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## Cantor Fitzgerald Services LLP (CFS LLP)



### Pillar 3 Disclosures 2018

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Approver	Date
FCALCO Committee	13 December 2019
CFE & CFS Board	20 December 2019

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## 1 Overview

### 1.1. Background

The requirement for consistent capital adequacy standards across financial institutions was introduced by the European Capital Requirements Directive (“CRD”). This directive was subsequently enforced in the UK by the Financial Conduct Authority (“FCA”). The CRD outlines a framework consisting of 3 “pillars”:

Pillar 1: Outlines minimum capital requirements.

Pillar 2: Requires an assessment to be made of whether additional capital should be held against risks not covered by Pillar 1. This assessment is completed via the Internal Capital Adequacy Assessment Process (“ICAAP”).

Pillar 3: Obliges a firm to make a public disclosure of both qualitative and quantitative information concerning its capital adequacy, providing information on its risk management policies, its risk exposures and its levels of capital resources.

These disclosures are made on behalf of the Cantor Fitzgerald Services LLP (“CFS LLP”) consolidated group (“the Group”). The Group is a member of the Cantor Fitzgerald L.P. group which is comprised of Cantor Fitzgerald L.P. (“CFLP”) and its subsidiaries.

Contained within the CFS LLP consolidated group are the following entities.

- Cantor Fitzgerald Europe (“CFE”) (a full scope investment firm)
- Cantor Fitzgerald (India) Holdings Private Limited (“CF India”) (unregulated entity currently in liquidation)

CFE, a subsidiary of CFS LLP and the operating entity of the Group, is regulated by the Financial Conduct Authority (“FCA”) from 20 November 2013 and is authorised to conduct investment business in the UK under the Financial Services and Markets Act 2000 (“FSMA”). Furthermore, under the provisions of the Markets in Financial Instruments Directive (“MIFID”) is authorised to conduct cross border investment business into European Economic Area (“EEA”) member states. CFE had a branch office in Israel which was dissolved on 4 May 2018. On 11 March 2019 the CFE established a Dubai branch regulated by the Dubai Financial Services Authority (“DFSA”).

Revised EU legislation comprising the Capital Requirements Directive (“CRD IV”) 2013/36/EU and the Capital Requirements Regulation (“CRR”) 575/2013 became effective on 1 January 2014. The Group has complied with the requirements from the effective date. The Country-by-Country disclosures required by Article 89 of the CRD IV are disclosed in the CFS LLP and CFE audited financial statements.

### 1.2. Disclosure policy

In accordance with the CRR, the Group has adopted a formal disclosure policy to comply with the disclosure requirements set out in Article 431, and has policies for assessing the appropriateness of the disclosures, including their verification and frequency.

Under Article 432 (1), a Group may omit one or more of the required disclosures if the information is not material, that is information that would not be likely to change or influence the decision of a user relying on that information for the purposes of making an economic decision. No disclosures for the Group have been omitted on these grounds.

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Under Article 432 (2) a Group may omit one or more of the required disclosures if they would require the disclosure of any information regarded as proprietary or confidential, that is information which would, respectively, undermine a competitive position or breach an obligation of confidence between the Group and its customers. No disclosures for the Group have been omitted on these grounds. In accordance with the requirements of Article 433, these disclosures are updated annually or more frequently if there is a material change to the Group's circumstances.

Disclosures are required to be provided on a consolidated basis for the Group. In addition, Capital Resources and Capital Resource Requirement disclosures are required for significant subsidiaries on an individual basis. Information is required to be prepared on an annual basis and published as soon as practicable after the completion of the annual financial statements.

This report has been prepared to reflect the unaudited (unless stated otherwise) the financial position as at 31 December 2018.

### 1.3. Nature of business

The Group acts as a corporate finance advisor, broker dealer and market maker in securities and derivatives operating from the United Kingdom.

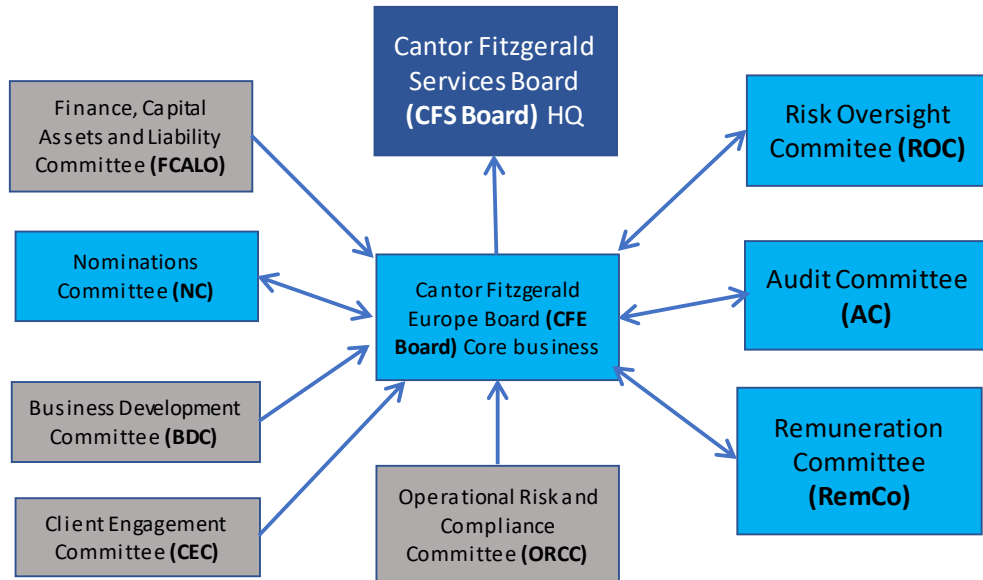
### 1.4. Scope of application

Financial information has been prepared on a full consolidation basis for CFS LLP and its subsidiaries. Intra-group transactions and balances are eliminated on consolidation. Details of the activities of subsidiary undertakings of the Group as at 31 December 2018 are as follows:

Entity	Nature of business	Registration
Cantor Fitzgerald Europe	Corporate Finance Advisor / Broker Dealer / Market Maker	England & Wales

## 2 Risk management

### 2.1 Committee Structure



### 2.2 Governance

Overall responsibility for the risk management of the Group lies with the Board of CFS LLP (“the Board”). The CFE Board relies on the Risk Oversight Committee (ROC) and Audit Committee (“AC”) to provide recommendations on risk appetite, tolerance and strategy. In recommending the risk appetite, the ROC is responsible for reviewing and challenging the risk appetite methodology including the assumptions and models used in the methodology.

