CITADEL | Securities

Citadel Securities (Europe) Limited

Pillar 3 Disclosures

31 December 2018

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1. Introduction

Company overview

Citadel Securities (Europe) Limited ('CSEL' or the 'firm') is a full scope IFPRU investment firm regulated by the Financial Conduct Authority ('FCA'). The principal activity of the firm is technology-enabled liquidity provision and market making in equities, futures, options, interest rate swaps and government securities. The firm trades on a proprietary basis for its own account. Additionally the firm provides agency execution, portfolio management, trading algorithm development and other support services to affiliated Citadel Securities Group entities.

CSEL is a wholly-owned subsidiary of CSHC Europe LLC, a Delaware limited liability company. The firm is part of Citadel Securities, an award-winning global market maker that provides liquidity across a broad array of fixed income and equity products. Citadel Securities was launched in 2002 and currently has more than 700 dedicated employees with offices in Chicago, New York, London, Hong Kong, Toronto, Shanghai, Sydney and Dublin.

Disclosure overview

The firm is required under the EU Capital Requirement Regulation ('CRR') to maintain adequate financial resources to ensure there is no significant risk that liabilities cannot be met as they fall due. The CRR is based on the Basel Accord framework, which consists of three 'pillars' of prudential supervision:

- Pillar 1 sets out the minimum capital requirements firms are required to maintain;
- Pillar 2 deals with the Internal Capital Adequacy Assessment Process ('ICAAP') and the Supervisory Review and Evaluation Process through which the firm and the regulator satisfy themselves regarding the adequacy of capital; and
- Pillar 3 aims to encourage market discipline by developing a set of disclosure requirements which will allow market participants to assess key pieces of information on a firm's capital resources, risk exposures and risk assessment process.

Information in this report is prepared in accordance with the Pillar 3 disclosure rules as required by the CRR, and supplemented by the Financial Conduct Authority ('FCA') Prudential sourcebook for Investment Firms ('IFPRU').

The Pillar 3 disclosures have been prepared solely to comply with regulatory requirements to provide public information on: the firm risk management objectives and policies; its capital position; its capital resources requirements under Pillar 1; and its approach to assessing the adequacy of capital. The data presented in this report refers to the CSEL regulatory position as at 31 December 2018 and should be read in conjunction with the firm's annual report and financial statements.

In accordance with CRR, the disclosures are issued as a minimum on an annual basis and published on the Citadel Group website www.citadelsecurities.com. The disclosures are reviewed and approved by the firm's senior management and Board of Directors. CSEL is not part of a Group for the purposes of CRR disclosure requirements and is regulated by the FCA on a 'solo' basis.

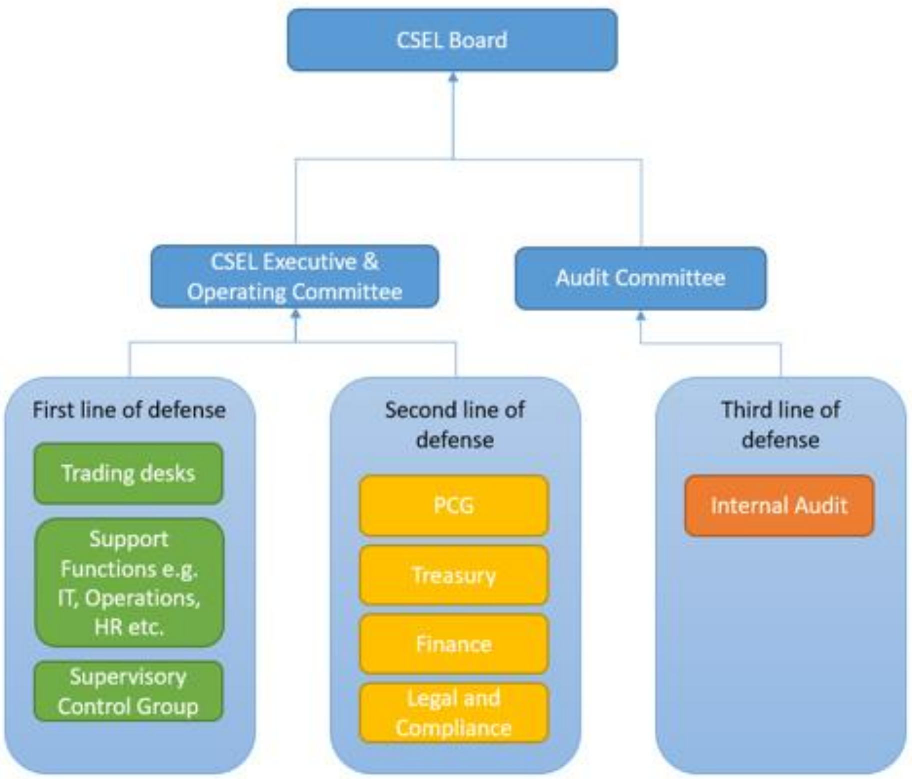
2. Risk management framework

Risk management is an integral part of the business and is a focus for risk managers as well as the trading desks and support functions. At the highest level, the Board of Directors has overall responsibility for the establishment and oversight of the firm's risk management framework. The framework includes:

