# Pillar 3

# Part 1:

# **Regulatory Disclosure (UK)**

Morgan Stanley International Limited Group

As at 31 December 2016

## **Table of Contents**

1:	Morgan Stanley International Limited Group	4
2:	Capital Framework	5
3:	Capital Management	6
4:	Risk Management	7
5:	Pillar 3 Basis of Preparation	12
6:	Capital Adequacy	14
7:	Capital Resources	14
8:	Capital Requirements	15
9:	Credit Risk	17
10:	Securitisation	30
11:	Market Risk	33
12:	Operational Risk	38
13:	Leverage	40
14:	Asset Encumbrance	43
15:	Appendix I: Capital Instruments Templates	44
16:	Appendix II: Own Funds Transitional Template	48
17:	Appendix III: Reconciliation of Balance Sheet Total Equity to Regulatory Capital	50
18:	Appendix IV: Countercyclical Capital Buffer	52
19:	Appendix V: Board of Directors Knowledge, Skills and Expertise	55
20:	Appendix VI: Morgan Stanley International Limited Group Non Statutory Financial Information	59
21:	Appendix VII: List of Abbreviations	83

## **Figures**

Figure 1: MSI Board of Directors	4
Figure 2: Risk Management Framework	7
Figure 3: MSI Group Limit Framework	9
Figure 4: MSI Board Committee Structure and EMEA Executive Management Structure	12
Figure 5: MSI Directors: Number of Directorships	58

## **Tables**

Table 1: Capital Summary	14
Table 2: Own Funds	14
Table 3: Capital Requirements	15
Table 4: Credit Risk and Counterparty Credit Risk EAD, RWAs and Capital Requirements	18
Table 5: IRB EAD by Exposure Type & PD Banding	21
Table 6: Non-Trading Book Equity Exposures	21
Table 7: Non-Trading Book Equity Gains and Losses	22
Table 8: Estimated Versus Actual PD by Exposure Class	22
Table 9: IRB Credit Risk Adjustments, Expected Loss and Charge to the Profit and Loss	22
Table 10: Standardised Approach EAD by Credit Quality Step	23
Table 11: Residual Weighted Maturity Breakdown of EAD	24
Table 12: Credit EAD IRB + Standardised by Exposure Type	26
Table 13: Derivative Credit Exposures	
Table 14: Derivative EAD by Calculation method	27
Table 15: Notional Value of Credit Derivative Transactions	
Table 16: EAD by Credit Industry Type	28
Table 17: Impaired and Past Due Exposures, Credit Risk Adjustments by Industry Type	28
Table 18: Geographical Breakdown of EAD	29
Table 19: Impaired and Past Due Exposures, Credit Risk Adjustments by Geographic Region	29
Table 20: IRB Geographical Breakdown of Exposure Weighted Average PD	29
Table 21: Movement of Specific and General Credit Risk Adjustments	30
Table 22: Securitisation Exposures and Capital Requirements	
Table 23: IRB Securitisation Exposures and Capital Requirements by Credit Quality Step	31
Table 24: Standardised Securitisation Exposures and Capital Requirements by Credit Quality	
Table 25: Trading Book Securitisation Exposures by Exposure Type	
Table 26: Non-Trading Book Securitisation Exposures by Exposure Type	
Table 27: Sensitivity Analysis for the 99% MSIP Regulatory VaR	
Table 28: Market Risk Capital Requirements and RWAs	
Table 29: Market Risk Capital Requirements Calculated in Accordance with the Standardised Approach	
Table 30: Market Risk Internal Model Measures	
Table 31: IRC Liquidity Horizon for Material Sub Portfolios	
Table 32: Interest Rate Risk in Non-Trading Book	
Table 33: Reconciliation of Accounting Assets & Leverage Ratio Exposures	
Table 34: Split of On Balance Sheet Exposures (excl. derivatives, SFTs and exempted exposures)	
Table 35: Leverage Ratio Common Disclosure	
Table 36: Assets	
Table 37: Collateral Received	
Table 38: Encumbered Assets / Collateral Received and Associated Liabilities	
Table 39: Capital Instruments Template	
Table 40: MSI Group Own Funds Transitional Template	
Table 41: MSIP Own Funds Transitional Template	
Table 42: MSI Group Reconciliation of Balance Sheet Total Equity to Regulatory Capital	
Table 43: MSIP Reconciliation of Balance Sheet Total Equity to Regulatory Capital	51
Table 44: Geographical distribution of credit exposures relevant for the calculation of the countercyclical	
capital buffer (CCYB)	52

## 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 2016 and none are expected in 2017.

As at 31 December 2016, 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")

As at 31 December 2016, the following entities within the MSI Group were authorised and regulated by the FCA:

- Morgan Stanley & Co. Limited ("MSCL")
- Morgan Stanley Investment Management Limited ("MSIM")
- Morgan Stanley Investment Management (ACD) Limited ("MSIM ACD")

#### **Events after the Reporting Date**

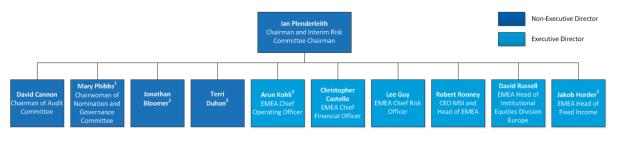
On 1 February 2017, MSIP transferred the assets and liabilities of its French Branch to Morgan Stanley (France) S.A. ("MSFSA"), an entity regulated by the Autorité de contrôle prudentiel et de résolution ("ACPR"). On transfer, the branch was dissolved.

On 12 May 2017, the FCA approved a request to de-authorise MSCL. This had no impact on the risk profile of the MSI Group.

#### The MSI Board of Directors

As at 31 December 2016, the MSI Board was comprised of 11 directors (6 executive directors and 5 nonexecutive directors). For further details on the MSI Board members including detailed biographies and other directorships refer to Appendix V.

#### Figure 1: MSI Board of Directors



1. Mary Phibbs is also Chairwoman of the Remuneration Committee, established on 1 January 2017.

2. Terri Duhon and Jonathon Bloomer were appointed as Non-Executive Directors to the MSI Board effective 14 April 2016 and 1 November 2016 respectively.

3. Jakob Horder and Arun Kohli were appointed as Directors to the MSI Board effective 8 June 2016 and 9 August 2016 respectively.

#### Background

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 by The Board of Governors of the Federal Reserve System (the "Federal Reserve").

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/content/msdotcom/en/about-us-ir/pillar-us-us-us-us-us-us-us-us

Morgan Stanley is listed on the New York Stock Exchange and is required, by the US Securities and Exchange Commission ("SEC"), 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. Capital Framework

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 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".

