Clearstream Banking S.A. (CBL)

Internal Control Framework

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1. Introduction

This Memorandum outlines the main aspects of the Internal Control Framework of Clearstream Banking S.A. ("**CBL**" or the "**Company**").

2. ICS Approach

An effective Internal Control System (ICS) is a fundamental component of the overall risk management culture and of corporate governance. It consists of safeguards and controls embedded in the organisational structures, in particular within the business processes, to ensure that business processes and activities run in an orderly fashion and minimise risks. Thus, the design and implementation of an effective ICS is vital for managing risks, preventing material losses and achieving its corporate goals/business strategy and safeguard its continued existence. It is as well a key element to ensure permanent compliance with applicable laws and regulations.

The ICS approach applies to all business activities of CBL. In accordance with the ICS approach, the duties of senior management of CBL, comprise, inter alia, analysing and assessing the risk of the business processes, implementing adequate safeguards and controls within the business processes, monitoring the application of safeguards and controls, reporting promptly if material shortcomings in the ICS have been identified and ensuring awareness of the employees regarding the ICS.

The Executive Board of CBL has approved the Deutsche Börse Group ICS policy which recognises the Integrated Framework 2013 of the Committee of Sponsoring Organisations of the Treadway Commission (COSO) as a leading framework for designing, implementing, and conducting internal control and assessing the effectiveness of internal controls. COSO outlines the components, principles, and factors also necessary to effectively manage its risks and controls to accomplish objectives, which it applies to all processes of CBL.

Some key aspects of internal control that are applicable to CBL are:

- Integrity and ethical values;
- Segregation of duties;
- Policies, standards and procedures (including sound administrative and accounting procedures);
- Definition of coherent objectives defined by the Executive Board;
- Definition of authorisation levels; and
- Management information and control systems.

In addition, CBL applies the three lines of defence model, a common approach to enhance communications on risk management and control by clarifying essential roles and responsibilities. The three lines of defence model addresses how specific duties related to risk and control are assigned and coordinated. The three lines of defence are described below.

First line of defence: Functions that originate, own and manage risks (Business Lines).

Second line of defence: Functions that oversee risks, i.e, the various control functions which support and advise the first line and the Executive Board of CBL. CBL has appointed a Chief Compliance Officer, a Chief Risk Officer, a Chief Technology Officer and experts (e.g., the data protection officer, as well as the information security officer).

Third line of defence: Function that provides independent assurance, i.e., the Internal Audit function. CBL has appointed a Chief Internal Auditor who provides the Executive and Supervisory Boards of CBL with reasonable assurance of the adequacy and effectiveness of the risk management and control framework. Internal Audit follows the market and product

processes, as well as the support services, ensuring that common standards of control are applied across all processes. Audits are conducted within the areas relevant for the defined process. The Chief Internal Auditor has direct access to and reports directly to the Executive and Supervisory Boards as well as to the Audit Committee.

CBL has outsourced part of its operations as well as some support functions (e.g., human resources). The primary service providers are other Clearstream entities, for example Clearstream Banking AG (''CBF'') and Clearstream Services S.A. (''CS''), but also other entities within Deutsche Börse group. Consequently, there is a high level of interconnectedness with the Deutsche Börse Group. It should be noted that the ICS framework as outlined above is applicable groupwide.

3. Risk management framework

It is CBL's intention to confine risk to an appropriate and acceptable level. Risk management is a fundamental component of the management and control of CBL. Effective and efficient risk management is vital to protect the interests of the stakeholders in CBL and enables the Company to achieve its corporate goals, while safeguarding its continued existence. CBL has therefore established a risk management system comprising roles, processes and responsibilities applicable to all staff and organisational units of the Company. This ensures that emerging risks are identified and managed as early as possible.

CBL's risk strategy ensures that the execution of the business strategy systematically includes the identification, assessment, monitoring and mitigation of possible risks and the implementation of mitigating controls. It ensures and enables the timely and adequate control of risks. The risk strategy is reviewed annually and approved by the Executive Board of CBL. The main part consists of the risk strategy statement, the risk management approach and risk types which are quantified in the risk appetite framework based on tools and concepts used to manage risk.

The members of the Executive Board of CBL hold the final responsibility for managing the Company's risks. They are informed in full and promptly about the entity's risk profile, relevant risks, and material losses. Clearstream's risk management organisation is decentralised. The various operational units are responsible for identifying risks and for reporting them promptly to Risk Management. Risk control is also performed in the decentralised business areas, where the risks occur. Risk control in the Clearstream operational units is ensured by nominating "operational risk representatives" who are responsible for identifying, reporting, and controlling any risk in their area.

