# Morgan Stanley International Limited Group

**Pillar 3 Regulatory Disclosures Report** 

As at 31 December 2017

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# 1. Morgan Stanley International Limited Group

The principal activity of Morgan Stanley International Limited ("MSI") together with its subsidiaries (the "MSI Group") is the provision of financial services to corporations, governments, financial institutions and individuals. There have not been any significant changes in the MSI Group's principal activities during 2017 and no significant change is expected.

As at 31 December 2017, the following entities within the MSI Group were authorised by the Prudential Regulation Authority ("PRA") and regulated by the PRA and Financial Conduct Authority ("FCA"):

- Morgan Stanley & Co. International plc ("MSIP")
- Morgan Stanley Bank International Limited ("MSBIL")

In 2017 the assets and liabilities of MSIP's French branch were transferred to a wholly owned subsidiary of MSIP, Morgan Stanley (France) S.A. ("MSFSA") which was authorised and is regulated by the Autorité de Contrôle Prudentiel et de Résolution ("ACPR"). The branch was subsequently dissolved.

As at 31 December 2017, the following entities within the MSI Group were authorised and regulated by the FCA:

- Morgan Stanley Investment Management Limited ("MSIM")
- Morgan Stanley Investment Management (ACD) Limited ("MSIM ACD")

Together these entities form the MSIM sub-consolidated group ("MSIM Group").

During 2017 the FCA approved a request to de-authorise, Morgan Stanley & Co. Limited ("MSCL"). This had no impact on the risk profile of the MSI Group.

The Pillar 3 disclosures of the MSI Group as at 31 December 2017 are prepared on the basis of the consolidated MSI Group. In addition, certain disclosures are provided for MSIP and MSIM Group.

Table 1: MSI Group Key Metrics	
	MSI Group
	\$MM
Common Equity Tier 1 Capital ("CET1")	18,215
Additional Tier 1 Capital ("AT1")	1,300
Tier 1 Capital	19,515
Tier 2 Capital	6,863
Total Own Funds	26,378
Risk Weighted Assets ("RWAs")	136,754
CET1 Ratio	13.3%
Tier 1 Capital Ratio	14.3%
Total Capital Ratio	19.3%
Leverage Exposure	454,529
Leverage Ratio	4.3%
Liquidity Coverage Ratio ("LCR")	172%

#### **Morgan Stanley Group**

The MSI Group's ultimate parent undertaking and controlling entity is Morgan Stanley, a Delaware corporation which, together with its consolidated subsidiaries, form the Morgan Stanley Group. Morgan Stanley is a "Financial Holding Company" as defined by the Bank Holding Company Act of 1956, as amended, and is subject to regulation and oversight of the Board of Governors of the Federal Reserve System.

The MSI Group is a wholly owned subgroup of the Morgan Stanley Group. Whilst the MSI Group is a material sub-group, the information disclosed in this document is not necessarily indicative of the Morgan Stanley Group as a whole, nor is it comprehensively representative of the Morgan Stanley Group's activity in any particular region. Investors, stakeholders, creditors or other users seeking information on capital adequacy, risk exposure and risk management policies should consult the public disclosures of Morgan Stanley Group.

The Morgan Stanley Group and its United States ("US") Banks became subject to US Basel III requirements from 1 January 2014. For more details, see the latest Morgan Stanley Group Pillar 3 disclosure at <a href="http://www.morganstanley.com/about-us-ir/pillar-us">http://www.morganstanley.com/about-us-ir/pillar-us</a>. The US LCR was effective from 30 June 2017. For more details see the latest Morgan Stanley Group US LCR disclosure at <a href="https://www.morganstanley.com/about-us-ir/lcr-disclosures-us">https://www.morganstanley.com/about-us-ir/lcr-disclosures-us</a>.

Morgan Stanley is listed on the New York Stock Exchange and is required, by the US Securities and Exchange Commission, to file public disclosures, including Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K. These disclosures can be found at http://www.morganstanley.com/pub/content/msdotcom/en/about-us-ir/sec-filings.

# 2. Regulatory Frameworks

The Basel Capital Accord provides a global regulatory framework for capital and liquidity. It is detailed in the "International Convergence of Capital Measurement and Capital Standards: A Revised Framework – Comprehensive Version" June 2006 ("Basel II"). This standard was revised in 2010 following the financial crisis through a number of reforms collectively known as Basel III, and, in particular, "Basel III: a Global regulatory framework for more resilient banks and banking systems" and "Revisions to the Basel II market risk framework – updated as of 31 December 2010".

The revised Basel Capital Accord has been implemented in the European Union ("EU") via the Capital Requirements Directive ("CRD") and the Capital Requirements Regulation ("CRR") (collectively known as "CRD IV"). These new requirements took effect from 1 January 2014.

The framework consists of three "pillars":

- Pillar 1 Minimum capital requirements: defines rules for the calculation of credit, market and operational risk;
- Pillar 2 Supervisory review process: including a requirement for firms to undertake an Internal Capital Adequacy Assessment ("ICAAP");
- Pillar 3 Market discipline: requires expanded disclosures to allow investors and other market participants to understand capital adequacy, particular risk exposures and risk management processes of individual firms.

This document represents the annual public Pillar 3 qualitative and quantitative disclosures required by CRD IV in relation to the MSI Group, as at 31 December 2017. The remuneration disclosure is published separately and can be found at <a href="https://www.morganstanley.com/about-us-ir/pillar-uk.html">https://www.morganstanley.com/about-us-ir/pillar-uk.html</a>.

#### Pillar 3 Disclosure

MSI Group Pillar 3 disclosures are prepared in accordance with the requirements of Part Eight of the CRR, in particular Articles 431 to 455. For certain disclosures, the requirements of Part Eight of the CRR are further detailed through European Banking Authority ("EBA") Regulatory Technical Standards ("RTS") and Implementing Technical Standards ("ITS") which introduced a number of common templates. Where applicable to MSI Group, these templates are used within these disclosures.

# Changes to MSI Group 2017 Pillar 3 Disclosures

The current disclosures are prepared taking into account the EBA Guidelines on disclosure requirements under Part Eight of the CRR which were published in December 2016 as well as the requirements of the EBA Guidelines on LCR disclosure relating to Article 435 of the CRR which were published in March 2017, both with the application date from 31 December 2017.

These guidelines introduce a number of new standardised templates to improve comparability of disclosures across the industry.

#### **Regulatory Development**

#### **European Financial Regulation Reform**

In November 2016, the European Commission published a comprehensive regulatory reform package which aims to continue the reforms that the EU implemented in the wake of the financial crisis. The proposals seek to amend the existing prudential regime (CRR and CRD IV), impacting the risk-based capital, liquidity, leverage and large exposures regimes (known as "CRD5" and "CRR2"), the Bank Recovery and Resolution Directive ("BRRD") and the Single Resolution Mechanism ("SRM"). They include amendments relating to revised standards that the Basel Committee had issued as part of its Basel III reform package prior to November 2016.

The key amendments to the CRR include a binding leverage ratio, new standards on the Total Loss-Absorbing Capacity ("TLAC"), also known as the Minimum Requirements for own funds and Eligible Liabilities ("MREL"), a binding net stable funding ratio ("NSFR"), a new standardised approach for the calculation of counterparty credit exposures for derivatives and new standardised and advanced calculation approaches for market risk requirements.

These legislative proposals continue to be discussed and negotiated, therefore it is not possible to anticipate their final content or time of application.

On 12 December 2017, the EU legislators adopted new legislation for securitisations. The framework for simple, transparent and standardised ("STS") regulation consolidates existing European legislation governing EU securitisations and introduces rules for issuing STS transactions. The regulation applies to all EU securitisations, regardless of who invests and whether the transaction is public or private. The Securitisation Prudential Regulation replaces the provisions of the CRR relating to the regulatory capital treatment of securitisation exposures held by EU credit institutions and investment firms. Both regulations will apply from 1 January 2019. Legacy securitisations outstanding on 1 January 2019 will be subject to existing CRR rules, for a transitional period of one year.

# **Finalising Basel III Reforms**

On 7 December 2017, the Basel Committee released the final part of its Basel III reform package (sometimes referred to as "Basel IV"). The key amendments provide updates to the standardised measures for calculating capital requirements for credit risk, credit valuation adjustment ("CVA") and operational risk and include a RWA floor, calculated as 72.5% of total standardised RWAs. These proposals will need to be transposed into national/EU law, however the timing of this is still uncertain at this stage.

#### Transitional arrangements for recognising the impact from the adoption of IFRS 9 on capital resources

On 1 January 2018, the MSI Group adopted the remaining provisions of IFRS 9 Financial Instruments Standard, including the provisions related to expected credit loss impairment. The impact of the implementation of the expected credit loss impairment approach on retained earnings as at 1 January 2018 is not material to the MSI Group. As a result, the impact to the MSI Group's Tier 1 capital as at 1 January 2018 is not material to the MSI Group.

The MSI Group is not making use of the transitional arrangements introduced by Regulation (EU) 2017/2395 relating to the effects of unexpected credit losses for mitigating the impact of the introduction of IFRS 9 on own funds and the treatment of certain large exposures.

From 1 January 2018, its regulatory capital calculations are performed on the basis of including the new expected credit loss provisions in full.

#### **UK Referendum**

On 23 June 2016, the United Kingdom ("UK") electorate voted to leave the EU. On 29 March 2017, the UK invoked Article 50 of the Lisbon Treaty, which triggered a two-year period, subject to extension (which would need the unanimous approval of the EU Member States), during which the UK government is expected to negotiate its withdrawal agreement with the EU. Absent any extension, the UK is expected to leave the EU in March 2019. The terms and conditions of the anticipated withdrawal from the EU, and which of the several alternative models of relationship that the UK might ultimately negotiate with the EU, remain uncertain. However, the UK government has stated that the UK will leave the EU single market and will seek a phased period of implementation for the new relationship that may cover the legal and regulatory framework applicable to financial institutions with significant operations in Europe, such as Morgan Stanley. Since any transition or implementation periods and the eventual successor arrangements require agreement of both the UK and the EU, there is a risk that these arrangements may not be agreed by March 2019.

It is difficult to predict the future of the UK's relationship with the EU, which uncertainty may increase the volatility in the global financial markets in the short- and medium-term. Potential effects of the UK exit from the EU and potential mitigation actions may vary considerably depending on the timing of withdrawal and the nature of any transition, implementation or successor arrangements. The MSI Group is taking steps to make changes to European operations in an effort to ensure that it can continue to provide cross-border banking and investment services in EU Member States without the need for separate regulatory authorisations in each member state. These changes must be approved by the relevant regulatory authorities and therefore it is currently unclear what the final post-Brexit structure of European operations will be. Depending on the extent to which the MSI Group may be required to make material changes to European operations beyond those currently planned, results of the MSI Group's operations and business prospects could be negatively affected.

# 3. Risk Management

The quantitative disclosures in this document are calculated with reference to regulatory methodologies set out in CRD IV and are not necessarily the primary exposure measures used by management.

The business strategy acts as a key driver for the MSI Group's business model, which in turn drives the risk strategy and the consequent risk profile of the MSI Group. Business strategy and risk assessment are considered and aligned as part of the annual strategic review and subsequent planning process, or more frequently if necessary.

#### **Risk Management Framework**

Risk of loss is an inevitable consequence of the MSI Group's businesses activities and effective risk management is vital to the MSI Group's success. The MSI Group Risk Management Framework ("Framework") is embedded and operating appropriately. The Framework includes a well-defined, comprehensive risk governance structure with appropriate risk management expertise, including processes for periodically assessing its efficacy. The key elements of the framework are outlined in Figure 1.

Risk Strategy & Appetite

Risk Culture

Control Framework

Processes

Control Framework

Risk Reporting & Measurement

Risk Governance

Figure 1: Risk Management Framework

#### **Risk Strategy and Appetite**

The MSI Group Risk Appetite articulates the aggregate level and type of risk that Morgan Stanley is willing to accept in order to execute its business strategy and is set to be within the resource capacity constraints.

The combination of qualitative risk appetite and tolerance statements and quantitative limits aims to ensure that Morgan Stanley's businesses are carried out in line with the risk appetite approved by the MSI Board, and to protect Morgan Stanley's reputation in both normal and stressed environments.

The MSI Group Risk Appetite is set by the MSI Board in conjunction with the EMEA Strategy and the MSI Group Capital & Liquidity Resource Adequacy Framework.

The cornerstone of the MSI Group's risk appetite is the execution of risk adjusted returns through prudent risk-taking that protects the MSI Group's capital base and franchise. The Firm acknowledges that certain risks, such as market and credit risks are inherent to its business and taken in order to generate appropriate positive risk adjusted returns for its shareholders. Operational, liquidity, valuation, leverage, earnings, reputational, conduct and model risks arise from the provision of services to clients and management of market and credit

risks. MSI Group does not have any appetite for transactions, business practices, clients or counterparties that could give rise to potentially significant franchise risk and jeopardise the Firm's reputation.

The Risk Appetite Framework defines a comprehensive approach to monitor, assess and report on the risk profiles of the MSI Group against the relevant risk limits and tolerances with regular reporting to the Risk Committees and escalation to the Boards, as appropriate. The reporting includes quantitative measurements and qualitative assessments that enable a comparison of the MSI Group's current risk profile against risk limits and risk tolerances where applicable.

Leverage risk is defined as the risk resulting from an institution's vulnerability due to leverage or contingent leverage that may require unintended corrective measures to its business plan, including distressed selling of assets which might result in losses or in valuation adjustments to its remaining assets. The MSI Group sets the leverage risk appetite to minimise the risk of excessive leverage under both normal and stressed conditions.

Valuation risk represents the possibility that a valuation estimate of a position would differ from the price in a close-out transaction due to uncertainty around the actual price that could be obtained. The MSI Group sets valuation risk appetite to ensure sufficient capital to cover positions subject to valuation uncertainty. Valuation models are subject to annual recertification to reaffirm that the model is operating as intended and to determine whether the existing validation activities are sufficient.

Model risk refers to the potential for adverse consequences from decisions based on incorrect or misused model outputs. Model risk can lead to financial loss, poor business and strategic decision making, or damage to a Firm's reputation. The MSI Group sets its model risk appetite to a level of model risk that after considering the MSI Group's model governance and control processes does not pose a material risk to the MSI Group's capital adequacy, reputation and regulatory standing. The MSI Group has policies and procedures in place to establish the standards, principles, governance processes and roles and responsibilities for sound model risk management for the MSI Group including but not limited to the independent validation of models to verify that the models are performing as expected and in line with their design objectives and ongoing performance monitoring such as backtesting, benchmarking, sensitivity analysis and outcomes analysis.

Conduct risk is defined as the risk of an adverse impact on clients, markets or the Firm's reputation as a consequence of the conduct of the Firm and/or its employees. The Conduct Risk Framework sets out a consistent and integrated approach for the identification, assessment and management of conduct risks, with oversight and escalation from the EMEA Conduct Risk Committee. Reputational risk, sometimes referred to as franchise risk, describes the potential risks associated with the way in which the MSI Group conducts its business and the perception of the MSI Group by external parties including our shareholders, clients, regulators and the public. The MSI Group has policies in place to identify, escalate and report any situation which may pose potential franchise risk, which is overseen by the EMEA Franchise Committee. The MSI Group has no risk appetite for conduct risk or reputational risk. It acknowledges, however, that conduct risk or reputational risk remains inherent in doing business and thus cannot be entirely eliminated.

Earnings at Risk is defined as the aim to deliver a sustainable business model that allows for a strategic presence in its core businesses/core countries, targeting stable earnings, accumulation of profits allowing for capital accretion and expense efficiency. The Risk Identification Framework defines the responsibilities for the identification and evaluation of risks that present themselves under normal and stressed conditions, including earnings at risk, strategic, and reputation risks.

The UK Group Large Transactions Approval Policy establishes the approval process that employees must adhere to, prior to booking or unwinding a Large Transaction, and supports EMEA Senior Management oversight of Large Transactions. Large Transactions are defined as transactions that are anticipated to utilise resources in excess of defined thresholds. Thresholds relate to Balance Sheet, RWAs and Leverage

Exposure. The Policy also establishes the monitoring process for Large Transaction requests, approvals, policy and/or threshold violations, transaction executions and approval expiries. For each trade, or related trades, that meet defined thresholds, EMEA Senior Management must approve prior to trade execution; they will assess approval based on factors including resource capacity on the entity, return on capital and return on leveraged assets.

#### **Risk Culture**

The MSI Group's risk management culture is rooted in five key principles: integrity, comprehensiveness, independence, accountability, and transparency. This culture is implemented through the Firm's Enterprise Risk Management Framework and multiple lines of defence.

The MSI Group has a risk culture that encourages open dialogue, effective challenge, escalation and reporting of risk to senior management, the MSI Risk Committee, the MSI Board and the MSI Group's regulators, as well as external disclosures of risk matters. Developing the MSI Group's risk culture is a continuous process, and builds upon the Firm's commitment to "doing the right thing" and its values that managing risk is each employee's responsibility.

The senior management practices of the MSI Group rewards and enables individuals to make appropriate risk decisions. The MSI Group's Risk Appetite Statement is embedded in the MSI Group's risk culture and linked to its short-term and long-term strategic, capital and financial plans, as well as compensation programs.

The EMEA Compliance Department is responsible for promoting a strong culture of compliance; defining an operating model and setting standards for compliance risk management; identifying, measuring, mitigating and reporting on compliance risks; maintaining a risk-based program for monitoring and testing compliance risk management by the risk owners across Morgan Stanley; providing management and staff with advice, guidance (including policies and, where appropriate, procedures) and training concerning the laws, regulations and policies associated with their responsibilities; and managing a firmwide compliance risk reporting framework. This is reinforced by the Code of Conduct which sets out the high standards of conduct and ethical behaviour expected from all employees.

The EMEA Compliance Department is also responsible for the design and development of an overall EMEA Conduct Risk Framework and for the execution of compliance's related responsibilities as set out in the EMEA Conduct Risk Management Policy. The UK Group Conduct Breaches Procedure and EMEA Speaking up and Reporting Concerns Policy set out the procedure for identifying, escalating, investigating and reporting material conduct incidents and reporting and handling escalated concerns.

Within EMEA Risk Management, each risk type has a procedure which sets out the notification levels and process for breaches to risk limits and thresholds, including escalation process and disciplinary action.

## **Risk Policies and Processes**

Morgan Stanley has a number of well-established policies and processes which establish the standards that govern the identification, assessment, monitoring, management and mitigation of the various types of risk involved in its business activities. Specific risk management policies have been implemented to address local business and regulatory requirements where appropriate. The policies are approved by the MSI Board and reviewed annually.

#### **Control Framework**

The MSI Group operates a control framework consistent with the "Three Lines of Defence" model. This structure creates clear delineation of responsibilities between the elements of risk control (1st Line), independent oversight and challenge (2nd Line) and audit assurance (3rd Line).

Business unit management has primary responsibility and accountability for managing all the business unit risks; this includes market, credit, operational, liquidity and funding risk. It implements policy and ensures compliance with applicable laws, rules and regulations, for every legal entity in the MSI Group and in all jurisdictions business is undertaken and booked.

2nd Line independent oversight and challenge is provided by:

The EMEA Risk Management Division is responsible for the independent identification, analysis, monitoring, reporting and escalation of all market, credit, operational and liquidity risk exposures arising from MSI Group business activities. The EMEA Chief Risk Officer oversees the EMEA Risk Management Division, and is a member of the MSI Board. The EMEA Chief Executive Officer chairs the EMEA Risk Committee. EMEA Risk Management is independent of both the Firm's business units and support and control functions and assists senior management and the Firm Risk Committee in monitoring and managing risk through a number of control processes.

The EMEA Compliance Department is managed by the EMEA Chief Compliance Officer, who ultimately reports to the Group Chief Legal Officer. The EMEA Compliance Department maintains an enterprise-wide, independent compliance risk management program, under which the EMEA Compliance Department is responsible for promoting a strong culture of compliance.

The EMEA Legal Department reports to the International General Counsel and provides legal and regulatory advice to protect the MSI Group's financial well-being and reputation, and to assist the businesses and operations of the MSI Group to understand legal risk and to comply with relevant financial services-related laws, regulations, Firm policies and standards.

The EMEA Internal Audit Department ("IAD") are the 3rd line of defence, and are an independent source of assurance to the MSI Board on financial, operational, and compliance controls. IAD reports to the MSI Audit Committee and is independent of the Business Units and Support and Control Functions and Risk Management. IAD independently verifies that the Risk Management Framework has been implemented as intended and is functioning effectively, including opining on the overall appropriateness and adequacy of the framework and the associated governance processes.

During 2017, there were no changes to the EMEA heads of Risk Management, Compliance, Legal and IAD. There are no planned material changes to the internal control framework or the control functions.

# **Limits & Tolerance Framework**

The MSI Group's risk appetite is translated into a comprehensive suite of limits and tolerance frameworks across four primary areas: market risk, credit risk, operational risk and liquidity risk. Other risks that are monitored regularly include leverage risk, valuation risk, conduct risk, reputational risk, model risk and earnings at risk. The MSI Group maintains risk limits and tolerances at various levels of the governance structure to support linkages between the MSI Group's overall risk appetite and more granular risk-taking decisions and activities. Using a suite of tools, most notably limits, these risks are tracked, monitored and reported to the appropriate executive risk committees, MSI Risk Committee and the MSI Board. All risk limits are reviewed periodically as appropriate and at least annually.

MSI Board-level risk limits address the most important aggregations of risk, primarily through stress limits. Stress tests set the boundary for risk-taking activities relative to the MSI Group's risk capacity and are used to set risk limits and tolerances. Figure 2 outlines the MSI Group's Risk Limit Framework for specific risk areas.

The Framework is comprised of market and credit risk limits including aggregate macroeconomic stress scenarios and proprietary tail risk metric limits, quantitative loss tolerances for each of the top operational

risks and liquidity sufficiency limits which are all set by the MSI Board. These are complemented by granular business line limits that are set by the in-business Risk senior management for day-to-day risk management.

**Figure 2: MSI Group Limit Framework** 

		MARKET RISK		CREDIT RISK		OPERATIONAL RISK		LIQUIDITY AND FUNDING RISK
RISK METRICS AND LIMITS	ma los: pro me Leg ("V lim Det	I Group-wide croeconomic scenario s limits and prietary tail risk tric gal entity Value at Risk (aR") and exposure its tailed risk exposure its are allocated by sk/products	:	MSI Group-wide macroeconomic scenario loss limits and proprietary tail risk metric MSI Group credit limits Single name, country and industry credit limits	•	Quantitative tolerances for each top operational risk and against an aggregate risk tolerance level	•	Liquidity and parent support limits Portfolio level liquidity and funding mix limits Granular business area specific limits on liquidity and funding

#### **Stress Testing**

Stress testing is one of the MSI Group's principal risk management tools, used to identify and assess the impact of severe stresses on its portfolios. It informs a number of processes and associated decisions. It complements other MSI Group risk metrics by providing a clear and flexible approach to assessing the MSI Group's resilience in the face of various scenarios over a range of severities, relevant to current market conditions and forward looking macroeconomic views. Most notably, stress testing is used for:

- Risk Management: Identifying areas of potential vulnerabilities in the portfolio, measuring portfolio
  losses and concentrations as a basis for senior management to review portfolio-level risk and
  determine risk mitigation actions and set exposure limits.
- Capital and Liquidity Planning: Informing the proposed stressed capital and liquidity forecasts through severe but plausible stress tests.
- Strategy Planning: Identifying business model vulnerabilities through Reverse Stress Testing and identifying the potential mitigating actions available as part of recovery planning.

The MSI Group Stress Testing Framework utilises a range of stress testing methodologies to identify and assess the MSI Groups resilience to different scenarios. These include Business Area or product single and multifactor stress tests, holistic forward looking stress tests supported by a macroeconomic narrative, extreme stress tests designed to test business model failure. Stress tests are performed in line with internal policy and external regulatory requirements with results reported to senior management on a frequent basis.

#### **Risk Reporting and Measurement**

The MSI Group has a suite of risk reporting across the main risk types highlighted above. The reporting includes quantitative measurements and qualitative assessments that enable a comparison of the MSI Group's risk profile against risk limits and risk tolerance statements. Reporting identifies matters for escalation and highlights emerging risks. Material risk issues are investigated and escalated where appropriate, as per the specific escalation procedures set down by the MSI Group. Escalation triggers have been articulated, with separate triggers for notification and further escalation including to the MSI Board where relevant. The EMEA Risk Management Division has constituted specific committees which provide senior management review of the risk reporting including stress testing and data quality information.

The risk reporting capabilities are supported by a well-controlled infrastructure, including Front Office risk systems and the MSI Group's Risk Management systems. Key risk data are subject to several control assessments, including: self-assessments, attestations, independent validation, reconciliation and internal audit reviews.

Various policies and procedures are in place to support the systematic and regular review of risk management strategies inclusive of the risk frameworks covering independent identification, analysis, monitoring, reporting, and escalation of risks across the risk types. Policies are subject to annual review and approval from the MSI Board.

#### **Risk Governance**

The MSI Group has a comprehensive risk management governance framework which includes Board approved policies and a defined senior management risk oversight and escalation process. The MSI Board has overall responsibility for the business and affairs of the MSI Group and is ultimately responsible for MSI Group risk management. The MSI Risk Committee and EMEA Risk Committee assist and provide guidance to the MSI Board on the oversight of MSI Group risk management activities.

The MSI Board (and its committees) determines the strategy for the MSI Group and provides oversight of the key risk and control issues that the execution of the strategy presents, or is likely to present. The MSI Board has delegated authority to its Audit, Risk, Remuneration and Nomination and Governance committees. Each of the committees is comprised solely of non-executive directors. The MSI Board, through the MSI Risk Committee, is regularly informed of the MSI Group's risk profile and relevant trends impacting its risk profile.

As at 31 December 2017, the MSI Board was comprised of 11 directors (6 executive directors and 5 non-executive directors). For further details on the MSI Board members including detailed biographies and other directorships refer to Appendix I.

Figure 3: MSI Board of Directors



- Ian Plenderleith resigned as Director and Chairman of the MSI Board and MSI Nomination and Governance Committee and Jonathan Bloomer was appointed Chair of the MSI Board and MSI Nomination & Governance Committee with effect from 31 March 2018.
- 2. In May 2018 the appointment of Clare Woodman as CEO MSI and Head of EMEA, subject to regulatory approval was announced.
- Noreen Whyte was appointed a director of the MSI Board in May 2018.

Day to day management of the MSI Group's business is delegated to executive management. The executive committees are the most senior MSI Group executive management committees and have responsibility for overseeing business performance, operations and risks identified in relation to the MSI Group. The management level committees support the executive committees in their oversight of specific areas of the MSI Group's activities.

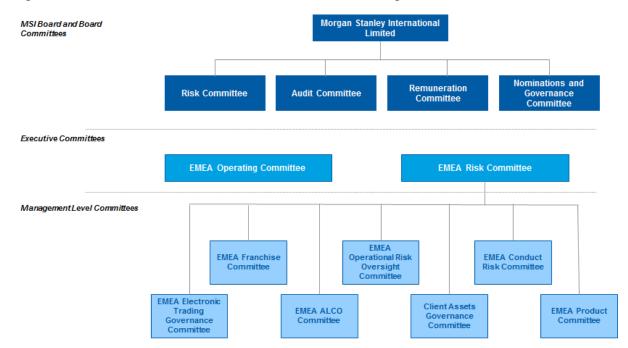


Figure 4: MSI Board Committee Structure and EMEA Executive Management Structure

#### **MSI Board Committees**

The MSI Risk Committee is appointed by the MSI Board to assist and provide guidance to the MSI Board on its oversight of the management of financial and non-financial risks, including: (i) risk strategy and appetite; (ii) risk identification and management; (iii) risk governance framework and policies; (iv) measurement of risk and risk tolerance levels and limits; (v) risk culture; and (vi) financial resource management and capital. The MSI Risk Committee met 13 times in 2017. The MSI Risk Committee review quarterly detailed risk reports on portfolio risk, market risk, credit risk, operational risk, liquidity risk, conduct risk, franchise risk, new products and model changes.

The Committee's focus during 2017 included:

- The MSI Group risk appetite framework and appetite statement;
- Enhancements to the MSI Group risk framework;
- Oversight of material event risks;
- Areas of regulatory focus and corresponding risk projects.

The MSI Audit Committee is appointed by the MSI Board to assist and provide guidance to the MSI Board in monitoring: (i) financial reporting; (ii) internal controls; (iii) legal and regulatory compliance; (iv) internal audit; and (v) external auditors.

The MSI Remuneration Committee is appointed by the MSI Board to (i) assist the Board in overseeing the implementation of remuneration policies and practices applicable to the MSI Group and (ii) oversee compliance by the MSI Group with applicable EU and UK remuneration rules, statements and guidance.

The **MSI Nomination and Governance Committee** is appointed by the MSI Board to assist and provide guidance in relation to (i) the recruitment of boards members; (ii) the assessment of the performance of the MSI Board and committees; and (iv) the corporate governance framework of the MSI Group.

#### **EMEA Executive Committees**

The **EMEA Operating Committee** is the forum for key decisions regarding matters affecting the operations and performance of the MSI Group and is responsible for the execution of strategy. The committee provides oversight of: (i) strategy; (ii) financial performance; (iii) risk and control; (iv) operational, legal and regulatory matters; and (v) human resources.

The **EMEA Risk Committee ("ERC")** assists in the oversight of the MSI Group's management of risk (including financial and non-financial risks) within the MSI Group. The committee provides oversight of: (i) risk strategy and appetite; (ii) risk identification and measurement; (iii) risk framework and policies; (iv) culture; and (v) financial resource management.

#### Management Level Committees (associated with Risk Governance)

The **EMEA Franchise Committee** assists in the oversight of potentially significant franchise risks including by reviewing relevant activities, transactions and clients, the franchise implications of situations that involve suitability or conflicts of interest concerns.

The **EMEA Asset and Liability Committee ("EMEA ALCO")** assists the ERC to oversee the capital adequacy, including the risk of excessive leverage, and liquidity risk management of the MSI Group.

The **EMEA Operational Risk Oversight** Committee provides guidance to the ERC in relation to the oversight of the management of operational risk of the MSI Group.

The Client Assets Governance Committee provides support for MSI Group's compliance with Client Assets Sourcebook ("CASS") requirements, and acts as the principal body for providing governance of CASS related issues, being responsible for co-ordinating the approach to managing Client Money and Client Assets.

The **EMEA Conduct Risk Committee** assists the ERC in the oversight and management of conduct risk within MSI Group.

The **EMEA Electronic Trading Governance Committee** reviews and challenges controls applicable to the electronic trading business undertaken by the MSI Group. Further, the Committee monitors the risk appetite and limits set by the ERC which is applicable to electronic trading, provides a forum to oversee the resolution of identified control issues in an appropriate and timely manner and escalates matters to the ERC as necessary.

The **EMEA Product Committee** assists the ERC in discharging its responsibilities for the oversight of approvals of New Products and the oversight of product governance. In particular, the EMEA Product Committee reviews and challenges Heightened Risk New Product Approval ("NPA") proposals and provides recommendation to the ERC.

#### **Adequacy of Risk Management Arrangements**

The Firm is satisfied that the risk management arrangements and systems, as described above, are appropriate given the strategy and risk profile of the MSI Group. These elements are reviewed at least annually and, where appropriate, updated to reflect best practice, evolving market conditions and changing regulatory requirements.

# 4. Basis of Preparation and Linkage to Financial Accounts

#### **Basis of Consolidation**

The MSI Group completes its prudential consolidation in compliance with CRR Part One, Title II Chapter 2, with all entities fully consolidated. The basis of consolidation for prudential purposes is the same as consolidation for accounting purposes. These disclosures are prepared for the MSI Group, rather than on an individual basis for each regulated entity, as permissible by CRDIV. The most significant subsidiary of the MSI Group is MSIP, the results of which are material to the MSI Group. The risk profile of MSIP is materially the same as the MSI Group and risk management policies and procedures are applied consistently. This disclosure comprehensively conveys the risk profile of the MSI Group and MSIP.

#### **Financial Statements**

This document does not constitute a set of financial statements and does not represent any form of forward looking statement. Audited [statutory] financial statements are prepared for all subsidiaries where there is a legal requirement to do so. This includes financial statements prepared in accordance with applicable UK company law; UK accounting requirements under Financial Reporting Standard 101 ("FRS 101") and for the MSIP Group in accordance with EU adopted International Financial Reporting Standards ("IFRS").

With effect from 2014, the MSI Group applied the UK Companies Act 2006 exemption from producing statutory group accounts. The exemption applies to a UK parent company where certain conditions are met. Specifically this includes where the UK parent and all of its subsidiaries are included in group accounts of a larger non-European Economic Area ("EEA") group prepared in accordance with accounting standards which are equivalent to EU-adopted IFRS. The MSI Group is consolidated into the accounts of Morgan Stanley, therefore does not publish statutory group accounts.

However, audited, consolidated non-statutory financial information has been produced for the MSI Group, as approved by the MSI Board and MSI Audit Committee, in accordance with the recognition and measurement principles of IFRS issued by the International Accounting Standards Board as adopted by the European Union. For further detail, refer to Appendix VII. All tables within the Pillar 3 disclosures for MSI Group which state their source to be financial statements are instead based on the audited, consolidated non-statutory financial information. MSIP financial statements can be found at <a href="https://www.morganstanley.com/about-us-ir/subsidiaries">https://www.morganstanley.com/about-us-ir/subsidiaries</a>.

# **Trading Book / Non-Trading Book**

In determining its overall capital requirement, the MSI Group classifies its exposures as either "Non-Trading Book" (otherwise referred to as Banking Book) or "Trading Book." Non-Trading Book positions, which may be accounted for at amortized cost, lower of cost or market, fair value or under the equity method, are subject to credit risk capital requirements as discussed in the Credit Risk section. Trading Book positions represent positions that the Firm holds as part of its market-making and underwriting businesses. These positions, which reflect assets or liabilities that are accounted for at fair value, along with certain Non-Trading Book positions which are subject to both credit risk and market risk are subject to market risk capital requirements, as discussed in the Market Risk section. Some Trading Book positions, such as derivatives, are also subject to counterparty credit risk capital requirements. Credit and market risks related to securitization exposures are discussed in the Securitization section. Trading Book and Non-Trading Book definitions used in this document refer to the regulatory view and may differ from the accounting definitions.

#### **Policies and Procedures**

The MSI Group has policies and procedures in place to assess the appropriateness of its Pillar 3 disclosure. One or more members of the management body are required to confirm that the disclosure has been prepared in

accordance with internal control processes agreed upon at the management body level. The MSI Group's Pillar 3 disclosures are not required to be, and have not been, audited by the MSI Group's auditor. The MSI Group's Pillar 3 disclosures are based on its current understanding of CRD IV and related legislation, which may be subject to change as the MSI Group receives additional clarification and implementation guidance from regulators relating to CRD IV and as the interpretation of the final rules evolves over time.

# **Consolidated Balance Sheet Under the Regulatory Scope of Consolidation**

Table 2 shows MSI Group's consolidated balance sheet as at 31 December 2017 on both an accounting consolidation and regulatory consolidation basis. The carrying values under the scope of regulatory consolidation are broken down into the stated risk frameworks and where they are not subject to capital requirements or subject to deduction from capital.

Table 2: Differences Between Accounting and Regulatory Scopes of Consolidation and the Mapping of Financial Statement Categories with Regulatory Risk Categories (EU LI1)<sup>1</sup>

Financial Statement Categories with Regulatory Risk Categories (EU LI1) <sup>1</sup> Carrying Value of Items								
						ems		
	Carrying Values as Reported in Published Financial Statements	Carrying Values Under Scope of Regulatory Consolidation	Credit Risk Framework	Counterparty Credit Risk Framework	Securitisation Framework	Market Risk Framework	Not Subject to Capital Requirements or Subject to Deduction from Capital	
	\$MM	\$MM	\$MM	\$MM	\$MM	\$MM	\$MM	
Assets carrying amount (per LI1)	466,590	466,590	84,127	263,748	483	351,217	12,695	
Cash and Short term deposits	26,325	26,325	14,172	-	-	-	12,153	
Cash collateral on securities borrowed	17,826	17,826	-	17,826	-	4,638	-	
Securities purchased under agreement to resell	70,855	70,855	-	70,855	-	67,854	-	
Trade receivables	69,531	69,531	66,685	2,846	-	-	-	
Other receivables	1,455	1,455	1,455	-	-	-	-	
Financial assets classified as held for trading	267,349	267,349	605	167,792	483	267,229	-	
Financial assets designated at fair value through profit and loss	11,496	11,496	-	4,429	-	11,496	=	
Available-for-sale investments assets	161	161	161	-	-	-	-	
Current tax assets	159	159	159	-	-	-	-	
Deferred tax assets	226	226	226	-	-	-	-	
Prepayments and accrued income	185	185	185	-	-	-	-	
Investments in subsidiary undertakings	-	400	400	-	-	-	-	
Property, plant and equipment	480	480	480	-	-	-	- 542	
Intangible Asset	542	542	(02.025)	(200.000)		(200 704)	542	
Liabilities carrying amount (per LI1)	(444,731)	(444,731)	(82,825)	(280,666)	-	(300,781)	(11,169)	
Bank loans and overdrafts	(148)	(148)	-	-	-	-	(148)	
Cash collateral on securities loaned	(17,487)	(17,487)	-	(17,487)	-	(8,341)	-	
Securities sold under agreement to repurchase	(51,303)	(51,303)	-	(51,303)	-	(51,303)	-	
Trade payables	(93,743)	(93,743)	(51,611)	(40,284)	-	-	(1,848)	
Subordinated loans	(7,389)	(7,389)	-	-	-	-	(7,389)	
Other payables	(31,781)	(31,781)	(31,215)	-	-	-	(566)	
Preference shares	-	-	-	-	-	-	-	
Financial liabilities classified held for trading	(219,366)	(219,366)	-	(170,432)	-	(218,838)	(2)	
Financial liabilities designated at fair value through profit and loss	(22,299)	(22,299)	-	(1,160)	-	(22,299)	-	
Provisions	(174)	(174)	-	-	-	-	(174)	
Current tax liabilities	(223)	(223)	-	-	-	-	(223)	
Deferred tax liabilities	(9)	(9)	-	-	-	-	(9)	
Accruals and Deferred Income	(802)	(802)	-	-	-	-	(802)	
Post-employment benefit obligations	(7)	(7)	1	-	-	-	(8)	

The total carrying values under the regulatory scope of consolidation do not equal the sum of the amounts shown in the remaining columns of this table as some of the
assets included in these items are subject to regulatory capital charges in more than just one risk framework.

Table 3 shows the consolidated regulatory balance sheet (Per EU LI1) reconciled to the Exposure at Default ("EAD") for items subject to the Credit Risk, Counterparty Credit Risk and Securitisation frameworks.

Table 3: Main Sources of Differences Between Regulatory Exposure Amounts and Carrying Values in Financial Statements (EU LI2)

	It		
	<b>Credit Risk</b>	Counterparty	Securitisation
	Framework	Credit Risk	Framework
		Framework	
	\$MM	\$MM	\$MM
Assets carrying amount (per LI1)	84,127	263,748	483
Liabilities carrying amount (per LI1)	(82,825)	(280,666)	-
Total net amount under the regulatory scope of consolidation	1,302	(16,918)	483
Off balance sheet amounts <sup>1</sup>	4,774	143,955	-
Difference due to netting rules <sup>2</sup>	116,715	39,635	(169)
Regulatory adjustments and credit risk mitigation <sup>3</sup>	(96,317)	(35,462)	191
Exposure amounts considered for regulatory purposes	26,474	131,210	505

- Under the credit risk framework, off balance amounts principally consist of undrawn credit facilities prior to the use of a conversion factor. Under the counterparty credit
  risk framework, the off balance sheet items consist of the collateral given against cash received for securities financing transactions ("SFTs").
- 2. Under IFRS, netting is only permitted if legal right of set-off exists and the cash flows are intended to be settled on a net basis. Under the PRA's regulatory rules, however, netting is applied for capital calculations if there is legal certainty and the positions are managed on a net collateralised basis.
- 3. Regulatory Adjustments & Credit Risk Mitigation reflects differences due to the regulatory adjustments (i.e. impact of IMM models) to transform the Balance Sheet value to an exposure and due to consideration of collateral and haircuts to arrive at the net exposure value.

# 5. Capital Management

The MSI Group views capital as an important source of financial strength. It actively manages and monitors its capital in line with established policies and procedures and in compliance with local regulatory requirements.

In line with Morgan Stanley Group capital management policies, the MSI Group actively manages its capital position based upon, among other things, business opportunities, risks, capital availability and rate of return together with, internal capital policies, regulatory requirements and rating agency guidelines. Therefore, in the future it may adjust its capital base in reaction to the changing needs of its businesses. The appropriate level of capital is determined at a legal entity level to safeguard that entity's ability to continue as a going concern and ensure that it meets all regulatory capital requirements. The key components of the capital management framework used by the MSI Group are set out in the UK Group Capital Management Policy and include a point in time risk and leverage based capital assessment, forward looking capital projections and stress testing.

The MSI Group conducts an ICAAP at least annually meeting its obligations under CRD IV.

The ICAAP is a key tool used to inform the MSI Board and the executive management on risk profile and capital adequacy. The MSI Group's ICAAP:

- Is designed to ensure the risks to which the MSI Group is exposed are appropriately capitalised and risk managed, including those risks that are either not captured, or not fully captured under Pillar 1.
- Uses stress testing to size a capital buffer aimed at ensuring the MSI Group will continue to operate above regulatory requirements under a range of severe but plausible stress scenarios.
- Assesses capital adequacy under normal and stressed operating environments over the three year capital planning horizon to ensure the MSI Group maintains a capital position in line with pre and post stress minimum levels.

The key elements of the ICAAP are embedded in the MSI Group's day-to-day management processes and decision making culture.

The PRA reviews the MSI Group ICAAP through its Supervisory Review Process ("SREP") and sets an Individual Capital Guidance ("ICG") which establishes the minimum level of regulatory capital for the MSI Group. In addition, the PRA sets a buffer if required in addition to the Basel Combined Buffers, which is available to support the MSI Group in a stressed market environment.

MSI Group capital is managed to ensure risk and leverage based requirements assessed through the ICAAP and SREP are met. Internal capital ratio minimums are set by the MSI Board to ensure the MSI Group and its subsidiaries have sufficient capital to meet their regulatory requirements at all times.

The capital managed by the MSI Group broadly includes share capital, AT1 capital instruments, subordinated debt and reserves. In order to maintain or adjust its capital structure, the MSI Group may pay dividends, return capital to its shareholders, issue new shares, or issue or repay subordinated debt or AT1.

There are no current or foreseen material practical or legal impediments to the prompt transfer of capital resources or repayment of liabilities among the MSI Group and its subsidiary undertakings.

#### 6. Capital Resources

The capital resources of the MSI Group and MSIP are set out in Table 4. All capital resources included in Tier 1 and 2 capital are of standard form and the main terms and conditions of the capital instruments are disclosed in Appendix II.

Table 4: Own funds		
	MSI Group <sup>1</sup>	MSIP <sup>2</sup>
	\$MM	\$MM
Capital instruments eligible as CET1 Capital	1,615	12,978
Retained Earnings <sup>3</sup>	11,564	2,811
Accumulated other comprehensive income	(503)	(157)
Other reserves	7,461	1,403
Adjustments to CET1 due to prudential filters	(1,138)	(1,114)
Other Intangible Assets	(542)	(2)
Internal Ratings Based ("IRB") Shortfall of credit risk adjustments to expected losses	(242)	(248)
CET1 Capital	18,215	15,671
Additional Tier 1 Capital	1,300	1,300
Tier 1 Capital	19,515	16,971
Capital instruments and subordinated loans eligible as T2 Capital	5,389	7,000
Instruments issued by subsidiaries that are given recognition in T2 Capital	1,342	-
Transitional adjustments due to additional recognition in T2 Capital of instruments issued by subsidiaries	132	-
Tier 2 Capital	6,863	7,000
Total Own Funds	26,378	23,971

- 1. MSI Group's Tier 1 Capital and Total Own Funds as at 30 September 2017 were \$19,572MM and \$26,379MM, respectively.
- 2. MSIP's Tier 1 Capital and Total Own Funds as at 30 September 2017 were \$17,048MM and \$24,048MM, respectively.
- 3. Retained Earnings includes independently reviewed interim profits net of any foreseeable charge or dividend.

The MSI Group relies on its policies, procedures and systems to determine the adequacy of valuation for financial assets and compliance with accounting standards. To comply with the requirements of CRD IV, additional valuation adjustments are applied to capital over and above those that are taken in order to comply with the accounting requirements. The regulatory adjustments are shown in the above table as prudential filters.

The capital resources of the MSI Group are based on audited, consolidated non-statutory financial information and MSIP's capital resources are based on audited financial statements. Table 5 provides a reconciliation of own funds to audited shareholders' equity.