The revised Basel Capital Accord has been implemented in the European Union via the Capital Requirements Directive ("CRD") and the Capital Requirements Regulation ("CRR") (collectively known as "CRDIV"). 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 Individual 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 CRDIV in relation to the MSI Group, as at 31 December 2016, with Part 2 detailing the Remuneration Policy disclosure.

The Pillar 3 disclosures in sections 6 through to 14 are based on the Pillar 1 capital requirements.

#### Future Capital Framework – 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 to the existing prudential regime (CRR and CRDIV), the Bank Recovery and Resolution Directive and the Single Resolution Mechanism.

These proposals are currently subject to further discussion and negotiation among European policy-makers and it is not possible to anticipate their final content. Based on current estimates, the proposals are expected to be introduced in the EU in 2019 at the earliest, with Member States implementing the new rules in 2020-21.

In light of these developments, there remains uncertainty as to the rules which may apply to the MSI Group post 2019.

Following the UK electorate vote to leave the European Union, the UK invoked Article 50 of the Lisbon Treaty on March 29, 2017, which triggered a two-year period, subject to extension, 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 early 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. 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 or successor arrangements. Any future limitations on providing financial services into the EU from our UK operations could require us to make potentially significant changes to our operations in the UK and Europe and our legal structure there, which could have an effect on our business profile.

#### 3. 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 expand or contract its capital base to address 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 CRDIV.

The ICAAP is a key tool used to inform the MSI Board and the Executive 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 minima are set 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, Additional Tier 1 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.

#### 4. Risk Management

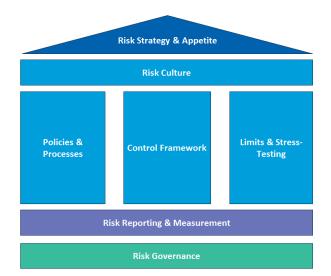
The quantitative disclosures in this document are calculated with reference to regulatory methodologies set out in CRDIV and are not necessarily the primary exposure measures used by internal management.

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 group. As part of the annual strategic review and subsequent planning process, or more frequently if necessary, business strategy and risk assessment are considered and aligned.

#### **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 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 2.

#### Figure 2: Risk Management Framework



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

The MSI Group assesses appetite for risk-adjusted returns through prudent and conservative risk-taking, utilising risk limits and tolerances that avoid outsized risk-taking. The MSI Group Risk Appetite Statement is the articulation of the aggregate level and types of risk that the MSI Group is willing to accept in order to

execute its business strategy and protect its capital, franchise and liquidity resources. The Risk Appetite Statement is further expanded into qualitative and quantitative risk tolerance statements, that are supported by a focused suite of risk metrics and limits designed to cover the MSI Group's risks. The combination of risk appetite, tolerance statements and limits aims to ensure that the MSI Group's businesses are carried out in line with its risk strategy in both normal and stressed environments.

The MSI Group has no risk appetite for conduct risk/reputational risk. It acknowledges, however, that conduct risk/reputational risk remains inherent in doing business and thus cannot be entirely eliminated.

The MSI Group risk appetite is set by the MSI Board in conjunction with the EMEA strategy and the MSI Group capital and liquidity resource adequacy framework.

#### **Risk Culture**

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.

#### **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. The MSI Group believes that 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, and operational 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 Compliance Department maintains an enterprise-wide, independent compliance risk management program. Under that program, 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; and reviewing new products and

business initiatives. The 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 EMEA Legal Department provides legal and regulatory advice to protect the MSI Group's financial wellbeing 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 Internal Audit Department is an independent source of assurance to the MSI Board on financial, operational, and compliance controls. Internal Audit 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.

#### 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 at least annually.

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 3 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.

		MARKET RISK		CREDIT RISK		OPERATIONAL RISK		LIQUIDITY AND FUNDING RISK
RISK METRICS AND LIMITS	•	MSI Group-wide macroeconomic scenario loss limits and proprietary tail risk metric Legal entity Value at Risk ("VaR") and exposure limits Detailed risk exposure limits are allocated by desk/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

#### Figure 3: MSI Group Limit Framework

#### **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.

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

The MSI Group has a suite of risk reporting across its main risk classes. The information 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.

#### **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 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.

Day to day management of the MSI Groups 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.

#### **MSI Board Committees**

The **MSI Risk Committee** is appointed by the MSI Board to assist and provide guidance to the MSI Board on 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 14 times in 2016. The MSI Risk Committee review quarterly detailed risk reports on portfolio risk, market risk, credit risk, operational risk and model changes.

The Committee's focus during 2016 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 Nomination and Governance Committee** is appointed by the MSI Board to (i) identify and recommend candidates qualified to become board members for approval; (ii) assess the structure, size, composition, performance and effectiveness of the board and the committees; (iii) recommend to the board corporate governance principles applicable to 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** 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.

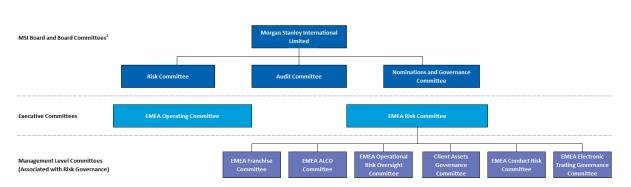
The **EMEA Asset and Liability Committee ("EMEA ALCO")** assists the EMEA Risk Committee to oversee the capital adequacy, including the risk of excessive leverage, and liquidity risk management of the MSI Group.

The **EMEA Operational Risk Oversight** Committee provides guidance to the EMEA Risk Committee 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 EMEA Risk Committee in the oversight and management of conduct risk within MSI Group.

The **EMEA Electronic Trading Governance Committee** established in 2016 reviews and challenges controls applicable to the electronic trading business undertaken by the MSI Group.



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

1. Remuneration Committee was established on 1 January 2017.

#### 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 group. These elements are reviewed at least annually and, where applicable, updated to reflect best practice, evolving market conditions and changing regulatory requirements.

#### 5. Pillar 3 Basis of Preparation

This disclosure is made on a consolidated basis, rather than on an individual basis for each regulated entity, as permissible by CRDIV. The basis of consolidation for prudential purposes is the same as consolidation for accounting purposes. The MSI Group completes its prudential consolidation in compliance with CRR Part One, Title II Chapter 2, with all entities fully consolidated.

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.

This document does not constitute a set of financial statements and does not represent any form of forward looking statement. With effect from 2014, the MSI Group applied the United Kingdom ("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. Statutory group accounts will therefore not be published. Statutory accounts are available for each regulated entity including group financial statements for MSIP and its subsidiaries ("MSIP Group"), which form the significant majority of the MSI Group.

Audited 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").