The ROC is also responsible for ensuring the accurate and timely monitoring of capital and risk exposures and for reviewing reports on any material limit breaches and the adequacy of any proposed mitigation.

The CFS LLP and CFE Board are responsible for implementing the risk management framework in line with the Group’s strategic and operational goals establishing a system of financial, operational and compliance controls and monitoring through risk management systems.

The business is responsible for the identification and day-to-day management of risks. Senior management, with the responsibility for overseeing the front and back office functions, are responsible for all control related business issues and management of the issues in their business function, within the limits and control environment established by the Board.

Through monitoring and reporting the Risk Management department is responsible for ensuring the operational, credit and market risks are kept in line with risk appetite. For operational risk, this is accomplished by a range of interconnecting risk and control methodologies that are embedded throughout the Company. As for credit and market risk, this is accomplished by establishing consistent standards, applying those standards in the assessment of counterparties and positions, adhering to delegated authority limits, and monitoring current and potential exposures after the execution of transactions.

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The Risk Management department has an independent reporting line to the ROC, which is comprised entirely of Non-Executive Directors (NED). In addition, the Chief Risk Officer (CRO) sits on all governing committees (BDC, FCALCO, CEC and ORCC).

The Internal Audit function provides assurance that the system of internal controls achieves its objectives and highlights gaps and areas where controls can be improved. The Internal Audit function reports directly to the Audit Committee.

The Market and Credit Risk Management Policy and the Operational Risk Policy, as approved by the Board and the Operational Risk Framework, describe the roles and responsibilities in relation to risk identification, assessment, management, monitoring and reporting of risks.

## 2.3 Risk identification

It is the responsibility of the Group's business units and functions to identify the most material risks faced by the business area under their oversight. The methods used to identify risks can vary across business units and functions, but typically, they would include:

- Risks that have occurred externally that are relevant to the Group;
- Risks identified through the Risk and Control Self Assessments process;
- Risks identified by senior executives through strategic planning or governance processes;
- Risks where there have been previous internal incidents in the Group;
- Risks identified on assessment and from due diligence of new business products acquisitions and any material changes on existing business, and
- Risks identified by internal or external audit.

## 2.4 Risks identified by internal or external audit.

The Business Development Committee is responsible for ensuring that any new business or material change to an existing business has been assessed in respect of any new risks it may create including the impact to the Group's capital and liquidity.

The Risk Management department review the risks identified and provide appropriate challenge. This includes additional risks that should be considered.

All identified risks are mapped to the Group's risk categorisation model to ensure that all risks to which the Group is exposed are categorised and reported in a consistent manner.

## 2.5 Coverage of risks

Pillar 3 disclosures in this document cover credit risk (section 5), capital buffers (section 6), market risk (section 7), operational risk (section 8), non-trading book equities (section 9) and interest rate risk (section 10).

### 3 Capital Resources

#### 3.1 Summary

Capital resources available to the Group and for the significant subsidiaries are based on the audited financial statements as at 31 December 2018 are as follows:

\$m	Group	CFE
<b>Tier One</b>		
Partners' capital resources	104.6	101.2
Previous years retained earnings	1.2	6.1
Interim net losses	(6.5)	(6.6)
Prudential filter	(0.2)	(0.2)
Intangible assets	-	-
Free deliveries	-	-
	99.1	100.5
<b>Tier Two</b>		
Subordinated loans	-	-
<i>less amortization:</i>	-	-
<b>Total Capital Resources</b>	<b>99.1</b>	<b>100.5</b>

Reconciliation to Financial Statements		
\$m	Group	CFE
Members' Interest	104.6	101.2
<b>Total equity</b>	<b>104.6</b>	<b>101.2</b>
Tier One adjustment - Retained earnings	1.2	6.1
Tier One adjustment - Interim losses	(6.5)	(6.6)
Tier One adjustment - Prudential filter	(0.2)	(0.2)
Tier One adjustment - Intangible assets	-	-
Tier One adjustment - Free Deliveries	-	-
Tier Two adjustment - Subordinated loans	-	-
<b>Total Capital Resources</b>	<b>99.1</b>	<b>100.5</b>

#### 3.2 Terms and conditions of capital resource items

CFE and the Group is funded entirely by Tier 1 equity capital with no attached terms or conditions.

On 1 April 2018, CFE issued 44,986,521 ordinary shares of £1 each to CFS LLP for a consideration of US\$63,107k and 707,805 ordinary shares of £1 each to its parent entity CF&Co, LLC for a consideration of US\$993k. On the same day, and using the US\$64,100k of total proceeds raised in the equity issue, it repaid all tranches of the subordinated loans to CFLP. CFS LLP received a capital contribution of US\$63,107k from its immediate parent CF & Co Holdings, L.P on 1 April 2018 to fund the investment in subsidiary.



The capital restructuring increased both the quantity of the total eligible regulatory capital by US\$12.8m due to the previously amortised value of the Tier 2 capital as at year end 2017 and has improved the quality of the Group's regulatory capital from comprising Tier 1 and Tier 2 instruments to all Tier 1 equity capital.

### 3.3 Deductions from capital resources

Free deliveries (US\$0.0m), losses incurred and value adjustments are immediately deducted from CET 1 capital.