		MSI G	roup <sup>1</sup>			MS	SIP	
		CET1	AT1	Tier 2		CET1	AT1	Tier 2
		Capital	Capital	Capital		Capital	Capital	Capita
	\$MM	\$MM	\$MM	\$MM	\$MM	\$MM	\$MM	\$MIV
Equity Instruments	2,915	1,615	1,300	-	13,765	12,465	1,300	
Share Premium	0	0	-	-	513	513	-	
Other reserves	7,461	7,461	-	-	1,402	1,402	-	
Other Comprehensive Income	(503)	(503)	-	-	(157)	(157)	-	
Retained Earnings	11,879	11,879	-	-	3,010	3,010	-	
Non-controlling interest	107	107	-	-	-	-	-	
Balance sheet total equity	21,859	20,559	1,300	-	18,534	17,234	1,300	
Add:								
Tier 2 instruments classified as other liabilities	7,389	-	-	7,389	7,000	-	-	7,00
Less:								
Qualifying own funds subordinated debt								
instruments not included in consolidated T2	(526)	-	-	(526)	-	-	-	
capital								
Part of interim or year-end profit not eligible	(315)	(315)	-	-	(199)	(199)	-	
Non-controlling interest (amount not allowed	()	(+)						
in consolidated CET1)	(107)	(107)	-	-	-	-	-	
Additional value adjustments (negative	(	( )			(, ,,,,,)	(,)		
amount)	(1,253)	(1,253)	-	-	(1,232)	(1,232)	-	
Negative amounts resulting from the	()	(= -=)			(0.40)	(2.20)		
calculation of expected loss amounts	(242)	(242)	-	-	(248)	(248)	-	
Gains or losses on liabilities valued at fair value								
resulting from changes in own credit standing	115	115	-	-	118	118	-	
Intangible assets (net of related tax liability)					4-1	4-1		
(negative amount)	(542)	(542)	-	-	(2)	(2)	-	
Total Own Funds (Transitional Rules)	26,378	18,215	1,300	6,863	23,971	15,671	1,300	7,00
Less:								
Qualifying own funds subordinated debt								
instruments issued by subsidiaries subject to	(132)	-	-	(132)	-	-	-	
phase out								
Total Own Funds (Fully Loaded Position)	26,246	18,215	1.300	6,731	23,971	15.671	1.300	7.00

For further detail, refer to Appendix VII.

# **Additional Capital Buffer Requirements**

The capital requirements have been supplemented with the following additional buffers to ensure the firm has sufficient capital to meet the minimum requirements.

# Countercyclical Capital Buffer ("CCyB")

CCyB was introduced to ensure that excess growth in specific countries is accounted for and increases the minimum capital ratios by between 0% and 2.5% and must be met with CET1 Capital. Table 6 provides details of the notable CCyB rates as at 31 December 2017, with Appendix V providing the full geographical distribution of credit exposures relevant for the calculation of CCyB.

Table 6: Countercyclical Capital Buffer (CCyB)								
	CCyB Rate	Effective	MSI Group Impact on	MSIP Impact on				
		From	Capital Ratio	Capital Ratio				
	%		%	%				
Hong Kong	1.25%	1-Jan 2017	0.03%	0.02%				
Sweden	2.00%	19-Mar 2017	0.01%	0.01%				
Total		•	0.04%	0.03%				

On 27 June 2017, the Financial Policy Committee ("FPC") increased the UK CCyB rate to 0.5%, with binding effect from 27 June 2018. Further to this on 28 November 2017, the FPC announced the UK CCyB rate will increase to 1.0% with binding effect from 28 November 2018. The rate will be reviewed on a quarterly basis. Were a rate of 0.5% in place at 31 December 2017, the indicative increase to the minimum capital ratio on MSI Group would have been 0.13%. Were a rate of 1.0% in place, the indicative increase would have been 0.27%.

# **Capital Conservation Buffer ("CCB")**

CCB requires banks to build up a capital buffer that can be utilised to absorb losses during periods of stress, whilst remaining compliant with minimum requirements and must be met with CET1 capital. The phased increase to supplement the minimum capital ratios was introduced from 1 January 2016 at 0.625% of RWAs, with further increments of 0.625% per year, until it reaches 2.5% of RWAs on 1 January 2019. As at 31 December 2017 the CCB was 1.25%.

## 7. Leverage

The Basel III framework introduced a simple, transparent, non-risk based leverage ratio to act as a supplementary measure to the risk-based capital requirements. The Basel Committee is of the view that a simple leverage ratio framework is critical and complementary to the risk-based capital framework and that a credible leverage ratio ensures broad and adequate capture of both the on and off-balance sheet sources of banks' leverage.

Although there is no current binding leverage requirement under CRD IV, the MSI Group manages its risk of excessive leverage through the application of Business Unit leverage exposure limits and leverage ratio early warning trigger levels. Limits are calibrated in line with legal entity capacity and ensure that leverage exposure remains within the MSI Board's risk appetite. MSI Group and MSIP's leverage exposures are calculated monthly and weekly, respectively, and reported to EMEA ALCO who monitor this, as well as maturity mismatches and Asset Encumbrance metrics, to ensure that any excessive risk is highlighted, assessed and mitigated appropriately.

The MSI Group leverage ratio has moved from 4.4% in September 2017 to 4.3% as of 31 December 2017, driven by an increase in the leverage exposure. The MSI Group's total exposures increased from September 2017 to 31 December 2017, principally driven by an increase in on-balance sheet exposures (excluding derivatives and SFTs).

The disclosures in the tables below have been made in accordance with the EU Delegated Act and are disclosed on a fully phased in basis. Table 7 provides a reconciliation between total assets in the financial statements and the leverage exposure measure.

Table 7: Reconciliation of Accounting Assets and Leverage Ratio Exposures					
	MSI Group \$MM	MSIP \$MM			
Total assets as per published financial statements <sup>1</sup>	466,590	459,449			
Adjustments for derivative financial instruments	(40,544)	(38,433)			
Adjustments for securities financing transactions	22,757	23,115			
Adjustment for off-balance sheet items (i.e. conversion to credit equivalent amounts of off-balance sheet exposures)	5,763	3,894			
(Adjustment for intragroup exposures excluded from the leverage ratio exposure measure in accordance with Article 429 (7) of Regulation (EU) No 575/2013)	-	(488)			
Other adjustments	(37)	1,061			
Total leverage ratio exposure	454,529	448,598			

See Appendix VII for MSI Group total assets.

Table 8 provides a detailed breakdown of the components of the leverage ratio exposure.

Table 8: Leverage Ratio Common Disclosure		
	MSI Group \$MM	MSIP \$MM
On-balance sheet exposures (excluding derivatives and SFTs)		
On-balance sheet items (excluding derivatives, SFTs and fiduciary assets, but including	208,864	197,672
collateral)	200,004	157,072
(Asset amounts deducted in determining Tier 1 capital)	(2,037)	(1,482)
Total on-balance sheet exposures (excluding derivatives, SFTs and fiduciary assets)	206,827	196,190
Derivative exposures		
Replacement cost associated with <i>all</i> derivatives transactions (i.e. net of eligible cash variation margin)	21,365	21,073
Add-on amounts for PFE associated with all derivatives transactions (mark-to-market method)	126,341	126,248
Gross-up for derivatives collateral provided where deducted from the balance sheet pursuant to the applicable accounting framework	633	633
(Deductions of receivables assets for cash variation margin provided in derivatives transactions)	(23,229)	(22,885)
(Exempted CCP leg of client-cleared trade exposures)	(11,248)	(11,248)
Adjusted effective notional amount of written credit derivatives	216,626	216,626
(Adjusted effective notional offsets and add-on deductions for written credit derivatives)	(202,805)	(202,271)
Total derivative exposures	127,683	128,176
Securities financing transaction exposures		
Gross SFT assets (with no recognition of netting), after adjusting for sales accounting transactions	172,102	178,315
(Netted amounts of cash payables and cash receivables of gross SFT assets)	(70,078)	(69,791)
Counterparty credit risk exposure for SFT assets	12,232	12,302
Total securities financing transaction exposures	114,256	120,826
Other off-balance sheet exposures		
Off-balance sheet exposures at gross notional amount	14,526	10,695
(Adjustments for conversion to credit equivalent amounts)	(8,763)	(6,801)
Total other off-balance sheet exposures	5,763	3,894
Exempted exposures in accordance with CRR Article 429 (7) and (14) (on and off balance sheet)	·	·
(Intragroup exposures (solo basis) exempted in accordance with Article 429(7) and (14) of Regulation (EU) No 575/2013 (on and off balance sheet))	-	(488)
Capital and total exposure measure		
Tier 1 capital	19,515	16,971
Total leverage ratio exposures	454,529	448,598
Leverage ratio	4.3%	3.8%
	Fully	Fully
Choice on transitional arrangements for the definition of the capital measure	Phased-In	Phased-In

Table 9 provides a breakdown of the on-balance sheet exposures into trading and non-trading book exposures.

Table 9: Split of On-Balance Sheet Exposures (Excluding Derivatives, SFTs and Exempted Exposures)						
	MSI Group	MSIP				
	\$MM	\$MM				
Total on-balance sheet exposures (excluding derivatives, SFTs, and exempted exposures), of which:	185,005	174,158				
Trading Book exposures	153,181	144,894				
Non-Trading Book exposures, of which:	31,824	29,264				
Exposures treated as sovereigns	10,560	9,633				
Institutions	15,971	14,585				
Corporate	4,073	4,502				
Exposures in default	86	65				
Other exposures(e.g. equity, securitisations, and other non-credit obligation assets)	1,134	479				

# 8. Capital Requirements and RWAs

Table 10 and Table 11 summarise RWAs and minimum capital requirements ("MCR") for MSI Group and MSIP by risk type. MSI Group and MSIP calculate Pillar 1 capital requirements as 8% of RWAs in accordance with CRD IV.

Table 10: Overview of RWAs – MSI Group (EU OV1-A)			
	RWAs	RWAs	MCR
	Q4'17	Q3'17	Q4'17
	\$MM	\$MM	\$MM
Credit risk (excluding Counterparty Credit Risk) ("CCR")	10,694	10,023	855
Of which standardised approach	4,297	3,773	344
Of which foundation IRB (FIRB) approach	3,905	4,197	312
Of which advanced IRB (AIRB) approach	-	-	-
Of which equity IRB under the simple risk-weighted approach or the IMA	2,492	2,053	199
CCR	52,027	48,880	4,162
Of which mark to market	11,865	11,739	949
Of which original exposure	-	-	-
Of which standardised approach <sup>1</sup>	1,296	611	104
Of which internal model method ("IMM")	15,437	15,594	1,235
Of which Financial collateral comprehensive method (for SFTs)	11,888	10,734	951
Of which risk exposure amount for contributions to the default fund of a CCP	819	914	65
Of which CVA	10,722	9,288	858
Settlement risk	111	26	9
Securitisation exposures in banking book (after cap)	287	261	23
Of which IRB	196	200	16
Of which IRB supervisory formula approach (SFA)	-	-	-
Of which internal assessment approach (IAA)	-	-	-
Of which standardised approach	91	61	7
Market risk	57,252	56,501	4,580
Of which standardised approach	14,000	14,344	1,120
Of which IMA	43,252	42,157	3,460
Large exposures	6,366	7,014	509
Operational risk	10,017	10,351	801
Of which basic indicator approach	10,017	10,351	801
Of which standardised approach	-	-	-
Of which advanced measurement approach	-	-	-
Amounts below the thresholds for deduction (subject to 250% risk weight)	-	-	-
Floor adjustment	-	-	-
Total	136,754	133,056	10,939
1 Represents derivatives trades related settlement risk			

<sup>1.</sup> Represents derivatives trades related settlement risk.

132,723

126,301

10,618

Table 11: Overview of RWAs – MSIP (EU OV1-A)			
	RWAs	RWAs	MCR
	Q4'17	Q3'17	Q4'17
	\$MM	\$MM	\$MM
Credit risk (excluding CCR)	9,549	9,150	764
Of which standardised approach	3,126	2,801	250
Of which foundation IRB (FIRB) approach	2,769	3,121	222
Of which advanced IRB (AIRB) approach	-	-	-
Of which equity IRB under the simple risk-weighted approach or the IMA	3,654	3,228	292
CCR	51,627	48,114	4,130
Of which mark to market	11,533	11,378	923
Of which original exposure	-	-	-
Of which standardised approach <sup>1</sup>	1,424	585	114
Of which internal model method (IMM)	15,208	15,270	1,217
Of which Financial collateral comprehensive method (for SFTs)	12,202	10,997	976
Of which risk exposure amount for contributions to the default fund of a CCP	773	846	62
Of which CVA	10,487	9,038	839
Settlement risk	111	28	9
Securitisation exposures in banking book (after cap)	287	260	23
Of which IRB	196	200	16
Of which IRB supervisory formula approach (SFA)	-	-	-
Of which internal assessment approach (IAA)	-	-	-
Of which standardised approach	91	60	7
Market risk	54,042	53,293	4,323
Of which standardised approach	10,790	11,136	863
Of which IMA	43,252	42,157	3,460
Large exposures	9,397	8,734	752
Operational risk	7,710	6,722	617
Of which basic indicator approach	7,710	6,722	617
Of which standardised approach	-	-	-
Of which advanced measurement approach	-	-	-
Amounts below the thresholds for deduction (subject to 250% risk weight)	-	-	-
Floor adjustment	-	-	-

**Total**1. Represents derivatives trades related settlement risk.

The MSI Group enhances its risk management strategy and incorporates improvements in modelling techniques while maintaining compliance with the regulatory requirements. For further discussion on credit risk, counterparty credit risk, market risk and operational risk, please refer to the specific sections within this document.

# **RWA flow statements**

Table 12 summarises the key drivers of RWAs and MCR for MSI Groups' credit risk exposures under the IRB approach.

Table 12: RWA Flow Statements of Credit Risk Exposures under the IRB Approach (EU CR8)					
	RWAs \$MM	MCR \$MM			
RWAs at the end of the previous reporting period <sup>1</sup>	4,197	336			
Asset size	(219)	(18)			
Asset quality	(73)	(6)			
Model updates	-	-			
Methodology and policy	-	-			
Acquisitions and disposals	-	-			
Foreign exchange movements	-	-			
Other	-	-			
RWAs at the end of the reporting period	3,905	312			

Previous reporting period was Q3'17.

Table 13 summarises the key drivers of RWAs and MCR for MSI Groups' counterparty credit risk exposures under the IMM Model.

Table 13: RWA Flow Statements of CCR Exposures under the IMM (EU CCR7)

RWAs at the end of the reporting period	15,437	1,235
Other	-	-
Foreign exchange movements	-	-
Acquisitions and disposals	-	-
Methodology and policy (IMM only)	-	-
Model updates (IMM only)	(235)	(19)
Credit quality of counterparties	(225)	(18)
Asset size	303	24
RWAs at the end of the previous reporting period	15,594	1,248
	\$MM	\$MM
	RWAs	MCR

Previous reporting period was Q3'17.

The RWAs were relatively stable during the quarter with immaterial movements mainly caused by underlying portfolio changes and internal model enhancement.

Table 14 summarises the key drivers of RWAs MCR for MSI Groups' market risk exposures under the Internal Model Approach ("IMA") Model.

Table 14: RWA Flow Statements of Market Risk Exposures under the IMA (EU MR2-B)

	VAR	Stressed VAR	IRC	Comprehensive Risk Measure	Other	RWAs	MCR
	\$MM	\$MM	\$MM	\$MM	\$MM	\$MM	\$MM
RWAs at previous quarter end <sup>1</sup>	4,965	10,400	6,685	19	20,000	42,069	3,366
Regulatory adjustment <sup>2</sup>	720	4,208	(119)	-	-	4,809	385
RWAs at end of day previous							
quarter end <sup>3</sup>	5,685	14,608	6,566	19	20,000	46,879	3,750
Movement in risk levels	(829)	(1,264)	(1,294)	(1)	(2,765)	(6,153)	(492)
Model updates/changes	(389)	105	(306)	-	-	(591)	(47)
Methodology and policy	-	-	-	-	-	-	-
Acquisitions and disposals	-	-	-	-	-	-	-
Foreign exchange movements	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-
RWAs at end of day current							
quarter end <sup>3</sup>	4,466	13,449	4,966	19	17,235	40,134	3,211
Regulatory adjustment <sup>2</sup>	670	1,106	1,341	1	-	3,118	249
RWAs at end of reporting period	5,136	14,554	6,307	20	17,235	43,252	3,460

Previous reporting period was Q3'17.

Over the quarter to 31 December 2017, the primary driver has been changes in risk levels. The main driver has been the other category (which consists mainly of risks not in VaR), due to reductions in risk levels related to higher-order equity risks and funding valuation adjustment-related risks. The VaR and Stressed VaR ("SVaR") RWAs have reduced based on the end-of-day comparisons, reflecting risk reductions in the equities asset class from higher protection to downside market movements. However, due to the nature of the regulatory capital calculations which require 60-day averaging, the SVaR RWAs have increased over the quarter from higher interest rate risk in the fourth quarter, as compared to the third quarter. The Incremental Risk Charge ("IRC") also reduced due to lower exposure to corporate positions.

The RWA changes due to model updates are less material and reflective of low impact parameter updates (e.g. time series updates).

<sup>2.</sup> Regulatory adjustment accounts for the difference between the RWA calculated based on the end-of-day position, compared with the RWA calculated based on the 60-day average position in the case of VaR/Stressed VaR, and 12-week average position in the case of IRC.

<sup>3.</sup> The end of day measures are inclusive of the multiplication factors mc and ms, per Article 366 of the CRR, for the VaR and SVaR respectively.

#### 9. Credit Risk

#### 9.1 Credit and Counterparty Credit Risk Management

Credit and counterparty risk refers to the risk of loss arising when a borrower, counterparty or issuer does not meet its financial obligations. The MSI Group is exposed to Credit Risk from the extension of credit to clients through lending commitments, derivatives, securities financing and prime brokerage activities. The MSI Group primarily incurs credit risk exposure to Corporates, Institutions, Central Governments and Central Banks through its Institutional Securities business segment.

The MSI Group Credit Risk Management department is an independent risk oversight group headed by the Chief Credit Officer who reports directly to the EMEA Chief Risk Officer. The MSI Group Credit Risk Management is responsible for managing and overseeing the credit risk profile of the UK Group, including the design and oversight of the credit risk and limits framework covering the independent identification, analysis, monitoring, reporting and escalation of credit risks. In order to help protect the MSI Group from losses resulting from its business activities, Credit Risk Management establishes practices to evaluate, monitor and control credit risk exposure at the transaction, obligor and portfolio levels. Credit Risk Management analyses material lending and derivative transactions and ensures that the creditworthiness of the MSI Group's counterparties and borrowers is reviewed regularly and that credit exposure is actively monitored and managed.

#### **Credit Risk Policies and Procedures**

The Credit Risk Management policies and procedures of the MSI Group aim to ensure transparency of material credit risks, compliance with established limits, requisite approvals for material extensions of credit, and escalation of risk concentrations to appropriate senior management.

#### **Credit Risk Limits**

Credit risk exposure is managed under limits delegated by the MSI Board. The MSI Group Credit Limits Framework is one of the primary tools used to evaluate and manage credit risk levels. The Credit Limits Framework includes single name limits and portfolio concentration limits by country, industry and product type (counterparty, lending, settlement and treasury). The MSI Group credit limit restricts potential credit exposure to any one borrower or counterparty and to groups of connected borrowers or counterparties. The limits are assigned based on multiple factors including the size of counterparty, the counterparty's Probability of Default ("PD"), the perceived correlation between the credit exposure and the counterparty's credit quality, and the Loss-Given Default ("LGD") and tenor profile of the specific credit exposure taking into account the effect of enforceable netting and eligible collateral.

# **Credit Evaluation**

The MSI Group is exposed to single-name credit risk and country risk, requiring credit analysis of specific counterparties, both initially and on an ongoing basis. Credit risk management takes place at the transaction, counterparty and portfolio levels. For lending transactions, the MSI Group evaluates the relative position of its particular exposure in the borrower's capital structure and relative recovery prospects. The MSI Group also considers collateral arrangements and other structural elements of the particular transaction.

#### 9.2 Counterparty and Credit Risk Capital Requirements

The regulatory framework distinguishes between Credit Risk and Counterparty Credit Risk capital requirements. The Credit Risk capital component reflects the capital requirements attributable to the risk of loss arising from a borrower failing to meet its obligations and relates to investments made in the Non-Trading Book such as loans and other securities that the MSI Group holds until maturity with no intention to trade. Counterparty credit exposure arises from the risk that counterparties are unable to meet their payment

obligations under contracts for traded products including Over-the-Counter ("OTC") derivatives, securities financing transactions and margin lending. The distinction between Credit Risk and Counterparty Credit Risk exposures is due to the bilateral nature of the risk for Counterparty Credit Risk exposures, see Section 10. Counterparty Credit Risk.

RWAs are determined using the IRB approach which reflects the MSI Group's internal estimate of a borrower or counterparty's creditworthiness.

For exposures not covered by the IRB approach, the standardised approach is applied, typically for certain business units which are non-significant and certain exposure classes or types of exposures which are immaterial in terms of size and perceived risk profile.

The standardised approach assigns fixed risk weights to the following exposures classes in accordance with the CRR: Central Governments and Central Banks, Corporates, Institutions, Multilateral Development Banks, International Organisations, Regional Governments and Local Authorities.

The exception to this is exposures to European Central Governments denominated in local currency which are risk-weighted at 0%.

External credit risk assessments are used within the Group as part of the determination of risk weightings for exposure classes. We have nominated three External Credit Assessment Institutions ("ECAI") for this purpose – Moody's Investor Service ("Moody's"), Standard and Poor's rating agency ("S&P") and Fitch Ratings ("Fitch"). When calculating the risk-weighted value of an exposure using ECAI risk assessments, the ratings are pulled from a central database using client identifiers. The systems then map ECAI ratings to credit quality steps ("CQS") to derive the relevant risk weight. All other exposure classes are assigned risk weightings as prescribed in CRR.

<b>Table 15: External Credit Assessments</b>	Institutions	("ECAI")
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<b>Credit Quality Step</b>	Moody's	Standard & Poor's/Fitch
1	Aaa to Aa3	AAA to AA-
2	A1 to A3	A+ to A1
3	Baa1 to Baa3	BBB+ to BBB-
4	Ba1 to Ba3	BB+ to BB-
5	B1 to B3	B+ to B-
6	Caa1 and below	CCC+ and below

Table 16 shows the Credit Risk and Counterparty Credit Risk for MSI Group as at 31 December 2017, for each exposure class as per the classification set out in the CRR.

Table 16: Credit and Counterparty Credit Risk Summary 1,4	2		
	EAD	RWAs	MCR
	\$MM	\$MM	\$MM
IRB			
Central Governments or Central Banks	24,047	1,815	145
Corporates	54,094	28,103	2,248
Equity	841	2,492	199
Institutions	53,393	11,755	940
Securitisation	219	196	16
Total (IRB)	132,594	44,361	3,549
Standardised	-	-	-
Central Governments Or Central Banks	326	103	11
Corporates	3,515	4,141	376
High Risk	=	-	-
Institutions	19,506	1,511	121
Multilateral Development Banks	2	0	0
International Organisations	3	-	-
Regional Government Or Local Authorities	1	0	0
Securitisation	286	91	7
Other Items	1,043	1,258	101
Total (Standardised)	24,682	7,105	616
Total (CCP Default Fund) <sup>3</sup>	912	819	65
Total	158,188	52,284	4,230

Exposure classes where MSI Group has no exposure are not shown in the table.

## 9.3 Internal Ratings Based Approach

The MSI Group has permission to use the IRB approach for the calculation of credit and counterparty credit risk capital requirements. The permission covers all material portfolios and is applicable to exposures to Central Governments, Central Banks, Institutions and Corporates.

The MSI Group leverages the IRB process for internal risk management processes. Internal ratings are used in the sizing of credit limits and also influence the terms under which credit exposures are undertaken, including collateral and documentation.

## **Rating Process**

Credit Risk Management expresses the creditworthiness of each counterparty by assigning it a rating. The rating scale includes 18 segments on a scale from AAA to D, with a single category for defaulted counterparties.

Each rating is linked to an exposure limit. To monitor the credit risk of the portfolio, the MSI Group uses quantitative models to estimate various risk parameters related to each counterparty and/or facility. Credit Risk Management rates counterparties based on analysis of qualitative and quantitative factors relevant to credit standing in that industry or sector. The rating process typically includes analysis of the counterparty's financial statements, evaluation of its market position, strategy, management, legal and environmental issues, and consideration of industry dynamics affecting its performance. Credit Risk Management also consider security prices and other financial data reflecting a market view of the counterparty, and carry out due diligence with the counterparty's management, as needed.

Credit Risk Management assigns counterparty ratings at the highest level in the counterparty's corporate structure. A subsidiary's rating may vary based on a variety of factors considered and documented during the rating process.

MSI Group wholesale exposures fall into the following exposure classes: Central Governments or Central Banks, Institutions and Corporates. The Central Governments or Central Banks exposure class mainly includes

Exposures mainly arise from MSIP.

<sup>3.</sup> CCP Default Fund requirements have been included in the table to reflect the full population of Credit and Counterparty Credit Risk. CCP Default Fund exposures are shown CCR8.

traded products, lending and treasury exposures to Sovereign Governments, Central Banks, Government Guaranteed Entities, Government Guaranteed Banks and Supranationals.

The Sovereign ratings process, used for Central Governments or Central Banks, applies a methodology based on quantitative and qualitative factors which incorporate consideration of the financial systems, legal and regulatory risks (e.g. macro-prudential supervision) as well as the reputational risk of extending credit in the country. The methodology is supplemented by expert judgment to reflect Credit Risk Management's assessment of the future ability and willingness of sovereign governments to service debt obligations in full and on time, if material risk factors are not adequately represented in the methodology.

The Institutions exposure class mainly includes traded products, lending and treasury exposures to banks. The ratings process for Institutions applies a methodology that is based on a range of risk factors including capital adequacy, asset quality, earnings, funding and management. The regulatory environment and implicit government support is incorporated where applicable and permitted. The approach to rating Institutions can vary depending on whether the bank is domiciled in a developed or emerging market.

The Corporates exposure class mainly includes traded products and lending to wholesale counterparties not covered under the Central Governments or Central Banks and Institutions exposure classes. The ratings process for Corporates has different methodologies depending on the industry to which the counterparty belongs. The general characteristics employed include quantitative factors such as leverage, interest coverage, cash flow and company size, as well as qualitative factors such as industry and business risk, market position, liquidity/funding, event risk, management and corporate governance. Tailored methodologies are applied for certain specialist sectors such as broker-dealers, insurance and funds.

Ratings for Special Purpose Vehicles ("SPV") reflect Credit Risk Management's assessment of the risk that the SPV will default. The rating therefore incorporates the MSI Group relative position in the counterparty's payment structure as well as the default risk associated with the underlying assets. Ratings are often "tranche specific" (e.g. the AAA rated senior tranche or the BBB subordinated tranche).

#### **Rating Philosophy and PD Estimation**

The MSI Group internal rating process and philosophy are similar to S&P's. For credit risk capital and risk management purposes, Credit Risk Management maps internal ratings to S&P ratings and then applies S&P's extensive default history to determine the PD. Minor adjustments are made for specific items, such as preserving the monotonic relationship among rating grade PDs and maintaining the regulatory floor of 0.03% for counterparties which are not Central Governments or Central Banks.

The MSI Group follows the regulatory guidance and takes different approaches to estimate PDs for its low default portfolio ("LDP") and its non-LDP.

The MSI Group calculates probability of default for the non-LDP based on the long-run average of S&P's annual corporate default rates from 1981-2014. The incorporation of this data period ensures that the PD is representative of a long-run average default rate and therefore appropriate. The methodology employs an update rule, to determine the appropriateness of an update in the PDs based on annual data becoming available.

Portfolios where the MSI Group has experienced less than 20 defaults historically, and where no external default data is available for the reliable estimation of PDs are classified as low default. The methodology for deriving PDs for the low default portfolio, is based on a Bayesian approach, and derives a single scaling factor that is used to scale the non-LDP PD into an appropriate and conservative PD for the low default portfolio. This scaling factor is floored at 100%.

The MSI Group confirms through an internal validation process that the PD values it uses are prudent when compared to actual Morgan Stanley Group default experience. The MSI Group uses supervisory-prescribed factors to calculate LGDs and conversion factors.

Table 17 summarises the IRB Geographical Breakdown of Exposure Weighted Average PD.

			1	1
Table 17, IDD	<b>Geographical Breakdov</b>	of F	Maiabaad Augusta DD1	, Z
Table 17: IKB	Geographical Breakdov	NN OT EXPOSURE	weighted Average PD	

	Americas	<b>EMEA</b>	Asia	Other
Central Governments or Central Banks	0.06%	0.05%	0.04%	0.02%
Corporates	1.12%	0.40%	1.50%	4.80%
Institutions	0.06%	0.20%	0.15%	0.00%

The table does not include the IRB Equities and IRB Securitisation exposure classes, as these exposures are treated through the IRB simple risk weight approach (CRR
Article 155.2), and the IRB ratings based method (CRR Article 261) respectively.

# **Control Mechanisms for the Rating System**

The rating system and its components are validated on a periodic basis. The model validation process is independent of the internal models' development, implementation and operation. The validation process includes tests of the model's sensitivity to key inputs and assumptions and evaluation of conceptual soundness. Model governance committees are in place to provide appropriate technical and business review and oversight. IAD serves as the third line of defense with regards to the internal rating model development process and practices, through independent review it performs periodically.

The performance of the rating system is assessed on a quarterly basis. This includes a review of key performance measures including comparison of internal ratings versus agency ratings, ratings of defaulted parties, transitions across grades, and analysis of expert overrides.

# **Non-Trading Book Equity Exposure and Specialised Lending**

The MSI Group applies the IRB simple risk weight approach for equity exposures falling outside of the Trading Book. The majority of the equity positions are held as hedges for employee long-term compensation schemes. A Specialized Lending Slotting methodology is used in capital calculation for loans secured by Income Producing Real Estate ("IPRE"). Table 18 shows the MSI Group's specialised lending and equity exposures using the simple risk-weighted approach.

Table 18: IR	B (Specialised Lending and Equ	ities) (EU CR1	10)				
		<u>Specialised</u>	l Lending				
	Remaining	On-	Off-Balance	Risk	Exposure	<b>RWAs</b>	Expected
	Maturity	Balance	Sheet	Weight	Amount		Losses
		Sheet	Amount				
Regulatory		Amount					
Categories <sup>1</sup>		\$MM	\$MM	%	\$MM	\$MM	\$MM
Category 1	Less than 2.5 years	-	-	50%	-	-	-
Category 1	Equal to or more than 2.5 years	-	-	70%	=	-	-
Category 2	Less than 2.5 years	-	-	70%	-	-	-
Category 2	Equal to or more than 2.5 years	68	-	90%	68	61	1
Category 3	Less than 2.5 years	-	-	115%	-	-	-
Category 5	Equal to or more than 2.5 years	-	-	115%	-	-	-
Category 4	Less than 2.5 years	-	-	250%	=	-	-
	Equal to or more than 2.5 years	-	-	250%	-	-	-
_	Less than 2.5 years	-	-	-	-	-	-
Category 5	Equal to or more than 2.5 years	-	-	-	-	-	-
	Less than 2.5 years	-	-	-	-	-	-
Total	Equal to or more than 2.5 years	68	-	-	68	61	1
	<u>Equities U</u>	nder the Simple	e Risk-Weight Ap	proach			
		On-Balance	Off-Balance	Risk	Exposure	<b>RWAS</b>	Expected
		Sheet	Sheet	Weight	Amount		Losses
		Amount	Amount				
	Categories	\$MM	\$MM	%	\$MM	\$MM	\$MM
Private equity	exposures	-	-	190%	-	-	-
Exchange-trad	ed equity exposures	354	420	290%	774	2,243	6
Other equity e	xposures	67	-	370%	67	248	2
Total	·	421	420	-	841	2,491	8

Categories as defined by Risk Weight banding prescribed in the CRR.

<sup>2.</sup> Supranational exposures have been allocated to the region of the headquarters of the institution.

Table 19 shows realised and unrealised gains and losses for equity exposures falling outside of the Trading Book.

Table 19: Non-Trading Book Equity Gains and Losses					
	\$MM				
Cumulative Amount of realised gains or (losses) resulting from sales and liquidations in the period	(37)				
Total unrealised gains or (losses)	24				
Total latent revaluation gains or (losses)	-				
Amount of unrealised gains or (losses) or latent revaluation gains or losses included in Tier 1 Capital	-				

#### **Estimates Versus Actual Probability of Default and Losses**

An analysis of estimated versus actual default rates by exposure class is shown in Table 20. The estimated PDs are expressed as the average PD calculated on the number of obligors covered in each exposure class. These estimated PDs are a prediction, as at the end of prior year, of the 1-year forward looking default rate on a through-the-cycle basis, and are compared with the actual (realised) defaults in the current year. The comparatively low percentage of actual defaults reflects the benign credit environment.

Table 20: Estimated Versus Actual PD by Exposure Class <sup>1</sup>							
	Estimate At	<b>Actual At</b>	<b>Estimate At</b>	<b>Actual At</b>			
	2015	2016	2016	2017			
Central Governments or Central Banks	0.38%	-	0.32%	-			
Corporates	2.72%	0.01%	3.32%	0.06%			
Institutions	1.20%	0.24%	1.05%	0.08%			

The averaging approach for estimated PDs facilitates a meaningful comparison with actual defaults. The weighted average PDs by exposure class, are more reflective of the portfolio quality.

An analysis of credit risk adjustments and expected loss by IRB exposure class is shown in Table 21 including additional information on charges to the profit and loss for loss events that occurred during the respective periods. The credit risk adjustments balances reflect impaired legacy loans entered into pre-2008 that were affected by the economic downturn and have not recovered. Charges to the profit and loss reflect continued write-downs of these positions.

Table 21: IRB Credit Risk Adjustments, Expected Loss and Charge to the Profit and Loss <sup>1</sup>								
	Specific Risk Adjustments	Expected Loss	Charge to the Profit and Loss <sup>2</sup>	Specific Risk Adjustments	Expected Loss	Charge to the Profit and Loss <sup>2</sup>		
	2017	2017	2017	2016	2016	2016		
	\$MM	\$MM	\$MM	\$MM	\$MM	\$MM		
Central Governments or Central Banks	-	4	-	-	4	-		
Corporates	(7)	238	(2)	(46)	193	-		
Institutions	-	30	-	-	33	-		
Equity	-	8	-	-	6	-		
Total	(7)	280	(2)	(46)	236	-		

Expected Losses mainly arise from exposures on MSIP.

The MSI Group does not establish credit reserves for traded products. Incurred credit valuation adjustments and debit valuation adjustments are taken through profit and loss.

Charge to the Profit and Loss represents loss events that occurred during the period, and does not include the effect of other movements in the Credit Risk Adjustments balance due to: currency translation; changes in estimates of losses arising on events which occurred in the preceding period.

# 9.4 Credit Risk Adjustments

The main considerations for the impairment assessment include whether there are any known difficulties in the cash flows of counterparties, credit rating downgrades, or infringement of the original terms of the contract

The MSI Group determines the allowance appropriate for each individually significant asset on an individual basis. Items considered when determining the allowance amount include the sustainability of the counterparty's business plan, the counterparty's ability to improve performance once a financial difficulty has arisen, the realisable value of collateral, and the timing of expected cash flows. The impairment losses are evaluated at least at each reporting date.

Table 22: Impaired and Past Due Exposures, Credit Risk Adjustments by Industry Type

	Past Due <sup>1, 2</sup>	Impaired Exposures <sup>3</sup>	Specific Credit Risk Adjustments	General Credit Risk Adjustments	Charges for Specific and General Credit Risk Adjustments <sup>4</sup>
	\$MM	\$MM	\$MM	\$MM	\$MM
Sovereigns	4	2	(2)	-	(1)
Banks and Securities Firms	1,639	14	(14)	-	4
General Industrials	-	-	-	-	-
Other Corporates	300	25	(25)	-	(10)
Real Estate	-	7	(7)	-	-
Total	1,943	48	(48)	-	(7)

- 1. A financial asset is considered 'past due' when a counterparty has failed to make a payment when contractually due.
- Past due exposures arise principally from MSIP.
- 3. A financial asset is considered 'impaired' under the Impairment policy if, and only if, there is objective evidence of impairment resulting from events occurring after initial recognition that have an impact on estimated future cash flows of the financial asset, and the impact on those cash flows can be reliably estimated.
- 4. Charges for Specific and General Credit Risk Adjustments represents the movement in the Credit Risk Adjustments balance for the year and may include: loss events that occurred during the period and changes in estimates of losses arising on events which occurred in the preceding period.

Table 23: Impaired and Past Due Exposures, Credit Risk Adjustments by Geographic Region **America EMEA** Asia Other Total \$MM \$MM \$MM \$MM \$MM 3 37 8 48 **Impaired** Past Due Exposures 1 228 1,651 64 1,943 General Credit Risk Adjustments Specific Credit Risk Adjustments (3)(37)(8)(48)

228

1,651

64

\_

1.943

## 9.5 Credit Risk Mitigation

The MSI Group may seek to mitigate credit risk from its lending and trading activities in multiple ways, including netting, collateral, guarantees and hedges. At the transaction level, the MSI Group seeks to mitigate risk through management of key risk elements such as size, tenor, financial covenants, seniority and collateral. The MSI Group actively hedges its lending and derivatives exposure through various financial instruments that may include single-name, portfolio and structured credit derivatives. Additionally, the MSI Group may sell, assign or syndicate funded loans and lending commitments to other financial institutions in the primary and secondary loan market. In connection with its derivatives trading activities, the MSI Group generally enters into master netting agreements and collateral arrangements with counterparties. These agreements provide the MSI Group with the ability to demand collateral, as well as to liquidate collateral and offset receivables and payables covered under the same master agreement in the event of a counterparty default.

Past due exposures arise principally from MSIP.

#### **Netting**

The MSI Group has policies and procedures in place for assessing the validity, enforceability and treatment of netting agreements with clients in connection with its derivative trading activities. In order to net a group of similar exposures with counterparty, a qualifying master netting agreement must be in place between Morgan Stanley and the counterparty. The agreement must be valid and legally enforceable. Upon an event of default, including in the event of bankruptcy or insolvency of the counterparty, all transactions within the netting set are terminated in a timely manner and a single net close-out amount is determined under a qualifying master netting agreement. Repo-style transactions must also be executed under an agreement that provides for the close-out on a net basis.

The MSI Group does not make use of on-balance-sheet netting of loans and deposits in regulatory capital calculations.

#### **Collateral**

The amount and type of collateral required by the MSI Group depends on an assessment of the credit risk of the counterparty, and any relevant regulation. Collateral held is managed in accordance with the MSI Group's guidelines and the relevant underlying agreements.

The MSI Group actively manages its credit exposure through the application of collateral arrangements. The use of collateral in managing OTC derivative risk is standard in the market place, and is governed by appropriate documentation; for example, the Credit Support Annex to the International Swaps and Derivatives Association ("ISDA") documentation. In line with these standards, the Morgan Stanley Group generally accepts only cash and G7 government bonds, corporate debt and main index equities as eligible collateral. Other securities may be accepted in securities lending, repo and prime brokerage, subject to conservative haircuts based on assessments of collateral volatility and liquidity. There is an established and robust infrastructure to manage, maintain and value collateral on a daily basis. Haircuts are taken on eligible collateral to act as a buffer against adverse price movements prior to liquidation of the collateral during the close out process following a counterparty's default. Standard haircuts are reviewed periodically and during volatile markets.

In the Warehouse Lending business residential mortgage loans can be used as eligible financial collateral. Commercial Real Estate ("CRE") loans can be secured by physical collateral including commercial property or land. Credit Risk Management review and analyse the value of the collateral posted by the Obligor. It is common practice for third-party appraisals to be updated on at least an annual basis. These updated appraisals are reviewed and evaluated by Credit Risk Management.

The MSI Group's collateral management policies include arrangements for maintaining the integrity of the margining process, including the capture of collateral terms and haircuts and the underlying legal rights, interest and ownership of collateral transferred. The policies also include arrangements for safeguarding collateral, rehypothecation, collateral concentrations and dispute resolution. Collateral concentration in OTC derivatives is assessed through considering concentration relative to the liquidity of the underlying assets.

# **10. Counterparty Credit Risk**

## **10.1 Counterparty Credit exposures**

The MSI Group uses the IMM and the Mark-to-Market Method for calculating its Counterparty Credit Risk exposure. The majority of OTC derivatives within the MSI Group are in scope of the IMM permission. The IMM approach uses a Monte Carlo simulation technique to measure and monitor potential future exposures of derivative portfolios. The models used simulate risk factors and replicate the risk mitigation techniques such as netting and collateral. The most material risk factors are calibrated daily to market implied data, while other risk factors are calibrated based on three years or more of historical data.

Table 24 shows a comprehensive view of the methods used to calculate CCR regulatory requirements and the main parameters used within each method for the MSI Group as at 31 December 2017.

Table 24: Analysis of the Counterp	arty Credi	Risk (CCR) Exp	osure by A	pproach (	EU CCR1)		
	Notional	Replacement Cost/ Current Market Value	Potential Future Exposure	Effective Expected Positive Exposure ("EEPE")	Multiplier	EAD Post CRM	RWAs
	\$MM	\$MM	\$MM	, \$MM		\$MM	\$MM
Mark to market		3,108	27,103			22,852	11,500
Original exposure	-					-	-
Standardised approach		2,564			-	1,182	1,296
IMM (for derivatives and SFTs)				21,781	1.5	32,110	15,437
Of which securities financing transactions				-	-	-	-
Of which derivatives & long settlement				21,781	1.5	32,110	15,437
transactions				21,701	1.5	32,110	13,437
Of which from contractual cross product netting				-	-	-	-
Financial collateral simple method (for							
SFTs)						-	-
Financial collateral comprehensive						57,314	11,786
method (for SFTs)						37,314	11,700
VaR for SFTs						-	-
Total							40,019

## 10.2 Credit valuation adjustment

CVA is the capital requirement that covers the risk of mark-to-market losses on the counterparty risk of OTC derivatives. It is calculated using a combination of an advanced approach based on using internal modelling approaches and a standardised approach.

Table 25 shows the CVA by approaches for the MSI Group as at 31 December 2017.

Table 25: Credit Valuation Adjustment (CVA) Capital Charge (EU CCR2	2)	
	Exposure	RWAs
	Value	
	\$MM	\$MM
Total portfolios subject to the advanced method	18,391	5,398
(i) VaR component (including the 3× multiplier)		1,095
(ii) Stressed VaR component (including the 3× multiplier)		4,303
All portfolios subject to the standardised method	10,695	5,324
Based on the original exposure method	-	-
Total subject to the CVA capital charge	29,086	10,722

# 10.3 Derivatives and SFTs credit exposure

Table 26 shows the impact of netting and collateral held on exposures on derivative and SFTs held as at 31 December 2017 for the MSI Group.

Table 26: Impact of Netting and Collateral Held on Exposure Values (EU CCR5-A)								
	<b>Gross Positive Fair</b>	Netting	<b>Netted Current</b>	Collateral	Net Credit			
	Value or Net	Benefits	Credit Exposure	Held	Exposure			
	Carrying Amount							
	\$MM	\$MM	\$MM	\$MM	\$MM			
Derivatives	230,018	183,795	46,223	34,360	11,863			
SFTs <sup>1</sup>	575,567	-	575,567	488,400	87,167			
Total	805,585	183,795	621,790	522,760	99,030			

<sup>1.</sup> SFTs carrying amount reflects netting benefit. MSI Group does not engage in any cross product netting.

Gross positive fair value represents any long market value on derivative transactions before netting benefits are applied but after any regulatory eliminations and exemptions are applied. Collateral held represents the market value of enforceable collateral received after regulatory eliminations and exemptions are applied.

Net derivatives credit exposure represents the net exposure after collateral received has been applied.

Table 27 shows the shows breakdown of all types of collateral posted or received by banks to support or reduce CCR exposures related to derivative transactions or to SFTs, including transactions cleared through a Central Counterparty ("CCP") as at 31 December 2017 for the MSI Group.

Table 27: Composition of Collateral for Exposures to CCR (EU CCR5-B)

	Collateral Used in Derivative Transactions				Collateral Used in SFTs							
	Fair Value of Collateral Received								Paralisad Callatanal		Fair Value of Collateral	Fair Value of Posted
	Segregated \$MM	Unsegregated \$MM	Segregated \$MM	Unsegregated \$MM	Received \$MM	Collateral \$MM						
Cash	3,051	62,678	4,058	43,056	326,091	303,535						
Corporate Bonds	418	2,059	845	192	8,036	6,775						
Equity Securities	611	2,928	-	112	102,742	105,057						
Government Agency Debt	1,478	136	-	6	9,937	23,104						
Other Collateral	-	-	-	-	-	-						
Sovereign Debt	2,208	5,841	1,900 3,247		131,119	143,799						
Total	7,766	73,642	6,803	46,613	577,925	582,270						

#### Guarantees

Letters of credit and guarantees can be used to transfer the credit risk of an exposure to another counterparty. For specific transactions or counterparties, the MSI Group will accept letters of credit and guarantees following an appropriate level of due diligence. In such instances, the exposure is assumed to be to the provider of the letter of credit or guarantee. The acceptable types of provider of letters of credit and guarantees are sovereigns, certain supranational and multilateral development banks, banks and other financial institutions, and corporates that are rated at least investment grade. A provider is not deemed acceptable if the provider's creditworthiness is positively correlated with the credit risk of the exposures for which it has provided guarantees.

### **10.4 Exposures to CCPs**

Table 28 shows the breakdown of the exposures by qualifying and non-qualifying CCPs as at 31 December 2017 for the MSI Group.

Table 28: Exposures to CCPs (EU CCR8)

	EAD	RWAs
	Post CRM \$MM	\$MM
Exposures to QCCPs (total)	ŞIVIIVI	1,316
Exposures for trades at QCCPs (excluding initial margin and default fund contributions); of which	15,940	318
(i) OTC derivatives	1,761	35
(ii) Exchange-traded derivatives	9,122	182
(iii) SFTs	5,057	101
(iv) Netting sets where cross-product netting has been approved	-	-
Segregated initial margin	-	
Non-segregated initial margin	8,942	179
Prefunded default fund contributions	843	318
Alternative calculation of own funds requirements for exposures		501
Exposures to non-QCCPs (total)		113
Exposures for trades at non-QCCPs (excluding initial margin and default fund contributions); of which	113	113
(i) OTC derivatives	-	-
(ii) Exchange-traded derivatives	113	113
(iii) SFTs	-	-
(iv) Netting sets where cross-product netting has been approved	-	-
Segregated initial margin	-	
Non-segregated initial margin	-	-
Pre-funded default fund contributions	-	-
Unfunded default fund contributions	-	

### **Credit Derivative Transactions**

Table 29 shows the extent of an institution's exposures to credit derivative transactions broken down between derivatives bought or sold.