Audited, consolidated non-statutory financial information has been produced for the MSI Group, as received 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. Refer to Appendix VI for MSI Group non-statutory financial information. In determining its overall capital requirement, the Firm classifies its exposures as either "Non-Trading 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 which are discussed in Section 9 Credit Risk. 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, and certain Non-Trading Book positions which are subject to both credit risk and market risk charges as well as positions included in VaR, are subject to market risk capital requirements, which are discussed in Section 11: Market Risk. 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 Section 10 Securitization Exposures. Trading Book and Non-Trading Book definitions used in this document refer to the regulatory view and may differ from the accounting definitions.

The MSI Group has policies and procedures in place to assess the appropriateness of its Pillar 3 disclosures, including their verification. The MSI Group's Pillar 3 Disclosures are not required to be, and have not been, audited by the Company's independent registered public accounting firm. The MSI Group's Pillar 3 Disclosures are based on its current understanding CRDIV and related legislation, which may be subject to change as the Company receives additional clarification and implementation guidance from regulators relating to CRDIV and as the interpretation of the final rules evolves over time.

#### **Forward Looking Framework**

#### IFRS 9

The MSI Group will adopt IFRS 9 Financial Instruments standard (including the requirements relating to impairment) on 1 January, 2018, via its application of FRS 101. The impact is not expected to be material to the MSI Group.

Key enhancements required by the European Banking Authority ("EBA") are:

#### **Revised Pillar 3 requirements**

European Union (EU) institutions are facing stronger market pressure to move towards a more harmonized presentation of institutions Pillar 3 disclosures. Through introducing more specific guidance and formats for disclosures through the use of tables and templates, the guidelines represent a significant step towards enhancing the consistency and comparability of institutions' regulatory disclosures in accordance with Part Eight of the CRR. These guidelines supplement existing disclosure requirements in the CRR regarding the general requirements for disclosures, risk management, scope of application, capital requirements, credit risk, counterparty credit risk (CCR), and market risk and came into effect from 1 January 2017.

#### Liquidity Coverage Ratio

Liquidity Coverage Ratio ("LCR"): The LCR was developed to ensure banking organisations have sufficient high quality liquid assets to cover net cash outflows arising from significant stress over 30 calendar days. The standard's objective is to promote the short-term resilience of the liquidity risk profile of banking organisations. The LCR is being phased in from its effective date of 1 October 2015, with full compliance required by the beginning of 2018. The MSI Group is compliant with the minimum required LCR based on current interpretations and continues to evaluate the impact on its liquidity and funding requirements. The EBA issued their final guidelines on LCR Disclosure on 8 March 2017 that will apply to the MSI Group from 31 December 2017.

## 6. Capital Adequacy

Under PRA supervision, the MSI Group is required to maintain a minimum ratio of Own Funds to Risk Weighted Assets ("RWAs"). As at 31 December 2016, the MSI Group is in compliance with the PRA capital requirements as defined by CRR. Capital Resources, described in CRR and tables below as Own Funds, and RWAs as at 31 December 2016 are calculated and presented on the basis of CRDIV. Table 1 summarises the MSI Group's and MSIP's key capital ratios.

#### **Table 1: Capital Summary**

	MSI GROUP <sup>1</sup>	MSIP <sup>2</sup>
	\$MM	\$MM
Common Equity Tier 1 Capital (CET1)	17,059	13,885
Additional Tier 1 Capital (AT1)	1,300	1,300
Tier 1 Capital	18,359	15,185
Tier 2 Capital	5,985	7,906
Total Own Funds	24,344	23,091
RWAs	111,080	102,350
CET1 Ratio	15.4%	13.6%
Tier 1 Capital Ratio	16.5%	14.8%
Total Capital Ratio	21.9%	22.6%
Leverage Exposure	382,464	379,464
Leverage Ratio	4.8%	4.0%

MSI Group's RWAs as at 31 December 2015 were \$108,321MM and CET1 Ratio, Tier 1 Capital Ratio & Total Capital Ratio were 15.5%, 16.7% & 23.0% respectively. 1.

#### 2. MSIP's RWAs as at 31 December 2015 were \$98,603MM and CET1 Ratio, Tier 1 Capital Ratio & Total Capital Ratio were 14.2%, 15.5% & 23.5% respectively.

#### 7. Capital Resources

The capital resources of the MSI Group and MSIP are set out in Table 2. 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 I.

## Table 2: Own Funds

	MSI GROUP <sup>1</sup>	MSIP <sup>2</sup>
	\$MM	\$MM
Capital instruments eligible as CET1 Capital	1,615	11,978
Retained Earnings	10,237	1,763
Accumulated other comprehensive income	(691)	(183)
Other reserves	7,461	1,403
Adjustments to CET1 due to prudential filters	(932)	(905)
Other Intangible Assets	(465)	(2)
IRB Shortfall of credit risk adjustments to expected losses	(166)	(169)
CET1 Capital	17,059	13,885
Additional Tier 1 Capital	1,300	1,300
Tier 1 Capital	18,359	15,185
Capital instruments and subordinated loans eligible as T2 Capital	360	7,906
Instruments issued by subsidiaries that are given recognition in T2 Capital	4,105	N/A
Transitional adjustments due to additional recognition in T2 Capital of instruments issued by subsidiaries	1,520	N/A
Tier 2 Capital	5,985	7,906
Total Own Funds	24,344	23,091
1. MSI Group's Tier 1 Capital and Total Own Funds as at 31 December 2015 were \$18,049MM and \$24,869MM, respective	ely.	

1.

MSIP's Tier 1 Capital and Total Own Funds as at 31 December 2015 were \$15,255MM and \$23,161MM, respectively. 2.

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. Appendix III provides a reconciliation of own funds to audited shareholders' equity.

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 CRDIV, 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.

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.

Management reviews capital levels on an ongoing basis in light of changing risk appetite, business needs and the external environment and ensures that appropriate levels, as well as quality, of capital are maintained to support business needs whilst remaining in compliance with the target operating range established by the MSI Board.

## 8. Capital Requirements

The MSI Group calculates Pillar 1 capital requirements as 8% of RWAs in accordance with CRDIV. As at 31 December 2016, the MSI Group and MSIP had the following capital requirements, as detailed in Table 3.

