

# ***CITADEL SECURITIES (EUROPE) LIMITED***

*Annual report and Financial Statements for the year ended 31 December 2016*

Registered number: 5462867

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**CITADEL SECURITIES (EUROPE) LIMITED**

**Registered number: 5462867**

**Company Information**

**DIRECTORS**

S Atkinson

M Wheeler

S Belluardo

**INDEPENDENT AUDITORS**

PricewaterhouseCoopers LLP

Chartered Accountants and Statutory Auditors

7 More London Riverside

London SE1 2RT

**BANKERS**

Bank of New York

1 Wall Street

New York

NY 10286

United States of America

**JP MORGAN CHASE BANK N.A**

1 Chaseside

Bournemouth BH7 7DA

**REGISTERED OFFICE**

Moor House

120 London Wall

London EC2Y 5ET

## **CITADEL SECURITIES (EUROPE) LIMITED**

**Registered number: 5462867**

### **Directors' report for the year ended 31 December 2016**

The directors present their report and audited financial statements of Citadel Securities (Europe) Limited ("CSEL" or "the Company") for the year ended 31 December 2016. These financial statements were authorised for issue by the Board of Directors on 12 April 2017. The directors have chosen to disclose the company's risk management objectives and policies, and the future outlook of the Company in the strategic report in accordance with Section 414C(11) of the Companies Act 2006.

#### **Directors**

The following directors who held office during the year and to the date of this report were:

S Atkinson  
M Wheeler  
S Belluaro

#### **Results and dividends**

The Company earned net revenue of \$166,471,000 (2015 — \$159,045,000) and made a profit before taxation of \$117,748,000 (2015 — \$129,373,000). During the year, the Company did not make any dividend payments (2015 — \$47,963,000).

#### **Statement of directors' responsibilities**

The directors are responsible for preparing the Annual Report and the financial statements in accordance with applicable law and regulation.

Company law requires the directors to prepare financial statements for each financial year. Under that law the directors have prepared the financial statements in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards, comprising FRS 102 "The Financial Reporting Standard applicable in the UK and Republic of Ireland, and applicable law). Under company law the directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the Company and of the profit or loss of the Company for that period. In preparing these financial statements, the directors are required to:

- select suitable accounting policies and then apply them consistently;
- make judgements and accounting estimates that are reasonable and prudent;
- state whether applicable United Kingdom Accounting Standards, comprising FRS 102 have been followed, subject to any material departures disclosed and explained in the financial statements; and
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the Company will continue in business.

The directors are responsible for keeping adequate accounting records that are sufficient to show and explain the Company's transactions and 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.

#### **Directors' statement on disclosure of information to auditors**

So far as each director is aware, there is no relevant audit information of which the Company's auditors are not aware and the directors confirm that they have taken all the steps that they ought to have taken as directors in order to make themselves aware of any relevant audit information and to establish that the Company's auditors are aware of that information.

#### **Independent Auditors**

The auditors, PricewaterhouseCoopers LLP, have indicated their willingness to continue in office and a resolution concerning their reappointment will be proposed at the Annual General Meeting.

#### **Future developments**

Please refer to the Director's strategic report.

#### **Financial risk management**

Please refer to Note (15) accompanying the financial statements.

On behalf of the Board



S Atkinson  
Director  
12 April 2017

## **CITADEL SECURITIES (EUROPE) LIMITED**

**Registered number: 5462867**  
**Strategic report for the year ended 31 December 2016**

The directors present their strategic report for the year ended 31 December 2016.

### **Principal activity**

The principal activity of the Company is technology-enabled liquidity provision in equities and financial derivatives across various European exchanges and market making in centrally cleared interest rate swaps. The Company trades on a proprietary basis for its own account.

### **Business environment and competition**

The principal markets in which the Company operates, are highly competitive with competition from both incumbent players and new market entrants. These markets continue to evolve as a result of new regulation and technologies. In order to compete effectively in these markets there is continuous focus on evolving the trading strategies deployed, the product sets traded, the trading venues utilised and the technology employed combined with investment into researching potential new opportunities.

### **Principal risks and uncertainties**

The Company has exposure to the following risks from its use of financial instruments: market risk, credit risk and liquidity risk. The Board of Directors has overall responsibility for the establishment and oversight of the Company's risk management framework. The Company's risk management policies are established to identify the risks faced by the Company, to set appropriate risk limits and controls, and to monitor these risks. Risk management policies and systems are reviewed regularly to reflect changes in market conditions and the Company's activities.

The Company's risk management structure seeks to minimise the potential, adverse effects of these risks on financial performance. Market risk limits are agreed to by the Board of Directors and are closely monitored on an intra-day basis to ensure compliance. Credit risk, including settlement risk, is monitored on a daily basis against limits agreed to by the Board of Directors. Liquidity risk is monitored intra-day in accordance with the liquidity risk tolerances set by the Board of Directors as part of the liquidity policy.

Further information is provided in the Company's Pillar 3 disclosure document which should be read in conjunction with these financial statements and which is available via the Citadel website ([www.citadel.com](http://www.citadel.com)).

The Company is exposed to risks of retaining key employees. This risk is addressed by human resource policies to ensure that the Company recruits and retains staff with the appropriate skills, by offering an attractive work place environment and competitive remuneration packages.

The Company is exposed to a range of operational risks including risks associated with the high volume of trading that is undertaken. These risks are closely monitored and on a monthly basis are formally reported on to ensure they are within agreed risk tolerances with any breaches being escalated ultimately to the Board of Directors to ensure appropriate controls are implemented.

The financial markets in which the Company operates and the activities of the Company are currently subject to a number of potential regulatory and tax changes. The Company closely monitors all proposed changes and actively engages in the consultation processes to ensure the Company is positioned to respond to any changes that are ultimately agreed.

## CITADEL SECURITIES (EUROPE) LIMITED

### Strategic report for the year ended 31 December 2016

#### Review of business

In 2016, the Company continued to invest in new strategies, evolve existing strategies and enhance technology; this investment resulted in a 66% increase in administrative expenses in 2016, primarily as a result of the 125% increase in staff in the year to support the investment strategy to drive potential future growth. The statement of financial position on page 8 shows a strong net asset position, with the growth of capital in the Company to support the growing business funded by continued strong profitability. In 2016, the Company expanded the product classes in which it is active including the commencement of liquidity provision in EUR denominated cleared interest rate swaps and European listed index options.

From 1 January 2016 the company became subject to the Bank Corporation tax surcharge of 8% on profits in excess of £25m, resulting in a reduction of the after tax profits in the entity for 2016.

#### Key Performance Indicators ("KPIs")

The directors monitor a range of key performance indicators to oversee the development and performance of the business. These are included in net revenue, trading volume and liquidity reports, all of which are produced and reviewed on a daily basis.

The Company's principal KPIs are the following (unaudited).

- Profit for the financial year: This indicates the net profit across all business lines of the Company and it is one of the most important indicators of the Company's overall performance.
- Liquidity ratio: This represents liquid assets as a percentage of the Company's net asset value and is indicative of the liquidity of the Company's capital resources.
- Return on assets: This represents the profit for the financial year divided by total assets on the statement of financial position and is a performance indicator required to be made publicly available by section 9.1.3 of the FCA Prudential Sourcebook for Investment Firms ('IFPRU').