Table 29: Credit Derivatives Exposures (EU CCR
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	Protection	Protection
	Bought	Sold
	\$MM	\$MM
Notionals		
Credit Derivative products used for own credit portfolio		
Single-name credit default swaps	1,705	977
Total Notionals used for own credit portfolio	1,705	977
Credit Derivative products used for Intermediation		
Single-name credit default swaps	110,801	106,935
Index credit default swaps	69,376	73,690
Total return swaps	1,920	336
Credit options	33,935	35,843
Other credit derivatives	15,490	15,485
Total Notionals used for intermediation	231,522	232,289
Total Credit Derivative Notionals	233,227	233,266
Fair Values		
Positive fair value (asset)	1,246	3,726
Negative fair value (liability)	(3,730)	(1,294)

#### 10.5 Collateral Impact of a Downgrade

In connection with certain OTC trading agreements and certain other agreements where the MSI Group is a liquidity provider to certain financing vehicles, the Firm may be required to provide additional collateral or immediately settle any outstanding liability balances with certain counterparties or pledge additional collateral to certain exchanges and clearing organisations in the event of a future credit rating downgrade irrespective of whether the Company is in a net asset or net liability position.

The additional collateral or termination payments that may be called in the event of a future credit rating downgrade vary by contract and can be based on ratings by either or both of Moody's and S&P. As at 31 December 2017, the future potential collateral amounts and termination payments that could be called or required by counterparties or exchanges and clearing organisations, in the event of one-notch or two-notch downgrade scenarios, from the lowest of Moody's or S&P ratings, based on the relevant contractual downgrade triggers, were \$233 million and an incremental \$266 million, respectively.

#### 10.6 Wrong Way Risk

Specific wrong way risk arises when a transaction is structured in such a way that the exposure to the counterparty is positively correlated with the PD of the counterparty. For example, a counterparty writing put options on its own stock or a counterparty collateralised by its own or related party stocks. The MSI Group considers these matters when approving transactions. Ongoing monitoring of transactions with specific wrong way risk is facilitated by systematic identification from inception of the trade throughout the entire lifecycle of the trade. Further, credit and capital exposures are adjusted automatically to reflect the identified specific wrong way risk.

General wrong way risk arises when the counterparty PD is correlated, for non-specific reasons, with the market or macroeconomic factors that affect the value of the counterparty's trades. Single-factor stress tests are used to probe for general wrong way risk, and counterparties with identified sensitivities are subject to heightened monitoring. Where positions raise concerns, a risk mitigation strategy is agreed between Credit Risk Management and the business units.

#### 11. Securitisation

#### 11.1 Securitisation Activities

The MSI Group acts, or has historically acted, as originator, sponsor, liquidity provider, servicer and derivative counterparty to its own originated and sponsored securitisations, as well as those of third party securitisations. The MSI Group also acts as market maker for, and refinancer of securitised products in EMEA. The majority of the securitisation exposures result from this activity and are Trading Book as at 31 December 2017.

The MSI Group's strategy has been to use securitisations for customer facilitation. The MSI Group has engaged in securitisation activities related to commercial and residential mortgage loans, corporate bonds and loans, and other types of financial instruments. Derivative exposures to securitisations are generally interest rate swaps and usually with senior payment priority.

The MSI Group participated as a book runner or lead manager in a number of new securitisations during 2017, primarily refinancing. The MSI Group did not originate or sponsor any new securitisations in 2017.

#### **11.2 Regulatory Capital Treatment**

The MSI Group employs the IRB approach and the Standardised approach to calculate the capital on its securitisation positions. The IRB approach is applied to securitisation exposures where the MSI Group has regulatory approval to use the IRB approach for the assets underlying the securitisation and the Standardised approach for all other assets. In general, this means securitisations of retail exposures are treated under the Standardised Approach, whilst securitisations of non-retail exposures are captured under the IRB Approach. Both approaches use rating agency credit ratings to determine risk weights. The MSI Group uses ratings from three ECAIs: Moody's, S&P's and Fitch.

#### 11.3 Securitisation Exposures

Table 30 shows the exposures and MCR of securitisation positions within the MSI Group as at 31 December 2017.

Table 30: Securitisation Exposures and MCR <sup>1</sup>		
	Trading	Non-Trading
	Book	Book
	\$MM	\$MM
Exposures	1,064	505
MCR	630	24

Securitisation exposures decreased by \$19MM and capital requirements increased by \$37MM, compared to 2016. The increase in capital requirements was primarily driven by increased exposure in Trading Book activity.

Table 31 and 32 show the securitisation positions broken down by capital approach and CQS within the MSI Group as at 31 December 2017.

Table 31: IRB Securitisation Exposures	and Capital Requ	irements by CQS <sup>1</sup>		
	Trading Book Exposure	Non-Trading Book Exposure	Trading Book Capital Requirements	Non-Trading Book Capital Requirements
	\$MM	\$MM	\$MM	\$MM
Amount of Securitisation Purchased				
CQS 1-3	95	-	1	-
CQS 4-6	20	-	0	-
CQS 7-11	84	99	20	6
All Other CQS	262	5	278	5
Unrated	81	1	81	1
Amount of Securitisation Retained				
CQS 1-3	-	88	-	3
CQS 4-6	-	26	=	1
CQS 7-11	-	-	-	-
Below CQS 11	-	-	-	-
Amount of Re-securitisation Purchased				
CQS 7-11	-	-	-	-
All Other CQS	-	-	-	-
Unrated	0	1	0	1
Amount of Re-securitisation Retained				
Unrated	-	-	-	-
Total	542	220	380	17

<sup>1.</sup> The exposures above are after a financial guarantee which reduced one re-securitisation exposure purchased position by \$43MM, based on year-end market value.

Table 32: Standardised Securitisation Ex	posures and Cap	oital Rec	uirements by	y CQS
--	-----------------	-----------	--------------	-------

	Trading Book Exposure \$MM	Non-Trading Book Exposure \$MM	Trading Book Capital Requirements \$MM	Non-Trading Book Capital Requirements \$MM
Amount of Securitisation Purchased				
CQS 1-3	246	273	11	4
CQS 4-5	112	-	75	-
Unrated	161	-	161	-
Amount of Securitisation Retained				
CQS 1-3	-	3	-	0
CQS 4-5	-	9	-	3
Amount of Re-Securitisation Purchased				
Unrated	3	-	3	-
Total	522	285	250	7

Table 33 and 34 provide a summary of the types of securitisation exposures within the MSI Group as at 31 December 2017.

Table 33: Trading Book Securitisation Exposures by Exposure Type<sup>1</sup>

	Traditional \$MM	Positions Retained \$MM	Positions Purchased \$MM
Residential Mortgages	517	-	517
Commercial Mortgages	34	-	34
Credit Card Receivables	-	-	-
Loans to Corporates or SMEs (treated as Corporates)	420	-	420
Consumer Loans	23	-	23
Other Assets	70	-	70
Total	1,064	-	1,064

<sup>1.</sup> There were no off-balance sheet or synthetic exposures in the Trading Book as at 31 December 2017.

Table 34: Non-Trading Book Securitisation Exposures by Exposure Type<sup>1</sup>

	Traditional \$MM	Positions Retained \$MM	Positions Purchased \$MM
Residential Mortgages	379	101	278
Commercial Mortgages	1	-	1
Loans to Corporates or SMEs (treated as Corporates)	125	26	99
Other Assets	-	-	-
Total	505	127	378

<sup>1.</sup> There were no off-balance sheet or synthetic securitisation exposures in the Non-Trading Book as at 31 December 2017.

#### 11.4 Accounting

In the event that the MSI Group acts as the originator of a securitisation, transfers of financial assets in the transaction are generally accounted for as sales when the MSI Group has relinquished control over the transferred assets and met CRR requirements for significant risk transfer. The gain or loss on sale of such financial assets depends, in part, on the previous carrying amount of the assets involved in the transfer (generally at fair value), the sum of the proceeds and fair value of the retained interests on the date of sale. For further information on the MSI Group's financial instruments and derecognition accounting policies, please refer to notes 2(c) and 2(e) in Appendix VII.

#### 11.5 Valuation

The MSI Group may retain interests in the securitised financial assets of one or more tranches of the securitisation. These retained interests are included at fair value. Any changes in the fair value of such retained interests are recognised through the profit and loss in the audited financial statements of the entity holding such interests.

For further information on the MSI Group's valuation techniques related to securitisation, please refer to note 2(d) in Appendix VII.

#### 11.6 Risk Monitoring

The credit risk of the MSI Group's securitisations is controlled by actively monitoring and managing the associated credit exposures. The MSI Group evaluates collateral quality, credit subordination levels and structural characteristics of securitisation transactions at inception and on an ongoing basis, and manages exposures against internal limits.

The MSI Group follows a set of rigorous procedures for risk managing market risk on securitised products, evolving them with changes in market conditions:

- The MSI Group conducts an assessment of risk limits at least once a year, and more often if required. Market conditions, collateral quality, liquidity and downside risk are important factors for setting market risk limits.
- The MSI Group measures downside risk using various metrics, such as VaR and scenarios analysis, differentiating products based on collateral, seniority and liquidity.

#### 12. Market Risk

Market risk refers to the risk that a change in the level of one or more market prices, rates, indices, implied volatilities (the price volatility of the underlying instrument imputed from option prices), correlations or other market factors, such as market liquidity, will result in losses for a position or portfolio.

The MSI Group manages the market risk associated with its trading activities at both a division and an individual product level, and includes consideration of market risk at the legal entity level.

Sound market risk management is an integral part of the Morgan Stanley Group culture. The MSI Group is responsible for ensuring that market risk exposures are well-managed and monitored. The MSI Group Market Risk Department ("MRD") is responsible for ensuring transparency of material market risks, monitors compliance with established limits, and escalates risk concentrations to appropriate senior management. MRD is an independent risk oversight group headed by the EMEA Head of Market Risk, who reports directly to the EMEA Chief Risk Officer.

To execute these responsibilities, MRD monitors the market risk against limits on aggregate risk exposures and performs a variety of risk analyses. This includes monitoring VaR, stress testing and scenario analyses, routine reporting of risk summaries, and maintenance of the VaR and scenario analysis methodologies. The material risks identified by these processes are summarised and reported to senior management.

An IMA permission has been granted to MSIP on an individual basis and on the consolidated situation of MSI Limited, in relation to exposures incurred by MSIP.

IMA Models are applied consistently across all sub-portfolios; with the population in scope defined according to permission criteria. Models are independently validated on an annual basis by Model Risk Management, and changes to methodologies are approved by the Model Oversight Committee ("MOC"). The model validation process is independent of the internal models' development, implementation and operation. The validation process includes tests of the model's sensitivity to key inputs and assumptions and evaluation of conceptual soundness.

The market risk management policies and procedures for the MSI Group are consistent with those of the Morgan Stanley Group and include escalation to the MSI Group's Board of Directors and appropriate management personnel.

#### **Risk Mitigation Policies**

The MSI Group manages its trading positions by employing a variety of risk mitigation strategies. These strategies include diversification of risk exposures and hedging. Hedging activities consist of the purchase or sale of positions in related securities and financial instruments, including a variety of derivative products (e.g. futures, forwards, swaps and options). Hedging activities may not always provide effective mitigation against trading losses due to differences in the terms, specific characteristics or other basis risks that may exist between the hedge instrument and the risk exposure that is being hedged. The MSI Group manages and monitors its market risk exposures, including outright and basis risks, in such a way as to maintain a portfolio that the MSI Group believes is well-diversified in the aggregate with respect to market risk factors, and that reflects the MSI Group's aggregate risk tolerance as established by the MSI Group senior management. The effectiveness of hedges and mitigants is monitored using processes such as risk and limit reporting.

#### 12.1 Value at Risk

The MSI Group uses the statistical technique known as VaR as one of the tools used to measure, monitor and review the market risk exposures of its trading portfolios. MRD calculates and distributes daily VaR-based risk measures to various levels of management.

#### VaR Methodology, Assumptions and Limitations

The MSI Group calculates VaR using a model based on volatility adjusted historical simulation for general market risk factors and Monte Carlo simulation for name-specific risk in corporate shares, bonds, loans and related derivatives. Market risk factors' daily moves are modelled either as difference changes or relative changes, dependent on the most suitable stochastic process (normal or lognormal diffusion process) to describe the daily risk factor changes. The model constructs a distribution of hypothetical daily changes in the value of trading portfolios based on historical observation of daily changes in key market indices or other market risk factors; and information on the sensitivity of the portfolio values to these market risk factor changes.

The basic methodology for VaR at Morgan Stanley is a 4-year filtered historical simulation to account for current volatility levels. The risk exposures used for the daily VaR calculation are based on greeks and full-revaluation grids, and simulations cover both systematic and specific risk components. The same valuation approach is used for SVaR. The time series data is updated on a weekly basis, with the exception of idiosyncratic risk factors which are updated quarterly.

A set of internal processes and controls ensure that all trading positions booked by the MSI Group are included in VaR. The MSI Group's 99%/one-day VaR corresponds to the unrealised loss in portfolio value that, based on historically observed market risk factor movements, would have been exceeded with a frequency of 1%, or once every 100 trading days, if the portfolio were held constant for one day. The 99th percentile is computed and is scaled by the square root of 10 to arrive at a 10-day VaR for regulatory purposes. The 95th percentile 1-day VaR is used by MRD to internally to manage risk and to base the Legal Entity VaR limits. Table 35 provides an analysis of the 99% MSIP Regulatory VaR over the year to 31 December 2017.

Table 35: Daily Average, M	aximum and Minimum Va	alues for the 99% MSIP	Regulatory VaR	
	Period End VAR <sup>1</sup>	Average <sup>2</sup>	High <sup>2</sup>	Low <sup>2</sup>
	\$MM	\$MM	\$MM	\$MM
Total	29.0	33.8	50.5	22.7
Of which:				
Interest Rate	16.7	18.6	27.3	13.0
Credit Spread	13.5	15.2	33.5	5.8
Equity	14.4	18.4	34.1	11.9
Foreign Exchange	4.4	9.9	16.7	4.4
Commodity	0.0	0.0	0.0	0.0
Diversification <sup>3</sup>	(20.0)	-	-	-

- This is the 1 Day 99% VaR for the year ending 31 December 2017.
- 2. Average / High / Low end-of-day 99% MSIP Regulatory VaR calculated over the one year period to 31 December 2017, based on end-of day positions for all trading days during the one year period.
- 3. The extent of diversification benefit depends on the correlation between the assets and risk factors in the portfolio at a point in time.

The MSI Group uses VaR as one of a range of risk management tools. Among their benefits, VaR models permit estimation of a portfolio's aggregate market risk exposure, incorporating a range of market risks and portfolio assets. One key element of the VaR model is that it reflects portfolio diversification or hedging activities. However, VaR has various limitations, which include, but are not limited to: use of historical changes in market risk factors, which may not be accurate predictors of future market conditions, and may not fully incorporate the risk of extreme market events that are outsized relative to observed historical market behaviour or reflect the historical distribution of results beyond the 99% confidence interval; and reporting of losses in a single day, which does not reflect the risk of positions that cannot be liquidated or hedged in one day. The modelling of the risk characteristics of some positions relies on approximations that, under certain circumstances, could produce significantly different results from those produced using more precise measures. VaR is most appropriate as a risk measure for trading positions in liquid financial markets and will understate the risk associated with severe events, such as periods of extreme illiquidity. The MSI Group is aware of these and other limitations and, therefore, uses VaR as only one component in its risk management oversight process.

This process also incorporates stress testing and scenario analyses and extensive risk monitoring, analysis, quantification of risk not captured in VaR, and control at the trading desk, division and the MSI Group levels.

The MSI Group is committed to continuous review and enhancement of VaR methodologies and assumptions in order to capture evolving risks associated with changes in market structure and dynamics. As part of regular process improvement, additional systematic and name-specific risk factors may be added to improve the VaR model's ability to more accurately estimate risks to specific asset classes or industry sectors.

Since the reported VaR statistics are estimates based on historical data, VaR should not be viewed as predictive of the MSI Group's future revenues or financial performance or of its ability to manage risk. There can be no assurance that the MSI Group's actual losses on a particular day will not exceed the VaR amounts indicated below or that such losses will not occur more than once in 100 trading days. VaR does not predict the magnitude of losses which, should they occur, may be significantly greater than the VaR amount.

VaR statistics are not readily comparable across firms because of differences in the firms' portfolios, modelling assumptions and methodologies. These differences can result in materially different VaR estimates across firms for similar portfolios. The impact of such differences varies depending on the factor history assumptions, the frequency with which the factor history is updated and the confidence level. As a result, VaR statistics are more useful when interpreted as indicators of trends in a firm's risk profile rather than as an absolute measure of risk to be compared across firms.

#### 12.2 Market Risk Capital Requirements

The market risk capital requirements of the MSI Group comprises of capital which is calculated using IMA in accordance with regulatory approved models, and of capital which is calculated under the Standardised approach. Table 36 summarises the capital requirements under the respective approaches. Testing to ensure that the capital assessment meets the required soundness standard is carried out on a quarterly basis with the results reported to the PRA.

Table 36: Market Risk RWAs and MCR		
	RWAs	MCR
	\$MM	\$MM
Internal Models Approach	43,252	3,460
Standardised	14,000	1,120
Total	57.252	4.580

### **Standardised Approach**

Table 37 shows the market risk capital requirements for the MSI Group as at 31 December 2017, calculated in accordance with the standardised approach and categorised by component type.

Table 37: Market Risk under the Standardised Approach (EU MR1)		
	RWAs	MCR
	\$MM	\$MM
Outright products		
Interest rate risk (general and specific)	2,471	198
Equity risk (general and specific)	20	2
Foreign exchange risk	2,634	211
Commodity risk	430	34
Options		
Simplified approach	-	-
Delta-plus method	561	45
Scenario approach	-	-
Securitisation (specific risk)	7,884	630
Total	14,000	1,120

#### **IMA Approach**

The VaR-based capital and the SVaR-based capital are determined by the higher of the 60-day average of the 10-day VaR / 10-day SVaR numbers, multiplied by the regulatory Internal Model multiplication factor as prescribed by the PRA, and the 10-day VaR/ 10-day SVaR for the relevant day. The IRC and Comprehensive Risk Measure charges are determined by the higher of the average of the latest 12 weeks IRC/CRM and the IRC/CRM charge for the relevant day.

Table 38 shows the VaR and SVaR, as well as the IRC and CRM measures, for the year ending 31 December 2017. The VaR, SVaR and IRC capital measures presented in Table 38 were based on the 60 day averages, as they were higher than the daily measures as at 31 December 2017.

Table 38: Market Risk under Internal Models Approach (EU MR2-A)		
	RWAs	MCR
	\$MM	\$MM
VaR (higher of values a and b)	5,136	411
Previous day's VaR (Article 365(1) (VaRt-1))	1,145	92
Average of the daily VaR (Article 365(1)) of the CRR on each of the preceding 60 business days		
(VaRavg) x multiplication factor (mc) in accordance with Article 366 of the CRR	5,136	411
SVaR (higher of values a and b)	14,554	1,164
Latest SVaR (Article 365(2) (sVaRt-1))	3,448	276
Average of the SVaR (Article 365(2) of the CRR) during the preceding 60 business days (SVaRavg) x		
multiplication factor (ms) (Article 366 of the CRR)	14,554	1,164
IRC (higher of values a and b)	6,307	504
Most recent IRC value (incremental default and migration risks calculated in accordance with Article		
370 and Article 371 of the CRR)	4,966	397
Average of the IRC number over the preceding 12 weeks	6,307	504
Comprehensive risk measure (higher of values a, b and c)	20	2
Most recent risk number for the correlation trading portfolio (Article 377 of the CRR)	2	2
Average of the risk number for the correlation trading portfolio over the preceding 12 weeks	20	2
8% of the own funds requirement in the standardised approach on the most recent risk number for		
the correlation trading portfolio (Article 338(4) of the CRR)		
Other	17,235	1,379
Total	43,252	3,460

Table 39 provides a summary of the maximum, minimum, average and period-end values over the six months to 31 December 2017, resulting from the different types of models approved to be used for computing the regulatory capital charge.

Table 39: IMA Values for Trading Portfolios (EU MR3)	
	\$MM
VaR (10 day 99%)	
Maximum value	143
Average value	103
Minimum value	72
Period end	92
SVaR (10 day 99%)	
Maximum value	599
Average value	256
Minimum value	147
Period end	276
IRC (99.9%)	
Maximum value	858
Average value	523
Minimum value	310
Period end	397
Comprehensive Risk capital charge (99.9%)	

Over the second half of 2017 the SVaR and IRC experienced elevated levels, due to risk increases.

#### 12.3 Positions Included in the Trading Book

Maximum value

Average value

Period end

Minimum value

The MSI Group has a comprehensive framework of policies, controls and reporting to meet the requirements of the CRR for inclusion of positions in the Trading Book. The underlying policies, controls and reporting mechanisms cover a range of different aspects including Trading Intent, Valuation, Liquidity, Restrictions, Hedgeability, Active Management and transfers between the Trading and Non-Trading Books. Governance is provided by the Firm's Banking/Trading Committee whose role with respect to the banking/trading boundary is to: develop Firm policy and guidance, ensure effective control and reporting mechanisms are in place and to clearly set out roles and responsibilities across the Firm.

The Trading Book is defined as financial instruments (including commodities) that are: held for trading intent or intent to hedge a trading position; free from restrictive covenants on tradability or reasonable ability to hedge material risk elements in a two-way market; frequently/accurately valued and actively managed on a trading desk. If a position fails to meet the Trading Book criteria, it will be classified as Non-Trading Book.

Trading Book positions are subject to market risk based rules, with market risk capital requirements calculated using regulatory approved internal models or a non-modelled standardised approach.

The Firm methodology for determining Non-Trading Book versus Trading Book classification is documented within the Firm's Trading Book, Non-Trading Book and Covered Positions Boundary Policy. The policy outlines criteria for identifying and classifying trading book positions for the purpose of regulatory capital and market risk measurement and sets out associated roles and responsibilities across the Business Unit, Finance and other stakeholder groups. This formal policy is subject to annual review and sign-off. Enforcement of this policy and overall Banking/Trading governance is provided by the Firm's Banking/Trading Committee. Furthermore, the Firm carries out a CRR self-assessment of all articles governing Non-Trading Book /Trading Book classification.

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A documented Firm-wide framework establishes controls around initial Banking/Trading classification as well as ongoing monitoring to ensure the initial classification remains appropriate over time. A number of other Firm policies, procedures and processes covering aspects such as Valuation, Model Assessment & Certification and Risk Management also help to enforce the requirements of CRR Article 104.

#### 12.4 Backtesting

Morgan Stanley performs regulatory backtesting for MSIP on a daily basis at various levels of the business hierarchy to validate the accuracy of the VaR models for entities having regulatory permission to use VaR for internal model capital calculations.

Backtesting is performed on the firm's Regulatory Trading Book population and compares the profit and loss (for the MSIP Group) for trade date N against the 99%/one-day Regulatory Trading VaR for N-1. As per the requirements of the CRR rules, backtesting uses 'Actual' and 'Hypothetical' definitions of the profit and loss. Backtesting on Hypothetical changes in the portfolio's value refers to a comparison between the portfolio's end-of-day value and, assuming unchanged positions, its value at the end of the subsequent day. Backtesting on Actual changes in the portfolio's value refers to a comparison between the portfolio's end-of-day value and its actual value at the end of the subsequent day (i.e. inclusive of intra-day trading/new activity). Both measures of the backtesting profit and loss also exclude non risk based fees (i.e. service fees), commissions, and net interest income. For the purposes of the Regulatory backtest, Actual profit and loss incorporates liquidity and model-driven fair value adjustments whist Hypothetical profit and loss retains only the latter. The backtesting methodology is documented within the Firm's UK Backtesting Policy. As of 31 December 2017, 76% of total MSIP Market Risk Capital requirements are covered by the internal models. Backtesting is performed against the VaR model in accordance with requirements under the regulation. VaR represents a subset of total model based Market Risk capital requirements for MSIP.

Performance is measured across a (rolling) 250 business day period and is expressed by the number of MSIP-level exceptions (instances where MSIP Actual or Hypothetical profit and loss losses exceed 99% VaR) observed within the 250 business day period. Firms observing five or more exceptions within the measurement period are required to set aside additional Market Risk Capital based on a sliding scale.

On days where losses (on either an Actual and/or Hypothetical profit and loss basis) exceed the prior day's VaR, an exception is recorded and is reported by close of business N+2 to the PRA.

Any adverse results at the MSI Group or sub-portfolio level, that may point to weaknesses in model performance or data inaccuracies, are reported, analysed and discussed by the firm's UK Backtesting Review Committee. Findings or recommendations from this committee are escalated to UK firm management who are responsible for authorising any further model analysis or model remediation efforts.

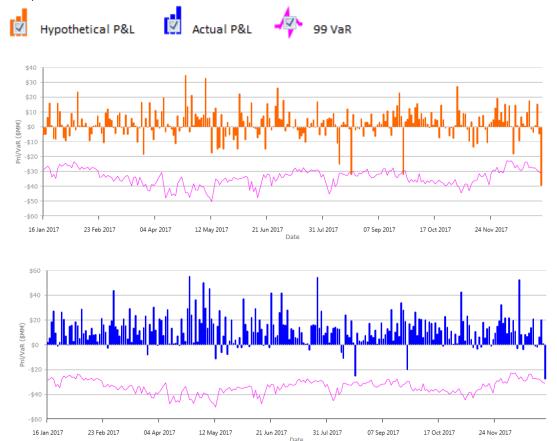
Additionally, MRD has a data quality control process to monitor, validate, remediate, escalate and report data quality issues that impact market risk and capital reporting. The market risk middle office team is responsible for coordinating data quality control with the aim of providing MRD with high quality data that is accurate, complete and delivered in a timely manner. Threshold based checks are performed on input data for VaR / SVaR. Large moves are validated and data adjustments are made where necessary, along with the appropriate escalation to ensure ongoing remediation. Completeness, accuracy and timeliness key performance indicators ("KPIs") for market risk metrics are reported to the Senior Management risk committees.

The results of backtesting and model performance monitoring are reported to the PRA on a periodic basis. For the measurement period ending 31 December 2017, three Hypothetical profit and loss exceptions and zero Actual profit and loss exceptions were observed for MSIP. Exception counts of this order equate to the PRA Green zone (fewer than five exceptions). The Hypothetical profit and loss exceptions occurred in August, September and December. The August and September exceptions were primarily driven by losses in equity markets, and the December exception was largely driven by significant seasonal movements in short-dated repo markets.

The plots of Actual and Hypothetical profit and loss for the measurement period to 31 December 2017 are displayed.

Figure 5: Comparison of VaR Estimates with Gains/Losses (EU MR4)

The graphs below show the 1 day Regulatory Trading VaR against Actual and Hypothetical profit and loss for MSIP, values in millions of dollars:



#### 12.5 Stressed VaR

SVaR uses the same underlying models as VaR to produce a 1-day 99% VaR constructed over a 1-year period of stress. SVaR uses non-volatility adjusted simulations for the historical general market risk factors, and Monte Carlo simulation for name specific risk in corporate shares, bonds, loans and related derivatives. The SVaR model is agreed and approved by the PRA for use in regulatory calculations. Stressed 10-day VaR is constructed by scaling the Stressed 1-day VaR. The Stressed 10-day VaR as at 31 December 2017 was \$276MM.

The SVaR window for regulatory calculations is set as the 1-Year Unadjusted VaR window since the start of 2 January 2006 that generates the largest financial stress to the Bank's portfolio as measured by the resulting VaR. This approach ensures that SVaR capital is maximized on a daily basis. Sub portfolios of MSIP are stressed using the same methodology as the MSI Group.

### 12.6 Incremental Risk Charge

The IRC covers losses arising from correlated credit rating migration events and potentially joint default events for credit products in Morgan Stanley's Trading Book portfolio. The model is applied to instruments with credit-like characteristics referencing corporate, sovereign, regional, supranational and agency obligors that are approved for specific risk treatment; this excludes securitisations or correlation trading products as these are capitalised differently. The model captures basis risks between credit derivatives and underlying reference

instruments, maturity mismatches, regional and industry concentration risks, and simulates stochastic recovery rates.

The underlying model is based on a Merton style default modelling with a correlation structure between regions and industries that is calibrated to market implied default probabilities, and that uses, through the cycle, historical transition matrices for rating migrations. The IRC model applies a constant level of risk with varying liquidity horizons of 3, 6 or 12 months reflective of underlying market liquidity and position concentrations in individual issuers. The weighted liquidity horizon for IRC is 4.96 months.

Morgan Stanley monitors various IRC model sensitivities and assumptions, including concentration sensitivities across industry, region, rating and security type, sensitivity to the "constant level of risk" assumption, and conservatism of stochastic loss given default.

Table 40: IRC Liquidity Horizon for Material Sub Portfolios

Liquidity Horizon
(Months)

Fixed Income Division
Institutional Equity Division
Bank Resource Management
5.95

#### 12.7 Comprehensive Risk Measure

The Comprehensive Risk Measure measures the profit and loss impact in the correlation trading portfolio ("CTP") of moves in credit spreads, base correlations, expected recovery, and basis risks including index versus single name, as well as defaults with stochastic recovery rates. The model is applied to correlation trading positions and their hedges, and assumes a constant level of risk and a fixed liquidity horizon of 6 months given underlying market liquidity and Morgan Stanley's inventory of CTP.

Comprehensive Risk Measure applies Monte Carlo simulations to a Merton style default modelling and separate but correlated multifactor processes for the modelled market risk factors. Market variables, including correlations, are calibrated to historical data, and parameters of the default process are the same as those used in the IRC model.

Morgan Stanley monitors accuracy and consistency of the Comprehensive Risk Measure model via a review of the explanatory power and completeness of the core market risk factors set, and both supervisory and internally defined market stress scenarios.

#### 12.8 Stress Testing

The MSI Group has a comprehensive and dynamic Stress testing framework incorporating deterministic group-wide Macroeconomic Stress tests, business area single and multi-factor scenarios and reverse stress testing scenarios. Stress testing is one of the MSI Group's principal risk management tools used to identify and assess the impact of severe stresses on its portfolios. It complements other risk metrics by providing a flexible and easy to understand approach to understanding risk and assessing the MSI Group's resilience in the face of various scenarios over a range of severities. Stress testing methodologies are applied consistently across all sub-portfolios according to the UK Group Stress Testing Procedure, which applies to the MSI Group.

In addition to helping the MSI Group understand the risks it is exposed and/or vulnerable to under a range of scenarios, Stress testing is also used by the MSI Board to set the boundary for risk taking within the loss capacity of the MSI Group.

#### 12.9 Interest Rate Risk in the Non-Trading Book

Interest Rate Risk in the Non-Trading Book ("IRRNTB") is defined as the risk of losses arising from adverse changes in the interest rate curves within the defined Non-Trading Book population. The MSI Group is exposed to interest rate risk primarily through the Trading Book, which is captured within VaR. The MSI Group has minimal IRRNTB, primarily arising from MSI Group's funding and liquidity management, notably from internal

sub-debt, structured notes, and from investments held as liquidity reserve. The interest rate risk is measured on a daily basis through firmwide risk systems, except for the risks on internal funding positions which are measured on a quarterly basis. IRRNTB risk was \$96k loss per basis point as of 31 December 2017, i.e. losses arising from increases in interest rate levels.

Table 41: Interest Rate Risk in Non-Trading Book		
	Profit or Loss of a +200BP	Profit or Loss of a -200BP
	Parallel Shift in Interest Rates	Parallel Shift in Interest Rates
	\$MM	\$MM
USD	14	(14)
EUR	18	(18)
GBP	10	(10)
JPY	(34)	34
Other	(27)	27
Total	(19)	19

#### 13. Operational Risk

#### **Risk Management and Control**

Operational risk refers to the risk of loss, or of damage to the MSI Group's reputation, resulting from inadequate or failed processes, people and systems or from external events (e.g. fraud, theft, legal and compliance risks, cyber-attacks or damage to physical assets).

The MSI Group manages Operational Risk within the overall risk framework. This includes the application of specific Operational Risk related policies and procedures, the Operational Risk control framework, delivered primarily by the MSI Group's Three Lines of Defence model, and a governance structure designed to oversee the overall level of Operational Risk taken by the MSI Group.

In managing to its risk appetite, the MSI Group remains focused on areas to identify, measure, monitor and report Operational Risk.

#### Identification of Top Operational Risks ("TORs")

The MSI Group has a structured process in place to determine its TORs. The MSI Group's Operational Risk Department ("ORD") reviews Operational Risk data elements and forms an understanding of the risk issues within the Business Units and Infrastructure Areas. ORD proposes additions, edits and deletions of the MSI Group's TORs, supported by information and analytics performed. These proposals are presented to the governance committees to review, challenge and ultimately to recommend for adoption by the MSI Board.

The MSI Board approved TORs as at 31 December 2017 are as follows:

- Product Design, Due Diligence, Suitability and Disclosure
- Market Conduct and Integrity
- Financial Crime
- Reporting Errors due to Weak Data or Processes
- Transaction Lifecycle Errors due to Manual Processes
- Errors in Valuation and Risk Models
- Unauthorised Trading
- Business Disruption and Continuity
- Cyber Attack
- E-Trading Errors
- Non-Cyber Theft and Fraud

#### **Management of Operational Risk**

A variety of risk processes and mitigants are used to manage operational risk exposures. These include a strong governance framework, a comprehensive risk management program and insurance. Operational risks and associated risk exposures are assessed relative to the risk tolerance established by the MSI Board and are prioritised accordingly. The breadth and variety of operational risk are such that the types of mitigating activities are wide-ranging. Examples of such activities include enhancement of defences against cyberattacks; use of legal agreements and contracts to transfer and/or limit operational risk exposures; due diligence; implementation of enhanced policies and procedures; exception management processing controls; and segregation of duties.

The ORD provides oversight of operational risk management and independently assesses, measures and monitors operational risk. The ORD works with the business units and control groups to help ensure a transparent, consistent and comprehensive framework for managing operational risk within each area and across the MSI Group. The ORD scope includes oversight of the technology and data risk management programs (e.g. cybersecurity), fraud risk management and prevention program and a supplier management (vendor risk oversight and assessment) program.

Business Continuity Management is responsible for identifying key risks and threats to the MSI Group's resiliency and planning to ensure that a recovery strategy and required resources are in place for the resumption of critical business functions following a disaster or other business interruption. Disaster recovery plans are in place for critical facilities and resources on a Group-wide basis, and redundancies are built into the systems as deemed appropriate.

The MSI Group maintains a program that oversees our cyber and information security risks and is designed to address regulatory requirements. Cybersecurity and information security policies, procedures and technologies are designed to protect the MSI Group's information assets against unauthorised disclosure, modification or misuse. These policies cover a broad range of areas, including: identification of internal and external threats, access control, data security, protective controls, detection of malicious or unauthorised activity, incident response and recovery planning.

Exposures to services provided by external vendors are managed through a variety of means such as the performance of due diligence, consideration of operational risk, implementation of service level and other contractual agreements, and ongoing monitoring of the vendors' performance. The MSI Group maintains a supplier risk management program with policies, procedures, organisation, governance and supporting technology that aligns with our risk tolerance and is designed to meet regulatory requirements.

The management of Conduct Risk is set out in the Conduct Risk Management Policy. The policy sets out key roles and responsibilities and a framework identifying key functions and processes for the good management of Conduct Risk. The framework also sets out various key support and governance mechanisms, such as the production of key metrics and management information, and the establishment of a Conduct Risk Committee to oversee the management of Conduct Risk and the implementation of the framework.

The MSI Group, principally through the Morgan Stanley Group's Legal and Compliance Division, has established procedures based on legal and regulatory requirements on a worldwide basis that are designed to facilitate compliance with applicable statutory and regulatory requirements and to require that the MSI Group's policies relating to business conduct, ethics and practices are followed globally.

In addition, the MSI Group has established procedures to mitigate the risk that a counterparty's performance obligations will be unenforceable, including consideration of counterparty legal authority and capacity, adequacy of legal documentation, the permissibility of a transaction under applicable law and whether applicable bankruptcy or insolvency laws limit or alter contractual remedies.

#### **Operational Risk Governance**

The responsibilities of key individuals and committees for the governance of Operational Risk, up to and including the MSI Board, are clearly understood and followed throughout the MSI Group. The implementation and operation of the Operational Risk Framework is overseen by forums at different levels in the MSI Group's governance structure. Key forums are:

- Committees and governance forums that provide oversight of particular TORs, Risk Themes and the effectiveness of their respective management frameworks including the:
  - EMEA Outsourcing Governance Committee
  - EMEA Financial Crimes Governance Forum
  - EMEA Electronic Trading Governance Committee
- The EMEA Operational Risk Oversight Committee
- The EMEA Risk Committee
- The MSI Board Risk Committee

#### **Operational Risk Framework**

The MSI Groups Operational Risk Policy and Procedures are renewed at least annually to articulate clearly the current design and implementation of the Operational Risk Management Framework. In particular:

- The MSI Group-specific Operational Risk Management Policy.
- Key elements of the Framework covered by Policy include: Risk Appetite and Tolerance; Risk Assessment and Remediation; Scenario Analysis; Operational Risk Incident Management; Industry Incident Data; Operational Risk Metrics; Risk Measurement and Operational Risk Modelling; and Reporting and Escalation.
- Underlying Procedures set out in detail the key processes which underpin the framework. In particular: the EMEA Escalation & Notification procedures; the Risk Control Self-Assessment ("RCSAs"); identification of Horizon Risks and the Scenario Analysis workshops for TORs.

### Operational Risk Reporting, Management Information and Escalation

Reporting and management information provide awareness of the state of Operational Risk throughout the governance chain, ensures targeted spend to address control environment concerns, and enables MSI Group's senior management and the MSI Board to take action if Operational Risk becomes elevated within risk tolerance levels. Key management information reports include:

- Escalated incidents on a weekly basis.
- Lessons Learned for selected incidents including the actions planned or taken to mitigate the Operational Risk going forward.
- Overall incident trends, emerging risks and outsourcing.
- UK Operational Risk capital update.
- Operational Risk levels versus tolerance and key remedial actions and timelines.

### **Capital Assessment**

#### Pillar 1

Capital requirements for Operational Risk are currently calculated under the Basic Indicator Approach ("BIA"). As of 31 December 2017, the MSI Group's BIA capital was \$10,017MM.

#### Pillar 2

The MSI Group recognises that the BIA is not a risk-based measure and therefore uses an Operational Risk modelling approach to calculate internal Operational Risk capital requirements. The MSI Group holds sufficient capital to cover the incremental capital requirement over and above the Pillar 1 requirement.

#### 14. Valuation Risk

Valuation risk represents the possibility that a valuation estimate of a position would differ from the price in an actual close out transaction due to uncertainty around the actual price that could be obtained.

#### 14.1 Fair Valuation

The Valuation Review Group ("VRG") within the Financial Control Group ("FCG") is responsible for the MSI Group's fair value valuation policies, processes and procedures. VRG implements valuation control processes designed to validate the fair value of the MSI Group's financial instruments measured at fair value including those derived from pricing models.

There are three primary control processes that mitigate the risk of valuation errors:

- Model Certification Process: All models are certified before use and at least annually thereafter. New models (and enhancements to existing models) are developed by Strategists within the Business Units, who affirm they are appropriate for intended use. Senior Traders in the BUs sign off that they have been involved in the development of the model and understand the model's assumptions and limitations. The Model Risk Management group, within the Market Risk Department, must approve the model by performing an independent review of the model to assess its appropriateness. VRG must also approve the model by performing an independent review to ensure the valuation methodology and valuation outputs produced by the model are consistent with accounting standards.
- Mark Review Process: VRG performs a formal monthly mark review process which covers the entire financial instruments inventory held by the MSI Group. VRG ensures the valuation generated by the BUs is in compliance with accounting standards. This is performed by reviewing the appropriateness of the prices or pricing inputs applied to valuation models compared to approved valuation methodologies and external pricing data. Adjustments are made to the books and records for resulting variances which are above tolerance limits. Limits are set by VRG based on the subjectivity inherent in the external pricing data. An additional tolerance at the legal entity level is set by the EMEA Head of VRG together with the EMEA Chief Financial Officer ("CFO").
- Significant Transaction Analytical Review Process ("STAR"): This process reconfirms that valuation methodologies are adequate and modelling uncertainty is appropriately addressed in all trades with significant gross day 1 profit and loss as defined by the STAR policy. There are three components to the STAR process: pre-execution review; post-execution review; and trade unwind review. Reviews are documented and must be presented to, and approved by, relevant STAR Committees. Day 1 profit and loss on Fair Value Measurement Level 3 trades is not recognised until all significant inputs to the trade become observable, which is also subject to STAR Committee approval.

#### 14.2 Prudent Valuation

VRG calculate a prudent valuation in line with the EBA's final regulatory technical standards. A CET1 capital deduction is taken where the prudent valuation differs to the fair valuation.

### 15. Liquidity Coverage Ratio

#### **15.1 LCR Disclosure Requirements**

The MSI Group's LCR Disclosure is effective 31 December 2017 and is based on rules set out in the delegated act ("DA") adopted in October 2014 and related legislation. These may be subject to change as the Company receives additional clarification and implementation guidance from regulators relating to the LCR DA and as the interpretation of the final rules evolves over time.

On 31 December 2017, the MSI Group was in excess of the required minimum of 90% of the fully phased-in LCR. Beginning 1 January 2018, the fully phased-in LCR requirement increased to 100% which is applied to all the cash in/outflows included in Table 42.

#### 15.2 Risk Management Objectives and Policies for Liquidity Risk

#### **Liquidity Risk Profile**

Liquidity risk refers to the risk that the MSI Group will be unable to finance its operations due to loss of access to the capital markets or difficulty in liquidating the MSI Group's assets. Liquidity risk also encompasses the ability of MSI Group to meet its financial obligations without experiencing significant business disruption or reputational damage that may threaten the MSI Group's viability as a going concern.

The core components of the Liquidity Risk Management Framework are the Required Liquidity Framework, Liquidity Stress Tests and the Global Liquidity Reserve, which support the target liquidity profile.

The Required Liquidity Framework reflects the amount of liquidity the MSI Group must hold in both normal and stressed environments to ensure that the MSI Group's financial condition and overall soundness are not adversely affected by an inability (or perceived inability) to meet financial obligations in a timely manner. The Required Liquidity Framework considers the most constraining liquidity requirement to satisfy all regulatory and internal limits at a consolidated and legal entity level.

The Liquidity Stress Tests model external and intercompany liquidity flows across multiple scenarios and a range of time horizons. These scenarios contain various combinations of idiosyncratic and systemic stress events of different severity and duration. The methodology, implementation, production and analysis of the Liquidity Stress Tests are important components of the Required Liquidity Framework.

Sufficient liquidity reserves are maintained to cover daily funding needs and to meet strategic liquidity targets sized by the Required Liquidity Framework and Liquidity Stress Tests. The size of the Global Liquidity Reserve is actively managed considering the following components: balance sheet size and composition; funding needs in a stressed environment, inclusive of contingent cash outflows; collateral requirements and regulatory requirements.

MSI Group's liquidity and funding risk management policies and procedures are consistent with those of the Morgan Stanley Group. The MSI Board is ultimately responsible for establishing the liquidity risk tolerance and ensuring the MSI Group's liquidity risk is appropriately managed. In addition to the internal liquidity risk management framework, the MSI Group is locally subject to the liquidity regulations prescribed by the PRA. The MSI Group has daily monitoring and reporting processes in place to ensure compliance with its regulatory requirements.

#### **Liquidity Risk Management**

The primary goal of the Liquidity Risk Management Framework is to ensure that the MSI Group has access to sufficient liquidity and assets across a wide range of market conditions and time horizons. The framework is designed to allow the MSI Group to fulfil financial obligations and support the execution of the MSI Group's business strategies. The following principles guide the Liquidity Risk Management Framework:

- Sufficient liquid assets should be maintained to cover maturing liabilities and other planned and contingent outflows.
- Maturity profile of assets and liabilities should be aligned, with limited reliance on short-term funding.
- Source, counterparty, currency, region and term of funding should be diversified.
- Liquidity Stress Tests should anticipate, and account for, periods of limited access to funding.

#### **Liquidity Risk Policies and Procedures**

Senior management establishes and maintains liquidity policies. Through various risk and control committees, senior management reviews business performance relative to these policies, monitors the availability of alternative sources of financing, and oversees the liquidity, interest rate and currency sensitivity of asset and liability positions. Corporate Treasury, Liquidity Risk Department, ERC, EMEA ALCO and other committees and control groups assist in evaluating, monitoring and controlling the impact that business activities have on the Balance Sheet, liquidity and capital structure. Liquidity matters are reported regularly to the MSI Board and the MSI Risk Committee.

#### Pillar 2 Regime

The firm is subject to Pillar 2 requirements, assessed by the PRA, for risks not covered in the LCR (Pillar 1). These risks are identified by the firm and documented in the Internal Liquidity Adequacy Assessment Process ("ILAAP") that is then reviewed and assessed by the PRA as part of the Liquidity Supervisory Review Process ("L-SREP"). As a result the firm is required to hold sufficient liquidity in the form of High Quality Liquid Assets ("HQLA") to meet both Pillar 1 and Pillar 2 requirements. Pillar 2 amounts are not disclosed in Table 42.