### 3.4 Impediments to transfer of capital resources

The principal restriction on the transfer of capital within the Group is the requirement for the regulated entity to maintain certain levels of capital to meet the thresholds set by regulators.

## 4 Capital adequacy

### 4.1 Approach to assessing capital adequacy

The Group has an Internal Capital Adequacy Assessment Process ("ICAAP") to determine the risks that the Group is potentially exposed to and to ensure that capital is held proportionate to these risks.

The ICAAP assesses the risks, the minimum capital requirements and the capacity of the business to survive a severe downside scenario. This forms the basis of the Firm's own capital requirements under the FCA's Pillar 2 requirements. In assessing the total amount of capital to be held under Pillar 2, the Group assumes that the higher of the Pillar 1 (Minimum capital requirements) or Pillar 2 amount should be held for each risk category (Pillar I + approach).

### 4.2 Minimum capital requirements: Pillar 1

Capital requirements (unaudited) for the Group and for the significant subsidiaries as at 31 December 2018 are as follows:

\$m	Group	CFE
Credit risk	3.7	3.7
Counterparty risk	1.0	1.0
Market risk	5.1	4.9
Operational risk	9.3	9.3
<b>Total capital requirements</b>	<b>19.1</b>	<b>18.9</b>
<b>Total capital resources</b>	<b>99.1</b>	<b>100.5</b>
<b>Excess capital resources</b>	<b>80.0</b>	<b>81.6</b>
<b>Core Tier 1 Capital ratio</b>	<b>41%</b>	<b>42%</b>

The firm's capital ratios as at 31 December 2018 are above the minimum ratios per Article 92 of the CRR.

## 5 Credit risk

### 5.1 Risk management framework

The Board sets the credit risk appetite and oversees the application of credit risk policies. Changes to the Credit Risk Policy will be recommended by the FCALCO for consideration and approval by the Board. The Board has delegated to the FCALCO the following responsibilities:

- Review any appropriate credit related issues brought to the Committee's attention;
- Review and approve proposed credit limits over and above delegated authority to be booked in the Group to ensure they meet credit policies and risk appetite;

Members of the Risk Management department are granted credit approval authority consistent with their experience. Each Credit Officer granted credit approval authority is provided with a memo outlining the extent of that approval authority. All such delegated authorities must be approved by the Global Credit Committee ("GCC") before such delegation of authority may be activated. The GCC reviews and approves counterparty credit limits. Transactions that expose CFE to potential credit risk must also be approved according to the market and credit risk policy.

The CFE Board has the authority to decline or reduce any credit approval made by the GCC, FCALCO or made by a member of the Risk Management department under delegated authority.

The credit review is an important part of the Group's credit risk management process. The purpose of the credit review is to assess the Group's exposure to the counterparty relative to that counterparty's financial capacity; to establish, reaffirm or modify the internal risk ratings; to establish, reaffirm or modify credit limits; and to take corrective action to remedy any deficiencies that might have been identified in the review process. Credit reviews are required at the time of the initial approval of credit limits for counterparty and on a periodic basis thereafter based on the counterparty's review cycle.

The Risk Management department is responsible for the day-to-day monitoring of credit limits and activity of matched principal transactions. A suite of reports is prepared with varying frequencies (daily, weekly, monthly) to capture credit exposure and are widely distributed. These include, but not limited to, potential exposure; country concentration and stress tests. Summarised reports are presented to the FCALCO.

Brokerage receivables are tracked and collected by the brokerage receivables department of Finance. Outstanding, overdue receivable balances are aggressively chased and all amounts overdue more than 90 days are reported to the FCALCO. All outstanding BR is factored into Credit risk metrics and capital calculations.

The investment selection, reinvestment and diversification of cash placed on deposit are managed on a day-to-day basis by the Treasury Department and is subject to treasury policies and procedures. A monthly report is prepared for the FCALCO. This report contains management information on credit exposures, credit stress testing, credit limit breaches and related matters. A summarised version of this report is prepared for the CFE Board and the ROC.

### 5.2 Credit Risk mitigation

In addition to the processes in place to mitigate risk in Section 5.1, CFE utilises stock lending and stock borrows for short-term liquidity management. Market prices on the collateral received on these transactions are monitored. CFE also holds legally enforceable netting agreements with clearing parties and certain group companies. The counterparty credit risk charge for the Firm's stock lending is calculated

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using the Financial Collateral Comprehensive method as prescribed in Article 223 of the CRR. The charge for 31 December 2018 (unaudited) is set out below:

\$m	Cash/Stock Lent	Collateral	Haircut	Currency mismatch	Net Exposure	Risk weighting	Risk weighted exposure	@ 8%
Total	59.5	60.4	4.7	-	3.8	0.2	0.7	0.1

### Credit Risk Exposures

#### 5.2.1 Period end exposures

\$m	RWA As at 31 Dec 2018	Pre -Mitigation	Pre -Mitigation Average	Post - Mitigation	Post - Mitigation Average
Central governments or central banks	2.0	61.2	84.2	61.2	84.2
Financial Institutions	24.0	143.4	128.3	81.4	82.5
Corporate	15.3	19.9	18.1	15.3	10.2
Past due items	2.4	1.6	1.3	1.6	1.3
Other items	13.1	13.1	4.3	13.1	4.3
<b>Total credit risk exposures</b>	<b>56.8</b>	<b>239.2</b>	<b>236.3</b>	<b>172.6</b>	<b>182.6</b>

#### 5.2.2 Geographic distribution of exposure classes

\$m	RWA As at 31 Dec 2018	Pre -Mitigation	Pre -Mitigation Average	Post - Mitigation	Post - Mitigation Average
Central governments or central banks	2.0	61.2	84.2	61.2	84.2
Financial Institutions	24.0	143.4	128.3	81.4	82.5
Corporate	15.3	19.9	18.1	15.3	10.2
Past due items	2.4	1.6	1.3	1.6	1.3
Other items	13.1	13.1	4.3	13.1	4.3
<b>Total credit risk exposures</b>	<b>56.8</b>	<b>239.2</b>	<b>236.2</b>	<b>172.6</b>	<b>182.5</b>

#### 5.2.3 Maturity profile

\$m	< 1 year	1-5 years	Total
Central governments or central banks	61.2	-	61.2
Financial Institutions	143.4	-	143.4
Corporate	19.9	-	19.9
Past due items	1.6	-	1.6
Other items	13.1	-	13.1
<b>Total credit risk exposures</b>	<b>239.2</b>	<b>-</b>	<b>239.2</b>

### 5.3 Past due items

#### 5.3.1 Past due and impaired credit risk exposures

Past due items mainly represent debtors from the Group's name give-up business. Past due is defined as any item due for more than 90 days.

