Investment Technology Group Limited

Pillar III Disclosures

For the year ended 31 December 2018

INDEX

1. Introduction

The Basel III Accord was implemented in the European Union through the revised Capital Requirements Directive ("CRD") and the Capital Requirements Regulation ("CRR"), collectively referred to as CRD IV. The CRR is directly applicable to firms across the EU whilst the CRD was signed into Irish law on 31 March 2014. The Basel III capital adequacy framework builds on the Basel II regulatory basis.

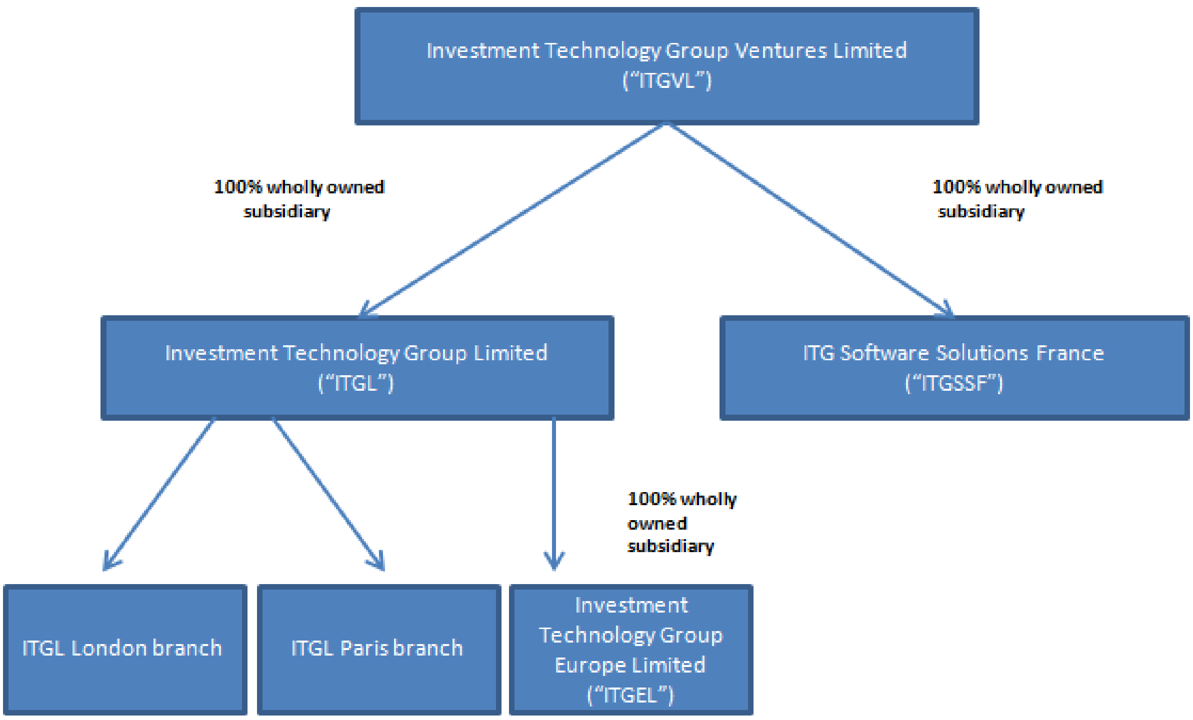
CRD IV is based on three pillars:

- Pillar 1 ("minimum capital requirements"); defines the rules for the calculation of credit, market and operational risk and sets out the methodology for calculating a firm's minimum capital;
- Pillar 2 ("supervisory review"); requires that firms conduct an internal assessment of their risks and capital requirements through an Internal Capital Adequacy Assessment Process ("ICAAP"); and
- Pillar 3 ("market discipline"): requires firms to disclose both quantitative and qualitative information on the scope of the application of CRD IV including capital requirements and resources, risk exposures and risk management.

Basis of disclosures

Investment Technology Group Ventures Limited and its individual subsidiaries ("the Group") Pillar 3 disclosures are published on a consolidated basis for the year ended 31 December 2018.

The Group consists of the following entities:



Background

As at 31 December the companies were wholly owned subsidiaries of Investment Technology Group, Inc. ("ITG"), a US based entity listed on the New York Stock Exchange. On 1 March 2019 ITG Inc was acquired by Virtu Financal Inc. For this reporting period ending 31 December 2018 the company structure has been retained as at that date.

ITG is a global financial technology company that helps leading brokers and asset managers improve returns for investors around the world. We empower traders to reduce the end-to-end cost of implementing investments via technology-enabled liquidity, execution, analytics and workflow solutions.

ITG has just under 1,000 employees in 14 offices in nine countries in Asia Pacific, Europe and North America. It offers execution services in more than 50 countries.

The Group comprises:

- ITGVL, an Irish incorporated company engaged in the licensing of products and services to institutional clients in Europe, the Middle East and Africa. ITGVL is not subject to regulatory oversight in its own right, rather it is subject to consolidated supervision by the Central Bank of Ireland ("CBI") as the parent company of the Group.

- ITGL is an Irish incorporated investment firm, authorised by the Central Bank of Ireland ("CBI") as an Investment Firm under Regulations 8 (3) and 5 (2) of SI No. 375/2017 European Union (Markets in Financial Instruments) Regulations 2017 ("MiFID SI"). The Company operates branches in London and Paris under Regulation 12(3) MiFID SI. The Company's London branch is regulated by the Financial Conduct Authority and the Paris branch is regulated by the Banque de France. ITGL is a full-scope CRD IV firm.

- ITGEL is an Irish incorporated entity and wholly-owned subsidiary of ITGL. Previously authorised as a MiFID investment firm by the CBI, the entity voluntarily revoked its regulatory license on 31 December 2015. ITGEL is not subject to regulatory oversight in its own right, rather it is subject to consolidated supervision by the CBI as a subsidiary company of the Consolidated Group.

- ITG Software Solutions France was acquired by ITGVL on 30 July 2014. It is an unregulated technology provider, incorporated and domiciled in Paris, France, that operates RFQ-hub (now re-branded ITG RFQ-hub), a multi asset platform for global listed and over the counter financial instruments. ITGSSF is not subject to regulatory oversight in its own right, rather it is subject to consolidated supervision by the CBI as a subsidiary company of the Consolidated Group.

The Group provides services to eligible counterparties and professional clients only, i.e., it does not provide services to retail clients.

The scope of consolidation is the same for both statutory accounting and regulatory capital purposes; however, there are certain limited differences as to the treatment of certain assets and capital items for statutory accounting and for capital adequacy calculations. There are no current or foreseen material restrictions or legal impediments to the movement of capital between the legal entities or the repayment of liabilities between the parent and subsidiary undertakings apart from the requirement to ensure there is adequate capital in each regulated entity to meet its regulatory requirements.

Frequency

This report is made on an annual basis, with the disclosures based on the financial year end 31 December 2018. A more frequent disclosure is not deemed to be required under the European Banking Authority Guidelines as issued under Article 433 of the CRR.

No information has been excluded on the grounds of confidentiality, materiality or because the information was considered to be proprietary.

Reporting convention

Prior year data for the year ended 31 December 2018 has been reported throughout this document.

Disclosure policy

The Group's Boards of Directors approved the Group Pillar III Disclosure Policy in June 2019.

Media and location

The Pillar III report is published on the ITG Group website (www.itg.com).

Verification

The Pillar III disclosures have been subject to internal review in accordance with the ITG Disclosure Policy. The Board of Directors oversees the process of disclosure and has approved this report.

2. Capital and capital management

The Group's regulatory capital policy seeks to ensure that the Group has sufficient capital to cover the risks of its business and support its strategy, and at all times complies with CRD IV regulatory capital requirements.

The following table summarises the Group's total exposures, risk weighted assets and minimum capital requirements:

Capital adequacy	**Total exposures €'000 2018**	**Risk Weighted Assets €'000 2018**	**Minimum capital requirement €'000 2018**	**Total exposures €'000 2017**	**Risk Weighted Assets €'000 2017**	**Minimum capital requirement €'000 2017**
Credit risk	77,480	39,734	3,179	121,756	48,157	3,853
Settlement risk	0	0	0	68	68	5
Market risk	3,842	3,842	307	3,972	3,972	318
Fixed overhead risk	221,518	221,518	17,721	208,379	208,379	16,670
Total	**302,840**	**265,094**	**21,208**	**334,176**	**260,577**	**20,846**

Regulatory capital at 31 December

The table below outlines the component parts of regulatory capital with further details of capital instruments, adjustments, deductions and filters in line with the prescribed template provided in Article 5 of Commission Regulation (EU) No. 1423/2013. For the purposes of ensuring that the disclosures are meaningful and relevant, we have excluded where appropriate rows from the Commission template. Relevant line items have been cross referenced to the Transitional Own Funds disclosure template.

Own funds disclosure template		
Common Equity Tier 1 capital: Instruments and reserves	**31-Dec-18 €'000**	**31-Dec-17 €'000**
Share capital - ordinary stock	115	116
Share premium	1,618	1,631
Retained earnings	42,673	43,695
Other reserves	(590)	12,924
Common Equity Tier 1 (CET 1) capital: before regulatory adjustments	**43,816**	**58,366**
Goodwill	(990)	(2,710)
Other intangible assets	(8,868)	(9,297)
Total regulatory adjustments to Common Equity Tier 1 (CET1)	**(9,858)**	**(12,007)**
Common Equity Tier 1 (CET1) captial	**33,958**	**46,359**

At 31 December 2018 and 2017 own funds were in excess of the required minimum in all of the Group's regulated subsidiaries.

Capital ratios

The Common Equity Tier 1 ratio is a measure of the Group's Tier 1 capital compared to its total risk-weighted assets. The Group's Common Equity Tier 1, Tier 1 and Total capital ratios are the same as the Group's capital base comprises only the highest quality capital instruments, all qualifying as Common Equity Tier 1 capital under CRD IV.

Transitional ratios are the same as fully-loaded ratios as the Group does not hold any capital items that are to be grandfathered.

Capital ratios	**31-Dec-18 (CRD IV) %**	**31-Dec-17 (CRD IV) %**
CET1 Capital ratio	12.81%	17.79%
T1 Capital ratio	12.81%	17.79%
Total capital ratio	12.81%	17.79%

Reconciliation of Accounting Capital with Regulatory Capital

The following adjustments are made to the Group's financial results, as prepared under Irish GAAP, to arrive at the Group's regulatory capital, prepared in accordance with CRD IV.

Reconciliation of Accounting Capital with Regulatory Capital		
	31-Dec-18	31-Dec-17
	€'000	€'000
Total shareholders equity	63,549	69,776
Regulatory adjustments	(9,858)	(12,007)
Unaudited portion of current year profit and loss	(19,733)	(11,411)
Common Equity Tier 1 Capital	**33,958**	**46,359**

3. Risk management Framework

Adequacy of Risk Management Arrangements

The Group has a forward-looking approach to risk management to ensure that all risks are taken into consideration and that the Group's business strategy practices are aligned with its risk and capital management strategies. This approach is set out in the Group Risk Management Policy, which is approved by the Board of Directors ("the Board"). It defines the Board's philosophy to risk and the capabilities it expects to be embedded within the Group's approach to risk.

The implementation of the risk management policy is described in the Group's Management of Risk Framework that describes the processes, practices, tools, methodologies and management engagement deployed in the practicalities of measuring, mitigating and managing risk.

The Board considers the risk management systems in place in the Group as outlined to be adequate having regard to the Group's profile and strategy.

Risk Profile

The Group's risk profile is defined by the key risks and uncertainties it faces that may impact its financial condition and results of operations and are summarized below.

Business Risk results primarily from changes in overall market equity trading activity, market valuations and our market share. Any decline in either of those or worse case a combination will adversely affect our trading commission revenues. The demands for our trading solutions is directly affected by factors such as economic, regulatory and political conditions that may lead to decreased trading activity. The business in which the Group operates in is extremely competitive and although we believe that our products and services have established certain competitive advantages, our ability to maintain these will require continued enhancements to our products, investments in the development of our services, additional marketing activities and enhanced customer support services.

Operational Risk dominates the Group's risk profile, as any technological failure of one or more of our products or systems, including but not limited to POSIT MTF, our algorithms, smart routers, and order and execution management systems, could result in lost revenues and/or significant market losses. The Group operates complex trading systems and related products and services that rely upon effective and precise operation and configuration and any departure from standard procedures governing these aspects could cause us to incur trading losses, lose clients or experience other reputational harm that ultimately results in lost revenue and profits. Further the success of our business is dependent upon the technology infrastructure we implement to monitor, process and support large volumes of transactions and related data. Unexpected high volumes or times of unusual market volatility could cause our systems to not operate efficiently, decreasing our ability to support our client's transactional business resulting in them trading away and materially and negatively impacting our revenue and profits as well as reputation.