#### **15.3 LCR Qualitative Disclosures**

#### The Main Drivers of the LCR

When discussing the main drivers of the LCR, the 12-month average values have been referred to.

The most significant drivers of MSI Group's cash outflow amounts this quarter were secured wholesale funding and outflows related to derivative exposures and other collateral requirements. These outflows constituted more than 70% of the LCR cash outflow amount. Secured wholesale funding transactions include repurchase transactions, loans of collateral to customers to effect short positions, and other secured loans received by the MSI Group. Asset exchange transactions, where the counterparties have previously exchanged non-cash assets and have agreed to return such assets to each other at a later date, are also included in the secured wholesale funding line. Net derivative cash outflows include contractual payments and collateral that the MSI Group will make or deliver to a counterparty within 30 calendar days under derivative transactions, taking into account any qualifying master netting agreement. Other outflow drivers are also noted in the "Total Weighted Value" column in Table 42.

These outflows reflect prescribed, industry-wide LCR rules related to liquidity risk in the Firm's business lines, activities and products, as measured for a projected 30-calendar day stress period.

The cash inflow amounts this quarter were principally driven by secured lending and asset exchange cash inflows, which constituted more than 70 % of the LCR cash inflow amount. Secured lending transactions include reverse repurchase transactions and securities borrowed transactions. Other inflow drivers are noted in the "Total Weighted Value" column in Table 42.

#### **Secured Funding**

A substantial portion of MSI Group's total assets consists of liquid marketable securities and short term receivables arising principally from its sales and trading activities. The liquid nature of these assets provides the MSI Group with flexibility in funding these assets with secured financing. The MSI Group's goal is to achieve an optimal mix of durable secured and unsecured financing. Secured financing investors principally focus on the quality of the eligible collateral posted. Accordingly, the MSI Group actively manages its secured financing book based on the quality of the assets being funded.

The MSI Group utilises shorter-term secured financing for highly liquid assets and has established longer tenor limits for less liquid asset classes, for which funding may be at risk in the event of a market disruption. The MSI Group defines highly liquid assets as those that are consistent with the standards of the Liquidity Reserve, and less liquid assets as those that do not meet these standards. To further minimise the refinancing risk of secured financing for less liquid assets, the MSI Group has established concentration limits to diversify its investor base and reduce the amount of monthly maturities for secured financing of less liquid assets. Furthermore, the MSI Group obtains term secured funding liabilities in excess of less liquid inventory ("Spare Capacity"), as an additional risk mitigant to replace maturing trades in the event that secured financing markets, or the MSI Group's ability to access them, become limited. In addition to the above risk management framework, the MSI Group holds a portion of its Liquidity Reserve against the potential disruption to its secured financing capabilities.

#### **Derivative Exposures and Potential Collateral Calls**

The MSI Group is a participant in global derivatives markets. In some cases, the derivative counterparties have contractual rights that require the MSI Group to post collateral to them in the event that credit rating agencies downgrade the MSI Group's credit rating. In measuring collateral call risks, all amounts of collateral that could be required to post in accordance with the terms and conditions of the downgrade trigger clauses found in applicable legal agreements are considered.

The impact of potential collateral calls related to the derivatives exposures is inherently uncertain and would depend on a number of interrelated factors, including, among others, the magnitude of a downgrade, the rating relative to peers, the rating assigned by the relevant agency pre-downgrade, individual client behaviour and future mitigating actions that could be taken. The MSI Group manages the risk of potential collateral calls on the derivative positions by employing a variety of risk mitigation strategies, including modelling the impact of credit rating agency downgrades in the liquidity stress test program, historical changes in variation margin, diversifying risk exposures, hedging, managing counterparty and product risk limits and maintaining the Global Liquidity Reserve to enable the MSI Group to meet unexpected collateral calls or other potentially adverse developments.

#### Currency mismatch in the LCR

A portion of the MSI Group's business is conducted in currencies other than the U.S. dollar, and changes in exchange rates relative to the U.S. dollar can affect the value of non-U.S. dollar net assets, revenues and expenses. Potential exposures as a result of these fluctuations in currencies are closely monitored, and strategies are adopted to reduce the impact of these fluctuations on financial performance. These strategies may include the financing of non-U.S. dollar assets with direct, or swap-based borrowings, in the same currency and the use of currency forward contracts or the spot market in various hedging transactions related to net assets, revenues, expenses or cash flows.

#### **Concentration of funding sources**

The MSI Group's funding is managed in a manner that reduces the risk of disruption to operations. Funding sources are diversified between secured and unsecured funding sources by product and investor, and are

designed to ensure that the tenor of the liabilities equals, or exceeds, the expected holding period of the assets being financed.

The balance sheet is funded on a global basis through diverse sources. These sources may include equity capital, unsecured borrowings, secured borrowings, securities lending, letters of credit and lines of credit. The MSI Group has active financing programs for both standard and structured products targeting global investors and currencies.

The secured funding program is managed in accordance with risk management principles that require a significant weighted average maturity, a maturity limit structure, an investor limit structure to ensure diversification of secured funding sources and an amount of Spare Capacity to offer protection against investors not rolling trades or asset appreciation. The unsecured funding is mainly with affiliates and diversified across currencies and tenors.

#### The Centralized Liquidity Management Function and its Interaction with other Functional Areas

In line with the "Three Lines of Defence" model, the Liquidity Risk Management Framework imposes specific responsibilities on the centralised liquidity management function, including with respect to its interaction with other functional areas within the Firm. Under this framework, the Firm's Corporate Treasury, Bank Resource Management, Cash Management and Finance functions, are the "first line of defence" with respect to liquidity risk management.

These functions are required to identify and assess the Firm's liquidity risks; incorporate identified liquidity risks into liquidity stress testing models and the risk management framework; conduct rigorous liquidity stress testing to measure liquidity risks over a range of scenarios and time horizons, enabling the Firm to determine liquidity and funding needs under adverse conditions; determine the size of the Firm's required liquidity in accordance with the Firm's liquidity risk tolerance and business needs; and dynamically manage the Firm's liquidity reserves, HQLA and sources of funding. This includes taking into account liquidity risk management limits and strategies, market conditions, client and counterparty behaviour, monetary policy, legal or regulatory requirements and developments, or other factors in the markets in which the MSI Group operates in.

The Liquidity Risk Management Framework adopted by the Board assigns "second line of defence" responsibilities to the Firm's Liquidity Risk Department and Model Risk Management function. Among other responsibilities, these functions are required to oversee the liquidity risk arising from business activities that are primarily managed by the first line of defence; review and approve all changes to liquidity stress test models, methodologies and assumptions; ensure the appropriateness and adequacy of liquidity stress test assumptions; and report the results of their independent identification, assessment and monitoring of liquidity risk and related limits across the Firm.

The Firm's Internal Audit function serves as the "third line of defence". Internal Audit's responsibilities with respect to liquidity risk management include auditing the Firm's compliance with internal guidelines set for liquidity risk management and liquidity risk monitoring; providing an independent assessment of liquidity and funding risks, controls and processes; and providing an independent assessment of whether the Firm's liquidity risk management function complies with applicable regulatory standards and supervisory expectations.

#### **15.4 LCR Quantitative Disclosures**

The LCR quantitative disclosures, shown in Table 42, reflect the monthly average value for the last 12-month period, for each quarter end period. The figures reported in the "Total Weighted Value" column reflect the prescribed, industry-wide rules and haircuts applicable to the LCR to determine the Firm's eligible HQLA and cash in/outflow amounts. The "Total Unweighted Value" columns reflect gross values that are not included in the calculation used to determine the Firm's compliance with LCR requirements.

Table 42: Liquidity Coverage Ratio <sup>1,2</sup>	-	otal umusiaht	ad valua ČRARA			Fotal waightee	Lyalua ¢MM	
	Total unweighted value \$MM  31-Mar- 30-Jun- 30-Sep- 31-Dec-			Total weighted value \$MM  31-Mar- 30-Jun- 30-Sep- 31-Dec-				
	2017	2017	2017	2017	2017	2017	2017	2017
Number of data points used in the calculation of averages	12	12	12	12	12	12	12	12
High-Quality Liquid Assets								
Total high-quality liquid assets (HQLA)	-	-	-	-	33,335	35,137	36,541	38,444
Cash-Outflows								
Retail deposits and deposits from small business customers, of which:	0	0	0	0	0	0	0	C
Stable deposits	0	0	0	0	0	0	0	C
Less stable deposits	0	0	0	0	0	0	0	C
Unsecured wholesale funding	12,901	12,321	11,632	11,443	12,901	12,321	11,632	11,443
Operational deposits (all counterparties) and deposits in networks of cooperative banks	0	0	0	0	0	0	0	0
Non-operational deposits (all counterparties)	12,830	12,267	11,568	11,367	12,830	12,267	11,568	11,367
Unsecured debt	72	54	63	76	72	54	63	76
Secured wholesale funding	-	-	-	-	42,457	42,432	42,642	43,159
Additional requirements	16,314	16,754	16,771	16,858	12,512	12,817	12,862	12,920
Outflows related to derivative exposures and other collateral requirements	12,513	12,872	12,793	12,823	11,688	11,978	11,997	12,032
Outflows related to loss of funding on debt products	0	0	0	0	0	0	0	C
Credit and liquidity facilities	3,801	3,883	3,978	4,034	824	839	865	888
Other contractual funding obligations	46,335	47,809	48,184	48,416	1,373	1,466	1,492	1,368
Other contingent funding obligations	4,422	5,372	6,141	6,797	2,046	2,427	2,796	3,138
Total Cash Outflows					71,289	71,463	71,423	72,028
Cash Inflows								
Secured lending (e.g. reverse repos)	186,371	189,222	189,971	194,915	36,184	35,814	36,309	38,263
Inflows from fully performing exposures	7,816	8,621	9,293	9,527	6,752	7,435	7,917	8,130
Other cash inflows	4,539	4,504	4,440	4,325	4,539	4,504	4,440	4,325
(Difference between total weighted inflows and total weighted outflows arising from transactions in third								
countries where there are transfer restrictions or which are denominated in non-convertible currencies)	-	-	-	-	772	843	850	904
(Excess inflows from a related specialised credit institution)	-	-	-	-	0	0	0	0
Total Cash Inflows	198,725	202,347	203,703	208,767	46,703	46,909	47,817	49,814
Fully exempt inflows	0	0	0	0	0	0	0	0
Inflows Subject to 90% Cap	0	0	0	0	0	0	0	0
Inflows Subject to 75% Cap	142,272	147,446	153,295	160,708	46,703	46,909	47,817	49,804
						Total Adjus	ted Value	
Liquidity Buffer	-	-	-	-	33,335	35,081	36,436	38,339
Total Net Cash Outflows	-	-	-	-	24,586	24,554	23,606	22,324
Liquidity Coverage Ratio (%)	-	-	-	-	136%	143%	154%	172%

<sup>&</sup>lt;sup>1</sup> All cash inflows and outflows shown are at the full unweighted/weighted value and do not reflect the phase in of LCR requirements.
<sup>2</sup> As per the EBA guidance, Total HQLA amounts are before the application of the LCR HQLA caps (these are reflected in the Liquidity Buffer amounts, impacting Q2-Q4). Total Cash Inflows are prior to the application of the inflow cap that is reflected in the Total Net Cash Outflows balance, impacting Q4 only.

#### **16. Asset Encumbrance**

Borrowing and lending securities and hence the encumbrance of assets, is a fundamental part of Morgan Stanley's business within the MSI Group. The following details the MSI Group's encumbered and unencumbered assets, along with the matching liabilities. An asset is considered encumbered if it has been pledged or if it is subject to any form of arrangement to secure, collateralise or credit enhance any transaction from which it cannot be freely withdrawn.

The majority of the on-balance-sheet assets are not subject to any form of encumbrance, given they are mostly cash or receivable assets. The MSI Group also receives securities from the market, which are off-balance-sheet, reported in the collateral received table below. These may be pledged to the market and encumbered, or held as part of the MSI Group's unencumbered pool of assets. For both on balance sheet assets and collateral received, the level of encumbrance over 2017 has increased slightly from 2016, with the median having increased year on year. The key sources of encumbrance are secured funding repo and stock lending transactions. Other sources of encumbrance include short coverage cash collateral pledged against derivatives and cash segregated for Client Money purposes. A portion of the assets are intercompany movements with other Morgan Stanley Group entities.

In compliance with PRA guidelines, amounts are presented as a median of the twelve month ends over 2017. Note the rows in the tables below are not additive, with the median calculated individually across all cells.

Table 43: Encumbered and Unencumbered Assets

	Carrying	Fair	Carrying	Fair Value of
	Amount of	Value of	Amount of	Unencumbered
	Encumbered	Encumbered	Unencumbered	Assets
	Assets	Assets	Assets	
	\$MM	\$MM	\$MM	\$MM
Assets of the reporting institution	106,394	-	347,688	-
Equity Instruments	44,101	44,101	25,637	25,637
Debt Securities <sup>1</sup>	18,642	18,642	4,656	4,656
of which: covered bonds	87	87	0	0
of which: asset-backed securities	300	300	438	438
of which: issued by general governments	10,492	10,492	1,768	1,768
of which: issued by financial corporations	2,683	2,683	1,428	1,428
of which: issued by non-financial corporations	5,248	5,248	1,026	1,026
Other Assets <sup>2</sup>	43,623	-	320,815	-

As per PRA guidelines, Debt Securities are disclosed by asset category.

**Table 44: Collateral Received** 

	Fair value of encumbered collateral received or own debt securities	Fair value of collateral received or own debt securities issued available for
	issued	encumbrance
	\$MM	\$MM
Collateral Received by the reporting institution	238,752	39,846
Equity Instruments	94,148	10,930
Debt Securities	141,868	29,092
of which: covered bonds	568	4
of which: asset-backed securities	195	2,068
of which: issued by general governments	135,785	23,843
of which: issued by financial corporations	2,019	237
of which: issued by non-financial corporations	3,557	1,816
Loans and advances other than loans on demand	-	-
Other Collateral Received	179	-

Table 45: Sources of Encumbrance		
	Matching liabilities,	Assets, collateral received and own
	contingent liabilities or	debt securities other than covered
	securities lent	bonds and ABS's encumbered
	\$MM	\$MM
Carrying Amount of selected financial liabilities	102,822	105,563
Other sources of encumbrance	232,358	238,222

<sup>2. &</sup>quot;Other Assets" incorporate Loans on Demand and Loans and Advances other than Loans on Demand.

### 17. Morgan Stanley Investment Management Group

The principal activity of MSIM is the provision of investment management services to clients. There have not been any significant changes in MSIM's principal activity during 2017 and although no significant change is expected the provision of certain services is expected to be impacted by the UK's decision to leave the EU.

The principal activity of MSIM ACD is the provision of authorised corporate director services to UK authorised open-ended investment companies ("OEICs") and to act as the management company for undertakings for collective investments in transferable securities ("UCITS") and alternative investment funds ("AIF"). There have not been any significant changes MSIM ACD's principal activity during 2017. MSIM ACD's role as a management company for UCITS and AIFs is expected to be impacted by the UK's decision to leave the EU.

#### **Key Metrics**

As an investment firm MSIM Group reports its Basel III RWAs as the higher of the sum of credit risk and market risk, or the fixed overhead requirement. The fixed overhead requirement is calculated using figures resulting from the applicable accounting framework of the preceding year.

Table 46: MSIM Group Key Metrics	
. ,	\$MM
Common Equity Tier 1 Capital (CET1)	268
Additional Tier 1 Capital (AT1)	-
Tier 1 Capital	268
Tier 2 Capital	51
Total Own Funds	319
Credit Risk and Market Risk RWAs	384
Fixed Overhead Requirement	1,006
Basel III RWAs	1,006
Basel I Floor RWAs <sup>1</sup>	2,765
CET1 Ratio <sup>2</sup>	9.7%
Tier 1 Capital Ratio	9.7%
Total Capital Ratio	11.5%

Basel I Floor expired after 31 December 2017.

#### **Capital Management**

The MSIM Group views capital as an important source of financial strength. It actively manages and monitors its capital in line with established policies and procedures and in compliance with local regulatory requirements.

In line with the MSI Group's capital management policies, the MSIM Group manages its capital position based upon among other things, business opportunities, risks, capital availability and rates of return together with internal capital policies, regulatory requirements and rating agency guidelines and therefore, in the future may expand or contract its capital base to address the changing needs of its business.

The MSIM Group prepares an ICAAP document, in order to meet obligations under CRD IV and the requirements of the FCA.

Basel III Ratios CET1 26.6%, Tier 1 26.6%, Total Capital 31.7%.

### **Capital Resources**

Table 47 summarises the capital resources of MSIM Group as at 31 December 2017.

Table 47: MSIM	Group	Own	<b>Funds</b>
----------------	-------	-----	--------------

	\$MM
Capital instruments eligible as CET1 Capital	1
Retained Earnings	268
Accumulated other comprehensive income	(1)
Other reserves	-
Adjustments to CET1 due to prudential filters	-
Other Intangible Assets	-
IRB Shortfall of credit risk adjustments to expected losses	(0)
CET1 Capital	268
Additional Tier 1 Capital	-
Tier 1 Capital	268
Capital instruments and subordinated loans eligible as T2 Capital	51
Instruments issued by subsidiaries that are given recognition in T2 Capital	-
Transitional adjustments due to additional recognition in T2 Capital of instruments issued by subsidiaries	-
Tier 2 Capital	51
Total Own Funds	319

The capital resources of the MSIM Group are based on audited, consolidated non-statutory financial information. See Appendix VIII for further details.

Table 48: MSIM Group Reconciliation of Balance Sheet Tot	al Equity to	Regulatory Capit	al	
	CET1	AT1	Tier 2	
		Capital	Capital	Capital
	\$MM	\$MM	\$MM	\$MM
Equity Instruments	1	1	-	-
Share Premium	-	-		
Other reserves	(0)	(0)	-	-
Other Comprehensive Income	(1)	(1)	-	-
Retained Earnings	352	352	-	-
Balance sheet total equity	352	352	-	-
Add:				
Tier 2 instruments classified as other liabilities	51			51
Less:				
Part of interim or year-end profit not eligible	(84)	(84)	-	-
Additional value adjustments (negative amount)	-	-	-	-
Negative amounts resulting from the calculation of expected	(0)	(0)		
loss amounts	(0)	(0)	-	-
Gains or losses on liabilities valued at fair value resulting from				
changes in own credit standing	-	-	-	-
Intangible assets (net of related tax liability) (negative amount)		-		
Total Own Funds (Fully Loaded Position and Transitional Rules)	319	268	-	51

Table 49: MSIM Group Own Funds Transitional Template		
	Transitional	Fully
	Rules	Loaded
	4	Position
Constitution to the condition of the con	\$MM	\$MM
Capital instruments and the related share premium accounts	1 1	1
Paid up capital instruments Of which: Ordinary shares	1	1
Share premium	1	1
Retained earnings	268	268
Accumulated other comprehensive income (and other reserves, to include unrealised	(1)	(1)
gains and losses under the applicable accounting standards)	(-/	(-/
Common Equity Tier 1 (CET1) capital before regulatory adjustments	268	268
Additional value adjustments (negative amount)	-	-
Intangible assets (net of related tax liability) (negative amount)	-	-
Negative amounts resulting from the calculation of expected loss amounts	(0)	(0)
Gains or losses on liabilities valued at fair value resulting from changes in own credit	-	-
standing		
Total regulatory adjustments to Common equity Tier 1 (CET1)	(0)	(0)
Common Equity Tier 1 (CET1) capital	268	268
Capital instruments and the related share premium accounts	-	-
Additional Tier 1 (AT1) capital	-	-
Tier 1 capital (T1 = CET1 + AT1)	268	268
Capital instruments and the related share premium accounts	51	51
Qualifying own funds instruments included in consolidated T2 capital (including		
minority interests and AT1 instruments not included in rows 5 or 34) issued by subsidiaries and held by third parties		
Of which: Instruments issued by subsidiaries subject to phase out		
Tier 2 (T2) capital before regulatory adjustments	51	51
Tier 2 (T2) capital	51	51
Total capital (TC = T1 + T2)	319	319
Credit Risk and Market Risk RWAs	384	384
Fixed Overhead Requirement	1,006	1,006
Basel III RWAs	1,006	1,006
Basel I Floor RWAs	2,765	-
Common Equity Tier 1 (as a percentage of risk exposure amount)	9.7%	26.6%
Tier 1 (as a percentage of risk exposure amount)	9.7%	26.6%
Total capital (as a percentage of risk exposure amount)	11.5%	31.7%
Institution specific buffer requirement (CET1 requirement in accordance with article	4.5%	4.5%
92 (1) (a) plus capital conservation and countercyclical buffer requirements, plus		
systemic risk buffer, plus the systemically important institution buffer (G-SII or O-SII		
buffer), expressed as a percentage of risk exposure amount) <sup>1</sup>		
Of which: Capital conservation buffer requirement	-	-
Of which: Counter cyclical buffer requirement	-	-
Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)	-	-
Direct and indirect holdings of the capital of financial sector entities where the institution does not have a significant investment in those entities (amount below 10% threshold and net of eligible short positions)	-	-
Direct and indirect holdings by the institution of the CET 1 instruments of financial sector entities where the institution has a significant investment in those entities (amount below 10% threshold and net of eligible short positions)	-	-
Deferred tax assets arising from temporary differences (amount below 10% threshold, net of related tax liability where the conditions in Article 38 (3) are met)	1	1

<sup>1.</sup> As a limited licence firm under CRR Article 95, IFPRU 10 on capital buffers is not applicable. Therefore MSIM Group is exempt from both the CCB and CCYB.

### **Capital Requirements**

The table below summarises RWAs and MCR for MSIM Group by risk type, with MCR calculated as 8% of RWAs in accordance with CRD IV.

Table 50: Overview of RWAs MSIM Group (EU OV1-A)		
	RWAs	MCR
	\$MM	\$MM
Credit Risk (excluding Counterparty Credit Risk)	352	28
Of which the standardised approach	254	20
Of which the foundation IRB (FIRB) approach	98	8
Of which the advanced IRB (AIRB) approach	-	-
Of which equity IRB under the simple risk-weighted approach or the IMA	27	2
Counterparty Credit Risks	-	-
Of which mark to market	-	-
Of which original exposure	-	-
Of which the standardised approach	-	-
Of which internal model method (IMM)	-	-
Of which risk exposure amount for contributions to the default fund of a CCP	-	-
Of which CVA	-	-
Settlement Risk	-	-
Securitisation exposures in the banking book	-	-
Of which IRB approach	-	-
Of which IRB supervisory formula approach (SFA)	-	-
Of which internal assessment approach (IAA)	-	-
Of which standardised approach	-	-
Market Risk	32	3
Of which the standardised approach	32	3
Of which IMA	-	-
Large exposures	-	-
Operational risk	-	-
Of which basic indicator approach	-	-
Of which standardised approach	-	-
Of which advanced measurement approach	-	-
Amounts below the thresholds for deduction (subject to 250% risk weight)	-	-
Total Credit Risk and Market Risk	384	31
Fixed Overhead Requirement	1,006	80
Basel III	1,006	80
Floor Adjustment	2,381	190
Basel I	2,765	221

Table 51: MSIM	Group Credit	· Rick Summary

	EAD \$MM	RWA \$MM	MCR \$MM
IRB			-
Corporates	19	5	0
Equity	9	27	2
Institutions	362	66	5
Total (IRB)	390	98	8
Standardised			
Central Governments Or Central Banks	2	4	0
Corporates	29	28	2
Other Items	222	222	18
Total (Standardised)	253	254	20
Total	643	352	28

<sup>1.</sup> Exposure classes where MSIM Group has no exposure are not shown in the table.

### 18. Appendix I: Board of Directors Knowledge, Skills and Expertise

#### **Appointments to MSI Board**

When identifying and recommending candidates to join the MSI Board, the MSI Nomination and Governance Committee will consider a broad range of qualities and characteristics, giving due regard to ensuring a broad range of knowledge, skills, diversity and experience is present on the Board and its Committees. It will also take into account regulatory requirements and relevant policies of the MSI Group. When identifying and selecting non-executive directors, the Nomination and Governance Committee may also consult with executive search firms. The Nomination and Governance Committee met three times during 2017. New directors go through tailored induction programmes and all directors are provided with ongoing training.

#### Diversity and the Composition of the MSI Board

The MSI Board recognises the importance and benefits of diversity both within business operations and at a board level. All appointments to the MSI Board are made on merit, in the context of the skills and experience that the MSI Board as a whole requires to be effective, with due regard given to the benefits of diversity. When assessing the composition of the MSI Board and recommending new directors, the MSI Nomination and Governance Committee considers the benefits of all aspects of diversity, including gender diversity.

The MSI Board is aiming to reach a target of 27% female representation by the end of 2018. Selection of female candidates to join the MSI Board will be, in part, dependent on the pool of female candidates with the necessary skills, knowledge and experience. In order to promote the specific objective of gender diversity at Board level, the Nomination and Governance Committee expects short-lists of potential candidates prepared by external executive search firms to include at least one female candidate.

#### **MSI Board of Directors**

#### **Non-Executive Directors**

#### Jonathan Bloomer

Jonathan was appointed a non-executive director of the MSI Board\* in November 2016. He is a member of the Audit, Risk and Nomination & Governance Committees.

Jonathan has over 40 years' experience working in accounting and financial services firms. He was a Partner at Arthur Andersen from 1987 to 1994 before leaving to join the Prudential Group plc where he spent over 10 years including as Group Finance Director and Group CEO. Jonathan also spent six years at Cerberus Capital, a global private equity firm, as a European Partner and Senior Member of the Global Operations team.

Jonathan holds a number of non-executive directorships with other financial institutions.

He is a Chartered Accountant and holds a B.Sc. in Physics from Imperial College.

\*Jonathan became Chair of the MSI Board and MSI Nomination & Governance Committee with effect from 31 March 2018.

#### **David Cannon**

David was appointed a non-executive director of the MSI Board in June 2013. He is Chairman of the Audit Committee and a member of the Risk Committee and Nomination & Governance Committee.

David has over thirty years' experience in the financial sector, with a particular focus on accounting and investment banking. He was a Partner at Ernst & Young from 1986 to 1995, leading the audit of a number of large financial services groups and being responsible for one of Ernst & Young's audit divisions before leaving in 1995 to become Chief Financial Officer of BZW/Barclays Capital. He returned to Ernst & Young in 1998 as Managing Partner of the London Financial Services Office. Between 2003 and 2012, David held a number of positions at Deutsche Bank including Deputy Group CFO and Chief Finance Officer for the Investment Bank.

David is a member of the Financial Reporting Councils' Conduct Committee. He has an M.A. in PPE from the University of Oxford and is a qualified Chartered Accountant.

#### **Terri Duhon**

Terri was appointed a non-executive director of the MSI Board in April 2016. She is Chair\* of the MSI Risk Committee and member of the Audit, Nomination & Governance and Remuneration Committees.

Terri has over twenty years' risk and financial markets experience. She worked for JPMorgan as a derivatives trader for eight years and was Global Head of Structured Credit at ABN AMRO. In 2004 she founded an expert advisory company and has been retained as a financial risk expert for major regulators.

Terri has held a number of non-executive director appointments and lectures at Oxford University Said Business School. She graduated from MIT in Mathematics in 1994.

\*Became Chair with effect from 20 September 2017

#### Ian Plenderleith

Ian was appointed a non-executive director in December 2011 and as Chairman of the MSI Board\* in January 2014. He is a member of the Risk\*\*, Audit, Remuneration Committees and since September 2017 became Chairman of the Nomination & Governance Committee.

Ian has worked in the financial sector for over forty years. He was Executive Director responsible for Financial Market Operations at the Bank of England when he retired in 2002 and has held a number of other positions with the Bank of England since joining in 1965, including Head of the Bank of England's Markets Division (1980 to 1994) and Private Secretary to the Governor of the Bank of England (1976 to 1979). Ian was a member of the Monetary Policy Committee from its inception in 1997. He has also served as Deputy Governor of the South African Reserve Bank (2003 to 2005).

lan holds non-executive directorships at a number of other financial institutions. He also has a degree in Literae Humaniores from the University of Oxford and an MBA from Columbia Business School.

- \* Retired from MSI Board and Committees with effect from 31 March 2018
- \*\*Stood down as acting Risk Chairman on 20 September 2017

#### **Mary Phibbs**

Mary was appointed a non-executive director of the MSI Board in May 2013. She chairs the Remuneration Committee and is a member of the Audit, Risk and Nomination & Governance\* Committees.

Mary has over thirty years' experience in audit, advisory, banking (wholesale and retail), finance and insurance in the UK, Australia and Asia Pacific. During her career she has held roles with a number of retail and investment banks predominantly in Australia, including Standard Chartered Bank and National Australia Bank.

Mary holds a number of non-executive directorships with other financial institutions. She also has a Bachelor of Science degree from Surrey University and is a qualified Chartered Accountant.

\*Stood down as Chair on 13 September 2017.

#### **Executive Directors**

#### **Christopher Castello**

Christopher is EMEA Chief Financial Officer and an executive director of the MSI Board (appointed September 2014).

Christopher joined Morgan Stanley in March 2014 from Goldman Sachs Group where he was Asia Pacific Controller (2008 to 2014) and Chief Administrative Officer Japan and Korea (2012 to 2014). Prior to this, Chris held roles in Product Control, including Product Control Managing Director and Head of Asia Product Control. He joined Goldman Sachs Group in 1993.

Christopher has a First Class Honours degree in Business Administration from Pace University and an MBA from Columbia Business School. He is a CFA Charterholder and holds a Certified Public Accountant qualification.

#### Lee Guy

Lee is EMEA Chief Risk Officer and an executive director of the MSI Board (appointed September 2014).

Lee joined Morgan Stanley in July 2014 from Barclays Investment Bank where he was Co-Chief Risk Officer from 2011. Prior to this Lee was Head of Operational Risk (2011) and Head of Market Risk (2004 to 2011) at Barclays Capital Inc. Lee has also held risk management roles at Dresdner Kleinwort Wasserstein (2001 to 2004) and Kleinwort Benson Limited (1994 to 1998). Prior to this (1986 to 1994) Lee held executive positions in trading and leverage finance.

Lee has a degree in Mathematics from Warwick University and is a CFA Charterholder.

#### **Jakob Horder**

Jakob is Head of EMEA Fixed Income and an executive director of MSI Board (appointed June 2016).

Previously he was Co-Head of Global Interest Rate Products and before that he had various senior positions in European Rates Sales and Trading. Prior to joining FID in 2009, he was Head of Fixed Income Capital Markets Europe. Jakob joined Morgan Stanley in 2002 and prior to this was in Fixed Income Derivatives at Goldman Sachs.

Jakob holds a B.Sc, M.Sc and Ph.D in Economics all from the London School of Economics.

#### Arun Kohli

Arun is the Chief Operating Officer for Morgan Stanley EMEA and an executive director on the MSI Board (appointed August 2016).

Prior to this, he was the Chief Operating Officer for Morgan Stanley, Asia Pacific and a Managing Director in Morgan Stanley's Firm Strategy & Execution group in New York. Arun joined Morgan Stanley in 2007 from McKinsey's Financial Institutions group in New York. Prior to that Arun spent five years with CRISIL (the Indian subsidiary of S&P).

Arun attended the University of Delhi where he graduated with Honours in Engineering and received a Master of Business Administration with Honours from the Wharton School of the University of Pennsylvania.

#### **Robert Rooney**

Robert is Chief Executive Officer of MSI and is an executive director of the MSI Board (appointed July 2010).

He was appointed as Chief Executive Officer of MSI in January 2016 and Global Head of Technology in 2017. Prior to this he was Global Co-Head of Fixed Income, Sales & Trading (appointed May 2013) and has previously held a number of other roles within Morgan Stanley including Head of Fixed Income EMEA, Global Head of Fixed Income Client Coverage.

Robert graduated from Columbia University in 1989 before joining Morgan Stanley in 1990.

#### **David Russell**

David is Head of Morgan Stanley's Institutional Equities Division in Europe and an executive director of the MSI Board (appointed May 2011). He joined Morgan Stanley in 1990 as a European Equity trader and has held a number of other roles including Head of Trading for Europe and Head of Institutional Equities Division in Asia before taking up his current role.

David graduated from the University of London in 1987 with a degree in History.

Figure 6: MSI Directors: Number of Directorships

	Number of Directorship Held as at 31 December 2017	Directorships Adjusted For SYSC4.3A.7(2)
Jonathan Bloomer	7	4
David Cannon	3	1
Terri Duhon	3	1
Ian Plenderleith	5	2
Mary Phibbs	5	2
Christopher Castello	3	1
Lee Guy	3	1
Jakob Horder	4	1
Arun Kohli	6	2
Robert Rooney	2	1
David Russell	6	2

## 19. Appendix II: MSI Group Capital Instruments Template

### **Table 52: MSI Group Capital Instruments Template**

#### Reported in USD Unless Otherwise Stated

Description	Common	Common Equity Tier 1		1 Additional Tier 1 Subordinated Debt		t	
	А	В	С	D	E	F	G
Issuer	Morgan Stanley International Limited	Morgan Stanley International Limited	Morgan Stanley International Limited	Morgan Stanley International Limited	Morgan Stanley & Co. International plc	Morgan Stanley International Limited	Morgan Stanley International Limited
Unique Identifier (e.g. CUSIP, ISIN, or Bloomberg identifier for private placement)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Governing law(s) of the instrument	Companies Act 2006	Companies Act 2006	English Law	English Law	English Law	English Law	English Law
Transitional CRR rules	Common Equity Tier 1	Common Equity Tier 1	Additional Tier 1	Tier 2	Tier 2 [26.3% ineligible]	Tier 2	Tier 2
Post-transitional CRR rules	Common Equity Tier 1	Common Equity Tier 1	Additional Tier 1	Tier 2	Tier 2	Tier 2	Tier 2
Eligible at solo/(sub-) consolidated/solo&(sub-) consolidated	(Sub-) Consolidated	(Sub-) Consolidated	(Sub-) Consolidated	(Sub-) Consolidated	Solo and (Sub-) Consolidated	(Sub-) Consolidated	(Sub-) Consolidated
Instrument type	Ordinary Shares	Ordinary Shares	Perpetual Unsecured Fixed Rate Securities	Long-term subordinated multicurrency loan facility	Long-term subordinated loan facility	Long-term subordinated multicurrency loan facility	Long-term subordinated multicurrency loan facility
Amount recognised in regulatory capital (\$MM)	USD 1,615MM	USD 0MM	USD 1,300MM	USD 5,000MM	USD 1,474MM [The amount of Sub-debt issued by subsidiaries that is given recognition in Tier 2 Capital is determined in accordance with articles 87 and 480 of the CRR]	USD 51MM	USD 338MM

Description	Common Equity Tier 1		Additional Tier 1	Subordinated Debt		ebt	
	Α	В	С	D	E	F	G
Nominal amount of instrument	Currency of issuance and reporting currency; USD 1,615,167,000	Currency of issuance: GBP 2 Reporting currency: USD 3	Currency of issuance and reporting currency; USD 1,300,000,000	Currency of issuance and reporting currency; USD 5,000,000,000	Currency of issuance and reporting currency; USD 2,000,000,000	Currency of issuance and reporting currency:	Currency of issuance: GBP 250,000,000 Reporting currency: USD 338,087,500
Issue Price	USD 1,615,180,159	GBP 2	USD 1,300,000,000	USD 5,000,000,000	USD 2,000,000,000	USD 51,000,000	GBP 250,000,000
Redemption Price	N/A	N/A	USD 1,300,000,000	USD 5,000,000,000	USD 2,000,000,000	USD 51,000,000	GBP 250,000,000
Accounting Classification	Shareholders' Equity	Shareholders' Equity	Shareholders' Equity	Liability - amortised cost	Liability - amortised cost	Liability - amortised cost	Liability - amortised cost
Original date of issuance	13/11/1998	18/06/1998	15/12/2014	08/02/2017	31/10/2005	21/12/2015	21/12/2015
Perpetual or dated	Perpetual	Perpetual	Perpetual	Dated	Dated	Dated	Dated
Original maturity date	No maturity	No maturity	No maturity	21/12/2025	31/10/2025	21/12/2025	21/12/2025
Issuer call subject to prior supervisory approval	N/A	N/A	Yes	N/A	N/A	N/A	N/A
Option call date, contingent call dates and redemption amount	N/A	N/A	Issuer call option date is 5 years after the issue date (15-Dec 2019), after which the issuer has the option to redeem in whole or in part. In the event of a taxation event; can be redeemed at the option of the Issuer in whole, but not in part. In the event of a Capital Disqualification event the issuer can redeem in whole. The redemption price is equal to the outstanding principal amount being redeemed	N/A	N/A	N/A	N/A
Subsequent call dates, if applicable	N/A	N/A	The option to redeem of the Issuer continues on any date after the initial call option date	N/A	N/A	N/A	N/A

Description	Common	Common Equity Tier 1 Additional Tier 1 Subordinated Debt			Subordinated Debt		
	Α	В	С	D	E	F	G
Fixed or floating dividend / coupon	Floating	Floating	Fixed Rate	Floating	Floating	Floating	Floating
Coupon rate and any related index	N/A	N/A	9%	OBFR + 2.300%	3mth USD LIBOR + 1.475%	OBFR + 2.086%	SONIA + 2.121%
Existence of a dividend stopper	No	No	No	No	No	No	No
Fully discretionary, partially discretionary or mandatory (in terms of timing) Fully discretionary, partially discretionary or mandatory	Fully Discretionary Fully Discretionary	Fully Discretionary Fully Discretionary	Fully Discretionary Fully Discretionary	Mandatory Mandatory	Mandatory Mandatory	Mandatory Mandatory	Mandatory Mandatory
(in terms of amount)  Existence of step up or other incentive to redeem	No	No	No	No	No	No	No
Noncumulative or cumulative	Noncumulative	Noncumulative	Noncumulative	Cumulative	Cumulative	Cumulative	Cumulative
Convertible or non- convertible	Nonconvertible	Nonconvertible	Nonconvertible	Nonconvertible	Nonconvertible	Nonconvertible	Nonconvertible
If convertible, conversion trigger(s)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
If convertible, fully or partially	N/A	N/A	N/A	N/A	N/A	N/A	N/A
If convertible, conversion rate	N/A	N/A	N/A	N/A	N/A	N/A	N/A
If convertible, mandatory or optional conversion	N/A	N/A	N/A	N/A	N/A	N/A	N/A
If convertible, specify instrument type convertible into	N/A	N/A	N/A	N/A	N/A	N/A	N/A
If convertible, specify issuer of instrument it converts into	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Description	Common I	Equity Tier 1	Additional Tier 1		Subordinated	Debt	
	А	В	С	D	Е	F	G
Write-down features	No	No	Yes	No	No	No	No
If write-down, write-down trigger(s)	N/A	N/A	Common Equity Tier 1 Capital Ratio of MSI Group falls below 7.00%	N/A	N/A	N/A	N/A
If write-down, full or partial	N/A	N/A	Always full	N/A	N/A	N/A	N/A
If write-down, permanent or temporary	N/A	N/A	Permanent	N/A	N/A	N/A	N/A
If temporary write-down, description of write-up mechanism	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Perpetual Unsecured Fixed Rate Securities [column C]	Perpetual Unsecured Fixed Rate Securities [column C]	Long-term sub-ordinated loan facility [columns D,E,F,G]	Other liabilities	Other liabilities	Other liabilities	Other liabilities
Non-compliant transitioned features	No	No	No	No	No	No	No
If yes, specify non-compliant features	N/A	N/A	N/A	N/A	N/A	N/A	N/A

<sup>1.</sup>All capital instruments issued by the MSI Group are issued within Morgan Stanley and are not marketable instruments.

# **20.** Appendix III: MSIM Group Capital Instruments Template

# Table 53: MSIM Group Capital Instruments Template

Description	Common B	Subordinated Debt	
	A	В	c
Issuer	Morgan Stanley Investment Management Limited	Morgan Stanley Investment Management Limited	Morgan Stanley Investment Management Limited
Unique Identifier (e.g. CUSIP, ISIN, or Bloomberg identifier for private placement)	N/A	N/A	N/A
Governing law(s) of the instrument	Companies Act 2006	Companies Acts 2006	English Law
Transitional CRR rules	Common Equity Tier 1	Common Equity Tier 1	Tier 2
Post-transitional CRR rules	Common Equity Tier 1	Common Equity Tier 1	Tier 2
Eligible at solo/(sub-) consolidated/solo&(sub-) consolidated	Solo and (Sub-) Consolidated	Solo and (Sub-) Consolidated	Solo and (Sub-) Consolidated
Instrument type	Ordinary Shares	Ordinary Shares	Long-term subordinated multicurrency loan facility
Amount recognised in regulatory capital (\$MM)	USD 1MM	USD 0MM	USD 51MM
Nominal amount of instrument	Currency of issuance and reporting currency; USD 1,000,000	Currency of issuance: GBP 2 Reporting currency: USD 3	Currency of issuance and reporting currency; USD 51,000,000
Issue Price	USD 1,000,000	GBP 2	USD 51,000,000
Redemption Price	N/A	N/A	USD 51,000,000
Accounting Classification	Shareholders' Equity	Shareholders' Equity	Liability – amortised cost
Original date of issuance	04/02/2016	22/01/1986	21/12/2015
Perpetual or dated	Perpetual	Perpetual	Dated
Original maturity date	No maturity	No maturity	21/12/2025
Issuer call subject to prior supervisory approval	N/A	N/A	N/A
Option call date, contingent call dates and redemption amount	N/A	N/A	N/A
Subsequent call dates, if applicable	N/A	N/A	N/A

Description	Common E	quity Tier 1	Subordinated Debt
	А	В	С
Fixed or floating dividend / coupon	Floating	Floating	Floating
Coupon rate and any related index	N/A	N/A	OBFR +2.086%
Existence of a dividend stopper	No	No	No
Fully discretionary, partially discretionary or mandatory in terms of timing)	Fully Discretionary	Fully Discretionary	Mandatory
Fully discretionary, partially discretionary or mandatory (in terms of amount)	Fully Discretionary	Fully Discretionary	Mandatory
Existence of step up or other incentive to redeem	No	No	No
Noncumulative or cumulative	Noncumulative	Noncumulative	Cumulative
Convertible or non-convertible	Nonconvertible	Nonconvertible	Nonconvertible
If convertible, conversion trigger(s)	N/A	N/A	N/A
If convertible, fully or partially	N/A	N/A	N/A
If convertible, conversion rate	N/A	N/A	N/A
If convertible, mandatory or optional conversion	N/A	N/A	N/A
f convertible, specify instrument type convertible into	N/A	N/A	N/A
If convertible, specify issuer of instrument it converts into	N/A	N/A	N/A
Write-down features	No	No	No
f write-down, write-down trigger(s)	N/A	N/A	N/A
f write-down, full or partial	N/A	N/A	N/A
f write-down, permanent or temporary	N/A	N/A	N/A
f temporary write-down, description of write-up mechanism	N/A	N/A	N/A
Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Long-term subordinated loan facility (column C)	Long-term subordinated loan facility (column C)	Other Liabilities
Non-compliant transitioned features	No	No	No
If yes, specify non-compliant features	N/A	N/A	N/A

<sup>1.</sup> All Capital instruments issued by the MSIM Group are issued within Morgan Stanley and are not marketable instruments.

