Company number: 4743602

LCH GROUP HOLDINGS LIMITED

(formerly LCH.Clearnet Group Limited)

CONSOLIDATED FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 DECEMBER 2017

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LCH Group Holdings Limited Consolidated financial statements for the year ended 31 December 2017 Company information

Board of Directors		
Type of director	<u>Name</u>	<u>Note</u>
Executive	Daniel Maguire (CEO)	Appointed 18 October 2017
Executive	Suneel Bakhshi (former CEO)	Resigned 18 October 2017
Independent	Leonard (Lex) Hoogduin (Chairman)	
Independent	Jill Considine	
Independent	Shona Milne	
Independent	James Andrew Hudis	Appointed 6 November 2017
Independent	Ronaldus (Ron) Berndsen	Appointed 1 January 2018
Independent	Jonathan Eliot	Resigned 8 January 2018
Independent	lan Abrams	Resigned 1 September 2017
Independent	Neil Walker	Resigned 28 February 2017
Shareholder representative	John Shay	Appointed 10 May 2017
Shareholder representative	Catherine Thomas (LSEG)	Appointed 1 January 2018
Shareholder representative	Mike Bagguley	
Shareholder representative	Chris Corrado (LSEG)	
Shareholder representative	Jacques D'Estais	
Shareholder representative	Ashok Krishnan	
Shareholder representative	David Warren (LSEG)	
Shareholder representative	Jason Sippel	
Shareholder representative	Puneet Malhi	
Shareholder representative	Stéphane Boujnah	Resigned 31 October 2017
Shareholder representative	Xavier Rolet (LSEG)	Resigned 28 November 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: 4743602

LCH Group Holdings Limited is a majority owned subsidiary of London Stock Exchange Group plc (LSEG) and is the parent of the LCH group of companies.

LCH Group Holdings Limited Consolidated financial statements for the year ended 31 December 2017 Strategic report

Business model

The LCH group (the "Group" or "LCH") is a leading multinational clearing house, with clearing operations in the UK, Eurozone, US and an expanding presence in the Asia-Pacific region. The Group 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 Central Counterparties (CCPs), the Group's operating companies act as principal and sit 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 relevant CCP owns the defaulter's risk and becomes accountable for its liabilities. Fundamental to the Group's operating companies' 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 Group's operating companies process all cash flows and mark the trade or book to market, calling variation and initial margin in relation to the prevailing risk of the overall portfolio.

LCH earns its revenue in the OTC derivatives markets by charging members either an annual fee for all clearing or a lower annual fee with variable fees based on volume. Additional fees are levied for services such as compression. Clients pay a fee based on OTC 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.

SwapAgent is a new service benefiting from LCH's expertise in serving and managing risk that extends the clearing infrastructure to the OTC bilateral market without requiring novation to a central counterparty.

Operating subsidiaries

LCH Limited 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 24). 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.

LCH SA (company name Banque Centrale de Compensation SA), regulated by L'Autorité de Contrôle Prudentiel et de Résolution (ACPR), acts as the clearing house for regulated markets in France, the Netherlands, Belgium and Portugal and for fixed income products and credit default swaps (CDS) traded either on regulated markets or trading platforms located in France, the UK and Italy. Its principal business is the provision of CCP clearing services in respect of equities and bonds, interest rate and commodity futures and options, equity and index futures and options, OTC bonds and repurchase agreements and CDS.

LCH's SwapAgent service launched in May 2017, and provides processing, margining and settlement of bilateral, non-cleared derivatives as an agent. The company is not regulated.

Strategic objectives

The Group'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

Non-financial key performance indicators utilised by the directors to measure LCH Group's progress are as follows:

	2017	2016	Variance
SwapClear			
Notional cleared (\$ trillion)	874	666	31%
Client trades ('000)	1,227	952	29%
CDSClear: notional cleared (€ billion)	549	449	22%
ForexClear: notional cleared (\$ billion)	11,226	3,191	252%
Fixed Income: notional cleared (€ trillion)	87	71	24%
Listed Derivatives: contracts cleared (million)	147	132	11%
Cash Equities: trades cleared (million)	805	697	15%
Average cash collateral (€ billion)	85	67	26%

Discussion of the key performance indicators is included in the 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. Examples of these include the introduction of clearing for five G10 currency pairs at ForexClear, LCH's foreign exchange clearing service, and the launch of SwapAgent, a new service to simplify the processing, margining and settlement of non-cleared derivatives.

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 21% as a result of increased net treasury income, volumes in OTC client clearing and strong growth in RepoClear.

OTC derivatives clearing revenue was €263.6 million, an increase of 17% on a constant currency basis (2016: €233.5 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 were initially set at €3 trillion / \$3 trillion, and are expected to reduce each year; by September 2020 almost all the market will be covered with thresholds set at €8 billion / \$8billion.

Non-OTC clearing revenue was €151.9 million, up 7% 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 38% to €76.5 million (2016: €59.8 million).

The Group has decided to include an earnings before interest, tax, depreciation and amortisation (EBITDA) measure in its income statement for the first time. The Group believes that EBITDA more closely reflects the actual cash earnings of the Group during the year and is a useful measure for management. For 2017, EBITDA was €279.6 million (€275.1 million after non-underlying items) up 44% on 2016. Profit before tax and non-underlying items of €209.8 million for the year is up 58% on 2016 (2016: €132.6 million). Profit before tax of €205.3 million is up 70% on 2016 (€120.9 million).

LCH Group Holdings Limited Consolidated financial statements for the year ended 31 December 2017 Strategic report (continued)

Cost of sales for 2017 has increased to €100.3 million (2016: €68.3 million) reflecting the growth in SwapClear and other businesses.

Operating expenses before non-underlying items decreased by 8% to €260.4 million (2016: €284.3 million). Operating expenses including non-underlying items decreased by 12% to €264.9 million (2016: €296.0 million).

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 increasing 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 1,227,000 (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 almost 200% with a total of US\$3.2 trillion in notional cleared in 2017 (2016: US\$1.1 trillion).

SwapAgent is a new service to simplify the processing, margining and settlement of non-cleared derivatives. It executed its first trades in 2017, a Swiss franc denominated interest rate swap and euro denominated inflation swap and has now extended its service to cross-currency basis swaps. In 2018, its service will extend further to include swaptions.

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 will 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.

CDSClear

CDSClear clears the broadest range of European and US credit default swaps (CDS) products allowing greater opportunities for capital efficiency through margin offsets. 108 index series and close to 500 single name CDS contracts are eligible for clearing. CDSClear is registered as a Central Counter Party (CCP) in Europe under EMIR, and in the US as a Derivative Clearing Organization (DCO) with the CFTC and a Clearing Agency with the SEC.

Membership has increased in 2017, following the introduction of the new Select Membership tier, bringing the total number of members to 13 (2016: 12). In March 2017, CDSClear onboarded its first buyside client. CDSClear also extended its platform

LCH Group Holdings Limited Consolidated financial statements for the year ended 31 December 2017 Strategic report (continued)

to include the clearing of credit index options, an industry first. In 2018, additional members are expected to join the service adding liquidity to build for the options clearing service.

Index and single name notional cleared reached new records in 2017 of €1 trillion (2016: €781 billion) and €157 billion (2016: €117 billion) respectively, supported by new rounds of the UMR and introduction of the European clearing mandate for index CDS. Total notional cleared increased to €549 billion (2016: €449 billion). Clearing volumes have increased by 22% to €72 billion (2016: €58 billion).

Non-OTC Clearing

RepoClear

Clearing in repo and cash bond markets increased to €87 trillion in 2017 (2016: €71 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) and Euronext Derivatives Markets. Contracts cleared in 2017 increased by 11% to 147 million (2016: 132 million). In 2017, LCH SA signed a 10-year long-term agreement with Euronext N.V. for the continuing provision of clearing services for listed financial and commodity derivatives.

In Equities, LCH, one of Europe's largest equities CCPs 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 15% to 805 million (2016: 697 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 that 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 26% to €85 billion (2016: €67 billion). Total net treasury income for LCH for 2017 increased by 39% to €137.4 million (2016: €98.6 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 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

LCH Group Holdings Limited Consolidated financial statements for the year ended 31 December 2017 Strategic report (continued)

- SwapAgent will launch swaptions, with further focus on compression and multilateral netting whilst continuing member onboarding
- CDSClear growth will come from client and dealer increased use of recently launched credit index options, and to expand the client clearing business
- RepoClear will continue to increase Sponsored Membership in LCH Ltd, and continue the build out of Eurozone debt capability in LCH SA
- Equities and Listed Derivatives to deliver term CFDs in LCH Ltd, and provide continued support for Euronext product development in LCH SA

Principal risks and uncertainties

The Group'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 Group 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 Group mitigates them.

Details of the Group's capital management processes are provided in note 24.

By order of the Board

Lex Hoogduin Chairman 28 February 2018

LCH Group Holdings Limited Consolidated financial statements for the year ended 31 December 2017 Directors' report

The directors of LCH Group Holdings Limited (formerly LCH.Clearnet Group Limited) (the Company), registered in England and Wales with company number 4743602, present their report to the shareholders, together with the audited consolidated financial statements for the year ended 31 December 2017. The principal activity of the Company is the holding of investments in operating subsidiaries. The Company changed its name to LCH Group Holdings Limited on 11 April 2017.

Directors

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

Indemnity of directors

Directors are entitled to be indemnified by the Group 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 26 to the consolidated financial statements. There were no transactions, other than those disclosed in note 18, with directors during the year.

Staff

It is the policy of the Group 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 Group every effort will be made to ensure continued employment. Staff involvement is encouraged through regular meetings and information is shared with staff through web based communication. The Group 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.

Disposal of non-controlling interest in LCH SA and share buyback in LCH Group Holdings Limited

On 29 December 2017, the Company exchanged 11.1% of its shareholding in LCH SA in return for 2.3% of its own shares held by Euronext Paris SA (Euronext). The Company's shares were cancelled on repurchase. The fair value of the transactions was €57.6 million. See note 25 for further details.

Dividends

On 19 February 2018, the directors of the Company recommended a final dividend for the year ended 31 December 2017 of €1.60 per ordinary share, subject to appropriate regulatory agreement. The dividend will be approved at the AGM of the Company on 26 March 2018, and will be paid to shareholders soon after. The total cash value of the dividend will be €116 million.

The final dividend for 2016 of €29.7 million was paid on 18 April 2017. As at the balance sheet date, €1.2 million (2016: €2.4 million) of unpaid dividends remained outstanding.

Financial instruments

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

Future developments

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

LCH Group Holdings Limited Consolidated 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 Group'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 Group 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 Group's ability to continue as a going concern. Therefore the financial statements continue to be prepared on the going concern basis.

Overseas branches

The Group's CCP companies have a number of overseas branches which are detailed in full in note 29.

Government grants

The Group has applied for government grants in the form of tax credits in both the UK and France for research and development work carried out. The amounts have been recognised in the results of the Group when it is deemed likely that the credits will be received (note 27). The Group carries out research and development into software for future use.

Brexit

On 23 June 2016 the UK voted to exit the EU. The UK companies within the Group, as members of the EU or European Economic Area (EEA), rely on a number of rights that are available to them to conduct business with other EU or EEA members. This includes, without limitation, the right for UK CCPs to offer clearing services to EU regulated firms under EMIR, and the right for UK trading venues to offer services to members in the EU or EEA. The Group companies have analysed the potential impacts and considered contingency plans that they may choose to execute should these rights not be replaced by rights that persist outside EU membership.

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 Group'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 Group'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 Group Holdings Limited Consolidated 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.

Independent auditor's report to the members of LCH Group Holdings Limited for the year ended 31 December 2017

Opinion

We have audited the financial statements of LCH Group Holdings Limited ('the parent company') and its subsidiaries (the 'group') for the year ended 31 December 2017 which comprise the Consolidated income statement, the Consolidated statement of comprehensive income, the Consolidated statement of financial position, the Consolidated statement of cash flows, the Consolidated statement of changes in equity, the parent company Statement of financial position, the parent company Statement of cash flows, the parent company Statement of changes in equity and the related notes 1 to 35, 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 and, as regards the parent company financial statements, as applied in accordance with the provisions of the Companies Act 2006.

In our opinion:

- the financial statements give a true and fair view of the group's and of the parent company's affairs as at 31 December 2017 and of the group's profit for the year then ended;
- the group financial statements have been properly prepared in accordance with IFRSs as adopted by the European Union;
- the parent company financial statements have been properly prepared in accordance with IFRSs as adopted by the European Union in accordance with the provisions of the Companies Act 2006; and
- the financial statements have been prepared in accordance with the requirements of the Companies Act 2006.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the financial statements section of our report below. We are independent of the group and parent company in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the 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 parent 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 parent company and the parent 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 group's or the parent 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.

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

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.

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 group and the parent company and its environment obtained in the course of the audit, we have not identified material misstatements in the strategic report or directors' report.

We have nothing to report in respect of the following matters in relation to which the Companies Act 2006 requires us to report to you if, in our opinion:

- adequate accounting records have not been kept by the parent company, or returns adequate for our audit have not been received from branches not visited by us; or
- the parent company financial statements 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 9, the directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the directors determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the directors are responsible for assessing the group's and the parent company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the group or the parent company or to cease operations, or have no realistic alternative but to do so.

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

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.

Enst A Young LLP

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

Notes:

- 1. The maintenance and integrity of the LCH Group Holdings 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.