Our business operations require highly specialized knowledge and skills of the financial industry and related technologies. If we are unable to hire and retain the services of talented management, sales, research, technology and development professionals, we would be at a competitive disadvantage and the recruitment and retention of qualified staff can lead to an increase in costs.

The Group is exposed to Credit (Default) Risk from third parties that owe us money, securities or other obligations, including our customers and trading counterparties. These parties may default on their obligations to us due to insolvency, lack of liquidity, operational failure or other reasons, and as a result the Group could incur losses.

Market Risk refers to the potential for adverse changes in the value of the Group's limited financial instrument exposures as a result of changes in market conditions. The Group is exposed to market risk associated with changes in foreign exchange & interest rates (treasury positions). We limit this exposure by not holding financial instruments for trading purposes and continually evaluate our exposures and oversee the establishment of policies, procedures and controls to ensure market risks are identified and mitigated.

Regulatory Risk is also prominent in our Risk Profile with most aspects of our operations highly regulated such as transaction and trade reporting obligations, operational compliance, capital requirements and regulatory authorisation of employees. Accordingly we face the risk of intervention by regulatory authorities in the event we do not meet our obligations. Furthermore we are subject to extensive and evolving regulatory changes that impact how our customers conduct their business and the services we build to meet their requirements. These changes could cause the Group to expend more significant compliance, business and technology resources, incur additional operational costs and create additional regulatory exposure. Further, in the recent past there has been an increased regulatory scrutiny of our industry, including the areas of trading risk management controls, undisclosed trading practices and dark pool operations and such enhanced scrutiny could cause the Group to incur significant costs as relates to the legal and compliance resources needed to respond to such engagements and reviews, as well as the risk of potential monetary penalties arising from said engagements.

Given the above, we seek to monitor and control our risk exposures through a risk and control framework encompassing a variety of separate but complimentary financial, credit, operational, technological, compliance and legal reporting systems, internal controls, management review process and other mechanisms and methodologies that rely on a combination of technical and human supervision. These policies, procedures and practices used to identify, monitor and control a variety of risks may fail to be effective and as a result we face the risk of losses, including for example, losses resulting from trade errors, customer defaults, fraud and others.

Statement of Risk Appetite

Risk appetite is defined as the aggregate level and types of risk an organization is willing to assume within its risk capacity to achieve its strategic objectives and business plan. Risk capacity is defined as the maximum level of risk the Group can assume given its current level of resources before breaching constraints determined by regulatory capital and liquidity needs, the operational environment and obligations, also from a conduct perspective to shareholders, clients and other stakeholders. The risk appetite for the firm is encapsulated in the entities budget and medium-term business plan, which is aligned with the Group's overall business risk appetite as set out in the Risk Policy and is sanctioned by the board on an annual basis. Consequently the Group's risk appetite is reflective of its strategy, including organizational objectives, business plans and shareholders expectations.

The Group acknowledges a willingness and capacity to take on risks and is inclusive of a tolerance for loss or negative events that can be reasonably quantified, such as operational risk losses resulting from trade errors, lost revenue as a result of third party outages (venues, brokers etc.) and others, such losses are referred to as expected losses.

The Group's risk appetite incorporates a balanced mix of both quantitative and qualitative measures. The quantitative measures include financial targets, for example capital adequacy, transaction processing costs and others as well as expected losses for events that are reasonably quantified. These are tracked, monitored and managed by ExCo through a series of Key Performance Indicators and by the Risk Officer through a series of Risk Key Risk Indicators. Qualitative measures refer to reputational impact, management effort and regulatory compliance amongst others.

In consideration of the Group's risk profile, the Board of Directors has set the following risk appetite.

- Credit & Counterparty Risk (CCR) Appetite:

<u>Credit Risk</u>

There is a very low appetite for Credit risk.

The Group will only extend credit to an affiliate/subsidiary company in full consideration off and compliance with the firm's Liquidity Risk Management Framework and Intercompany Lending Policy. This framework requires that any loan with a maturity of more than 10 days or values at more than £5 million will require pre-approval from the Board of Directors of the relevant entity making the loan.

<u>Counterparty Risk</u>

There is medium appetite for Counterparty risk.

Counterparties can be broadly placed in two categories;

- Banks in which the Group has cash deposits and therefore there is a risk that those funds become unavailable in the event the bank (counterparty) is unable to provide access to those funds.

- Trading counterparties in which there is an obligation to deliver cash to pay for shares purchased or shares for shares sold; the risk here is initially a settlement delay followed by a settlement default.

The firm has robust credit approval and treasury policies with the primary objective of preserving principal, maintaining liquidity obligations and limit capital and credit risk exposure due to customer defaults.

- Market Risk Appetite:

There is no appetite for Market risk.

The Group has no "intent to trade" and consequently does not run a trading book for proprietary trading purposes.

However from time to time positions and consequently market risk will occur as a result of operational risk events such as errors and accommodations for which there is an expected loss tolerance agreed and approved by the Board as part of the budget and business planning approval process.

The Group's policy is to trade immediately out of any positions resulting from a trade error or accommodation. When that is not possible (markets closed, liquidity) and the position is material or the markets are volatile, the policy is to put on a hedge.

- Liquidity & Funding Risk Appetite:

There is no appetite for the Group being unable to meet all payment obligations as and when they become due.

The firm has a liquidity metric called the liquidity survival horizon, expressed as the time the Group is able to fulfil all its fixed overhead obligations in a stressed scenario that simulates a cease in all revenues and related variable costs.

The firms' risk appetite would be considered breached (operating outside of appetite) if the survival horizon dropped below 1 months under stressed conditions.

The finance department and Chief Financial Officer acting in the capacity of treasury management will ensure they are able to identify measure and manage the liquidity requirements of the firm through the monitoring of operational liquidity as well as determining and securing the firms longer term funding requirements.

The Group has zero tolerance as relates to breaches of its regulatory capital requirements and has in place near real-time monitoring of said requirements and alerting mechanisms that provide early warning when requirements versus own funds are marginal or stressed.

The firms' risk appetite as regards capital adequacy would be considered breached (operating outside of appetite) if the excess of own funds to capital requirements was equal to or less than 5% for 6 consecutive days.

- Operational Risk Appetite:

Operational Risk is pervasive, managed across the organization and a consequence of operating the business; consequently articulating a risk appetite is more challenging than doing so for other risk types.

To this end the business has, in addition to the impact on earnings approach, extended the operational risk appetite to include statements across i) information technology, ii) fraud and corruption & iii) information management.

At a high-level operational risk appetite is based on an impact on earnings approach.

This involves looking at how much the Group could potentially lose due to operational risk losses. In setting operational risk appetite both the impact on solvency and reputation are considered.

Risk Function

The Group has a dedicated risk function headed by a Chief Risk Officer ("CRO"), approved by the Central Bank of Ireland. A Risk Charter defines the fundamental principles, roles and responsibilities of the Risk function within the Group as well as its relationship with executive management, the Board of Directors, Internal Audit, Compliance and the business and operational functions.

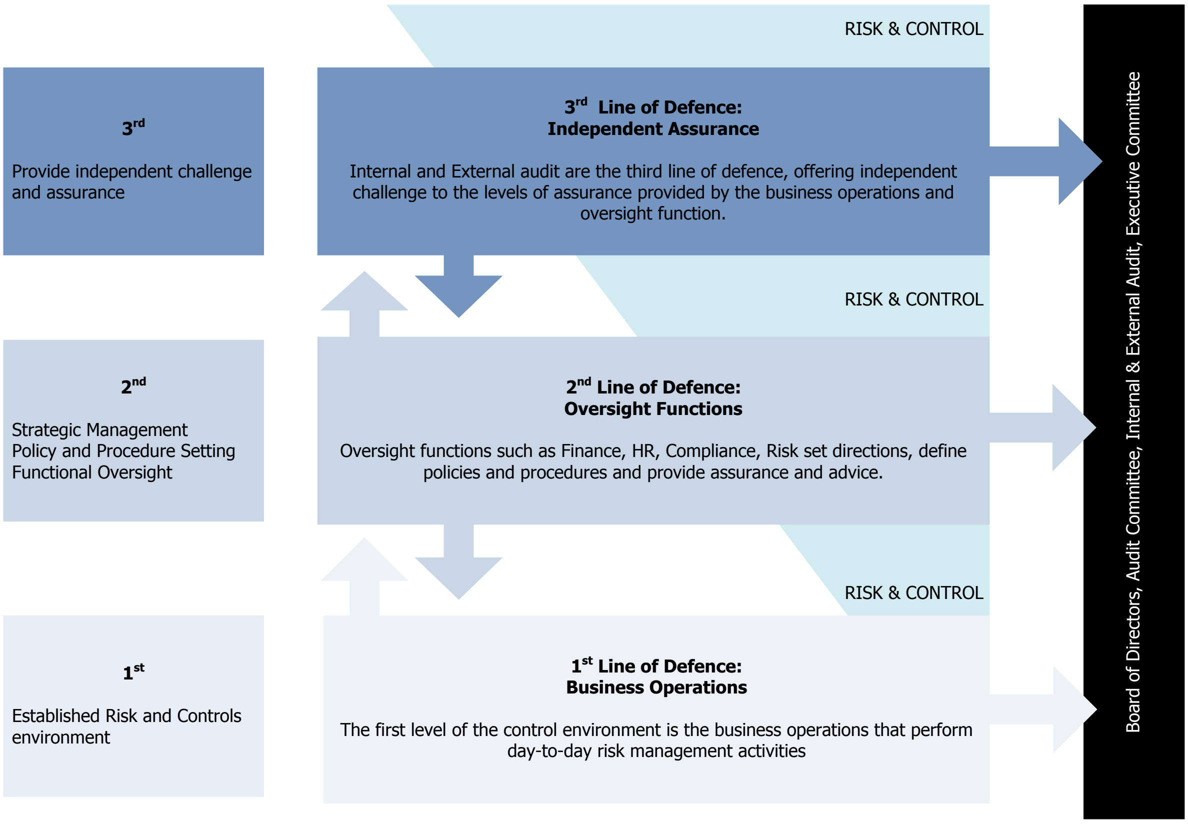
The CRO reports directly to the Executive Committee and the Board of Directors, formally on a quarterly basis and intermittently as required, determined by the CRO, senior management, Board or a Board sub-committee.

The CRO is supported by two Risk Committees both chaired by the CRO: (i) the Financial Risk Committee, comprising senior management and (ii) the Operational Risk Committee. The Committees meet on a frequent basis and are attended by members of the senior management team as well as Heads of the various business functions within the Group. The objective of these meetings is to review all matters related to risk exposures within the business, review instances of operational risk occurances, agree upon mitigation processes and changes to the controls environment, etc.

The CRO has responsibility for all risks within the Group and is responsible for the Group's risk MIS capabilities and reporting. The CRO's systems include but are not limited to a comprehensive Risk

Register and Material Operational Events Register. Further, the CRO utilises real-time monitoring tools which monitor CRD regulatory capital requirements, real-time trade orders and executions as required by ESMA, and market surveillance systems.

To ensure that all critical activities are being appropriately addressed and that the Group is effectively managing uncertainty and mitigating risks, the Group has adopted the three lines of defence ("3LOD") model. This model distinguishes among the three groups (or lines) involved in effective risk management with a function that owns and manages risks, a second function that oversees risk and a third function that provides independent assurance and challenges the other two functions. The diagram below illustrates the 3LOD model.



Supporting this model is the firm's Risk Management Policy ("RMP"), Management of Risk Framework ("MoRF") and Risk Quantification Model ("RQM") that provide a systematic risk process for the three lines to follow. Combined, these documents and the processes and procedures described therein ensure that the firm has an effective and robust response to risk and that risk related information is effectively and consistently obtained, analysed and considered within the overall governance approach.

- *The First Line – Operational Management*

As the first line of defence, operational managers own and manage risks. They are also responsible for implementing corrective actions to address process and control deficiencies identified during the normal course of business. Operational management is responsible for maintaining effective internal controls and for executing risk and control procedures on a day-to-day basis. Operational managers design and implement detailed procedures that serve as controls and supervise execution of those by their operational teams.

Operational management naturally serves as the first line because controls are designed into systems and processes under their guidance of operational management. All staff operating in this line must be adequately skilled and qualified to understand the risks inherent in their specific areas of responsibility.

Further, they are required to be fully aware of all relevant policies and procedures and ensure that they comply with such.

Within the first line are a number of “expert groups”. These are informal and in some cases ad-hoc group meetings that discuss the technical detail of risk mitigation. These groups cover a vast range of specialist know-how including matters such as hardware and infrastructure, product management, development and quality assurance, contingency and capacity planning, clearing and settlements, finance administration, change management, outages and many others. In most cases the second line will participate in these expert groups, in any event the groups are distinctly separate from the formal risk committees but do provide input into those.