Aged brokerage receivable reports are produced and reviewed daily. The FCALCO reviews the status of outstanding brokerage receivables on a regular basis to assess whether impairment is necessary. An analysis of past due credit risk exposures by geography and counterparty type are as follows:

\$m	Counterparty
Central governments	-
Financial Institutions	1.3
Corporate	0.3
<b>Total</b>	<b>1.6</b>

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\$m	Geography
Asia	0.0
Americas	0.4
Rest of Europe	0.3
United Kingdom	0.9
<b>Total</b>	<b>1.6</b>

### 5.3.2 Value adjustments and provisions

The default rate on receivables aged over one year or more is very low and allowances for potentially irrecoverable amounts are determined on an individual case-by-case basis. The net movement in provisions is recognised through the profit and loss account for the period.

There were no value adjustments as at 31 December 2018.

## 5.4 Pillar 1: Standardised credit risk exposure classes

### 5.4.1 Methodology

The Group calculated credit risk requirements under the standardised approach, using external credit ratings provided by Standard & Poors ("S&P") and Moody's. Where both long term and short-term ratings are provided, the long term ratings are used. Where counterparty has a rating on both S&P and Moody's, then the lower credit rating is taken. The external credit ratings are mapped to the prescribed credit quality assessment scale (credit quality step) that in turn produces standard risk weightings as follows:

### 5.4.2 Exposures by credit quality step

Credit Quality Step	S&P	Moody's	Government	Financial Institutions > 3 mths	Financial Institutions < 3 mths	Corporate, Retail and Other Items
1	AAA to AA-	Aaa to Aa3	0%	20%	20%	20%
2	A+ to A-	A1 to A3	20%	50%	20%	50%
3	BBB+ to BBB-	Baa1 to Baa3	50%	50%	20%	100%
4	BB+ to BB-	Ba1 to Ba3	100%	100%	50%	100%
5	B+ to B-	B1 to B3	100%	100%	50%	150%
6	CCC+ and below	Caa1 and below	150%	150%	150%	150%
Unrated			100%	50%	20%	100%

\$m	Central governments or central banks	Financial Institutions	Corporate	Past due items	Other items	Total
<b>Step 1</b>	61.2	29.7	1.3	1.2	0.1	93.5
<b>Step 2</b>	-	46.8	0.2	0.0	-	47.0
<b>Step 3</b>	-	0.0	0.0	0.0	-	0.0
<b>Step 4</b>	-	-	-	-	-	-
<b>Step 5</b>	-	-	-	-	-	-
<b>Step 6</b>	-	-	-	-	-	-
<b>Unrated</b>	0.0	66.9	18.4	0.4	13.0	98.7
<b>Total</b>	<b>61.2</b>	<b>143.4</b>	<b>19.9</b>	<b>1.6</b>	<b>13.1</b>	<b>239.2</b>

All exposures in section 5.5 are reflected without taking into account the effects of credit risk mitigation as prescribed in Article 442 (c) of the CRR.

### 5.5 Net derivatives credit exposure

The Group's exposure to derivatives is mainly in the form of CFD's. The Group also uses FX derivative contracts to hedge its exposure to market risk arising from fluctuations in foreign exchange. The counterparty credit risk is the risk that the counterparty to a derivative instrument could default. The risk is mitigated by holding margin and in the case of FX derivatives and CFD's legally enforceable netting agreements. The derivative charge for CFD's and the FX derivatives is the mark-to market method as prescribed in Article 274 of the CRR where an exposure value is calculated by taking the sum of replacement cost and potential future credit exposure.

## 6 Capital Buffers

Requirement for both the Capital Conservation buffer (CCB) and Countercyclical buffer ('CCyB) are phased-in from 1 January 2017 to 1 January 2019. CFS LLP's CCyB requirement was \$1.9m.

The Capital Conservation buffer (CCB) was \$4.5m, calculated at the transitional rate of 1.875%.

## 7 Market Risk

### 7.1 Risk management framework

Market risk refers to the risk that a change in the level of one or more market prices, rates, indices or other factors will result in losses for a specified position. Although there are many types of market risks that can affect a portfolio's value, they can generally be described as factors arising from changes in interest rates, credit spreads, currency exchange rates, the liquidity of markets for specific financial instruments, and local or world political and economic events. Market risk related volatility includes factors dependent on evolving perceptions of the volatility of price changes, the passage of time, and the interactive effect of other market risks.

CFE is permitted to enter into certain unmatched principal transactions in the ordinary course of business and hold certain long and short inventory positions. These transactions are primarily for the purpose of facilitating clients' execution needs, adding liquidity to a market or attracting order flow. As a result, CFE may have market risk exposure on these transactions. Market risk exposure on these positions is mitigated by strict risk limits, limited holding periods and hedging unwanted exposure. These positions are intended to be held short term to facilitate customer transactions and CFE's market-making activity.