## 21. Appendix IV: MSI Group and MSIP Own Funds Transitional Template

	MSI Gro	oup	MSII	P
	Transitional	Fully	Transitional	Fully
	Rules	Loaded Position	Rules	Loaded Position
	\$MM	\$MM	\$MM	\$MM
Capital instruments and the related share premium accounts	1,615	1,615	12,978	12,978
Paid up capital instruments	1,615	1,615	12,465	12,465
Of which: Ordinary shares	1,615	1,615	10,965	10,965
Of which: Class A Ordinary shares (non-voting)	-	-	1,500	1,500
Share premium	0	0	513	513
Retained earnings	10,727	10,727	2,154	2,154
Accumulated other comprehensive income (and other reserves, to include				
unrealised gains and losses under the applicable accounting standards)	6,958	6,958	1,246	1,246
Independently reviewed interim profits net of any foreseeable charge or dividend	837	837	657	657
Common Equity Tier 1 (CET1) capital before regulatory adjustments	20,137	20,137	17,035	17,035
Additional value adjustments (negative amount)	(1,253)	(1,253)	(1,232)	(1,232)
Intangible assets (net of related tax liability) (negative amount)	(542)	(542)	(2)	(2)
Negative amounts resulting from the calculation of expected loss amounts	(242)	(242)	(248)	(248)
Gains or losses on liabilities valued at fair value resulting from changes in own credit standing	115	115	118	118
Total regulatory adjustments to Common equity Tier 1 (CET1)	(1,922)	(1,922)	(1,364)	(1,364)
Common Equity Tier 1 (CET1) capital	18,215	18,215	15,671	15,671
Capital instruments and the related share premium accounts	1,300	1,300	1,300	1,300
Of which: classified as equity under applicable accounting standards	1,300	1,300	1,300	1,300
Additional Tier 1 (AT1) capital	1,300	1,300	1,300	1,300
Tier 1 capital (T1 = CET1 + AT1)	19,515	19,515	16,971	16,971
Capital instruments and the related share premium accounts	5,389	5,389	7,000	7,000
Qualifying own funds instruments included in consolidated T2 capital (including minority interests and AT1 instruments not included in rows 5 or 34) issued by subsidiaries and held by third parties	1,474	1,474	-	-
Of which: Instruments issued by subsidiaries subject to phase out	•	_,		
Tier 2 (T2) capital before regulatory adjustments	132	- - 724	7 000	7 000
Tier 2 (T2) capital	6,863	6,731	7,000	7,000
Total capital (TC = T1 + T2)	6,863	6,731	7,000	7,000
Total risk weighted assets	26,378	26,246	23,971	23,971
	136,754	136,754	132,723	132,723
Common Equity Tier 1 (as a percentage of risk exposure amount)	13.3%	13.3%	11.8%	11.8%
Common Equity Tier 1 (as a percentage of risk exposure amount) Tier 1 (as a percentage of risk exposure amount)	14.3%	14.3%	12.8%	12.8%
Common Equity Tier 1 (as a percentage of risk exposure amount)  Tier 1 (as a percentage of risk exposure amount)  Total capital (as a percentage of risk exposure amount)  Institution specific buffer requirement (CET1 requirement in accordance with				
Common Equity Tier 1 (as a percentage of risk exposure amount)  Tier 1 (as a percentage of risk exposure amount)  Total capital (as a percentage of risk exposure amount)  Institution specific buffer requirement (CET1 requirement in accordance with article 92 (1) (a) plus capital conservation and countercyclical buffer requirements,	14.3%	14.3%	12.8%	12.8%
Common Equity Tier 1 (as a percentage of risk exposure amount)  Tier 1 (as a percentage of risk exposure amount)  Total capital (as a percentage of risk exposure amount)  Institution specific buffer requirement (CET1 requirement in accordance with	14.3%	14.3%	12.8%	12.8%
Common Equity Tier 1 (as a percentage of risk exposure amount)  Tier 1 (as a percentage of risk exposure amount)  Total capital (as a percentage of risk exposure amount)  Institution specific buffer requirement (CET1 requirement in accordance with article 92 (1) (a) plus capital conservation and countercyclical buffer requirements, plus systemic risk buffer, plus the systemically important institution buffer (G-SII or	14.3% 19.3%	14.3% 19.2%	12.8% 18.1%	12.8% 18.1%
Common Equity Tier 1 (as a percentage of risk exposure amount)  Tier 1 (as a percentage of risk exposure amount)  Total capital (as a percentage of risk exposure amount)  Institution specific buffer requirement (CET1 requirement in accordance with article 92 (1) (a) plus capital conservation and countercyclical buffer requirements, plus systemic risk buffer, plus the systemically important institution buffer (G-SII or O-SII buffer), expressed as a percentage of risk exposure amount)	14.3% 19.3% 5.79%	14.3% 19.2% 7.04%	12.8% 18.1% 5.78%	12.8% 18.1% 7.03%
Common Equity Tier 1 (as a percentage of risk exposure amount)  Tier 1 (as a percentage of risk exposure amount)  Total capital (as a percentage of risk exposure amount)  Institution specific buffer requirement (CET1 requirement in accordance with article 92 (1) (a) plus capital conservation and countercyclical buffer requirements, plus systemic risk buffer, plus the systemically important institution buffer (G-SII or O-SII buffer), expressed as a percentage of risk exposure amount)  Of which: Capital conservation buffer requirement	14.3% 19.3% 5.79% 1.25%	14.3% 19.2% 7.04% 2.50%	12.8% 18.1% 5.78% 1.25%	12.8% 18.1% 7.03% 2.50%
Common Equity Tier 1 (as a percentage of risk exposure amount)  Tier 1 (as a percentage of risk exposure amount)  Total capital (as a percentage of risk exposure amount)  Institution specific buffer requirement (CET1 requirement in accordance with article 92 (1) (a) plus capital conservation and countercyclical buffer requirements, plus systemic risk buffer, plus the systemically important institution buffer (G-SII or O-SII buffer), expressed as a percentage of risk exposure amount)  Of which: Capital conservation buffer requirement  Of which: Counter cyclical buffer requirement  Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure	14.3% 19.3% 5.79% 1.25% 0.04%	14.3% 19.2% 7.04% 2.50% 0.04%	12.8% 18.1% 5.78% 1.25% 0.03%	12.8% 18.1% 7.03% 2.50% 0.03%
Common Equity Tier 1 (as a percentage of risk exposure amount)  Tier 1 (as a percentage of risk exposure amount)  Total capital (as a percentage of risk exposure amount)  Institution specific buffer requirement (CET1 requirement in accordance with article 92 (1) (a) plus capital conservation and countercyclical buffer requirements, plus systemic risk buffer, plus the systemically important institution buffer (G-SII or O-SII buffer), expressed as a percentage of risk exposure amount)  Of which: Capital conservation buffer requirement  Of which: Counter cyclical buffer requirement  Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)  Direct and indirect holdings of the capital of financial sector entities where the	14.3% 19.3% 5.79% 1.25% 0.04%	14.3% 19.2% 7.04% 2.50% 0.04%	12.8% 18.1% 5.78% 1.25% 0.03%	12.8% 18.1% 7.03% 2.50% 0.03%
Common Equity Tier 1 (as a percentage of risk exposure amount)  Tier 1 (as a percentage of risk exposure amount)  Total capital (as a percentage of risk exposure amount)  Institution specific buffer requirement (CET1 requirement in accordance with article 92 (1) (a) plus capital conservation and countercyclical buffer requirements, plus systemic risk buffer, plus the systemically important institution buffer (G-SII or O-SII buffer), expressed as a percentage of risk exposure amount)  Of which: Capital conservation buffer requirement  Of which: Counter cyclical buffer requirement  Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)  Direct and indirect holdings of the capital of financial sector entities where the institution does not have a significant investment in those entities (amount below 10% threshold and net of eligible short positions)  Direct and indirect holdings by the institution of the CET 1 instruments of financial	14.3% 19.3% 5.79% 1.25% 0.04% 8.3%	14.3% 19.2% 7.04% 2.50% 0.04% 8.3%	12.8% 18.1% 5.78% 1.25% 0.03% 6.8%	12.8% 18.1% 7.03% 2.50% 0.03% 6.8%
Common Equity Tier 1 (as a percentage of risk exposure amount)  Tier 1 (as a percentage of risk exposure amount)  Total capital (as a percentage of risk exposure amount)  Institution specific buffer requirement (CET1 requirement in accordance with article 92 (1) (a) plus capital conservation and countercyclical buffer requirements, plus systemic risk buffer, plus the systemically important institution buffer (G-SII or O-SII buffer), expressed as a percentage of risk exposure amount)  Of which: Capital conservation buffer requirement  Of which: Counter cyclical buffer requirement  Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)  Direct and indirect holdings of the capital of financial sector entities where the institution does not have a significant investment in those entities (amount below 10% threshold and net of eligible short positions)  Direct and indirect holdings by the institution of the CET 1 instruments of financial sector entities where the institution has a significant investment in those entities	14.3% 19.3% 5.79% 1.25% 0.04% 8.3%	14.3% 19.2% 7.04% 2.50% 0.04% 8.3%	12.8% 18.1% 5.78% 1.25% 0.03% 6.8%	12.8% 18.1% 7.03% 2.50% 0.03% 6.8%
Common Equity Tier 1 (as a percentage of risk exposure amount)  Tier 1 (as a percentage of risk exposure amount)  Total capital (as a percentage of risk exposure amount)  Institution specific buffer requirement (CET1 requirement in accordance with article 92 (1) (a) plus capital conservation and countercyclical buffer requirements, plus systemic risk buffer, plus the systemically important institution buffer (G-SII or O-SII buffer), expressed as a percentage of risk exposure amount)  Of which: Capital conservation buffer requirement  Of which: Counter cyclical buffer requirement  Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)  Direct and indirect holdings of the capital of financial sector entities where the institution does not have a significant investment in those entities (amount below 10% threshold and net of eligible short positions)  Direct and indirect holdings by the institution of the CET 1 instruments of financial	14.3% 19.3% 5.79% 1.25% 0.04% 8.3%	14.3% 19.2% 7.04% 2.50% 0.04% 8.3%	12.8% 18.1% 5.78% 1.25% 0.03% 6.8%	12.8% 18.1% 7.03% 2.50% 0.03% 6.8%

Under PRA supervision, the MSI Group is required to maintain a minimum ratio of Own Funds to RWAs. As at 31 December 2017, the MSI Group is in compliance with the PRA capital requirements as defined by the CRR.

## 22. Appendix V: Countercyclical Capital Buffer

Table 55: Geographical Distribution of Credit Exposures for the CCyB

		al Credit osures	Trading Exposu			tisation sures		Own F Require				
	Exposure Value for SA	Exposure Value for IRB	Sum of Long and Short Positions of Trading Book Exposures for SA	Value of Trading Book Exposures 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	Own Funds Requirements Weights	CCyB Rate
	010	020	030	040	050	060	070	080	090	100	110	120
Andorra	-	-	-	-	-	-	-	-	-	-	0.00%	0.00%
Anguilla	-	15	-	-	-	-	1	-	-	1	0.01%	0.00%
Argentina	-	1	-	-	-	-	-	-	-	-	0.00%	0.00%
Australia	57	1,757	-	62	-	-	55	9	-	64	1.07%	0.00%
Austria	-	144	-	30	-	-	4	2	-	6	0.10%	0.00%
Azerbaijan	-	-	-	6	-	-	-	4	-	4	0.06%	0.00%
Bahamas	5	117	-	-	-	-	11	-	-	11	0.18%	0.00%
Bahrain	-	-	-	9	-	-	-	7	-	7	0.11%	0.00%
Bangladesh	-	-	-	-	-	-	-	-	-	-	0.00%	0.00%
Belgium	-	318	-	36	-	-	5	9	-	15	0.25%	0.00%
Belize	-	2	-	-	-	-	-	-	-	-	0.01%	0.00%
Bermuda	5	181	-	5	-	-	18	2	-	21	0.34%	0.00%
Brazil	-	2	-	72	-	-	-	54	-	54	0.91%	0.00%
Brunei Darussalam	-	2	-	-	-	-	-	-	-	-	0.00%	0.00%
Bulgaria	-	-	-	-	-	-	-	-	-	-	0.00%	0.00%
Canada	1	611	14	2	-	-	14	15	-	29	0.48%	0.00%
Cayman Islands	196	11,249	13	38	-	-	701	12	-	712	11.96%	0.00%
Chile	20	46	-	-	-	-	6	-	-	6	0.09%	0.00%
China	61	210	1	816	-	-	18	95	-	113	1.90%	0.00%
Colombia	-	30	-	-	-	-	2	-	-	2	0.03%	0.00%
Costa Rica	-	-	-	-	-	-	-	-	-	-	0.00%	0.00%
Croatia	-	-	-	-	-	-	-	-	-	-	0.00%	0.00%
Curacao	-	-	-	-	-	-	-	-	-	-	0.00%	0.00%
Cyprus	-	7	-	-	-	-	1	-	-	1	0.12%	0.00%
Czech Republic	-	-	-	8	-	-	-	7	-	7	0.11%	0.50%
Denmark	5	911	-	76	-	-	33	4	-	36	0.61%	0.00%
Egypt	-	-	-	-	-	-	-	-	-	-	0.00%	0.00%
Estonia	-	2	-	-	-	-	-	-	-	-	0.00%	0.00%
Finland	-	152	-	157	-	-	4	6	-	10	0.17%	0.00%
France	1,696	2,996	46	995	-	_	102	72	-	174	2.92%	0.00%
Georgia	-	-	-	1	-	-	-	-	-	-	0.00%	0.00%

		al Credit osures	Trading Exposu	res		tisation sures		Own F Require			Own Funds Requirements	CCyB Rate
	Exposure Value for SA	Exposure Value for IRB	Sum of Long and Short Positions of Trading Book Exposures for SA	Value of Trading Book Exposures 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	Weights	
Germany	6,808	800	90	894	-	-	54	46	-	99	1.66%	0.00%
Ghana	-	-	-	-	-	-	-	-	-	-	0.00%	0.00%
Gibraltar	-	-	-	-	-	-	-	-	-	-	0.00%	0.00%
Greece	-	-	-	67	-	-	-	8	-	8	0.13%	0.00%
Guernsey	-	165	-	-	-	-	2	-	-	2	0.03%	0.00%
Hong Kong	314	1,098	212	165	-	-	71	54	-	126	2.11%	1.25%
Hungary	_	4	-	-	-	-	-	2	-	2	0.03%	0.00%
Iceland	_	-	-	27	-	-	-	9	-	9	0.15%	1.25%
India	1	717	165	251	-	-	24	33	-	57	0.95%	0.00%
Indonesia	2	19	-	48	-	-	1	10	-	11	0.18%	0.00%
Ireland	46	3,772	121	127	-	1	183	94	1	277	4.66%	0.00%
Isle of Man	_	1	-	_	-	-	-	-	-	_	0.00%	0.00%
Israel	_	72	-	2	-	-	2	-	-	2	0.03%	0.00%
Italy	277	756	3	467	-	43	38	96	-	135	2.26%	0.00%
Japan	49	5,807	-	113	-	-	87	108	-	195	3.28%	0.00%
Jersey	29	650	2	2	-	-	35	4	-	39	0.65%	0.00%
Kazakhstan	_	2	-	41	-	-	-	8	-	8	0.13%	0.00%
Kenya	_	2	-	_	-	-	_	-	_	_	0.00%	0.00%
Korea, Republic of	568	569	6	43	-	-	35	28	-	64	1.07%	0.00%
Kuwait	-	-	-	5	_	_	-	1	_	1	0.02%	0.00%
Lebanon	_	1	-	-	_	_	_	-	_	-	0.00%	0.00%
Liberia	_	-	-	_	_	_	_	_	_	_	0.00%	0.00%
Liechtenstein	_	3	=	-	_	_	_	_	_	_	0.00%	0.00%
Luxembourg	83	3,512	36	460	_	_	113	87	_	200	3.35%	0.00%
Macao	-	-	-	3	_	_	-	1	_	1	0.02%	0.00%
Malaysia	3	59	12	35	_	_	4	13	_	16	0.27%	0.00%
Malta	-	5	-	-	_	_	1	-	_	1	0.01%	0.00%
Marshall Islands	_	-	_	_	_	_	-	_	_	-	0.00%	0.00%
Mauritius	1	153	-	1	_	_	9	2	_	11	0.18%	0.00%
Mexico	-	340	_	33	_	_	14	7	_	21	0.35%	0.00%
Mongolia	_	-	-	4	_	-	-	2	_	2	0.33%	0.00%
Morocco	_	3	-	2	_	_	_	-	_	-	0.01%	0.00%
Namibia	_	-	-	-	_	-	-	-	_	-	0.01%	0.00%
Netherlands	262	2,659	171	632	_	99	126	117	6	249	4.18%	0.00%
New Zealand	1	2,039 7	-	1	-	-	1	-	-	1	0.01%	0.00%
Nigeria	1	,	<u>-</u>	5	_	-		-	-	_	0.01%	0.00%
Norway	-	- 75	2	25	-	-	4	2	-	6	0.01%	2.00%

		al Credit osures	Trading Exposu	res		tisation sures		Own F Require			Own Funds Requirements	CCyB Rate
	Exposure Value for SA	Exposure Value for IRB	Sum of Long and Short Positions of Trading Book Exposures for SA	Value of Trading Book Exposures 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	Weights	
Oman	-	-	-	1	-	-	-	-	-	-	0.01%	0.00%
Pakistan	-	-	-	-	-	-	-	-	-	-	0.00%	0.00%
Panama	-	-	-	-	-	-	-	-	-	-	0.00%	0.00%
Papa New Guinea	-	-	-	-	-	-	-	-	-	-	0.00%	0.00%
Peru	-	24	-	-	-	-	1	-	-	1	0.01%	0.00%
Philippines	1	29	-	9	-	-	3	3	-	5	0.09%	0.00%
Poland	-	-	=	1	-	_	_	2	-	2	0.03%	0.00%
Portugal	1	90	71	166	-	_	4	57	-	61	1.02%	0.00%
Puerto Rico	-	2	-	-	-	_	_	-	-	-	0.01%	0.00%
Qatar	1	3	-	90	-	_	_	6	-	7	0.11%	0.00%
Romania	-	-	-	2	-	_	_	2	-	2	0.03%	0.00%
Russian Federation	89	74	3	125	-	_	6	35	-	41	0.68%	0.00%
Saint Vincent and the	-	1	-	-	-	-	-	-	-	-	0.00%	0.00%
Grenadines	1	41		_			9			9	0.16%	0.00%
Samoa Saudi Arabia	1	41	-		-	-	9	-	-	1	0.16%	0.00%
Serbia	-	-	-	12	-	-	_	-	-	_	0.01%	0.00%
		570	- 6	- 115	-	-		-	-	- 57		
Singapore	83				-	-	29	28	-	5/ -	0.96%	0.00%
Slovakia	-	-	-	-	-	-	-	-	-		0.00%	0.50%
South Africa	158	6	3	52	-	-	1	15	-	16	0.26%	0.00%
Spain	489	496	83	349	-	1	32	25	1	58	0.97%	0.00%
Sri Lanka	-	-	-	5	-	-	-	5	-	5	0.08%	0.00%
Sweden	78	422	5	229	-	-	14	6	-	20	0.33%	2.00%
Switzerland	12	796	-	408	-	-	15	21	-	36	0.61%	0.00%
Taiwan	127	782	-	6	-	-	43	9	-	52	0.88%	0.00%
Tajikistan	-	-	-	-	-	-	-	-	-	-	0.01%	0.00%
Thailand	5	20	-	7	-	-	4	26	-	31	0.52%	0.00%
Turkey	-	39	1	48	-	-	3	8	-	12	0.20%	0.00%
Ukraine	-	-	-	44	-	-	-	29	-	29	0.49%	0.00%
United Arab Emirates	1	274	-	173	-	-	2	23	-	25	0.42%	0.00%
United Kingdom	13,092	8,321	712	2,480	286	119	568	1,009	15	1,592	26.72%	0.00%
United States	644	35,406	122	749	-	-	853	109	-	962	16.15%	0.00%
Uruguay	1	77	-	-	-		4	-	-	4	0.07%	0.00%
Venezuela	-	-	-	-	-	-	-	-	-	-	0.00%	0.00%
Vietnam	1	2	-	-	-	-	-	-	-	-	0.00%	0.00%
Virgin Islands, British	89	515	-	5	-	-	118	-	-	118	1.98%	0.00%
TOTAL	25,365	88,000	1,902	10,842	286	263	3,488	2,447	23	5,958	100.00%	

## 23. Appendix VI: Additional Credit and Counterparty Credit Risk Tables

Table 56 shows the total and average net amount of exposures as at 31 December 2017 for the MSI Group.

	Net Value of Exposures	Average Net Exposures
	at the End of the Period	Over the Period
	\$MM	\$MM
Central governments or central banks	10,382	6,401
Institutions	5,815	7,100
Corporates	6,063	6,538
Of Which: Specialised Lending	68	60
Equity	841	732
Total IRB approach	23,101	20,771
Central governments or central banks	167	294
Regional governments or local authorities	1	1
Public sector entities	-	-
Multilateral Development Banks	2	2
International Organisations	3	2
Institutions	1,450	479
Corporates	2,020	2,772
Retail	-	-
Secured by mortgages on immovable property	-	-
Exposures in default	-	-
Items associated with particularly high risk	-	-
Covered bonds	-	-
Claims on institutions and corporates with a short-term credit assessment	-	-
Collective investments undertakings (CIU)	-	3
Equity exposures	-	-
Other exposures	1,043	404
Total standardised approach	4,686	3,957
Total	27,787	24,728

Table 57 shows the breakdown of exposures by geographical areas and exposure classes.as at 31 December 2017 for the MSI Group.

Table 57: Geographical Breakdown	of Exposu	res (EU (	CRB-C)														
\$MM		ı	EMEA					Asi	a				Americ	cas		Other	Total
Country of Jurisdiction	EMEA Total	United Kingdom	Germany	France	Other	Asia Total	Japan	China	Hong Kong	Taiwan	Other	Americas Total	United States	Canada	Other		
Central governments or central banks Institutions Corporates Retail Equity	10,121 1,512 4,288 - 268	3,356 235 218 - 140	- 73 19 - 59	6,645 463 2,558 - 19	120 741 1,493 - 50	253 1,309 510 - 38	- 491 - - 3	182 244 22 - 7	- 531 - - 9	- 5 398 - 1	71 38 90 - 18	2,994 1,265 - 535	2,979 1,146 - 510	- 13 - -	- 2 119 - 25	8 - - -	10,382 5,815 6,063
Total IRB approach	16,189	3.949	151	9.685	2,404	2,110	494	455	540	404	217	4,794	4,635	13	146	8	23,101
Central governments or central banks	143	27	23	35	58	10	434	5	340	0	5	14	13	- 13	1		167
Regional governments or local authorities	143		23	-	-	10	_	-	_	1	-	14	- 13	_	_		107
Public sector entities	_	_	_	_	_	_	_	_	_	-	_	_	_	_	_	_	_
Multilateral development banks	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	2	2
International organisations	3	_	_	_	3	_	_	_	_	_	_	_	_	_	_		3
Institutions	911	716	32	150	13	6	1	1	0	0	4	533	94	439	_	_	1,450
Corporates	1,325	1,241	2	12	70	577	6	61	215	114	181	118	12	1	105	_	2,020
Retail	-,	-,	-	-	-	-	-	-				-	-	-	-	_	-,
Secured by mortgages on immovable																	
property	_	_	_	_	-	-	-	_	_	_	_	-	_	_	_	-	_
Exposures in default	_	_	_	_	-	-	_	-	_	_	-	-	-	_	-	-	-
Items associated with particularly high																	
risk	_	_	_	_	-	-	_	-	_	_	-	-	-	_	-	-	_
Covered bonds	_	_	_	_	-	-	_	-	_	_	-	-	-	_	-	-	_
Claims on institutions and corporates																	
with a short-term credit assessment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Collective investments undertakings (CIU)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Equity exposures	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other exposures	1,043	1,043	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,043
Total standardised approach	3,425	3,027	57	197	144	594	7	67	215	115	190	665	119	440	106	2	4,686
Total	19,614	6,976	208	9,882	2,548	2,704	501	522	755	519	407	5,459	4,754	453	252	10	27,787

Table 58 shows a breakdown of exposures by industry or counterparty types and exposure classes as at 31 December 2017 for the MSI Group.

228

674

617

291

816

10,610

113

757

10,555

256

2,870

Total

Table 58: Concentration of Exposures by Industry or Counterparty Type (EU CRB-D) Financial and Insurance Professional, Scientific **Transport and Storage** Mining and Quarrying steam Public Administration Real Estate Activities Communication gas, Other services and Technical Defence Electricity, Activities and air supply Total and Central governments or central banks 10,382 10,382 Institutions 5,815 5,815 77 Corporates 216 533 589 282 693 2,621 729 119 204 6,063 Retail 3 5 2 25 Equity 57 46 620 29 18 36 841 Total IRB approach 219 590 594 284 106 229 739 9,056 747 10,382 155 23,101 Central governments or central banks 167 167 Regional governments or local authorities 1 1 Public sector entities 2 Multilateral development banks 2 International organisations 3 3 Institutions 1,450 1,450 7 Corporates 84 23 7 77 104 10 101 1.598 2.020 Retail Secured by mortgages on immovable property Exposures in default Items associated with particularly high risk Covered bonds Claims on institutions and corporates with a short term credit assessment Collective investments undertakings **Equity exposures** Other exposures 1,043 1,043 **Total standardised approach** 9 84 23 7 77 1,554 7 10 173 101 2.641 4,686

27,787

Table 59 shows a breakdown of net exposures by residual maturity and exposure classes.as at 31 December 2017 for the MSI Group.

Table 59: Maturity of Exposures (EU CRB-E)

	On		> 1 year		No stated	
	demand	<= 1 year	<= 5 years	> 5 years	maturity	Total
	\$MM	\$MM	\$MM	\$MM	\$MM	\$MM
Central governments or central banks	-	10,373	-	<del></del>	-	10,373
Institutions	-	4,217	247	-	-	4,464
Corporates	-	983	496	49	-	1,528
Retail	-	-	-	-	-	-
Equity	-	-	421	-	-	421
Total IRB approach	-	15,573	1,164	49	-	16,786
Central governments or central banks	-	-	-	-	167	167
Regional governments or local authorities	-	-	-	-	1	1
Public sector entities	-	-	-	-	-	-
Multilateral development banks	-	-	-	-	2	2
International organisations	-	-	-	-	3	3
Institutions	-	893	-	-	21	914
Corporates	473	432	45	-	1,070	2,020
Retail	-	-	-	-	-	-
Secured by mortgages on immovable property	-	-	-	-	-	-
Exposures in default	-	-	-	-	-	-
Items associated with particularly high risk	-	-	-	-	-	-
Covered bonds	-	-	-	-	-	-
Claims on institutions and corporates with a short-term credit assessment	-	-	-	-	-	-
Collective investments undertakings (CIU)	-	-	-	-	-	-
Equity exposures	-	-	-	-	-	-
Other exposures	-	=	1,043	-	=	1,043
Total standardised approach	473	1,325	1,088	-	1,264	4,150
Total	473	16,898	2,252	49	1,264	20,936

Table 60: Credit Quality of Exposures by Exposure Class and Instrument (EU CR1-A)

Of which: Equity

**Gross Carrying Values of Specific Credit General Credit Risk Accumulated Credit Risk Net Values Defaulted** Non-Risk Write-offs Adjustment **Defaulted** Adjustment **Exposures Adjustment** Charges **Exposures** \$MM \$MM \$MM \$MM \$MM \$MM \$MM Central governments or central banks 10,382 10,382 Institutions 5,815 5,815 Corporates 85 5,978 (7) 2 6,056 Of which: Specialised lending 68 68 840 841 Equity 1 (7) Total IRB approach 86 23,015 2 23,094 167 (2) 1 165 Central governments or central banks (0) Regional governments or local authorities 1 1 Public sector entities Multilateral development banks 2 2 International organisations 3 3 Institutions 1,450 (7) 1,443 2,020 (32)12 1,988 Corporates 4 Secured by mortgages on immovable property Exposures in default Items associated with particularly high risk Covered bonds Claims on institutions and corporates with a short-term credit assessment Collective investments undertakings (CIU) **Equity exposures** Other exposures 1,043 1,043 4,686 12 5 4,645 (41)Total standardised approach Total 86 27,701 (48)12 7 27,739 Of which: Loans and advances 85 20,428 20,513 Of which: Off-balance sheet 6,433 6,433

840

841

Table 61 shows the credit quality of on-balance-sheet and off-balance-sheet by industry as at 31 December 2017 for MSI Group.

Table 61: Credit Quality of Exposures by Industry or Counterparty Types (EU CR1-B)

	Gross	Carrying Values of	Specific	General	Accumulated	Credit Risk	Net
	Defaulted Exposures	Non-Defaulted Exposures	Credit Risk Adjustment	Credit Risk Adjustment	Write-Offs	Adjustment Charge	Values <sup>1</sup>
	\$MM	\$MM	\$MM	\$MM	\$MM	\$MM	\$MM
Mining and quarrying	-	228	(1)	-	-	-	228
Manufacturing	4	670	(6)	-	-	3	667
Electricity, gas, steam and air conditioning supply	-	617	(3)	-	-	-	615
Transport and storage	24	267	(1)	-	-	-	289
Information and communication	9	807	(6)	-	-	-	810
Financial and insurance activities	32	10,578	(14)	-	4	(4)	10,595
Real estate activities	17	96	(7)	-	-	(1)	106
Professional, Scientific and Technical	-	757	(7)	-	-	-	750
Public administration and defence, compulsory social security	-	10,555	(2)	-	0	1	10,553
Other services	-	256	(1)	-	8	8	255
Other	-	2,870	-	-	-	-	2,871
Total	86	27,701	(48)	-	12	7	27,739

<sup>1.</sup> Net value is the total of defaulted, non defaulted exposures, less specific credit risk adjustments.

Table 62 shows the credit quality of on-balance-sheet and off-balance-sheet by geography as at 31 December 2017 for the MSI Group.

Table 62: Credit Quality of Exposures by Geography (EU CR1-C)

	Gross Carrying	Values of					
	Defaulted	Non-	Specific	General	Accumulated	Credit Risk	Net
	Exposures	Defaulted	Credit Risk	<b>Credit Risk</b>	Write-offs	Adjustment	Values
		Exposures	Adjustment	Adjustment		Charges	
	\$MM	\$MM	\$MM	\$MM	\$MM	\$MM	\$MM
EMEA	45	19,569	(37)	-	11	7	19,576
United Kingdom	-	6,976	(9)	-	8	3	6,987
Germany	11	197	(7)	-	-	-	201
France	-	9,882	(2)	-	-	3	9,880
Other countries	34	2,514	(19)	-	3	1	2,528
Asia	37	2,667	(6)	-	-	-	2,696
Hong Kong	-	755	(0)	-	-	-	755
China	-	522	(5)	-	-	-	516
Japan	-	501	-	-	-	-	501
Taiwan	-	519	-				519
Other Countries	37	371	(1)	-	-	-	405
Americas	4	5,455	(4)	-	1	1	5,455
United States	4	4,750	(2)	-	-	-	4,752
Canada	-	453	-	-	-	1	453
Other countries	-	252	(2)	-	1	-	250
Other geographical areas	-	10	(0)	-	-	-	10
Total	86	27,701	(48)	-	12	8	27,739

Table 63 shows an ageing analysis of on-balance-sheet past-due exposures regardless of their impairment status as at 31 December 2017 for the MSI Group.

Table 63: Ageing of Past-Due Exposures (EU CR1-D)

_			Gross Carry	ing Values		
	≤ 30 Days	> 30 Days ≤ 60 Days	> 60 Days ≤ 90 Days	> 90 Days ≤ 180 Days	> 180 Days ≤ 1 Year	> 1 Year
Loans and advances	1,785	49	39	33	27	51
Debt Securities	-	-	-	-	-	-
Total exposures	1,785	49	39	33	27	51

Table 64 shows an overview of non-performing and forborne exposures as at 31 December 2017 for the MSI Group.

Table 64: Non-Performing and Forborne Exposures (EU CR1-E)

		<b>Gross Carrying</b>	Amount of Perfor	ming and Non-Pe	rforming Exp	osures	
·	Gross						
	Carrying						
	Amount of	Of Which					
	Performing	Performing					
	and Non-	<b>But Past Due</b>	Of Which	Of Which			
	Performing	>30 Days and	Performing	Non-	Of Which:	Of Which:	Of Which:
	Exposures	<=90 Days	Forborne	Performing	Defaulted	Impaired	Forborne
	\$MM	\$MM	\$MM	\$MM	\$MM	\$MM	\$MM
Debt securities	-	-	-	-	-	-	-
Loans and advances	20,513	75	-	111	126	48	-
Off-balance sheet	,						
exposures	6,432	-	-	_	-	-	-

	Accumulated Im	•	ovisions and Negat ie to Credit Risk	ive Fair Value	Collaterals and Guarantees R	
	On Perfor Exposu	0	On Non-Per Exposu	•		
			On Non-		On Non-	
	On Performing	Of Which:	Performing	Of Which:	Performing	Of Which:
	Exposures	Forborne	Exposures	Forborne	Exposures	Forborne
	\$MM	\$MM	\$MM	\$MM	\$MM	\$MM
Debt securities	-	-	-	-	-	-
Loans and advances	-	_	48	-	-	-
Off-balance sheet						
exposures	-	_	-	_	_	-

Table 65 shows the changes in stock of general and specific credit risk adjustments held against loans and debt securities that are defaulted or impaired as at 31 December 2017 for the MSI Group.

Table 65: Changes in Stock of General and Specific Credit Risk Adjustments (EU CR2-A)

	Accumulated	Accumulated
	Specific	<b>General Credit</b>
	<b>Credit Risk</b>	Risk
	Adjustment	Adjustment
	\$MM	\$MM
Opening balance	86	-
Increases due to amounts set aside for estimated loan losses during the period	51	-
Decreases due to amounts reversed for estimated loan losses during the period	(48)	-
Decreases due to amounts taken against accumulated credit risk adjustments	(48)	-
Transfers between credit risk adjustments	-	-
Impact of exchange rate differences	7	-
Business combinations, including acquisitions and disposals of subsidiaries	-	-
Other adjustments	-	-
Closing balance	48	-
Recoveries on credit risk adjustments recorded directly to the statement of profit or loss	-	-
Specific credit risk adjustments recorded directly to the statement of profit or loss	-	

Table 66 shows the changes in stock of defaulted loans and debt securities as at 31 December 2017 for the MSI Group.

Table 66: Changes in Stock of Defaulted and Impaired Loans and Debt Securities (EU CR2-B)

**Gross Carrying Value Defaulted Exposures** 

	\$MM
Opening balance	133
Loans and debt securities that have defaulted or impaired since the last reporting period	111
Returned to non-defaulted status	(45)
Amounts written off	(75)
Other changes	2
Closing balance	126

Table 67 shows the extent of the use of CRM techniques as at 31 December 2017 for the MSI Group.

Table 67: Credit Risk M	litigation Technique	es – Overview (	EU CR3)		
	Exposures	Exposures	Exposures	Exposures	Exposures
	Unsecured:	Secured:	Secured by Collateral	Secured by Financial	Secured by Credit
	Carrying Amount \$MM	Carrying Amount \$MM	\$MM	Guarantees \$MM	Derivatives \$MM
Total loans	19,880	633	633	-	-
Total debt securities	-	-	-	-	-
Total equity	421	-	-	-	-
Total exposures	20,301	633	633	-	-
Of which defaulted	86	-	-	-	-

Table 68 shows the effect of all CRM techniques as at 31 December 2017 for the MSI Group.

Table 68: Standardised Approach – Credit Risk Exposure and Credit Risk Mitigation (CRM) effects (EU CR4)

	Exposures B	efore CCF	Exposure	s Post CCF	RWAs ar	nd RWA
	and C	RM	and	CRM	Den	sity
	On-	Off-	On-	Off-	RWAs	RWA
	Balance	Balance	Balance	Balance		Density
	Sheet	Sheet	Sheet	Sheet		
	Amount	Amount	Amount	Amount		
	\$MM	\$MM	\$MM	\$MM	\$MM	\$MM
Central governments or central banks	167	-	167	-	31	18
Regional government or local authorities	1	-	1	-	-	2
Public sector entities	-	-	-	-	-	-
Multilateral development banks	2	-	2	-	-	-
International organisations	3	-	3	-	-	-
Institutions	914	536	914	106	661	65
Corporates	2,020	-	2,020	-	2,347	116
Retail	-	-	-	-	-	-
Secured by mortgages on immovable property	-	-	-	-	-	-
Exposures in default	-	-	-	-	-	-
Higher-risk categories	-	-	-	-	-	-
Covered bonds	-	-	-	-	-	-
Institutions and corporates with a short term						
credit assessment	-	-	-	-	-	-
Collective investment undertakings	-	-	-	-	-	-
Equity	-	-	-	-	-	-
Other items	1,043	-	1,043	-	1,258	121
Total	4,150	536	4,150	106	4,297	1

Table 69 shows the breakdown of exposures under the standardised approach by asset class and risk weight as at 31 December 2017 for the MSI Group.

Table 69: Standardised Approa	ch (EU CI	R5)														
	0% \$MM	2% \$MM	4% \$MM	10% \$MM	20% \$MM	35% \$MM	50% \$MM	70% \$MM	<b>7</b> 5%	100% \$MM	150% \$MM	250% \$MM	370% \$MM	1250% \$MM	Others \$MM	Total Credit Exposures Amount \$MM
Central governments or central	119	_	_		5	_	27	_		15	1		_	_		167
banks	113	_	_	_	3	_	21	_	_	13	1	_	_	_	_	107
Regional government or local authorities	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Public sector entities	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Multilateral development banks	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
International organisations	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Institutions	774	106	-	-	66	-	14	-	-	9	-	-	-	51	-	1,020
Corporates	331	-	-	-	3	-	53	-	-	1,546	29	-	-	58	-	2,020
Retail	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Secured by mortgages on immovable property	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Exposures in default	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Higher-risk categories	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Covered bonds	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Institutions and corporates with a short term credit assessment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Collective investment																
undertakings	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Equity	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other items				-	153					665		225	-			1,043
Total	1,230	106	-	-	227	-	94	-	-	2,235	30	225	-	109	-	4,256

Table 70 shows the exposures for the MSI Group, calculated using the Standardised approach for each exposure class and broken down by CQS.

Table 70: Standardised Approach	EAD by Credit Quality Step	1								
		CQS1	CQS2	CQS3	CQS4	CQS5	CQS6	Other <sup>2</sup>	Unrated	Total
		\$MM	\$MM	\$MM	\$MM	\$MM	\$MM	\$MM	\$MM	\$MM
Central Governments	GROSS EAD	2	1	-	6	-	-	=	317	326
or Central Banks	EAD	2	1	-	6	-	-	-	317	326
Cornerates	GROSS EAD	1	229	60	-	119	-	-	3,106	3,515
Corporates	EAD	1	229	60	-	119	-	-	3,106	3,515
Iliah wid.	GROSS EAD	-	-	-	-	-	-	-	-	-
High risk	EAD	-	-	-	-	-	-	-	-	-
Junetit tin	GROSS EAD	20	8,821	174	2	-	2	11,450	276	20,745
Institutions	EAD	20	8,415	174	2	-	2	10,657	236	19,506
Multilateral	GROSS EAD	-	-	-	-	-	-	-	2	2
developments banks	EAD	-	-	-	-	-	-	-	2	2
latement of Open institute	GROSS EAD	-	-	-	-	-	-	-	3	3
International Organisations	EAD	-	-	-	-	-	-	-	3	3
Regional governments	GROSS EAD	-	-	-	-	-	-	-	1	1
or Local Authorities	EAD	-	-	-	-	-	-	-	1	1
Securitisation	GROSS EAD	274	-	3	9	-	-	-	-	286
Securitisation	EAD	274	-	3	9	-	-	-	-	286
Other Items	GROSS EAD	-	-	-	-	-	-	-	1,043	1,043
Other items	EAD	=	-	-	-	-	-	-	1,043	1,043
TOTAL	GROSS EAD	297	9,051	237	17	119	2	11,450	4,748	25,921
IOIAL	EAD	297	8,645	237	17	119	2	10,657	4,708	24,682

<sup>1.</sup> Under the Standardised Approach, risk weights are generally applied according to the relevant exposure class and the associated credit quality (CRR Article 113). Credit quality may be determined by reference to the credit assessments of an ECAI, which are then mapped to a CQS. The unrated segment represents exposure for which no ECAI credit assessment is available.

<sup>2.</sup> The OTHER segment represents exposures where alternative rules to the CQS treatment described in the note above apply. The majority of exposures in this segment are exposures to central counterparties to which a fixed risk weight is applied.

Table 71 shows the breakdown of exposures under the standardised approach by asset class and risk weight as at 31 December 2017 for the MSI Group.

Table 71: IRB Approach – Effect on the RWAs of Cre	dit Derivatives used as CRM Techniques	(EU CR7)
	Pre-Credit	Actual
	Derivatives	RWAs
	RWAs	
	\$MM	\$MM
Exposures under Foundation IRB	3,905	3,905
Central governments and central banks	661	661
Institutions	1,081	1,081
Corporates - SME	-	-
Corporates - Specialised Lending	61	61
Corporates - Other	2,102	2,102
Exposures under Advanced IRB	-	-
Total	3,905	3,905

Table 72 shows the parameters used for the calculation of capital requirements for IRB models as at 31 December 2017 for the MSI Group.

	Original On- Balance Sheet Gross Exposure	Off-Balance Sheet Exposures Pre-CCF	Average CCF	EAD Post- CRM and Post-CCF	Average PD	Number of Obligors	Average LGD	Average Maturity	RWAs	RWA Density	EL	Value Adjustments and Provisions
	\$MM	\$MM	%	\$MM	%	#	%	Years	\$MM		\$MM	\$MM
0.00 to <0.15	10,254	8	20.00%	10,256	0.02%	8	45.00%	1.00	601	0.06	1	-
0.15 to <0.25	-	-	0.00%	-	0.00%	-	0.00%	0.00	-	0.00	-	-
0.25 to <0.50	119	-	0.00%	119	0.42%	2	45.00%	1.00	60	0.50	0	-
0.50 to <0.75	-	-	0.00%	-	0.00%	-	0.00%	0.00	-	0.00	-	-
0.75 to <2.50	-	-	0.00%	-	0.00%	-	0.00%	0.00	-	0.00	-	-
2.50 to <10.00	-	-	0.00%	-	0.00%	-	0.00%	0.00	-	0.00	-	-
10.00 to <100.00	-	-	0.00%	-	0.00%	-	0.00%	0.00	-	0.00	-	-
100.00 (Default)	-	-	0.00%	-	0.00%	-	0.00%	0.00	-	0.00	-	-
Central governments or central banks	10,373	8	20.00%	10,375	0.02%	10	45%	1.00	661	0.06	1	-
0.00 to <0.15	4,064	1,328	89.61%	4,792	0.06%	94	45.00%	0.90	789	0.16	1	-
0.15 to <0.25	225	-	0.00%	225	0.20%	4	45.00%	1.00	94	0.42	0	-
0.25 to <0.50	79	8	75.00%	85	0.40%	26	45.00%	1.21	57	0.67	0	-
0.50 to <0.75	49	-	0.00%	49	0.71%	1	45.00%	1.00	42	0.85	0	-
0.75 to <2.50	29	-	0.00%	29	1.18%	6	45.00%	1.04	31	1.07	0	-
2.50 to <10.00	18	16	75.00%	30	8.20%	15	45.00%	2.56	67	2.25	1	-
10.00 to <100.00	-	-	0.00%	-	0.00%	-	0.00%	0.00	-	0.00	-	-
100.00 (Default)	-	-	0.00%	-	0.00%	-	0.00%	0.00	-	0.00	-	-
Institutions	4,464	1,352	89.36%	5,210	0.13%	146	45.00%	0.92	1,080	0.21	3	-
0.00 to <0.15	917	3,059	74.73%	3,188	0.07%	75	45.00%	2.29	827	0.26	1	-
0.15 to <0.25	7	783	74.80%	593	0.20%	14	45.00%	2.32	287	0.48	1	-
0.25 to <0.50	308	379	73.34%	585	0.35%	76	45.00%	1.74	351	0.60	1	-
0.50 to <0.75	4	-	20.00%	4	0.71%	6	45.00%	4.57	4	1.14	0	-
0.75 to <2.50	14	118	75.00%	103	2.02%	24	45.00%	3.21	135	1.31	1	-
2.50 to <10.00	118	197	66.51%	249	6.06%	104	45.00%	4.27	484	1.94	7	-
10.00 to <100.00	6	-	0.00%	6	27.91%	5	45.00%	4.96	14	2.20	1	-
100.00 (Default)	85	-	0.00%	85	100.00%	8	45.00%	4.69	-	0.00	38	-
Corporates	1,459	4,536	74.27%	4,813	2.28%	312	45.00%	2.40	2,102	0.44	49	(7)
Total	16,296	5,896	77.65%	20,398	0.58%	468	45.00%	1.31	3,843	0.19	53	(7)

Table 73 shows the backtesting data to validate PD calculations as at 31 December 2017 for the MSI Group.

Table 73: IRB Approach – Backtesting	of PD per Exposu	re Class (EU CF	R9)							
						Numb Oblig				
	External	External	External		Arithmetic	End of	End of	Defaulted	Of Which	Average Historic
	Rating	Rating	Rating	Weighted	Average PD	Previous	the	<b>Obligors</b> in	New	<b>Annual Default</b>
	Equivalent	Equivalent	Equivalent	Average PD	by Obligors	Year	Year	the Year	<b>Obligors</b>	Rate
	Moody's	S&P	Fitch	%	%					%
0.0 to <0.15	Aa2	AAA to AA	AA	0.02%	0.03%	6	8	-	-	0.00%
0.15 to <0.25				0.00%	0.00%	-	-	-	-	0.00%
0.25 to <0.50	Baa3	BBB-	BBB	0.42%	0.36%	-	2	-	-	0.00%
0.50 to <0.75				0.00%	0.00%	1	-	-	-	0.00%
0.75 to <2.50				0.00%	0.00%	-	-	-	-	0.00%
2.50 to <10.00				0.00%	0.00%	-	-	-	-	0.00%
10.00 to<100.00				0.00%	0.00%	1	-	-	-	0.00%
100.00				0.00%	0.00%	-	-	-	-	0.00%
Central governments or central banks	Aa2	AAA to BBB-	AA to BBB	0.02%	0.09%	8	10	-	-	0.00%
0.0 to <0.15	Aa2	AA+ to BBB-	AA to BBB	0.07%	0.09%	26	75	-	-	0.00%
0.15 to <0.25	Baa1	BBB+ to BB-	BBB+ to BBB	0.20%	0.20%	36	14	-	-	0.00%
0.25 to <0.50	Baa2	BBB to BB	BBB to BB+	0.35%	0.31%	14	76	-	-	0.00%
0.50 to <0.75				0.71%	0.71%	5	6	-	-	0.00%
0.75 to <2.50	Aa1	A to BB-	A+	2.02%	1.42%	17	24	-	-	0.00%
2.50 to <10.00	B1	B+ to B-		6.06%	7.67%	178	104	-	-	0.00%
10.00 to <100.00	В3	CCC+	B-	27.91%	27.91%	7	5	-	-	0.00%
100.00		D		100.00%	100.00%	5	8	8	6	0.00%
Corporates	Aa1	AA+ to D	AA to B-	2.28%	5.80%	288	312	8	6	0.00%
0.0 to <0.15	Aa1	AA- to BBB	AA to BBB-	0.06%	0.07%	77	94	-	-	0.00%
0.15 to <0.25	Baa1	BBB	BBB+	0.20%	0.20%	22	4	-	-	0.00%
0.25 to <0.50	Baa2	BBB- to BB	BBB to BB+	0.40%	0.32%	5	26	-	-	0.00%
0.50 to <0.75				0.71%	0.71%	9	1	-	-	0.00%
0.75 to <2.50				1.18%	1.18%	7	6	-	-	0.00%
2.50 to <10.00				8.20%	8.20%	25	15	-	-	0.00%
10.00 to <100.00				0.00%	0.00%	2	-	-	-	0.00%
100.00				0.00%	0.00%	-	-	-	-	0.00%
Institutions	Aa1	AA- to BB	AA to BB+	0.13%	1.00%	147	146	-	_	0.00%

Table 74 shows the all relevant parameters used for the calculation of CCR capital requirements for IRB models as at 31 December 2017 for the MSI Group.