- *The Second Line – Risk Management, Compliance & Financial Control*

The second line of defence is primarily responsible for ensuring the first line of defence is properly designed, in place, and operating as intended.

A Risk Charter defines the fundamental principles, roles and responsibilities of the Risk function within the Group as well as its relationship with executive management, the Board of Directors, Internal Audit, Compliance and the business and operational functions. As relates to the second line of defence, the risk function facilitates and monitors the implementation of the firm’s MoRF by operational management and provides adequate risk related information and guidance throughout the organisation.

A Compliance Charter defines the fundamental principles, roles and responsibilities of the Compliance function within the Group as well as its relationship with executive management, the board of directors and the business and operational functions. As relates to the second line of defence, the compliance function monitors specific risks such as non-compliance with applicable laws and regulations and internal policies and procedures.

The financial control function monitors financial risks and financial reporting issues.

Each of the above three functions have a level of independence from the first line of defence, but are by their very nature management functions and as such may intervene directly in modifying and developing the internal control and risk systems.

There are a number of formal risk committees that play a critical role in the second line. The three most relevant are:

Executive Committee;
Financial Risk Committee; and
Operational Risk Committee.

In summary, the second line of defence is responsible for:

- supporting management policies, defining roles and responsibilities and setting goals for implementation;
- providing and implementing the management of risk framework;
- identifying known and emerging risks to the business;
- identifying shifts in the Group’s risk appetite;
- assisting management in developing processes and controls to manage risk and issues;
- providing guidance and training on risk management processes;
- facilitating and monitoring implementation of effective risk management practices by operational management;
- alerting operational management to emerging issues and changing regulatory and risk scenarios; and
- monitoring the adequacy and effectiveness of internal control, accuracy and completeness of reporting, compliance with laws and regulations, and timely remediation of deficiencies.

- *The Third Line – Internal/External Audit, Audit Committee & Governing Body*

With a high level of independence not available in the second line, the third line provides assurances on the effectiveness of governance, risk management and internal controls including the manner in which the first and second lines achieve risk management and control objectives.

This is primarily provided through Internal/External Audit and the Audit Committee.

The Group's Audit Committees play a vital role in the third line. The Committees primary duties are to review and monitor the integrity of the annual audited statutory financial statements, and to assist the Board in fulfilling their responsibilities in ensuring the appropriateness of the systems of internal controls and risk management. This includes reviewing the framework by which management ensures and monitors (i) the adequacy of the nature and extent of the internal control systems and (ii) the effectiveness of the system of internal control. Further, the Committees will review annually, with management and the Internal Auditors the system of internal control and risk management including the measures implemented and planned to ensure the effective management of the relevant significant financial and non-financial risks.

The Audit Committees will at least annually meet separately with the internal and external auditors in the absence of management.

The Group is included within the scope of the Group's Internal Audit function based in New York. This Group is responsible for providing independent, objective assurance and consulting designed to add value and improve operations. The Audit function aims to help management accomplish the Group's strategic objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control and governance processes. The Group Audit function reports to the Group's European Audit Committees as well as to the Parent company's Audit.

4. Internal Capital Adequacy Assessment Process

Article 73 of the CRD requires the Group to have in place sound, effective and comprehensive strategies and processes to assess and maintain on an ongoing basis the amounts, types and distribution of internal capital that it considers adequate to cover the nature and level of the risks to which it is exposed.

Annually, the Chief Risk Officer conducts an Internal Capital Adequacy Assessment Process ("ICAAP"). The ICAAP includes a full assessment of the Group's risk exposures, how those risks are mitigated and how much internal capital is necessary to hold for these risks. The ICAAP is a key component of the Group's implementation of the CRD IV.

Annually the Chief Risk Officer presents the ICAAP to the Boards and senior management. This process is further enhanced through quarterly risk updates to the Boards including as required, any changes to the ICAAP.

The ICAAP has adopted a Risk Taxonomy aligned with the BASEL Accord which addresses each of the following risks as they present to our business model:

- ***Credit Risk***

Credit risk is the current or prospective risk to earnings and capital arising from the failure of an obligor to perform an obligation at the stipulated time or otherwise to perform as agreed. This is the risk of a client defaulting on an oustanding settlement or for an institution in which the Group has deposits to fail.

In assessing the Group's exposure to volatility of securities over the settlement period, we take account of the fact that execution venues used are predominately Regulated Markets and Multi-lateral Trading Facilities. The Group's business is predominately delivery versus payment ("DVP") or receipt versus payment ("RVP").

The Group monitors unsettled trades on a daily basis through the Counterparty Risk Report (“CRR“). The report shows the number of trades outstanding by aging category, the market value of the trades, the original execution value of the trades and the exposure for each aging category.

A Credit and Risk Committee comprising senior management and chaired by the Chief Financial Officer meets periodically to review all credit and related risks. The Committee reviews the risk rating of institutions utilised by the Group for placing deposits and providing credit facilities, the concentration risk with any one institution, and the term of deposits.

Day-to-day credit risk is monitored by the Finance Department, responsible for the development and maintenance of credit monitoring and reporting systems. This includes collecting data from operational systems within the Group, data verification and data consolidation. This process quantifies risk on the basis of mark-to-market values.

➢ ***Market Risk***

Market risk is the current or prospective risk to earnings and capital arising from adverse movements in market prices and rates on assets owned. The Group has limited market risk exposure and concerns itself with three main classes as follows;

- Interest Rate Risk

This risk is generally limited to exposure on deposits, interest expense on overdrafts and the impact of the economy in general. The Group has a range of banking facilities and providers and minimises concentration risk by placing deposits with a number of institutions. We actively manage cash flow on a daily basis to mitigate overdraft interest and maximise interest receipts.

- Foreign Exchange Risk

This risk is generally limited to the short-term funding of failing or non-standard equity settlement in continental European, African and Middle Eastern countries and Euro and US dollar denominated operating accounts.

The Group is exposed to many European, South African and Israeli currencies, the US dollar and the Canadian dollar and seeks to mitigate this risk utilising spot or forward currency deals. Exposures are monitored on a monthly basis.

- Equity Price Risk

There exists potential risk of loss due to adverse changes in equity market prices.

ITGL as an agency-style broker does not run a trading book and intently hold proprietary positions. However, from time to time positions, and consequently equity price risk may arise as a result of trading errors and client accommodations. The Group’s policy is to trade immediately out of any positions. When that is not possible (markets closed, liquidity) and the position is material or the markets are volatile, the policy is to put on a hedge.

➢ ***Liquidity Risk***

Liquidity risk is the current or prospective risk that the Group, though solvent, either does not have sufficient financial resources available to meet its liabilities when they fall due, or can secure them only at excessive cost.

Market liquidity risk is when an asset, e.g. a stock position, cannot be sold due to lack of liquidity in the market. Market liquidity risk is considered a sub-set of market risk and the capital allocation for market risk includes market liquidity risk.

The Group's finance department headed by the Chief Financial Officer and operationaly supervised by the Finance Director actively manage liquidity on a daily basis. The group has distinct account payable and account receivable functions each with effective and robust systems and controls that are subject to external audit on a annual basis. The Group's primary source of liquidity is cash provided by operations and is reveiwed monthly by the Credit and Risk Committee.

- ***Operational Risk***

Operational risk is the risk of direct or indirect losses or damage resulting from inadequate or failed internal processes or systems, or from human error or external events that affect the Group or its operational earnings. Strategic, Reputation, Legal & Compliance risks are all considered sub-categories of operational risk.

Operational risk is a predominant risk and is inherent in all activities within the Group.

The Group policy is to reduce the frequency and impact of operational risk events in a cost-effective manner. This is accomplished by fostering a strong culture surrounding operational risk, which entails internal controls and quality management, leadership skills and well educated and qualified staff. The main process for identifying and monitoring operational risk is managed by the Chief Risk Officer through the implementation of the MoRF and the techniques, methodologies and practices described therein, including the annual and ongoing risk assesment process and recording of loss events.

Operational risk assessment is an on-going process with the primary objective of reducing the number of loss event occurences, the magnitude of any loss event occurence and generally improving the effectivness of the control environment making the business more efficient. If as a consequence of these processes risks are identified to be outside acceptable limits, then internal controls and the quality and efficiency of the internal processes are re-evaluated to bring the risk back within acceptable risk limits.

The Chief Risk Officer chairs monthly Operational Risk Committee meetings which are attended by members of the senior management team. The objective of these meetings is to review all matters related to operational risk, review instances of operational risk occurances, agree mitigation processes and changes to the controls environment, ensure that events are followed through and provide a monthly operational risk reports to the Credit and Risk Committee and quarterly updates to the Executive Committee and Board.

The Chief Risk Officer and Chief Compliance Officer are responsible for providing guidance and support to the business segments. Together they act as a source of information on the development of operational risk. The Chief Risk Officer also tracks each business segment's operational risk through the Risk Database and if any segment should overstep the predefined risk boundaries, the head of the relevant segment will be notified as seen fit.

- ***Business (Strategic) Risk***

Business risk is defined as the potential loss to the Group's earnings due to adverse, unexpected changes in business volume, margins or both. Such losses can result from a serious deterioration of the market environment, customer shift, changes in the competitive landscape or internal restructuring.

To manage business risk, the Group executes a stress test to simulate (a scenario) recession scenarios during which equity volumes and market size would diminish. This stress test also considers the lack of focus in executing the firms strategy by integrating falling market share and reduced commission rates, both possible outcomes of poor execution.

In addition, the following risks are considered and addressed in the Group's ICAAP:

- Competition risk;
- Cyber and information security risk;
- Business continuity risk;
- Legal & complaince risk;
- Reputational risk;
- Group risk; and
- Regulatory risk.

5. Pillar I Credit risk

CRD IV Pillar I credit risk exposures and resulting capital requirements are calculated using the Standardised Approach. The main source of credit risk exposure arises from the Group's agency brokerage client and market receivables. The management of credit risk is discussed above in Section 3: Statement of Risk Appetite and Section 4: Internal Capital Adequacy Assessment Process.

The exposure value of an asset item is its accounting value remaining after specific credit risk adjustments, additional value adjustments in accordance with Articles 34 and 110 of the CRR and other own funds reductions related to the asset item have been applied.

All exposures are assigned into the exposure classes listed in Article 112 of the CRR.

The following table discloses the Group's total exposures and minimum Pillar 1 capital requirement associated with each class of exposure at 31 December:

Credit Exposure class		**Dec-18**		**Dec-17**
	Total exposures	**Minimum capital requirements**	**Total exposures**	**Minimum capital requirements**
	€'000	**€'000**	**€'000**	**€'000**
Central governments and central banks	96	0	542	0
Public sector entities	18	0	0	0
Institutions	8,582	227	33,028	623
Corporates	13,312	1,065	17,225	1,378
Retail	0	0	0	0
Claims on institutions and corporate with a short-term credit assessment	46,408	1,008	63,605	1,125
Equity	0	0	0	0
Other items	9,065	878	7,357	726
Total credit exposures	**77,480**	**3,179**	**121,756**	**3,853**
Exposure classes throughout this document are the exposure classes outlined in CRD IV				

- Other items include market exposures to Central Counterparties

Average exposures over the period 1 January to 31 December:

Credit Exposure class	Total exposures	2018 Average Minimum capital requirements	Total exposures	2017 Average Minimum capital requirements
	€'000	€'000	€'000	€'000
Central governments and central banks	382	0	455	0
Public sector entities	16	0	0	0
Institutions	9,509	286	206,855	3,569
Corporates	18,119	1,450	25,487	2,039
Retail	0	0	0	0
Claims on institutions and corporate with a short-term credit assessment	45,278	907	129,702	2,945
Equity	0	0	0	0
Other items	7,683	729	6,736	653
Total credit exposures	**80,986**	**3,372**	**369,236**	**9,206**

Exposure classes throughout this document are the exposure classes outlined in CRD IV

Geographic distribution

Under CRD IV, geographical analysis of credit exposures is required based on exposures in the member states in which the institution has been authorised and member states or third countries in which institutions carry out activities through a branch or subsidiary.