			2017			2016	
	Note	Underlying €'m	Non- underlying €'m	Total €'m	Underlying €'m	Non- underlying €'m	Total €′m
Clearing fees		415.5	-	415.5	376.2		376.2
Other fee income		101.2	-	101.2	90.1		90.1
Revenue sharing							
arrangements		(24.1)	-	(24.1)	(24.9)	<u>-</u>	(24.9)
Revenue		492.6	-	492.6	441.4	-	441.4
Treasury income	19	693.2	· -	693.2	380.5		380.5
Treasury expense	19	(555.8)	-	(555.8)	(281.9)		(281.9)
Net treasury income		137.4	-	137.4	98.6	-	98.6
Settlement and other income	ı	36.2	-	36.2	32.7	-	32.7
Settlement fees payable		(25.9)		(25.9)	(25.4)		(25.4)
Net settlement and other incor	ne	10.3	•	10.3	7.3	•	7.3
Total income		640.3	-	640.3	547.3	-	547.3
Cost of sales		(100.3)	-	(100.3)	(68.3)	-	(68.3)
Gross profit	•	540.0	-	540.0	479.0	-	479.0
Other operating expenses	5	(260.4)	(4.5)	(264.9)	(284.3)	(11.7)	(296.0)
Earnings before interest, tax and depreciation and					-		
amortisation		279.6	(4.5)	275.1	194.7	(11.7)	183.0
Depreciation and amortisation	5	(60.1)	-	(60.1)	(47.0)	•	(47.0)
Operating profit		219.5	(4.5)	215.0	147.7	(11.7)	136.0
Finance income	7	0.1	-	0.1	1.3	-	1.3
Finance expense	7	(9.8)	-	(9.8)	(16.4)	-	(16.4)
Profit before taxation		209.8	(4.5)	205.3	132.6	(11.7)	120.9
Taxation	8	(47.9)	1.0	(46.9)	(35.8)	(1.5)	(37.3)
Profit for the year		161.9	(3.5)	158.4	96.8	(13.2)	83.6
Profit attributable to:			<u> </u>		·	· <u>-</u>	
Equity holders		161.9	(3.5)	158.4	96.8	(13.2)	83.6
Non-controlling interests		-	-	-	-		-

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

The notes on pages 19 to 74 form an integral part of these consolidated 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.

LCH Group Holdings Limited Consolidated financial statements for the year ended 31 December 2017 Consolidated statement of comprehensive income

	Note	2017 €'m	2016 €′m
Profit for the year		158.4	83.6
Amounts that may subsequently be reclassified to profit or loss:			
Exchange differences on retranslation of foreign operations		(2.6)	0.3
Revaluation of available for sale assets		5.3	4.9
Amounts reclassified to the income statement in the year		(0.7)	1.5
Deferred tax relating to revaluation of available for sale assets	8	(0.8)	(0.9)
Amounts that will not subsequently be reclassified to profit or loss:			
Current tax relating to revaluation of available for sale assets	8	-	(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	8	(21.1)	11.5
Remeasurement gains /(losses)on overseas defined benefit plans	18	0.6	(0.6)
Deferred tax relating to the remeasurement of overseas defined benefit plans	8	(0.2)	0.2
Other comprehensive income for the year, net of tax		41.0	(14.3)
Total comprehensive income for the year	-	199.4	69.3
Total comprehensive income attributable to:			
Equity holders		199.4	69.3
Non-controlling interests		-	-
		199.4	69.3

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

The notes on pages 19 to 74 form an integral part of these consolidated financial statements.

LCH Group Holdings Limited Consolidated financial statements for the year ended 31 December 2017 Consolidated statement of financial position

		2017	2016	
	Note	€′m	€′m	
Non-current assets				
Intangible assets	9	337.1	298.7	
Property, plant and equipment	11	17.4	19.7	
Trade and other receivables	13	3.7	1.4	
Employment benefits	18	62.5	2.3	
Deferred tax asset	8	7.1	10.6	
Total non-current assets		427.8	332.5	
Current assets				
Balances with clearing members	12	616,318.7	376,298.0	
Trade and other receivables	13	182.8	210.2	
Income tax receivable		-	0.1	
Clearing business cash and cash equivalents	14	62,642.9	59,861.3	
Cash and cash equivalents	14	1,014.0	. 983.8	
Clearing business other financial assets	19	19,319.7	21,623.3	
Total current assets		699,478.1	458,976.7	
Total assets		699,905.9	459,309.2	
Current liabilities				
Balances with clearing members	12	(685,398.8)	(446,678.8)	
Trade and other payables	15	(266.4)	(278.5	
Income tax payable		(14.7)	(3.6)	
Interest bearing loans and borrowings	16	-	(179.8)	
Provision for liabilities	20	(0.2)		
Default funds	17	(13,023.6)	(11,183.2)	
Total current liabilities		(698,703.7)	(458,323.9)	
Non-current liabilities				
Interest bearing loans and borrowings	16	(40.0)		
Trade and other payables	15	(3.7)	(12.0)	
Deferred tax liability	8	(17.0)		
Employment benefits	18	(6.2)	(6.1)	
Total non-current liabilities		(66.9)	(18.1)	
Total liabilities		(698,770.6)	(458,342.0)	
Net assets		1,135.3	967.2	

LCH Group Holdings Limited Consolidated financial statements for the year ended 31 December 2017 Consolidated statement of financial position (continued)

		•	
		2017	2016
	Note	€′m	€′m
Capital and reserves			
Called up share capital	22	72.5	74.2
Share premium	22	316.1	316.1
Merger reserve		15.3	15.3
Capital redemption reserve		61.2	59.5
Translation reserve	•	4.1	6.7
Retained earnings		618.5	495.4
Total shareholders' funds		1,087.7	967.2
Non-controlling interests		47.6	_
Total equity		1,135.3	967.2

Lex Hoogduin Chairman **Daniel Maguire**Chief Executive Officer

The notes on pages 19 to 74 form an integral part of these consolidated financial statements.

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

LCH Group Holdings Limited Consolidated financial statements for the year ended 31 December 2017 Consolidated statement of cash flows

	2017	2016
		€′m
Cash flows arising from operating activities	· · · · · · · · · · · · · · · · · · ·	
Net cash (outflow)/inflow from operations 28	(1,954.1)	3,707.9
Tax paid	(33.7)	(36.0)
Net cash (outflow)/inflow from operating activities	(1,987.8)	3,671.9
Investing activities		
Investment in intangible assets	(92.3)	(74,8)
Purchase of property, plant and equipment	(4.2)	(9.6)
Redemption/(purchase) of clearing business other financial assets	2,303.7	(3,460.3)
Net cash inflow/(outflow) from investing activities	2,207.2	(3,544.7)
Financing activities		
Interest received	1.5	2.6
Interest paid	(18.6)	(17.2)
Preferred securities repaid (net)	(180.0)	
Loan received from parent company	100.0	-
Loan proceeds repaid to parent company	(60.0)	
Dividends paid	(30.8)	(27.3)
Share-based payments contribution	(5.3)	(7.5)
Finance lease principal payments	-	(0.4)
Net cash used in financing activities	(193.2)	(49.8)
Insurance in each and each activalents	26.2	77.4
Increase in cash and cash equivalents	-	
Cash and cash equivalents at 1 January	983.8	903.1
Effects of foreign exchange movements	4.0	3.3
Cash and cash equivalents at 31 December	1,014.0	983.8
Cash and cash equivalents at 31 December comprise:		
Investments in secured short-term deposits	336.0	477.5
Cash at bank and in hand	678.0	506.3
· · · · · · · · · · · · · · · · · · ·	1,014.0	983.8

The notes on pages 19 to 74 form an integral part of these consolidated financial statements.

LCH Group Holdings Limited Consolidated financial statements for the year ended 31 December 2017 Consolidated statement of changes in equity

	Called-up share capital €'m	Share premium €'m	Other reserves €'m	Translation reserve €'m	Retained earnings €'m	Non- controlling interests €'m	Total €'m
Shareholders' equity at 1 January 2016	74.2	316.1	74.8	6.4	455.0	-	926.5
Profit for the year ended 31 December 2016	-	-	-	-	83.6	-	83.6
Other comprehensive income	-	-	-	0.3	(14.6)	-	(14.3)
Total comprehensive income	-	-	-	0.3	69.0	-	69.3
Dividend approved during the year	-	-	-	-	(29.7)	-	(29.7)
Share-based payments contribution	-	_	-	-	7.5	-	7.5
Share-based payments expense net of tax	-	-	-	-	(6.4)	-	(6.4)
Shareholders' equity at 31 December 2016	74.2	316.1	74.8	6.7	495.4	-	967.2
Profit for the year ended 31 December 2017			-	-	158.4	<u> </u>	158.4
Other comprehensive expense	-	-	-	(2.6)	43.6	-	41.0
Total comprehensive income	-	-	-	(2.6)	202.0	•	199.4
Share buyback	(1.7)	-	1.7	-	-	-	-
Disposal of non-controlling interest	-	-	-	-	(47.6)	47.6	-
Transaction costs relating to disposal	-	-	-	-	(4.4)	-	(4.4)
Dividend approved during the year	-	-	-	-	(29.7)	-	(29.7)
Share-based payments contribution	-	-	-	-	6.4	-	6.4
Share-based payments expense net of tax	-	-	-	-	(3.6)	•	(3.6)
Shareholders' equity at 31 December 2017	72.5	316.1	76.5	4.1	618.5	47.6	1,135.3

Other reserves consist of the merger reserve of €15.3 million (2016: €15.3 million) and the capital redemption reserve of €61.2 million (2016: €59.5 million). The merger reserve represents the difference between the called-up share capital of the Company and the called-up share capital, share premium account and capital redemption reserve of LCH Limited at 19 December 2003, when the Group was formed, less the amount transferred to retained earnings in 2007 as part of a court approved capital restructuring. The capital redemption reserve represents the nominal value of the ordinary shares that were repurchased and cancelled in 2007, 2008, 2009 and 2017.

The translation reserve of €4.1 million (2016: €6.7 million) represents the movement when retranslating the net assets of the Group's non-euro denominated subsidiaries.

Retained earnings of €618.5 million (2016: €495.4 million) include €19.9 million of non-distributable reserves reflecting the nominal value of the redeemable convertible preference shares redeemed in 2007. €376.9 million (2016: €81.2 million) of the Company's reserves are regarded as distributable. Included within retained earnings is a revaluation reserve of €9.5 million (2016: €4.9 million) in relation to the Group's available for sale assets.

The notes on pages 19 to 74 form an integral part of these consolidated financial statements.

1. Summary of significant accounting policies and basis of preparation

Basis of preparation

These consolidated financial statements have been prepared in accordance with IFRSs and the 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 Group 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 includes non-recurring items which do not form part of the Group'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 Group 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 Group's cash related earnings. The 2016 results have been represented accordingly. There is no change to the profit for the year as a result of this change.

The Group has changed the level of offsetting for its clearing member assets and liabilities 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.

Consolidation

The consolidated financial statements comprise the financial statements of the Company and its subsidiaries with all intercompany balances and transactions eliminated. As permitted by Section 408 of the Companies Act 2006, the Company's income statement has not been included in these financial statements. The Company's result for the year is disclosed on page 75.

Basis of consolidation

Subsidiaries are consolidated from the date on which the Group obtains control and continue to be consolidated until the date that such control ceases. Control comprises the power to direct the activities of the subsidiary so as to obtain a variable return from its activities. This is achieved in general through direct ownership of voting rights.

The financial statements of the subsidiaries are prepared for the same reporting year as the Company using consistent accounting policies. Adjustments are made to bring into line any dissimilar accounting policies that may exist. All significant intra-group balances and transactions have been eliminated on consolidation.

The Group applies a policy of treating transactions with non-controlling interests through the economic entity model. Transactions with non-controlling interests are recognised in equity. Where the non-controlling interest has an option to dispose of their holding to the Group, then these costs are recognised at the fair value of the option at the balance sheet date.

Presentational currency

The Group's consolidated financial statements are presented in euros, which is also the functional currency of the Company. Items included in the financial statements of each of the Group's entities are measured using their functional currency.

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 Group 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 Group 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 Group 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 Group, should these estimates prove to be inaccurate.

Judgements

- The Group uses its judgement to carry out the offsetting within clearing member balances. The carrying values of the balances are offset at what the Group considers an appropriate level to arrive at the net balances reported in the statement of financial position. The Group 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 Group has recognised a pension asset on the LCH section of the UK LSEG pension fund. The Trust Deed provides the Group with an unconditional right to a refund of surplus plan assets on a winding up of the scheme and the Group 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

In its separate financial statements, 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 individual entities are translated into the functional currency of the entity 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.

On consolidation, the results of non-euro denominated businesses are translated into euros at the average exchange rates for the period. The assets and liabilities of these businesses are translated into euros at the exchange rate prevailing at the

reporting date; any exchange differences arising are recognised within other comprehensive income.

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

Goodwill

Goodwill arising on an acquisition is the fair value of consideration less the fair value of the net assets acquired. Goodwill is capitalised in the statement of financial position within intangible assets. Following initial recognition goodwill is measured at initial value less any accumulated impairment losses.

Intangible assets other than goodwill

Intangible assets other than goodwill 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 Group'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 on a straight line basis over periods between three and five years. Licenses for software acquired are amortised over seven 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 over three to five years

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 goodwill, intangible assets, and property, plant and equipment

Goodwill and 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 asset may not be fully recoverable.

For the purpose of impairment testing, goodwill and other assets are allocated to cash generating units monitored by management. The impairment review involves a comparison of the carrying amount of the goodwill or other 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

goodwill, 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.

The carrying amount of goodwill allocated to a cash generating unit is taken into account when determining the gain or loss on disposal of the unit.

