)
233.7	296.8
	€'m 296.8  - 7.6  (12.3) (12.3) (25.6) (8.3) (12.2)

	€′m	€'m
E. L. Calabara and Insuran	298.9	270.2
Fair value of scheme assets as at 1 January	250.5	270.2
Pension income:	7.7	9.3
Net interest	7.7	5.5
Re-measurement gains:	10.3	60.0
Return on plan assets (excluding interest income)	10.3	
Employer contributions		3.0
Benefits paid	(8.3)	(5.7)
Foreign exchange	(12.4)	(37.9)
Fair value of scheme assets as at 31 December	296.2	298.9
air value of scheme assets with a quoted market price	2017	2016
	2017 €′m	2010 €′m
	2.0	2.7
Cash and cash equivalents	127.7	122.3
Equity instruments	166.5	173.9
Debt / LDI instruments		
Total fair value of assets	296.2	298.9
Present value of funded obligations	(233.7)	(296.8)
Surplus	62.5	2.1
Sensitivity analysis		
The sensitivity of the value of the benefit obligation to the discount rate is shown below:		
	2017	2016
	€'m_	€'m
Discount rate - increase by 0.5%	(24.9)	(38.6)
Revaluation in deferment (CPI) and salary increases - increase by 0.5%	6.9	12.1
Pension increases in payment - increase by 0.5%	15.4	19.6
Life expectancy - increase by 1 year	7.0	8.1

The sensitivity analysis above has been determined based on a method that extrapolates the impact on net defined benefit obligation as a result of reasonable changes in key assumptions occurring at the end of the reporting period.

## Payment from the defined benefit obligation

The following payments are expected to be made in future years out of the defined benefit plan obligation:

	2017
	€'m
Within the next 12 months	2.9
Between 2 and 5 years	12.6
Following 5 years	23.4
Total	38.9
The state of the s	

#### **Contributions**

During 2017 no contributions were made to the defined benefit pension plan in the UK. Further contributions are dependent on the triennial valuation.

# 19. Financial instruments

LCH Limited
Financial statements for the year ended 31 December 2017
Notes to the financial statements (continued)

	Note	2017 €'m	2016 €'m
Financial assets at fair value through profit or loss			
Fair value of transactions with clearing members	12	346,551.1	117,566.1
Treasury bills		4,122.0	10,139.2
Available for sale assets			
Government issued bonds		15,147.6	10,577.6
Other financial assets in the statement of financial position		19,269.6	20,716.8
Loans and receivables			
Trade and other receivables	13	159.6	189.5
Other clearing member balances	12	36.6	479.2
Cash and short-term deposits	14	706.1	669.9
Clearing business cash and cash equivalents including short-term deposits	14	43,668.3	45,171.5
Financial liabilities at fair value through profit or loss			
Fair value of transactions with clearing members	12	(346,551.1)	(117,566.1)
Financial liabilities at amortised cost			
Trade and other payables	15	(204.0)	(204.3)
nitial margin and other clearing member balances	12	(54,647.1)	(58,341.8)
Default funds	17	(8,467.6)	(8,105.2)
nterest bearing loans and borrowings	16	(45.6)	(96.1)

Prepayments and other taxes within trade and other receivables are not classified as financial assets. Other taxes and the liability in respect of the renegotiated operating agreements within trade and other payables are not classified as financial liabilities.

For assets not marked to market there is no material difference between the carrying value and fair value.

All financial assets held at fair value are designated as such on initial recognition by the Company.