	MSI GROUP <sup>1</sup>	MSIP <sup>2</sup>
	\$MM	\$MM
Credit and Counterparty Credit Risk		
Internal Model	3,226	3,083
Standardised	292	215
CCP Default fund	27	32
Total Credit and Counterparty Credit Risk	3,545	3,330
Market Risk		
Internal Model	2,549	2,549
Standardised	930	724
Total Market Risk	3,479	3,273
Operational Risk	828	562
Credit Valuation Adjustment	814	790
Large Exposures in the Trading Book	218	232
Settlement and Delivery Risk	1	1
Total	8,885	8,188

#### **Table 3: Capital Requirements**

1. MSI Group's Capital Requirements as at 31 December 2015 were \$8,664MM.

2. MSIP's Capital Requirements as at 31 December 2015 were \$7,887MM.

Credit and Counterparty Credit Risk refers to the risk of loss arising when a borrower, counterparty or issuer does not meet its financial obligations. Credit and Counterparty Credit capital requirements are derived from RWAs, determined using approved internal modelling approaches – the Foundation Internal Ratings Based approach ("IRB") for credit risk and the Internal Models Method ("IMM") for counterparty risk – as well as the Standardised Approach. For a further discussion, see Section 9 Credit 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 Market Risk capital requirements of the MSI Group comprise of capital associated with the Internal Modelling Approaches ("IMA")

approved by the PRA and those associated with the Standardised Approach. For further discussion, see Section 11 Market Risk.

Operational Risk refers to the risk of loss or damage to Morgan Stanley's reputation, resulting from inadequate or failed processes, people and systems or from external events. This definition includes legal risk, but excludes strategic risk. Capital requirements for operational risk are currently calculated under the Basic Indicator Approach. For a further discussion, see Section 12 Operational Risk.

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

Large Exposures is the capital requirement that covers the risk due to concentrated exposures to a single counterparty or group of connected counterparties.

The risk capital calculations evolve over time as the MSI Group enhances its risk management strategy and incorporates improvements in modelling techniques while maintaining compliance with the regulatory requirements.

#### **Additional Capital Buffer Requirements**

The capital requirements quoted in Table 3 are based on the Basel solvency standard of 8%. The capital requirements have been supplemented with the following additional buffers to ensure the firm has sufficient capital to meet the minimum requirements.

The Countercyclical Capital Buffer ("CCyB") has been introduced to ensure that excess credit growth in specific countries is accounted for, and increases the minimum capital ratio by between 0% and 2.5% and must be met with CET1 Capital. As at 31 December 2016, it was in place for Norway and Sweden, set at a rate of 1.5%, and for Hong Kong at a rate of 0.625%. The MSI Group's RWAs against relevant counterparties located in these countries were \$25MM, \$129MM and \$569MM respectively. Of this, the majority arises from MSIP with RWAs against Norway of \$22MM, Sweden of \$96MM, and Hong Kong of \$485MM. The application of the buffer resulted in an immaterial minimum capital ratio increase of 0.0137% for MSI Group and 0.0120% for MSIP.

Countercyclical Capital Buffers have also been announced for Iceland, Slovakia and the Czech Republic starting in 2017. Exposures to Iceland, Slovakia and the Czech Republic are immaterial for the MSI Group and MSIP.

Following the UK electorate vote to leave the European Union in June 2016, the Bank of England Financial Policy Committee (FPC) announced the CCyB rate for the UK would be maintained at 0% until atleast June 2017. On 27 June 2017, the FPC increased the UK CCyB rate to 0.5%, with binding effect from 27 June 2018. Additionally, the FPC expects to increase the CCyB rate to 1% at its meeting to be held November 2017, with binding effect a year from that date. Were a rate of 0.5% to have been in place at 31 December 2016, the indicative increase to the minimum capital ratio would have been 0.1229%. The MSI Group's RWAs to counterparties in the UK as at 31 December 2016 were \$9,329MM; MSIP's RWAs to counterparties in the UK as the same date were \$9,960MM.

The Capital Conservation Buffer ("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.

#### 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 primarily incurs credit risk exposure to Corporates, Institutions, Central Governments and Central Banks through its Institutional Securities business segment. In order to help protect the MSI Group from losses resulting from its business activities, the Credit Risk Management ("CRM") function establishes practices to evaluate monitor and control credit risk exposure at the transaction, obligor and portfolio levels. CRM 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 CRM 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.

#### **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 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.

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.

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. The standardised approach uses supervisory risk weights which are a function of the exposure class and, where applicable and available, the rating by an External Credit Assessment Institution ("ECAI") of the borrower or counterparty.

Table 4 shows the Credit Risk and Counterparty Credit Risk for the MSI Group as at 31 December 2016, for each exposure class, as per the classifications set out in the CRR.

			CAPITAL
	EAD <sup>2,3</sup>	RWAs	REQUIREMENTS
	\$MM	\$MM	\$MM
IRB			
Central Governments or Central Banks	19,446	1,773	142
Corporates	48,815	23,131	1,851
Equity	718	2,117	169
Institutions	49,642	13,147	1,052
Securitisation	253	154	12
Total (IRB)	118,874	40,322	3,226
Standardised			
Central Governments Or Central Banks	186	103	8
Corporates	6,808	2,487	199
High Risk	179	268	21
Institutions	5,329	643	51
Multilateral Development Banks	2	-	-
Public Sector Entities	6	5	-
Regional Government Or Local Authorities	253	10	1
Securitisation	291	92	7
Units Or Shares In CIUs	91	57	5
Total (Standardised)	13,145	3,665	292
Total (CCP Default Fund) <sup>4</sup>	529	342	27
Total	132,548	44,329	3,545

## Table 4: Credit Risk and Counterparty Credit Risk EAD, RWAs and Capital Requirements<sup>1</sup>

2. Exposure at Default ("EAD").

3. Exposures mainly arise from MSIP.

4. 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 not shown in any of the remaining Credit Risk tables.

#### 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**

CRM 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.

Counterparty ratings correspond to a PD, a "through-the-cycle" measure that reflects credit quality expectation over a medium-term horizon. 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. CRM 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. CRM 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.

CRM 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 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 CRM'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 CRM'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 Standard and Poor's ("S&P"). For credit risk capital and risk management purposes, CRM 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 present method of using S&P's extensive default history reflects a long-run view. The 2016 PDs are long-run averages of one-year default rates and are grounded on historical experience and empirical evidence. They are based on S&P's annual default rates from 1981 to 2011. This historical period covers at least three major credit downturn periods (1990-91, 2001-02 and 2007-09).

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.

#### **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.

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.

Table 5 shows a breakdown of the IRB related exposure amounts for the MSI Group as at 31 December 2016 for the Central Governments or Central Banks, Corporates and Institutions exposure classes.