	2016 \$000	2015 \$000
Profit for the financial year	88,135	102,639
Liquidity ratio	69.92%	86.56%
Return on assets	21.62%	35.34%

The Company's profit for 2016 amounted to \$88,135,000, which represents a decrease of 14.1% vs 2015. The decrease in profitability is the result of an increase in operating costs associated with the investment strategy and tax charges, as explained above, which more than offset the increase in revenues in 2016. During the course of 2016, the Company retained all profits in the business to increase its capital resources as part of the investment in new business expansion. The combination of decreased profitability and increased capital resulted in a lower return on assets in 2016 compared with 2015. The Company continued to maintain a strong balance sheet with liquid assets amounting to \$145,151,000 as at 31 December 2016 and no long-term debt. The decrease in liquidity ratio in 2016 vs 2015 is the result of an increase in the capital deployed to drive the business expansion.

#### Strategy and future developments

The Company's strategy for 2017 is to continue to focus on liquidity provision and algorithmic trading investing in new strategies and technologies as appropriate and prepare for the anticipated changes resulting from the planned introduction of new regulation. The Company plans to continue to expand the product sets that it trades and for which it provides liquidity and brokerage services. The company has also expanded geographically adding a branch in Ireland that commenced operations in January 2017. The directors foresee similar levels of gross trading revenue in 2017 compared to 2016 and expect some further growth in operating expenses as the Company continues to invest in potential new opportunities to drive potential future growth.

The Company is mindful of potential future challenges associated with the UK's decision to leave the EU, this could result in restricted access to the EU financial markets and the Company is developing plans to ensure continued access to these markets under a number of possible scenarios.

On behalf of the Board



S Atkinson  
Director  
12 April 2017

## **CITADEL SECURITIES (EUROPE) LIMITED**

### **Independent auditors' report to the members of Citadel Securities (Europe) Limited**

#### **Report on the financial statements**

##### *Our opinion*

In our opinion, Citadel Securities (Europe) Limited's financial statements (the "financial statements"):

- give a true and fair view of the state of the company's affairs as at 31 December 2016 and of its profit and cash flows for the year then ended;
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice; and
- have been prepared in accordance with the requirements of the Companies Act 2006.

##### *What we have audited*

The financial statements, included within the Annual Report, comprise:

- the Statement of Financial Position as at 31 December 2016;
- the Statement of Comprehensive Income for the year then ended;
- the Cash Flow Statement for the year then ended;
- the Statement of Changes in Equity for the year then ended; and
- the notes to the financial statements, which include a summary of significant accounting policies and other explanatory information.

The financial reporting framework that has been applied in the preparation of the financial statements is United Kingdom Accounting Standards, comprising FRS 102 "The Financial Reporting Standard applicable in the UK and Republic of Ireland", and applicable law (United Kingdom Generally Accepted Accounting Practice).

In applying the financial reporting framework, the directors have made a number of subjective judgements, for example in respect of significant accounting estimates. In making such estimates, they have made assumptions and considered future events.

#### **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 the Directors' Report have been prepared in accordance with applicable legal requirements.

In addition, in light of the knowledge and understanding of the company and its environment obtained in the course of the audit, we are required to report if we have identified any material misstatements in the Strategic Report and the Directors' Report. We have nothing to report in this respect.

#### **Other matters on which we are required to report by exception**

##### *Adequacy of accounting records and information and explanations received*

Under the Companies Act 2006 we are required to report to you if, in our opinion:

- we have not received all the information and explanations we require for our audit; or
- adequate accounting records have not been kept, or returns adequate for our audit have not been received from branches not visited by us; or
- the financial statements are not in agreement with the accounting records and returns.

We have no exceptions to report arising from this responsibility.

##### *Directors' remuneration*

Under the Companies Act 2006 we are required to report to you if, in our opinion, certain disclosures of directors' remuneration specified by law are not made. We have no exceptions to report arising from this responsibility.

## CITADEL SECURITIES (EUROPE) LIMITED

### Responsibilities for the financial statements and the audit

#### *Our responsibilities and those of the directors*

As explained more fully in the Directors' Responsibilities Statement set out on page 2, the directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view.

Our responsibility is to audit and express an opinion on the financial statements in accordance with applicable law and International Standards on Auditing (UK and Ireland) ("ISAs (UK & Ireland)"). Those standards require us to comply with the Auditing Practices Board's Ethical Standards for Auditors.

This report, including the opinions, has been prepared for and only for the company's members as a body in accordance with Chapter 3 of Part 16 of the Companies Act 2006 and for no other purpose. We do not, in giving these opinions, accept or assume responsibility for any other purpose or to any other person to whom this report is shown or into whose hands it may come save where expressly agreed by our prior consent in writing.

#### *What an audit of financial statements involves*

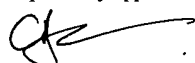
We conducted our audit in accordance with ISAs (UK & Ireland). An audit involves obtaining evidence about the amounts and disclosures in the financial statements sufficient to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or error. This includes an assessment of:

- whether the accounting policies are appropriate to the company's circumstances and have been consistently applied and adequately disclosed;
- the reasonableness of significant accounting estimates made by the directors; and
- the overall presentation of the financial statements.

We primarily focus our work in these areas by assessing the directors' judgements against available evidence, forming our own judgements, and evaluating the disclosures in the financial statements.

We test and examine information, using sampling and other auditing techniques, to the extent we consider necessary to provide a reasonable basis for us to draw conclusions. We obtain audit evidence through testing the effectiveness of controls, substantive procedures or a combination of both.

In addition, we read all the financial and non-financial information in the Annual Report to identify material inconsistencies with the audited financial statements and to identify any information that is apparently materially incorrect based on, or materially inconsistent with, the knowledge acquired by us in the course of performing the audit. If we become aware of any apparent material misstatements or inconsistencies we consider the implications for our report. With respect to the Strategic Report and Directors' Report, we consider whether those reports include the disclosures required by applicable legal requirements.



Carl Sizer (Senior Statutory Auditor)  
for and on behalf of PricewaterhouseCoopers LLP  
Chartered Accountants and Statutory Auditors  
London

13 April 2017

**CITADEL SECURITIES (EUROPE) LIMITED**  
**STATEMENT OF COMPREHENSIVE INCOME**  
**For the year ended 31 December 2016**

	<u>Note</u>	<u>2016 \$000</u>	<u>2015 \$000</u>
Income from trading		\$ 290,818	\$ 284,553
Fees and commission expense		<u>(124,347)</u>	<u>(125,508)</u>
Net revenue		166,471	159,045
Administrative expenses	(5)	<u>(47,022)</u>	<u>(28,314)</u>
<b>Operating profit</b>		119,449	130,731
Net finance expense	(6)	<u>(1,701)</u>	<u>(1,358)</u>
<b>Profit on ordinary activities before taxation</b>		117,748	129,373
Tax on profit on ordinary activities	(7)	<u>(29,613)</u>	<u>(26,734)</u>
<b>Profit for the financial year</b>		<u>88,135</u>	<u>102,639</u>
<b>Total comprehensive income</b>		<u>\$ 88,135</u>	<u>\$ 102,639</u>

All the results of the Company are derived from continuing operations.