#### Fair value hierarchy

The Company 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
- Level 3: techniques which use inputs which have a significant effect on the recorded fair value that are not based on observable market data. The Company has no financial instruments in this category

The Company held the following significant financial instruments measured at fair value:

LCH Limited
Financial statements for the year ended 31 December 2017
Notes to the financial statements (continued)

		2017			2016	
	Level 1 €'m	Level 2 €'m	Total €'m	Level 1 €'m	Level 2 €′m	Total €'m
Assets measured at fair value						
Fair value of transactions with clearing members	1.0	346,550.1	346,551.1	12.1	117,554.0	117,566.1
Government issued bonds at fair value through the profit or loss	4,122.0	-	4,122.0	10,139.2	-	10,139.2
Government issued bonds available for sale	15,147.6		15,147.6	10,577.6	mkn r-	10,577.6
Liabilities measured at fair value						
Fair value of transactions with clearing members	(1.0)	(346,550.1)	(346,551.1)	(12.1)	(117,554.0)	(117,566.1)

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 valuation techniques with market observable inputs. Frequently applied techniques include forward pricing and swap models using present value calculations. The models incorporate various inputs including foreign exchange spot and forward rates, interest rate curves and forward rate curves.

#### Income statement

Amounts included in the income statement in relation to financial instruments are as follows:

ATTERNATION STATEMENT	2017 €′m	2016 €′m
Treasury income on assets held at fair value through the income statement	149.2	31.1
Treasury income on other financial assets	207.1	107.5
Treasury income on liabilities held at amortised cost	153.5	112.7
Net fair value loss on revaluation of other financial assets held at fair value included in net interest income	(1.5)	(1.0)
Treasury income	508.3	250.3
Treasury expense on assets held at fair value through the income statement	(34.7)	(34.7)
Treasury expense on other financial assets	(72.9)	(49.8)
Treasury expense on liabilities held at amortised cost	(306.0)	(93.9)
Treasury expense	(413.6)	(178.4)
Net treasury income	94.7	71.9
Net finance income on pension fund assets	0.1	1.2
Finance income on assets held at amortised cost		0.1
Finance income on liabilities held at amortised cost	0.2	0.3
Finance expense on assets held at amortised cost	(3.3)	(3.1)
Net finance expense from financial instruments	(3.0)	(1.5)

Treasury income on liabilities held at amortised cost represents amounts earned from clearing members' cash collateral deposits which attract negative interest rates. Treasury expense on assets held at amortised cost represents amounts where the Company incurs negative interest on its cash deposits.

## Offsetting financial assets and financial liabilities

The Company 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 liability 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 2017	Gross amounts €m	Amount offset €m	Net amount as reported €m
Derivative financial assets	1,050,965	(1,049,223)	1,742
Repurchase agreements	373,247	(28,437)	344,810
Total assets	1,424,212	(1,077,660)	346,552
Derivative financial liabilities	(1,073,052)	1,071,310	(1,742)
Reverse repurchase agreements	(373,247)	28,437	(344,810)
Total liabilities	(1,446,299)	1,099,747	(346,552)

LCH Limited
Financial statements for the year ended 31 December 2017
Notes to the financial statements (continued)

As at 31 December 2016	Gross amounts €m	Amount offset €m	Net amount as reported €m
Derivative financial assets	2,133,417	(2,130,642)	2,775
Repurchase agreements	305,918	(191,127)	114,791
Total assets	2,439,335	(2,321,769)	117,566
Derivative financial liabilities	(2,134,596)	2,131,821	(2,775)
Reverse repurchase agreements	(305,918)	191,127	(114,791)
Total liabilities	(2,440,514)	2,322,948	(117,566)

Gross amounts and amounts offset in relation to derivative financial assets and liabilities in the comparative period have been amended from those previously reported at 31 December 2016. The gross and offset amounts have both been reduced by €357,932 million. Gross asset amount and amount offset were previously reported as €2,491,349 million and (€2,488,574 million) respectively. Gross liability amount and offset were previously reported as (€2,492,528 million) and €2,489,753 million respectively. There is no impact to the net amount reported in the balance sheet, amounts reported in the income statement, cash flow statement or any other disclosures in the financial statements.

The Company has changed the level of offsetting for its clearing member assets and liabilities in 2017. The offsetting will now be at an ISIN level instead of Depository and so there is less offsetting than previously recognised. No adjustment has been made to the comparative period in respect of this change.