Financial instruments

The Group 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, own cash, 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 instruments 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 instruments with fixed or determinable payments and fixed maturities which the Group 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 Group retains substantially all the risks and rewards of ownership. The corresponding cash received is recognised in the consolidated 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 Group. 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 Group. The difference between the purchase and resale 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 instruments 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 Group'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, including preferred securities, 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 Group 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 Group 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 Group.

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 derecognition 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.

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.

Preferred securities

Preferred securities are classified as liabilities where there is an obligation to transfer economic benefits to their holder and are recognised at amortised cost. Set up costs related to the instruments issued are initially capitalised and amortised over the expected life of the instrument. Finance costs are recognised as a finance expense in the period they become due. Preferred securities of the Group that have been re-acquired are recognised as a reduction of the liability.

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 Group'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 paid on clearing members' margin and other monies lodged with the Group. 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 Group 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.

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 these have been classified within cost of sales, as they arise, 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 Group operates defined benefit and defined contribution pension schemes for its employees.

The cost of providing benefits under the defined benefit plans is determined using the projected unit method. Under this method each participant's benefits under the schemes 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 contribution payable to a defined contribution plan is in proportion to the services rendered by the employees and is recorded as an expense in the income statement within employee benefits as incurred.

Share-based compensation

The Group 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 Group and recognised over the relevant vesting period.

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

Leases

The Group is a lessee. Leases of property, plant and equipment where substantially all the risks and rewards of ownership have passed to the Group are capitalised in the statement of financial position as property, plant and equipment. Finance leases are capitalised at the lower of the fair value of the leased property and the present value of the minimum lease payments. The capital element of future obligations under finance leases is included as a liability in the statement of financial position. The interest element of rental obligations is charged to the income statement over the period of the lease and represents a constant proportion of the balance of capital repayments outstanding. Property, plant and equipment acquired under finance leases are depreciated over the shorter of the useful economic life of the asset or the lease term.

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 consolidated 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 Group 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 in an orderly transaction between market participants in an 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 Group uses valuation techniques that are appropriate in the circumstances and for which sufficient data is 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 Group 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 Group 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 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 together with any impairment of purchased intangible assets helps give an indication of the sustainable performance of the Group.

Government grants

Grants or other similar assistance 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:

	beginning on or after
Amendments to IAS 12: Recognition of Deferred Tax Assets for Unrealised Losses	1 January 2017
Amendments to IAS 7: Disclosure Initiative	1 January 2017

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

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Notes to the consolidated financial statements (continued)

Amendments to IAS 40: Transfers of Investment Property* Amendments to IAS 28: Long-term Interests in Associates and Joint Ventures*	1 January 2018 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

^{*} 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 will be adopted for 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 Group's 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 Group's control; and (iii) how performance obligations are satisfied in contracts providing several services to customers.

The Group has assessed the expected impact during 2017, and 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 ended 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 ended 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 21.

2. Risk management

Introduction

The Group'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 Group is also exposed to other risks such as operational, legal, compliance and reputational risk. The Group 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 Group Board. Day to day responsibility is delegated to the Group Chief Risk Officer, who ensures effective delegation to the executives in the operating subsidiaries on the basis of risk policies which are calibrated to the Board's risk appetite and are discussed and agreed by the Group's risk committees and boards.

The application of these policies is undertaken by the business functions as the first line of defence and by the group risk management team forming the second line of independent assurance, who control and manage the exposures arising from the various clearing activities. Risk policies are harmonised across the Group. The continued appropriateness of risk policies and key risk data are regularly reviewed by the Group and CCP Boards and the board Risk sub-Committees, 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 Boards. The Framework describes the overall risk appetite of the Group and its CCPs, 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 CCP Chief Risk Officers.

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 Group operates can adversely affect its earnings and its ability to meet its business objectives. The Group CCPs run a balanced position in all cleared contracts and run no significant market risk unless a clearing member defaults. In such an event the Group 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 Group are reviewed and approved by its Risk Committees and Boards at least annually. A range 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 Group 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 Group'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.

The Group CCPs accept 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.

Total collateral held	2017 €′bn	2016 €'bn
Margin received in cash	71.2	72.1
Margin received in non-cash securities	86.6	79.0
Guarantees	1.9	1.1
Total margin liability	159.7	152.2

The maximum margin liability during the year was €176.8 billion (2016: €163.3 billion).

New applicants for clearing must meet strict credit, financial and operational criteria, which are regularly reviewed as part of the Group'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 operating subsidiaries also require 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 CCPs' own capital and further clearing member contributions to ensure the continuity of ongoing operations. The operating subsidiary 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 €13.0 billion (2016: €11.2 billion) (note 17). The maximum amount during the year was €14.6 billion (2016: €11.6 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, stress losses 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 Group'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, ensuring that the Group is able to measure, monitor and mitigate exposures to sovereign risk and respond quickly to actual or anticipated changes.

The Risk Committees and Boards continually monitor such risks and the sovereign risk framework continues to protect the Group against potentially severe market volatility in the sovereign debt markets.

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

	20	2016		
	Investment	Proportion	Investment	Proportion
	value	of portfolio	value	of portfolio
Sovereign (or equivalent)	€ billion	%	€ billion	%
France	23.4	42	18.3	40
USA	13.4	24	13.9	30
Netherlands	8.1	15	5.7	12
United Kingdom	7.2	13	4.4	10
European Union	0.8	2	1.0	2
Other	2.5	4	3.0	6
Total	55.4	100%	46.3	100%

The above total includes all other financial assets of €19,319.7 million (2016: €21,623.3 million) along with central bank cash deposits.

Credit risk

Risk description

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

Risk management approach

The Group'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 LCH Limited'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 applied in respect of losses that arise other than from a clearing member's default and which threaten the CCP's solvency. These rules were 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 €82.9 billion (2016: €82.5 billion), of which 100% (2016: 99.9%) was invested securely with an overall average maturity of 73 days (2016: 56 days). The maximum portfolio size during the year was €90.5 billion (2016: €83.1 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 CCP Boards 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 Group 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 Group 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.

As at 31 December 2017 the total interoperating margin placed with and received under reciprocal arrangements with other CCPs amounted to €2.7 billion and €2.9 billion (2016: €4.5 billion and €4.6 billion) respectively. 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 Group's clearing member balances and investment portfolio by reference to the credit rating of the counterparties. The treasury portfolio includes cash at bank and other financial assets.

	Note	2017 €′m	2016 €′m
Fair value of transactions with clearing members (ratings as	signed with reference to majo	r agencies)	
Clearing members rated AAA		50.1	17,467.9
AA		54,600.3	2,582.9
AA-		61,422.9	7,781.6
A+		128,182.1	55,214.3
A		170,380.8	114,735.4
A-		98,495.5	38,045.8
BBB+		74,799.3	101,462.7
ВВВ		9,736.3	7,604.0
Other, < BBB		9,025.1	16,360.0
Unrated		5,345.8	7,723.8
	12	612,038.2	368,978.4
Group investment portfolio (ratings assigned with reference	to major agencies)		
AAA/AA+/AA/AA- Government backed		55,295.8	46,375.4
AA/AA+/AAA Secured		888.4	3,502.0
AA/AA+/AAA Unsecured		-	-
A/A-/A+/A/A-/BBB+ Secured	•	26,469.1	32,463.3
A/A+/AA- Unsecured		293.6	127.7
· · · · · · · · · · · · · · · · · · ·		82,946.9	82,468.4

The total credit risk of the Group is represented by the total financial assets of the Group 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 Group CCPs' activities, and in order to avoid excessive concentrations of risk each 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 28.2% of the total investment portfolio to the French Government (2016: 22.2% to the French 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 group CCPs from a narrow risk management perspective as well as from a macro-economic and regulatory perspective.

Risk management approach

The LCH CCPs acknowledge that while some level of procyclicality may be unavoidable, as they must protect themselves 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 Group is exposed to interest rate risk arising from the cash and investment balances it maintains, and 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 Group's capital is managed within interest rate risk limits expressed as a percentage of each subsidiary's capital and calculated under stressed scenarios.

Interest rate sensitivity analysis

The Group aims to minimise its exposure to interest rate fluctuations. Any exposure is predominantly due to the mismatch between the Group'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 Group 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 the consolidated profit after tax and on retained earnings within shareholders' equity:

	2017			2016		
	+25bp €′m	+50bp €′m	+100bp €′m	+25bp €′m	+50bp . €′m	+100bp €′m
Net exposure of cash and member margin balances	(5.5)	(11.0)	(22.0)	(11.9)	(23.8)	(47.6)
Tax effect of above	1.1	2.2	4.4	2.5	5.0	9.9
Decrease in profit after tax	(4.4)	(8.8)	(17.6)	(9.4)	(18.8)	(37.7)
	-25bp €'m	-50bp €′m	-100bp €'m	-25bp €′m	-50bp €′m	-100bp €′m
Net exposure of cash and member margin balances	5.5	11.0	22.0	11.9	23.8	47.6
Tax effect of above	(1.1)	(2.2)	(4.4)	(2.5)	(5.0)	(9.9)
Increase in profit after tax	4.4	8.8	17.6	9.4	18.8	37.7

Liquidity risk

Risk description

Liquidity risk is the risk that the Group 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 Group 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 CCPs in the Group have sufficient cash to meet their payment obligations supported by facilities to meet short term imbalances between available cash and payment obligations. The CCPs maintain 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 CCPs can continue to meet their obligations to clearing members and other counterparties.

The Group'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 Committees and Boards. On a day to day basis CaLM is tasked with ensuring that each Group CCP can meet its financing

needs at 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, secured financing facilities and for LCH SA, which is a bank within the Eurozone, access to central bank liquidity. LCH 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 Group's financial liabilities into relevant maturity groupings based on the remaining period from the balance sheet date to the contractual maturity date. The amounts disclosed in the table are the contractual undiscounted cash flows.

As at 31 December 2017	Less than three months €'m	Three months to one year €'m	One to five years €'m	Total €'m
Transactions with clearing members	(593,114.9)	(18,923.3)	-	(612,038.2)
Initial margin and other clearing member balances	(73,360.6)	-	-	(73,360.6)
Default funds		(13,023.6)		(13,023.6)
Trade and other payables	(147.4)	(92.5)	(3.4)	(243.3)
Preferred securities (net)	-	-	-	-
Interest bearing loans and borrowings	<u>.</u>	<u>-</u>	(40.0)	(40.0)
As at 31 December 2016	Less than three months €'m	Three months to one year €'m	One to five years €'m	Total €′m
Transactions with clearing members	(367,324.1)	(1,652.4)	(1.9)	(368,978.4)
Initial margin and other clearing member balances	(77,700.4)	-	-	(77,700.4)
Default funds		(11,183.2)		(11,183.2)
Trade and other payables	(115.0)	(134.2)	(2.3)	(251.5)
Preferred securities (net)	-	(191.8)	-	(191.8)
Interest bearing loans and borrowings		<u> </u>	<u>-</u>	

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 73 days (2016: 56 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.

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Notes to the consolidated financial statements (continued)

Foreign exchange risk

Risk description

Foreign exchange risk arises because Group companies generally incur expenses in their respective local currencies while earning revenues and treasury income in several major currencies. Group companies translate net assets and liabilities arising in other currencies (principally UK sterling and US dollars within LCH Limited) to their functional currencies.

Risk management approach

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

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

Foreign exchange sensitivity

The Group reviews sensitivities to movements in exchange rates which are appropriate to market conditions. As at 31 December 2017, the Group has considered movements in LCH Limited 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 Group. 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 LCH Limited's 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.

In addition, the net assets of the Group are exposed to foreign exchange exposure on the retranslation of a foreign subsidiary's net assets at the balance sheet date in US dollars. This retranslation does not affect the net profit of the Group, but passes through other comprehensive income and affects equity.

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 profit €'m	Equity €'m	Post-tax profit €'m	Equity €'m
UK sterling – euro strengthen	(6.4)	(0.2)	1.8	0.6
UK sterling – euro weaken	6.4	4.5	(2.2)	(0.7)
US dollar – euro strengthen	(3.0)	(0.3)	(0.8)	(1.9)
US dollar – euro weaken	3.0	0.6	1.0	2.4

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 Group'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 Group makes a payment or delivery without simultaneously receiving the delivery or payment from the counterparty.

Risk management approach

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

Settlement bank risk

Risk description

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

Risk management approach

The Group 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 Group, the clearing members remain liable for the fulfilment of their payment obligations to the Group CCPs.

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 Group is low, the Group 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 Group's entities may not maintain sufficient capital to meet their 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 Group's approach to capital management and a review of the current regulatory requirements are detailed in note 24. In addition:

 the default waterfalls for each clearing service feature LCH 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 each CCP in the Group

- the non-default loss provision for LCH Limited (as detailed on page 30) 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 Group can manage its capital structure by varying returns to shareholders, issuing new shares or increasing or reducing borrowings

Pension risk

Pension risk arises from the potential deficit in the Group's defined benefit pension plans due to a number of factors such as mortality rates or changes in inflation assumptions. The schemes are 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 Group is exposed to equity market risk.

The main pension obligation in the Group relates to the LCH section of the London Stock Exchange Group pension scheme in the UK. It 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 LCH Limited 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 Group has adopted a framework, supported by tailored enterprise-wide software, to systematically identify, assess, monitor and manage operational risks. This is achieved through self assessment of risks and controls using a Group-wide 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 both to the Group Board and to the CCP Boards.

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 Group's senior management and Audit Committees. 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 Group'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 Committees and senior management. Any significant weaknesses are reported to the relevant Boards.

The Group 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 LCH operates.

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

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

Reputational risk

The maintenance of the Group's strong reputation is key to its continued profitability and is the responsibility of the Boards, management and staff. In particular the efficiency, reliability and effectiveness of the day to day operations of the Group 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 Boards when issues arise.