The notes on pages 11 to 24 are an integral part of these financial statements.



**CITADEL SECURITIES (EUROPE) LIMITED**

**STATEMENT OF FINANCIAL POSITION**

**As at 31 December 2016**

	<b>Note</b>	<b>2016 \$000</b>	<b>2015 \$000</b>
<b>Current assets</b>			
Trade receivables	(10)	\$ 75,986	\$ 57,199
Financial assets at fair value through profit and loss	(11)	143,514	128,755
Reverse repurchase agreements	(13)	131,402	51,283
Cash and cash equivalents		56,726	53,167
		<u>407,628</u>	<u>290,404</u>
<b>Current liabilities</b>			
Financial liabilities at fair value through profit and loss	(11)	135,485	119,996
Other creditors	(14)	64,555	50,955
		<u>200,040</u>	<u>170,951</u>
<b>Net current assets</b>		207,588	119,453
<b>Net assets</b>		<u>207,588</u>	<u>119,453</u>
<b>Equity</b>			
Called up share capital	(17)	8,000	8,000
Retained earnings		199,588	111,453
<b>Total shareholder's funds</b>		<u>\$ 207,588</u>	<u>\$ 119,453</u>

The financial statements on pages 7 to 10 were approved by the board of directors on 12 April 2017 and were signed on its behalf by:



S Atkinson  
Director

12 April 2017

The notes on pages 11 to 24 are an integral part of these financial statements.

**CITADEL SECURITIES (EUROPE) LIMITED**

**STATEMENT OF CHANGES IN EQUITY**

**For the year ended 31 December 2016**

	<b>Note</b>	<b>Called up share capital \$000</b>	<b>Retained earnings \$000</b>	<b>Total shareholder's funds \$000</b>
Balance as at 1 January 2015		8,000	56,777	64,777
Profit for the financial year and total comprehensive income		-	102,639	102,639
Dividends	(19)	-	(47,963)	(47,963)
Balance as at 31 December 2015		<u>8,000</u>	<u>111,453</u>	<u>119,453</u>
Balance as at 1 January 2016		8,000	111,453	119,453
Profit for the financial year end and total comprehensive income		-	88,135	88,135
<b>Balance as at 31 December 2016</b>		<u><b>\$ 8,000</b></u>	<u><b>\$ 199,588</b></u>	<u><b>\$ 207,588</b></u>

The notes on pages 11 to 24 are an integral part of these financial statements.

**CITADEL SECURITIES (EUROPE) LIMITED**

**CASH FLOW STATEMENT**  
**For the year ended 31 December 2016**

	<b>Note</b>	<b>2016 \$000</b>	<b>2015 \$000</b>
Net cash inflow from operating activities	(18)	\$ 48,989	\$ 65,912
Taxation paid		(25,905)	(28,084)
<b>Net cash from operating activities</b>		<u>23,084</u>	<u>37,828</u>
Interest received		2,039	598
<b>Net cash used in investing activities</b>		<u>2,039</u>	<u>598</u>
Decrease in swap collateral		(18,000)	-
Interest paid		(3,564)	(1,880)
Dividends paid	(19)	-	(47,963)
<b>Net cash used in financing activities</b>		<u>(21,564)</u>	<u>(49,843)</u>
Net increase / (decrease) in cash		3,559	(11,417)
Cash and cash equivalents at beginning of the year		53,167	64,584
<b>Cash and cash equivalents at end of the year</b>		<u>\$ 56,726</u>	<u>\$ 53,167</u>

The notes on pages 11 to 24 are an integral part of these financial statements.

## CITADEL SECURITIES (EUROPE) LIMITED

### NOTES TO FINANCIAL STATEMENTS

For the year ended 31 December 2016

#### Accounting policies

##### (1) General information:

Citadel Securities (Europe) Limited ("CSEL" or "the Company") is a full scope investment firm regulated by the Financial Conduct Authority ("FCA"). The principal activity of the Company is technology-enabled liquidity provision in equities and financial derivatives across various European exchanges and market making in centrally cleared interest rate swaps. The Company trades on a proprietary basis for its own account. The company is a private company limited by shares and is incorporated and domiciled in England. The address of its registered office is Moor House, 120 London Wall, London EC2Y 5ET.

##### (2) Statement of compliance:

The individual financial statements of CSEL have been prepared in compliance with United Kingdom Accounting Standards, including Financial Reporting Standard 102, "The Financial Reporting Standard applicable in the United Kingdom and the Republic of Ireland" ("FRS 102") and the Companies Act 2006 ("the Act").

##### (3) Accounting policies:

The principal accounting policies applied in the preparation of these financial statements are set out below. These policies have been consistently applied to all of the years presented, unless otherwise stated.

#### Basis of preparation

The financial statements have been prepared on the going concern basis, under the historical cost convention, as modified by the recognition of certain financial assets and liabilities measured at fair value (as explained below). The Company continues to review and update its accounting policies, in accordance with the requirements of Section 10 of FRS 102 ("Accounting Policies, Estimates and Errors").

The format of the profit and loss account has been amended from that prescribed in the Act as, in the opinion of the directors, the presentation adopted better reflects the nature and activities of the business of the Company. The preparation of financial statements requires the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying the Company's accounting policies.

#### Foreign currencies

The Company's functional and presentation currency is the U.S. Dollar. Transactions in foreign currencies are translated into U.S. Dollars at the exchange rate ruling on the date of transaction. Monetary assets and liabilities denominated in foreign currencies are translated into U.S. Dollars at the rate of exchange ruling at the balance sheet date. As at 31 December 2016, the applicable exchange rates for USD-GBP and USD-EUR were 1.2324 and 1.0531 respectively.

Foreign exchange gains and losses resulting from the settlement of transactions and from the translation at period-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in the statement of comprehensive income within net revenue.

#### Net revenue

Net revenue has been disclosed instead of turnover as this more meaningfully reflects the nature and results of the Company's activities. Net revenues are recorded on a trade date basis. Realised and change in unrealised gains (losses) and commissions and related costs of executing transactions are included in net revenue on the statement of comprehensive income.

#### Interest income and expense

Interest income (expense) is recognised on an accrual basis.

#### Income from trading

Income from trading comprises: net trading interest income which is recognised as earned; foreign exchange gains or losses; and gains or losses on trading activity. Dividends received and paid on equity securities are recognised as income or expense on the ex-dividend date.

#### Fees and commission expense

Fees and commission expense principally comprise brokerage, exchange, clearing, market intermediation and swap fees associated with trading activity. The fees are recognised in net revenue on an accrual basis as the service is provided.

## CITADEL SECURITIES (EUROPE) LIMITED

### NOTES TO FINANCIAL STATEMENTS, CONTINUED For the year ended 31 December 2016

#### (3) Accounting policies, continued:

##### Recognition and derecognition of financial assets and liabilities

The Company has chosen to adopt Sections 11 and 12 of FRS 102 in respect of financial instruments.