The imbalance between asset and liability for gross and offset amounts is caused by the exclusion of settled to market (STM) amounts from the gross balance on the grounds that these trades are settled. Introduced in December 2015, the take up of STM elections has significantly increased in 2017 and this is reflected in both the reduction in gross amount and the quantum of imbalance between asset and liability.

As a CCP, the Company operates companies act as principal and sit in the middle of clearing members' transactions and hold default funds and margin amounts as a contingency against the default of a member and so further amounts are available to offset in the event of a default reducing the asset and liability of €346,552 million (2016: €117,566 million) to nil.

#### 20. Commitments and contingencies

#### **Operating leases**

At 31 December 2017 the Company had annual commitments under non-cancellable operating leases. The total future minimum lease payments due are as follows:

Property	2017 €′m	2016 €′m
Within one year	3.7	3.6
More than one year, but less than five	13.6	13.4
More than five years	9.4	11.7
	26.7	28.7

The main London office lease expires in 2026. The main New York office lease expires in 2023. Other leases are on rolling 12 month contracts.

# Financial statements for the year ended 31 December 2017 Notes to the financial statements (continued)

#### Finance leases

The Company no longer has any finance leases.

#### Treasury assets supporting operational facilities

At 31 December 2017, the Company had assets and collateral in support of the following operational facilities:

	2017	2016
	€′m	€′m
Central bank activity	16,711.6	9,779.3
Concentration bank services	231.1	191.5
Fixed Income settlement*	16,260.1	21,647.3
The second secon	33,202.8	31,618.1

<sup>\*</sup> The Company holds collateral as security against tri-party cash loans as well as government debt and government backed bank issued debt, which is used to support RepoClear settlement activity.

#### 21. Issued capital and reserves

#### Share capital

#### Ordinary shares

The Company has 313,036,873 fully paid-up ordinary shares of €1.00 each in issue as at 31 December 2017 (2016: 313,036,873).

No shares were issued in the year. All the Company's shares are owned by LCH Group Holdings Limited.

## Other reserves

#### Share premium

No additional share premium has been recognised and the balance of €41.2 million is unchanged in the year.

### Capital redemption reserve

The balance of €5.1 million is unchanged during the year and represents the nominal value of ordinary shares that have been repurchased and cancelled.

#### Distributable reserves

Retained earnings of €313.2 million (2016: €264.9 million) are regarded as distributable under the Companies Act 2006, but may be subject to additional regulatory restrictions (see note 23). Included within retained earnings is a revaluation reserve of €9.6 million (2016: €4.6 million) in relation to the Company's available for sale assets.

22. Dividends		
	2017 €'m	2016 €'m
Final dividend paid of €0.2268 (2016: €0.1884) per ordinary share	71.0	59.0
Interim dividend paid of €0.1278 (2016: €0.0958) per ordinary share	40.0	30.0
Total dividends paid	111.0	89.0

On 20 February 2018, the Board of Directors proposed a dividend of €0.3610 per share (€113.0 million), which is scheduled for shareholder approval and payment in March 2018.

#### 23. Capital management

The Company's approach to capital management is to maintain a strong capital base that will support the development of the business and meet regulatory capital requirements at all times. This is managed with reference to external capital requirements, including a consideration of future impacts to the Company. Capital plans are included within the Company's medium-term financial plan which is presented to the Board annually. The capital plans take into account current and future regulatory requirements and the development of the Company's business.

The Company is considered as a Qualifying Central Counterparty (QCCP) under the European Capital Requirements Regulations (CRR) as it has received authorisation under European Markets Infrastructure Regulations (EMIR). It is also registered as a Derivatives Clearing Organization (DCO) in the USA affording it QCCP status for USA members.