Brexit

LCH Limited relies on the right for UK CCPs under EMIR to offer clearing services to EU regulated firms. The Group 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.

3. Exchange rates

The most significant exchange rates to the euro for the Group are as follows:

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

4. Segment information

For management purposes the Group is organised into business units based on legal entities and has three reporting operating segments:

- LCH Limited based in the UK, with a presence in New York (USA), Sydney (Australia) and Tokyo (Japan). The LCH.Clearnet LLC operations, which last cleared a trade in June 2017, and are effectively dormant
- LCH SA based in mainland Europe with its main operations in France, it also has branches in Belgium and the Netherlands and a representative office in Portugal
- Other, the remainder of the Group's activities, including SwapAgent.

These segments reflect the way in which the Group's chief operational decision makers monitor results and determine resource allocation within the Group.

The appropriate segment has directly attributable costs allocated to it. Where costs are not directly attributable, the relevant portion is allocated on a reasonable basis to each segment. Assets that are jointly used by two or more segments are allocated across segments.

Transfer pricing between segments is set on an arm's length basis in a manner similar to transactions with third parties.

LCH Limited and LCH SA derive revenues through their activities as clearing houses. They provide CCP services in respect of OTC markets, a broad range of cash and derivative products traded on or through various exchanges and trading platforms in the UK/Europe (LCH Limited), mainland Europe (LCH SA), the US, Australia, and Japan (LCH Limited).

Of other Group companies, LCH.Clearnet (Luxembourg) S.à.r.l. is in liquidation and LCH.Clearnet LLC has ceased active trading; LCH Group Holdings Limited earns revenue from the operating subsidiaries in the form of management fees and dividends. SwapAgent Limited launched its service in July 2017 and derives its revenues from third parties by providing preclearing services.

Management monitors the operating results of its business units separately for the purposes of making decisions about resource allocation and performance assessment. Segment performance is evaluated based on operating profit or loss and is measured consistently with operating profit or loss in the consolidated financial statements.

Segmental information				
Income statement		2017		
	Ltd €'m	SA €′m	Other €'m	Total €'m
Clearing fees	290.4	121.1	4.0	415.5
Other fee income	82.1	19.1	-	101.2
Revenue sharing arrangements	(0.2)	(23.9)	-	(24.1)
Revenue	372.3	116.3	4.0	492.6
Net treasury income	94.7	42.6	0.1	137.4
Settlement and other income	27.5	8.7	-	36.2
Settlement fees payable	(19.4)	(6.5)	-	(25.9)
Net settlement and other revenue	8.1	2.2	-	10.3
Inter-segment revenue	6.7	0.7	(7.4)	-
Total income	481.8	161.8	(3.3)	640.3
Operating profit before non-underlying items	148.7	63.6	7.2	219.5
Non-underlying items	(4.7)	0.2	-	(4.5)
Operating profit	144.0	63.8	7.2	215.0
Finance income	0.3	-	(0.2)	0.1
Finance expense	(3.3)	(1.4)	(5.1)	(9.8)
Profit before taxation	141.0	62.4	1.9	205.3
Taxation expense	(27.9)	(18.8)	(0.2)	(46.9)
Profit for the year	113.1	43.6	1.7	158.4
Non-cash items:		<u> </u>		
Fair value loss on financial instruments	1.5	0.5	-	2.0
Depreciation of property, plant and equipment	6.3	0.1	0.3	6.7
Impairment of intangible assets	2.4	1.4	-	3.8
Amortisation of intangible assets	39.6	14.6	(4.6)	49.6

Net assets	688.1	430.1	17.1	1,135.3
Total liabilities	(409,969.5)	(288,817.5)	16.2	(698,770.8)
Total assets	410,657.6	289,247.6	0.9	699,906.1
	Ltd €'m	SA €'m	Other/ eliminations €'m	Tota €'m
Assets and liabilities	•	20		-
Amortisation of intangible assets	23.1	10.2	7.1	40.4
Impairment of intangible assets	1.4	-	-	1.4
Depreciation of property, plant and equipment	4.9	0.3	-	5.2
Fair value loss on financial instruments	1.0	1.0	-	2.0
Non-cash items:				
Profit/(loss) for the year	63.9	28.9	(9.2)	83.6
Taxation expense	(21.4)	(14.4)	(1.5)	(37.3)
Profit/(loss) before taxation	85.3	43.3	(7.7)	120.9
Finance expense	(2.8)	(1.0)	(12.6)	(16.4)
Finance income	1.3	-	, _	1.3
Operating profit	86.8	44.3	4.9	136.0
Non-underlying items	(7.6)	(2.8)	(1.3)	(11.7)
Operating profit before non-underlying items	94.4	47.1	6.2	147.7
Total income	409.2	140.5	(2.4)	547.3
Inter-segment revenue	2.4	-	(2.4)	
Net settlement and other revenue	1.7	5.6	-	7.3
Settlement fees payable	(18.3)	(7.1)		(25.4)
Settlement and other income	20.0	12.7	-	32.7
Net treasury income	71.8	26.8	-	98.6
Treasury expense	(178.8)	(103.1)	-	(281.9)
Treasury income	250.6	129.9	-	380.5
Revenue	333.2	108.2	-	441.4
Revenue sharing arrangements	(0.6)	(24.3)	-	(24.9)
Other fee income	77.4	12.7	-	90.1
Clearing fees	256.4	119.8	-	376.2
	Ltd €′m	SA €'m	Other €'m	Total €'m
Income statement		201	U	

Total		354.8	318.4
Other European		163.6	152.1
UK		191.2	166.3
Non-current assets by geographical location (excluding financial instruments, deferred employment benefits)	tax and	2017 €m	2016 €m
		427.0	
Other European Total		171.8 427.8	159.3 332.5
UK		256.0	173.2
Non-current assets by geographical location		2017 €m	2016 €m
Net assets 641.7	426.2	(100.7)	967.2
Total liabilities (184,257.4) (2	73,904.1)	(180.5)	(458,342.0)
Total assets 184,899.1 2	274,330.3	79.8	459,309.2
Ltd €'m	SA €'m	Other €'m	Total · €'m
Assets and liabilities	2016	5	

5. Operating expenses

The following items are included in operating expenses before depreciation and amortisation (including non-underlying items; a full analysis is given in note 6):

	2017 €′m	2016 €'m
Staff costs (note 18)	161.1	196.2
Property lease rentals	7.7	8.9
Foreign exchange losses	5.7	1.6
Other operating expenses	90.4	89.3
Operating expenses before depreciation and amortisation	264.9	296.0
Depreciation and amortisation		
Amortisation of intangible assets	49.6	40.4
Depreciation of property, plant and equipment	6.7	5.2
Write down of intangible assets (note 10)	-	1.4
Impairment of intangible assets (note 10)	3.8	_

60.1

47.0

East payable for the audit of the Company		0.1
Fees payable for the audit of the Company	0.1	0.1
Fees payable to the auditor of the Company for other services:		
Fees payable for the audit of the Company's subsidiaries	0.6 .	1.3
Other assurance services on behalf of the Company's subsidiaries	0.2	
	0.9	1.4
6. Non-underlying items		
	2017	2016
	€′m	€′m
Restructuring programme	(4.5)	(11.7)
Tax effect of non-underlying items	1.0	(1.5
Net non-underlying items During 2016, the board approved a three year restructuring programme to improve the structuring programme and expense	(3.5) ne efficiency of the Group.	(13.2)
During 2016, the board approved a three year restructuring programme to improve the	ne efficiency of the Group. 2017	. 2016
During 2016, the board approved a three year restructuring programme to improve the structuring programme and expense	ne efficiency of the Group.	
During 2016, the board approved a three year restructuring programme to improve the structuring programme to improve the s	ne efficiency of the Group. 2017 €'m	.2016 €'m
During 2016, the board approved a three year restructuring programme to improve the structuring programme to improve the s	ne efficiency of the Group. 2017 €'m (4.7)	. 2016 €'m (12.3)
During 2016, the board approved a three year restructuring programme to improve the structuring programme to improve the s	2017 €'m (4.7) (0.1)	.2016 €'m
During 2016, the board approved a three year restructuring programme to improve the content of t	2017 €'m (4.7) (0.1) (0.4)	.2016 €′m (12.3) (0.1)
During 2016, the board approved a three year restructuring programme to improve the structuring programme to improve the s	2017 €'m (4.7) (0.1) (0.4) (4.6)	201€ €'m (12.3) (0.1)
During 2016, the board approved a three year restructuring programme to improve the second se	2017 €'m (4.7) (0.1) (0.4)	.2016 €′m (12.3) (0.1)
During 2016, the board approved a three year restructuring programme to improve the content of t	2017 €'m (4.7) (0.1) (0.4) (4.6)	201€ €'m (12.3) (0.1)
During 2016, the board approved a three year restructuring programme to improve the second se	2017 €'m (4.7) (0.1) (0.4) (4.6)	201€ €'m (12.3) (0.1)
During 2016, the board approved a three year restructuring programme to improve the second expense Interest and other costs charged in respect of: Preferred securities (net) Net finance expense on pension liabilities Interest paid to parent company Interest paid on cash and cash equivalents and finance leases Interest received in respect of:	2017 €'m (4.7) (0.1) (0.4) (4.6)	. 2016 €'m (12.3) (0.1) (4.0)

The project company to a faculting suppose and		
The major components of taxation expense are:	2017	2016
	€′m	€′m
Current tax		
United Kingdom current tax charge	(27.8)	(15.9)
Adjustments in respect of current taxation in previous years	1.3	- 0.2
Overseas current tax charge	(21.6)	(15.9)
Adjustments in respect of current taxation in previous years	1.3	0.5
Total current taxation	(46.8)	(31.1)
Deferred tax		
Deferred tax relating to the origination and reversal of temporary differences	1.2	(5.4)
Adjustments in respect of prior years	(1.2)	(0.5)
Re-measurement of deferred tax – change in corporation tax rate	(0.1)	(0.3)
Tax expense reported in the consolidated income statement	(46.9)	(37.3)
Consolidated statement of comprehensive income		
Tax relating to remeasurement of overseas defined benefit pension plans	(0.2)	0.2
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 consolidated statement of comprehensive income	(22.1)	10.6
Consolidated statement of changes in equity		
Tax allowance on share awards in excess of expense recognised	1.8	1.1
Tax credit reported directly in equity	1.8	1.1

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	205.3	120.9
Tax at UK statutory corporation tax rate of 19.25% (2016: 20.0%)	(39.5)	(24.2)
Effect of:		
Deferred tax not recognised in the US	-	(3.5)
Adjustments in respect of prior periods	1.4	0.2
Impairment of deferred tax asset in Luxembourg	-	(4.5)
Disallowed expenses	0.7	(0.5)
Re-measurement of deferred tax - change in corporation tax rate	(0.1)	(0.9)
Net effect of higher rates of overseas taxation	(8.6)	(7.3)
Non-taxable income	-	3.9
Provision for diverted profits tax	(1.3)	(1.0)
Release of OTC assets provision	0.5	-
Foreign exchange adjustment	-	0.5
Total tax charge	(46.9)	(37.3)
Effective corporate tax rate	22.8%	30.9%

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 Group from 30.9% in 2016 to 22.8% 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.

	Consolidated of finance	I statement	state	olidated ment of income
	2017	2016	2017	2016
	€′m	€′m	€′m	€'m
Post-employment benefits	(17.5)	(0.4)	(17.1)	(1.5)
Reduced depreciation for tax purposes	2.9	4.3	(1.4)	(0.5)
Tax on provisions and other temporary differences	3.1	6.7	(3.6)	(4.2)
Tax on items not recognised in the statement of comprehensive income	1.6	-	-	-
Deferred tax charge			(22.1)	(6.2)
Net deferred tax (liability)/asset	(9.9)	10.6		
			_	Total €'m
Net deferred tax asset at 1 January 2017		6.	.1 4.5	10.6
Deferred tax in income statement		(1.:	1) 1.1	-
Deferred tax relating to provisions and other timing differences		(0.:	1) -	(0.1)
Deferred tax relating to revaluation of available for sale assets		(0.8	3) -	(0.8)
Deferred tax relating remeasurement gains on defined benefit pension pla	ins	(21.1	1) (0.2)	(21.3)
Deferred tax included in the disposal of assets		1.	.8 -	1.8
Foreign exchange movements		(0.1	L) -	(0.1)
Net deferred tax (liability)/asset at 31 December 2017		(15.3	stater comprehensive 2017 €'m (17.1) (1.4) (3.6) - (22.1) UK France E'm €'m 6.1 4.5 1.1) 1.1 0.1) - 0.8) - 1.1) (0.2) 1.8 - 0.1) - 5.3) 5.4 Urg France E'm €'m 4.5 4.0 - 0.3 1.5) 0.2 0.2	(9.9)
	UK €′m	Luxembour €'r	-	Total €′m
Net deferred tax asset/(liability) at 1 January 2016	(4.0)	4.	5 4.0	4.5
Deferred tax in income statement	(2.0)		- 0.3	(1.7)
Deferred tax asset derecognised in the year	-	. (4.5	5) -	(4.5)
Deferred tax relating to provisions and other timing differences	0.2			0.2
Deferred tax relating to remeasurement gains on defined benefit pension plans	11.5		- 0.2	11.7
Foreign exchange movements	0.4			0.4
Net deferred tax asset at 31 December 2016	· 6.1		- 4.5	10.6

9. Intangible assets

		2017			2016		
	Self- developed			Self- developed			
	software €'m	Goodwill €'m	Total €'m	software €′m	Goodwill €'m	Total €'m	
Cost							
At 1 January	419.3	534.1	953.4	352.9	534.1	887.0	
Additions	92.3	-	92.3	74.8	-	74.8	
Write down (note 10)	-	•	-	(1.4)	-	(1.4)	
Disposals	(7.8)	-	(7.8)	(6.9)	-	(6.9)	
Exchange differences	(0.8)	-	(8.0)	(0.1)	· -	(0.1)	
At 31 December	503.0	534.1	1,037.1	419.3	534.1	953.4	
Accumulated amortisation and impairment							
At 1 January	231.0	423.7	654.7	197.5	423.7	621.2	
Amortisation charge for the year	49.6	-	49.6	40.4	-	40.4	
Impairment in the year	3.8	-	3.8	-	-	-	
Disposals	(7.8)	-	(7.8)	(6.9)	-	(6.9)	
Exchange differences	(0.3)	-	(0.3)	-	-	-	
At 31 December	276.3	423.7	700.0	231.0	423.7	654.7	
Net book value at 31 December	226.7	110.4	337.1	188.3	110.4	298.7	

The portion of capitalised self-developed software costs disclosed above that relates to software not currently brought into use amounted to €105.8 million (2016: €71.0 million). No amortisation has been charged during the year against these assets (2016: €nil), but instead they are tested for impairment (see note 10) and no write down (2016: €1.4 million) was recognised in the year.