The Company recognises a financial asset or liability on its statement of financial position when it becomes a party to the contractual provisions of the instrument. Derecognition of financial assets will occur when the contractual rights to the cash flows from the assets expire. Derecognition of financial liabilities occur when the contractual obligations to make payments have been extinguished. Measurement of financial assets and liabilities is based on the fair value of the instruments.

##### Financial assets and liabilities at fair value through profit and loss

Financial assets and liabilities at fair value through profit and loss include securities owned and securities sold, but not yet purchased, and derivative financial instruments. In accordance with Section 12 of FRS 102, the initial measurement is made at fair value on the trade date, which is normally the transaction price. Such financial instruments are carried in the statement of financial position at fair value and any subsequent adjustments to fair values are recognised in net revenue on the statement of comprehensive income in the period in which they arise. Substantially all the Company's securities owned and carried at fair value, are held at a major financial institution which is permitted by contract or custom to sell or repledge these securities.

##### Valuation of financial instruments

The Company measures and reports financial instruments at fair value. The fair value is based on available information and represents the Company's best estimate of fair value. All financial instruments are valued at the close of business on each date of determination in the relevant time zone as determined by the Company. Valuations are not changed subsequent to such closing time, irrespective of whether part or all of a group of financial instruments continue to trade after the close of business and prior to the next opening of business in such time zone.

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between knowledgeable, willing parties. Where available, fair value is based on observable market prices. Where observable prices or inputs are not available, valuation models are applied. These valuation techniques involve some level of estimation and judgement by the Company, the degree of which is dependent on the price transparency for the instruments or market and the instruments' complexity.

FRS 102 has a three-level fair value hierarchy for disclosure of fair value measurements. The fair value hierarchy prioritises inputs to the valuation techniques used to measure fair value, giving the highest priority to level 1 inputs and the lowest priority to level 3 inputs. A financial instrument's level in the fair value hierarchy is based on the lowest level of input that is significant to its fair value measurement. The three levels of the fair value hierarchy are described below:

##### Basis of Fair Value Measurement

- Level 1: The unadjusted quoted price in an active market for identical assets or liabilities;
- Level 2: Inputs other than quoted prices included within Level 1 that are observable (i.e. developed using market data) for the asset or liability, either directly or indirectly; and
- Level 3: Inputs are unobservable (i.e. for which market data is unavailable) for the asset or liability.

Financial instruments are valued taking into consideration third party pricing sources to the extent possible. Third party pricing sources may include one or more exchanges, organised dealer markets, electronic trading facilities or brokers and dealers. For certain financial instruments, indications of fair value may be quoted by a limited number of market participants. The Company may arbitrate the price information received in determining the best estimate of fair value for the financial instrument.

Financial instruments which are traded on one or more exchanges, organised dealer markets or electronic trading facilities are generally valued at their closing price on the exchange upon which they are principally traded. Such financial instruments are generally classified within level 1 of the fair value hierarchy. Valuation adjustments may be applied to the quoted market prices to the extent that exchange-traded financial instruments are infrequently traded.

## CITADEL SECURITIES (EUROPE) LIMITED

### NOTES TO FINANCIAL STATEMENTS, CONTINUED

For the year ended 31 December 2016

#### (3) Accounting policies, continued:

##### Valuation of financial instruments, continued:

The following describes the valuation techniques applied to the Company's major classes of assets and liabilities to measure fair value, including an indication of the level within the fair value hierarchy in which each asset and liability is generally classified. Where appropriate, the description includes details of the valuation models and the key inputs to those models.

##### **Cash and cash equivalents**

The Company defines cash and cash equivalents on the statements of financial position and cash flows as cash and funds held in liquid investments with original maturities of 90 days or less, as well as investments in money market funds. Substantially all cash and cash equivalents are held at various global institutions. The money market investments are valued based on the reported net asset value and are classified within level 1 of the fair value hierarchy.

##### **Equity securities**

###### *Exchange-traded equity securities*

Exchange-traded equity securities are valued using exchange quoted market prices and are categorised within level 1 of the fair value hierarchy.

###### *Non-exchange-traded equity securities*

The Company's non-exchange-traded equity securities typically represent securities that are traded in over-the-counter ("OTC") markets. These non-exchange-traded equity securities are generally valued using broker quotes or OTC market quotes and are classified within level 2 of the fair value hierarchy.

##### **U.S. government securities**

U.S. government securities are valued using quoted market prices and are categorized within level 1 of the fair value hierarchy.

##### **Derivative assets and derivative liabilities**

###### *Exchange-traded derivative financial instruments*

Exchange-traded derivative financial instruments include warrants, options and futures contracts, which are valued at the closing exchange price and are classified within level 1 of the fair value hierarchy.

###### *OTC derivative financial instruments*

OTC derivative financial instruments include foreign exchange forward and interest rate swap contracts.

Interest rate swap contracts are valued using market-based inputs to models, broker or dealer quotations, or alternative pricing sources with reasonable levels of price transparency. Valuation models require a variety of inputs, including contractual terms, yield curves and correlations of such inputs. For interest rate swap contracts that trade in liquid markets, model inputs can generally be verified and model selection does not involve significant management judgement. Interest rate swap contracts are classified within level 2 of the fair value hierarchy as all of the inputs are observable. Also, to be consistent with industry practices, the Company's valuation of interest rate swap contracts is generally based on discounting in local currency at the overnight index swap rate.

Foreign exchange forwards generally trade in liquid markets and are valued using market-based inputs to models. Model inputs can generally be verified and model selection does not involve significant management judgement. Significant inputs include foreign exchange rates and/or foreign exchange forward points. These instruments are generally categorised within level 2 of the fair value hierarchy.

##### Netting arrangements

The Company enters into master netting agreements with counterparties whenever possible and, when appropriate, obtains collateral. Master agreements provide that, if an event of default occurs, all outstanding transactions with the counterparty will fall due and all amounts outstanding will be settled on a net basis. Financial assets and liabilities are offset and the net amounts presented in the financial statements when there is a legally enforceable right to set off the recognised amounts and there is an intention to settle on a net basis or to realise the asset and settle the liability simultaneously.

## CITADEL SECURITIES (EUROPE) LIMITED

### NOTES TO FINANCIAL STATEMENTS, CONTINUED

For the year ended 31 December 2016

#### (3) Accounting policies, continued:

##### Derivative contracts

Derivative financial instruments generally reference notional amounts which are utilised solely as a basis for determining cash flows to be exchanged. Notional amounts provide a measure of the Company's portfolio commitment to such derivative financial instruments. Such notional amounts are not necessarily indicative of economic exposure or potential risk under derivative financial instruments due to the Company's ability to enter into offsetting positions, request collateral from its counterparties and novate or terminate such instruments, as applicable. These derivative financial instruments are reported at fair value in the statement of financial position and any subsequent adjustments to fair values are recognised in net revenue on the statement of comprehensive income in the period in which they arise.

##### Transfers of financial assets

In general, transfers of financial assets are accounted for as sales when the Company has relinquished control over the transferred assets. For transfers of financial assets that are not accounted for as sales, in which the transferor retains control of the financial assets, the financial assets remain on the statement of financial position and the transfer is accounted for as a collateralised financing. Securities purchased under agreements to resell ("reverse repurchase agreements"), and securities sold under agreements to repurchase ("repurchase agreements") are treated as collateralised financings (see Note 13).