Table 74: Standardised Approach – CCR Exposures by Regul	atory Port	ttolio and	RISK We	eight (EU	CCR3)								
	Risk Weight												
	0%	2%	4%	10%	20%	50%	70%	75%	100%	150%	1250%	Others	Tota
	\$MM	\$MM	\$MM	\$MM	\$MM	\$MM	\$MM	\$MM	\$MM	\$MM	\$MM	\$MM	\$MM
Central governments or central banks	120	-	-	-	-	-	-	-	33	-	-	6	159
Regional governments or local authorities	-	-	-	-	-	-	-	-	-	-	-	-	-
Public sector entities	-	-	-	-	-	-	-	-	-	-	-	-	-
Multilateral development banks	-	-	-	-	-	-	-	-	-	-	-	-	-
International organisations	-	-	-	-	-	-	-	-	-	-	-	-	-
Institutions	184	17,639	-	-	245	-	-	-	411	-	-	5	18,484
Corporates	412	-	-	-	-	227	-	-	655	118	45	40	1,497
Retail	-	-	-	-	-	-	-	-	-	-	-	-	-
Institutions and corporates with a short-term credit assessment	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Items	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Standardised Approach	716	17,639	_	-	245	227	-	_	1,099	118	45	51	20,140

Table 75 shows the all relevant parameters used for the calculation of CCR capital requirements for IRB models as at 31 December 2017 for the MSI Group.

	EAD Post-	Average PD	Number of Obligors	Average LGD	Average Maturity	RWAs	RWA Density
	CRM						
	\$MM	%	#	%	Years	\$MM	%
Central governments and central banks	13,672	0.05%	139	45%	0.7858	1,154	0.08
0.00 to <0.15	13,414	0.04%	116	45%	0.75	991	0.07
0.15 to <0.25	151	0.20%	8	45%	1.64	59	0.39
0.25 to <0.50	89	0.35%	8	45%	4.06	71	0.80
0.50 to <0.75	1	0.71%	2	45%	0.04	-	0.69
0.75 to <2.50	-	1.18%	1	45%	0.04	-	0.70
2.50 to <10.00	17	7.57%	4	45%	3.33	33	1.93
10.00 to <100.00	-	0.00%	-	0%	-	-	-
100.00 (Default)	-	0.00%	-	0%	-	-	-
Corporates	49,214	0.85%	7,818	46%	1.5934	25,941	0.53
0.00 to <0.15	27,609	0.07%	3,467	46%	1.80	7,840	0.28
0.15 to <0.25	3,905	0.20%	380	45%	2.67	2,307	0.59
0.25 to <0.50	9,519	0.34%	1,770	45%	1.04	5,358	0.56
0.50 to <0.75	3,480	0.71%	241	45%	0.90	2,877	0.83
0.75 to <2.50	1,031	1.73%	205	45%	2.13	1,203	1.17
2.50 to <10.00	3,146	5.40%	1,194	45%	0.78	5,034	1.60
10.00 to <100.00	524	27.91%	560	45%	0.96	1,322	2.52
100.00 (Default)	-	100.00%	1	0%	0.27	-	-
Institutions	48,184	0.12%	1,280	46%	0.8378	10,674	0.22
0.00 to <0.15	44,572	0.07%	482	46%	0.79	8,283	0.19
0.15 to <0.25	1,436	0.20%	237	48%	1.41	728	0.51
0.25 to <0.50	1,520	0.32%	397	45%	1.40	959	0.63
0.50 to <0.75	361	0.71%	43	45%	1.44	340	0.94
0.75 to <2.50	124	1.73%	53	45%	1.45	153	1.24
2.50 to <10.00	159	7.87%	57	45%	1.59	181	1.14
10.00 to <100.00	12	27.91%	10	45%	0.75	30	2.58
100.00 (Default	-	100.00%	1	0%	0.00	_	-
Total (All Portfolios)	111,070	0.44%	9,237	46%	1.1663	37,769	-

24. Appendix VII: MSI Group Non-Statutory Financial Information					
MORGAN STANLEY INTERNATIONAL LIMITED					
Consolidated non-statutory financial information					
31 December 2017					

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Consolidated statement of comprehensive income	5
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#### DIRECTORS' RESPONSIBILITIES STATEMENT

The Directors, the names of whom are set out below, confirm that to the best of their knowledge:

- the accounting policies are appropriate to the circumstances of the Morgan Stanley International Group which comprises of Morgan Stanley International Limited ("the Company") and its subsidiaries (together "the Group") and the policies have been consistently applied and adequately disclosed;
- ii) significant accounting estimates applied are reasonable; and
- iii) the consolidated non statutory financial information is free from material misstatement.

Approved by the Board and signed on its behalf by:

Director

19 April 2018

#### Board of Directors:

J Bloomer (appointed Chairman from 31 March 2018)

D O Cannon

C Castello

T Duhon

L Guy

J Horder

A Kohli

M C Phibbs

I Plenderleith (Chairman until resigned on 31 March 2018)

R P Rooney

D A Russell

# INDEPENDENT AUDITOR'S REPORT TO THE DIRECTORS OF MORGAN STANLEY INTERNATIONAL LIMITED

#### Report on the audit of the consolidated non statutory financial statements

#### Opinion

In our opinion the consolidated non statutory financial statements for the year ended 31 December 2017 have been properly prepared in accordance with the basis of preparation and accounting policies stated in notes 1 and 2

We have audited the consolidated non statutory financial statements of Morgan Stanley International Limited (the 'company') which comprise:

- the consolidated income statement;
- the consolidated statement of comprehensive income;
- the consolidated statement of changes in equity;
- the consolidated statement of financial position; and
- the related notes 1 and 2.

The financial reporting framework that has been applied in their preparation is the accounting policies stated in notes 1 and 2.

### Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the auditor's responsibilities for the audit of the non statutory financial statements section of our report.

We are independent of the company in accordance with the ethical requirements that are relevant to our audit of the non statutory financial statements in the UK, including the FRC's Ethical Standard, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

#### Conclusions relating to going concern

We are required by ISAs (UK) to report in respect of the following matters where:

- the directors' use of the going concern basis of accounting in preparation of the non statutory financial statements is not appropriate; or
- the directors have not disclosed in the non statutory financial statements any identified material
  uncertainties that may cast significant doubt about the company's ability to continue to adopt the
  going concern basis of accounting for a period of at least twelve months from the date when the
  non statutory financial statements are authorised for issue.

We have nothing to report in respect of these matters.

# INDEPENDENT AUDITOR'S REPORT TO THE DIRECTORS OF MORGAN STANLEY INTERNATIONAL LIMITED

#### Responsibilities of directors

As explained more fully in the directors' responsibilities statement, the directors are responsible for the preparation of the non statutory financial statements in accordance with the financial reporting provisions laid out in Notes 1 and 2 to the financial statements, and for such internal control as the directors determine is necessary to enable the preparation of non statutory financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the non statutory financial statements, the directors are responsible for assessing the company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the company or to cease operations, or have no realistic alternative but to do so.

#### Auditor's responsibilities for the audit of the non statutory financial statements

Our objectives are to obtain reasonable assurance about whether the non statutory financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these non statutory financial statements.

A further description of our responsibilities for the audit of the non statutory financial statements is located on the Financial Reporting Council's website at: <a href="https://www.frc.org.uk/auditorsresponsibilities">www.frc.org.uk/auditorsresponsibilities</a>. This description forms part of our auditor's report.

#### Use of our report

This report is made solely to the company's directors, as a body, in accordance with our engagement letter dated 23 November 2017 and solely for the purpose of providing an opinion over the consolidated non statutory financial information contained within this document titled 'consolidated non statutory financial information'. Our audit work has been undertaken so that we might state to the company's directors those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the company, for our audit work, for this report, or for the opinions we have formed.

Och. the Lip

Deloitte LLP London 19 April 2018

## CONSOLIDATED INCOME STATEMENT Year ended 31 December 2017

	2017 \$millions	2016 \$millions
Net gains on financial instruments classified as held for trading	5,742	3,862
Net gains on financial instruments designated at fair value through profit and loss	(258)	94
Net gains on available-for-sale financial assets	-	7
Interest income	213	(60)
Interest expense	(1,544)	(576)
Other income	3,169	2,248
Other expense	(5,709)	(4,651)
Loss on disposal of fixed assets	(1)	(1)
PROFIT BEFORE INCOME TAX	1,612	923
Income tax expense	(493)	(332)
PROFIT FOR THE YEAR	1,119	591
Attributable to:		
Owners of the Company	1,118	589
Non-controlling interest	1	2
PROFIT FOR THE YEAR	1,119	591

### CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME Year ended 31 December 2017

	2017 \$millions	2016 \$millions
PROFIT FOR THE YEAR	1,119	591
OTHER COMPREHENSIVE INCOME, NET OF TAX		
Items that will not be reclassified subsequently to profit or loss: Changes in fair value attributable to own credit risk on financial liabilities designated at fair value through profit or loss Remeasurement of net defined benefit liability Tax adjustment on net defined benefit liability Share-based payments	(73) - - 1	(42) 1 - 1
Items that may be reclassified subsequently to profit or loss: Currency translation reserve:		
Foreign currency translation differences arising on foreign operations	199	(99)
Available-for-sale reserve: Net change in fair value of the available-for-sale financial assets	69	(12)
OTHER COMPREHENSIVE INCOME AFTER INCOME TAX FOR THE YEAR	196	(151)
TOTAL COMPREHENSIVE INCOME FOR THE YEAR Attributable to:	1,315	440
Owners of the Company	1,307	453
Non-controlling interest	8	(13)
TOTAL COMPREHENSIVE INCOME FOR THE YEAR	1,315	440

## CONSOLIDATED STATEMENT OF CHANGES IN EQUITY Year ended 31 December 2017

	Equity instruments Smillions	reserve	Currency translation reserve \$millions	Available- for-sale reserve Smillions	Capital contribution reserve \$millions	Capital redemption reserve \$millions	Debt valuation adjustment reserve Smillions	Retained earnings Smillions		Non- controlling interests Smillions	Total equity Smillions
Balance at 1 January 2016	2,914	(116)	(476)	41	6,061	1,400		10,395	20,219	87	20,306
Restated for adoption of new accounting standard	-	-	-	-	-	-	(3)	3	-	-	-
Profit for the year	-	-	-	-	-	-	-	589	589	2	591
Other comprehensive income		1	(84)	(12)			(42)	1	(136)	(15)	(151)
Total comprehensive (loss)/income Transactions with owners:	-	1	(84)	(12)	-	-	(42)	590	453	(13)	440
Issue of capital	1	-	-	-	-	-	-	-	1	-	1
Dividends	-	-	-	-	-	-	-	(117)	(117)	-	(117)
Balance at 31 December 2016	2,915	(115)	(560)	29	6,061	1,400	(45)	10,871	20,556	74	20,630
Profit for the year	-	-	-	-	-	-	-	1,118	1,118	1	1,119
Other comprehensive income		-	192	69		<u> </u>	(73)	1	189	7.	196
Total comprehensive (loss)/income	-	-	192	69	-	-	(73)	1,119	1,307	8	1,315
Transactions with owners:											
Dividends Change in non- controlling interest	-	-	-	-	-	-	-	(86) (25)	(86) (25)	25	(86)
Balance at 31 December 2017	2,915	(115)	(368)	98	6,061	1,400	(118)	11,879	21,752	107	21,859

### CONSOLIDATED STATEMENT OF FINANCIAL POSITION As at 31 December 2017

As at 31 December 2017	****	****
	2017 \$millions	2016 \$millions
ASSETS		
Loans and receivables:		
Cash and short-term deposits	26,325	20,617
Cash collateral on securities borrowed	17,826	19,601
Securities purchased under agreements to resell	70,855	77,218
Trade receivables	69,531	52,197
Other receivables	1,455	1,003
•	185,992	170,636
Financial assets classified as held for trading (of which \$59,189 million	105,552	170,050
(2016: \$50,485 million) were pledged to various parties)	267,349	250,047
Financial assets designated at fair value through profit or loss	11,496	4,312
Available-for-sale financial assets	161	68
Current tax assets	159	173
Deferred tax assets	226	203
Prepayments and accrued income	185	193
Property, plant and equipment	480	462
Intangible assets	542	465
TOTAL ASSETS	466,590	426,559
LIABILITIES AND EQUITY	100,550	420,339
Financial liabilities at amortised cost:		
Bank loans and overdrafts	148	131
Cash collateral on securities loaned	17,487	21.224
Securities sold under agreements to repurchase	51,303	47,746
Trade payables	93,743	85,866
Subordinated loans	7,389	9,086
Other payables	31,781	7,884
_	201.851	171,937
Financial liabilities classified as held for trading	219,366	226,764
Financial liabilities designated at fair value through profit or loss	22,299	6,020
Provisions	174	253
Current tax liabilities	223	185
Deferred tax liabilities	9	44
Accruals and deferred income	802	720
Post-employment benefit obligations	7	6
TOTAL LIABILITIES	444,731	405,929
EQUITY	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	100,020
Equity instruments	2,915	2,915
Pension reserve	(115)	(115)
Currency translation reserve	(368)	(560)
Available-for-sale reserve	98	29
Capital contribution reserve	6,061	6,061
Capital redemption reserve	1,400	1,400
Debt valuation adjustment reserve	(118)	(45)
Retained earnings	11,879	10,871
Equity attributable to the owners of the parent	21,752	20,556
Non-controlling interests	107	74
TOTAL EQUITY	21,859	20,630
TOTAL LIABILITIES AND EQUITY	466,590	426,559

The consolidated non statutory financial information was approved by the Board and authorised for issue on 19 April 2018

Signed on behalf of the Board

C Castello, Director

# NOTES TO THE CONSOLIDATED NON STATUTORY FINANCIAL INFORMATION

Year ended 31 December 2017

#### 1. BASIS OF PREPARATION

The Company has prepared consolidated non statutory financial information comprising of information about the Company and its subsidiaries (together "the Group") as at 31 December 2017. The Company confirms in accordance with section 435 of the Companies Act 2006 that:

- the consolidated non statutory financial information does not constitute its statutory accounts;
- a copy of the Company's statutory accounts for the year ended 31 December 2017 will be filed with the Registrar of Companies for England and Wales, Companies House, Cardiff CF14 3UZ; and
- the Company's independent auditor has issued an unqualified report on the Company's statutory accounts for the year ended 31 December 2017.

The Group has prepared the consolidated non statutory financial information in accordance with the basis of preparation detailed in the Company's statutory accounts plus the basis of consolidation set out below. A summary of significant accounting policies applied to the Group are detailed in note 2.

#### Basis of consolidation

The consolidated non statutory financial information of the Group comprises information about the Company and its subsidiaries as at 31 December 2017. Subsidiaries are all entities over which the Group has control. The Group controls an entity when the Group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. The information for the subsidiaries is prepared for the same reporting year as the Group, using consistent accounting policies. The information of subsidiaries which have a non-US dollar reporting currency is translated into US dollars as described in note 2(b). Subsidiaries are consolidated from the date that the Group gains control until the date that control ceases.

In certain cases, the Group may exercise control over another entity on behalf of investors or other parties. In such cases it is necessary, as part of the assessment of whether it should consolidate the entity, for the Group to determine whether it exercises such control primarily as an agent for the other investors or whether it does so primarily as principal on its own behalf. In making such a determination, management of the Group will consider all relevant factors, including in particular:

- the scope of the Group's decision-making authority over the investee;
- the rights, including removal rights, held by other parties;
- the remuneration to which the Group is entitled; and
- the significance of the Group's exposure to variability of returns from its interests in the entity.

Intra-group balances, transactions, income and expenses and profits and losses resulting from intra-group transactions are eliminated in preparing the consolidated non statutory financial information.

Non-controlling interests represent the portion of profit or loss and total equity not owned, directly or indirectly, by the Group and are presented separately in the consolidated income statement, consolidated statement of comprehensive income and within equity in the consolidated statement of financial position, separately from equity attributable to owners of the parent. The amount of non-controlling interest is measured at the non-controlling interest's proportionate share of the identifiable net assets.

# NOTES TO THE CONSOLIDATED NON STATUTORY FINANCIAL INFORMATION

Year ended 31 December 2017

#### 1. BASIS OF PREPARATION (CONTINUED)

#### New standards and interpretations adopted during the year

The following amendments to standards relevant to the Group's operations were adopted during the year. Except where otherwise stated, these amendments to standards did not have a material impact on the Group's consolidated financial statements.

An amendment to IAS 12 'Income Taxes' was issued by the IASB in January 2016, for application in annual periods beginning on or after 1 January 2017.

As part of the 2014 - 2016 Annual Improvements Cycle published in December 2016, the IASB made amendments to the following standard that is relevant to the Group's operations: IFRS 12 'Disclosure of Interests in Other Entities', for application in accounting periods beginning on or after 1 January 2017.

As part of the 2015-2017 Annual Improvements Cycle published in December 2017, the IASB made amendments to the following standards that are relevant to the Company's operations: IAS 12 'Income Taxes' and IAS 23 'Borrowing Costs', for application in accounting periods beginning on or after 1 January 2019.

There were no other standards or interpretations relevant to the Group's operations which were adopted during the year.

### New standards and interpretations not yet adopted

At the date of authorisation of these financial statements, the following standards, amendments to standards and interpretations relevant to the Group's operations were issued by the IASB but not mandatory for annual periods beginning 1 January 2017. Except where otherwise stated, the Group does not expect that the adoption of the following standards, amendments to standards and interpretations will have a material impact on the Group's consolidated non statutory information.

IFRS 9 'Financial instruments' ("IFRS 9") was issued by the IASB in November 2009, reissued in October 2010, amended in November 2013, and revised and reissued by the IASB in July 2014. IFRS 9 is applicable retrospectively, except where otherwise prescribed by transitional provisions of the standard, and is effective for annual periods beginning on or after 1 January 2018. The standard was endorsed by the EU in November 2016. In 2016, the Group early adopted in isolation the requirements relating to the presentation of fair value movements due to changes in credit risk on financial liabilities designated at fair value through profit or loss, but has not early adopted the remaining requirements of IFRS 9.

A further amendment to IFRS 9, relating to the accounting treatment of financial instruments with prepayment features including negative compensation, was issued by the IASB in October 2017. The amendment is applicable retrospectively, except where otherwise prescribed by transitional provisions of the amendment, and is effective for annual periods beginning on or after 1 January 2019. The amendment was endorsed by the EU in March 2018. The Group has early adopted this amendment from 1 January 2018.

# NOTES TO THE CONSOLIDATED NON STATUTORY FINANCIAL INFORMATION

Year ended 31 December 2017

#### 1. BASIS OF PREPARATION (CONTINUED)

#### New standards and interpretations not yet adopted (continued)

An amendment to IFRS 2 'Share based payments' was issued by the IASB in June 2016, for application in annual periods beginning on or after 1 January 2018. Early application is permitted. The amendment was endorsed by the EU in February 2018.

IFRS 15 'Revenue from Contracts with Customers' ("IFRS 15") was issued by the IASB in May 2014, for retrospective application in annual periods beginning on or after 1 January 2018. In addition, amendments to IFRS 15 were issued by the IASB in April 2016, requiring application in annual periods beginning on or after 1 January 2018. The standard and amendments were endorsed by the EU in October 2016. The principal impact of adopting IFRS 15 is the presentation on a gross basis of certain expenses relating to investment banking activities which had previously been recorded as a reduction in revenue. The adoption of this Standard is not expected to have a material impact on retained earnings of the Group.

IFRS 16 'Leases' was issued by the IASB in January 2016, for retrospective application in annual periods beginning on or after 1 January 2019. Early application is permitted. The Group is currently assessing the impact of IFRS 16 on its consolidated financial statements. The standard was endorsed by the EU in November 2017.

An amendment to IAS 28 'Investments in Associates and Joint Ventures' was issued by the IASB in October 2017, for retrospective application in annual periods beginning on or after 1 January 2019. Early application is permitted.

An amendment to IAS 19 'Employee Benefits' was issued by the IASB in February 2018, for retrospective application to plan amendments, curtailments or settlements occurring on or after 1 January 2019. Early adoption is permitted.

As part of the 2014-2016 Annual Improvements Cycle published in December 2016, the IASB made amendments to the following standard that is relevant to the Group's operations: IAS 28 'Investments in Associates', for application in accounting periods beginning on or after 1 January 2018. The amendment was endorsed by the EU in February 2018.

IFRIC 22 'Foreign Currency Transactions and Advance Consideration' was issued by the IASB in December 2016 for application in annual periods beginning on or after 1 January 2018. The Group is currently assessing the impact of IFRIC 22 on its consolidated financial statements.

IFRIC 23 'Uncertainty over Income Tax Treatments' was issued by the IASB in June 2017 for application in annual periods beginning on or after 1 January 2019. The Group is currently assessing the impact of IFRIC 23 on its consolidated financial statements.

### Basis of measurement

The consolidated financial statements of the Group are prepared under the historical cost basis, except for certain financial instruments that have been measured at fair value as explained in the accounting policies in note 2.

# NOTES TO THE CONSOLIDATED NON STATUTORY FINANCIAL INFORMATION

Year ended 31 December 2017

#### 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

#### a. Functional currency

Items included within the consolidated non statutory financial information are measured and presented in US dollars, the currency of the primary economic environment in which the Group operates.

All currency amounts in the consolidated non statutory financial information are rounded to the nearest million US dollars.

#### Foreign currencies

All monetary assets and liabilities denominated in currencies other than US dollars are translated into US dollars at the rates ruling at the reporting date. Transactions and non-monetary assets and liabilities denominated in currencies other than US dollars are recorded at the rates prevailing at the dates of the transactions. Foreign exchange differences on available-for-sale financial assets are recorded in the 'Available-for-sale reserve' in equity, with the exception of translation differences on the amortised cost of monetary available-for-sale assets, which are recognised through the consolidated income statement. Assets and liabilities of foreign operations are translated into US dollars using the closing rate method. Translation differences arising from the net investment(s) in the foreign operations are taken to the 'currency translation reserve'.

The amount of change in the fair value of financial liabilities designated at fair value through profit or loss that is attributable to changes in the credit risk of these liabilities ("DVA") includes foreign exchange differences thereon. All other translation differences are taken through the consolidated income statement. Exchange differences recognised in the consolidated income statement are presented in 'Other income' or 'Other expense', except where noted in 2(c).

On disposal of a foreign operation, the related cumulative gain or loss in the 'currency translation reserve' attributable to the owners of the parent is reclassified to the consolidated income statement and recorded within 'Net currency translation gain / (loss) on disposal of subsidiary'.

#### Financial instruments

The Group classifies its financial assets into the following categories on initial recognition: financial assets classified as held for trading, financial assets designated at fair value through profit or loss, available-for-sale financial assets and loans and receivables.

The Group classifies its financial liabilities into the following categories on initial recognition: financial liabilities classified as held for trading, financial liabilities designated at fair value through profit or loss and financial liabilities at amortised cost.

## NOTES TO THE CONSOLIDATED NON STATUTORY FINANCIAL INFORMATION

Year ended 31 December 2017

#### 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

#### c. Financial instruments (continued)

More information regarding these classifications is included below:

#### Financial instruments classified as held for trading

Purchases and sales of non-derivative financial instruments classified as held for trading are initially recognised on settlement date at fair value, including regular way securities transactions. For purchases of non-derivative financial instruments classified as held for trading, from the date that the terms are agreed (trade date) until the settlement date, the Group recognises any unrealised fair value in the consolidated statement of financial position as 'Financial instruments classified as held for trading' with corresponding profit or loss recognised within the consolidated income statement in 'Net gains/ (losses) on financial instruments classified as held for trading'. For sales of non-derivative financial instruments unrealised fair value changes are no longer recognised in the consolidated income statement from trade date. Upon settlement date the resulting financial instrument is recognised or de-recognised from the consolidated statement of financial position.

Derivatives are initially recognised on trade date at fair value. All subsequent changes in fair value are reflected in the consolidated income statement in 'Net gains/ (losses) on financial instruments classified as held for trading'.

All changes in fair value, foreign exchange differences, interest and dividends are reflected in the consolidated income statement in 'Net gains/ (losses) on financial instruments classified as held for trading'. When interest is included as a component of the instruments' fair value, interest is also reflected in the consolidated income statement in 'Net gains/ (losses) on financial instruments classified as held for trading', otherwise, it is included within 'Interest income' or 'Interest expense'.

For all financial instruments classified as held for trading, transaction costs are excluded from the initial fair value measurement of the financial instrument. These costs are recognised in the consolidated income statement in 'Other expense'.

#### Financial instruments designated at fair value through profit or loss

The Group has designated certain financial instruments at fair value through profit or loss when:

- the financial instruments are managed, evaluated and reported internally on a fair value basis;
- the designation at fair value eliminates or significantly reduces an accounting mismatch which would otherwise arise; or
- the financial instrument contains an embedded derivative that significantly modifies the cash flows that would otherwise be required under the contract.

From the date the transaction in a financial instrument designated at fair value through profit or loss is entered into (trade date) until settlement date, the Group recognises any unrealised fair value changes in the contract as financial instruments designated at fair value through profit or loss in the consolidated statement of financial position. On settlement date, the fair value of consideration given or received is recognised as a financial instrument designated at fair value through profit or loss (see note 2(d)).

All subsequent changes in fair value, foreign exchange differences, interest and dividends are reflected in the consolidated income statement in 'Net gains/ (losses) on financial instruments designated at fair value through profit or loss' other than DVA on financial liabilities designated at fair value through profit or loss which is recognised in the Debt valuation adjustment reserve where those changes do not create or enlarge an accounting mismatch.

# NOTES TO THE CONSOLIDATED NON STATUTORY FINANCIAL INFORMATION

Year ended 31 December 2017

#### 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

#### c. Financial instruments (continued)

#### ii) Financial instruments designated at fair value through profit or loss

DVA presented within other comprehensive income is not subject to reclassification to the consolidated income statement, but is transferred to retained earnings when realised.

Transaction costs are excluded from the initial fair value measurement of the financial instrument. These costs are recognised in the consolidated income statement in 'Other expense'.

#### iii) Available-for-sale financial assets

Financial assets classified as available-for-sale are non-derivative financial assets that are either designated in this category or not classified in any of the other categories of financial instruments. Financial assets classified as available-for-sale are recorded on trade date and are initially recognised and subsequently measured at fair value (see note 2(d)).

Transaction costs that are directly attributable to the acquisition of an available-for-sale financial asset are added to the fair value on initial recognition.

For equity instruments, dividend income and impairment losses are recognised in the consolidated income statement in 'Net gains/ (losses) on available-for-sale financial assets'. All other gains and losses on equity instruments classified as available-for-sale are recognised in the 'Available-for-sale reserve' within equity.

On disposal or impairment of an available-for-sale financial asset, the cumulative gain or loss in the 'Available-for-sale reserve' is reclassified to the consolidated income statement and reported in 'Net gains/ (losses) on available-for-sale financial assets'.

#### iv) Loans and receivables and financial liabilities at amortised cost

Financial assets classified as loans and receivables are recognised when the Group becomes a party to the contractual provisions of the instrument. They are initially measured at fair value (see note 2(d)) and subsequently measured at amortised cost less allowance for impairment. Interest is recognised in the consolidated income statement in 'Interest income', using the effective interest rate method as described below. Transaction costs that are directly attributable to the acquisition of the financial asset are added to or deducted from the fair value on initial recognition. Impairment losses and reversals of impairment losses on financial assets classified as loans and receivables are recognised in the consolidated income statement in 'Other expense'.

Financial liabilities at amortised cost are recognised when the Group becomes a party to the contractual provisions of the instrument. They are initially measured at fair value (see note 2(d)) and subsequently measured at amortised cost. Interest is recognised in the consolidated income statement in 'Interest expense' using the effective interest rate method as described below. Transaction costs that are directly attributable to the issue of the financial liability are added to or deducted from the fair value on initial recognition.

## NOTES TO THE CONSOLIDATED NON STATUTORY FINANCIAL INFORMATION

Year ended 31 December 2017

#### 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

#### Financial instruments (continued)

#### iv) Loans and receivables and financial liabilities at amortised cost (continued)

The effective interest rate method is a method of calculating the amortised cost of a financial instrument (or a group of financial instruments) and of allocating the interest income or interest expense over the expected life of the financial instrument. The effective interest rate is the rate that exactly discounts the estimated future cash payments and receipts through the expected life of the financial instrument (or, where appropriate a shorter period) to the carrying amount of the financial instrument. The effective interest rate is established on initial recognition of the financial instrument. The calculation of the effective interest rate includes all fees and commissions paid or received, transaction costs, and discounts or premiums that are an integral part of the effective interest rate. Transaction costs are incremental costs that are directly attributable to the acquisition, issue or disposal of a financial instrument.

In the course of financing its business and as part of its trading activities, the Group enters into arrangements which involve the sale of securities with agreements to repurchase, the purchase of securities with resale agreements, the lending of securities with collateral received and the borrowing of securities with collateral given. Cash collateral balances repayable and accrued interest arising under repurchase agreements and securities lending arrangements are classified as 'Financial liabilities at amortised cost' and the related securities, where owned by the Group, are included in 'Financial assets classified as held for trading'. Cash collateral balances receivable and accrued interest arising under resale agreements and securities borrowing arrangements are classified as 'Loans and receivables'. Securities received by the Group under resale arrangements and securities borrowing arrangements are generally not recognised on the consolidated statement of financial position.

#### d. Fair value

Fair value measurement

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability (i.e. the "exit price") in an orderly transaction between market participants at the measurement date.

In determining fair value, the Group uses various valuation approaches and establishes a hierarchy for inputs used in measuring fair value that maximises the use of relevant observable inputs and minimises the use of unobservable inputs by requiring that the most observable inputs be used when available. Observable inputs are inputs that market participants would use in pricing the asset or liability that were developed based on market data obtained from sources independent of the Group. Unobservable inputs are inputs that reflect assumptions the Group believes other market participants would use in pricing the asset or liability, that are developed based on the best information available in the circumstances.

The hierarchy is broken down into three levels based on the observability of inputs as follows:

Level 1 - Quoted prices (unadjusted) in an active market for identical assets or liabilities

Valuations based on quoted prices in active markets that the Morgan Stanley Group has the ability to access for identical assets or liabilities. Valuation adjustments and block discounts are not applied to Level 1 instruments. Since valuations are based on quoted prices that are readily and regularly available in an active market, valuation of these products does not entail a significant degree of judgement.

Level 2 - Valuation techniques using observable inputs

Valuations based on one or more quoted prices in markets that are not active or for which all significant inputs are observable, either directly or indirectly.

Level 3 - Valuation techniques with significant unobservable inputs

Valuations based on inputs that are unobservable and significant to the overall fair value measurement.

## NOTES TO THE CONSOLIDATED NON STATUTORY FINANCIAL INFORMATION

Year ended 31 December 2017

### 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

#### d. Fair value (continued)

Fair value measurement (continued)

The availability of observable inputs can vary from product to product and is affected by a wide variety of factors, including, for example, the type of product, whether the product is new and not yet established in the marketplace, the liquidity of markets and other characteristics particular to the product. To the extent that valuation is based on models or inputs that are less observable or unobservable in the market, the determination of fair value requires more judgement. Accordingly, the degree of judgement exercised by the Group in determining fair value is greatest for instruments categorised in Level 3 of the fair value hierarchy.

The Group considers prices and inputs that are current as of the measurement date, including during periods of market dislocation. In periods of market dislocation, the observability of prices and inputs may be reduced for many instruments. This condition could cause an instrument to be reclassified from Level 1 to Level 2 or from Level 2 to Level 3 of the fair value hierarchy.

In certain cases, the inputs used to measure fair value may fall into different levels of the fair value hierarchy. In such cases, for disclosure purposes, the level in the fair value hierarchy within which the fair value measurement falls in its entirety is determined based on the lowest level input that is significant to the fair value measurement in its entirety.

The Group incorporates funding valuation adjustments ("FVA") in the fair value measurements of over the counter ("OTC") uncollateralised or partially collateralised derivatives, and in collateralised derivatives where the terms of the agreement do not permit the re-use of the collateral received. In general, FVA reflects a market funding risk premium inherent in the noted derivative instruments. The methodology for measuring FVA leverages the Group's existing credit-related valuation adjustment calculation methodologies, which apply to both assets and liabilities.

For assets and liabilities that are transferred between levels in the fair value hierarchy during the period, fair values are ascribed as if the assets or liabilities had been transferred as of the beginning of the period. *Valuation techniques* 

Many cash instruments and OTC derivative contracts have bid and ask prices that can be observed in the marketplace. Bid prices reflect the highest price that a party is willing to pay for an asset. Ask prices represent the lowest price that a party is willing to accept for an asset. The Group carries positions at the point within the bid-ask range that meets the Group's best estimate of fair value. For offsetting positions in the same financial instrument, the same price within the bid-ask spread is used to measure both the long and short positions.

Fair value for many cash instruments and OTC derivative contracts is derived using pricing models. Pricing models take into account the contract terms, as well as multiple inputs including, where applicable, commodity prices, equity prices, interest rate yield curves, credit curves, correlation, creditworthiness of the counterparty, creditworthiness of the Group, option volatility and currency rates. Where appropriate, valuation adjustments are made to account for various factors such as liquidity risk (bid-ask adjustments), credit quality, model uncertainty and concentration risk.

# NOTES TO THE CONSOLIDATED NON STATUTORY FINANCIAL INFORMATION

Year ended 31 December 2017

#### 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

#### d. Fair value (continued)

Valuation techniques (continued)

Adjustments for liquidity risk adjust model-derived mid-market levels of Level 2 and Level 3 financial instruments for the bid-mid or mid-ask spread required to properly reflect the exit price of a risk position. Bid-mid and mid-ask spreads are marked to levels observed in trade activity, broker quotes or other external third-party data. Where these spreads are unobservable for the particular position in question, spreads are derived from observable levels of similar positions.

The Group applies credit-related valuation adjustments ("CVA") to its short-term and long-term borrowings (primarily structured notes) which are designated at fair value through profit or loss and to OTC derivatives. The Group considers the impact of changes in own credit spreads based upon observations of the secondary bond market spreads when measuring the fair value for short-term and long-term borrowings. For OTC derivatives, the impact of changes in both the Group's and the counterparty's credit rating is considered when measuring fair value. In determining the expected exposure the Group simulates the distribution of the future exposure to a counterparty, then applies market-based default probabilities to the future exposure, leveraging external third-party credit default swap ("CDS") spread data. Where CDS spread data are unavailable for a specific counterparty, bond market spreads, CDS spread data based on the counterparty's credit rating or CDS spread data that reference a comparable counterparty may be utilised. The Group also considers collateral held and legally enforceable master netting agreements that mitigate the Group's exposure to each counterparty.

Adjustments for model uncertainty are taken for positions whose underlying models are reliant on significant inputs that are neither directly nor indirectly observable, hence requiring reliance on established theoretical concepts in their derivation. These adjustments are derived by making assessments of the possible degree of variability using statistical approaches and market-based information where possible.

The Group may apply a concentration adjustment to certain of its OTC derivatives portfolios to reflect the additional cost of closing out a particularly large risk exposure. Where possible, these adjustments are based on observable market information but in many instances significant judgement is required to estimate the costs of closing out concentrated risk exposures due to the lack of liquidity in the marketplace.

Fair value is a market-based measure considered from the perspective of a market participant rather than an entity-specific measure. Therefore, even when market assumptions are not readily available, the Group's own assumptions are set to reflect those that the Group believes market participants would use in pricing the asset or liability at the measurement date.

Where the Group manages a group of financial assets and financial liabilities on the basis of its net exposure to either market risk or credit risk, the Group measures the fair value of that group of financial instruments consistently with how market participants would price the net risk exposure at the measurement date.

# NOTES TO THE CONSOLIDATED NON STATUTORY FINANCIAL INFORMATION

Year ended 31 December 2017

#### 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

#### d. Fair value (continued)

Valuation process

The Valuation Review Group ("VRG") within the Financial Control Group ("FCG") is responsible for the Group's fair value valuation policies, processes and procedures. VRG is independent of the business units and reports to the Chief Financial Officer of the Morgan Stanley Group ("CFO"), who has final authority over the valuation of the Group's financial instruments. VRG implements valuation control processes designed to validate the fair value of the Group's financial instruments measured at fair value including those derived from pricing models.

- Model Review. VRG, in conjunction with the Model Risk Management Department ("MRM") which reports to the Chief Risk Officer of the Morgan Stanley Group ("CRO"), independently review valuation models' theoretical soundness, the appropriateness of the valuation methodology and calibration techniques developed by the business units using observable inputs. Where inputs are not observable, VRG reviews the appropriateness of the proposed valuation methodology to determine that it is consistent with how a market participant would arrive at the unobservable input. The valuation methodologies utilised in the absence of observable inputs may include extrapolation techniques and the use of comparable observable inputs. As part of the review, VRG develops a methodology to independently verify the fair value generated by the business unit's valuation models. The Group generally subjects valuations and models to a review process initially and on a periodic basis thereafter.
- Independent Price Verification. The business units are responsible for determining the fair value of
  financial instruments using approved valuation models and valuation methodologies. Generally on a
  monthly basis, VRG independently validates the fair values of financial instruments determined using
  valuation models by determining the appropriateness of the inputs used by the business units and by
  testing compliance with the documented valuation methodologies approved in the model review
  process described above.

The results of this independent price verification and any adjustments made by VRG to the fair value generated by the business units are presented to management of the Morgan Stanley Group's three business segments (i.e. Institutional Securities, Wealth Management and Investment Management), the CFO and the CRO on a regular basis.

VRG uses recently executed transactions, other observable market data such as exchange data, broker/dealer quotes, third-party pricing vendors and aggregation services for validating the fair values of financial instruments generated using valuation models. VRG assesses the external sources and their valuation methodologies to determine if the external providers meet the minimum standards expected of a third-party pricing source. Pricing data provided by approved external sources are evaluated using a number of approaches; for example, by corroborating the external sources' prices to executed trades, by analysing the methodology and assumptions used by the external source to generate a price and/or by evaluating how active the third-party pricing source (or originating sources used by the third-party pricing source) is in the market. Based on this analysis, VRG generates a ranking of the observable market data designed to ensure that the highest-ranked market data source is used to validate the business unit's fair value of financial instruments.

VRG reviews the models and valuation methodology used to price all new material Level 3 transactions and both FCG and MRM must approve the fair value of the trade that is initially recognised.

# NOTES TO THE CONSOLIDATED NON STATUTORY FINANCIAL INFORMATION

Year ended 31 December 2017

#### 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

#### d. Fair value (continued)

Valuation process (continued)

Level 3 Transactions. VRG reviews the business unit's valuation techniques to assess whether these
are consistent with market participant assumptions.

Gains and losses on inception

In the normal course of business, the fair value of a financial instrument on initial recognition is the transaction price (i.e. the fair value of the consideration given or received). In certain circumstances, however, the fair value will be based on other observable current market transactions in the same instrument, without modification or repackaging, or on a valuation technique whose variables include only data from observable markets. When such evidence exists, the Group recognises a gain or loss on inception of the transaction.

When the use of unobservable market data has a significant impact on determining fair value at the inception of the transaction, the entire initial gain or loss indicated by the valuation technique as at the transaction date is not recognised immediately in the consolidated income statement and is recognised instead when the market data becomes observable.

Assets and liabilities measured at fair value on a non-recurring basis

Certain of the Group's assets and liabilities are measured at fair value on a non-recurring basis. The Group incurs losses or gains for any adjustments of these assets or liabilities to fair value.

For assets and liabilities measured at fair value on a non-recurring basis, fair value is determined by using various valuation approaches. The same hierarchy for inputs as described above, which maximises the use of observable inputs and minimises the use of unobservable inputs by generally requiring that the observable inputs be used when available, is used in measuring fair value for these items.

#### e. Derecognition of financial assets and liabilities

The Group derecognises a financial asset when the contractual rights to the cash flows from the asset expire, or when it transfers the financial asset and substantially all the risk and rewards of ownership of the asset.

The Group derecognises financial liabilities when the Group's obligations are discharged, cancelled or they expire. Upon derecognition, those realised changes in the fair value of certain financial liabilities designated at fair value through profit or loss that are attributable to changes in the credit risk of those liabilities and are presented in other comprehensive income, are transferred from the 'Debt valuation adjustment reserve' to 'Retained earnings'.

## NOTES TO THE CONSOLIDATED NON STATUTORY FINANCIAL INFORMATION

Year ended 31 December 2017

## 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

#### f. Impairment of financial assets

At each reporting date, an assessment is made as to whether there is any objective evidence of impairment in the value of a financial asset classified as either available-for-sale or loans and receivables. Impairment losses are recognised if an event has occurred which will have an adverse impact on the expected future cash flows of an asset and the expected impact can be reliably estimated.

Impairment losses on available-for-sale financial assets are measured as the difference between cost (net of any principal repayment and amortisation) and the current fair value (see note 2(d)). Where there is evidence that an available-for-sale financial asset is impaired, the cumulative loss that had been previously recognised in other comprehensive income is reclassified from the 'Available-for-sale reserve' and recognised in the consolidated income statement within 'Net gains/ (losses) on available-for-sale financial assets'

Impairment losses on loans and receivables are measured as the difference between the carrying amount of the loans and receivables and the present value of estimated cash flows discounted at the asset's original effective interest rate. Such impairment losses are recognised in the consolidated income statement within 'Other expense' and are recognised against the carrying amount of the impaired asset on the consolidated statement of financial position. Interest on the impaired asset continues to be accrued on the reduced carrying amount based on the original effective interest rate of the asset.

Subsequent increases in fair value of previously impaired equity available-for-sale financial assets are reported as fair value gains in the 'Available-for-sale reserve' through other comprehensive income and not separately identified as an impairment reversal. For all other financial assets, if in a subsequent year, the amount of the estimated impairment loss decreases because of an event occurring after the impairment was recognised, the previously recognised impairment loss is reversed as described for the relevant categories of financial asset in note 2(c) (iii) and (iv). Any reversal is limited to the extent that the value of the asset may not exceed the original amortised cost of the asset had no impairment occurred.

#### g. Fees and commissions

Fees and commissions classified within 'Other income' in the consolidated income statement include account servicing fees, investment management fees, sales commissions, placement fees, advisory fees and syndication fees.

- Account servicing fees include loan commitment and utilisation fees. These fees are recognised
  over the term of the commitment on a straight-line basis where the commitment is not expected to
  be drawn. Where the commitment is expected to be drawn, the fees are deferred until drawdown
  and included in the effective interest rate.
- Syndication fees are generally not an integral part of the effective interest rate and are recognised
  as the related services are performed.
- Arrangement fees are recognised as the related services are performed where there is no ongoing
  contractual obligation for the Company. Where there is an ongoing contractual obligation for the
  Company, fees are recognised over the term of the commitment on a straight-line basis where the
  commitment is not expected to be drawn or deferred until drawdown and included in the effective
  interest rate where the commitment is expected to be drawn.

Fees and commissions classified within 'Other expense' in the consolidated income statement include transaction and service fees. These amounts are recognised as the related services are performed or received.

## NOTES TO THE CONSOLIDATED NON STATUTORY FINANCIAL INFORMATION

Year ended 31 December 2017

#### 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

#### h. Property, plant and equipment

Property, plant and equipment are stated at cost net of depreciation and any provision for impairment in value, which are included within 'Other expense' in the consolidated income statement.

For premises held under operating leases, a reinstatement provision is recognised for the estimated cost to reinstate the premises at the end of the lease period. When the reinstatement provision is established and included within 'Provisions' in the consolidated statement of financial position, an equivalent asset is recognised and included in the cost of leasehold improvements at the initial present value of any reinstatement obligations. The discount effect included in the reinstatement provision is reversed over time using a constant effective yield method and included within 'Interest expense' in the consolidated income statement. The reinstatement asset is depreciated over the useful economic life of the relevant leasehold improvement asset and the depreciation charge is included within 'Other expense' in the consolidated income statement.

Depreciation is provided on property, plant and equipment at rates calculated to write off the cost of the assets on a straight line basis over their expected useful lives as follows:

Leasehold improvements including reinstatement assets - shorter of remaining lease term and 25 years
Fixtures, fittings and equipment - 3 to 8 years

#### Business combinations and disposals

#### Combination of businesses

Business combinations are accounted for using the acquisition method of accounting.

Consideration for each acquisition is measured at the date at which a business combination occurs (the "acquisition date") at the fair value of the assets transferred, liabilities incurred (including any asset or liability resulting from a contingent consideration arrangement) and equity instruments issued by the Group in exchange for control of the acquiree.

Acquisition related costs are recognised in the consolidated income statement as incurred.

Identifiable assets acquired and liabilities (including contingent liabilities) assumed, which meet the conditions for recognition under IFRS 3, are recognised initially at acquisition-date fair values, with the exception that:

- deferred tax assets and liabilities are recognised and measured in accordance with IAS 12;
- assets related to employee benefit arrangements are recognised and measured in accordance with IAS 19;
- liabilities or equity instruments related to the replacement of an acquiree's share-based payment award are measured in accordance with IFRS 2, and
- acquired non-current assets or disposal groups that are classified as held for sale at the acquisition
  date in accordance with IFRS 5 'Non-current assets held for sale and discontinued operations' are
  reported at their fair value less cost to sell.