Goodwill consists of the amount arising from the acquisition of LCH SA in 2003 (see note 10). Self-developed software includes the Group's trading systems, which are being continually improved and enhanced.

10. Impairment testing of intangible assets

The Group carries out annual impairment testing on goodwill and other intangible assets in December of each year, or more often if circumstances show that an impairment may be likely.

Goodwill is carried in relation to LCH SA, which is also the cash generating unit (CGU) to which the goodwill is allocated. The recoverable amount associated with this subsidiary is determined based on value in use calculations. The calculations have been checked against the notional value agreed for the sale of the non-controlling interest in LCH SA to ensure consistency.

For other 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 Group's budget for 2018 and the Group 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 Group's long-term strategic objectives to determine appropriate short and medium 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 Group's estimated market risk premium and a premium to reflect inherent risks

A market value for LCH SA was obtained as a result of the agreed sale of 11.1% of the Group's shareholding and this has been incorporated into the impairment testing results.

Impairment results

Taking into account the above assumptions:

- Two independent tests were carried out on the value of the goodwill, which was found not to be impaired in both cases:
 - o Firstly, the discounted cash flow approach. The excess of value in use over carrying value was found to be €1,266 million (2016: €873.5 million) at 31 December 2017
 - o Secondly, the fair value approach, using the known fair value of LCH SA as a result of the sale of a non-controlling interest in LCH SA (see note 25). In this case the excess over the carrying value was found to be €90.9 million at 31 December 2017 (2016: €76.0 million)
- Self-developed software not yet in use of €2.6 million (2016: €1.4 million) was found to be impaired. This is due to the uncertainty of the future cash flows that relate to this asset. The cost of this asset was written down. Other intangible assets of €1.2 million were impaired as they are no longer in use (2016: no impairment).

Sensitivity analysis

Reasonably possible changes in key assumptions and rates are detailed below and the likely impact on the value in use or impairment noted:

As at 31 December 2017	Base case	Adjusted	Goodwill	Other intangibles
			€′m	€'m
Reduction in clearing revenues	various	-10.0%	No impairment	No impairment
Cash flow growth	3.7%	0%	No impairment	No impairment
Pre-tax discount rate	11.1%	14.1%	No impairment	No impairment

11. Property, plant and equipment

	Leasehold refurbishment	Computer equipment	Office equipment and other fixed assets	Total
As at 31 December 2017	€'m	equipinent €'m	e'm	€'m
Cost				_
At 1 January	11.8	44.4	5.6	61.8
Additions		3.3	1.0	4.3
Asset re-categorisation	(1.0)	1.0	-	-
Disposals	(0.1)	(0.4)	(0.6)	(1.1)
Exchange differences	-	0.1	•	0.1
At 31 December	10.7	48.4	6.0	65.1
Accumulated depreciation				
At 1 January	6.6	30.0	5.5	42.1
Depreciation charge for the year	0.8	5.8	0.1	6.7
Disposals	(0.1)	(0.4)	(0.6)	(1.1)
At 31 December	7.3	35.4	5.0	47.7
Net book value at 31 December	3.4	13.0	1.0	17.4
			Office	
			equipment and	
	Leasehold	Computer	other fixed	
	refurbishment	equipment	assets	Total
As at 31 December 2016	€′m	€'m	€'m	€'m
Cost				
At 1 January	11.9	45.5	6.7	64.1
Additions	0.3	9.3	-	9.6
Disposals	(0.4)	(10.4)	(1.1)	(11.9)
At 31 December	11.8	44.4	5.6	61.8
Accumulated depreciation				
At 1 January	6.0	36.3	6.2	48.5
Depreciation charge for the year	0.9	4.1	0.2	5.2
Disposals	(0.3)	(10.4)	(0.9)	(11.6)
At 31 December	6.6	30.0	5.5	42.1
Net book value at 31 December	5.2	14.4	0.1	19.7

During the year €1.0 million of equipment previously identified as part of a leasehold refurbishment has been reclassified as computer equipment. There is no change to the overall depreciation charge for the year.

12. Balances with clearing members		
	2017 €′m	2016 €'m
Assets		
Fair value of transactions with clearing members	612,038.2	368,978.4
Other clearing member balances	4,280.5	7,319.6
	616,318.7	376,298.0
Liabilities		
Fair value of transactions with clearing members	(612,038.2)	(368,978.4)
Initial margin and other clearing member balances	(73,360.6)	(77,700.4)
	(685,398.8)	(446,678.8)

The transactions with clearing members of €612,038.2 million (2016: €368,978.4 million) are fully secured by collateral held by the Group. At 31 December 2017 the total of fully collateralised loans in respect of fixed income transactions was €610,230 million (2016: €366,203 million). This collateral has in turn been passed on to fixed income counterparties to secure the Group's liabilities in respect of fixed income contracts.

Other clearing member balances include €2.7 billion (2016: €4.5 billion) due from and €2.9 billion (2016: €4.6. billion) due to Cassa di Compensazione Garanzia S.p.A (CC&G), a fellow LSEG subsidiary company. Net treasury income also includes interest paid of €12.6 million (2016: €11.0 million) and interest received of €10.4 million (2016: €10.2 million) on these balances.

13. Trade and other receivables

	2017	2016*
	€'m	€'m
Non-current		
Other receivables	3.7	1.4
Current		
Trade receivables:		
Fees receivable	46.6	44.6
Interest accrued on investment portfolio	43.7	40.3
	90.3	84.9
Provision for bad debts	-	(0.1)
Amounts due from fellow Group companies	20.3	0.7
Other receivables	12.8	4.5
Prepayments	8.3	10.2
Margin receivable on reverse repurchase contracts	51.1	110.0
	182.8	210.2

^{*}For 2017, the Group has improved the analysis of the trade and other receivables. The 2016 analysis has been re-presented in the new format to allow better comparison. There is no change to the total trade and other receivables.

LCH Group Holdings Limited

Consolidated financial statements for the year ended 31 December 2017

Notes to the consolidated financial statements (continued)

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. The non-current assets include deposits on the Group's office premises.

14. Cash and cash equivalents

	2017 €′m	2016 €′m
Cash at bank and in hand	336.0	506.3
Short-term deposits	678.0	477.5
Cash and cash equivalents	1,014.0	983.8
Clearing business cash at bank	35,376.7	23,932.7
Clearing business short-term deposits	27,266.2	35,928.6
Clearing business cash and cash equivalents	62,642.9	59,861.3
	63,656.9	60,845.1

The short-term deposits are fully collateralised by sovereign and investment grade corporate securities in accordance with eligibility criteria approved by the Group's Risk Committees.

€116.3 million (2016: €121.4 million) of the own cash amount is restricted as the Group's CCP-level own resources to be used in the default waterfalls. This is allocated by default fund on a pro rata basis for LCH Limited and LCH SA. 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 payables

	2017 €′m	2016 €′m
Non-current		
Accruals	3.4	2.6
Other payables	0.3	9.4
	3.7	12.0
Current		
Trade payables	8.3	5.6
Other taxation and social security	15.5	16.6
Other payables	112.2	111.5
Margin payable on reverse repurchase contracts	-	56.3
Amounts due to fellow subsidiary companies	50.3	24.5
Accruals	78.1	60.5
Deferred income	2.0	3.5
	266.4	278.5

Other payables include amounts accrued under the Group's revenue share agreements.

16. Interest bearing loans and borrowings		
	2017 €'m	2016 €′m
Current		
Preferred securities	-	179.8
	-	179.8
Non-current		
Loan from related company	40.0	-
	40.0	-

Preferred securities and loan from related company

The Group's €200 million non-voting, non-cumulative preferred securities were redeemed in whole on 18 May 2017. The Company had owned €20 million of these shares since 2009.

The redemption of the preferred securities was in part financed by a loan of €100 million from a related company. The loan was repayable as follows: €40.0 million was repayable after 1 year (May 2018); a further €40.0 million was repayable after 2 years (May 2019), with the final repayment of €20.0 million being made after 3 years of the advance (May 2020). Interest at a rate of EURIBOR plus 1.0% is payable on the loan. The Group has the right to defer each repayment by up to 1 year or to repay any amount early if required. The Group opted to repay €60.0 million in November 2017. The first repayment now due is the remainder of the repayment due in May 2019.

Bank overdrafts

In order to assist with day to day liquidity management the Group maintains a number of uncommitted money market and overdraft facilities with a number of major banks. Effective interest rates on these facilities vary depending on market conditions.

17. Default funds

The purpose of the default funds is to absorb any losses incurred by the Group 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 held separately by each CCP entity to cover the risks that each company faces, and are split into several different funds in each company to cover the different business lines of that company. The total default funds held by the Group at 31 December 2017 were €13,023.6 million (2016: €11,183.2 million).

18. Employee benefits

i) Staff costs

2017 €′m	2016 €'m
123.5	151.3
21.0	20.5
6.1	7.5
7.0	8.5
157.6	187.8
3.5	8.4
161.1	196.2
	€'m 123.5 21.0 6.1 7.0 157.6

The average number of staff on a full-time equivalent basis during the year was 861 (2016: 926). The average number of actual staff during the year was 867 (2016: 936). The Company has no employees.

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 employee benefits	4.3	5.8
Share-based payment costs	2.3	2.2
Pension contributions	0.2	0.3
Deferred bonus and other long-term employee benefits	0.8	0.9
Compensation for loss of office	4.2	-
Aggregate emoluments of key management personnel	11.7	9.2

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 include the executive director 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	2.3	2.4

^{*}The directors' remuneration for 2016 has been restated to exclude the share-based payments recognised in the year.

Where directors left the Board but have not yet been compensated for loss of employment, the full value of such costs has not been included in remuneration for the year and will only be included when paid. The costs above include deferred

bonuses, and other LTIP awards only when they vest or become payable.

The highest paid director received total remuneration of €1,127,547 in the year (2016: €1,320,227).

One director is a deferred member of the LCH section of LSEG's defined benefit pension scheme (2016: nil). Contributions of €84,617 (2016: €100,449) have been made on behalf of two (2016: one) directors to a defined contribution scheme.

Two directors (including the highest paid director) participate in the share-based award schemes detailed below. One director (the highest paid) exercised share options during the year.

Independent non-executive directors receive 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 do not receive fees.

ii) Share-based payments

LCH Group 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 schemes)
- d) The LSEG Restricted Share Award Plan 2008 (Restricted Plan)

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%

^{*} 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:

Awards prior to 2017

- 1) Regulatory metric: a qualitative assessment of 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 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 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 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 qualifying 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 cost savings determined to have been achieved		Percentage of shares that vest
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%
Efficiency metric: EBITDA margin level	Growth Metric: EBIT level	Percentage of shares that
		vest
2017 award:		
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 the EBIT or EBITDA margin for the last financial year in the performance period, as approved by the LCH Group Holdings Limited Audit Committee. EBIT means earnings before interest, tax and non-underlying items, as reported in the consolidated financial statements for LCH Group Holdings Limited, subject to such adjustments as the Committee considers necessary to take account of matters that it considers to be appropriate. EBITDA margin level means the earnings before interest, tax, depreciation and amortisation divided by the Gross revenue as reported in the consolidated financial statements of LCH Group Holdings Limited.

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, US and France (and approved by HMRC in the UK). The options vest in full after three years, providing the employee remains employed by the Group or the wider LSEG group of companies.