Reverse repurchase agreements and repurchase agreements are reported within operating activities on the cash flow statement. Reverse repurchase and repurchase agreements are short-term in nature and are recorded at the amounts of cash paid or received, plus accrued interest, on the statement of financial position. Reverse repurchase agreements and repurchase agreements with the same counterparty are reported on a net basis when there exists a legally enforceable right to set off the recognized amounts and when certain other criteria are met in accordance with applicable accounting guidance on offsetting. Interest income or expense on reverse repurchase and repurchase agreements is recognised over the term of the relevant agreement and included in net finance expense on the statement of comprehensive income.

##### Pension costs and other post retirement benefits

A related entity, Citadel Investment Group (Europe) Limited ("CIGE") makes payments into a group personal pension plan, operating as a defined contribution pension scheme. All staff are employed by CIGE which allocates an appropriate share of pension costs to the Company. These costs are included in administrative expenses on the statement of comprehensive income.

##### Related party transactions

The Company discloses transactions with related parties which are not wholly owned by the same parent entity. Where appropriate, transactions of a similar nature are aggregated.

#### (4) Transactions with related parties:

Pursuant to an administrative services agreement, the Company incurs direct and allocable administrative expenses paid by Citadel LLC, an affiliate, on behalf of the Company. For the year ended 31 December 2016, these expenses amounted to \$881,000 and are included in the statement of comprehensive income (2015 - \$415,000). As at 31 December 2016, a balance of \$432,000 was payable to Citadel LLC (2015 - \$251,000).

Pursuant to a services agreement, the Company incurs direct and allocable administrative expenses paid by CIGE on behalf of the Company. As per the terms of this agreement, CIGE allocates an appropriate share of its employment costs to the Company. For the year ended 31 December 2016, these expenses amounted to \$45,238,000 and are included in the statement of comprehensive income (2015 - \$26,990,000). As at 31 December 2016, a balance of \$14,496,000 was payable to CIGE (2015 - \$6,451,000).

During the year ended 31 December 2016, the Company purchased interest rate swaps with a fair value of \$(2,908,000) from Citadel Securities Swap Dealer LLC ("CSSD"), an affiliated swap dealer, for a net cash receipt of \$2,908,000. For executing the transfer, CSSD paid the Company fees of \$616,000, which are included in fees and commission expense on the statement of comprehensive income.

During the year ended 31 December 2016, the Company sold interest rate swaps with a fair value of \$(9,749,000) to CSSD for a net cash payment of \$9,749,000. For executing the transfer, the Company paid CSSD fees of \$153,000 which are included in fees and commission expense on the statement of comprehensive income.

Pursuant to a market intermediation agreement, the Company pays fees to CALC IV LP, an affiliate, to facilitate the Company's trading activities. For the year ended 31 December 2016, these fees amounted to \$42,141,000 and are included in fees and commission expense in the statement of comprehensive income (2015 - \$39,307,000). As at 31 December 2016, a balance of \$2,862,000 was payable to CALC IV LP (2015 - \$3,616,000).

**CITADEL SECURITIES (EUROPE) LIMITED**

**NOTES TO FINANCIAL STATEMENTS, CONTINUED**

**For the year ended 31 December 2016**

**(5) Administrative expenses:**

Operating profit is stated after charging:

	<b>2016 \$000</b>	<b>2015 \$000</b>
Staff costs (Note 8)	\$ 22,533	\$ 10,391
Auditors' remuneration		
- audit services pursuant to legislation	301	245
- other services	60	68
Irrecoverable VAT	3,259	2,494
Fund administration services	450	909
Other costs	20,419	14,207
	<u>\$ 47,022</u>	<u>\$ 28,314</u>

**(6) Net finance expense:**

	<b>2016 \$000</b>	<b>2015 \$000</b>
<b>Interest receivable and similar income</b>		
Collateralised agreements	\$ 549	\$ 170
U.S. government securities	955	409
Bank accounts and short term deposits	555	87
	<u>2,059</u>	<u>666</u>
<b>Interest payable and similar charges</b>		
Collateralised agreements	(296)	(93)
U.S. government securities	(1,189)	(454)
Bank accounts and short term deposits	(2,275)	(1,477)
	<u>(3,760)</u>	<u>(2,024)</u>
<b>Net finance expense</b>	<u>\$ (1,701)</u>	<u>\$ (1,358)</u>

**(7) Tax on profit on ordinary activities:**

The tax charge is based on the profit for the year and comprises:

	<b>2016 \$000</b>	<b>2015 \$000</b>
<b>Current tax</b>		
UK corporation tax on profit for the year	\$ 30,196	\$ 26,734
Adjustments in respect of prior years	(583)	-
<b>Total current tax</b>	<u>\$ 29,613</u>	<u>\$ 26,734</u>



**CITADEL SECURITIES (EUROPE) LIMITED**  
**NOTES TO FINANCIAL STATEMENTS, CONTINUED**  
**For the year ended 31 December 2016**

**(7) Tax on profit on ordinary activities, continued:**

The tax assessed for the year is higher than the average rate of corporation tax in the UK. The differences are explained below:

	<b>2016 \$000</b>	<b>2015 \$000</b>
Profit on ordinary activities before taxation	\$ 117,748	\$ 129,373
Profit on ordinary activities before tax multiplied by the average rate of corporation tax in the UK of 20% (2015 – 20.25%)	23,550	26,198
Bank corporation tax surcharge	6,709	
Expenses not deductible for tax purposes	-	615
Foreign exchange differences	(63)	(79)
Adjustments in respect of prior years	(583)	-
Current tax charge for the year	<u>\$ 29,613</u>	<u>\$ 26,734</u>

**Factors affecting current and future tax charges**

During the year ended 31 December 2016, the standard rate of corporation tax in the UK was 20%. From 1 April 2017, the rate is set at 19%. From 1 January 2016, the Company has been subject to a Bank Corporation Tax surcharge of 8% on profits in excess of GBP 25 million.

**(8) Staff costs:**

Staff costs are made up as follows:

	<b>2016 \$000</b>	<b>2015 \$000</b>
Wages, salaries and bonus payments	\$ 18,670	\$ 8,823
Social security costs	2,511	1,182
Pension costs	452	279
Other staff costs	900	107
	<u>\$ 22,533</u>	<u>\$ 10,391</u>

All staff are employed by CIGE which allocates an appropriate share of staff costs to the Company. These costs are included in administrative expenses on the statement of comprehensive income.

**(9) Directors' remuneration:**

Total Directors' remuneration:

	<b>2016 \$000</b>	<b>2015 \$000</b>
Emoluments	\$ 157	\$ 175
Pension benefits	6	7
	<u>\$ 163</u>	<u>\$ 182</u>

**CITADEL SECURITIES (EUROPE) LIMITED**

**NOTES TO FINANCIAL STATEMENTS, CONTINUED**

**For the year ended 31 December 2016**

**(9) Directors' remuneration, continued:**

Remuneration in respect of the highest paid Director:

	<b>2016 \$000</b>	<b>2015 \$000</b>
Emoluments	\$ 127	\$ 141
Pension benefits	6	7
	<u>\$ 133</u>	<u>\$ 148</u>

These costs are included in staff costs (Note 8).