# NOTES TO THE CONSOLIDATED NON STATUTORY FINANCIAL INFORMATION

Year ended 31 December 2017

## 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

### i. Business combinations and disposals (continued)

#### Combination of businesses

A contingent liability assumed is recognised where there is a present obligation that arises from past events and its fair value can be measured reliably, regardless of whether it is probable that an outflow of resources will be required to settle the obligation.

A non-controlling interest in the acquiree is recognised (in respect of any portion of the total assets less total liabilities of an acquired entity that is not owned by the Group) at fair value.

Any excess of the sum of the consideration and the amount of any non-controlling interest in the acquiree over the fair value of the identifiable assets acquired less liabilities assumed is recognised as goodwill. If the sum of the consideration and the amount of any non-controlling interest in the acquiree is less than the fair value of the identifiable assets acquired less liabilities assumed, the gain on acquisition is recognised in the consolidated income statement in the year of acquisition.

If the initial accounting for a business combination is incomplete by the end of the reporting period in which the combination occurred, the Group reports provisional amounts for the items for which the accounting is incomplete. The measurement period (which may not exceed one year) is the period from the date of acquisition to the date the Group obtains complete information about the facts and circumstances that existed as of the acquisition date. Provisional amounts may be adjusted during the measurement period, or additional assets or liabilities recognised, to reflect any new information obtained about the facts and circumstances that existed at the acquisition date that, if known, would have affected the amounts recognised at that date.

Subsequent changes to the fair value of any asset or liability resulting from a contingent consideration arrangement during the measurement period are adjusted against the cost of acquisition. Changes in the fair value of contingent consideration classified as equity are not recognised.

Post-acquisition, income received and expenses incurred by the entity or entities acquired are included in the consolidated income statement on a line-by-line basis in accordance with the accounting policies set out herein.

#### Disposal of subsidiaries

When subsidiaries are sold or the Group ceases to control an entity, the difference between the proceeds (plus the fair value of any investment retained), and the total assets less total liabilities disposed of, cumulative translation differences and unamortised goodwill, is recognised in the consolidated income statement within 'Gain/ (loss) on disposal of subsidiary'. Where the disposal or loss of control over an entity includes a foreign operation, all foreign exchange differences accumulated in the 'Currency translation reserve' attributable to the equity holders of the Company are reclassified to the consolidated income statement within 'Gain/ (loss) on disposal of subsidiary'.

## NOTES TO THE CONSOLIDATED NON STATUTORY FINANCIAL INFORMATION

Year ended 31 December 2017

#### 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

#### i. Business combinations and disposals (continued)

#### ii) Combination of businesses under common control

Business combinations involving entities under common control, where all combining entities are ultimately controlled by the same entity before and after the business combination, are accounted for using the predecessor values method of accounting. This involves recognising assets and liabilities of the acquired business at the predecessors' book value, without any change to reflect fair value of those assets and liabilities. Any difference between the cost of acquisition and the aggregate book value of the assets and liabilities as of the date of the transfer of the acquired entity is recorded as an adjustment to equity within the 'Capital contribution reserve'. No additional goodwill is created by the business combination.

Post-acquisition, income received and expenses incurred by the entity or entities acquired are included in the consolidated income statement on a line-by-line basis in accordance with the accounting policies set out herein

A non-controlling interest is recognised by the Group in respect of any portion of the total assets less total liabilities of an acquired entity or entities that is not owned by the Group.

When subsidiaries are sold or transferred to another entity under common control, any difference between the consideration received and the aggregate book value of the assets and liabilities of the disposed of business is recorded as an adjustment to equity within the 'Capital contribution reserve'. Where the consideration for the transfer is received in the form of shares, these are recorded at the aggregate book value of the assets and liabilities disposed of.

### j. Intangible assets

Expenditure on research activities is recognised as an expense in the period in which it is incurred.

Expenditure on internally developed software is recognised as an asset when the Group is able to demonstrate its intention and ability to complete the development, to use the software in a manner that will generate future economic benefits, and to reliably measure the costs to complete the development. Internally developed software is stated at capitalised cost less accumulated amortisation and any impairment (see note 2(g) above). Amortisation is recognised in 'Other expense' in the consolidated income statement on a straight line basis over the estimated useful life of the software, from the date that it is available for use. The estimated useful life of internally developed software is two to ten years.

Intangible assets are not amortised when their useful lives are assessed to be indefinite. Intangible assets are assessed to have an indefinite useful life when there are no contractual, economic or other factors that limit the useful lives. Intangible assets with indefinite useful lives owned by the Group are stated at cost less accumulated impairment losses (see note 2(g) above).

#### Impairment of non-financial assets

Non-financial assets that are subject to depreciation or amortisation are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognised for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs to sell and its value in use. For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash flows (cash generating units). Non-financial assets, other than goodwill, that have suffered an impairment are reviewed for possible reversal of the impairment at the end of each reporting period. Such impairment losses are recognised in the consolidated income statement within 'Other expense' and are recognised against the carrying amount of the impaired asset on the consolidated statement of financial position.

## NOTES TO THE CONSOLIDATED NON STATUTORY FINANCIAL INFORMATION

Year ended 31 December 2017

#### 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

#### Cash and Cash Equivalents

Cash and cash equivalents comprise cash and demand deposits with banks, net of outstanding bank overdrafts, along with highly liquid investments, with original maturities of three months or less, that are readily convertible to known amounts of cash and subject to insignificant risk of change in value. This may include segregated client money, held in accordance with the Financial Conduct Authority's Client Money Rules or is not available for use by the Group.

#### m. Income tax

The tax expense represents the sum of the tax currently payable and deferred tax.

The tax currently payable is calculated based on taxable profit for the year. Taxable profit may differ from profit/(loss) before income tax as reported in the consolidated income statement because it excludes items of income or expense that are taxable or deductible in other years and it further excludes items that are never taxable or deductible. The Group's liability for current tax is calculated using tax rates that have been enacted or substantively enacted by the reporting date. Current tax is charged or credited in the consolidated income statement, except when it relates to items charged or credited directly to other comprehensive income or equity, in which case the current tax is also recorded within other comprehensive income or equity respectively.

Deferred tax is the tax expected to be payable or recoverable on differences between the carrying amounts of assets and liabilities in the consolidated non statutory financial information and the corresponding tax bases used in the computation of taxable profit, and is accounted for using the balance sheet liability method. Deferred tax liabilities are generally recognised for all taxable temporary differences and deferred tax assets are recognised to the extent that it is probable that taxable profits will be available against which deductible temporary differences can be utilised.

Deferred tax liabilities are recognised for taxable temporary differences arising on investments in subsidiaries, except where the Group is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future.

The carrying amount of deferred tax assets is reviewed at each reporting date and limited to the extent that it is probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

Deferred tax is calculated at the tax rates that are expected to apply in the period when the liability is settled or the asset is realised. Deferred tax is charged or credited in the consolidated income statement, except when it relates to items charged or credited directly to other comprehensive income or equity, in which case the deferred tax is reflected within other comprehensive income or equity, respectively.

Current tax assets are offset against current tax liabilities when there is a legally enforceable right to set off current tax assets against current tax liabilities and the Group intends to settle its current tax assets and current tax liabilities on a net basis or to realise the asset and settle the liability simultaneously. Deferred tax assets and liabilities are offset when there is a legally enforceable right to set off current tax assets against current tax liabilities and when they relate to income taxes levied by the same taxation authority and the Group intends to settle its current tax assets and current tax liabilities on a net basis.

## NOTES TO THE CONSOLIDATED NON STATUTORY FINANCIAL INFORMATION

Year ended 31 December 2017

## 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

#### n. Operating leases

Rentals payable under operating leases are charged to 'Other expense' in the consolidated income statement on a straight line basis over the lease term. Lease incentives are allocated on a straight line basis over the lease term as a reduction to rental expense.

Rentals receivable under operating leases are credited to 'Other income' in the consolidated income statement on a straight line basis over the lease term. Initial direct costs incurred in negotiating and arranging the lease are added to the carrying amount of the leased asset and recognised in the consolidated income statement on a straight line basis over the lease term. Lease incentives are allocated on a straight line basis over the lease term.

#### n. Provisions

Provisions are recognised when the Group has a present obligation as a result of a past event, when it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and when a reliable estimate can be made of the amount of the obligation.

The amount recognised as a provision is the best estimate of the consideration required to settle the present obligation at the year end date, taking into account the risks and uncertainties surrounding the obligation. Where a provision is measured using the cash flows estimated to settle the present obligation, its carrying amount is the present value of those cash flows.

#### Employee compensation plans

#### Equity-settled share-based compensation plans

Morgan Stanley issues awards in the form of restricted stock units ("RSUs") and stock options to employees of the Morgan Stanley Group for services rendered to the Group. Awards are classified as equity-settled and the cost of equity-based transactions with employees is measured based on the fair value of the equity instruments at grant date. The fair value of RSUs is based on the market price of Morgan Stanley shares and the fair value of stock option awards is estimated using the Black-Scholes valuation model, which takes into account the option's exercise price, its expected term, the risk free interest rate and the expected volatility of the market price of Morgan Stanley shares. Awards are amortised over the future service period.

The Group pays Morgan Stanley in consideration of the procurement of the transfer of shares to employees via a chargeback agreement under which it is committed to pay to Morgan Stanley the grant date fair value as well as subsequent movements in the fair value of those awards at the time of deliver to the employees.

Share-based compensation expense is recorded within 'Other expense' in the consolidated income statement.

# NOTES TO THE CONSOLIDATED NON STATUTORY FINANCIAL INFORMATION

Year ended 31 December 2017

#### 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

#### p. Employee compensation plans (continued)

#### ii) Other deferred compensation plans

Morgan Stanley also maintains deferred compensation plans on behalf of the Group for the benefit of certain current and former employees that provide a return to the participating employees based upon the performance of various referenced investments. Liabilities for these awards, which are included within 'Accruals and deferred income' in the consolidated statement of financial position, are measured at fair value and recognised over time in accordance with the awards' vesting conditions. The related expense is recorded within 'Other expense' in the consolidated income statement. The Group economically hedges the exposure created by these deferred compensation schemes by entering into derivative transactions with other Morgan Stanley Group undertakings. The derivatives are recognised within 'Financial instruments classified as held for trading' in the consolidated statement of financial position and the related gains and losses are recorded within 'Net gains/ (losses) on financial instruments classified as held for trading' in the consolidated income statement.

#### q. Post-employment benefits

The Group operates defined contribution and defined benefit post-employment plans.

Contributions due in relation to the Group's defined contribution post-employment plan are recognised in 'Other expense' in the consolidated income statement when payable.

For the Group's defined benefit post-employment plan, the plan obligations are measured on an actuarial basis in accordance with the advice of an independent qualified actuary using the projected unit credit method and discounted at a rate that reflects the current rate of return on a high quality corporate bond of equivalent term and currency to the plan liabilities. Plan assets are measured at their fair value at the reporting date. A surplus or deficit of plan assets over liabilities is recognised in the consolidated statement of financial position as an asset or a liability respectively. If the fair value of the plan assets is higher than the present value of the defined benefit obligation, the measurement of the resulting defined benefit asset is limited to the present value of economic benefits available in the form of refunds from the plan or reductions in future contributions to the plan. The current service cost and any past service costs together with the net interest on the net defined benefit obligation/ asset is charged to 'Staff costs' within 'Other expense' in the consolidated income statement. Remeasurements that arise in calculating the Group's obligation in respect of a plan are recognised in other comprehensive income, in the period in which they occur.

### r. Offsetting of financial assets and financial liabilities

Where there is a currently legally enforceable right to set off the recognised amounts and an intention to either settle on a net basis or to realise the asset and the liability simultaneously, financial assets and financial liabilities are offset and the net amount presented on the consolidated statement of financial position. In the absence of such conditions, financial assets and financial liabilities are presented on a gross basis.

## NOTES TO THE CONSOLIDATED NON STATUTORY FINANCIAL INFORMATION

Year ended 31 December 2017

#### 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

#### s. Interest income and interest expense

'Interest income' represents total interest generated from financial assets whilst 'Interest expense' represents total interest arising on financial liabilities with the exception that:

- (a) when interest is included as a component of the financial instrument's fair value, interest is reflected in 'net gains/ (losses) on financial instruments classified as held for trading'; and
- (b) interest expense otherwise arising on 'financial liabilities classified as held for trading' is reported as a reduction in 'Interest income'.

'Interest income' also includes fees paid on securities borrowed transactions and 'Interest expense' includes fees received on securities loaned balances and from prime brokerage customers for stock loan transactions undertaken to cover customers' short positions.

Certain currencies, in which the Group's trades are denominated, may at times have negative interest rates, of which a current example is the Euro. When financial assets and financial liabilities are denominated in such currencies with negative interest rates, this results in negative 'Interest income' and positive 'Interest expense' being recognised. For the year ended 31 December 2016, this has resulted in overall 'Interest income' in the consolidated income statement for the Group being negative.

No other gains or losses have been recognised in respect of loans and receivables other than as disclosed as 'Interest income', foreign exchange differences and impairment losses and reversals of impairment losses disclosed in 'Other expense'.

25. Appendix VIII: MSIM Group Non-Statutory Financial Information
MORGAN STANLEY INVESTMENT MANAGEMENT LIMITED
Consolidated non-statutory financial information
Consolidated non-statutory financial information 31 December 2017

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Consolidated statement of comprehensive income	5
Consolidated statement of changes in equity	6
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Notes to the consolidated non statutory financial information	8

#### DIRECTORS' RESPONSIBILITIES STATEMENT

The Directors, the names of whom are set out below, confirm that to the best of their knowledge:

- the accounting policies are appropriate to the circumstances of the Morgan Stanley Investment Management Group which comprises of Morgan Stanley Investment Management Limited ("the Company") and its subsidiary (together "the Group") and the policies have been consistently applied and adequately disclosed;
- ii) significant accounting estimates applied are reasonable; and
- iii) the consolidated non statutory financial information is free from material misstatement.

Approved by the Board and signed on its behalf by:

Director 18 April 2018

#### **Board of Directors:**

T L Duhon (Chairman) (appointed 10 January 2018)
F C Kelly (appointed 10 January 2018)
R A Lockwood (appointed 11 January 2018)

R O'Healai A C Onslow D P Price

J A Robinson (resigned 31 July 2017) L D Van Setten (resigned 31 January 2017)

# INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF MORGAN STANLEY INVESTMENT MANAGEMENT LIMITED

## Report on the audit of the consolidated non-statutory financial statements

#### Opinion

In our opinion the consolidated non-statutory financial statements for the year ended 31 December 2017 have been properly prepared in accordance with the basis of preparation and accounting policies stated in notes 1 and 2.

We have audited the consolidated non-statutory financial statements of Morgan Stanley Investment Management Limited (the 'company') which comprise:

- the consolidated income statement;
- the consolidated statement of comprehensive income;
- the consolidated statement of financial position;
- · the consolidated statement of changes in equity; and
- the related notes 1 and 2.

The financial reporting framework that has been applied in their preparation is the accounting policies stated in notes I and 2.

#### Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)), including ISA (UK) 800. Our responsibilities under those standards are further described in the auditor's responsibilities for the audit of the non-statutory financial statements section of our report.

We are independent of the company in accordance with the ethical requirements that are relevant to our audit of the non-statutory financial statements in the UK, including the FRC's Ethical Standard, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

## Emphasis of matter - basis of accounting

We draw attention to Notes 1 and 2 to the non-statutory financial statements, which describes the basis of accounting. The financial statements are prepared to assist the company in its reporting to the Financial Conduct Authority ("FCA"). As a result, the non-statutory financial statements may not be suitable for another purpose. Our opinion is not modified in respect of this matter.

#### Conclusions relating to going concern

We are required by ISAs (UK) to report in respect of the following matters where:

- the directors' use of the going concern basis of accounting in preparation of the non-statutory financial statements is not appropriate; or
- the directors have not disclosed in the non-statutory financial statements any identified material
  uncertainties that may cast significant doubt about the company's ability to continue to adopt the
  going concern basis of accounting for a period of at least twelve months from the date when the
  non-statutory financial statements are authorised for issue.

We have nothing to report in respect of these matters.

# INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF MORGAN STANLEY INVESTMENT MANAGEMENT LIMITED

#### Responsibilities of directors

As explained more fully in the directors' responsibilities statement, the directors are responsible for the preparation of the non-statutory financial statements in accordance with the financial reporting provisions laid out in Notes 1 and 2 to the financial statements, and for such internal control as the directors determine is necessary to enable the preparation of non-statutory financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the non-statutory financial statements, the directors are responsible for assessing the company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the company or to cease operations, or have no realistic alternative but to do so.

#### Auditor's responsibilities for the audit of the non-statutory financial statements

Our objectives are to obtain reasonable assurance about whether the non-statutory financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these non-statutory financial statements.

A further description of our responsibilities for the audit of the non-statutory financial statements is located on the Financial Reporting Council's website at: <a href="www.frc.org.uk/auditorsresponsibilities">www.frc.org.uk/auditorsresponsibilities</a>. This description forms part of our auditor's report.

#### Use of our report

This report is made solely for the exclusive use of the directors and solely for the purpose of reporting to the FCA. Our report is not to be used for any other purpose, recited or referred to in any document, copied or made available (in whole or in part) to any other person without prior written express consent save that a copy may be provided to the FCA as required by law or regulation including the rules of any applicable stock exchange. We accept no duty, responsibility or liability to any other party in connection with the report or this engagement.

Deloitte LLP London

Odith wp

18 April 2018

## CONSOLIDATED INCOME STATEMENT Year ended 31 December 2017

	2017 \$'000	2016 \$'000
Fee and commission income	849,764	862,456
Net losses on financial instruments classified as held for trading		(13)
Interest income	9,994	7,097
Interest expense	(2,725)	(1,992)
Otherineses		46.564
Other income Other expense	(748,952)	46,564 (779,508)
with allyettee	(740,552)	(175,500)
PROFIT BEFORE TAXATION	108,081	134,604
Income tax expense	(23,906)	(25,507)
PROFIT FOR THE YEAR	84,175	109,097

## CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME Year ended 31 December 2017

	2017	2016
	\$'000	\$'000
PROFIT FOR THE YEAR	84,175	109,097
OTHER COMPREHENSIVE INCOME, NET OF TAX		
Items that will not be reclassified subsequently to profit or loss:		
Remeasurement of net defined benefit liability		(1)
Items that may be reclassified subsequently to profit or loss:		
Currency translation reserve:		
Foreign currency translation differences arising on foreign		
operations	1,912	(412)
TOTAL COMPREHENSIVE INCOME FOR THE YEAR	86,087	108,684

## CONSOLIDATED STATEMENT OF CHANGES IN EQUITY Year ended 31 December 2017

Profit for the year 109,097 109,000 100,	Tour onder DI December	Share capital	Currency translation reserve \$'000	Available- for-sale reserve \$'000	Pension reserve \$'000	Retained earnings \$'000	Total equity
Other comprehensive income - (412) - (1) - (  Total comprehensive income/ (loss) - (412) - (1) 109,097 108.  Transactions with owners:  Dividends (100,000) (100. Issue of capital 1,000 1.  Balance at 31 December 2016 1,000 (3,182) 3 (3) 448,120 445.  Profit for the year 84,175 84.  Other comprehensive income - 1,912 1.  Total comprehensive	Balance at 1 January 2016		(2,770)	3	(2)	439,023	436,254
income - (412) - (1) - (  Total comprehensive income/ (loss) - (412) - (1) 109,097 108.   Transactions with owners:  Dividends (100,000) (100.  Issue of capital 1,000 1.   Balance at 31 December 2016 1,000 (3,182) 3 (3) 448,120 445.   Profit for the year 84,175 84.   Other comprehensive income - 1,912 1.	Profit for the year	-	12	2.	-	109,097	109,097
Total comprehensive income/ (loss) - (412) - (1) 109,097 108, Transactions with owners:  Dividends (100,000) (100, Issue of capital 1,000 1, Image: 1,000 1,00	Other comprehensive						
income/ (loss) - (412) - (1) 109,097 108,  Transactions with  owners:  Dividends (100,000) (100,  Issue of capital 1,000 1,  Balance at 31 December 2016 1,000 (3,182) 3 (3) 448,120 445,  Profit for the year 84,175 84,  Other comprehensive income - 1,912 1,  Total comprehensive	income		(412)	*	(1)	-	(413)
Transactions with owners:  Dividends (100,000) (100,000) Issue of capital 1,000 1,  Balance at 31 December 2016 1,000 (3,182) 3 (3) 448,120 445,  Profit for the year 84,175 84,  Other comprehensive income - 1,912 1,  Total comprehensive	Total comprehensive	***					
Dividends (100,000) (100, 15sue of capital 1,000 1, 1, 1000	income/ (loss)	-	(412)	-	(1)	109,097	108,684
Dividends	Transactions with						
Issue of capital   1,000   -   -   -   1,	owners:						
Profit for the year   84,175   84,   Other comprehensive   - 1,912   1,   Total comprehensive   - 1,912   1,	Dividends			51	*	(100,000)	(100,000)
Profit for the year Other comprehensive income - 1,912 1, Total comprehensive	Issue of capital	1,000	-	\$3	-	-	1,000
Other comprehensive income - 1,912 1, Total comprehensive	Balance at 31 December 2016	1,000	(3,182)	3	(3)	448,120	445,938
Total comprehensive	-				s	84,175	84,175
	• 000	1,0	1,912	-			1,912
income - 1,912 - 84,175 86, Transactions with	income	*	1,912	1	-	84,175	86,087
Owners: Dividends (180,000) (180,			-			(180,000)	(180,000)
Balance at 31 December 2017 1,000 (1,270) 3 (3) 352,295 352,	Balance at 31 December 2017	1,000	(1,270)	3	(3)	352,295	352,025

# CONSOLIDATED STATEMENT OF FINANCIAL POSITION Year ended 31 December 2017

1 ear ended 31 December 2017	2017 \$'000	2016 \$'000
ASSETS		
Loans and receivables:		
Cash and short-term deposits	130,308	43,286
Trade receivables	111,759	85,317
Other receivables	260,788	440,779
	502,855	569,382
Available-for-sale financial assets	4	4
Current tax assets	287	685
Deferred tax assets	893	2,328
Prepayments and accrued income	138,293	130,469
Property, plant and equipment	143	122
TOTAL ASSETS	642,475	702,990
LIABILITIES AND EQUITY		
Financial liabilities at amortised cost:		
Trade payables	20,180	19,594
Subordinated loans	51,000	51,000
Other payables	91,459	104,671
	162,639	175,265
Financial liabilities classified as held for trading	-	142
Provisions	189	177
Current tax liabilities	47,643	23,834
Accruals and deferred income	79,694	57,398
Post employment benefit obligations	285	236
TOTAL LIABILITIES	290,450	257,052
EQUITY		
Share capital	1,000	1,000
Currency translation reserve	(1,270)	(3,182)
Available-for-sale reserve	3	-3
Pension reserve	(3)	(3)
Retained earnings	352,295	448,120
TOTAL EQUITY	352,025	445,938
TOTAL LIABILITIES AND EQUITY	642,475	702,990
-		

The consolidated non statutory financial information was approved by the Board and authorised for issue on 18 April 2018

Signed on behalf of the Board

Director

## NOTES TO THE CONSOLIDATED NON STATUTORY FINANCIAL INFORMATION

Year ended 31 December 2017

#### 1. BASIS OF PREPARATION

The Company has prepared consolidated non statutory financial information comprising of information about the Company and its subsidiaries (together "the Group") as at 31 December 2017. The Company confirms in accordance with section 435 of the Companies Act 2006 that:

- the consolidated non statutory financial information does not constitute its statutory accounts;
- a copy of the Company's statutory accounts for the year ended 31 December 2017 will be filed with the Registrar of Companies for England and Wales, Companies House, Cardiff CF14 3UZ; and
- the Company's independent auditor has issued an unqualified report on the Group's statutory accounts for the year ended 31 December 2017.

The Group has prepared the consolidated non statutory financial information in accordance with the basis of preparation detailed in the Company's statutory accounts plus the basis of consolidation set out below. A summary of significant accounting policies applied to the Group are detailed in note 2 below.

#### Basis of consolidation

The consolidated non statutory financial information of the Group comprises of information about the Company and its subsidiaries as at 31 December 2017. Subsidiaries are all entities over which the Group has control. The Group controls an entity when the Group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. The information for the subsidiaries is prepared for the same reporting year as the Group, using consistent accounting policies. Subsidiaries are consolidated from the date that the Group gains control until the date that control ceases.

In certain cases, the Group may exercise control over another entity on behalf of investors or other parties. In such cases it is necessary, as part of the assessment of whether it should consolidate the entity, for the Group to determine whether it exercises such control primarily as an agent for the other investors or whether it does so primarily as principal on its own behalf. In making such a determination, management of the Group will consider all relevant factors, including in particular:

- the scope of the Group's decision-making authority over the investee;
- the rights, including removal rights, held by other parties;
- the remuneration to which the Group is entitled; and
- the significance of the Group's exposure to variability of returns from its interests in the entity.

Intra-group balances, transactions, income and expenses and profits and losses resulting from intra-group transactions are eliminated in preparing the consolidated non statutory financial information.

## NOTES TO THE CONSOLIDATED NON STATUTORY FINANCIAL INFORMATION

Year ended 31 December 2017

#### 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

#### a. Functional currency

Items included in the financial statements are measured and presented in US dollars, the currency of the primary economic environment in which the Group operates.

All currency amounts in the financial statements and Strategic and Directors' reports are rounded to the nearest thousand US dollars.

#### Foreign currencies

All monetary assets and liabilities denominated in currencies other than US dollars are translated into US dollars at the rates ruling at the reporting date. Transactions and non-monetary assets and liabilities denominated in currencies other than US dollars are recorded at the rates prevailing at the dates of the transactions. Foreign exchange differences on available-for-sale financial assets are recorded in the 'Available-for-sale reserve' in equity, with the exception of translation differences on the amortised cost of monetary available-for-sale assets, which are recognised through the income statement. Assets and liabilities of foreign operations are translated into US dollars using the closing rate method. Translation differences arising from the net investments in the foreign operations are taken to the 'currency translation reserve'. All other translation differences are taken through the income statement.

On disposal of a foreign operation, the related cumulative gain or loss in the 'Currency translation reserve' attributable to the owners of the Group is reclassified to the income statement and recorded within 'gain/ (loss) on disposal of branch'.

### c. Financial instruments

The Group classifies its financial assets into the following categories on initial recognition: available-forsale financial assets and loans and receivables.

The Group classifies its financial liabilities into the following categories on initial recognition: financial liabilities classified as held for trading, and financial liabilities at amortised cost.

More information regarding these classifications is included below:

## Financial instruments classified as held for trading

Derivative financial instruments classified as held for trading are initially recorded on trade date at fair value (see note 2(d) below). All subsequent changes in fair value, foreign exchange differences, interest and dividends are reflected in the income statement in 'Net gains/ (losses) on financial instruments classified as held for trading'.

For all derivative financial instruments classified as held for trading, transaction costs are excluded from the initial fair value measurement of the financial instrument. These costs are recognised in the income statement in 'Other expense'.

## NOTES TO THE CONSOLIDATED NON STATUTORY FINANCIAL INFORMATION

Year ended 31 December 2017

## 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

#### ii) Available-for-sale financial assets

Financial assets classified as available-for-sale are non-derivative financial assets that are either designated in this category or not classified in any of the other categories of financial instruments. Financial assets classified as available-for-sale are recorded on trade date and are initially recognised and subsequently measured at fair value (see note 2(d) below).

Transaction costs that are directly attributable to the acquisition of an available-for-sale financial asset are added to the fair value on initial recognition.

For equity instruments, dividend income and impairment losses are recognised in the income statement in 'Net gains/ (losses) on available-for-sale financial assets'. All other gains and losses on equity instruments classified as available-for-sale are recognised in the 'Available-for-sale reserve' within equity.

On disposal or impairment of an available-for-sale financial asset, the cumulative gain or loss in the 'Available-for-sale reserve' is reclassified to the income statement and reported in 'Net gains/ (losses) on available-for-sale financial assets'.

#### iii) Loans and receivables and financial liabilities at amortised cost

Financial assets classified as loans and receivables are recognised when the Group becomes a party to the contractual provisions of the instrument. They are initially measured at fair value (see note 2(d) below) and subsequently measured at amortised cost less allowance for impairment. Interest is recognised in the income statement in 'Interest income', using the effective interest rate method as described below. Transaction costs that are directly attributable to the acquisition of the financial asset are added to or deducted from the fair value on initial recognition. Impairment losses and reversals of impairment losses on financial assets classified as loans and receivables are recognised in the income statement in 'Other expense'.

Financial assets classified as loans and receivables include cash and short-term deposits, trade receivables and other receivables.

Financial liabilities at amortised cost are recognised when the Group becomes a party to the contractual provisions of the instrument. They are initially measured at fair value (see note 2(d) below) and subsequently measured at amortised cost. Interest is recognised in the income statement in 'Interest expense' using the effective interest rate method as described below. Transaction costs that are directly attributable to the issue of the financial liability are added to or deducted from the fair value on initial recognition.

The effective interest rate method is a method of calculating the amortised cost of a financial instrument (or a group of financial instruments) and of allocating the interest income or interest expense over the expected life of the financial instrument. The effective interest rate is the rate that exactly discounts the estimated future cash payments and receipts through the expected life of the financial instrument (or, where appropriate a shorter period) to the carrying amount of the financial instrument. The effective interest rate is established on initial recognition of the financial instrument. The calculation of the effective interest rate includes all fees and commissions paid or received, transaction costs, and discounts or premiums that are an integral part of the effective interest rate. Transaction costs are incremental costs that are directly attributable to the acquisition, issue or disposal of a financial instrument.

# NOTES TO THE CONSOLIDATED NON STATUTORY FINANCIAL INFORMATION

Year ended 31 December 2017

#### 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

#### d. Fair value

Fair value measurement

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability (i.e. the "exit price") in an orderly transaction between market participants at the measurement date.

In determining fair value, the Group uses various valuation approaches and establishes a hierarchy for inputs used in measuring fair value that maximises the use of relevant observable inputs and minimises the use of unobservable inputs by requiring that the most observable inputs be used when available. Observable inputs are inputs that market participants would use in pricing the asset or liability that were developed based on market data obtained from sources independent of the Group. Unobservable inputs are inputs that reflect assumptions the Group believes other market participants would use in pricing the asset or liability, that are developed based on the best information available in the circumstances.

The hierarchy is broken down into three levels based on the observability of inputs as follows:

- Level 1 Quoted prices (unadjusted) in an active market for identical assets or liabilities
  - Valuations based on quoted prices in active markets that the Morgan Stanley Group has the ability to access for identical assets or liabilities. Valuation adjustments and block discounts are not applied to Level 1 instruments. Since valuations are based on quoted prices that are readily and regularly available in an active market, valuation of these products does not entail a significant degree of judgement.
- Level 2 Valuation techniques using observable inputs
  - Valuations based on one or more quoted prices in markets that are not active or for which all significant inputs are observable, either directly or indirectly.
- Level 3 Valuation techniques with significant unobservable inputs
  - Valuations based on inputs that are unobservable and significant to the overall fair value measurement.

The availability of observable inputs can vary from product to product and is affected by a wide variety of factors, including, for example, the type of product, whether the product is new and not yet established in the marketplace, the liquidity of markets and other characteristics particular to the product. To the extent that valuation is based on models or inputs that are less observable or unobservable in the market, the determination of fair value requires more judgement. Accordingly, the degree of judgement exercised by the Group in determining fair value is greatest for instruments categorised in Level 3 of the fair value hierarchy.

The Group considers prices and inputs that are current as of the measurement date, including during periods of market dislocation. In periods of market dislocation, the observability of prices and inputs may be reduced for many instruments. This condition could cause an instrument to be reclassified from Level 1 to Level 2 or from Level 2 to Level 3 of the fair value hierarchy.

In certain cases, the inputs used to measure fair value may fall into different levels of the fair value hierarchy. In such cases, for disclosure purposes, the level in the fair value hierarchy within which the fair value measurement falls in its entirety is determined based on the lowest level input that is significant to the fair value measurement in its entirety.

The Group incorporates Funding Valuation Adjustment ("FVA") into the fair value measurements of overthe-counter ("OTC") uncollateralised or partially collateralised derivatives, and in collateralised derivatives where the terms of the agreement do not permit the re-use of the collateral received. In general, the FVA reflects a market funding risk premium inherent in the noted derivative instruments. The methodology for measuring FVA leverages the Group's existing credit-related valuation adjustment calculation methodologies, which apply to both assets and liabilities.

## NOTES TO THE CONSOLIDATED NON STATUTORY FINANCIAL INFORMATION

Year ended 31 December 2017

### 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

### d. Fair value (continued)

### Valuation techniques

Many OTC derivative contracts have bid and ask prices that can be observed in the marketplace. Bid prices reflect the highest price that a party is willing to pay for an asset. Ask prices represent the lowest price that a party is willing to accept for an asset.

For financial instruments whose inputs are based on bid-ask prices, the Group carries positions at the point within the bid-ask range that meets its best estimate of fair value. For offsetting positions in the same financial instrument, the same price within the bid-ask spread is used to measure both the long and short positions.

For financial instruments whose inputs are not based on bid-ask prices, the Group initially estimates the fair value as the transaction price. Subsequently, the fair value is based on the primary observable inputs for each financial instrument.

Fair value is a market-based measure considered from the perspective of a market participant rather than an entity-specific measure. Therefore, even when market assumptions are not readily available, assumptions are set to reflect those that the Group believes market participants would us in pricing the asset or liability at the measurement date.

### Valuation process

The Valuation Review Group ("VRG") within the Financial Control Group ("FCG") is responsible for the Group's fair value valuation policies, processes and procedures. VRG is independent of the business units and reports to the Chief Financial Officer of the Morgan Stanley Group ("CFO"), who has final authority over the valuation of the Group's financial instruments. VRG implements valuation control processes designed to validate the fair value of the Group's financial instruments measured at fair value including those derived from pricing models.

### Gains and losses on inception

In the normal course of business, the fair value of a financial instrument on initial recognition is the transaction price (i.e. the fair value of the consideration given or received). In certain circumstances, however, the fair value will be based on other observable current market transactions in the same instrument, without modification or repackaging, or on a valuation technique whose variables include only data from observable markets. When such evidence exists, the Group recognises a gain or loss on inception of the transaction.

When the use of unobservable market data has a significant impact on determining fair value at the inception of the transaction, the entire initial gain or loss indicated by the valuation technique as at the transaction date is not recognised immediately in the income statement and is recognised instead when the market data becomes observable.

# NOTES TO THE CONSOLIDATED NON STATUTORY FINANCIAL INFORMATION

Year ended 31 December 2017

### 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

### e. Derecognition of financial assets and liabilities

The Group derecognises a financial asset when the contractual rights to the cash flows from the asset expire, or when it transfers the financial asset and substantially all the risk and rewards of ownership of the asset.

If the asset has been transferred, and the entity neither transfers nor retains substantially all of the risks and rewards of the asset, then the entity determines whether it has retained control of the asset.

If the entity has retained control of the asset, it shall continue to recognise the financial asset to the extent of its continuing involvement in the financial asset. If the entity has not retained control of the asset, it derecognises the asset and separately recognises any rights or obligations created or retained in the transfer.

The Group derecognises financial liabilities when the Group's obligations are discharged, cancelled or they expire.

#### f. Impairment of financial assets

At each reporting date, an assessment is made as to whether there is any objective evidence of impairment in the value of a financial asset classified as either available-for-sale or loans and receivables. Impairment losses are recognised if an event has occurred which will have an adverse impact on the expected future cash flows of an asset and the expected impact can be reliably estimated.

Impairment losses on available-for-sale financial assets are measured as the difference between cost (net of any principal repayment and amortisation) and the current fair value (see note 2(d) above). Where there is evidence that the available-for-sale financial asset is impaired, the cumulative loss that had been previously recognised in other comprehensive income is reclassified from the 'Available-for-sale reserve' and recognised in the income statement within 'Net gains/ (losses) on available-for-sale financial assets'.

Impairment losses on investment in subsidiaries are measured as the difference between cost and the current estimated recoverable amount. When the recoverable amount is less than the cost, an impairment is recognised within the income statement in 'Net gains/ (losses) on investment in subsidiaries' and is reflected against the carrying amount of the impaired asset on the statement of financial position.

Impairment losses on loans and receivables are measured as the difference between the carrying amount of the loans and receivables and the present value of estimated cash flows discounted at the asset's original effective interest rate. Such impairment losses are recognised in the income statement within 'Other expense' and are recognised against the carrying amount of the impaired asset on the statement of financial position. Interest on the impaired asset continues to be accrued on the reduced carrying amount based on the original effective interest rate of the asset.

Subsequent increases in the fair value of previously impaired equity available-for-sale financial assets are reported as fair value gains in the 'Available-for-sale reserve' through other comprehensive income and not separately identified as an impairment reversal. For all other financial assets, if in a subsequent year, the amount of the estimated impairment loss decreases because of an event occurring after the impairment was recognised, the previously recognised impairment loss is reversed as described for the relevant categories of financial asset in note 2(c) (iii). Any reversal is limited to the extent that the value of the asset may not exceed the original amortised cost of the asset had no impairment occurred.

## NOTES TO THE CONSOLIDATED NON STATUTORY FINANCIAL INFORMATION

Year ended 31 December 2017

### 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

#### g. Fees and commissions

Fees and commissions classified within 'Fee and commission income' in the income statement include investment management, distribution, administration, performance and sub-advisory fees.

- Investment management fees are primarily based on pre-determined percentages of the market value of assets under management. These fees are recognised as the services are performed.
- Distribution fees are received on certain funds managed by the Group and are primarily priced at pre-determined percentages, dependent on share class. These distribution fees are recognised as the services are performed.
- Administration fees are received on certain funds managed by the Group to reimburse any costs, charges, fees and expenses incurred in relation to the administration of the funds. These are primarily priced at pre-determined fixed percentages and are recognised as the services are performed.
- The Group receives performance fees from certain investment products. These are earned upon
  exceeding specified relative and/or absolute investment return thresholds. Such fees are recorded
  upon completion of the measurement period, which varies by product or account, and could be
  monthly, quarterly, annually or longer,
- Sub-advisory revenues in respect of investment management services are received from other Morgan Stanley Group undertakings and represent various fee types where another Morgan Stanley Group undertaking is designated as the initial contracted entity but the Group is the subcontracted entity. The Group receives a portion of the revenue on an arm's length basis which is recognised as the services are performed.

Fees and commissions classified within 'Other expense' in the income statement include fee sharing and distribution expenses.

- Fee sharing expenses are primarily based on specified percentages of the management fees received, dependent on share class, and are recognised as the services are performed.
- Distribution expenses are based on the distribution fees received and are recognised either as the services are performed or across a number of years, dependent on fee type.

## h. Property, plant and equipment

Property, plant and equipment are stated at cost net of depreciation and any provision for impairment in value (see note 2(i) below) which are included within 'Other expense' in the income statement.

For premises held under operating leases, a reinstatement provision is recognised for the estimated cost to reinstate the premises at the end of the lease period. When the reinstatement provision is established and included within 'Provisions' in the statement of financial position, an equivalent asset is recognised and included in the cost of leasehold improvements at the initial present value of the reinstatement obligations. The discount effect included in the reinstatement provision is reversed over time using a constant effective yield method and included within 'Interest expense' in the income statement. The reinstatement asset is depreciated over the useful economic life of the relevant leasehold improvement asset and the depreciation charge is included within 'Other expense' in the income statement.

Depreciation is provided on property, plant and equipment at rates calculated to write off the cost of the assets on a straight line basis over their expected useful lives as follows:

Leasehold improvements, including reinstatement assets

- over the remaining lease term

Fixtures, fittings and equipment

- 3 to 8 years

The carrying amount of an item of property, plant and equipment shall be derecognised on disposal or when no further economic benefits are expected from its use or disposal.

## NOTES TO THE CONSOLIDATED NON STATUTORY FINANCIAL INFORMATION

Year ended 31 December 2017

### 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

### i. Impairment of non-financial assets

Non-financial assets that are subject to depreciation or amortisation are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognised for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs to sell and its value in use. For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash flows (cash generating units). Such impairment losses are recognised in the income statement within 'Other expense' and are recognised against the carrying amount of the impaired asset on the statement of financial position. Non-financial assets, other than goodwill, that have suffered an impairment are reviewed for possible reversal of the impairment at the end of each reporting period.

#### j. Cash and cash equivalents

Cash and cash equivalents comprise cash and demand deposits with banks, net of outstanding bank overdrafts, along with highly liquid investments, with original maturities of three months or less, that are readily convertible to known amounts of cash and subject to insignificant risk of change in value.

#### k. Income tax

The tax expense represents the sum of the tax currently payable and deferred tax.

The tax currently payable is calculated based on taxable profit for the year. Taxable profit may differ from profit/ (loss) before taxation as reported in the income statement because it excludes items of income or expense that are taxable or deductible in other years and it further excludes items that are never taxable or deductible. The Group's liability for current tax is calculated using tax rates that have been enacted or substantively enacted by the reporting date. Current tax is charged or credited in the income statement, except when it relates to items charged or credited directly to other comprehensive income or equity, in which case the current tax is also recorded within other comprehensive income or equity respectively.

Deferred tax is the tax expected to be payable or recoverable on differences between the carrying amounts of assets and liabilities in the financial statements and the corresponding tax bases used in the computation of taxable profit, and is accounted for using the balance sheet liability method. Deferred tax liabilities are generally recognised for all taxable temporary differences and deferred tax assets are recognised to the extent that it is probable that taxable profits will be available against which deductible temporary differences can be utilised.

Deferred tax liabilities are recognised for taxable temporary differences arising on investments in subsidiaries and associates, except where the Group is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future.

The carrying amount of deferred tax assets is reviewed at each reporting date and limited to the extent that it is probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

Deferred tax is calculated at the tax rates that are expected to apply in the period when the liability is settled or the asset is realised. Deferred tax is charged or credited in the income statement, except when it relates to items charged or credited directly to other comprehensive income or equity, in which case the deferred tax is reflected within other comprehensive income or equity, respectively.

Current tax assets are offset against current tax liabilities when there is a legally enforceable right to set off current tax assets against current tax liabilities and the Group intends to settle its current tax assets and current tax liabilities on a net basis or to realise the asset and settle the liability simultaneously. Deferred tax assets and liabilities are offset when there is a legally enforceable right to set off current tax assets against current tax liabilities and when they relate to income taxes levied by the same taxation authority and the Group intends to settle its current tax assets and current tax liabilities on a net basis.

# NOTES TO THE CONSOLIDATED NON STATUTORY FINANCIAL INFORMATION

Year ended 31 December 2017

## 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

#### Operating leases

Rentals payable under operating leases are charged to 'Other expense' in the income statement on a straight line basis over the lease term. Lease incentives are allocated on a straight line basis over the lease term as a reduction to rental expense.

#### m. Provisions

Provisions are recognised when the Group has a present obligation as a result of a past event, when it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and when a reliable estimate can be made of the amount of the obligation.

The amount recognised as a provision is the best estimate of the consideration required to settle the present obligation at the year end date, taking into account the risks and uncertainties surrounding the obligation.

#### Employee compensation plans

### i) Equity-settled share-based compensation plans

Morgan Stanley issues awards in the form of restricted stock units ("RSUs") to employees of the Morgan Stanley Group for services rendered to the Group. Awards are classified as equity-settled and the cost of the equity-based transactions with employees is measured based on the fair value of the equity instruments at grant date. The fair value of RSUs is based on the market price of Morgan Stanley shares. Awards are amortised over the future service period.

Certain awards contain clawback provisions which permit the Group to cancel all or a portion of the award under specific circumstances. Compensation expense for those awards is adjusted to fair value based upon changes in the share price of Morgan Stanley's common stock until grant date occurs.

The Group pays Morgan Stanley in consideration of the procurement of the transfer of shares to employees via a chargeback agreement under which it is committed to pay to Morgan Stanley the grant date fair value as well as subsequent movements in the fair value of those awards at the time of delivery to the employees.

Share based compensation expense is recorded within 'Other expense' in the income statement.

#### ii) Deferred cash-based compensation plans

Morgan Stanley also maintains deferred compensation plans on behalf of the Group for the benefit of certain current and former employees that provide a return to the participating employees based upon the performance of various referenced investments. Liabilities for these awards, which are included within 'Accruals and deferred income' in the statement of financial position, are measured at fair value and recognised over time in accordance with the awards' vesting conditions. The related expense is recorded within 'Other expense'. The Group economically hedges the exposure created by these deferred compensation schemes by entering into derivative transactions with other Morgan Stanley Group undertakings. The derivatives are recognised within 'Financial instruments classified as held for trading' in the statement of financial position and the related gains and losses are recorded within 'Net gains/ (losses) on financial instruments classified as held for trading' in the income statement.

## NOTES TO THE CONSOLIDATED NON STATUTORY FINANCIAL INFORMATION

Year ended 31 December 2017

### 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

#### o. Post-employment benefits

The Group operates defined contribution and defined benefit post-employment plans.

Contributions due in relation to the Group's defined contribution post-employment plan are recognised in 'Other expense' in the income statement when payable.

For the Group's defined benefit post-employment plan, the plan obligations are measured on an actuarial basis in accordance with the advice of an independent qualified actuary using the projected unit credit method and discounted at a rate that reflects the current rate of return on a high quality corporate bond of equivalent term and currency to the plan liabilities. Plan assets are measured at their fair value at the reporting date. A surplus or deficit of plan assets over liabilities is recognised in the statement of financial position as an asset or a liability respectively. If the fair value of the plan assets is higher than the present value of the defined benefit obligation, the measurement of the resulting defined benefit asset is limited to the present value of economic benefits available in the form of refunds from the plan or reductions in future contributions to the plan.