The Restricted Plan allows 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 and furthermore, in the case of the LCH.C Companies' Retention Plan 2014 (Retention Plan), upon successful achievement of a risk management gateway. 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	SAYI	E scheme	Restricted Plan
				Weighted average exercise	
	Number	Number	Number	price (£)	Number
1 January 2016	172,375	630,902	230,123	13.90	77,691
Granted in year	31,935	368,144	41,961	22.38	22,404
Exercised in year	-	-	(6,189)	13.61	(47,347)
Lapsed/forfeited in year	(1,392)	(154,361)	(54,621)	14.12	(15,398)
31 December 2016	202,918	844,685	211,274	15.54	37,350
Granted in year	25,512	246,517	87,172	31.11	10,393
Net transfers	(1,114)	(169,375)	(22,458)	(19.28)	(7,076)
Exercised in year	(130,727)	(142,531)	(129,702)	13.75	(13,902)
Lapsed/forfeited in year	(28,177)	(106,856)	(7,704)	20.23	-
31 December 2017	68,412	672,441	138,582	18.14	26,765

1,131 of the options were exercisable as at 31 December 2017 (2016: 18,542). The exercise price is nil for all 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:

	Number	Weighted average remaining contractual life
As at 31 December 2017	outstanding	Years
LSEG LTIP - nil	68,412	0.9
LCH LTIP - nil	672,441	1.3
SAYE – between £10.01 and £20.00	635	-
SAYE – between £20.01 and £30.00	50,775	0.4
SAYE - over £30.01	87,172	1.9
Restricted Plans - nil	26,765	1.1
Total	906,200	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			TIP
Grant date	Performance shares 03/04/2017	Performance shares 10/04/2017	Matching shares 10/04/2017	Performance shares 03/04/2017	Matching shares 10/04/2017
Grant date share price (£)	31.91	32.27	32.27	31.91	32.27
Expected life (years)	3.0	3.0	3.0	3.0	3.0
Dividend yield	1.35%	1.34%	1.34%	1.35%	1.34%
Risk-free interest rate	0.16%	0.16%	0.16%	0.16%	0.16%
Volatility	25.6%	25.5%	25.5%	25.6%	25.5%
Fair value TSR (£)	11.87	12.29	12.29	-	-
Fair value EPS (£)	30.64	31.00	31.00	-	-
Fair value non-market conditions (£)		-	<u>-</u>	30.64	31.00

	SAYE	Restricte	Restricted Plan		
Grant date	03/10/2017	03/04/2017	17/11/2017		
Grant date share price (£)	38.75	31.91	38.46		
Expected life (years)	3.33	0.9 - 3.0	0.9 - 2.8		
Exercise price (£)	31.11	-	-		
Dividend yield	1.18%	1.35%	1.19%		
Risk-free interest rate	0.67%	0.02% - 0.16%	0.4% - 0.56%		
Volatility	25.5%	22.9% - 26.8%	14.6% - 26.3%		
Fair value non-market conditions (£)	10.21	30.64 - 31.52	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 Group pays fixed contributions to a defined contribution pension scheme in the UK and there is no legal or constructive obligation to pay further contributions. The assets of the plan are held separately from those of the LCH Group in a fund under the control of the trustees. The total expense charged in the income statement of €7.0 million (2016: €8.5 million) represents contributions payable to the plan by the Group at rates specified in the rules of the plan.

Defined benefit schemes

The Group 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 underwent a sectionalised merger into a new London Stock Exchange Group Pension Scheme on 5 September 2016. The scheme maintains separate LCH and LSEG sections with LCH Limited 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 Group has obligations in respect of retirement indemnity and long-service award schemes in France. The provisions have been calculated by a qualified independent actuary as at 31 December 2017.

The obligations in respect of certain staff in an independent defined benefit scheme in Portugal were assumed in 2006. An updated valuation of these funds was carried out at 31 December 2017 by a qualified independent actuary.

Details of the regulatory environment and risks can be found in note 2.

The valuations of the UK scheme conducted for financial reporting purposes are based on the triennial actuarial valuation as at 30 June 2013. A summary of the principal assumptions used is detailed below. The Group is not aware of any events subsequent to 31 December 2017, 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	
	UK	France	Portugal	UK	France	Portugal
Discount rate	2.8%	1.5%	1.5%	2.7%	1.5%	1.5%
Rate of salary increase	n/a	2.5%	2.5%	n/a	2.5%	2.5%
Rate of price inflation	3.2%	1.5%	1.5%	3.3%	2.0%	1.5%
Rate of pension increases	2.2%	n/a	1.5%	2.3%	n/a	1.5%

Implied life expectancy at age 60

	2017				2016		
	UK	France	Portugal_	UK	France	Portugal	
Male currently aged 60	27.6	23.3	20.6	28.1	23.3	20.6	
Male currently aged 45	28.2	23.3	20.6	29.7	23.3	20.6	
Female currently aged 60	29.3	27.5	20.6	30.4	27.5	20.6	
Female currently aged 45	30.5	27.5	20.6	32.2	27.5	20.6	

The discount rate for the UK 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 25 years. Scheme assets are stated at their market value at the respective statement of financial position dates.

Changes in benefit obligation

	UK	France	Portugal
	UK €'m 296.8 - - 7.6 (12.3) (12.3) (25.6)	€′m	€′m
Benefit obligation as at 1 January	296.8	6.1	0.5
Pension expense:			
Current service cost	•	0.6	-
Past service loss	•	-	-
Net interest	7.6	0.1	_
Re-measurement losses/(gains):			
Effect of changes in demographic assumptions	(12.3)	-	-
Effect of changes in financial assumptions	(12.3)	-	-
Effect of experience adjustments	(25.6)	(0.5)	· -
Reduction in obligation due to settlement	-	-	-
Benefits paid	(8.3)	(0.1)	•
Foreign exchange	(12.2)	-	-
Benefit obligation as at 31 December	233.7	6.2	0.5

		<u> </u>	
		2016	
	UK	France	Portugal
	€′m	€′m	€'m
Benefit obligation as at 1 January	236.0	4.9	0.4
Pension expense:			
Current service cost	-	0.4	-
Past service loss	-	-	· -
Net interest	8.1	0.1	
Re-measurement losses:			
Effect of changes in demographic assumptions	(3.3)	0.5	-
Effect of changes in financial assumptions	94.3	0.3	0.1
Effect of experience adjustments	·	(0.1)	-
Reduction in obligation due to settlement	ے۔	_	_
Benefits paid	(5.7)	_	_
Foreign exchange	(32.6)	_	_
Benefit obligation as at 31 December	296.8	6.1	0.5
Changes in scheme assets			
		2017	
	UK	France	Portugal
	€′m	€'m	€′m
Fair value of scheme assets as at 1 January	298.9	_	0.5
Pension income:			
Net interest	7.7	-	-
Re-measurement gains:			
Return on plan assets (excluding interest income)	10.3	-	-
Employer contributions	-	0.1	-
Benefits paid	(8.3)	(0.1)	-
Foreign exchange	(12.4)	-	-
Fair value of scheme assets as at 31 December	296.2		0.5
•		2016	
	UK	France	Portugal
	€'m	€'m	f ortagai
Fair value of scheme assets as at 1 January	270.2	_	0.5
Pension income:	_,,,,		0.0
Net interest	9.3	-	_
Re-measurement gains:			<u> </u>
<u>~</u>			
Return on plan assets (excluding interest income)	60.0	-	-
Return on plan assets (excluding interest income) Employer contributions	60.0	-	-
Employer contributions	3.0	- - -	<u>-</u> -
Return on plan assets (excluding interest income) Employer contributions Benefits paid Foreign exchange		- - -	- - -

Fair value of scheme assets with a quoted market price

	2017		2016		
	UK	Portugal	UK	Portugal €'m	
	€′m	€′m	€′m		
Cash and cash equivalents	2.0	•	2.7	0.1	
Equity instruments	127.7	0.1	122.3	0.1	
Debt / LDI instruments	166.5	0.4	173.9	0.3	
Total fair value of assets	296.2	0.5	298.9	0.5	
Present value of funded obligations	(233.7)	(0.5)	(296.8)	(0.5)	
Surplus	62.5	-	2.1	-	

The Group has recognised a net surplus of €62.5 million (2016: €2.1 million asset) in relation to the LCH UK scheme on the basis that the Group has access to the surplus in the event of wind up of the scheme and therefore no asset ceiling has been applied to the net surplus recognized. No further minimum funding commitments are associated to the plan.

Sensitivity analysis

The sensitivity of the value of the benefit obligation to the discount rate is shown below:

	2017			2016		
	UK €′m	France € ′m	Portugal €'m	UK €′m	France €′m	Portugal €′m
Discount rate - increase by 0.5%	(24.9)	(0.5)	(0.1)	(38.6)	(0.5)	(0.1)
Revaluation in deferment (CPI) and salary increases -						
increase by 0.5%	6.9	-	-	12.1	0.4	-
Pension increases in payment - increase by 0.5%	15.4	-	-	19.6	-	-
Life expectancy - increase by 1 year	7.0	-	-	8.1	-	-

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

Payments from the defined benefit schemes

The following payments are expected to be made in future years out of the defined benefit plans' obligations:

	UK	France	Portugal €'m
	€′m	_€′m	
Within the next 12 months	2.9	•	-
Between 2 and 5 years	12.6	0.1	-
Following 5 years	23.4	2.7	-
Total	38.9	2.8	-

Contributions

During 2017 no contributions were made to the defined benefit pension plan in the UK. Further contributions are dependent on the outcome of discussions on the triennial valuation as at 31 December 2016.

19. Financial instruments		ē.	
Financial assets and liabilities			
	Note	2017 €'m	2016 €′m
Financial assets at fair value through profit or loss			
Fair value of transactions with clearing members	12	612,038.2	368,978.4
Government issued bonds		4,172.1	11,045.8
Available for sale assets			
Government issued bonds		15,147.6	10,577.5
Other financial assets in the statement of financial position		19,319.7	21,623.3
Loans and receivables			
Trade and other receivables	13	177.9	200.7
Other clearing member balances	12	4,280.5	7,319.6
Clearing business cash and cash equivalents including short-term deposits	14	62,642.9	59,861.3
Cash and short-term deposits	14	1,014.0	983.8
Financial liabilities at fair value through profit or loss			
Fair value of transactions with clearing members	12	(612,038.2)	(368,978.4)
Financial liabilities at amortised cost			
Trade and other payables	15	(243.3)	(251.5)
Initial margin and other clearing member balances	12	(73,360.6)	(77,700.4)
Default funds	17	(13,023.6)	(11,183.2)
Interest bearing loans and borrowings	16	(40.0)	(179.8)

Prepayments within trade and other receivables are not classified as financial assets. Other taxes and deferred income 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.

Based on market prices at 31 December 2016 the fair value of the Group's preferred securities was €180.3 million at 31 December 2016, compared to the amortised cost carrying value of €179.8 million as shown in note 16. The preferred securities were redeemed during the year.

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

Fair value hierarchy

The Group uses the following hierarchy for determining and disclosing the fair value of financial instruments by valuation technique:

- Level 1: quoted (unadjusted) prices in active markets for identical assets or liabilities
- Level 2: other techniques for which all inputs, which have a significant effect on the recorded fair value are observable, either directly or indirectly
- 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 Group has no financial instruments in this category

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

	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	61.8	611,976.4	612,038.2	12.1	368,962.3	368,974.4
Government issued bonds at fair value through the profit or loss	4,172.1	-	4,172.1	11,045.8	-	11,045.8
Government issued bonds available for sale	15,147.6	-	15,147.6	10,577.5	-	10,577.5
Liabilities measured at fair value						
Fair value of transactions with clearing members	(61.8)	(611,976.4)	(612,038.2)	(12.1)	(368,962.3)	(368,974.4)
Other items where fair value is known						
Preferred securities	-	.	-	(180.3)	-	(180.3)

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:		
	2017	2016
	€′m 	
Treasury income on assets held at fair value through the income statement	152.0	38.1
Treasury income on other financial assets	213.4	111.1
Treasury income on liabilities held at amortised cost	329.8	233.3
Net fair value loss on revaluation of other financial assets held at fair value included in net treasury		41
income	(2.0)	(2.0)
Treasury income	693.2	380.5
Treasury expense on assets held at fair value	(39.0)	(47.1)
Treasury expense on assets held at amortised cost	(158.7)	(102.9)
Treasury expense on liabilities held at amortised cost	(358.1)	(131.9)
Treasury expense	(555.8)	(281.9)
Net treasury income	137.4	98.6
Net finance income on pension fund assets	0.1	1.1
Finance income on assets held at amortised cost	-	0.1
Finance expense on assets held at amortised cost	(4.6)	(4.0)
Finance expense on loans and borrowings held at amortised cost	(5.2)	(12.3)
Net finance expense .	(9.7)	(15.1)

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 Group incurs negative interest on its cash deposits.

Offsetting financial assets and financial liabilities

The Group reports financial assets and financial liabilities on a net basis on the balance sheet where there is a legally enforceable right to offset the recognised amounts and there is an intention to settle on a net basis, or to realise the asset and settle the 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	1,060,144	(1,058,335)	1,809
Repurchase agreements	685,746	(75,516)	610,230
Total assets	1,745,890	(1,133,851)	612,039
Derivative financial liabilities Reverse repurchase agreements	(1,082,231) (685,746)	1,080,422 75,516	(1,809) (610,230)
Total liabilities	(1,767,977)	1,155,938	(612,039)
As at 31 December 2016	Gross amounts (re-stated) €'m	Amount Offset (re-stated) €'m	Net amount as reported €'m
Derivative financial assets Repurchase agreements	2,137,036 588,401	(2,134,261) (222,198)	2,775 366,203
Total assets	2,725,437	(2,356,459)	368,978
Derivative financial liabilities	(2,138,215)	2,135,440	(2,775)
Reverse repurchase agreements Total liabilities	(588,401) (2,726,616)	222,198	(366,203)

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 €354,313 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 Group 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.

LCH Group Holdings Limited

Consolidated financial statements for the year ended 31 December 2017

Notes to the consolidated financial statements (continued)

As CCPs, the Group's operating 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 €612,039 million (2016: €368,978 million) to nil.

20. Provisions

In December 2013, the Group initiated a restructuring plan for LCH SA, the Group's French CCP, and a net amount of €18.9 million was provided for on the statement of financial position. The provision was not discounted as it was expected that the provision would be substantially utilised during 2014. A small balance was carried forward beyond that date, but was fully utilised in 2016.

A new provision was made in 2017 in respect of possible claims against the Group in the future.