2018 Geographic distribution of credit exposures	Republic of Ireland	United Kingdom	France	Other	Total	Republic of Ireland	United Kingdom	France	Other	Total
	2018	2018	2018	2018	2018	2017	2017	2017	2017	2017
	€'000	€'000	€'000	€'000	€'000	€'000	€'000	€'000	€'000	€'000
Central governments and central banks	0	96	0	0	96	319	217	5	0	542
Public sector entities	0	0	0	18	18	0	0	0	0	0
Institutions	23	4,333	754	3,471	8,582	173	6,168	6,330	20,356	33,028
Corporates	13,135	0	0	176	13,312	16,818	0	0	407	17,225
Retail	0	0	0	0	0	0	0	0	0	0
Claims on institutions and corporate with a short-term credit assessment	3,533	23,611	944	18,321	46,408	34,577	18,109	3,075	7,844	63,605
Equity	0	0	0	0	0	0	0	0	0	0
Other items	2,910	5,239	916	0	9,065	2,572	3,669	1,116	0	7,357
Total credit exposures	**19,601**	**33,280**	**2,614**	**21,986**	**77,480**	**54,459**	**28,163**	**10,527**	**28,607**	**121,756**

**Other includes Australia, Austria, Belgium, Canada, China, Czech Republic, Denmark, Egypt, Finland, Germany, Gibraltar, Greece, Hong Kong, India, Indonesia, Isle of Man, Israel, Italy, Japan, Korea, Luxembourg, Netherlands, Norway, Poland, Portugal, Russia, Singapore, South Africa, Spain, Sweden, Switzerland, Taiwan, Turkey, UAE, USA and Vietnam*

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Industry analysis of exposures

The Group's client base at 31 December is comprised of financial companies.

Residual maturity of credit exposures

Residual maturity of credit exposures	On demand €'000 2018	0<3 months €'000 2018	3<6 months €'000 2018	6 months < 1 year €'000 2018	1<3 years €'000 2018	Total exposures €'000 2018	On demand €'000 2017	0<3 months €'000 2017	3<6 months €'000 2017	6 months < 1 year €'000 2017	1<3 years €'000 2017	Total exposures €'000 2017
Central governments and central banks	0	96	0	0	0	96	0	542	0	0	0	542
Public sector entities	0	18	0	0	0	18	0	0	0	0	0	0
Institutions	0	8,582	0	0	0	8,582	0	33,028	0	0	0	33,028
Corporates	0	177	0	13,135	0	13,312	0	769	0	16,456	0	17,225
Retail	0		0	0	0	0	0	0	0	0	0	0
Claims on institutions and corporate with a short-term credit assessment	27,775	18,633	0	0	0	46,408	60,512	3,093	0	0	0	63,605
Equity	0	0	0	0	0	0	0	0	0			0
Other items	0	94	0	3,382	5,590	9,065	0	65	0	2,097	5,195	7,357
Total exposures	**27,775**	**27,599**	**0**	**16,517**	**5,590**	**77,480**	**60,512**	**37,496**	**0**	**18,553**	**5,195**	**121,756**

Total exposure value split by external rating and credit quality Assessment Step

To calculate the risk-weighted exposure amounts, risk weights have been applied to all exposures, unless deducted from own funds. The application of risk weights is based on the exposure class to which the exposure is assigned and, to the extent specified in Article 114 of the CRR, its credit quality.

Credit quality has been determined by reference to the credit assessments of ECAIs in accordance with the CRR. External credit assessments have been used to determine the risk weight of an exposure where that ECAI has been endorsed as an ECAI in accordance with Regulation (EC) No 1060/2009.

For the purposes of applying a risk weight, the exposure value is multiplied by the risk weight specified or determined in accordance with Articles 114 - 131 of the CRR.

Short-term credit assessments have been used for all credit exposures constituting exposures to institutions and corporates as they all classify as short-term exposures.

In all other cases, the exposure has been treated as unrated.

Total exposure value split by external rating and credit quality Assessment Step 2018	Standard & Poors €'000	Moody's €'000	Fitch €'000	DBRS €'000	Credit Quality Assessment Steps €'000	Total rated €'000	Total unrated €'000	Total €'000
Exposure class:								
Central governments and central banks	0	0	0	0	0	0	96	96
Public sector entities	0	0	0	0	0	0	18	18
Institutions	0	0	0	0	0	0	8,582	8,582
Corporates	0	0	0	0	0	0	13,312	13,312
Retail	0	0	0	0	0	0	0	0
Claims on institutions and corporate with a short-term credit assessment	46,408	0	0	0	0	46,408	0	46,408
Equity	0	0	0	0	0	0	0	0
Other items	0	0	0	0	0	0	9,065	9,065
Total exposures	**46,408**	**0**	**0**	**0**	**0**	**46,408**	**31,072**	**77,480**

Total exposure value split by credit quality Assessment Step 2018	Step 1	Step 2	Step 3	Step 4	Step 5	Total rated	Total unrated	Total
	€'000	€'000	€'000	€'000	€'000	€'000	€'000	€'000
Exposure class:								
Central governments and central banks	0	0	0	0	0	0	96	96
Public sector entities	0	0	0	0	0	0	18	18
Institutions	0	0	0	0	0	0	8,582	8,582
Corporates	0	0	0	0	0	0	13,312	13,312
Retail	0	0	0	0	0	0	0	0
Claims on institutions and corporate with a short-term credit assessment	44,520	1,888	0	0	0	46,408	0	46,408
Equity	0	0	0	0	0	0	0	0
Other items	0	0	0	0	0	0	9,065	9,065
Total exposures	**44,520**	**1,888**	**0**	**0**	**0**	**46,408**	**31,072**	**77,480**

Total exposure value split by external rating and credit quality Assessment Step 2017	Standard & Poors	Moody's	Fitch	DBRS	Credit Quality Assessment Steps	Total rated	Total unrated	Total
	€'000	€'000	€'000	€'000	€'000	€'000	€'000	€'000
Exposure class:								
Central governments and central banks	0	0	0	0	0	0	542	542
Public sector entities	0	0	0	0	0	0	0	0
Institutions	0	0	0	0	0	0	33,028	33,028
Corporates	0	0	0	0	0	0	17,225	17,225
Retail	0	0	0	0	0	0	0	0
Claims on institutions and corporate with a short-term credit assessment	58,555	5,050	0	0	0	63,605	0	63,605
Equity	0	0	0	0	0	0	0	0
Other items	0	0	0	0	0	0	7,357	7,357
Total exposures	**58,555**	**0**	**0**	**0**	**0**	**63,605**	**58,152**	**121,756**

Total exposure value split by credit quality Assessment Step 2017	Step 1	Step 2	Step 3	Step 4	Step 5	Total rated	Total unrated	Total
	€'000	€'000	€'000	€'000	€'000	€'000	€'000	€'000
Exposure class:								
Central governments and central banks	0	0	0	0	0	0	542	542
Public sector entities	0	0	0	0	0	0	0	0
Institutions	0	0	0	0	0	0	33,028	33,028
Corporates	0	0	0	0	0	0	17,225	17,225
Retail	0	0	0	0	0	0	0	0
Claims on institutions and corporate with a short-term credit assessment	59,124	4,478	3			63,605	0	63,605
Equity	0	0	0	0	0	0	0	0
Other items	0	0	0	0	0	0	7,357	7,357
Total exposures	**59,124**	**4,478**	**3**	**0**	**0**	**63,605**	**58,152**	**121,756**

The following ratings apply to the credit quality assessment steps:

Step 1: AAA to AA (S&P)
Step 2: A+ to A- (S&P)
Step 3: BBB+ to BBB- (S&P)
Step 4: BB+ to BB- (S&P)
Step 5: B+B- (S&P)
Step 6: CCC+ and below (S&P)

Past Due and Impaired Exposures

At 31 December 2018, there were no material past due or impaired exposures.

At 31 December 2018, there were no credit risk adjustments.

At 31 December 2017, there are no material past due or impaired exposures.

At 31 December 2017, there were no credit risk adjustments.

6. Pillar 1 Settlement Risk

In accordance with Article 378 of the CRR, the Group calculates own funds requirements for transactions in equities that settle after their due settlement date as the price difference to which the Group is exposed.

The price difference is calculated as the difference between the agreed settlement price of the equity and the current market value, where the difference involves a loss for the Group. The price difference is then multiplied by the appropriate factor specified by Article 378 in order to calculate the Group's own funds requirements for settlement risk.

7. Pillar I Operational Risk

Operational risk is the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events. It includes legal risk, but excludes strategic and business risk. The management of operational risk is discussed above in Section 3: Statement of Risk Appetite and Section 4: Internal Capital Adequacy Assessment Process.

ITGL is a CRR Article 96.1(a) investment firm that deals on own account only for the purposes of fulfilling or executing a client order. Article 96.1(2) of the CRR directs these investment firms to calculate their operational risk requirement as prescribed by Article 97 of the CRR, i.e., holding eligible capital of at least one quarter of the fixed overheads of the preceding year, i.e., Fixed Overhead Requirement ("FOR").

The Group's operational risk requirement, calculated using the FOR methodology, at 31 December 2018 was €17,721 (31 December 2017 was €16,670).

8. Pillar I Market Risk

Market risk is the risk of loss arising from the movement in interest rates, foreign exchange rates or other market prices. The management of market risk is discussed above in Section 3: Statement of Risk Appetite and Section 4: Internal Capital Adequacy Assessment Process.

ITGL as an agency-style broker does not run a trading book or hold proprietary positions. Consequently, it is not typically exposed to market risk. However, from time-to-time positions and consequently market risk may arise as a result of trading errors and client accommodations. ITGL's policy is to trade immediately out of any positions, when that is not possible (markets closed, liquidity) and the position is material or the markets are volatile the policy is to put on a hedge.

Where an equity position to arise, ITGL avails of the derogation in Article 94 of the CRR and provides for credit risk regulatory capital rather than position risk.

At 31 December 2018, the Group was exposed to FX risk on non-GBP denominated assets and liabilities. The total exposure of €3,842 resulted in a regulatory capital charge of €307.

At 31 December 2017, the Group was exposed to FX risk on non-GBP denominated assets and liabilities. The total exposure of €3,972 resulted in a regulatory capital charge of €318.

9. Asset Encumbrance

The asset encumbrance disclosure has been produced in line with the 2014 EBA Guidelines on disclosure of encumbered and unencumbered assets and the tables below are based on the EBA reporting templates. An asset is defined as encumbered if it has been pledged as collateral against existing liability, and, as a result, is no longer available to the Group to secure funding, to satisfy collateral needs or to be sold.

Template A: Assets €'000

Assets as at 31 December 2018		Carrying amount of encumbered assets €000	Fair value of encumbered assets	Carrying amount of unencumbered assets	Fair value of unencumbered assets
		010	040	060	090
010	**Assets of the reporting institution**	**28,730**		**675,503**	
030	Equity instruments				
040	Debt securities				
120	Other assets	**28,730**		**675,503**	

Assets as at 31 December 2017		Carrying amount of encumbered assets €'000	Fair value of encumbered assets	Carrying amount of unencumbered assets €'000	Fair value of unencumbered assets
		010	**040**	**060**	**090**
010	**Assets of the reporting institution**	**32,291**		**442,218**	
030	Equity instruments				
040	Debt securities				
120	Other assets	**32,291**		**442,218**	

Template B: Collateral received

		Fair value of encumbered collateral received or own debt securities issued	Fair value of collateral received or own debt securities issued available for encumbrance	Fair value of encumbered collateral received or own debt securities issued	Fair value of collateral received or own debt securities issued available for encumbrance
		010	040	010	040
		31-Dec-18	**31-Dec-18**	**31-Dec-17**	**31-Dec-17**
130	**Collateral received by the reporting institution**				
150	Equity instruments				
160	Debt securities				
230	Other collateral received				
240	**Own debt securities issued other than own covered bonds or ABSs**				

Template C: Encumbered assets/collateral received and associated liabilities

		Matching liabilities, contingent liabilities or securities lent	Assets, collateral received and own debt securities issued other than covered bonds and ABSs encumbered	Matching liabilities, contingent liabilities or securities lent	Assets, collateral received and own debt securities issued other than covered bonds and ABSs encumbered
		010	030	010	030
		31-Dec-18	31-Dec-18	31-Dec-17	31-Dec-17
010	Carrying amount of selected financial liabilities				

Information on importance of asset encumbrance

As part of managing its funding requirements, the Group from time to time places cash on deposit as collateral to secure lines of credit from one or more credit institutions.

10. Capital Buffers

CRD IV introduced additional capital buffers, the purpose of which is to provide a greater cushion within financial institutions to absorb losses. The following buffers are applicable to the Group:

A countercyclical buffer requires financial institutions to hold additional CET 1 capital of up to 2.5%. This requirement will be imposed by the competent authority where credit growth is deemed to be excessive and leading to the build-up of system-wide risk. The countercyclical buffer has been phased in from 1 January 2016 to 1 January 2019.