- identifying the principal risks faced by the firm in achieving its strategic objectives;
- establishing appropriate tolerances, limits and controls to manage those risks; and
- ensuring that appropriate monitoring and reporting systems are in place such that controls remain robust and evolve with the changing risk profile of the firm.

Monitoring of risks against the set appetite is via the Key Risk Indicators ('KRIs') that are tracked monthly and presented to the Executive & Operating Committee ('EOC') where any risk that breaches the amber threshold is discussed together with any required remedial action. Any KRI that breaches the red threshold is escalated for discussion at the Board of Directors meeting. The risk appetite and policies are reviewed regularly to reflect changes in market conditions and the firm's activities.

The organisational structure is designed to facilitate risk management through three lines of defence as illustrated below:



At the first line of defence, each trading desk is responsible for monitoring and managing risk in real time and in accordance with the firm's overall risk appetite. This requires them to meet capital, liquidity and risk exposure guidelines as set out in CSEL's Risk Appetite Statement and risk policy.

At the second line of defence, risk is monitored by the Portfolio Construction Group ("PCG"), the global independent risk control function for the Citadel Group. The PCG view is independent of the CSEL trading desks and covers all trading activity as well as operational risk. 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 EOC 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 firm's Board of Directors and Internal Audit Committee. A risk based programme of work is established to provide appropriate coverage of key risks and processes of the firm. The Internal Audit Committee approves the Annual Audit Plan and receives regular reports on the results of audit work.

The scope of work of the Internal Audit function is to determine whether CSEL's risk management, control and governance processes, as designed, represented and operated by management, are adequate and functioning in a manner so as to provide reasonable assurance that:

- risks are appropriately identified and managed;
- governance mechanisms operate effectively;
- significant financial, managerial, and operating information is accurate, reliable, and timely;
- employee's actions are in compliance with policies, standards, procedures, and applicable laws and regulations;
- resources are acquired economically, used efficiently, and adequately protected;
- programmes, plans and strategic objectives are achieved;
- quality and continuous improvement are fostered in the organisation's control process;
- significant legislative or regulatory issues impacting the organisation are recognised and addressed properly; and
- assets are safeguarded.

3. Governance arrangements

Directors of CSEL are selected, and the appointments to management committees for CSEL are made, on the basis of merit, experience and, where applicable, actual responsibilities within the firm, taking into account judgement, character, expertise, skills and knowledge useful to the oversight of the firms' businesses.

The firm will also take into consideration the balance and interplay of knowledge, skills, diversity of viewpoints and experience of the board of directors and management committees as a whole when looking to make appointments to build effective, collegial and functioning governance arrangements which can be responsive to the needs of the firm.

The members of the board of directors of CSEL as of 31 December 2018 were as follows:

- S. Atkinson
- M. Culek
- R. Pike
- A. Walker
- M. Wright

4. Risk exposure overview

CSEL conducts a comprehensive risk identification exercise by risk category across the business to ensure that all significant risks have been identified, assessed and are effectively managed. All significant risks are assessed and documented along with any risk mitigants and associated controls. The resulting risk exposure level is estimated using a matrix of parameters. These risks are then monitored real-time, daily or monthly as appropriate via KRIs. Any breaches against agreed risk tolerances are escalated through the governance process.

A high level risk assessment for CSEL is provided below.

Market risk

Market risk is the potential for changes in the value of investment positions due to changes in market prices. Market risk is directly impacted by the volatility and liquidity in the markets in which the related underlying financial instruments are traded. Categories of market risk include equity position risk, foreign exchange risk and interest rate risk.

Equity position risk is the risk of loss due to changes in prices and implied 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 the independent risk control function. Foreign exchange risk is the risk of loss due to the fluctuation of exchange rates. The valuation of the portfolio is subject to foreign exchange risk arising from non-US dollar positions. This risk is managed by the Treasury team through monitoring and hedging foreign exchange exposures 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 firm is primarily exposed to interest rate risk through its interest rate swap and government bonds market making activity. The business seeks to maintain a relatively flat risk ladder with automated hedging of the duration risk. The firm 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 meet its obligations as they fall due. CSEL adopts the standardised approach to measure credit risk and further information is presented in section 5 of this report. The Finance team monitors the credit risk exposure by counterparty on a daily basis.