**(10) Trade receivables:**

	<b>2016 \$000</b>	<b>2015 \$000</b>
Interest receivable	\$ 90	\$ 69
Amounts owed by brokers	40,721	30,848
Amounts owed by clearing houses	35,175	26,282
	<u>\$ 75,986</u>	<u>\$ 57,199</u>

Amounts owed by brokers principally represent collateral and unsettled trades with the Company's brokers, specifically Barclays Bank plc (A1), Morgan Stanley & Co. International Plc (A1), Bank of America Corporation (Baa1) and Deutsche Bank AG (Baa2). The ratings disclosed are the long term issuer ratings per Moody's.

Amounts owed by clearing houses represent collateral and deposits placed at LCH Clearnet Limited related to the Company's SwapClear membership.

**(11) Fair value disclosures:**

The table below presents by level within fair value hierarchy, financial assets and liabilities measured at fair value as at 31 December 2016.

*Financial assets at fair value through profit or loss*

	<b>Level 1 \$000</b>	<b>Level 2 \$000</b>	<b>Level 3 \$000</b>	<b>Total \$000</b>
US government securities	\$ 1,876	\$ -	\$ -	\$ 1,876
Equity securities	116,251	123	-	116,374
Cash equivalents	8,806	-	-	8,806
Derivative assets				
- Interest rate contracts	26	902,090	-	902,116
- Foreign exchange contracts	-	70	-	70
- Equity contracts	17,859	196	-	18,055
Derivative assets before netting	17,885	902,356	-	920,241
Netting	(87)	(894,890)	-	(894,977)
Total derivative assets	17,798	7,466	-	25,264
<b>Total</b>	<u>\$ 144,731</u>	<u>\$ 7,589</u>	<u>\$ -</u>	<u>\$ 152,320</u>

**CITADEL SECURITIES (EUROPE) LIMITED**

**NOTES TO FINANCIAL STATEMENTS, CONTINUED**

**For the year ended 31 December 2016**

**(11) Fair value disclosures, continued:**

*Financial liabilities at fair value through profit or loss*

	<b>Level 1 \$000</b>	<b>Level 2 \$000</b>	<b>Level 3 \$000</b>	<b>Total \$000</b>
US government securities	\$ 47,969	\$ -	\$ -	\$ 47,969
Equity securities	70,458	13	-	70,471
Derivative liabilities				
- Interest rate contracts	1,345	894,624	-	895,969
- Foreign exchange contracts	-	1,136	-	1,136
- Equity contracts	14,603	314	-	14,917
Derivative liabilities before netting	15,948	896,074	-	912,022
Netting	(87)	(894,890)	-	(894,977)
Total derivative liabilities	15,861	1,184	-	17,045
<b>Total</b>	<b>\$ 134,288</b>	<b>\$ 1,197</b>	<b>\$ -</b>	<b>\$ 135,485</b>

The table below presents by level within fair value hierarchy, financial assets and liabilities measured at fair value as at 31 December 2015.

*Financial assets at fair value through profit or loss*

	<b>Level 1 \$000</b>	<b>Level 2 \$000</b>	<b>Level 3 \$000</b>	<b>Total \$000</b>
US government securities	\$ 33,383	\$ -	\$ -	\$ 33,383
Equity securities	84,885	96	-	84,981
Cash equivalents	-	-	-	-
Derivative assets				
- Interest rate contracts	182	905,442	-	905,624
- Foreign exchange contracts	-	1,591	-	1,591
- Equity contracts	18	323	-	341
Derivative assets before netting	200	907,356	-	907,556
Netting	-	(897,165)	-	(897,165)
Total derivative assets	200	10,191	-	10,391
<b>Total</b>	<b>\$ 118,468</b>	<b>\$ 10,287</b>	<b>\$ -</b>	<b>\$ 128,755</b>

# CITADEL SECURITIES (EUROPE) LIMITED

## NOTES TO FINANCIAL STATEMENTS, CONTINUED For the year ended 31 December 2016

### (11) Fair value disclosures, continued:

*Financial liabilities at fair value through profit or loss*

	Level 1 \$000	Level 2 \$000	Level 3 \$000	Total \$000
US government securities	\$ 48,328	\$ -	\$ -	\$ 48,328
Equity securities	70,025	16	-	70,041
Derivative liabilities				
- Interest rate contracts	7	897,779	-	897,786
- Foreign exchange contracts	-	727	-	727
- Equity contracts	11	268	-	279
Derivative liabilities before netting	18	898,774	-	898,792
Netting	-	(897,165)	-	(897,165)
Total derivative liabilities	18	1,609	-	1,627
<b>Total</b>	<b>\$ 118,371</b>	<b>\$ 1,625</b>	<b>\$ -</b>	<b>\$ 119,996</b>

### (12) Derivative financial instruments:

The Company transacted in derivative financial instruments during the year including exchange-traded options, warrants and futures and OTC swaps. These are instruments whose values are based, in part, upon underlying assets, indices, or reference rates or a combination of these factors, and generally represent future commitments to exchange cash flows, or to purchase or sell other financial instruments at specified future dates.

Derivative financial instruments are subject to various risks similar to those related to the underlying financial instruments including market and credit risk. Derivatives are typically also subject to certain additional risks, such as those resulting from leverage and significantly less liquidity, to which the underlying financial instruments may not be exposed. The Company may use derivative financial instruments in the normal course of its business to take speculative investment positions as well as for risk management purposes. The Company's derivative financial instrument risks should not be viewed in isolation, as they should be considered on an aggregate basis along with the Company's other investing activities. The Company manages the risks associated with its derivative financial instruments along with its speculative investing activities in cash instruments as part of its overall risk management.

Futures contracts are commitments to either purchase or sell a financial instrument at a future date for a specified price. These contracts may, in general, be settled in cash or through delivery of the underlying instrument. Futures contracts can be closed out at the discretion of the Company. However, illiquidity in the market could prevent the timely close-out of any unfavourable positions or require the Company to hold those positions until the delivery date, regardless of the changes in their value or the Company's investment strategy. Exposure to market risk is managed in accordance with risk limits set by the Company's buying or selling instruments or entering into offsetting positions.

Options are contracts in which the option purchaser has the right, but not the obligation, to purchase from or sell to the option writer financial instruments within a defined time period for a specified price. Options written by the Company create off-balance sheet risk, as the Company's contingent obligation to satisfy the purchase or sale of securities underlying such options may exceed the amount recognised on the statement of financial position.

Interest rate derivative financial instruments are contractual agreements to exchange periodic interest payment streams calculated on a predetermined notional principal amount. Interest rate derivative financial instruments generally involve one party paying a fixed interest rate and the other party paying a variable interest rate. These instruments can involve market risk and/or credit risk in excess of the amount recognised on the statement of financial position.