Geographical distribution of credit exposures relevant for the calculation of the countercyclical capital buffer at 31 December 2018

December 2018 Disclosures		€'000	€'000	€'000	€'000	€'000	€'000	€'000	€'000	€'000	€'000		
Row		General credit exposures		Trading book exposure		Securitisation exposure		Own funds requirements				Own funds requirement weights	Countercyclical capital buffer rate
		Exposure value for SA	Exposure value IRB	Sum of long and short position of trading book	Value of trading book exposure for internal models	Exposure value for SA	Exposure value for IRB	Of which: General credit exposures	Of which: Trading book exposures	Of which: Securitisation exposures	Total		
	Breakdown by country	**10**	**20**	**30**	**40**	**50**	**60**	**70**	**80**	**90**	**100**	**110**	**120**
	Australia	22	0	0	0	0	0	0	0	0	0	0.01%	0.000%
	Austria	3	0	0	0	0	0	0	0	0	0	0.00%	0.000%
	Bahrain	0	0	0	0	0	0	0	0	0	0	0.00%	0.000%
	Belgium	67	0	0	0	0	0	1	0	0	1	0.03%	0.000%
	Bermuda	0	0	0	0	0	0	0	0	0	0	0.00%	0.000%
	Canada	256	0	0	0	0	0	4	0	0	4	0.13%	0.000%
	China	3	0	0	0	0	0	0	0	0	0	0.00%	0.000%
	Czech Republic	18	0	0	0	0	0	0	0	0	0	0.01%	**0.500%**
	Denmark	33	0	0	0	0	0	1	0	0	1	0.02%	0.000%
	Egypt	1	0	0	0	0	0	0	0	0	0	0.00%	0.000%
	Finland	17	0	0	0	0	0	0	0	0	0	0.01%	0.000%
	France	2,614	0	0	0	0	0	121	0	0	121	3.83%	**0.625%**
	Germany	292	0	0	0	0	0	5	0	0	5	0.15%	0.000%
	Gibraltar	0	0	0	0	0	0	0	0	0	0	0.00%	0.000%
	Greece	0	0	0	0	0	0	0	0	0	0	0.00%	0.000%
	Hong Kong	714	0	0	0	0	0	11	0	0	11	0.36%	**1.250%**
	India	20	0	0	0	0	0	2	0	0	2	0.05%	0.000%
	Indonesia	0	0	0	0	0	0	0	0	0	0	0.00%	0.000%
	Ireland	19,601	0	0	0	0	0	1,359	0	0	1,359	42.96%	0.000%
	Isle of Man	0	0	0	0	0	0	0	0	0	0	0.00%	0.000%
	Israel	0	0	0	0	0	0	0	0	0	0	0.00%	0.000%
	Italy	69	0	0	0	0	0	1	0	0	1	0.03%	**0.000%**
	Japan	47	0	0	0	0	0	1	0	0	1	0.02%	0.000%
	Korea, Republic of	0	0	0	0	0	0	0	0	0	0	0.00%	0.000%
	Luxembourg	97	0	0	0	0	0	2	0	0	2	0.05%	0.000%
	Monaco	0	0	0	0	0	0	0	0	0	0	0.00%	0.000%
	Netherlands	300	0	0	0	0	0	5	0	0	5	0.15%	0.000%
	Norway	108	0	0	0	0	0	2	0	0	2	0.05%	**2.000%**
	Poland	20	0	0	0	0	0	0	0	0	0	0.01%	0.000%
	Portugal	0	0	0	0	0	0	0	0	0	0	0.00%	0.000%
	Russia	0	0	0	0	0	0	0	0	0	0	0.00%	0.000%
	Singapore	12	0	0	0	0	0	0	0	0	0	0.01%	0.000%
	South Africa	0	0	0	0	0	0	0	0	0	0	0.00%	0.000%
	Spain	114	0	0	0	0	0	2	0	0	2	0.06%	0.000%
	Sweden	18,657	0	0	0	0	0	299	0	0	299	9.44%	**2.000%**
	Switzerland	155	0	0	0	0	0	12	0	0	12	0.39%	0.000%
	Taiwan	0	0	0	0	0	0	0	0	0	0	0.00%	0.000%
	Turkey	0	0	0	0	0	0	0	0	0	0	0.00%	0.000%
	United Kingdom	33,280	0	0	0	0	0	1,335	0	0	1,335	42.21%	**0.500%**
	UAE	18	0	0	0	0	0	0	0	0	0	0.01%	0.000%
	United States	0	0	0	0	0	0	0	0	0	0	0.00%	0.000%
	Vietnam	0	0	0	0	0	0	0	0	0	0	0.00%	0.000%
	TOTAL	**76,537**	0	0	0	0	0	**3,164**	0	0	**3,164**	**100.00%**	

December 2017 Disclosures		€'000	€'000	€'000	€'000	€'000	€'000	€'000	€'000	€'000	€'000		
Row		General credit exposures		Trading book exposure		Securitisation exposure		Own funds requirements				Own funds requirement weights	Countercyclical capital buffer rate
		Exposure value for SA	Exposure value IRB	Sum of long and short position of trading book	Value of trading book exposure for internal models	Exposure value for SA	Exposure value for IRB	Of which: General credit exposures	Of which: Trading book exposures	Of which: Securitisation exposures	Total		
	Breakdown by country	**10**	**20**	**30**	**40**	**50**	**60**	**70**	**80**	**90**	**100**	**110**	**120**
	Australia	1	0	0	0	0	0	0	0	0	0	0.00%	0.000%
	Austria	27	0	0	0	0	0	0	0	0	0	0.01%	0.000%
	Bahrain	-	0	0	0	0	0	-	0	0	-	0.00%	0.000%
	Belgium	46	0	0	0	0	0	1	0	0	1	0.02%	0.000%
	Bermuda	-	0	0	0	0	0	-	0	0	-	0.00%	0.000%
	Canada	3,025	0	0	0	0	0	48	0	0	48	1.26%	0.000%
	China	870	0	0	0	0	0	14	0	0	14	0.36%	0.000%
	Czech Republic	6	0	0	0	0	0	0	0	0	0	0.00%	**0.500%**
	Denmark	1,613	0	0	0	0	0	26	0	0	26	0.67%	0.000%
	Egypt	-	0	0	0	0	0	-	0	0	-	0.00%	0.000%
	Finland	90	0	0	0	0	0	1	0	0	1	0.04%	0.000%
	France	10,527	0	0	0	0	0	254	0	0	254	6.60%	**0.625%**
	Germany	973	0	0	0	0	0	16	0	0	16	0.40%	0.000%
	Gibraltar	-	0	0	0	0	0	-	0	0	-	0.00%	0.000%
	Greece	-	0	0	0	0	0	-	0	0	-	0.00%	0.000%
	Hong Kong	42	0	0	0	0	0	1	0	0	1	0.02%	**1.250%**
	India	31	0	0	0	0	0	2	0	0	2	0.06%	0.000%
	Indonesia	-	0	0	0	0	0	-	0	0	-	0.00%	0.000%
	Ireland	54,459	0	0	0	0	0	2,120	0	0	2,120	55.02%	0.000%
	Isle of Man	-	0	0	0	0	0	-	0	0	-	0.00%	0.000%
	Israel	217	0	0	0	0	0	17	0	0	17	0.45%	0.000%
	Italy	210	0	0	0	0	0	4	0	0	4	0.11%	**0.000%**
	Japan	169	0	0	0	0	0	3	0	0	3	0.07%	0.000%
	Korea, republic of	16	0	0	0	0	0	1	0	0	1	0.03%	0.000%
	Luxembourg	375	0	0	0	0	0	6	0	0	6	0.16%	0.000%
	Monaco	-	0	0	0	0	0	-	0	0	-	0.00%	0.000%
	Netherlands	897	0	0	0	0	0	14	0	0	14	0.37%	0.000%
	Norway	-	0	0	0	0	0	-	0	0	-	0.00%	**2.000%**
	Poland	1	0	0	0	0	0	0	0	0	0	0.00%	0.000%
	Portugal	-	0	0	0	0	0	-	0	0	-	0.00%	0.000%
	Russia	-	0	0	0	0	0	-	0	0	-	0.00%	0.000%
	Singapore	13	0	0	0	0	0	0	0	0	0	0.01%	0.000%
	South Africa	893	0	0	0	0	0	14	0	0	14	0.37%	0.000%
	Spain	2,256	0	0	0	0	0	36	0	0	36	0.94%	0.000%
	Sweden	538	0	0	0	0	0	9	0	0	9	0.22%	**2.000%**
	Switzerland	5,177	0	0	0	0	0	91	0	0	91	2.36%	0.000%
	Taiwan	-	0	0	0	0	0	-	0	0	-	0.00%	0.000%
	Turkey	-	0	0	0	0	0	-	0	0	-	0.00%	0.000%
	United Kingdom	28,163	0	0	0	0	0	994	0	0	994	25.80%	**0.500%**
	UAE	15	0	0	0	0	0	1	0	0	1	0.03%	0.000%
	United States	11,104	0	0	0	0	0	178	0	0	178	4.61%	0.000%
	Vietnam	0.62	0	0	0	0	0	0.07	0	0	0.07	0.00%	0.000%
	TOTAL	**121,756**	0	0	0	0	0	**3,853**	0	0	**3,853**	**100.00%**	

Amount of institution-specific countercyclical capital buffer

Row		Column 10 31-Dec-18	Column 10 31-Dec-17
10	Total risk exposure amount	77,480	121,756
20	Institution specific countercyclical buffer rate	0.32%	0.05%
30	Institution specific countercyclical buffer requirement	245	64

CRD IV also provides for a capital conservation buffer of 2.5% of CET 1 capital which all financial institutions must hold. This requirement is being phased in from 1 January 2016 to 1 January 2019.

The transitional provisions for both of these capital buffers are:

Year	2014	2015	2016	2017	2018	2019
Rate	0%	0%	0.625%	1.25%	1.875%	2.5%

11. Leverage

Article 451 of the CRR requires institutions to disclosure information regarding leverage ratios and the management of excessive leverage as calculated in accordance with Article 429. The leverage ratio is defined as Tier 1 capital divided by a non-risk adjusted measure of assets and is designed to act as a non-risk sensitive back-stop measure to reduce the risk of build-up of excessive leverage in a firm and the financial system as a whole.

ITGL as an Article 96.1(a) firm is exempt from the leverage requirements on a solo reporting basis. However, the Group falls within scope for consolidated reporting as ITGVL is a parent financial holding company.

	Table LRSum: Summary reconciliation of accounting assets and leverage ratio exposures 2018	Applicable Amount 2018 € 000's	Applicable Amount 2017 € 000's
1	Total assets as per published financial statements	719,737	474,509
2	Adjustment for entities which are consolidated for accounting purposes but are outside the scope of regulatory consolidation	0	0
3	(Adjustment for fiduciary assets recognised on the balance sheet pursuant to the applicable accounting framework but excluded from the leverage ratio total exposure measure in accordance with Article 429(13) of Regulation (EU) No 575/2013)	0	0
4	Adjustments for derivative financial instruments	0	0
5	Adjustment for securities financing transactions (SFTs)	0	0
6	Adjustment for off-balance sheet items (ie conversion to credit equivalent amounts of off-balance sheet exposures)	0	0
EU-6a	(Adjustment for intragroup exposures excluded from the leverage ratio total exposure measure in accordance with Article 429(7) of Regulation (EU) No 575/2013)	0	0
EU-6b	(Adjustment for exposures excluded from the leverage ratio total exposure measure in accordance with Article 429(14) of Regulation (EU) No 575/2013)	0	0
7	Other adjustments	-642,257	-352,753
8	**Leverage ratio total exposure measure**	77,480	121,756