	Provisions
	€'m
As at 1 January 2016	0.4
Released in the year	-
Utilised in the year	(0.4)
As at 31 December 2016	-
Provided in the year	0.2
As at 31 December 2017	0.2

21. Commitments and contingencies

Operating leases

The Group leases offices under non-cancellable operating leases. The total future minimum lease payments due are as follows:

Property	2017 €′m	2016 €′m
Within one year	6.5	6.4
More than one year, but less than five	24.8	24.2
More than five years	12.3	17.2
	43.6	47.8

The main London office lease expires in 2026, the Paris office lease in 2023 and the main New York office lease in 2023. Other leases are on rolling 12 month contracts or are immaterial.

Finance leases

The Group no longer has any finance leases.

Supplier agreements

LCH SA and the ATOS group entered into a new Heads of Terms concerning the five year IT service contract, effective from January 2014. This extends the contract until December 2023, with a right to terminate from January 2022. The estimated maximum value of the commitment to January 2022 is €55.0 million (2016: until 2018, €25.3 million).

LCH Group Holdings Limited

Consolidated financial statements for the year ended 31 December 2017

Notes to the consolidated financial statements (continued)

Treasury assets supporting operational facilities

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

	2017 €′m	2016 €′m	
Central bank activity ¹	18,798.0	12,349.5	
Concentration bank services	231.1	191.5	
Fixed income settlement ²	16,260.1	21,647.3	
	35,289.2	34,188.3	

¹LCH SA pledges securities that have been provided as collateral for clearing activity with Banque de France for the purpose of securing overnight borrowing.

²LCH Limited 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.

22. Share capital

Share capital

Ordinary shares

The company has 72,483,217 fully paid-up ordinary shares of €1.00 each in issue as at 31 December 2017 (2016: 74,193,814).

No ordinary shares were issued in the year (2016: nil). The Company acquired 1,710,597 of its own shares on 29 December 2017 from one shareholder for consideration with a fair value of €57,639,475 million. These shares were cancelled on receipt.

Non-cumulative callable preference shares (NCPS)

The company is authorised to issue 200,000 NCPS of €1.00 each in the event that the Group's capital ratios fall below the minimum required by the relevant regulatory authority for a period of six months. As at 31 December 2017, none of these shares have been issued (2016: nil).

Share premium

The share premium reserve is €316.1 million (2016: €316.1 million).

23. Dividends

	2017 €′m	2016 €′m
Final dividend for 31 December 2015, approved 31 March 2016: €0.40 per ordinary share	-	29.7
Final dividend for 31 December 2016, approved 31 March 2017: €0.40 per ordinary share	29.7	

A final dividend for 2017 of €1.60 per ordinary share was recommended by the board on 19 February 2018 and is expected to be approved at the AGM on 26 March 2018.

24. Capital management

The Group's approach to capital management is to maintain a strong capital base that will support the development of the business, meet regulatory capital requirements at all times and maintain good credit ratings. This is managed with reference to external capital requirements, including a consideration of future impacts to the Group. Capital plans are included within

the Group'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 Group's business. The Group monitors capital resources in relation to its capital requirements.

LCH Limited and LCH SA are considered as Qualifying Central Counterparties (QCCPs) under the European Capital Requirements Regulations (CRR) as they have received authorisation under European Markets Infrastructure Regulations (EMIR). Both companies are registered as DCOs in the USA affording them QCCP status for USA members.

Compliance with capital adequacy regulations

The Group is lead-regulated by L'Autorité de Contrôle Prudentiel et de Resolution (ACPR) in France as a Compagnie Financiere under French law and is subject to capital adequacy rules under Basel III.

LCH SA is regulated as a credit institution by the ACPR and as a CCP and an investment service provider by L'Authorité des marchés financiers (AMF) in Québec, Canada. It is subject to standard capital adequacy rules under EMIR and Basel III. It is also regulated by the CFTC as a DCO in the USA.

LCH Limited 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 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). LCH Limited is also subject to oversight by other market regulators and central banks in jurisdictions in which business is carries out.

LCH.Clearnet LLC (LLC) is regulated by the CFTC as a DCO. On 30 June 2016 LLC became inactive for CFTC regulatory purposes. LLC rescinded its QCCP status with effect from 13 February 2017 (after a 180 day notice period).

The Group and its subsidiaries have been fully compliant with the respective capital adequacy regulations throughout 2017.

Basel III capital calculation

In accordance with the Basel III Pillar I framework the Group is required to maintain ratios of capital to risk weighted assets that cannot fall under a threshold of 5.75% (including capital conservation buffer phase in) of common equity, 6.0% of tier 1 capital, and 8% of total capital. At 31 December 2017 the common equity ratio was 27.5% (2016: 35.3%), and the Tier 1 and total capital ratio was 27.5% (2016: 43.9%).

As at 31 December 2017, the Group's total regulatory capital was €393.1 million (2016: €550.3 million); this is composed of shareholders' funds.

LCH Group Holdings Limited

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

25. Subsidiary companies

The Company's subsidiaries are detailed in note 29; all are owned 100% except LCH SA. This note also details the overseas branches and representative offices of LCH Limited and LCH SA.

Material partly-owned subsidiary

On 29 December 2017, the Company exchanged 11.1% of its shareholding in LCH SA in return for 2.3% of its own shares held by Euronext Paris SA (Euronext), creating a non-controlling interest in the Group. The non-controlling interest is shown in the statement of changes in equity and includes the attributable share of goodwill and all other assets.

No income for the year was attributable to the non-controlling interest.

Summarised statement of financial position of LCH SA	2017
	€′m
Total non-current assets	73.6
Balances with clearing members	288,756.6
Other current assets	316.9
Balances with clearing members	(288,756.6)
Other liabilities	(61.8)
Net assets	328.7
Attributable to:	
Non-controlling interest	36.4
Equity holders of the parent	292.3
Summarised cash flow statement for LCH SA	2017
	€′m
Net cash inflow from operating activities	68.1
Net cash outflow from investing activities	(25.2)
Net cash outflow from financing activities	(40.0)
Net increase in cash and cash equivalents	2.9

26. 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 Group, with a total shareholding of 65.93% (2016: 57.78%), and is the largest group that prepares consolidated accounts. The immediate parent company is London Stock Exchange (C) Limited, which does not prepare consolidated accounts. LCH Group Holdings Limited is the head of the smallest group which prepares consolidated accounts.

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

Details of Group companies are set out in note 29. Transactions or balances with Group entities that have been eliminated in these consolidated financial statements are not reported.

Throughout 2017, the Group had a number of transactions with various companies within LSEG which are detailed below. All transactions were on an arm's length basis.

	2017	2016
	€m	· €m
Transactions with parent companies	•	
Income statement		
Services recharged to parent companies	1.7	4.5
Services recharged from parent companies	(7.0)	(8.7)
Interest charged from parent companies	(0.4)	-
	(5.7)	(4.2)
Statement of financial position		
Amount due to parent companies at 31 December	(51.0)	(5.3)
Transactions with fellow subsidiaries		
Income statement	•	•
Services recharged to fellow subsidiaries	6.0	4.4
Services recharged from fellow subsidiaries	(74.9)	(51.1)
	(68.9)	(46.7)
Statement of financial position	·	
Amount due to fellow subsidiaries at 31 December	(22.2)	(15.9)

The Group's interoperability balances with other companies within LSEG are not included above, but are disclosed separately in note 12. The amount due to parent companies includes the long-term loan discussed in note 16.

27. Government grants

The Group qualifies for government assistance in the form of research and development tax credits.

In LCH SA, the grant is received as a reduction of the tax expense in the year following that in which the expenditure was incurred. A reduction to the tax charge for the year ended 31 December 2017 of €0.3 million (2016: €0.3 million) has been recognised as the amount due under this initiative from 2016.

In LCH Ltd, the grant is received as a reduction of the tax payable. In 2017, €0.2 million (2016: €0.7 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 grants are 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 unlikely to occur.

28. Cash flows arising from operating activities

	2017	2016
	€m	€m
Profit for the year	158.4	83.6
Tax expense	46.9	37.3
Finance income	(0.1)	(1.3)
Finance expense	9.8	16.4
Depreciation, amortisation and impairments	60.1	47.0
Research and development tax credit	(0.2)	(0.7)
Share-based payments expense	6.1	7.5
Decrease/(increase) in trade and other receivables	25.1	(103.1)
(Decrease)/increase in trade and other payables	(20.4)	33.1
Provisions utilised or released during the year	-	(0.4)
Unrealised fair value losses on financial instruments	2.0	2.0
Increase in clearing business cash and cash equivalents	(2,781.6)	(21,367.8)
Increase in fair value of member assets	(240,020.7)	(10,091.6)
Increase in fair value of member liabilities	238,720.0	31,424.3
Increase in default funds	1,840.5	3,621.6
Net cash (outflow)/inflow from operations	(1,954.1)	3,707.9

Movement in financial liabilities arising from financing activity

Liability	As at 1 January 2017	Cash flow in	Cash flow out	Fair value movements	Accrued interest	As at 31 December 2017
	€m	€m	€m	€m	€m	€m
Interest bearing loans	-	100.0	(60.0)	-	_	40.0
Loan interest payable	-	-	(0.3)	-	0.4	0.1
Preferred securities	179.8	-	(180.0)	0.2	-	-
Interest payable on securities	7.8	-	(11.8)	-	4.0	-
	187.6	100.0	(252.1)	0.2	4.4	40.1

29. Capital Requirements Directive (CRD) IV disclosures

The LCH Group comprises the following entities (all companies are 100% owned except where noted):

Company name	Principal activity	vity Address	
LCH Group Holdings Limited (formerly LCH.Clearnet Group Limited)	Parent company	33, Aldgate High Street, London, EC3N 1EA, UK	England & Wales
LCH Limited – UK	CCP	33, Aldgate High Street, London, EC3N 1EA, UK	England & Wales
LCH Limited – US	Representative office	17, State Street, New York City, NY, 10004, USA	-
LCH Limited – Australia	Representative office	Governor Philipp Tower, 1 Farrer Place, Sydney, NSW 2000, Australia	-
LCH Limited – Japan	Branch	NBF Hibiya Building 10F, 1-1-7 Uchisaiwaicho, Chiyoda-ku, Tokyo, Japan	-
LCH SA – France – (88.9% owned)	ССР	18, Rue de Quatre Septembre, Paris, 75002, France	France
LCH SA – Netherlands	Branch	Keizersgracht 679-689, 1017 DV Amsterdam, The Netherlands	-
LCH SA – Belgium	Branch	Place Stephanie 6, Bruxelles, 1050, Belgium	-
LCH SA – Portugal	Representative office	Avenue da Boavista 3433, Porto, 4194-017, Portugal	-
SwapAgent Limited	Clearing agent	33, Aldgate High Street, London, EC3N 1EA, UK	England & Wales
LCH.Clearnet LLC ²	Dormant	17, State Street, New York City, NY, 10004, USA	USA
LCH.Clearnet (Luxembourg) S.à.r.l ³	Dormant	52, rue Charles Martel, L-2134 Luxembourg	Luxembourg
LCH GP Limited	Dormant	33, Aldgate High Street, London, EC3N 1EA, UK	England & Wales
LCH PLP Limited	Dormant	33, Aldgate High Street, London, EC3N 1EA, UK	England & Wales
BondClear Limited ¹	Dormant	33, Aldgate High Street, London, EC3N 1EA, UK	England & Wales
SwapClear Limited ¹	Dormant	33, Aldgate High Street, London, EC3N 1EA, UK	England & Wales
LCH Pensions Limited ¹	Trustee company	33, Aldgate High Street, London, EC3N 1EA, UK	England & Wales
RepoClear Limited ¹	Dormant	33, Aldgate High Street, London, EC3N 1EA, UK	England & Wales
CommodityClear limited ¹	Dormant	33, Aldgate High Street, London, EC3N 1EA, UK	England & Wales
EquityClear Limited ¹	Dormant	33, Aldgate High Street, London, EC3N 1EA, UK	England & Wales
The London Clearing House Limited ¹	Dormant	33, Aldgate High Street, London, EC3N 1EA, UK	England & Wales
	Dormant	33, Aldgate High Street, London, EC3N 1EA, UK	England & Wales
ForexClear Limited ¹	Dormant	33, Aldgate High Street, London, EC3N 1EA, UK	England & Wales
International Commodities Clearing House Limited ¹	Dormant	33, Aldgate High Street, London, EC3N 1EA, UK	England & Wales
The London Produce Clearing House Limited ¹	Dormant	33, Aldgate High Street, London, EC3N 1EA, UK	England & Wales

Indirect holding through the Company's other subsidiaries

Inactive since June 2017

³ Inactive since 30 November 2016

The required CRD IV disclosures are as follows:

Year ended 31 December 2017	Head- count	Banking income €'m	Profit before tax €'m	Current tax charged €'m	Deferred tax charged €'m	Profit after tax €'m
LCH Group Holdings Limited	-	158.0	381.2	0.9	-	382.1
LCH Limited – UK	621	478.8	139.2	(27.6)	(1.2)	110.4
LCH Limited – US	-	-	1.6	1.0	-	2.6
LCH Limited – Australia	13	-	0.2	-	-	0.2
LCH Limited – Japan	2	-	-	-	-	-
LCH SA - France	211	166.3	51.8	(17.0)	1.1	35.9
LCH SA – Netherlands	5	-	9.9	(2.4)	-	7.4
LCH SA – Belgium	. 3	-	1.4	(0.5)	-	1.0
LCH SA – Portugal	3	-	(0.7)	-	-	(0.7)
SwapAgent Limited	3	3.5	4.3	(0.8)	-	3.5
LCH.Clearnet LLC	-	0.1	0.1	-	-	0.1
LCH.Clearnet (Luxembourg) S.à.r.l	-		(1.0)	(0.2)	-	(1.2)
LCH GP Limited	-	-	-	-	-	-
LCH PLP Limited	-	-	-	-	-	-
BondClear Limited	-	-	-	-	-	-
SwapClear Limited	-	-	-	-	-	-
LCH Pensions Limited	-	-	-	-	-	-
RepoClear Limited	-	-	-	-	-	-
CommodityClear Limited	-	-	-	-	-	-
EquityClear Limited	-	-	-	-	-	-
The London Clearing House Limited	-	-	-	-	-	-
LCH.Clearnet Group Limited (formerly LCH Group Holdings Limited)	-	-	-	-	-	-
ForexClear Limited	-	-	-	-	-	-
International Commodities Clearing House Limited	-	=	-	-	-	-
The London Produce Clearing House Limited	-	-	-	-	-	-
Eliminations on consolidation	_	(176.1)	(382.8)	(0.2)		(382.9)
Total	861	630.6	205.3	(46.8)	(0.1)	158.4

Total income of €640.3 million (2016: €547.3 million) less finance expense of €9.7 million (2016: €15.1 million) is equivalent to both banking income and turnover per the CRD IV definition.