The Company is regulated by the Bank of England as a Recognised Clearing House under the Financial Services and Markets Act 2000 and is subject to capital adequacy rules under the EMIR. It is also regulated by the CFTC as a DCO in the USA, and is licensed by the Swiss Financial Markets Supervisory Authority (FINMA) as a CCP to SIX Swiss Exchange in Switzerland. In Canada it is recognised as a Clearing Agent by the Ontario Securities Commission (OSC) in Ontario, and the AMF in Québec, and in Australia it is recognised as a CCP by the Australian Securities & Investments Commission (ASIC). The Company is also subject to oversight by other market regulators and central banks in jurisdictions in which business is carried out.

The Company has fully complied with its externally imposed capital requirements in the year.

In particular the Company is required to ensure that its EMIR Capital Requirement (required by the Bank of England) is met by both its capital and audited reserves and adjusted liquid financial resources.

The Capital Requirement at the end of 2017 was €321.0 million (2016: €309.7 million) and as at the 31 December 2017 the Company's adjusted liquid financial assets were measured as €632.1 million (2016: €593.9 million) after deduction of the contribution to a clearing member default of €74.0 million (2016: €76.0 million). The Company's adjusted net capital as at 31 December 2017 was €439.2 million (2016: €477.8 million) after deduction of the contribution to a clearing member default. The audited retained earnings for the year of €159.3 million (2016: €70.4 million) will be included in the adjusted net capital of the Company when the financial statements have been approved for publication.

#### 24. Government grants

The Company qualifies for government assistance in the form of research and development tax credits. The grant is received as a reduction of the tax payable. In 2017, €0.2 million (2016: (€0.5 million) has been recognised in the income statement as a reduction of expenses, and the amount of tax payable has been reduced by the same amount.

The grant is subject to potential tax audit to ensure the eligibility of the expenses claimed. No provision has been made for any repayment of the amounts receivable as this is deemed highly unlikely to occur.

Financial statements for the year ended 31 December 2017 Notes to the financial statements (continued)

# 25. Related party transactions

## Key management personnel

Details of key management personnel and their total remuneration are disclosed in note 18.

#### Ultimate parent company and group companies

London Stock Exchange Group plc (LSEG) is the ultimate parent company of the Company and the largest group that prepares consolidated accounts. LCH Group Holdings Limited is the immediate parent company and the smallest group that prepares consolidated accounts.

Copies of the consolidated financial statements for LCH Group Holdings Limited for the year ended 31 December 2017 are available from the Company Secretary at the registered office. Copies of the consolidated financial statements for London Stock Exchange Group plc for the year ended 31 December 2017 are available from the Company Secretary, London Stock Exchange Group plc, 10 Paternoster Square, London, EC4M 7LS.

#### Other group companies

Sales to and purchases from other group companies are at arm's length and at normal market rates. Outstanding balances at the year end are unsecured and are settled in cash. For the year ended 31 December 2017, the Company has not raised any provision for doubtful debts relating to amounts owed by other group companies.

Details of transactions with the Company's parent, subsidiary and fellow subsidiary companies which have passed through the income statement during the year, together with details of outstanding balances, are set out below.

	2017	2016
	€m	€m
Transactions with parent companies		
Income statement		
Services recharged to parent companies	13.0	12.9
Services recharged from parent companies	(15.4)	(13.8)
	(2.4)	(0.9)
Statement of financial position		
Intercompany loan from parent company (note 16)	(45.6)	(96.1)
Amount due from parent companies at 31 December	(11.1)	7.5

	2017	2016 €m
	€m	
Transactions with fellow subsidiaries		
Income statement		
Services recharged to fellow subsidiaries	32.8	20.1
Services recharged from fellow subsidiaries	(83.9)	(51.6)
	(51.1)	(31.5)
Statement of financial position		
Amount due to fellow subsidiaries at 31 December	(15.3)	(9.8)
Transactions with subsidiary company		
Income statement		
Royalties and maintenance recharged from subsidiary	-	(8.4)
Statement of financial position		
Intangible assets acquired from subsidiary company		22.3