	Table LRCom: Leverage ratio common disclosure	CRR leverage ratio exposures 31-Dec-2018	CRR leverage ratio exposures 31-Dec-2017
	On-balance sheet exposures (excluding derivatives and SFTs)		
1	On-balance sheet items (excluding derivatives, SFTs and fiduciary assets, but including collateral)	87,338	133,763
2	(Asset amounts deducted in determining Tier 1 capital)	-9,858	-12,007
3	**Total on-balance sheet exposures (excluding derivatives, SFTs and fiduciary assets) (sum of lines 1 and 2)**	**77,480**	**121,756**
	Derivative exposures		
4	Replacement cost associated with all derivatives transactions (ie net of eligible cash variation margin)	0	0
5	Add-on amounts for PFE associated with all derivatives transactions (mark- to-market method)	0	0
EU-5a	Exposure determined under Original Exposure Method	0	0
6	Gross-up for derivatives collateral provided where deducted from the balance sheet assets pursuant to the applicable accounting framework	0	0
7	(Deductions of receivables assets for cash variation margin provided in derivatives transactions)	0	0
8	(Exempted CCP leg of client-cleared trade exposures)	0	0
9	Adjusted effective notional amount of written credit derivatives	0	0
10	(Adjusted effective notional offsets and add-on deductions for written credit derivatives)	0	0
11	**Total derivatives exposures (sum of lines 4 to 10)**	**0**	**0**
	SFT exposures		
12	Gross SFT assets (with no recognition of netting), after adjusting for sales accounting transactions	0	0
13	(Netted amounts of cash payables and cash receivables of gross SFT assets)	0	0
14	Counterparty credit risk exposure for SFT assets	0	0
EU-14a	Derogation for SFTs: Counterparty credit risk exposure in accordance with Articles 429b(4) and 222 of Regulation (EU) No 575/2013	0	0
15	Agent transaction exposures	0	0
EU-15a	(Exempted CCP leg of client-cleared SFT exposure)	0	0
16	**Total securities financing transaction exposures (sum of lines 12 to 15a)**	**0**	**0**
	Other off-balance sheet exposures		
17	Off-balance sheet exposures at gross notional amount	0	0
18	(Adjustments for conversion to credit equivalent amounts)	0	0
19	**Other off-balance sheet exposures (sum of lines 17 and 18)**	**0**	**0**
	Exempted exposures in accordance with Article 429(7) and (14) of Regulation (EU) No 575/2013 (on and off balance sheet)		
EU-19a	(Intragroup exposures (solo basis) exempted in accordance with Article 429(7) of Regulation (EU) No 575/2013 (on and off balance sheet))	0	0
EU-19b	(Exposures exempted in accordance with Article 429 (14) of Regulation (EU) No 575/2013 (on and off balance sheet))	**0**	**0**
	Capital and total exposure mesure		
20	**Tier 1 capital**	**33,958**	**46,359**
21	**Leverage ratio total exposure measure (sum of lines 3, 11, 16, 19, EU-19a and EU-19b)**	**77,480**	**121,756**
	Leverage ratio		
22	**Leverage ratio**	**43.83%**	**38.08%**
	Choice on transitional arrangements and amount of derecognised fiduciary items		
EU-23	Choice on transitional arrangements for the definition of the capital measure	33,958	46,359
EU-24	Amount of derecognised fiduciary items in accordance with Article 429(11) of Regulation (EU) No 575/2013	0	0

	Table LRSpl: Split-up of on balance sheet exposures (excluding derivatives, SFTs and exempted exposures)	CRR leverage ratio exposures 31 December 2018	CRR leverage ratio exposures 31 December 2017
EU-1	exempted exposures), of which:	**77,480**	**121,756**
EU-2	Trading book exposures	0	0
EU-3	Banking book exposures, of which:	0	0
EU-4	Covered bonds	0	0
EU-5	Exposures treated as sovereigns	114	542
EU-6	Exposures to regional governments, MDB, international organisations and PSE **not** treated as sovereigns	0	0
EU-7	Institutions	54,989	96,415
EU-8	Secured by mortgages of immovable properties	0	0
EU-9	Retail exposures	0	0
EU-10	Corporate	13,312	17,442
EU-11	Exposures in default	0	0
EU-12	assets)	9,065	7,357

Leverage risk is defined as the risk of potential adverse changes to the value of ITG's financial instruments as a result of ITG having too much borrowings and not sufficient earnings (revenues less cost of borrowings) to make it worthwhile. This would dilute the capital base.

ITG uses equity, in the form of paid-in capital and retained earnings, rather than debt, to finance its investments. Paid-in capital is in the form of issued share capital and/or capital contributions from our ultimate parent company, Investment Technology Group, Inc. (ITGGRP), a company quoted on the NYSE. ITG does not use long term borrowings to finance activities. As a result the business is not highly leveraged from a long term perspective.

ITG as an agency-style broker executes trades that will (for the most part) settle on a delivery versus payment basis or receipt versus payment basis. ITG utilises credit facilities available from settlement agents to facilitate these executions. This means that ITG is highly leveraged on a short-term basis using these credit facilities.

The financial leverage ratio or the equity multiplier (Avg. Total Equity / Avg. Total Assets) measures the amount of assets financed by equity. The nature of the ITG's agency brokerage model will always result in low leverage ratios and therefore an accepted low leverage risk tolerance exists by the nature of the value of unsettled receivables included in Total Assets compared to the equity in the business. However, this financial metric does not signify a high amount of leverage risk in the business in the "true sense". A more accurate measurement is total assets less settlement payables over equity which will give an acceptable financial leverage ratio of greater than 3%.

12. Governance

Director Biographies

Dr. Robert Boardman (*Executive Director*)

Responsible for ITG's European business, Mr. Boardman previously served as head of European electronic trading at ITG from 2006 to 2010. Prior to joining the firm, he spent 12 years at Goldman Sachs in various positions, including Executive Director on the Electronic Transaction Services sales team and Head of Connectivity for the equities division.

Mr. Michael Byrne (*Executive Director*)

Mr. Michael Byrne has been a director since July 2006. Mr. Byrne currently serves as Managing Director - Country Head, Ireland and is Chief Financial Officer of ITG's EMEA region. Mr. Byrne joined ITG's European operations in October 1998 and has held senior management positions responsible for support functions including Finance, Compliance, Middle Office, Settlements, Risk, Business Intelligence, Administration, Human Resources, Treasury, Company Secretarial and Legal over that time. Mr. Byrne is a member of the Executive Committee and chairs the Credit and Risk committee. Prior to joining ITG, Mr. Byrne was Finance manager with London based interdealer broker ICAP. Mr. Byrne started his career in accounting practice with London based Crowe Clark Whitehill. Mr. Byrne has an Economics degree from University College Dublin, is a member of the Chartered Institute of Management Accountants and is a member of the Institute of Directors.

Ms. Gerardine Jones (*Independent Non-Executive Director*)

Ms. Gerardine Jones, appointed to the Board in March 2015, is a specialist in finance, regulatory compliance and risk. She is currently Director of Sharpsburg Consultants Ltd, a provider of financial consultancy services to entities requiring senior compliance expertise on a project basis. From 2001 to end 2013, Gerardine was Deputy Chief Executive and Head of Risk in Cantor Fitzgerald Ireland Limited (CFI) (formerly Dolmen Stockbrokers Limited). In that role, she was responsible for all operational aspects of the business including Compliance, Risk, Finance, Settlement, and IT. From 1988 to 2001, Gerardine was Director of Listing at the Irish Stock Exchange. This role included management of the ISE's listing function for quoted entities, founding the Exchange's listing function for international investment funds and bonds, and implementation of relevant EU and national legislation. She also completed a number of projects for the Exchange, including the creation of the ISEQ index, and the roll out of Deutsche Borse's Xetra trading system to the Irish market. Gerardine qualified as a chartered accountant with EY in 1984.

Ms. Yvonne Lovern (*Executive Director—Resigned as a Director as at 5 October 2018*)

An Associate of the Chartered Institute of Management Accountants, and member of Institution of Directors Ireland, Yvonne joined ITG in 1998. Having spent the first few years in the middle and back office operations, Yvonne then joined the Product Management team and is responsible for the clearing and settlement systems used by ITG in Europe. Prior to joining ITG, Yvonne spent 5 years at Bank of Ireland Securities Services managing the Operations team.

Mr. Kevin O'Doherty (*Independent Non-Executive Director*)

Mr. O'Doherty is a Chartered Accountant and a Chartered Director. He holds an MBS degree in Finance from UCD where his thesis was on mutual funds. After qualifying as Chartered Accountant, Mr. O'Doherty worked in Dublin in a variety of fund accounting and fund administration positions. In 1998, Mr. O'Doherty became the Managing Director of a company providing trustee and securities custody services to primarily Irish-domiciled UCITS and Non-UCITS funds. Upon leaving this position in 2006, Mr. O'Doherty co-founded Compliance Ireland, the largest independent Irish regulatory affairs consultancy, and is now the sole owner and a director. In addition to his Compliance Ireland work, Mr. O'Doherty currently serves as an independent nonexecutive director for a number of regulated and unregulated firms, including Irish-domiciled UCITS funds. Mr. O'Doherty co-founded Quayside Fund Management in 2014 and currently serves in an executive capacity as Chief Risk Officer and Chief Financial Officer as well as a director.

Mr. Steven R. Vigliotti (*Non-Executive Director*)

Mr. Steven R. Vigliotti is the Chief Financial Officer of ITG. Steve joined ITG in 2010 from NYFIX, a provider of electronic trading applications, messaging and execution services, where he served as Chief Financial Officer from January 2006 until the sale of the company to NYSE Technologies, Inc. in 2009. Prior to joining NYFIX, he was CFO, Treasurer and Chief Accounting Officer of Maxcor Financial Group (which was acquired by BGC Partners in 2005) and was CFO for a number of its Euro Brokers inter-dealer brokerage subsidiaries. Steve began his career in public accounting and was an Audit Partner in BDO Seidman's financial services group. Steve is a certified public accountant and holds a B.B.A degree in accounting from Hofstra University.

Mr. Brian Pomraning (*Non-Executive Director*)

Mr. Brian Pomraning has served as a Managing Director and Global Head of Product Management since January 2017. He joined ITG in September 2016 and served as Global Head of Strategy and Planning through January 2017. He is responsible for leading our liquidity, execution, analytics and workflow solutions product teams and the technology organization. From 2010 to 2016, Brian served in various roles at J.P. Morgan, mostly recently as a managing director running EMEA Equities Execution Services. Brian has also held sales and product roles at Bloomberg Tradebook, Lehman Brothers and Barclays Capital across equities, futures and options.

Directorships held by members of the management body

Name	**Directorships 2018**	**Directorships 2017**
Mr. Kevin O'Doherty	16	16
Mr. Michael Byrne	4*	4*
Mr. Rob Boardman	7*	7*
Ms. Yvonne Lovern	Resigned as at 05 October 2018	3*
Mr. Steve Vigliotti	27*	25*
Ms. Gerardine Jones	12	12
Mr. Brian Pomraning	9	6*

* All directorships of ITG Group companies

Criteria for the selection of members of the management body

The responsibilities of the Nominating and Corporate Governance Committee include recommending candidates to the Board for appointment as Directors, and reviewing the size, structure, composition, diversity and skills of the Board and Board Committees.

The Board recognises and embraces the benefits of diversity among its own Members, including diversity of skills, experience, background, gender, ethnicity and other qualities, and is committed to achieving the most appropriate blend and balance of diversity possible over time.

13. Remuneration disclosures

The Group remuneration policy considers in full the requirements of and our obligations to the Capital Requirements Directive IV. The Group neutralizes through the application of proportionality a number of requirements of the directive in line with the guidelines on remuneration set out by the European Banking Authority ('EBA').

The Group's compensation program is designed to attract, develop, retain and reward employees for contributing to its success, whilst maintaining financial stability including a sound capital base for the underlying entity's, and robust and effective risk management.

A Remuneration Committee, comprised of European Executives and US shareholder representatives holds delegated responsibility from the Board of Directors for oversight of the Group's Remuneration policy. The Committee's authority is formally documented in its Terms of Reference. The Committee is advised on all European remuneration requirements by the European General Counsel and Head of Human Resources.

Remuneration is made up of basic salary, variable compensation (cash and equity deferral award ('stock award')), and benefits (e.g. pension, healthcare, employee insurance, etc.).

- Basic salary compensation is generally based upon individual expertise, internal and external parity and the level of responsibility the position has on supporting the success of the Group. The length of service with the Group is not considered when determining basic salary levels.

  The Group aims to maintain appropriate ratios between fixed and variable compensation to ensure balance. Basic salary and benefits should represent an appropriate proportion of employee total remuneration to allow a fully flexible variable compensation policy.

- In addition to an employee's basic salary compensation, employees may be eligible to participate in the Group's variable compensation program. Variable compensation is a bonus paid in excess of basic salary and benefits to incentivise employee performance. Unless an employee contract states differently, the payment and amount of any variable compensation under the program is at the complete discretion of the Group, and the Group is under no obligation to pay an employee any variable compensation. An employee must be actively employed by the Group on the date that variable compensation is paid to be eligible to receive variable compensation. Variable compensation may be based on individual performance relative to expectations and objectives, business unit performance against the business plan, overall Group financial results, and other factors. Variable compensation, if paid, will be paid in cash and/or stock units as applicable, and in accordance with the programs and policies in effect, from time to time.

- A portion of variable remuneration which, at the Group's sole discretion, may be awarded in Stock Units ("Stock Award"). Any such Stock Award shall be subject to terms and conditions which are consistent with the Group's Omnibus Equity Compensation Plan.

The current Stock Award plan aligns individual compensation with the long term interests of the Group's shareholders by deferring the Stock Awards.

- Benefits are extended to employees at the discretion of the Group. Examples of benefits are the employer defined pension contribution, and private medical insurance. There is a standard offering to employees for the benefits. In some cases the benefits are linked to length of service (e.g. holiday entitlement) or corporate title (e.g. pension) but no benefit is dependent on individual performance (other than variable compensation detailed above).