The CFE Board sets the market risk appetite and oversees the application of market risk policies. Changes to the Market Risk Policy will be recommended by the FCALCO for consideration and approval by the CFE Board. The Board has delegated to the FCALCO the following responsibilities:

- Review any market risk related issues brought to the Committee's attention; and
- Review and approve proposed market risk limits to be booked in CFE to ensure they meet the market risk policy and appetite.

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Transactions that expose CFE to market risk must be approved according to the Market and Credit Risk Management Policy. The CFE Board is responsible for assessing and approving proposed changes to market risk limits. In determining whether to approve proposed limits, the Board will take into consideration the CFE risk appetite, capital and funding considerations.

Most positions are subject to limited holding periods. The purpose of these holding periods includes three aspects:

- The need to demonstrate active trading portfolios;
- To ensure that trading positions are regularly turned over. This will minimise the accumulation of illiquid or stale positions that may lead to adverse profit and loss or valuation consequences as a result of changing market or credit circumstances;
- Enforce balance sheet discipline.

The Risk limit system is structured to measure risk against CFE's risk appetite and with the adequacy of its capital position. Individual measures are designed to:

- Monitor risk-taking against predetermined tolerances;
- Permit management to control exposures; and
- Initiate discussion about opportunities and risks.

The Risk Management department is responsible for the day to day monitoring of market risk limits. A suite of reports are prepared periodically (daily; weekly; monthly) to capture market risk exposure which include, amongst others, VaR, stress testing and ageing. These are widely distributed with a summarised version presented to the FCALCO. The FCALCO review the data and escalate relevant issues to the CFE Board.

The Finance department is responsible for day-to-day monitoring of foreign exchange exposure and reporting on the resultant profit and loss impact on CFE. Each day, the Finance department is responsible for distributing an updated report covering estimated FX exposure of CFE at the end of each day, which is then reviewed and used to reduce CFE's currency exposures by exercising FX hedges throughout the month. This report is circulated to senior management including members of the FCALCO committee. The report highlights daily FX exposure movement, GAAP and economic profit & loss.

### 7.2 Market Risk Charges

The Pillar 1 charges for market risk (unaudited) as at 31 December 2018 are disclosed below:

\$m	Group	CFE
Equity Risk	3.9	3.9
FX Risk	1.2	1.0
Interest rate risk	-	-
<b>Total Market Risk</b>	<b>5.1</b>	<b>4.9</b>

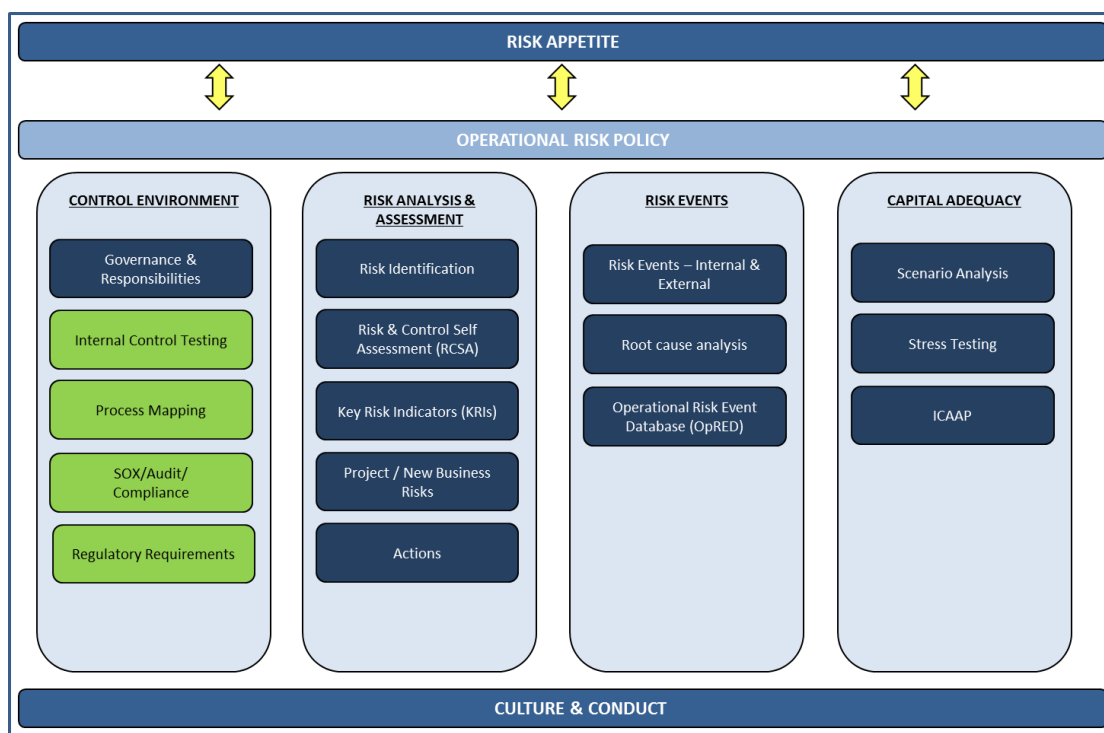
## 8 Operation Risk

### 8.1 Risk management framework

In CFE, operational risk is the risk of loss resulting from inadequate or failed processes, systems, and people or from external events. Operational risk also takes into account other risks such as legal and compliance risk. It is recognised and accepted by the Board that operational risk is inherent in the business

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that CFE undertakes, but that it is critical that this is managed appropriately according to the CFS LLP Board's risk appetite, through a programme of sound operational risk management. The diagram and subsections below refer to the key elements of the Framework of Operational Risk ("FORC").



\* Note that the boxes in Green indicate processes owned outside of the Enterprise Risk team which act as important inputs into the FOR.

The key elements of the Risk Management Department's role are to:

- Oversee and challenge the business with respect to its management of operational risk; and
- Lead the embedding of the FORC across CFE by facilitating appropriate training and risk awareness sessions.