The current service cost and any past service costs together with the net interest on the net defined benefit obligation/ asset is charged to 'Direct staff costs' within 'Other expense' in the income statement.

Remeasurements that arise in calculating the Group's obligation in respect of a plan are recognised in other comprehensive income, in the period in which they occur.

#### p. Deferred commission asset

The Group pays up-front costs to third party distributors on certain classes of fund units on which it may earn fees (such as management fees) from the underlying fund whilst its fund units remain in issuance. Additionally, the Group earns a contingent deferred sales charge ("CDSC") on such units if the fund unitholders redeem before a specified time. CDSC income is reported in 'Investment management fees' within 'Fee and commission income' on the income statement. Accordingly such upfront distribution costs are deferred and amortised over the expected life of the contract. The deferred costs are reported in the 'Deferred commission asset' within 'Prepayments and accrued income' on the balance sheet.

The deferred commission asset is assessed for impairment at each reporting date. An impairment loss is recognised for the amount by which the asset's carrying amount exceeds the future revenues expected to be earned from the relevant fund units, less the future costs that relate directly to providing the related services. Such impairment losses are recognised in the income statement within 'Other expense' and are recognised against the carrying amount of the impaired asset on the statement of financial position. Deferred commission assets that have suffered an impairment are reviewed for possible reversal of the impairment at the end of each reporting period.

## 26. Appendix IX – CRR Reference Mapping

CRR Ref	High Level Summary	Compliance Reference
Article 431 Sc	ope of disclosure requirements	
431 (1)	Requirement to publish Pillar 3 disclosures.	The MSI Group publishes Pillar 3 disclosures
,		on a quarterly basis.
431 (2)	Firms with permission to use specific operational	Section 13 provides a description of the
, ,	risk methodologies must disclose operational risk	Operational Risk framework.
	information.	
431 (3)	Institution must have a policy covering frequency	The MSI Group has a dedicated Pillar 3
	of disclosures. Their verification,	policy, reviewed on an annual basis.
	comprehensiveness and appropriateness.	
431 (4)	Explanation of ratings decision upon request.	Not Applicable
Article 432 No	on-Material, proprietary or confidential information	
432 (1)	Institutions may omit information that is not	Compliance with this provision is covered by
	material if certain conditions are met.	the MSI Group's policy.
432 (2)	Institutions may omit information that is	Compliance with this provision is covered by
, ,	proprietary or confidential if certain conditions	the MSI Group's policy.
	are met.	
432 (3)	Where 432 (1) and (2) apply this must be stated in	Compliance with this provision is covered by
	the disclosures, and more general information	the MSI Group's policy.
	must be disclosed.	
432 (4)	Use of 432 (1) or (2) is without prejudice to scope	Not Applicable
	of liability for failure to disclose material	
	information.	
Article 433: F	requency of disclosure	
433	Disclosures must be published at least on an	The MSI Group publishes Pillar 3 disclosures
	annual basis and more frequently as necessary.	on a quarterly basis.
Article 434: N	leans of disclosure	
434 (1)	All disclosures shall be provided in one medium,	The disclosures are published to the Morgan
	or provide clear cross references.	Stanley Investor Relations website.
		Signposting within the disclosure directs the
		reader to other publications as relevant.
434 (2)	Disclosures made under other requirements (e.g.	Signposting within the disclosure directs the
	accounting) can be used to satisfy Pillar 3 if	reader to other publications as relevant.
	appropriate.	
Article 435: R	isk Management Objectives and Policies	
435 (1)	Disclose information on:	
435 (1) (a)	The strategies and processes to manage risks.	Section 3: Risk Management
		"Risk Policies and Processes"
435 (1) (b)	The structure and organisation of the risk	Section 3: Risk Management
	management function.	"Control Framework"
435 (1) (c)	The scope and nature of risk reporting and	Section 3: Risk Management
	measurement systems.	"Risk Reporting and Measurement"
435 (1) (d)	The policies for hedging and mitigating risk	Section 3: Risk Management
		"Risk Policies and Processes"
435 (1) (e)	Declaration approved by the management body	Section 3: Risk Management
	on the adequacy of risk management	"Adequacy of Risk Management
	arrangements.	Arrangements"
435 (1) (f)	Concise risk statement approved by the	Section 3: Risk Management
	management body.	"Risk Strategy and Appetite"
		<u> </u>

435 (2) (a)	Number of directorships held by members of the	Appendix I: Board of Directors Knowledge,
( ) (-)	management body.	Skill and Expertise
	,	"Figure 6: MSI Directors: Number of
		Directorships"
435 (2) (b)	Recruitment policy for members of the	Appendix I: Board of Directors Knowledge,
	management body, along with their knowledge,	Skill and Expertise
	skills and expertise.	"Appointments to MSI Board"
435 (2) (c)	Policy on diversity of the management body and	Appendix I: Board of Directors Knowledge,
	results against targets.	Skill and Expertise
		"Diversity and Composition of MSI Board"
435 (2) (d)	Disclosure of whether there is a separate Risk	Section 3: Risk Management
	Committee and the number of times the	"MSI Board Committees"
	committee has met during the year.	
435 (2) (e)	Description of the information flow to the	Section 3: Risk Management
	management body.	"Risk Governance"
Article 436: So	ope of Application	
436 (a)	Name of institution.	Section 1: Morgan Stanley International
. ,		Limited Group
436 (b)	Difference in the basis of consolidation for	
	accounting and prudential purposes, with a brief	
	description of the entities, explaining whether:	Section 4: Basis of Preparation and Linkage
436(b) (i)	Fully consolidated.	to Financial Accounts Pages
436(b) (ii)	Proportionally consolidated.	
436(b) (iii)	Deducted from Own Funds.	
436(b) (iv)	Neither consolidated nor deducted.	-
436 (c)	Impediments to transfer of own funds or	Section 5: Capital Management
430 (c)	repayment of liabilities between parent and	Section 3. Capital Management
	subsidiaries.	
436 (d)	Capital shortfalls in any subsidiaries not included	Not Applicable
.55 (4)	in the consolidation.	, see a particular of the second
436 (e)	If applicable, making use of the provisions laid out	Not Applicable
	in Article 7 (waiving solo requirements) & Article 9	
	(solo consolidation).	
Article 437: O		
437 (1)(a)	Full reconciliation of CET1, AT1, T2.	Section 6: Capital Resources
		Table 5: Reconciliation of Balance Sheet
		Total Equity to Regulatory Capital
		Section 17: Morgan Stanley Investment
		Section 17: Worgan Stainey investment
		· ·
		Management Group
		Management Group Table 48: MSIM Group Reconciliation of
		Management Group
437 (1)(b)	Description of the main features of CET1. AT1. T2.	Management Group Table 48: MSIM Group Reconciliation of Balance Sheet Total Equity to Regulatory Capital
437 (1)(b) 437 (1)(c)	Description of the main features of CET1, AT1, T2. Full terms of all CET1, AT1, T2 instruments.	Management Group Table 48: MSIM Group Reconciliation of Balance Sheet Total Equity to Regulatory
437 (1)(b) 437 (1)(c)	Description of the main features of CET1, AT1, T2. Full terms of all CET1, AT1, T2 instruments.	Management Group Table 48: MSIM Group Reconciliation of Balance Sheet Total Equity to Regulatory Capital Appendix II: MSI Group Capital Instruments Table
		Management Group Table 48: MSIM Group Reconciliation of Balance Sheet Total Equity to Regulatory Capital Appendix II: MSI Group Capital Instruments
437 (1)(c)	Full terms of all CET1, AT1, T2 instruments.	Management Group Table 48: MSIM Group Reconciliation of Balance Sheet Total Equity to Regulatory Capital Appendix II: MSI Group Capital Instruments Table Appendix III: MSIM Group Capital Instruments Table
	Full terms of all CET1, AT1, T2 instruments.  Each prudential filter applied pursuant to Articles	Management Group Table 48: MSIM Group Reconciliation of Balance Sheet Total Equity to Regulatory Capital Appendix II: MSI Group Capital Instruments Table Appendix III: MSIM Group Capital
437 (1)(c) 437 (1)(d)(i)	Full terms of all CET1, AT1, T2 instruments.  Each prudential filter applied pursuant to Articles 32 to 35.	Management Group Table 48: MSIM Group Reconciliation of Balance Sheet Total Equity to Regulatory Capital Appendix II: MSI Group Capital Instruments Table Appendix III: MSIM Group Capital Instruments Table Section 6: Capital Resources Table 5: Reconciliation of Balance Sheet
437 (1)(c)	Full terms of all CET1, AT1, T2 instruments.  Each prudential filter applied pursuant to Articles 32 to 35.  Each deduction applied pursuant to Articles 36, 56	Management Group Table 48: MSIM Group Reconciliation of Balance Sheet Total Equity to Regulatory Capital Appendix II: MSI Group Capital Instruments Table Appendix III: MSIM Group Capital Instruments Table Section 6: Capital Resources Table 5: Reconciliation of Balance Sheet Total Equity to Regulatory Capital
437 (1)(c) 437 (1)(d)(i) 437(1)(d)(ii)	Full terms of all CET1, AT1, T2 instruments.  Each prudential filter applied pursuant to Articles 32 to 35.  Each deduction applied pursuant to Articles 36, 56 and 66.	Management Group Table 48: MSIM Group Reconciliation of Balance Sheet Total Equity to Regulatory Capital Appendix II: MSI Group Capital Instruments Table Appendix III: MSIM Group Capital Instruments Table Section 6: Capital Resources Table 5: Reconciliation of Balance Sheet Total Equity to Regulatory Capital Section 17: Morgan Stanley Investment
437 (1)(c) 437 (1)(d)(i)	Full terms of all CET1, AT1, T2 instruments.  Each prudential filter applied pursuant to Articles 32 to 35.  Each deduction applied pursuant to Articles 36, 56 and 66.  Items not deducted in accordance with Articles 47,	Management Group Table 48: MSIM Group Reconciliation of Balance Sheet Total Equity to Regulatory Capital  Appendix II: MSI Group Capital Instruments Table Appendix III: MSIM Group Capital Instruments Table Section 6: Capital Resources Table 5: Reconciliation of Balance Sheet Total Equity to Regulatory Capital Section 17: Morgan Stanley Investment Management Group
437 (1)(c) 437 (1)(d)(i) 437(1)(d)(ii)	Full terms of all CET1, AT1, T2 instruments.  Each prudential filter applied pursuant to Articles 32 to 35.  Each deduction applied pursuant to Articles 36, 56 and 66.	Management Group Table 48: MSIM Group Reconciliation of Balance Sheet Total Equity to Regulatory Capital Appendix II: MSI Group Capital Instruments Table Appendix III: MSIM Group Capital Instruments Table Section 6: Capital Resources Table 5: Reconciliation of Balance Sheet Total Equity to Regulatory Capital Section 17: Morgan Stanley Investment

437 (1)(e)	A description of all restrictions applied to the	Not Applicable
- \-/\*/	calculation of own funds.	P.P
437 (1)(f)	Where institutions disclose capital ratios	†
( )( )	calculated using elements of own funds	
	determined on a different basis.	
Article 438: Ca	apital Requirements	
438 (a)	Summary of institution's approach to assessing	Section 5: Capital Management
	capital adequacy.	Section 17: Morgan Stanley Investment
		Management Group
438 (b)	Result of ICAAP on demand from authorities.	Not Applicable
438 (c)	Capital requirement amounts for credit risk for	Section 9: Credit Risk
.55 (5)	each Standardised Approach exposure class.	Table 16: Credit and Counterparty Credit
		Risk Summary
		Section 17: Morgan Stanley Investment
		Management Group
		Table 51: MSIM Group Credit Risk Summary
438 (d)	Capital requirement amounts for credit risk for	Section 9: Credit Risk
438 (d) (i)	each Internal Ratings Based Approach exposure	Table 16: Credit and Counterparty Credit
438 (d) (ii)	class.	Risk Summary
438 (d)(iii)		Section 17: Morgan Stanley Investment
438 (d)(iv)		Management Group
		Table 51: MSIM Group Credit Risk Summary
438 (e)	Capital requirement amounts for Market Risk or	Section 8: Capital Requirements and RWAs
	Settlement Risk, or Large Exposures where they	Table 10: Overview of RWAs – MSI Group
	exceed limits.	(EU-OV1-A)
		Section 12: Market Risk
		Table 36: Market Risk RWAs and MCR
		Section 17: Morgan Stanley Investment
		Management Group
		Table 50: Overview of RWAs – MSIM Group
		(EU-OV1-A)
438 (f)	Capital requirement amounts for Operational Risk,	Section 8: Capital Requirements and RWAs
	separately for the Basic Indicator Approach,	Table 10: Overview of RWAs – MSI Group
	Standardised Approach and Advanced	Section 13: Operational Risk
	Measurement Approach, as applicable.	
438	Requirement to disclose specialised lending	Section 9: Credit Risk
	exposures and equity exposures in the banking	Table 18: IRB (Specialised Lending and
	book, falling under the simple risk weight	Equities) (EU CR10)
	approach.	
	oposure to Counterparty Credit Risk (CCR)	
439 (a)	Discussion of the methodology used to assign	Section 9: Credit Risk
// :	internal capital and credit limits for CCR.	"Credit Risk Limits"
439 (b)	Discussion of policies for securing collateral and	Section 9: Credit Risk
	establishing credit reserves.	"Credit Risk Mitigation"
		Section 10: Counterparty Credit Risk
		"Counterparty Credit Exposure" and
420 ( )	Discussion of walks 191	"Derivatives and SFTs Credit Exposure"
439 (c)	Discussion of policies with respect to wrong-way	Section 10: Counterparty Credit Risk
420 (-1)	risk exposures.	"Wrong Way Risk"
439 (d)	Discussion of the impact of the amount of	Section 10: Counterparty Credit Risk
	collateral to be provided in the event of a ratings	"Collateral Impact of a Downgrade"
	downgrade.	

439 (e)	Derivation of net derivative credit exposure.	Section 10: Counterparty Credit Risk
		Table 26: Impact of Netting and Collateral
		Held on Exposure Values (EU CCR5-A)
439 (f)	Exposure values for mark-to-market, standardised	Section 10: Counterparty Credit Risk
(.,	and internal model methods.	Table 24: Analysis of the Counterparty Credit
		Risk (CCR) Exposure by Approach (EU CCR1)
		Mak (cen) Exposure by Approach (20 cent)
439 (g)	Notional value of credit derivative hedges and	
	distribution of current credit exposure by type of	Appendix VI: Additional Credit and
	exposure.	Counterparty Credit Risk Tables
439 (h)	Notional amounts of credit derivative transactions	Table 29: Credit Derivatives Exposure (EU
( )	for own credit, intermediation, bought and sold,	CCR6)
	by product type.	
439 (i)	Estimate of alpha, if applicable.	Not Applicable
433 (1)	Estimate of dipila, if applicable.	Not Applicable
Article 440: C	Capital Buffers	
440 (1) (a)	The geographical distribution of its credit	
	exposures relevant for the calculation of its	Section 6: Capital Resources
	countercyclical capital buffer.	Appendix V: Countercyclical Capital Buffer
440 (1) (b)	The amount of its institution specific	, , , , , , , , , , , , , , , , , , , ,
(=) (=)	countercyclical capital buffer.	
Article 441: II	ndicators of Global Systemic Importance	
441 (1)	Disclosure of the indicators of global systemic	Not Applicable
(_)	importance.	The Company of the Co
Article 442: C	Credit Risk Adjustments	
442 (a)	Definitions for accounting purposes of "past due"	Section 9: Credit Risk
(-,	and "impaired".	Table 22: Impaired and Past Due Exposures,
		Credit Risk Adjustments by Industry Type
442 (b)	Description of the approaches and methods	Section 9: Credit Risk
(5)	adopted for determining specific and general	9.4 Credit Risk Adjustments
	credit risk adjustments.	Table 21: IRB Credit Risk Adjustments,
	credit risk adjustificitis.	Expected Loss and Charge to the Profit and
		Loss
		Appendix VI: Additional Credit and
		Counterparty Credit Risk Tables
		Table 65: Changes in Stock of General and
442 ( )		Table 65: Changes in Stock of General and Specific Credit Risk Adjustments (EU CR2-A)
442 (c)	Disclosure of pre credit risk mitigation by	Table 65: Changes in Stock of General and Specific Credit Risk Adjustments (EU CR2-A)  Appendix VI: Additional Credit and
442 (c)	Disclosure of pre credit risk mitigation by exposure class.	Table 65: Changes in Stock of General and Specific Credit Risk Adjustments (EU CR2-A)  Appendix VI: Additional Credit and Counterparty Credit Risk Tables
442 (c)		Table 65: Changes in Stock of General and Specific Credit Risk Adjustments (EU CR2-A)  Appendix VI: Additional Credit and Counterparty Credit Risk Tables  Table 56: Total and Average Net Amount of
442 (c)		Table 65: Changes in Stock of General and Specific Credit Risk Adjustments (EU CR2-A)  Appendix VI: Additional Credit and Counterparty Credit Risk Tables  Table 56: Total and Average Net Amount of Exposures (EU CRB-B)
442 (c)		Table 65: Changes in Stock of General and Specific Credit Risk Adjustments (EU CR2-A)  Appendix VI: Additional Credit and Counterparty Credit Risk Tables  Table 56: Total and Average Net Amount of Exposures (EU CRB-B)  Table 60: Credit Quality of Exposures by
		Table 65: Changes in Stock of General and Specific Credit Risk Adjustments (EU CR2-A)  Appendix VI: Additional Credit and Counterparty Credit Risk Tables  Table 56: Total and Average Net Amount of Exposures (EU CRB-B)
442 (c) 442 (d)	exposure class.  Geographic distribution of the exposures broken	Table 65: Changes in Stock of General and Specific Credit Risk Adjustments (EU CR2-A)  Appendix VI: Additional Credit and Counterparty Credit Risk Tables  Table 56: Total and Average Net Amount of Exposures (EU CRB-B)  Table 60: Credit Quality of Exposures by Exposure Class and Instrument (EU CR1-A)  Appendix VI: Additional Credit and
	exposure class.	Table 65: Changes in Stock of General and Specific Credit Risk Adjustments (EU CR2-A)  Appendix VI: Additional Credit and Counterparty Credit Risk Tables  Table 56: Total and Average Net Amount of Exposures (EU CRB-B)  Table 60: Credit Quality of Exposures by Exposure Class and Instrument (EU CR1-A)
	exposure class.  Geographic distribution of the exposures broken	Table 65: Changes in Stock of General and Specific Credit Risk Adjustments (EU CR2-A)  Appendix VI: Additional Credit and Counterparty Credit Risk Tables  Table 56: Total and Average Net Amount of Exposures (EU CRB-B)  Table 60: Credit Quality of Exposures by Exposure Class and Instrument (EU CR1-A)  Appendix VI: Additional Credit and
	exposure class.  Geographic distribution of the exposures broken	Table 65: Changes in Stock of General and Specific Credit Risk Adjustments (EU CR2-A)  Appendix VI: Additional Credit and Counterparty Credit Risk Tables  Table 56: Total and Average Net Amount of Exposures (EU CRB-B)  Table 60: Credit Quality of Exposures by Exposure Class and Instrument (EU CR1-A)  Appendix VI: Additional Credit and Counterparty Credit Risk Tables
	exposure class.  Geographic distribution of the exposures broken	Table 65: Changes in Stock of General and Specific Credit Risk Adjustments (EU CR2-A)  Appendix VI: Additional Credit and Counterparty Credit Risk Tables  Table 56: Total and Average Net Amount of Exposures (EU CRB-B)  Table 60: Credit Quality of Exposures by Exposure Class and Instrument (EU CR1-A)  Appendix VI: Additional Credit and Counterparty Credit Risk Tables  Table 57: Geographical Breakdown of
442 (d)	exposure class.  Geographic distribution of the exposures broken down by exposure classes.	Table 65: Changes in Stock of General and Specific Credit Risk Adjustments (EU CR2-A)  Appendix VI: Additional Credit and Counterparty Credit Risk Tables Table 56: Total and Average Net Amount of Exposures (EU CRB-B) Table 60: Credit Quality of Exposures by Exposure Class and Instrument (EU CR1-A)  Appendix VI: Additional Credit and Counterparty Credit Risk Tables Table 57: Geographical Breakdown of Exposures (EU CRB-C)
442 (d)	exposure class.  Geographic distribution of the exposures broken down by exposure classes.  Distribution of exposures by industry or	Table 65: Changes in Stock of General and Specific Credit Risk Adjustments (EU CR2-A)  Appendix VI: Additional Credit and Counterparty Credit Risk Tables  Table 56: Total and Average Net Amount of Exposures (EU CRB-B)  Table 60: Credit Quality of Exposures by Exposure Class and Instrument (EU CR1-A)  Appendix VI: Additional Credit and Counterparty Credit Risk Tables  Table 57: Geographical Breakdown of Exposures (EU CRB-C)  Appendix VI: Additional Credit and
442 (d)	exposure class.  Geographic distribution of the exposures broken down by exposure classes.  Distribution of exposures by industry or counterparty type, broken down by exposure	Table 65: Changes in Stock of General and Specific Credit Risk Adjustments (EU CR2-A)  Appendix VI: Additional Credit and Counterparty Credit Risk Tables Table 56: Total and Average Net Amount of Exposures (EU CRB-B) Table 60: Credit Quality of Exposures by Exposure Class and Instrument (EU CR1-A)  Appendix VI: Additional Credit and Counterparty Credit Risk Tables Table 57: Geographical Breakdown of Exposures (EU CRB-C)  Appendix VI: Additional Credit and Counterparty Credit Risk Tables
442 (d) 442 (e)	exposure class.  Geographic distribution of the exposures broken down by exposure classes.  Distribution of exposures by industry or counterparty type, broken down by exposure classes.	Table 65: Changes in Stock of General and Specific Credit Risk Adjustments (EU CR2-A)  Appendix VI: Additional Credit and Counterparty Credit Risk Tables  Table 56: Total and Average Net Amount of Exposures (EU CRB-B)  Table 60: Credit Quality of Exposures by Exposure Class and Instrument (EU CR1-A)  Appendix VI: Additional Credit and Counterparty Credit Risk Tables  Table 57: Geographical Breakdown of Exposures (EU CRB-C)  Appendix VI: Additional Credit and Counterparty Credit Risk Tables  Table 58: Concentration of Exposures by
442 (d)	exposure class.  Geographic distribution of the exposures broken down by exposure classes.  Distribution of exposures by industry or counterparty type, broken down by exposure	Table 65: Changes in Stock of General and Specific Credit Risk Adjustments (EU CR2-A)  Appendix VI: Additional Credit and Counterparty Credit Risk Tables  Table 56: Total and Average Net Amount of Exposures (EU CRB-B)  Table 60: Credit Quality of Exposures by Exposure Class and Instrument (EU CR1-A)  Appendix VI: Additional Credit and Counterparty Credit Risk Tables  Table 57: Geographical Breakdown of Exposures (EU CRB-C)  Appendix VI: Additional Credit and Counterparty Credit Risk Tables  Table 58: Concentration of Exposures by Industry or Counterparty Type (EU CRB-D)

442 (g) (i)	By significant industry or counterparty type the amount of: Impaired exposures and past due	Section 9: Credit Risk
	exposures, provided separately.	Table 22: Impaired and Past Due Exposures,
442(g) (ii)	By significant industry or counterparty type the	Credit Risk Adjustments by Industry Type
(8) ( )	amount of: Specific and general credit risk	Appendix VI: Additional Credit and
	adjustments.	Counterparty Credit Risk Tables
442(g) (iii)	By significant industry or counterparty type the	Table 61: Credit Quality of Exposures by
(8) ()	amount of: Charges for specific and general credit	Industry or Counterparty Types (EU CR1-B)
	risk adjustments during the reporting period.	
442 (h)	Amount of the impaired exposures and past due	Section 9: Credit Risk
442 (11)	exposures, broken down by significant	Table 23: Impaired and Past Due Exposures,
		1
	geographical areas and the amounts of specific	Credit Risk Adjustments by Geographic
	and general impairment for each geography.	Region
		Appendix VI: Additional Credit and
		Counterparty Credit Risk Tables
		Table 62: Credit Quality of Exposures by
		Geography (EU CR1-C)
442 (i)	Reconciliation of changes in the specific and	
	general credit risk adjustments for impaired	
	exposures.	Appendix VI: Additional Credit and
442(i) (i)	A description of the type of specific and general	Counterparty Credit Risk Tables
	credit risk adjustments.	Table 65: Changes in Stock of General and
442(i) (ii)	The opening balances.	Specific Credit Risk Adjustments (EU CR2-A)
442(i) (iii)	The amounts taken against the credit risk	Table 66: Changes in Stock of Defaulted and
(., (,	adjustments during the reporting period.	Impaired Loans and Debt Securities (EU CR2-
442(i) (iv)	The amounts set aside for estimated probable	B)
772(I) (IV)	losses on exposures	
442(i) (v)	The closing balances.	-
	Jnencumbered Assets	
		Continue 1C: Annat Francisch und na
443	Disclosures on Unencumbered Assets.	Section 16: Asset Encumbrance
Article 444: U	Jse of ECAIs	
444 (a)	Names of the nominated ECAIs used in the	Section 9: Credit Risk
	calculation of Standardised Approach RWAs and	"9.2 Counterparty and Credit Risk Capital
	the reasons for any change.	Requirements"
444 (b)	Exposure class for which each ECAI is used.	
444 (c)	Description of the process used to transfer the	Section 9: Credit Risk
. ,	issuer and issue credit assessments onto items not	"9.2 Counterparty and Credit Risk Capital
	included in the Trading Book.	Requirements"
444 (d)	Mapping of the external rating of each ECAI to	Section 9: Credit Risk
(ω)	credit quality steps.	Table 15: External Credit Assessment
	create quanty steps.	Institutions ("ECAI")
444 (e)	Exposure value post-credit risk mitigation	Appendix VI: Additional Credit and
<del></del> (C)	associated with each credit quality step.	' '
	associated with each credit quality step.	Counterparty Credit Risk Tables  Table 69: Standardised Approach (ELL CRE)
		Table 69: Standardised Approach (EU CR5)
		Table 74: Standardised Approach – CCR
		Exposures by Regulatory Portfolio and Risk
		Weight (EU CCR3)
		1
Article 445: E	Exposure to Market Risk	
<b>Article 445: E</b> 445	Exposure to Market Risk  Disclosure of position risk, large exposures	Section 12: Market Risk
		Section 12: Market Risk "12.2 Market Risk Capital Requirements"

Article 446:	Operational Risk	
446	Disclosure of scope of approaches used to	Section 13: Operational Risk
	calculate operational risk, discussion of the	
	advanced methodology approach and the relevant	
	internal and external factors considered in the	
	firms measurement approach.	
Article 447:	<b>Exposures in Equities not included in the Trading Book</b>	
447 (a)	Differentiation between exposures based on their	Section 9: Credit Risk
	objectives.	"9.3 Internal Ratings Based Approach"
447 (b)	Balance sheet value, the fair value and actual	
	prices of exchange traded equity where it differs	Section 9: Credit Risk
	from the fair value.	Table 18: IRB (Specialised Lending and
447 (c)	Types, nature and amounts of the relevant classes	Equities) (EU CR10)
	of equity exposures.	
447 (d)	Cumulative realised gains and losses arising from	
	sales over the period.	
	·	Section 9: Credit Risk
447 (e)	Total unrealised gains or losses, the total latent	Table 19: Non-Trading Book Equity Gains
` '	revaluation gains and losses and amounts	and Losses
	included in CET1 capital.	
Article 448:	Exposure to Interest Rate Risk on positions not include	d in the Trading Book
448 (a)	Nature of the interest rate risk and key	
- (-7	assumptions.	
448 (b)	Variation in earnings or economic value, or other	Section 12: Market Risk
( . ,	methods used by the firm for upward and	"12.9 Interest Rate Risk in the Non-Trading
	downward rate shocks to interest rates, by	Book"
	currency.	
Article 449:	Exposure to Securitisation Positions	<u> </u>
449 (a)	Objectives in relation to securitisation activity.	Section 11: Securitisation
(-)		"11.1 Securitisation Activities"
449 (b)	Nature of other risks including liquidity risk	
- (-)	inherent in securitised assets.	Section 11: Securitisation
	anner ent in deductions a sector	"11.6 Risk Monitoring"
449 (c)	Risks in terms of seniority of underlying	Section 11: Securitisation
	securitisation positions and underlying assets.	Table 33: Trading Book Securitisation
	, ,	Exposures by Exposure Type
		Table 34: Non-Trading Book Securitisation
		Exposures by Exposure Type
449 (d)	Different roles played by the institution in the	Section 11: Securitisation
- (-7	securitisation process.	"11.1 Securitisation Activities"
449 (e)	Indication of the extent in the firms involvement	Section 11: Securitisation
(-)	in the roles referred to in point (d).	"11.1 Securitisation Activities"
449 (f)	Process in place to monitor changes in the credit	Section 11: Securitisation
(1)	and market risk of securitisation exposures and	"11.6 Risk Monitoring"
	how the processes differ for re-securitisation	11.0 Max Wormsoning
	exposures.	
449 (g)	Description of the firms policy governing the use	Not Applicable
172 (8/	of hedging and unfunded protection to mitigate	Тостррисаме
	the risk of retained securitisation and re-	
	securitisation exposures, including identification	
440 (b)	of material hedge counterparties.	Section 11: Securitisation
449 (h)	Approaches to calculating RWA for securitisation	Section 11: Securitisation
	mapped to types of exposures.	"11.2 Regulatory Capital Treatment"

449 (i)	Types of SSPE the firm, as sponsor, uses to	Not Applicable: The MSI Group did not
<del>-14</del> 5 (1)	securitise third party exposures, and list of SSPE's.	
	securitise triira party exposures, and list of SSPE's.	originate or sponsor any securitisations.
449 (j)	Summary of firms accounting policies for	
	securitisation activities.	Section 11: Securitisation
449 (j) (i)	Whether transactions are treated as sales or	"11.4 Accounting"
	financings.	11.4 Accounting
449 (j) (ii)	The recognition of gains on sales.	
449 (j) (iii)	Approach to valuing securitisation positions.	Section 11: Securitisation
		"11.5 Valuation"
449 (j) (iv)	Treatment of synthetic securitisations.	Not Applicable
449 (j) (v)	Valuation of assets awaiting securitisations.	Section 11: Securitisation
- 0/ ( /		"11.5 Valuation"
449 (j) (vi)	Recognition of arrangements that could require	Not Applicable
	the bank to provide support to securitised assets.	
449 (k)	Names of ECAIs used for securitisations.	Section 11: Securitisation
		"11.2 Regulatory Capital Treatment"
449 (I)	Full description of Internal Assessment Approach.	Not Applicable
449 (m)	Explanation of changes in quantitative disclosures.	Section 11: Securitisation
		Table 30: Securitisation Exposures and
		Capital Requirements
449 (n) (i)	Amount of outstanding exposures securitised.	Section 11: Securitisation
		Table 30: Securitisation Exposures and
		Capital Requirements
449 (n) (ii)	On balance sheet securitisation retained or	Section 11: Securitisation
. , . ,	purchased, and off-balance sheet exposures;	Table 33: Trading Book Securitisation
		Exposures by Exposure Type
		Table 34: Non-Trading Book Securitisation
		Exposures by Exposure Type
449 (n) (iii)	Amount of assets awaiting securitisation.	Not Applicable
449 (n) (iv)	Early amortisation treatment; aggregate drawn	Not Applicable
443 (11) (10)	exposures capital requirements.	Not Applicable
449 (n) (v)	Deducted or 1250% risk weighted securitisation	
440 (-) (-:)	positions.	Section 11: Securitisation
449 (n) (vi)	Amount of exposures securitised and recognised	Table 31: IRB Securitisation Exposures and
	gains or losses on sales.	Capital Requirements by Credit Quality Step
( ) (1)		Table 32: Standardised Securitisation
449 (o) (i)	Retained and purchased exposure and associated	Exposures and Capital Requirements by
	capital requirements, broken down by risk-weight bands.	Credit Quality Step
449 (o) (ii)	Retained and purchased re-securitisation	Not Applicable
(~) (")	exposures before and after hedging and	
	insurance; exposure to financial guarantors	
	broken down by guarantor credit worthiness.	
449 (p)	Impaired assets and recognised losses related to	Not Applicable
→ <b>-</b> -> (Þ)	banking book securitisations, by exposure type.	ποι Αργιιασία

440 ()	For a constant and a contract and a	Casting 44. Cassellianting
449 (q)	Exposure and capital requirements for Trading	Section 11: Securitisation
	Book securitisations, separately into traditional	Table 33: Trading Book Securitisation
	and by exposure type.	Exposures by Exposure Type
449 (r)	Whether the institution has provided financial	Not Applicable
	support to securitisation vehicles.	
Article 450: R	emuneration Disclosures	
450	Remuneration Disclosure.	Remuneration Policy is disclosed separately
430	nemaneration bisclosure.	nematiciation rolley is disclosed separately
Article 451: L	everage	
451 (1) (a)	The leverage ratio and how the institution applies	Section 7: Leverage
	Article 499(2) and (3).	
451 (1) (b)	A breakdown of the total exposure measure as	Section 7: Leverage
	well as a reconciliation of the total exposure	Table 7: Reconciliation of Accounting Assets
	measure with the relevant information disclosed	and Leverage Ratio Exposures
	in published financial statements.	
451 (1) (c)	Where applicable, the amount of derecognised	Not Applicable
	fiduciary items in accordance with Article 429(11).	
451 (1) (d)	A description of the processes used to manage the	Section 7: Leverage
	risk of excessive leverage.	
451 (1) (e)	A description of the factors that had an impact on	Section 7: Leverage
	the leverage ratio during the period to which the	
	disclosed leverage ratio refers.	
	Ise of the IRB Approach to Credit Risk	
452 (a)	Permission for the use of the IRB approach from	Section 9: Credit Risk
- 4.161	the competent authority.	"9.3 Internal Ratings Based Approach"
452 (b)(i)	The structure of internal rating systems and	
// \///	relation between internal and external ratings.	
452 (b)(ii)	The use of internal estimates other than for the	
	purposes of calculating capital requirements	Section 9: Credit Risk
450/1 \/:::\	under the IRB approach.	"9.3 Internal Ratings Based Approach"
452(b)(iii)	The process for managing and recognising credit	"Control Mechanisms for the Rating System"
	risk mitigation.	
452(b)(iv)	The control mechanisms for rating systems	
	including a description of independence,	
	accountability, and rating systems review.	
452 (c)(i)	Description of the internal ratings process: for	
	central governments and central banks.	
452 (c)(ii)	Description of the internal ratings process: for	
	institutions.	
452(c)(iii)	Description of the internal ratings process: for	
	corporates, including SMEs, specialised lending	S
	and purchased corporate receivables.	Section 9: Credit Risk
452(c)(iv)	Description of the internal ratings process: for	"9.3 Internal Ratings Based Approach"
- 1=11:-1	retail, for each of the categories of exposures to	"Rating Process"
	which the different correlations in Article 154(1)	"Rating Philosophy and PD Estimation"
	to (4) correspond.	
452 (c)(v)	Description of the internal ratings process: for	1
,	equities.	

	<u> </u>	T
452 (d)	The exposure values for each IRB exposure class.	
	Exposures to central governments and central	
	banks, institutions and corporates where	
	institutions use own estimates of LGDs or	
	conversion factors for the calculation of risk-	
	weighted exposure amounts, shall be disclosed	
	separately from exposures for which the	Appendix VI: Additional Credit and
	institutions do not use such estimates.	Counterparty Credit Risk Tables
452 (e)(i)	For wholesale exposure classes, disclosed	' '
432 (8)(1)	•	Table 72: IRB – Credit Risk Exposures by
	separately by obligor grade: Total exposure,	Exposure Class and PD Range (EU CR6)
	separating loans and undrawn exposures where	Table 75: IRB – CCR Exposures by Portfolio
	applicable.	and PD Scale (EU CCR4)
452(e)(ii)	For wholesale exposure classes, disclosed	
	separately by obligor grade: Exposure-weighted	
	average risk weight.	
452(e)(iii)	For wholesale exposure classes, disclosed	
	separately by obligor grade: Undrawn	
	commitments and average exposure values by	
	asset class.	
452 (f)	For retail exposure classes, same disclosures as	Not Applicable
432 (1)	under 452 (e), by risk grade or EL grade.	Not Applicable
452 (g)		Section 9: Credit Risk
452 (g)	Actual specific risk adjustments for the period and	
	explanation of changes.	Table 21: IRB Credit Risk Adjustments,
		Expected Loss and Charge to the Profit and
		Loss
		Appendix VI: Additional Credit and
		Counterparty Credit Risk Tables
		Table 60: Credit Quality of Exposures by
		Exposure Class and Instrument (EU CR1-A)
		Table 65: Changes in Stock of General and
		Specific Credit Risk Adjustments (EU CR2-A)
452 (h)	Commentary on drivers of losses in preceding	Section 9: Credit Risk
.52 ()	period.	"Estimates Versus Actual Probability of
	period.	Default"
		Table 20: Estimated Versus Actual PD by
		_
		Exposure Class
		Table 21: IRB credit risk adjustments,
		expected loss and charge to the profit and
		loss
452 (i)	Disclosure of predicted against actual losses for	Appendix VI: Additional Credit and
	sufficient period, and historical analysis to help	Counterparty Credit Risk Tables
	assess the performance of the rating system over	Table 73: IRB approach – Backtesting of PD
	a sufficient period.	per Exposure Class (EU CR9)
452 (j) (i)	Where applicable, PD and LGD by each country	Section 9: Credit Risk
452 (j) (ii)	where the firm operates	
732 ()) (11)	micro the min operates	Table 17: IRB Geographical Breakdown of
		Exposure Weighted Average PD
Article 453: Us	se of Credit Risk Mitigation Techniques	
453 (a)	The policies and processes for, and an indication	Section 9: Credit Risk
	of the extent to which the entity makes use of, on-	"9.5 Credit Risk Mitigation"
	and off-balance sheet netting.	_
453 (b)	The policies and processes for collateral valuation	
(~)	and management.	Section 9: Credit Risk
452 (c)		"9.5 Credit Risk Mitigation"
453 (c)	A description of the main types of collateral taken	
	by the institution.	

453 (d)	The main types of guarantor and credit derivative	Section 10: Counterparty Credit Risk
	counterparty and their creditworthiness.	"10.3 Derivatives and SFTs Credit Exposure"
453 (e)	Information about market or credit risk	Section 9: Credit Risk
	concentrations within the credit mitigation taken.	"9.5 Credit Risk Mitigation"
453 (f)	Standardised or IRB approach, exposure value	Appendix VI: Additional Credit and
	covered by eligible collateral.	Counterparty Credit Risk Tables
		Table 67: Credit risk mitigation techniques –
453 (g)	Exposures covered by guarantees or credit	overview (EU CR3)
	derivatives.	Table 68: Standardised Approach –Credit
		Risk Exposure and Credit Risk Mitigation
		(CRM) Effects (EU CR4)
		Table 71: IRB Approach – Effect on the
		RWAs of Credit Derivatives used as CRM
		Techniques (EU CR7)
Article 454: U	Jse of the Advanced Measurement Approach to Opera	ational Risk
454	For institutions using the Advanced Measurement	Not Applicable
	Approaches set out in Articles 321 to 324 for	
	calculating operational risk capital requirements, a	
	description of the use of insurances and other risk	
	transfer mechanisms to mitigate operational risk.	
	Jse of Internal Market Risk Models	
455(a)(i)	Disclosure of the characteristics of the market risk	Section 12: Market Risk
	models.	"12.1 Value at Risk VaR Methodology,
		Assumptions and Limitations"
455(a)(ii)	Disclosure of the methodologies used to measure	Section 12: Market Risk
	incremental default and migration risk.	"12.6 Incremental Risk Charge"
		"12.7 Comprehensive Risk Measure"
455(a)(iii)	Descriptions of stress tests applied to the	Section 12: Market Risk
	portfolios.	"12.8 Stress Testing"
455(a)(iv)	Methodology for backtesting and validating the models.	Section 12: Market Risk
455(b)	Scope of permission for use of the models.	"12.4 Backtesting"  Section 12: Market Risk
455(c)	Policies and processes to determine which	Section 12: Market Risk
433(0)	exposures are to be included in the Trading Book,	"12.3 Positions included in the Trading
	and to comply with prudential valuation	Book"
	requirements.	Section 14: Valuation Risk
455(d)(i)	The highest, the lowest and the mean of: The daily	Section 14. Valuation Nisk
133(4)(1)	value-at-risk measures over the reporting period	
	and as per the period end.	
455(d)(ii)	The highest, the lowest and the mean of: The	-
133(4)(11)	stressed value-at-risk measures over the reporting	Section 12: Market Risk
	period and as per the period end.	Table 39: IMA values for trading portfolios
455(d)(iii)	The highest, the lowest and the mean of: The risk	(EU MR3)
133(4)(111)	numbers for incremental default and migration	(==)
	risk and for the specific risk of the correlation	
	trading portfolio over the reporting period and as	
	trading portfolio over the reporting period and as per the period-end.	
455(e)	per the period-end.	Section 12: Market Risk
455(e)		
455(e) 455(f)	per the period-end.	Section 12: Market Risk "12.2 Market Risk Capital Requirements" Section 12: Market Risk
	per the period-end.  The elements of the own funds requirement.	"12.2 Market Risk Capital Requirements"
	per the period-end.  The elements of the own funds requirement.  Weighted average liquidity horizons of portfolios	"12.2 Market Risk Capital Requirements" Section 12: Market Risk
455(f)	per the period-end.  The elements of the own funds requirement.  Weighted average liquidity horizons of portfolios covered by models.	"12.2 Market Risk Capital Requirements"  Section 12: Market Risk  "12.6 Incremental Risk Charge"

## **27.** Appendix X: Abbreviations

Term	Definition
ACPR	Autorité de Contrôle Prudentiel et de Résolution
AIF	Alternative Investment Funds
AT1	Additional Tier 1 Capital
BIA	Basic Indicator Approach
BRRD	Bank Recovery and Resolution Directive
CASS	Client Assets Sourcebook
CCB	Capital Conservation Buffer
CCP	Central Counterparty
CCR	Counterparty Credit Risk
ССуВ	Countercyclical Capital Buffer
CET1	Common Equity Tier 1 Capital
CQS	Credit Quality Step
CRD	Capital Requirements Directive
CRD IV	Capital Requirements Directive — EU implementation of Basel III
CRE	Commercial Real Estate
CRM	Credit Risk Mitigation
CRR	Capital Requirements Regulation
СТР	Correlation Trading Portfolio
CVA	Credit Valuation Adjustment
DA	Delegated Act
EAD	Exposure at Default
EBA	European Banking Authority
ECAI	External Credit Assessment Institutions
EEA	European Economic Area
EMEA	Europe, the Middle East and Africa
EMEA ALCO	EMEA Asset and Liability Committee
ERC	EMEA Risk Committee
EU	European Union
FCA	Financial Conduct Authority
FCG	Financial Control Group
FPC	Financial Policy Committee
FRS	Financial Reporting Standards
G-SIIs	Global Systematically Important Institutions
HQLA	High Quality Liquid Assets
IAD	Internal Audit Department
ICAAP	Internal Capital Adequacy Assessment Process
ILAAP	Internal Liquidity Adequacy Assessment Process
ICG	Individual Capital Guidance
IFRS	International Financial Reporting Standards
IPRE	Income Producing Real Estate
IRB	Foundation Internal Ratings Based
IRC	Incremental Risk Charge
IRRNTB	Interest Rate Risk in the Non-Trading Book
IMA	Internal Modelling Approach
IMM	Internal Models Method
ISDA	International Swaps and Derivatives Association
ITS	Implementing Technical Standards
LCR	Liquidity Coverage Ratio
LDP	Low Default Portfolio
LGD	Loss-Given Default
L-SREP	Liquidity Supervisory Review Process

Term	Definition
MCR	Minimum Capital Requirements
MOC	Model Oversight Committee
MRD	Market Risk Department
MREL	Minimum Requirements for Own Funds and Eligible Liabilities
MSBIL	Morgan Stanley Bank International Limited
MSCL	Morgan Stanley & Co. Limited
MSFSA	Morgan Stanley (France) S.A.
MSI	Morgan Stanley International Limited
MSI Group	Morgan Stanley International Limited (and its subsidiaries)
MSIM	Morgan Stanley Investment Management Limited
MSIM ACD	Morgan Stanley Investment Management (ACD) Limited
MSIM Group	MSIM sub-consolidated Group
MSIP	Morgan Stanley & Co. International plc
MSIP Group	Morgan Stanley & Co. International plc and its subsidiaries
NSFR	Net Stable Funding Ratio
NPA	New Product Approval
OEICs	Open Ended Investment Company
ORD	Operational Risk Department
O-SII	Other Systemic Important Institutions
OTC	Over-the-counter
PD	Probability of Default
PRA	Prudential Regulation Authority
RTS	Regulatory Technical Standards
RWAs	Risk Weighted Assets
SFTs	Securities Financing Transactions
SPV	Special Purpose Vehicles
SRM	Single Resolution Mechanism
SREP	Supervisory Review Process
S&P	Standard and Poor's
STAR	Significant Transaction Analytical Review
STS	Simple Transparent Standardised Regulation
SVaR	Stressed Value at Risk
T1	Tier 1
T2	Tier 2
TLAC	Total Loss Absorbing Capacity
TOR's	Top Operational Risks
UCITs	Undertakings for Collective Investments in Transferable Securities
UK	United Kingdom
US	United States
VaR	Value at Risk
VRG	Valuation Review Group