## Table 5: IRB EAD by Exposure Type & PD Banding<sup>1</sup>

	TOTAL GROSS EXPOSURE <sup>2</sup>	EXPOSURE VALUE AFTER CREDIT RISK MITIGATION <sup>3,4</sup>	OUTSTANDING LOANS	EXPOSURE VALUE OF UNDRAWN COMMITMENTS	EXPOSURE WEIGHTED AVERAGE RISK WEIGHT	EXPOSURE WEIGHTED AVERAGE PD
	\$MM	\$MM	\$MM	\$MM		
Central Governments or Central Banks						
0.00% - 0.08%	22,867	16,602	-	87	7%	0.02%
0.09% - 0.17%	2,517	2,495	-	-	14%	0.11%
0.21% - 0.40%	194	190	-	-	35%	0.26%
0.51% - 1.65%	142	144	-	-	84%	0.56%
1.92% - 100%	50	15	1	-	215%	9.57%
Total	25,770	19,446	1	87		
Corporates						
0.00% - 0.08%	19,395	13,010	-	1,535	17%	0.05%
0.09% - 0.17%	34,197	19,801	-	1,261	38%	0.12%
0.21% - 0.40%	13,241	7,821	25	872	59%	0.30%
0.51% - 1.65%	7,372	5,119	107	260	74%	0.66%
1.92% - 100%	7,819	3,064	127	339	166%	11.05%
Total	82,024	48,815	259	4,267		
Institutions						
0.00% - 0.08%	44,517	31,883	43	804	18%	0.07%
0.09% - 0.17%	24,400	13,854	-	153	31%	0.11%
0.21% - 0.40%	8,954	2,412	-	-	63%	0.30%
0.51% - 1.65%	2,667	1,273	-	-	77%	0.62%
1.92% - 100%	703	220	-	-	192%	8.72%
Total	81,241	49,642	43	957		

1. 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.

2. Total Gross Exposure column heading is the credit exposure after the application of netting benefits but before the application of financial collateral.

3. Exposure value after Credit Risk Mitigation is equivalent to EAD.

4. Mainly arise from exposures on MSIP.

#### **Non-Trading Book Equity Exposures**

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.

Table 6 shows a breakdown of the equity exposures falling outside of the Trading Book by risk weight.

#### Table 6: Non-Trading Book Equity Exposures<sup>1</sup> CAPITAL EAD<sup>2</sup> **REQUIREMENTS<sup>3</sup>** \$MM \$MM 190% Risk Weight \_ \_ 250% Risk Weight 674 290% Risk Weight 156 370% Risk Weight 44 13 Total 718 169 1. For all Equities, the balance sheet value is equal to the Fair Value. 2. Mainly arise from exposures on MSIP.

3. Capital Requirements calculated as 8% of RWAs.

Table 7 shows realised and unrealised gains and losses for equity exposures falling outside of the Trading Book.

#### **Table 7: Non-Trading Book Equity Gains and Losses**

	\$MM
Cumulative Amount of realised gains or losses resulting from sales and liquidations in the period	5
Total unrealised gains or losses	48
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 8. 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 8: Estimated Versus Actual PD by Exposure Class<sup>1</sup>

	ESTIMATE AT 2014	ACTUAL AT 2015	ESTIMATE AT 2015	ACTUAL AT 2016
Central Governments or Central Banks	0.27%	-	0.38%	-
Corporates	2.75%	0.06%	2.72%	0.01%
Institutions	1.30%	-	1.20%	0.24%

1. The averaging approach for estimated PDs facilitates a meaningful comparison with actual defaults. The weighted average PDs by exposure class, as shown in Table 5, are more reflective of the portfolio quality.

An analysis of credit risk adjustments and expected loss by IRB exposure class is shown in Table 9 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. There were no charges to the profit and loss in 2016.

#### Table 9: 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 & LOSS <sup>2</sup>	SPECIFIC RISK ADJUSTMENTS	EXPECTED LOSS	CHARGE TO THE PROFIT AND LOSS
	2016	2016	2016	2015	2015	2015
	\$MM	\$MM	\$MM	\$MM	\$MM	\$MM
Central						
Governments or	-	4	-	-	3	-
Central Banks						
Corporates	46	193		50	243	13
Institutions	-	33	-	-	28	-
Equity	-	6	-	-	8	-
Total	46	236	-	50	282	13

1. Expected Losses mainly arise from exposures on MSIP.

 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 Standardised Approach

A Standardised approach is used for certain asset categories, including exposure to central counterparties, receivables (e.g. fees and interest), unsettled trades and other assets.

Table 10 shows the exposures for the MSI Group, calculated using the Standardised approach for each exposure class and broken down by Credit Quality Step ("CQS").

-	EAD	338	182	102	98	25	-	9,701	2,699	13,145
TOTAL	GROSS EAD	338	182	102	98	25	-	10,149	2,699	13,593
n CIUs	EAD	-	-	-	-	-	-	-	91	91
Jnits or shares	GROSS EAD	-	-	-	-	-	-	-	91	91
	EAU	278	-	4	9	-	-	-	-	291
Securitisation	GROSS EAD EAD	278 278	-	4	9 9	-	-	-	-	291 291
	2,0							2,5	0	235
or Local Authorities	EAD	-	_	_	_	_	_	235	8	203
Regional governments	GROSS EAD	-	_	_	_	-	-	255	8	263
Public sector entities	EAD	-	3	-	1	-	-	-	2	6
	GROSS EAD	-	3	-	1	-	-	-	2	6
developments banks	EAD	-	-	-	-	-	-	-	2	2
Multilateral	GROSS EAD	-	-	-	-	-	-	-	2	2
nstitutions	EAD	38	152	91	88	-	-	4,809	151	5,329
	GROSS EAD	38	152	91	88	-	-	5,050	151	5,570
High risk	EAD	-	-	-	-	25	-	-	154	179
	GROSS EAD	_	-	-	-	25	-	-	154	179
Corporates	EAD	8	27	7	-	-	-	4,647	2,119	6,808
	GROSS EAD	8	27	7	-	-	-	4,844	2,119	7,005
or Central Banks	EAD	14	-	-	-	-	-	-	172	186
Central Governments	GROSS EAD	14	-	-	-	-	-	-	172	186
		\$MM	\$MM	\$MM	\$MM	\$MM	\$MM	\$MM	\$MM	\$MM
		CQS1	CQS2	CQS3	CQS4	CQS5	CQS6	<b>OTHER</b> <sup>2</sup>	UNRATED	TOTAL

## Table 10: Standardised Approach EAD by Credit Quality Step<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.

2. 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.

#### 9.5 Maturity Analysis

Maturity analysis of IRB and Standardised exposures are shown in Table 11.