Internal Audit aims to provide independent assurance to the CFS LLP Board and Senior Management of the effectiveness of the key elements of the operational risk management framework detailed above by reviewing and challenging CFE's risk management controls, processes and systems.

The Risk Appetite Statement articulates the Boards view on the amount of operational risk that the Group is prepared to accept, tolerate or be exposed to. This will be cascaded through the Group's entities and used as a basis for decision making.

It is the responsibility of each of the functional areas, Committees, the CFE Board and the Board to consistently review and challenge any operational risks and their subsequent controls to ensure all material key risks are understood, monitored and managed.

Risk and Control Self Assessments ("RCSAs") are carried out by each of the Group's functional areas and business lines with support from the Risk Management department. It is expected that each RCSA should be undertaken on at least an annual basis with a half-yearly review or where there is a significant change in business circumstances. This might be when Key Risk Indicator ("KRI") values indicate an increase in inherent risk or when control weaknesses are identified (e.g. through Internal Audit reports or External Audit points) and/or following the crystallisation of internal/external risk events. The RCSAs are subject to

review and challenge in the first instance by the Risk Management department and then by the Operational Risk and Compliance Committee (“ORCC”).

Operational risk incidents that are over the reporting threshold are recorded using the Operational Risk Event Database system (“OpRED”). Where possible, significant indirect incidents are also captured in the database. An indirect incident is an operational risk event where prospective income that would have been earned is lost e.g. IT staff time is lost (in excess of that considered normal support) or business time is lost (actual lost productivity). Incidents that show the effect on a market or credit risk but are caused by an operational risk event will be collected and categorised as operational risk losses.

External events are analysed to determine their relevance concerning the Group’s businesses. If these are relevant then further actions are required:

- to identify if the event could occur within the Group;
- record the impact of the risk event to illustrate potential magnitude; and
- check internal events for similar incidents.

Scenario analysis allows management to understand a specific risk in sufficient detail so management can better assess, monitor and manage the risk and it is used to generate frequency and severity data points to assist in capital requirement calculations. The scenario analysis focuses on the key risks identified via RCSAs or any other risk identification source (external data, business expertise etc.). Once the key risks are identified, workshops are conducted to build scenarios that explore what else could go wrong and how management would respond to these events.

### 9 Non trading book exposure to equities

CFS LLP does not have any material non-trading book exposure to equities.

### 10 Non trading book exposure to interest rate risk

Interest rate risk arises from the possibility that changes in interest rates will affect future cash flows or the fair values of financial instruments. Interest rate risk for the Group arises from cash at bank, subordinated and unsecured loans payable and other financial assets or liabilities.

The Group holds an investment in US Treasury Bills of \$59.5m for liquidity management purposes to ensure CFS LLP satisfies the FCA liquidity requirements. These securities are classified in the Group’s financial statements as current asset investments and are valued at fair value through profit and loss. The US Treasury Bills have a maturity of no more than three months.

The Group estimates that a 1% hypothetical adverse movement in interest rates, for the 2018 full financial year, would have resulted in a decrease (2017: decreased) in the profit before tax for the year and a decrease (2017: a decreased) in equity of \$733k (2017: \$421k).



## 11 Unencumbered Assets

The Group holds certain assets that meet the definition of encumbered. The majority of these assets are held by CFE and consist of securities financing transactions and balances with clearing brokers. The below table is based on 31 December 2018 Unaudited figures.

USD \$m	Carrying amount of encumbered assets	Fair value of encumbered assets	Carrying amount of non-encumbered assets	Fair value of non-encumbered assets
Assets of the reporting institution	48.7		315.2	
Loans on demand	-		-	
Equity instruments	9.4	-	80.6	80.6
Debt securities	30.6	30.6	59.5	59.5
of which: issued by general governments	30.6	30.6	59.5	59.5
Loans and advances other than loans on demand	8.7		50.6	
Other assets	0.0		124.5	

## 12 Leverage

CRD IV requires firms to calculate a non-risk based Leverage Ratio, to supplement risk-based capital requirements. The leverage ratio measures the relationship between capital resources and total assets. The purpose of monitoring and managing this metric is to enable regulators to constrain the build-up of excessive leverage.

The Group seeks to ensure the risk of excessive leverage is effectively managed through robust procedures. The Group is not looking to obtain any further external funding in the near future.

As at 31 December 2018 CFS LLP's leverage ratio (unaudited) was 30.10%. The leverage ratio is calculated as an institution's capital divided by its total net exposure and shall be expressed as a percentage.

	\$m
Securities financing transactions (SFTs)	8.6
Derivatives: Market value	2.4
Derivatives: Add-on Mark-to-Market Method	8.8
Other assets (Incl. Trading book)	309.3
<b>Total Exposure</b>	<b>329.2</b>
Tier 1 capital	99.1
<b>Leverage Ratio</b>	<b>30.10%</b>

### Summary reconciliation of accounting assets and leverage ratio exposures

	\$m
Total assets as per published financial statements	372.1
Adjustments for derivative financial instruments	11.2
Adjustment for SFTs	- 31.4
Other adjustments	- 22.7
<b>Leverage ratio total exposure measure</b>	<b>329.2</b>

### 13 Remuneration Policies

The following disclosures are made in compliance with Article 450 of the CRR regulations.

#### 13.1 Purpose of the Remuneration Policy

The purpose of the Remuneration Policy (“the Policy”) is to ensure that Cantor Fitzgerald Europe (the “Company”)’s remuneration:

- Supports robust governance in line with the Company’s risk appetite;
- Promotes sound and effective risk management;
- Ensures the business is sustainable and that the Company’s financial resources are aligned to principles of safety and soundness; and
- Encourages responsible business conduct, fair treatment of clients as well as avoiding conflicts of interest in the relationships with clients.

In addition, it is required to have a Remuneration Policy under the Financial Conduct Authority’s (“FCA’s”) Remuneration Code and MiFID II remuneration requirements.

This Policy defines the Company’s remuneration policies, procedures and practices.