The following table sets forth the fair value and outstanding notional of the Company's derivative contracts by underlying risk exposure as of 31 December 2016. The table also presents information about the offsetting of derivative instruments. Gross derivative contracts in the table below exclude the effect of netting and do not necessarily represent the Company's actual exposure which may ultimately be reduced by netting agreements. Net derivative contracts represent the fair value of derivative assets and liabilities after the netting of positions by counterparty, when the legal right of offset exists and when certain other criteria are met in accordance with applicable accounting guidance on offsetting.

**CITADEL SECURITIES (EUROPE) LIMITED**

**NOTES TO FINANCIAL STATEMENTS, CONTINUED**  
For the year ended 31 December 2016

**(12) Derivative financial instruments, continued:**

The table below presents derivative fair values and outstanding notional at 31 December 2016.

	<b>Derivative Assets</b>		<b>Derivative Liabilities</b>	
	<b>Fair value \$000</b>	<b>Notional \$000</b>	<b>Fair value \$000</b>	<b>Notional \$000</b>
Interest rate contracts	\$ 902,116	\$ 71,950,081	\$ 895,969	\$ 72,995,699
Foreign exchange contracts	70	50,732	1,136	163,372
Equity contracts	18,055	775,646	14,917	844,832
Total gross derivative contracts	920,241	72,776,459	912,022	74,003,903
Total counterparty netting	(894,977)		(894,977)	
<b>Net derivative contracts</b>	<b>\$ 25,264</b>		<b>\$ 17,045</b>	

The table below presents derivative fair values and outstanding notional at 31 December 2015.

	<b>Derivative Assets</b>		<b>Derivative Liabilities</b>	
	<b>Fair value \$000</b>	<b>Notional \$000</b>	<b>Fair value \$000</b>	<b>Notional \$000</b>
Interest rate contracts	\$ 905,624	\$ 88,655,022	\$ 897,786	\$ 84,709,739
Foreign exchange contracts	1,591	187,644	727	122,144
Equity contracts	341	27,675	279	32,314
Total gross derivative contracts	907,556	88,870,341	898,792	84,864,197
Total counterparty netting	(897,165)		(897,165)	
<b>Net derivative contracts</b>	<b>\$ 10,391</b>		<b>\$ 1,627</b>	

**(13) Collateralised transactions:**

	<b>2016 \$000</b>	<b>2015 \$000</b>
<i>Assets - Reverse repurchase agreements</i>		
Gross amounts	\$ 135,174	\$ 84,825
Amounts offset in the statement of financial position	(3,772)	(33,542)
<b>Net amounts presented in the statement of financial position</b>	<b>\$ 131,402</b>	<b>\$ 51,283</b>
<i>Liabilities - Repurchase agreements</i>		
Gross amounts	\$ 3,772	\$ 33,542
Amounts offset in the statement of financial position	(3,772)	(33,542)
<b>Net amounts presented in the statement of financial position</b>	<b>\$ -</b>	<b>\$ -</b>

The Company enters into reverse repurchase agreements and repurchase agreements to, among other things, acquire securities to cover short positions and settle other securities obligations and to finance the Company's financial instruments. The Company manages credit exposure arising from such transactions by, in appropriate circumstances, entering into master netting agreements and collateral arrangements with counterparties.

# CITADEL SECURITIES (EUROPE) LIMITED

## NOTES TO FINANCIAL STATEMENTS, CONTINUED

For the year ended 31 December 2016

### (13) Collateralised transactions, continued:

Reverse repurchase agreements and repurchase agreements are collateralised primarily by receiving or pledging securities, respectively. Typically, the Company has rights of rehypothecation with respect to the securities collateral received under reverse repurchase agreements. The counterparty generally has rights of rehypothecation with respect to the securities collateral received from the Company under repurchase agreements.

The Company monitors the fair value of underlying securities in comparison to the related receivable or payable and as necessary, transfers or requests additional collateral as provided under the applicable agreement to ensure transactions are adequately collateralised.

As of December 31, 2016, as a result of entering into reverse repurchase agreements, the Company obtained collateral with a fair value of \$136,440,000 (2015 - \$84,562,000). Also as of December 31, 2015, the Company had repurchase agreements with collateral posted having a fair value of \$3,814,000 (2015 - \$33,451,000). The fair value of the collateral obtained and posted includes accrued coupon interest. The sale and purchase obligations under reverse repurchase agreements and repurchase agreements are collateralised by obligations of the U.S. government, to the extent offsetting agreements with the same counterparty have not otherwise reduced the Company's or counterparties' gross exposure.

### (14) Other creditors:

	2016 \$000	2015 \$000
Amounts owed to brokers	\$ 28,536	\$ 7,367
Amounts owed to related parties	17,790	28,551
Interest payable	341	144
Corporation tax payable	12,729	11,476
Accruals	5,159	3,417
	<u>\$ 64,555</u>	<u>\$ 50,955</u>

### (15) Financial risk management:

The Company is subject to various risks, including, but not limited to, market risk, credit risk, off-balance sheet risk and liquidity risk. This note presents information about the Company's exposure to each of these risks, as well as its policies and processes for measuring and managing risk.

The Board of Directors has overall responsibility for the establishment and oversight of the Company's risk management framework. The Company's risk management policies are established to identify the risks faced by the Company, to set appropriate risk limits and controls, and to monitor risks. Risk management policies and systems are reviewed regularly to reflect changes in market conditions and the Company's activities.

The organisational structure is designed to facilitate risk management through three lines of defence. Risk is monitored first by the trading desk. Each business area is responsible for managing this risk, in real time and in accordance with the Company's overall risk appetite.

Secondly, risk is monitored by the Portfolio Construction Group ("PCG"), the global independent risk control function for the Citadel Group. The support functions including Treasury, Finance, Legal and Compliance help to assess and monitor significant categories of the firm's risk to ensure risk is managed holistically on a day-to-day basis. The organisation framework for risk management is designed to facilitate reporting and escalation of risks to the London Operating Committee ("LOC") and the Board of Directors depending on their severity.

The third line of defence is the firm's internal audit function. The internal audit function provides an objective and independent assessment of the adequacy and effectiveness of the internal controls across the business and reports to the Company's Board of Directors and Internal Audit Committee.

#### Market risk

Market risk is the risk of loss in the value of financial instruments due to changes in market conditions. Market risk is directly impacted by the volatility and liquidity in the markets in which the related underlying financial instruments are traded. The Company attempts to manage market risk in various ways, including through diversifying exposures, placing limitations on position sizes and hedging in related securities or derivative financial instruments. Categories of market risk include equity position risk, foreign exchange risk and interest rate risk.

# CITADEL SECURITIES (EUROPE) LIMITED

## NOTES TO FINANCIAL STATEMENTS, CONTINUED

For the year ended 31 December 2016

### (15) Financial risk management, continued:

#### Market risk, continued:

Equity price risk is the risk of loss due to changes in process and volatilities of individual equities, baskets of equities and equity indices. Risk tolerances are set for both intra-day and end of day positions and are monitored by PCG.