LCH Group Holdings Limited

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Notes to the consolidated financial statements

Year ended 31 December 2016	Head- count	Banking income €'m	Profit before tax €'m	Current tax charged €'m	Deferred tax charged €'m	Profit after tax €'m
LCH Group Holdings Limited	-	102.1	80.4	3.5	0.1	84.0
LCH Limited – UK	618	420.2	103.3	(18.0)	(2.0)	83.3
LCH Limited – US	55	16.0	1.5	(1.2)	-	0.3
LCH Limited – Australia	11	1.6	0.2	-	-	0.2
LCH Limited – Japan	3	1.1	0.1	(0.1)	-	-
LCH.Clearnet SA - France	217	151.3	49.1	(12.7)	-	36.4
LCH. Clearnet SA – Netherlands	6	-	5.6	(1.4)	-	4.2
LCH.Clearnet SA – Belgium	3	-	1.0	(0.3)	-	0.7
LCH.Clearnet SA – Portugal	3	-	(0.8)	-	-	(0.8)
SwapAgent limited	-	-	2.7	(0.5)	-	2.2
LCH.Clearnet LLC	9	(0.3)	(7.7)	(0.1)	-	(7.8)
LCH.Clearnet Funding LP	-	•	-	-	-	-
LCH.Clearnet (Luxembourg) S.à.r.l	1	19.3	20.4	(0.3)	(4.2)	15.9
LCH GP Limited	-	-	-	-	-	-
LCH PLP Limited	-	-	-	-	-	-
BondClear Limited .	-	-	-	-	-	-
SwapClear Limited	-	-	-	-		-
LCH Pensions Limited	-	-	-	-	-	-
RepoClear Limited	-		-	-	-	-
CommodityClear Limited	-	-	-	-	-	.
EquityClear Limited	-	-		-	-	-
The London Clearing House Limited	-	-	-	-	-	-
LCH.Clearnet Group Limited (formerly LCH Group Holdings Limited)	-	-	-	-	-	
ForexClear Limited	-	-	-	<u>-</u> .	-	-
International Commodities Clearing House Limited	-	<i>:</i>	-	-	-	-
The London Produce Clearing House Limited	-	-	-	-	-	-
Eliminations on consolidation	_	(179.1)	(134.9)	-	(0.1)	(135.0)
Total .	926	532.2	120.9	(31.1)	(6.2)	83.6

The Group qualifies for a Government assistance in the form of crédit d'impôt recherche (CIR) (a research and development tax credit) in LCH SA. A reduction to the tax charge for the year ended 31 December 2017 of €0.3 million (2016: €0.5 million) has been recognised as the amount due under this initiative. LCH Ltd submitted a claim for a research and development tax credit from HMRC for €0.2 million (2016: €0.7 million). Although this is received as a reduction to the tax charge, the amount claimed is recognised as a credit against staff costs in the year.

LCH Group Holdings Limited Consolidated financial statements for the year ended 31 December 2017 Company statement of financial position

	Note	2017 €′m	2016 • €′m
	· · · · · · · · · · · · · · · · · · ·		
Non-current assets			
Investments	30	824.2	640.9
Deferred taxation asset		-	0.4
Total non-current assets		824.2	641.3
Current assets			
Trade and other receivables	31	4.2	1.1
Cash at bank and in hand		0.1	6.9
Other financial assets	34	56.2	116.1
Income tax receivable		4.1	6.0
Total current assets		64.6	130.1
Total assets		888.8	771.4
Current liabilities			
Trade and other payables	33	(8.0)	(20.7)
Interest bearing loans and borrowings	32		(199.8
Total current liabilities		(8.0)	(220.5
Non-current liabilities			
Interest bearing loans and borrowings	32	(40.0)	
Total non-current liabilities		(40.0)	
Total liabilities		(48.0)	(220.5
Net assets		840.8	550.9
Equity		·	
Called up share capital	22	72.5	74.2
Share premium	22	316.1	316.3
Capital redemption reserve	22	61.2	59.5
Retained earnings		391.0	101.:
Total equity	, <u> </u>	840.8	550.9

Lex Hoogduin Chairman **Daniel Maguire**Chief Executive Officer

Notes 30 to 35 form an integral part of these financial statements. The profit after tax for the year for the Company was €382.0 million (2016: €84.0 million).

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

LCH Group Holdings Limited Consolidated financial statements for the year ended 31 December 2017 Company statement of cash flows

	2017 €′m	2016 €'m
Cash flows arising from operating activities		
Profit for the year	382.0	84.0
Taxation	(0.9)	(3.6)
Finance income	(0.5)	(1.3)
Finance cost .	5.8	13.9
(Increase)/decrease in trade and other receivables	(3.0)	0.9
(Decrease)/Increase in trade and other payables	(12.7)	8.7
Dividend income	(151.0)	(107.0)
Impairment of investments or (reversal)	(212.1)	9.2
Profit on disposal of investment in subsidiary	(26.4)	-
Foreign exchange loss	. 0.6	2.8
Unrealised fair value loss on financial instruments	0.2	0.4
Net cash (outflow)/inflow from operations	(18.0)	8.0
Tax received	2.5	-
Net cash (outflow)/inflow from operating activities	(15.5)	8.0
Investing activities		
Dividend income from subsidiary companies	151.0	107.0
Investment in subsidiary company	(2.4)	(0.4)
Redemption of other financial assets	59.9	25.0
Net cash inflow from investing activities	208.5	131.6
Financing activities		- -
Dividends paid to shareholders	(30.8)	(27.3)
Loan funds received	100.0	-
Loan amounts given or repaid	(260.0)	(96.1)
Interest received	1.3	1.3
Interest paid	(13.7)	(13.2)
Cash outflow from financing activities	(203.2)	(135.3)
(Decrease)/increase in cash and cash equivalents	(10.2)	4.3
Foreign exchange on cash balances	3.4	(1.4)
Cash and cash equivalents at 1 January	6.9	4.0
Cash and cash equivalents at 31 December (all cash at bank)	0.1	6.9

Notes 30 to 35 form an integral part of these financial statements.

	Called-up share capital €'m	Share premium €'m	Capital redemption reserve €'m	Retained earnings €'m	Total €'m
Shareholders' equity at 1 January 2016	74.2	316.1	59.5	46.8	496.6
Profit for the year	-	-	-	84.0	84.0
Dividends paid in the year	-	-	-	(29.7)	(29.7)
Shareholders' equity at 31 December 2016	74.2	316.1	59.5	101.1	550.9
Profit for the year	-	-	-	382.0	382.0
Share repurchase	(1.7)	-	1.7	(57.6)	(57.6)
Tax on share repurchase		-	-	(0.4)	(0.4)
Transaction costs related to share repurchase	-	-	-	(4.4)	(4.4)
Dividends paid in the year	-	-	-	(29.7)	(29.7)
Shareholders' equity at 31 December 2017	72.5	316.1	61.2	391.0	840.8

Notes 30 to 35 form an integral part of these financial statements.

30. Investments		
	Investment in	Investment in
	subsidiaries	subsidiaries
	2017	2016
	€'m	€'m
Cost		
As at 1 January	1,028.2	1,027.8
Additions	2.4	0.4
Disposal	(31.2)	-
As at 31 December	999.4	1,028.2
Accumulated impairment		
As at 1 January	(387.3)	(378.1)
Reversal of impairment	212.1	-
Impairment in year	-	(9.2)
As at 31 December	(175.2)	(387.3)
Net book value	824.2	640.9

Investments in subsidiary companies are stated at cost less impairment. See note 29 for details of subsidiary companies.

On 27 April 2017, the Company made an additional investment of €2.4 million (£2.0 million) in SwapAgent Limited. The Company retains 100% of the issued share capital of the subsidiary.

On 29 December 2017, the Company disposed of 11.1% of the shares it owned in LCH SA to Euronext for consideration with a fair value of €57.6 million, realising a profit of €26.4 million (see note 25).

LCH.Clearnet Funding LP was dissolved during the year. LCH GP Limited, LCH PLP Limited and LCH.Clearnet (Luxembourg) S.à.r.l are in the process of being dissolved.

The disposal of the shares in LCH SA provides a notional fair value of €520 million for the whole company. The Company has therefore reversed the impairment provision against its investment in LCH SA to the agreed value of €520.0 million for the whole company, recognising an investment value of €462.4 million for the remaining 88.9% of LCH SA that it continues to own.

During 2016 the Company impaired its investment in LCH.Clearnet LLC by €9.2 million to its net asset value. No further impairment is required.

During 2016, the Company acquired LCH.Clearnet (Luxembourg) S.à.r.I. from subsidiary companies for consideration of €0.4 million.

31. Trade and other receivables

	2017 €′m	2016 €′m
Current		
Amounts owed by subsidiary companies	4.2	0.3

LCH Group Holdings Limited Consolidated financial statements for the year ended 31 December 2017 Notes to the Company accounts (continued)

Other receivables	-	0.8
	4.2	1.1
Trading balances owed by Group companies are interest free and payable on demand.		
32. Interest bearing loans and borrowings		
	2017	2016
	€'m	€′m
Current	•	
Subordinated loan notes owed to LCH.Clearnet Funding LP	-	199.8
Non-current Non-current		
Interest bearing loan from parent company	40.0	

The loan notes were repaid on 18 May 2017 as part of the Group's redemption of the preferred securities. The loan from the parent company part funded the repayment of the loan notes. The original loan value was €100 million. The Company has repaid €60 million during the year. Full details of the loan are given in note 16.

Movements in financial liabilities arising from financing activity are as follows:

Liability	As at 1 January 2017	Cash flow in	Cash flow out	Amortisation	Accrued interest	As at 31 December 2017
	€m	€m	€m	€m	€m	€m
Interest bearing loans	-	100.0	(60.0)	-	-	40.0
Loan interest payable	-	-	(0.3)	-	0.4	0.1
Intercompany debt	199.8	-	(200.0)	0.2	-	-
Interest payable on securities	8.2	-	(13.2)	-	5.0	-
	208.0	100.0	(273.5)	0.2	5.4	40.1

33. Trade and other payables

	2017 €'m	2016 €′m
Trade payables	0.3	-
Amounts owed to Group companies	1.4	9.8
Other payables	1.3	2.4
Accruals	5.0	8.5
	8.0	20.7

Amounts owed to Group companies are interest free and payable on demand.

34. Financial instruments

The Company's financial assets and liabilities are as follows:

	2017	2016
	€'m	€′m
Financial assets at fair value through profit or loss		
Investment in preferred securities		20.0
Loans and receivables		
Short-term loans due from subsidiary companies	56.2	96.1
Other financial assets in statement of financial position	56.2	116.1
Other receivables	4.1	1.1
Cash and short-term deposits in the statement of financial position	0.1	6.9
Financial liabilities at amortised cost		
Trade and other payables	(8.0)	(20.7)
Long-term loan from parent company	(40.0)	-
Subordinated loan owed to subsidiary	-	(200.0)

New loan agreements between the Company and its subsidiaries were signed in 2016. The loans are revolving credit facilities valid for five years and are repayable with three months notice. Interest is charged on the accounts at LIBOR or EURIBOR as appropriate. In some cases, the loan amount is subject to negative interest rates.

The terms of the long-term loan from the Company's parent company are discussed in note 16.

35. Related party transactions

During the year the Company made management recharges to subsidiary companies and incurred recharges from subsidiaries. The Company paid also paid interest to subsidiary companies and its parent company.

The subordinated loan with a subsidiary company was repaid in the year, part funded by a €100 million loan from the parent company. See note 16 for details. The Company paid €17.1 million (2016: €17.1 million) in dividends to its parent company

	2017	2016
· · · · · · · · · · · · · · · · · · ·	€m	€m
Transactions with parent companies		
Income statement		
Interest charged from parent company	(0.4)	-
	(0.4)	
Statement of financial position		•
Amount due to parent company at 31 December	(1.4)	(9.8)
Long-term loan due to parent company at 31 December	(40.0)	<u>-</u>

LCH Group Holdings Limited Consolidated financial statements for the year ended 31 December 2017 Notes to the Company accounts (continued)

Transactions with subsidiaries		
Income statement		
Services recharged to subsidiaries	12.3	7.7
Dividends received from subsidiaries	151.0	107.0
Services recharged from subsidiaries	(11.7)	(9.4)
Interest paid to subsidiaries	(5.4)	(13.5)
	146.2	91.8
Statement of financial position		
Short-term loans due from subsidiary companies (see note 34)	56.2	96.1
Other balance due from subsidiaries at 31 December	4.2	1.1
Subordinated loan from subsidiary (see note 16)	-	(200.0)