Through effective remuneration governance and risk management, the Company will:

- Attract, develop and retain high-performing employees to deliver its business strategy;
- Encourage appropriate conduct and behaviours from employees;
- Ensure that compensation arrangements are designed to balance appropriately risk and financial results in a manner that does not encourage employees to expose the Company to excessive or imprudent risk;
- Avoid remuneration practices that could provide inappropriate incentives to employees or otherwise have the potential to damage the Company’s business, reputation, its relationship with customers or regulators.
- Avoid remuneration practices that conflict with the Company’s duty to act in the best interests of its clients, including the manner in which it assesses the performance of all relevant persons within the firm; and
- Avoid remuneration practices that could provide an incentive to recommend a particular financial instrument to a client when a different financial instrument would better meet that client’s needs, especially when retail clients are concerned.

## 13.2 Governance and Responsibilities

### 13.2.1 Responsibility

The principal groups responsible for remuneration approval and decisions are:

#### 13.2.1.1 Cantor Fitzgerald & Co (“CF&Co”)

As sole shareholder, CF&Co oversees the remuneration process at CFE and approves the bonus pool and individual bonus proposals.

#### 13.2.1.2 CFE’s Board of Directors

The Board of Directors are responsible for considering and overseeing the remuneration philosophy and policy for CFE.

#### 13.2.1.3 CFE’s Remuneration Committee

The Remuneration Committee is responsible for assisting the board to exercise independent judgement in considering and overseeing the overall remuneration philosophy and policy for CFE; which includes the determination of Code Staff and the structure of variable remuneration.

#### 13.2.1.4 CFE’s Chief Executive Officer

The CEO is responsible for overseeing the operation of the remuneration processes, supported by the HR, Compliance and Risk functions and provides input to the performance management processes as required.

### 13.2.2 The Remuneration Committee (“RemCo”)

A RemCo has been established comprising the NEDs as members and the CEO, Head of HR, CFE’s CFO and CFE’s head of Compliance as representatives. The RemCo’s terms of reference ensures that it:

(a) Is satisfied that CFE is compliant with the remuneration requirements of the FCA handbook, including whether the:

(i) Remuneration policies are consistent with and promote sound and effective risk management, and do not encourage risk-taking that exceeds the level of tolerated risk within the firm;

(ii) Remuneration policies are in line with the firm’s business strategy, objectives, values and long term interests of the Company;

(iii) Remuneration policies of Relevant Persons along with the manner in which their performance is assessed must not be structured in a manner that encourages behaviour that is not in the best interests of our clients. More specifically, the remuneration of Relevant Persons must aim to encourage responsible business conduct, fair treatment of clients as well as avoid conflicts of interest in the relationship with our clients.

- (b) Is consulted with by senior management and senior representatives of the Risk, Compliance and HR functions when remuneration proposals are to be made regarding individuals about whom those functions have concerns;
- (c) Exercises competent and independent judgement on the Company's remuneration practices and the incentives created for managing risk, capital and liquidity;
- (d) Reviews the Company's remuneration policy statement and makes proposals and recommendations regarding changes and enhancements; and
- (e) Is aware of the remuneration of the Company's senior officers in the Risk and Compliance functions.

There is crossover between members and attendees of the RemCo and other relevant committees such as Risk and Audit committees. This enables the sharing of information.

The RemCo has not appointed any remuneration consultants for advice.

### 13.3 Remuneration

Remuneration consists broadly of fixed remuneration (i.e. base salary) and variable remuneration in the form of a performance-related payment, a portion of which may be deferred.

#### 13.3.1 Base Salary (fixed remuneration)

Salaries are intended to compensate employees for their skills and experience taking into account local market practice.

#### 13.3.2 Performance-based Remuneration (variable remuneration) for Relevant Persons

Variable remuneration (or bonuses) are split into two categories: (i) commission arrangements for Equity, Equity Derivatives and DCM sales and trading staff ('Commission Arrangements'), and (ii) discretionary bonus arrangements for all other staff.

##### 13.3.2.1 Commission Arrangements

Twenty-one staff participate in CFE's Commission Arrangements. The arrangements are designed to incentivise the generation of revenue through the activities of the sales and trading staff. The commission payments are subject to compliance with applicable regulations, the fair treatment of clients and the quality of services provided to clients as well as all applicable internal policies and procedures.

These arrangements are structured as individual payments settled monthly, quarterly, semi-annually or annually and based on individual commission revenue received figures less directly attributable costs.

Commission payments are made in arrears which ensures that they are based on received revenues and after any irregularities in a transaction on which commission is payable has been detected by finance or business management.

A proportion of total compensation for these staff consists of a contingent non-cash grant in units of CFLP, which are subject to the terms of the grant documents including vesting (usually over 4 years), cancellation and restrictive covenant provisions.

The percentage rates used to calculate the amount of commission reflects the fact that these arrangements cover sales activities that do not create market risk / trading positions for CFE. The Company can vary the rates.

Notwithstanding that a numeric formula is used to calculate the commission payment, there are express contractual provisions that state that payment is subject to continued compliance with the Compliance Manual and other compliance related rules and procedures of CFE from time to time in force, other rules or policies of any regulatory authority of competent jurisdiction (such as the FCA), and the policies and procedures contained in the Employee Handbook.

Before any commission payment is proposed by the CEO of CFE to be approved by the CF Group CEO, the CEO will consult with Compliance, Risk and HR to ensure that there is no failure to comply with these requirements or any conduct risk issue has been identified and/or if the recipient is subject to any formal disciplinary procedure. If such failures are discovered, CFE reserves the right to withdraw, or reduce the amount of any commission payment.