Table 11: Residual Weighted N	vialurity break	down of EAD			
	LESS THAN	OVER 1	5 YEARS	NO	TOTAL
	OR EQUAL	YEAR AND	AND ABOVE	MATURITY	
	TO 1 YEAR	LESS THAN 5			
	\$MM	\$MM	\$MM	\$MM	\$MM
IRB					
Central Governments Or Central Banks	16,489	2,208	749	-	19,446
Corporates	30,867	13,428	4,520	-	48,815
Equity	-	-	718	-	718
Institutions	37,807	8,171	3,664	-	49,642
Securitisation	-	-	1	252	253
Total (IRB)	85,163	23,807	9,652	252	118,874
Standardised					
Central Governments Or Central				186	186
Banks	-	-	-	100	100
Corporates	1,014	3,634	1,085	1,075	6,808
High Risk	-	-	-	179	179
Institutions	755	3,889	166	519	5,329
Multilateral Development Banks	-	-	-	2	2
Public Sector Entities	-	-	-	6	6
Regional Governments Or Local	139	106	_	8	253
Authorities	139	100	_	0	255
Securitisation	-	-	-	291	291
Units Or Shares In CIUs	-	-	-	91	91
Total (Standardised)	1,908	7,629	1,251	2,357	13,145
Total	87,071	31,436	10,903	2,609	132,019

#### 9.6 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.

#### 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 a 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.

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.

#### 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.

Table 12 shows the impact of financial collateral and guarantees on exposures.

## Table 12: Credit EAD IRB + Standardised by Exposure Type<sup>1</sup>

Total         There were no exposures covered by other el	203,641	70,358	1,099	132,019	119,874
Total (Standardised)	13,593	448	-	13,145	15,653
Units Or Shares In CIUs	91	-	-	91	67
Securitisation	291	-	-	291	325
Regional Governments or Local Authorities	263	10	-	253	285
Public Sector Entities	6	-	-	6	9
Multilateral Development Banks	2	-	-	2	1
International Organisations	-	-	-	-	17
Institutions	5,570	241	-	5,329	6,405
High Risk	179	-	-	179	92
Corporates	7,005	197	-	6,808	8,199
Central Governments and Central Banks	186	-	-	186	253
Standardised					
Total (IRB)	190,048	69,910	1,099	118,874	104,221
Securitisation	295	-	43	253	318
Institutions	81,241	31,516	-	49,642	47,826
Equity	718	-	, -	718	, 764
Corporates	82,024	32,086	1,056	48,815	44,469
Central Governments or Central Banks	25,770	6,308	_	19,446	10,844
IRB					
	\$MM	COLLATERAL \$MM	\$MM	\$MM	\$MM
	<b>MITIGATION<sup>2</sup></b>	ELIGIBLE FINANCIAL	GUARANTEES		
	CREDIT RISK	COVERED BY	COVERED BY		EAD
	PRIOR TO	VALUE	VALUE		MONTH
	EXPOSURE	EXPOSURE	EXPOSURE		12-
	CREDIT	TOTAL	TOTAL	EAD <sup>3</sup>	AVERAGE

2.

Credit exposure prior to credit risk mitigation describes exposure after the application of netting benefits before the application of financial collateral.

3. Mainly arise from exposures on MSIP.

#### 9.7 Derivative credit exposure

Table 13 shows the Trading Book gross positive fair value of derivative contracts, netting benefits, netted current credit exposure and collateral held as at 31 December 2016 for the MSI Group.

## **Table 13: Derivative Credit Exposures**

	\$MM
Gross positive fair value of contracts	250,160
Netting benefits	(205,186)
Gross positive fair value after netting	44,974
Collateral held	(78,063)
Of which: Unused collateral due primarily to overcollateralisation	41,522
Net derivatives Credit exposure (after netting and collateral)	8,433

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 14 shows the Derivative Contracts EAD by calculation method and exposure class for the MSI Group as at 31 December 2016. EAD is inclusive of potential future exposure.

#### **Table 14: Derivative EAD by Calculation method**

	IMM	MTM	TOTAL
		METHOD	
	\$MM	\$MM	\$MM
Central Governments or Central Banks	3,359	428	3,787
Corporates	16,044	12,678	28,722
Institutions	11,902	11,651	23,553
Total	31,305	24,757	56,062

#### **Credit Derivative Transactions**

Table 15 shows the notional value of credit derivatives, namely Credit Default Swaps ("CDS") and Total Return Swaps ("TRS"), segmented by either own credit portfolio or intermediation activities. Own credit portfolio comprises trades used for hedging and credit portfolio management of the Non-Trading Book. Intermediation activities cover all other credit derivatives and mainly comprise derivatives to manage the Trading Book.

## **Table 15: Notional Value of Credit Derivative Transactions**

		OWN CREDIT PORTFOLIO <sup>1</sup>				
	PURCHASER	SELLER	PURCHASER	SELLER		
	\$MM	\$MM	\$MM	\$MM		
Credit Default Swaps	1,415	14	330,746	325,422		
Total Return Swaps	-	-	2,017	1,335		
Total	1,415	14	332,763	326,757		

1. Own Credit Portfolio: credit derivatives used to manage the Non-Trading Book.

2. Intermediation activities: credit derivatives used to manage the Trading Book.

#### 9.8 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 2016, 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 \$561 million and an incremental \$314 million, respectively.

#### 9.9 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 CRM and the business units.

#### 9.10 Industry and Geographical Breakdowns

Tables 16 to 20 show industry and geographical breakdowns.

## Table 16: EAD by Credit Industry Type

	IRB	STANDARDISED	TOTAL
	\$MM	\$MM	\$MM
Banks And Securities Firms	56,477	643	57,120
Energy And Utilities	2,690	51	2,741
Exchanges And Clearing Houses	771	9,703	10,474
General Industrials	2,685	22	2,707
Healthcare And Consumer Goods	2,535	48	2,583
Insurance	5,139	10	5,149
Leverage And Other Funds	8,261	172	8,433
Mutual And Pension Funds	18,070	74	18,144
Other Corporates	948	2,136	3,084
Real Estate	209	4	213
Sovereign	18,655	196	18,851
Special Purpose Vehicles	479	4	483
Technology, Media And Telecoms	1,955	82	2,037
Total	118,874	13,145	132,019

#### Table 17: 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	1	(1)	-	1
Banks and Securities Firms	1,348	19	(19)	-	(8)
General Industrials	78	20	(20)	-	20
Other Corporates	-	40	(40)	-	12
Real Estate	-	6	(6)	-	-
Total	1,430	86	(86)	-	25

1. A financial asset is considered past due when a counterparty has failed to make a payment when contractually due.

2. 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.