Foreign exchange risk is the risk of loss due to the fluctuation of exchange rates. The Company may invest directly in non-U.S. currencies, securities that are denominated in, and that receive revenues in, non-U.S. currencies, or in derivatives that provide exposure to non-U.S. currencies, and as such is subject to the risk that those currencies will decline in value relative to the U.S. dollar, or, in the case of hedging positions, that the U.S. dollar will decline in value relative to the currency being hedged. This risk is managed by the Treasury team through monitoring and hedging foreign exchange exposures on a daily basis. In respect of non-trading assets and liabilities denominated in foreign currencies, the Company ensures that its net exposure is kept to an acceptable level by buying or selling foreign currencies at spot rates on a daily basis.

Interest rate risk is the risk of loss due to changes in the level, slope and curvature of yield curves. The Company is primarily exposed to interest rate risk through its interest rate swap market making activity. The business only trades cleared interest rate swaps and seeks to maintain a relatively flat risk ladder with automated hedging of the duration risk. The Company does not carry any material interest rate risk in its non-trading book.

#### Credit risk

Credit risk is the risk of financial loss due to the failure of a counterparty to perform according to the terms of a contract. The Company's credit risk arises mainly from cash placed with banks, securities financing transactions and margin placed with brokers, clearing firms and central counterparties.

The Company clears its futures and equity securities transactions through a highly rated clearing broker, which also maintains the Company's positions. These positions are recorded as financial assets or liabilities at fair value through profit and loss. In addition, the clearing broker provides the majority of the financing for these securities. This can result in a concentration of credit risk with the clearing broker.

The credit risk of exchange-traded and/or centrally cleared derivatives ("cleared derivatives"), such as exchange traded futures and cleared interest rate swaps derivative financial instruments, is reduced by the rules or regulatory requirements of the individual exchanges and clearing houses on which these instruments are traded and cleared. One of the requirements of the exchanges and clearing houses is that cleared derivatives are margined on a daily basis, which reduces the credit risk related to such cleared derivatives.

The majority of the Company's interest rate swaps are self-cleared through the Company's SwapClear membership at LCH.Clearnet Ltd. As a requirement of being a direct clearing member the Company has contributed to the clearing house default fund which creates a credit risk exposure for the Company.

#### Exposure to credit risk

The carrying amount of financial assets represents the maximum credit exposure. The maximum exposure to credit risk at 31 December was as follows:

	2016 \$000	2015 \$000
Amounts owed by brokers	\$ 40,721	\$ 30,848
Amounts owed by clearing houses	35,175	26,282
Financial assets at fair value through profit and loss	143,514	128,755
Financial liabilities at fair value through profit and loss	(135,485)	(119,996)
Net amounts receivable from brokers and clearing houses	83,925	65,889
Net amounts advanced under reverse repurchase agreements	131,402	51,283
Cash and cash equivalents	56,726	53,167
	<u>\$ 272,053</u>	<u>\$ 170,339</u>

The Company has no financial assets which are past due or impaired. Cash and cash equivalents are held at JP Morgan Chase and The Bank of New York; JP Morgan Chase is rated A3 by Moody's, and The Bank of New York is rated Aa1 by Moody's.

# CITADEL SECURITIES (EUROPE) LIMITED

## NOTES TO FINANCIAL STATEMENTS, CONTINUED

For the year ended 31 December 2016

### (15) Financial risk management, continued:

#### Liquidity risk

Liquidity risk is the risk that the Company will not be able to meet its obligations as they fall due. The Company is subject to liquidity standards under Section 7 of the Prudential Sourcebook for Investment Firms ("IFPRU") and therefore assesses the adequacy of its liquid resources by reference to its Individual Liquidity Adequacy Assessment ("ILAA"). The ILAA includes an assessment of the Company's compliance with the FCA systems and controls requirements and detailed stress testing of the liquidity position. The Company seeks to maintain a high quality liquidity buffer of at least \$55,000,000 as part of its liquid resources. The policy for managing liquidity is to ensure that the Company will have sufficient liquidity to meet its liabilities when due, without incurring unacceptable losses or risking damage to the Company's reputation.

Substantially all of the Company's financial liabilities are payable on demand or in accordance with normal trade settlement cycles, therefore no separate disclosure of contractual maturities is made in these financial statements. The Company maintains a highly liquid statement of financial position with a liquidity ratio of 69.92% as at 31 December 2016 (2015 - 86.56%), representing liquid assets as a percentage of net asset value.

### (16) Capital Management

The Company is subject to the EU's Capital Requirements Regulation ("CRR"), supplemented by the FCA IFPRU. In accordance with CRR, the Company maintains a capital base that is appropriate to support the development of the business and ensure regulatory capital requirements are met at all times.

The Company's capital resources are entirely made up of Common Equity Tier 1 permanent capital. CSEL has no long term debt and no intangible assets to deduct. There are no current or foreseen material practical or legal impediments to the prompt transfer of capital resources or repayment of liabilities.

As at 31 December 2016, the Company's Tier 1 capital was \$185,469,000 (2015 - \$107,361,000). The Company's individual capital guidance was \$135,962,000 (2015 - \$54,762,000) and the Company's surplus total capital over individual capital guidance was \$49,507,000 (2015 - \$52,599,000).

### (17) Called up share capital:

	2016 \$000	2015 \$000
<b>Called, allotted and fully paid</b>		
8,000,000 ordinary shares of \$1 each	\$ 8,000	\$ 8,000

### (18) Reconciliation of operating profit to net cash inflow from operating activities:

	2016 \$000	2015 \$000
Operating profit	\$ 119,449	\$ 130,731
Increase in trade receivables	(18,767)	(42,746)
Increase in financial assets at fair value through profit and loss	(14,759)	(17,751)
Increase in reverse repurchase agreements	(80,119)	(37,315)
Increase in financial liabilities at fair value through profit and loss	15,489	51,325
Increase (decrease) in other creditors	27,696	(18,332)
Net cash inflow from operating activities	\$ 48,989	\$ 65,912



**CITADEL SECURITIES (EUROPE) LIMITED**  
**NOTES TO FINANCIAL STATEMENTS, CONTINUED**  
**For the year ended 31 December 2016**

**(19) Dividends:**

	<u>2016</u> <u>\$000</u>	<u>2015</u> <u>\$000</u>
Dividends paid \$0 per share (2015 \$6.0 per share)	\$ -	\$ 47,963
	<u>\$ -</u>	<u>\$ 47,963</u>

**(20) Parent undertaking and ultimate controlling party:**

The Company's immediate parent at 31 December 2016 was CSHC Europe LLC ("CSEH"), a Delaware limited liability company. CSEH is the parent undertaking of the smallest and largest group of undertakings to consolidate these financial statements. The ultimate controlling party is Kenneth Griffin. The consolidated financial statements of CSEH can be obtained at the following address: c/o The Corporation Trust Company, 1209 Orange Street, Wilmington, Delaware, 19801 USA.

**(21) Subsequent events:**

Subsequent to 31 December 2016, the Board of Directors approved a capital increase to support the Company's investment strategy and business expansion. CSEH invested \$40,000,000 in the Company on 1 February 2017 for 40,000,000 new ordinary shares of \$1 each.

Subsequent to 31 December 2016, the Company established a branch office in Dublin, Ireland to support its business expansion.