### 13.3.2.2 Discretionary bonus

Those employees who are not part of the commission arrangements are paid a fixed salary and are eligible to be considered for an annual discretionary bonus. There are ninety-six staff eligible for a discretionary bonus. The amount and form of the discretionary bonus is proposed by the CEO of CFE following consultation with Compliance, Risk and HR as above, and subject to a final review / sign off by the CEO of the Cantor Fitzgerald Group and the Managing General Partner of CFLP. The CFE Remuneration Committee will also review the general form and structure of payments.

CFE retains an overriding discretion over whether and how much to pay by way of discretionary bonus. One aspect of CFE management exercising its discretion is an assessment of an employee's conduct and compliance with applicable regulations, the fair treatment of clients and the quality of services provided to clients as well as all applicable internal policies and procedures.

Discretionary bonuses may be paid in the form of:

- Cash;
- Non-cash grants of Partnership in CFLP;
- Deferred cash; and
- Forgivable loans

Partnership units in CFLP are subject to compliance with applicable regulations, the fair treatment of clients and the quality of services provided to clients as well as all applicable internal policies and procedures. Forgivable loans, which are forgiven after a number of years, are immediately repayable in specific circumstances including in the event of a breach of FCA rules and regulations or exit from the company before a certain date.

With regards to the form of discretionary bonuses awarded, these may be paid in the form of loans which are forgiven after a number of years. Such loans are immediately repayable in specific circumstances including in the event of a breach of FCA rules and regulations or exit from the company before a certain date.

### **13.3.2.3 Determination of bonus pools**

Determination of the overall final approved bonus pool amount is based on annual performance of the regulated business and attributed to teams / individuals by senior management of CFE and Cantor Group based on individual performance, team performance, and behaviour in relation to Risk, Compliance, and Policies & Procedures.

Individuals may be rewarded for both prior year revenue performance and their efforts to build the Cantor brand / franchise, win and retain clients, develop the future pipeline and assist senior management in building a sustainable and successful business.

Bonus is provided for on a top down basis at product / sector level throughout the year and then a bottom up approach taken for the final proposed bonus by team / individual.

The accrual is based on a methodology laid out by the CEO and CFO taking into account the views of the REMCo, the capital deployed to support the respective business and other underlying costs the business creates. If a business places the capital at risk, the firm will retain more of the revenue generated than one that does not. This will be reviewed from time to time for appropriateness.

In situations where material losses are incurred, the bonus pool can be reduced to zero. In some circumstances, limited bonus will need to be paid in order to protect the business and ensure that key individuals on whom the future success of the business depends are not lost to other firms. This is a judgement exercised by the CEO of CFE in conjunction with the CEO of the CF Group and the Managing General Partner of CFLP.

### **13.3.2.4 Independent Non-executive directors (“NEDs”)**

NEDs are remunerated based on a fixed annual fee and are not eligible for any bonus.

### **13.3.2.5 Guaranteed Bonus Payments**

Guaranteed variable remuneration is only paid on an exceptional basis and the focus of such payments is on sign-ons that are usually to buy-out bonus due from previous employers. Any proposal to pay a guaranteed bonus to any front/back office employee is examined for FCA compliance by the Legal department before being agreed with

candidates and before being paid. The majority of sign-off payments are conditional on meeting performance targets.

The number and nature of guaranteed bonuses are monitored on a monthly basis by HR.

All reasonable steps are taken to ensure that any sign-on bonus is proportionate to the employee's previous remuneration terms (e.g. deferral and/or retention periods). The employee may be required to provide written confirmation that any guarantee offered is not more generous than their previous remuneration package. A provision to this effect is included in the recruit's employment contract and provides for (i) specific consent to allow the relevant trading entity to contact a previous employer for verification, and (ii) a requirement to repay and/or voiding provision if such representation is subsequently found to be incorrect or untrue.

Guaranteed bonuses may only be offered in exceptional circumstances as a one year guarantee to a new hire in the first year of joining and where the firm has a sound and strong capital base.

### 13.3.2.6 Bonus Eligibility

All employees are eligible to participate in the bonus programme for the prior performance year subject to the below:

- New hires and Employees on Probation. Provided a new hire joins prior to October he or she may be eligible to be considered for a discretionary bonus. Any bonus award may be pro-rated for the period during which the employee has been employed during the performance period.
- Transfers between business units. If an employee transfers internally or is a shared resource across two or more businesses, the individual's bonus will be determined by reference to proportionate input from the respective business unit.
- Leavers. Employees are not eligible to receive any bonus if they have given or received notice of termination before the payment date.
- Absence. Employees who are absent for a significant period throughout the year may have any bonus award pro-rated or based on the extent of contribution made during the year.
- Disciplinary proceedings. Eligibility may also be affected by disciplinary proceedings whether ongoing or concluding as described above.

### 13.3.2.7 Code staff aggregate remuneration information

Code staff is defined as employees whose professional activities have a material impact on the firm's risk profile. The table below provides aggregate quantitative information on Code staff remuneration.



## CFS LLP Pillar 3

CODE STAFF REMUNERATION FOR 2018				
	Senior management		Other code staff	
	No. of recipients	\$000	No. of recipients	\$000
Fixed remuneration during 2018	6	1,445	32	4,923
Variable remuneration awarded for 2018 performance:				
Cash	3	480	31	13,391
Equity	1	365	13	1,798
<b>Total</b>	<b>4</b>	<b>845</b>	<b>44</b>	<b>15,189</b>
Outstanding deferred remuneration change during the year:				
Awarded	1	365	13	1,798
Lapsed due to performance outcomes or adjustments				
Lapsed due to leaving service				
Paid out				
Outstanding unvested as at 31 December 2018	1	1,693	10	6,285
Sign-on payments or awards				
Severance payments				
Highest individual severance payment				

CODE STAFF REMUNERATION OF EUR 1M OR MORE FOR 2018	
Remuneration bands (euros)	No. of recipients
1,000,000 to 1,500,000	3
1,500,001 to 2,000,000	3
2,000,001 to 2,500,000	
2,500,001 to 3,000,000	
3,000,000 to 3,500,000	