Counterparty credit risk is the risk of loss as a result of a party to a transaction defaulting before the final settlement of the transaction's cash flows. The credit quality of counterparties with whom CSEL transacts is monitored by the Treasury function. The firm primarily clears its securities transactions through highly rated prime brokers and clearers or directly via its membership with LCH SwapClear.

Citadel Group monitors the amount of business across all trading relationships on a global basis across the entire group. Citadel endeavours to maintain a good balance of business across a range of prime brokers and bank counterparts.

Liquidity risk

The nature of the business means that CSEL runs a dynamic intra-day position in cash equities and cleared derivatives that requires liquidity in two forms: First, liquidity to manage risk positions in all market conditions; and second, funding to continue to clear and settle trades intraday and to finance overnight positions.

The firm manages liquidity risk in line with its liquidity policy and documents its approach in the Individual Liquidity Adequacy Assessment ('ILAA'). The ILAA is reviewed by senior management and approved by the Board of Directors. The firm aims to ensure, as far as possible, that it has sufficient liquidity to meet its liabilities when due without incurring unacceptable losses or risking damage to the firm's or the Group's reputation.

The firm monitors its liquidity position in real time and produces a daily summary report which is reviewed by senior management. KRIs associated with liquidity risk are reported on a monthly basis. Cash positions are monitored and reconciled daily by the global cash management function.

Intraday projections of cash balances are monitored on a gross basis to ensure the firm is accurately forecasting any timing mismatches between paying and receiving funds. Both initial and variation margin levels are forecasted and verified against margin calls the firm receives.

Liquidity risk on derivatives positions are not managed on the basis of contractual maturity as they are frequently settled on demand at fair value.

Operational risk

Operational risk is the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events. It also includes conduct, legal, reputational and outsourcing risks. The firm manages operational risks via its operational risk framework. KRIs associated with operational risk are tracked and presented to the monthly EOC where breaches of amber threshold are discussed together with any required remedial action. Any breaches of red thresholds are escalated for discussion at the Board meeting.

5. Capital resources

CSEL maintains a capital base that is appropriate to support the development of the business and ensures regulatory capital requirements are met at all times.

The firm'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.

The table below summarises the amount and type of capital resources and provides a reconciliation to the balance sheet shareholder's equity as at 31 December 2018:

	31 December 2018 USD 000s
Share capital	193,000
Retained profits	144,573
Prudent valuation adjustment	(4,371)
Tier 1 capital	333,202
Total Capital Resources	**333,202**
Tier 1 capital	333,202
Prudent valuation adjustment	4,371
Unaudited earnings	(3,652)
Total financial statements shareholder's equity	**333,921**

6. Capital resources requirements

Credit Risk ('CR')

Credit risk arises from on and off balance sheet exposures held in the non-trading book. For CSEL this primarily consist of cash balances. The firm adopts the standardised approach to calculate credit risk. External credit assessments provided by Moody's and S&P are used to assign a credit quality step to the firm's exposures in various institutions. Risk weight is then applied to calculate the risk weighted exposure.

Claims on institutions have a residual maturity of less than 90 days with no material amounts falling due after 90 days. The firm has no financial assets which are past due or impaired.

Counterparty Credit Risk ('CCR')

Counterparty credit risk is the risk that a counterparty to a transaction could default before the final settlement of the transaction's cash flows. CSEL uses the mark to market method to calculate the potential future credit exposure on derivative transactions.

Credit Risk to a qualifying central counterparty ('QCCP')

CSEL applies the calculation per article 308 of CRR to calculate its credit risk exposure arising from its trade exposures and pre-funded contributions to the default fund of LCH, which is a qualifying central counterparty.

The following table shows the exposure classes and amounts associated with the credit quality steps and the relevant risk weightings at 31 December 2018:

	Credit Quality Step	Risk Weight ('RW')	CR Exposure USD 000s	CCR Exposure USD 000s	RW Exposure USD 000s
Exposure class					
Institutions	2	20%	133,960	53,785	37,549
Total claims on institutions			**133,960**	**53,785**	**37,549**
QCCP	Unrated	2%	5,639	308,973	6,292
QCCP	Unrated	4%	52,389	1,079,116	45,260
QCCP (default fund)	Unrated	-	-	-	36,247
Corporates	Unrated	100%	80,000	-	80,000
Total			**271,988**	**1,441,874**	**205,348**
CR and CCR Component		**8%**			**16,428**

Operational risk capital requirement

Operational risk is the risk of loss resulting from inadequate or failed internal processes, people, systems or controls. CSEL measures Pillar 1 operational risk using the basic indicator approach. The relevant indicator is the average of the firm's audited net income figures for the last 3 years, which is then multiplied by 15% to arrive at the operational risk capital requirement. As at 31 December 2018, the firm's operational risk capital requirement was USD 24,752,000.