The Deutsche Börse Risk Management Policy which has been approved by the Executive Board of CBL determines the five key processes of the risk management framework. These key processes are risk identification, risk notification, risk assessment, risk control/migration and risk monitoring/reporting. CBL's risk management framework aims at ensuring that all threats, causes of loss and potential disruptions are properly identified as soon as possible, centrally recorded, assessed (that is, quantified in financial terms to the largest possible extent), controlled and reported in a timely manner and consistently, together with suitable recommendations to the CBL Executive Board.

A number of procedures are in place which implement the risk management framework in terms of processes, roles and responsibilities and which document how different areas within the 1st and 2nd line of defence work together and define roles and responsibilities. This includes the Group Risk Management Procedure, as well as other procedures which provide a deeper overview of the risk framework and standards to ensure the sustainability of CBL and thereby smooth and efficient market operations (e.g. "Guidelines on risks posed to us/others").

There are also specific procedures and reports in place to ensure key risks incurred by the Company are completely and adequately identified, measured, monitored, managed and reported to the Executive Board of CBL. In this context, reference is made to the OpRisk Procedure for operational risk which defines the approach and the major instruments applied within the process of OpRisk management on a high level. Additional guidance on the approach is given in the Handbook Operational Risk.

The following tasks are described across the different roles:

- individual employees: supports the Risk Owner, OpRisk Representative and Risk Management. He/she performs or supports the collection or event data and key risk indicators as well as provides additional expertise when needed.
- OpRisk Representative: performs the day-to-day risk oversight and evaluation within the assigned area.
- Risk Owner: responsible to manage and mitigate operational risk within the assigned area.

Internally encountered operational risk events are captured and analysed as to the root cause in order to determine any mitigating actions to be taken. A high quality and the completeness of the data collection are key factors to achieve the goal of an effective and efficient management of operational risk. Any operational risk scenarios which are identified, are analysed for internal risk management purposes by CBL.

Business risk reflects sensitivity to macroeconomic evolution and vulnerability to prevent risk arising from external threats, such as the regulatory or political environment or regulatory changes. The detailed description of the approach applied with the framework of business risk management for CBL is laid down in a business risk handbook.

Financial risk covers the monetary risks inherent to market transactions, the ability to meet demands for funds arising from liabilities, and lending activities. Moreover, it includes the risk of settlement of receivables, such as the risk of default on the part of business partners, individuals, and entities performing specific functions. The detailed description of the approach applied with the framework of financial risk management for CBL is laid down in a financial risk handbook.

To sum up, CBL encourages risk awareness and a corresponding risk-conscious culture, amongst other things, through appropriate organisational structures and responsibilities, adequate processes and the knowledge of the employees.

The appropriateness of the risk management and controlling systems is continuously checked. Internal Audit ensures through independent audits that the adequacy of the risk control and risk management functions are monitored. The results of these audits are also fed into the risk management system.

Further information on Clearstream's risk management framework can be found in the published Pillar III document at the following link: https://www.clearstream.com/clearstream-en/about-clearstream/regulation-1-/pillar-iii-disclosure-report/pillar-iii-disclosure-report-1278114

4. Compliance Framework

The Executive Board of CBL has approved a Compliance Charter (hereinafter "the Charter") which defines the roles and responsibilities of the Compliance function within CBL as well as its relationships with the Executive Board and the Supervisory Board and its delimitation to other business and operational functions.

The Compliance function aims to promote, monitor and control the adherence to laws, regulations, internal rules and good business practices and to mitigate the risk of negative

impacts (whether direct or indirect financial loss, regulatory sanction, or reputational damage) that may result from the failure to comply with material applicable laws, regulations, and standards of good practice by the relevant business areas. In the structure in place, the Chief Compliance Officer is the individual appointed directly by the firm to manage the Compliance function.

The Chief Compliance Officer has direct access to and reports directly to the Executive and Supervisory Boards as well as to the Audit Committee.

The Charter lists the responsibilities of the Compliance function, installs its independence from any business unit, central function or other control functions within the organisation and its directly reporting to the Executive Board. It defines its relationship with other business units and central functions and defines general principles as to its access to information, reporting to authorities, cases and findings management, recourse to external experts and possible delegation of some of its tasks, but not responsibility, to other entities of Deutsche Börse Group, subject to appropriate documentation.

The Charter remains a living document that is updated in regular intervals to take into account changes in the Compliance mandate and/or to applicable laws and regulations.