	AMERICA \$MM	EMEA ŚMM	ASIA \$MM	TOTAL \$MM
IRB	ŞIVIIVI	ŞIVIIVI	ŞIVIIVI	ŞIVIIVI
Central Governments or Central Banks	1,915	15,212	2,319	19,446
Corporates	21,692	23,185	3,938	48,815
Equity	555	155	8	718
Institutions	17,793	21,775	10,074	49,642
Securitisation	-	253	-	253
Total (IRB)	41,955	60,580	16,339	118,874
Standardised	· · · · · · · · · · · · · · · · · · ·			
Central Governments or Central Banks	19	158	9	186
Corporates	112	6,416	280	6,808
High risk	27	149	3	179
Institutions	143	5,120	66	5,329
Multilateral developments banks	-	2	-	2
Public Sector Entities	1	5	-	6
Regional Governments or Local Authorities	7	1	245	253
Securitisation	-	291	-	291
Units Or Shares In CIUs	70	21	-	91
Total (Standardised)	379	12,163	603	13,145
Total	42,334	72,743	16,942	132,019

## Table 18: Geographical Breakdown of EAD<sup>1</sup>

1. Supranational exposures have been allocated to the region of the headquarters of the institution.

# Table 19: Impaired and Past Due Exposures, Credit Risk Adjustments by Geographic Region

	AMERICA \$MM	EMEA \$MM	ASIA \$MM	OTHER \$MM	TOTAL \$MM
Impaired	3	79	4	-	86
Past Due Exposures <sup>1</sup>	383	986	61	-	1,430
General Credit Risk Adjustments	-	-	-	-	-
Specific Credit Risk Adjustments	(3)	(79)	(4)	-	(86)
Total	383	986	61	-	1430

1. Past due exposures arise principally from MSIP.

\_

## Table 20: IRB Geographical Breakdown of Exposure Weighted Average PD<sup>1,2</sup>

	AMERICAS	EMEA	ASIA
Central Governments or Central Banks	0.06%	0.05%	0.06%
Corporates	0.97%	0.58%	2.04%
Institutions	0.10%	0.20%	0.12%

1. 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.

Supranational exposures have been allocated to the region of the headquarters of the institution.

#### 9.11 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.

GENERAL	SPECIFIC
CREDIT RISK	<b>CREDIT RISK</b>
ADJUSTMENTS	ADJUSTMENTS
\$MM	\$MM
-	(78)
-	(14)
-	(1)
-	7
-	(86)
	CREDIT RISK ADJUSTMENTS

#### Table 21: Movement of Specific and General Credit Risk Adjustments

#### **10. Securitisation**

#### **10.1 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 securitized products in EMEA. The majority of the securitisation exposures result from this activity and are Trading Book as at 31 December 2016.

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 2016 (primarily re-financings). The MSI Group did not originate or sponsor any new securitisations in 2016.

#### **10.2 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 external credit assessment institutions: Moody's Investor Service, S&P's Ratings Services and Fitch Ratings.

#### **10.3 Securitisation Exposures**

Table 22 shows the exposures and capital requirements of securitisation positions within the MSI Group as at 31 December 2016.

## Table 22: Securitisation Exposures and Capital Requirements<sup>1</sup>

	TRADING BOOK	
	\$MM	\$MM
Exposures	1,045	544
Capital Requirements	598	19
<ol> <li>Securitisation exposures and capital requirements decreased by \$326MM and \$98MM respectively, compared to 2015.</li> </ol>	This was primarily driv	en by a reduction in

Securitisation exposures and capital requirements decreased by \$326MM and \$98MM respectively, compared to 2015. This was primarily driven by a reduction in traditional securitisation activity as the business deliberately looked to reduce the market exposure.

Table 23 and Table 24 show the securitisation positions broken down by capital approach and CQS within the MSI Group as at 31 December 2016.

## Table 23: IRB Securitisation Exposures and Capital Requirements by Credit Quality Step<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	5	-	-	-
CQS 4-6	21	-	-	-
CQS 7-11	110	110	28	7
All Other CQS	191	-	202	-
Unrated	151	1	151	1
Amount of Securitisation Retained				
CQS 1-3	-	95	-	2
CQS 4-6	-	46	-	1
CQS 7-11	-	-	-	-
Below CQS 11	2	-	2	-
Amount of Re-securitisation Purchased				
CQS 7-11	-	-	-	-
All Other CQS	-	-	-	-
Unrated	-	1	-	1
Amount of Re-securitisation Retained				
Unrated	-	-	-	-
Total	480	253	383	12

1. The exposures above are after a financial guarantee which reduced one re-securitisation exposure purchased position by \$43MM (this is based on yearend market value).

# Table 24: Standardised Securitisation Exposures and Capital Requirements by CreditQuality

	TRADING	NON-TRADING	TRADING	NON-TRADING
	ВООК	BOOK	<b>BOOK CAPITAL</b>	<b>BOOK CAPITAL</b>
	EXPOSURE	EXPOSURE	REQUIREMENTS	REQUIREMENTS
	\$MM	\$MM	\$MM	\$MM
Amount of Securitisation Purchase	d			
CQS 1-3	316	278	14	4
CQS 4-5	123	-	75	-
Unrated	111	-	111	-
Amount of Securitisation Retained				
CQS 1-3	-	4	-	-
CQS 4-5	-	9	-	3
Amount of Re-Securitisation				
Purchased				
Unrated	15	-	15	-
Total	565	291	215	7

Table 25 and Table 26 provide a summary of the types of securitisation exposures within the MSI Group as at 31 December 2016.

## Table 25: Trading Book Securitisation Exposures by Exposure Type<sup>1</sup>

Total	1045	2	1,043
Other Assets	-	-	-
Consumer Loans	6	-	6
Corporates)	404	-	434
Loans to Corporates or SMEs (treated as	434	_	434
Credit Card Receivables	-	-	-
Commercial Mortgages	39	2	37
Residential Mortgages	566	-	566
	TRADITIONAL \$MM	RETAINED \$MM	PURCHASED \$MM
		POSITIONS	POSITIONS

1. There were no off-balance-sheet or synthetic exposures in the Trading Book as at 31 December 2016.

## Table 26: Non-Trading Book Securitisation Exposures by Exposure Type<sup>1</sup>

	TRADITIONAL	POSITIONS RETAINED	POSITIONS PURCHASED
	\$MM	\$MM	\$MM
Residential Mortgages	291	13	278
Commercial Mortgages	1	-	1
Loans to Corporates or SMEs (treated as Corporates)	252	142	110
Other Assets	-	-	-
Total	544	155	389

1. There were no off balance sheet or synthetic securitisation exposures in the Non-Trading Book as at 31 December 2016.

#### **10.4 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) and the sum of the proceeds and the fair value of the retained interests the date of sale.

For further information on the MSI Group's financial instruments and derecognition accounting policies, please refer to notes 2c and 2e in Appendix VI.