Market risk capital requirement

Market risk is the risk of loss in the value of financial instruments due to changes in market conditions. Categories of CSEL's market risk include equity position risk, foreign exchange risk and interest rate risk. The Pillar 1 charge for interest rate risk is calculated using the duration-based method, as detailed in Article 340 of the CRR. The firm has been granted permission to use a sensitivity model in the calculation of interest rate risk on derivative instruments in accordance with Article 331 of the CRR.

	31 December 2018 USD 000s
Capital resources requirements	
Interest rate position risk	16,474
Equity position risk	47,669
Foreign exchange position risk	2,643
Total market risk capital requirement	**66,786**

Countercyclical capital buffer

The firm is required to calculate a Countercyclical Capital Buffer (CCyB) in line with the CRR. CSEL calculates countercyclical capital buffer equal to its total risk exposure amount multiplied by the weighted average of the countercyclical buffer rates that apply to exposures in the jurisdictions where the firm's relevant credit exposures are located. The institution specific countercyclical capital buffer as at 31 December 2018 was USD 3,128,000.

7. Leverage ratio

The leverage ratio is calculated as a percentage of CSEL's Tier 1 capital over its total exposure measure. The total exposure measure is the sum of exposure value of all assets and off-balance sheet items.

	31 December 2018 USD 000s
Tier 1 Capital	333,202
Leverage ratio exposure	3,941,342
Leverage ratio	**8.5%**

8. Pillar 2

Under Pillar 2, firms are required to undertake a regular assessment of the amounts, types and distribution of capital that they consider adequate to cover the level and nature of risks to which they are, or might be, exposed. The Pillar 2 framework consists of two parts. Under Pillar 2A, firms identify risks which are inadequately covered under Pillar 1 and set aside additional Pillar 2 capital against these risks. Pillar 2B consists of the Capital Planning Buffer ('CPB'), which does not form part of the regulatory capital requirement. The CPB is available to absorb losses and/or to cover increasing capital requirements in adverse circumstances that are outside the firm's normal and direct control, so that the firm can meet the overall financial adequacy rules at all times.

As part of the Internal Capital Adequacy Assessment Process ('ICAAP'), CSEL identifies and assesses risks that are inadequately covered or not covered at all under Pillar 1. The ICAAP forms an integral part of the firm's risk management processes and capital management strategy. It is updated at least annually and is reviewed and approved by the Board of Directors.

CSEL has conducted a comprehensive risk identification exercise by risk category across the business to ensure that all significant risks have been identified and captured by the risk management framework. All significant risks are assessed and documented along with any risk mitigants and associated controls. The resulting risk exposure level is estimated using a matrix of parameters.

Each risk is assigned an owner who is responsible for assessing that risk with respect to risk score (High/Medium/Low) and risk mitigant strength (Hard/Soft) to determine the risk exposure level (Not tolerable/Monitor/Tolerable). CSEL has KRIs or other monitoring measures in place for all material operational risks that have risk exposure at 'monitor' or 'not tolerable' level. Risk owners together with the Finance team assess each identified risk to determine if any additional Pillar 2 capital should be held. Where applicable, risk owners will make reference to internal and external loss data when assessing risks.

The firm's ICAAP includes stress testing to supplement its risk management framework and assess the capital adequacy of the business. These stress tests play an important role in providing a forward-looking assessment of risk and factoring this into capital and liquidity planning procedures by determining an appropriate level of CPB.

9. Remuneration

The remuneration policy has been adopted by the by the Board of Directors who have the ultimate responsibility for its implementation. CSEL has established a compensation oversight body, made up of US and UK based Citadel senior management who are tasked with overseeing the implementation of the remuneration policy and ensuring that the remuneration of code staff is in line with the principles set out in the policy.

CSEL's compensation plan is composed of base salary (fixed remuneration), bonus awards (variable remuneration) and benefits. Bonus awards are issued as cash and unvested membership interests (unvested equity interests in the form of unvested shares in a company formed by the Citadel Group for its employees that itself is invested in certain funds managed by the Citadel Group).

Bonus awards are made in respect of any calendar year during which employees are employed by CSEL. They are awarded on a discretionary basis based on (i) personal performance and demonstration of Citadel values and the Citadel leadership model; and/or (ii) firm-wide or team performance results if appropriate.

Total remuneration awarded to code staff by CSEL in 2018 amounted to USD 29,356,000.