In exceptional circumstances where such payments may need to be considered to reward outstanding individual performance, the governing body will consider and document whether such an award would be consistent with the underlying principles of the Remuneration Code as implemented through the Group's Policy.

Quantitative disclosures

The quantitative remuneration data is provided on a Group-wide basis.

These disclosures are made in consideration that the EU Data Protection Directive has precedence over the remuneration disclosures under Article 450 of the Regulation. Where specific disclosures relate to a group of 10 individuals or less this data has not been presented separately, rather aggregate information is presented to minimise the risk of individual identification that could breach the Data Protection Directive.

Where quantitative information is required to be disclosed and the group is less than 10 individuals in total, the aggregate information has been disclosed without reference to the numbers of individuals and highest awards made to an individual.

Management disclosures are included within the material risk takers numerical disclosures as there are less than 10 individuals considered Management.

Aggregate quantitative information on remuneration, broken down by business area:

	2018	**2017**
	€'000	**€'000**
Material risk takers	18,248	17,694

The amounts of remuneration for the financial year split into fixed and variable remuneration, and the number of beneficiaries;

	Material risk takers	**Material risk takers**
	2018	**2017**
	€'000	**€'000**
Fixed remuneration	8,402	7,783
Variable remuneration*	10,154	9,911
Number of staff	35	34

*Variable remuneration includes cash and shares.

The amounts and forms of variable remuneration, split into cash, shares, share-linked instruments and other types:

Variable remuneration	Material risk takers 2018	Material risk takers 2017
	€'000	€'000
Cash	4,431	4,472
shares	5,723	5,439
Number of staff	35	34

The amounts of outstanding deferred remuneration split into vested and unvested portions:

	Material risk takers excluding management	Material risk takers excluding management
	2018	2017
	€'000	€'000
Vested	0	0
Unvested	2,888	5,439
Number of staff	28	34

Deferred remuneration has been interpreted as those share awards issued in the 2018/2017 calendar year. Vested shares are those shares issued in 2018/2017 that also vested during the 2018/2017 calendar year. Unvested shares are those share awards issued in 2018/2017 that remain unvested at 31 December 2018/2017. The value of the share awards is stated at the nominal value they were issued at during the period.

The amounts of deferred remuneration awarded during the financial year, paid out and reduced through performance adjustments:

	Material risk takers excluding management	Material risk takers excluding management
	2018	2017
	€'000	€'000
Deferred remuneration awarded, paid out and reduced through performance adjustments during 2018	0	0
Number of staff	28	34

New sign-on and severance payments made during the financial year:

	2018	2017
	€'000	€'000
Sign-on payments	0	0
Severance payments	32	28

The ratio between fixed and variable compensation for material risk takers in the period 1 Jan – 31 Dec 2018 ranged between 22% and 174%.

The ratio between fixed and variable compensation for material risk takers in the period 1 Jan – 31 Dec 2017 ranged between 31% and 199%.

The number of individuals being remunerated EUR 1 million or more per financial year, for remuneration between EUR 1 million and EUR 5 million broken down into pay bands of EUR 500 000 and for remuneration of EUR 5 million and above broken down into pay bands of EUR 1 million;

One individual was remunerated more than EUR 1 mln but less than EUR 1.6mln for the period ended 31 December 2018.

One individual was remunerated more than EUR 1 mln but less than EUR 1.5mln for the period ended 31 December 2017.

For the financial year ended 31 December 2018 the aggregate remuneration awarded to Code Staff was less than €18.3 million (31 December 2017, aggregate remuneration awarded to Code Staff was less than €17.7 million).

For the financial year ended 31 December 2017 the aggregate remuneration awarded to Code Staff was less than €17.7 million (31 December 2016, aggregate remuneration awarded to Code Staff was less than €10.1 million).

14. Parent and subsidiary disclosures

CRD IV introduced an incremental disclosure requirement for significant subsidiaries of EU parent institutions and those subsidiaries which are of material significance to the local market, to disclose information required by Articles 437, 438, 400, 442, 450, 451 and 453 on an individual or sub-consolidated basis. The respective disclosures for ITGL on an individual basis are contained in Appendix 3.

Appendix 1

Glossary of definitions and explanations

Banking book (also non-trading book) – a regulatory classification to support the regulatory treatment that applies to all exposures which are not in the trading book. Banking book positions tend to be structural in nature and, typically arise as a consequence of the size and composition of a bank's balance sheet. Examples include the need to manage the interest rate risk on fixed rate mortgages or rate insensitive current account balances. The banking book portfolio will also include all transactions/positions which are accounted for on an interest accruals basis or, in the case of financial instruments, on an available for sale or hold to maturity basis (e.g. available for sale ("AFS") securities portfolio). The Group's banking book consists of its retail and corporate deposit books, the Treasury function's cash books and the Group's investment portfolios and derivatives hedging interest rate risk within these portfolios.

Basel II - The Capital Adequacy Framework issued in June 2004 by the Basel Committee, and implemented into EU law by Directive 2006/48/EC and Directive 2006/49/EC.

Basel III Basel III is a global regulatory standard on bank capital adequacy and liquidity risk. It was agreed upon by the members of the Basel Committee on Banking Supervision. Basel III is implemented in Europe through the CRD IV legislation (see below).

Capital Requirements Directive ("CRD") - Directive 2006/48/EC of the European Parliament and the Council of 14 June 2006, relating to the taking up and pursuit of the business of credit institutions together with Directive 2006/49/EC on the capital adequacy of investment firms and credit institutions.
Capital Requirements Directive IV ("CRD IV") - CRD IV, which came into force on 1 January 2014, comprises a recast Capital Requirements Directive and a new Capital Requirements Regulation which implements the Basel III capital proposals together with transitional arrangements for some of its requirements. The Regulation contains the detailed prudential requirements for credit institutions and investment firms.

Central Bank of Ireland - The Central Bank of Ireland.

Common equity tier 1 capital ratio ("CET1 ratio") – a measurement of the firm's core equity capital compared with its total risk weighted assets. The highest quality form of regulatory capital under Basel III that comprises common shares issued and related share premium, retained earnings and other reserves excluding cash flow hedging reserves, and deducting specified regulatory adjustments.

Core tier 1 capital – the highest quality form of regulatory capital under Basel II that comprises called-up share capital, share premium and eligible reserves plus equity non-controlling interests, less goodwill, intangible assets and supervisory deductions as specified by the Central Bank of Ireland.

Core tier 1 ratio – a Basel II measure of core tier 1 capital expressed as a percentage of risk weighted assets.

Credit risk mitigation ("CRM") – techniques used by a financial institution to reduce the credit risk associated with an exposure by the application of credit risk mitigants. Examples include: collateral, guarantees, and credit protection.

European Banking Authority - The European Banking Authority, formerly CEBS (the Committee of European Banking supervisors).

Exposure value – for on balance sheet exposures, is the amount outstanding less provisions and collateral held taking into account relevant netting agreements. No account is taken of the residual maturity or ratings from external credit rating agencies. For commitments and guarantees, it is the amount outstanding less provisions and collateral held, taking into account relevant netting agreements and credit conversion factors.

External Credit Assessment Institution (“ECAI”) – a credit rating agency that is registered or certified in accordance with Regulation (EC) No. 1060/2009 of the European Parliament and of the Council of 16 September 2009 on credit rating agencies or a central bank issuing credit ratings which are exempt from the application of Regulation (EC) No 1060/2009;

An eligible External Credit Assessment Institution (ECAI) is an entity, other than an Export Credit Agency, that issues external credit assessments, and that has been determined by the competent authorities to meet the eligibility requirements set out in the Capital Requirements Directive. The credit assessment provided by the ECAI is used to provide a basis for capital requirement calculations in the Standardised approach for securitisation positions as well as an input into the IRB Institutions model.

Gross exposure – the exposure at default before Credit Risk Mitigation (“CRM”), Credit Conversion Factors (“CCF”) and other offsets.

Impairment loss – is recognised when the carrying amount of an asset exceeds its recoverable amount.

Internal Capital Adequacy Assessment Process (“ICAAP”) – the Group’s own assessment, through an examination of its risk profile from regulatory and economic capital perspectives, of the levels of capital that it needs to hold.

Irish GAAP – Irish Generally Accepted Accounting Principles

Leverage ratio – To prevent an excessive build-up of leverage on institutions’ balance sheets, Basel III introduces a non-risk-based leverage ratio to supplement the risk-based capital framework of Basel II. It is defined as the ratio of tier 1 capital to total exposures. Total exposures include on-balance sheet items, off-balance sheet items and derivatives, and should generally follow the accounting measure of exposure.

Liquidity Coverage Ratio (“LCR”) – The ratio of the stock of high quality liquid assets to expected net cash outflows over the next 30 days under a stress scenario. CRD IV requires that this ratio exceed 60% on 1 January 2015 and 100% on 1 January 2018.

Market value – the prevailing price at which goods and/or services may be bought or sold in the open market.

Net Stable Funding Ratio (“NSFR”) – The ratio of available stable funding to require stable funding over a 1 year time horizon.

Operational risk – is the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events. It includes legal risk but excludes strategic and business risk.

Other items – a CRD IV definition which refers to other assets including land and buildings, plant and machinery, other fixtures and fittings, tools and equipment, payments on account and tangible assets in the course of construction.

Past due – receivable balances become past due when they exceed credit terms.

Pillar 1 – minimum capital requirements – the part of the Basel Accord setting out the calculation of regulatory capital for credit, market and operational risk.

Pillar 2 – the supervisory review process – the part of the Basel Accord which sets out the process by which a bank should review its overall capital adequacy and the processes under which the supervisors evaluate how well the financial institutions are assessing their risks and take appropriate actions in response to the assessments.

Pillar 3 – market discipline – the part of the Basel Accord which sets out the disclosure requirements for banks to publish certain details of their risks, capital and risk management, with the aim of strengthening market discipline.

Regulatory capital – capital which ITG holds, determined in accordance with rules established by the Central Bank of Ireland for the consolidated Group and by local regulators for individual Group companies.

Risk-weighted assets ("RWAs") – measure of assets (including off-balance sheet items converted into asset equivalents e.g. credit lines) which are weighted in accordance with prescribed rules and formulae as defined in the Basel Accord to reflect the risks inherent in those assets.

Used in the calculation of risk-based capital ratios. Total assets are calculated by applying pre-determined risk-weight factors (set by the regulators) to the nominal outstanding amount of each on-balance sheet asset and the notional principal amount of each off-balance sheet item. The term risk-weighted assets for the purposes of this document also can be described as risk weighted exposures.

Securitisation – securitisation is the process of aggregation and repackaging of non-tradable financial instruments such as loans and receivables, or company cash flow into securities that can be issued and traded in the capital markets.

Securitisation position – an exposure to a securitisation.

Standardised Exposure Classes

- *Retail:* Exposures must be to an individual person or person or to a small or medium-sized entity. It must be one of a significant number of exposures with similar characteristics such that the risks associated with such lending are substantially reduced and, the total amount owed, shall not, to the knowledge of the credit institution, exceed €1 million.
- *Public Sector Entities:* Exposures to Public Sector Entities and non-commercial undertakings.
- *Corporates:* In general, a corporate exposure is defined as a debt obligation of a corporate, partnership or proprietorship.
- *Exposures in default:* Where the exposure is past due more than 90 days or unlikely to pay.
- *Exposures associated with particularly high risks:* Exposures associated with particularly high risks such as investments in venture capital firms and private equity investments.
- *Institutions and Corporates with a short-term credit assessment:* Short term exposures to an Institution or Corporate.
- *Other items:* Exposures not falling into the other exposure classes outlined.

Trading Book A trading book consists of positions in financial instruments and commodities held either with intent to trade, or in order to hedge other elements of the trading book. To be eligible for trading book capital treatment, financial instruments must either be free of any restrictive covenants on their tradability, or are able to be hedged completely.

Appendix 2

Own Funds

Summary information on the main components of own funds, and their terms and conditions as applicable, is set out below.

Common equity Tier 1

Common equity Tier 1 (“CET1”) comprises shareholders’ equity adjusted as appropriate in accordance with the provisions of CRD IV.

The principal components of shareholders’ equity are set out below:

- *Share capital/share premium*

Ordinary and preference share capital represent funds raised by issuing shares in return for cash or other consideration. When shares are issued at a premium whether for cash or otherwise, the excess of the amount received over the par value of the shares is transferred to share premium.

- *Capital contributions*

Capital contributions represent the receipt of non-refundable consideration arising from transactions with the group’s parent company Investment Technology Group International Limited (“ITGIL”).

- *Revenue reserves*

Revenue reserves represent retained earnings of the parent company and subsidiaries.

Subsidiary disclosures

Set out below are the capital base and the minimum capital requirements for Investment Technology Group Limited as at 31 December.

Capital adequacy	Total exposures	Risk Weighted Assets	Minimum capital requirement	Total exposures	Risk Weighted Assets	Minimum capital requirement
	€'000	€'000	€'000	€'000	€'000	€'000
	2018	2018	2018	2017	2017	2017
Credit risk	62,627	33,178	2,654	111,721	45,042	3,603
Settlement risk	0	0	0	68	68	5
Market risk	855	855	68	1,320	1,320	106
Fixed overhead risk	151,087	151,087	12,087	148,510	148,510	11,881
Total	**214,569**	**185,119**	**14,810**	**261,618**	**194,939**	**15,595**

Regulatory capital at 31 December

The table below outlines the component parts of regulatory capital with further details of capital instruments, adjustments, deductions and filters in line with the prescribed template provided in Article 5 of Commission Regulation (EU) No. 1423/2013. For the purposes of ensuring that the disclosures are meaningful and relevant, we have excluded where appropriate rows from the Commission template. Relevant line items have been cross referenced to the Traditional Own Funds disclosure template.

Own funds disclosure template		
Common Equity Tier 1 capital: Instruments and reserves	**31-Dec-18 €'000**	**31-Dec-17 €'000**
Share capital - ordinary stock	559	564
Share premium	0	0
Retained earnings	45,934	30,696
Other reserves	0	15,529
Common Equity Tier 1 (CET 1) capital: before regulatory adjustments	**46,493**	**46,789**
Goodwill	(242)	(384)
Other intangible assets	(8,964)	(8,053)
Total regulatory adjustments to Common Equity Tier 1 (CET1)	**(9,206)**	**(8,437)**
Common Equity Tier 1 (CET1) capital	**37,287**	**38,352**

Return on assets

Article 90 of the CRD requires institutions to disclosure return on assets as a key indicator, calculated as net profit divided by total balance sheet. For the year ended 31 December 2018 ITGL's return on assets was 3% (31 December 2017, the Group's return on assets was 6%).

Capital ratios

The Common Equity Tier 1 ratio is a measure of the Group's Tier 1 capital compared to its total risk weighted assets. The Groups Common Equity Tier 1, Tier 1 and Total capital ratios are the same as the Group's capital base comprises only the highest quality capital instruments, all qualify as Common Equity Tier 1 capital under CRD IV.

Transitional ratios are the same as fully loaded ratios as ITGL does not hold any capital items that are to be grandfathered.

Capital ratios	**31-Dec-18 (CRD IV) %**	**31-Dec-17 (CRD IV) %**
CET1 Capital ratio	20.14%	19.67%
T1 Capital ratio	20.14%	19.67%
Total capital ratio	20.14%	19.67%

Reconciliation of Accounting Capital with Regulatory Capital

Reconciliation of Accounting Capital with Regulatory Capital

	31-Dec-18 €'000	**31-Dec-17 €'000**
Total shareholders' equity	55,657	59,136
Regulatory adjustments	(9,206)	(8,437)
Unaudited portion of current year profit and loss	(9,164)	(12,348)
Common Equity Tier 1 Capital	**37,287**	**38,352**

Credit risk

Total exposures by exposure class and related minimum capital requirements

Credit Exposure class	Dec-18 Total exposures €'000	Dec-18 Minimum capital requirements €'000	Dec-17 Total exposures €'000	Dec-17 Minimum capital requirements €'000
Central governments and central banks	96	0	537	0
Public sector entities	0	0	0	0
Institutions	3,582	85	28,536	489
Corporates	13,415	1,087	18,758	1,514
Retail	0	0	0	0
Claims on institutions and corporate with a short-term credit assessment	36,800	634	56,997	914
Equity	0	0	0	0
Other items	8,734	849	6,893	686
Total credit exposures	**62,627**	**2,654**	**111,721**	**3,603**

Exposure classes throughout this document are the exposure classes outlined in CRD IV

Average exposures over the period 1 January to 31 December:

Credit Exposure class	2018 Average Total exposures €'000	2018 Average Minimum capital requirements €'000	2017 Average Total exposures €'000	2017 Average Minimum capital requirements €'000
Central governments and central banks	380	0	333	0
Public sector entities	0	0	0	0
Institutions	4,144	119	202,360	3,426
Corporates	18,070	1,459	26,150	2,106
Retail	0	0	0	0
Claims on institutions and corporate with a short-term credit assessment	37,711	619	125,187	2,792
Equity	0	0	0	0
Other items	7,292	695	6,234	610
Total credit exposures	**67,596**	**2,893**	**360,265**	**8,934**

Exposure classes throughout this document are the exposure classes outlined in CRD IV

Geographic distribution of credit exposures as 31 December:

Geographic distribution of credit exposures	2018 Total exposures €'000	2017 Total exposures €'000
Republic of Ireland	19,785	55,998
United Kingdom	21,217	21,332
France	1,487	7,580
Other	20,138	26,811
Total exposures	**62,627**	**111,721**

Industry analysis of exposures

The Company's client base at 31 December 2018 and 2017 is comprised of financial companies.

Residual maturity of credit exposures:

2018 Residual maturity of credit exposures	On demand €'000	0<3 months €'000	3<6 months €'000	months < 1 year €'000	1<3 years €'000	Total exposures €'000
Central governments and central banks	0	96	0	0	0	96
Public sector entities	0	-	0	0	0	0
Institutions	0	3,582	0	0	0	3,582
Corporates	0	280	0	13,135	0	13,415
Retail	0		0	0	0	0
Claims on institutions and corporate with a short-term credit assessment	18,167	18,633	0	0	0	36,800
Equity	0	-	0	0	0	0
Other items	0	29	0	3,408	5,296	8,734
Total exposures	**18,167**	**22,620**	**-**	**16,543**	**5,296**	**62,627**

2017 Residual maturity of credit exposures	On demand €'000	0<3 months €'000	3<6 months €'000	6 months < 1 year €'000	1<3 years €'000	Total exposures €'000
Central governments and central banks	0	537	0	0	0	537
Public sector entities	0	0	0	0	0	0
Institutions	0	28,536	0	0	0	28,536
Corporates	0	2,302	0	16,456	0	18,758
Retail	0	0	0	0	0	0
Claims on institutions and corporate with a short-term credit assessment	43,638	13,359	0	0	0	56,997
Equity	0	0	0	0	0	0
Other items	0	46	0	2,022	4,824	6,893
Total exposures	**43,638**	**44,780**	**0**	**18,478**	**4,824**	**111,721**

Total exposure value split by external rating and credit quality Assessment Step:

Total exposure value split by external rating and credit quality Assessment Step 2018	Standard & Poors	Moody's	Fitch	DBRS	Credit Quality Assessment Steps	Total rated	Total unrated	Total
	€'000	€'000	€'000	€'000	€'000	€'000	€'000	€'000
Exposure class:								
Central governments and central banks	0	0	0	0	0	0	96	96
Public sector entities	0	0	0	0	0	0	0	0
Institutions	0	0	0	0	0	0	3,582	3,582
Corporates	0	0	0	0	0	0	13,415	13,415
Retail	0	0	0	0	0	0	0	0
Claims on institutions and corporate with a short-term credit assessment	36,800	0	0	0	0	36,800	0	36,800
Equity	0	0	0	0	0	0	0	0
Other items	0	0	0	0	0	0	8,734	8,734
Total exposures	**36,800**	**0**	**0**	**0**	**0**	**36,800**	**25,827**	**62,627**

Total exposure value split by credit quality Assessment Step 2018	Step 1	Step 2	Step 3	Step 4	Step 5	Total rated	Total unrated	Total
	€'000	€'000	€'000	€'000	€'000	€'000	€'000	€'000
Exposure class:								
Central governments and central banks	0	0	0	0	0	0	96	96
Public sector entities	0	0	0	0	0	0	0	0
Institutions	0	0	0	0	0	0	3,582	3,582
Corporates	0	0	0	0	0	0	13,415	13,415
Retail	0	0	0	0	0	0	0	0
Claims on institutions and corporate with a short-term credit assessment	34,600	2,200	0	0	0	36,800	0	36,800
Equity	0	0	0	0	0	0	0	0
Other items	0	0	0	0	0	0	8,734	8,734
Total exposures	**34,600**	**2,200**	**0**	**0**	**0**	**36,800**	**25,827**	**62,627**

Total exposure value split by external rating and credit quality Assessment Step at 31 December 2017:

Total exposure value split by credit quality Assessment Step 2017	Step 1	Step 2	Step 3	Step 4	Step 5	Total rated	Total unrated	Total
	€'000	€'000	€'000	€'000	€'000	€'000	€'000	€'000
Exposure class:								
Central governments and central banks	0	0	0	0	0	0	537	537
Public sector entities	0	0	0	0	0	0	0	0
Institutions	0	0	0	0	0	0	28,536	28,536
Corporates	0	0	0	0	0	0	18,758	18,758
Retail	0	0	0	0	0	0	0	0
Claims on institutions and corporate with a short-term credit assessment	56,915	79	3			56,997	0	56,997
Equity	0	0	0	0	0	0	0	0
Other items	0	0	0	0	0	0	6,893	6,893
Total exposures	**56,915**	**79**	**3**	**0**	**0**	**56,997**	**54,724**	**111,721**

Total exposure value split by external rating and credit quality Assessment Step 2018	Standard & Poors	Moody's	Fitch	DBRS	Credit Quality Assessment Steps	Total rated	Total unrated	Total
	€'000	€'000	€'000	€'000	€'000	€'000	€'000	€'000
Exposure class:								
Central governments and central banks	0	0	0	0	0	0	96	96
Public sector entities	0	0	0	0	0	0	0	0
Institutions	0	0	0	0	0	0	3,582	3,582
Corporates	0	0	0	0	0	0	13,415	13,415
Retail	0	0	0	0	0	0	0	0
Claims on institutions and corporate with a short-term credit assessment	36,800	0	0	0	0	36,800	0	36,800
Equity	0	0	0	0	0	0	0	0
Other items	0	0	0	0	0	0	8,734	8,734
Total exposures	**36,800**	**0**	**0**	**0**	**0**	**36,800**	**25,827**	**62,627**

The following ratings apply to the credit quality assessment steps:

Step 1: AAA to AA (S&P)
Step 2: A+ to A- (S&P)
Step 3: BBB+ to BBB- (S&P)
Step 4: BB+ to BB- (S&P)
Step 5: B+B- (S&P)
Step 6: CCC+ and below (S&P)

Asset Encumbrance

The asset encumbrance disclosure has been produced in line with the 2014 EBA Guidelines on disclosure of encumbered and unencumbered assets and the tables below are based on the EBA reporting templates. An asset is defined as encumbered if it has been pledged as collateral against existing liability, and, as a result, is no longer available to the Group to secure funding, to satisfy collateral needs or to be sold.

Template A: Assets €'000

Assets as at 31 December 2018		Carrying amount of encumbered assets €000	Fair value of encumbered assets	Carrying amount of unencumbered assets	Fair value of unencumbered assets
		010	040	060	090
010	Assets of the reporting institution	28,730		675,503	
030	Equity instruments				
040	Debt securities				
120	Other assets	28,730		675,503	

Assets as at 31 December 2017		Carrying amount of encumbered assets €'000	Fair value of encumbered assets	Carrying amount of unencumbered assets €'000	Fair value of unencumbered assets
		010	040	060	090
010	**Assets of the reporting institution**	32,291		428,613	
030	Equity instruments				
040	Debt securities				
120	Other assets	32,291		428,613	

Template B: Collateral received

		Fair value of encumbered collateral received or own debt securities issued	Fair value of collateral received or own debt securities issued available for encumbrance	Fair value of encumbered collateral received or own debt securities issued	Fair value of collateral received or own debt securities issued available for encumbrance
		010	040	010	040
		31-Dec-18	**31-Dec-18**	**31-Dec-17**	**31-Dec-17**
130	**Collateral received by the reporting institution**				
150	Equity instruments				
160	Debt securities				
230	Other collateral received				
240	**Own debt securities issued other than own covered bonds or ABSs**				

Template C: Encumbered assets/collateral received and associated liabilities

		Matching liabilities, contingent liabilities or securities lent	Assets, collateral received and own debt securities issued other than covered bonds and ABSs encumbered	Matching liabilities, contingent liabilities or securities lent	Assets, collateral received and own debt securities issued other than covered bonds and ABSs encumbered
		010	030	010	030
		31-Dec-18	31-Dec-18	31-Dec-17	31-Dec-17
010	Carrying amount of selected financial liabilities				

Information on importance of asset encumbrance

As part of managing its funding requirements, the Company from time-to-time encumbers assets as collateral to support lines of credit from one or more credit institutions.