#### **10.5 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 VI, and pages 102 to 107 of the 2016 Form 10-K.

#### **10.6 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.

#### 11. 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 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.

To execute these responsibilities, MRD monitors the market risk against limits on aggregate risk exposures, performs a variety of risk analyses including monitoring VaR and stress testing analyses, routinely reports risk

summaries, and maintains the VaR and scenario analysis methodologies. The material risks identified by these processes are summarised and reported to senior management.

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.

#### 11.1 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. The Market Risk Department 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. The model constructs a distribution of hypothetical daily changes in the value of trading portfolios based on the following: 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 MSI Group VaR model uses four years of historical data with a volatility adjustment to reflect current market conditions.

A set of internal processes and controls ensure that all trading positions booked by the MSI Group are being 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 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 varied 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.

	PERIOD END VAR <sup>1</sup>	AVERAGE	HIGH	LOW
	\$MM	\$MM	\$MM	\$MM
Interest Rate	24.4	22.1	32.6	13.7
Credit Spread	5.8	8.0	12.8	5.4
Equity	15.6	16.6	32.4	12.8
Foreign Exchange	8.7	10.1	14.9	5.2
Commodity	0.0	0.3	1.0	0.0
Diversification <sup>2</sup>	(25.8)			
Total	28.7	29.9	50.0	20.9

#### Table 27: Sensitivity Analysis for the 99% MSIP Regulatory VaR

1. This is the 1 Day 99% VaR for the year ending 31 December 2016.

2. The extent of diversification benefit depends on the correlation between the assets and risk factors in the portfolio at a point in time.

#### **11.2 Market Risk Capital Requirements**

The market risk capital requirements of the MSI Group comprises of capital which is calculated from Internal Models in accordance with PRA's approved models and of capital associated with the standardised approach.

Table 28: Market Risk Capital Requirements and RWAs				
	CAPITAL	RWAs		
	REQUIREMENTS			
	\$MM	\$MM		
Internal Model	2,549	31,865		
Standardised	930	11,625		
Total Market Risk	3,479	43,490		

Table 29 shows the market risk capital requirements for the MSI Group as at 31 December 2016, calculated in accordance with the standardised approach and categorised by component type.

## Table 29: Market Risk Capital Requirements Calculated in Accordance with the Standardised Approach

	\$MM
General and Specific Interest Rate	130
Securitisation PRR	598
Equity PRR	1
Commodity PRR	26
Foreign Currency PRR	175
Total	930

The VaR-based capital and the Stressed VaR based capital are determined by the higher of the 60-day average of the 10-day VaR / 10-day Stressed VaR numbers multiplied by the regulatory Internal Model multiplication factor as prescribed by the PRA, and the 10-day VaR/ 10-day Stressed VaR for the relevant day. The Incremental Risk Charge ("IRC") and All Price Risk ("APR") charges are determined by the higher of the average of the latest 12 weeks IRC/APR and the IRC/APR charge for the relevant day.

Table 30 shows the maximum, minimum and average VaR and Stressed VaR, as well as the IRC and APR measures, for the year ending 31 December 2016. For further discussion see Sections 11.4 and 11.5.

Table 30: Market Risk Internal Model Measures <sup>1</sup>				
	VAR <sup>2</sup>	STRESSED VAR <sup>2</sup>	IRC	APR
	\$MM	\$MM	\$MM	\$MM
Average	95	206	317	6
Minimum	66	118	182	2
Maximum	158	365	652	21
Period End	91	144	350	6

1. VaR, Stressed VaR, IRC and APR are components of the modelled market risk capital in table 3, for the year ending 31 December 2016.

2. VaR and Stressed VaR are at a 99% confidence interval, 10-day holding period.

To validate the accuracy of the VaR models for entities having regulatory permission to use VaR for Internal Model capital calculations a daily backtesting analysis is performed at various levels of the business hierarchy, as part of a range of tools. Backtesting is performed on the firm's Regulatory Trading Book population and compares the P&L (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 P&L. 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 at the end of the subsequent day (i.e. inclusive of intra-day trading/new activity). Both measures of the backtesting P&L also exclude non risk based fees (i.e. service fees), commissions, and net interest income.

On days where losses (on either an Actual and/or Hypothetical P&L basis) exceed the prior day's VaR, an exception is recorded and is reported by close of business (N+2) to the PRA. MSIP, the material subsidiary within the MSI Group was not required to report testing exceptions during 2016, thus the PRA's "Green Zone" standard for model accuracy was met. The MSI Group has a comprehensive framework of policies, controls and reporting to meet the requirements of the CRR articles. 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.

#### 11.3 Stressed VaR

Stressed VaR uses the same underlying models as VaR to produce a 1-day 99% VaR constructed over a 1-year period of stress. Stressed VaR uses data based on historical and non-volatility adjusted simulations for the general market risk factors and Monte Carlo simulation for name specific risk in corporate shares, bonds, loans and related derivatives. The 1-year stressed window is calibrated for MSIP. The Stressed VaR 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 2016 was \$144MM.

#### **11.4 Incremental Risk Charge**

The IRC measures the migration and default risk of traded instruments by issuers in a single integrated framework. The model assumes a constant level of risk and is calculated over a one-year horizon at a confidence level of 99.9% using Monte Carlo simulations. The chief risk factors modelled are defaults, credit migrations, recovery risk and liquidity risk. The model differentiates the underlying traded instruments by liquidity horizon, with the minimum liquidity horizon set at three months. Concentrated positions are assigned higher liquidity horizons. The weighted liquidity horizon for IRC is 4.89 months. The MSI Group's capital requirements relating to IRC was \$350MM as at 31 December 2016.

## Table 31: IRC Liquidity Horizon for Material Sub Portfolios

	LIQUIDITY HORIZON (MONTHS)
Fixed Income Division	4.86
Institutional Equity Division	5.03

#### 11.5 All Price Risk

The APR is a measure used to calculate all risks within designated credit correlation trading portfolios, as preapproved by the PRA. Calculated as the 99.9 percentile simulated loss, the APR covers the major risk types associated within the credit correlation trading portfolio, including credit migrations, defaults, recoveries, credit spread and correlation movements and liquidity risk. APR is calculated over a one-year horizon assuming a constant level of risk. The constant liquidity horizon for APR is six months. The overall APR is floored at 8% of the corresponding standardized rules for the same portfolio. The MSI Group's capital requirements relating to APR was \$6MM as at 31 December 2016.

#### **11.6 Stress Testing**

The MSI Group has a comprehensive and dynamic Stress testing framework incorporating deterministic groupwide Macroeconomic Stress tests, Business area single and multi-factor scenarios and reverse stress testing ("RST") 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.

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.

#### **11.7 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 UKG'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 \$(32)k per basis point as of 2016 year-end (loss arising from increases in interest rate levels).

## Table 32: Interest Rate Risk in Non-Trading Book

	PROFIT OR LOSS OF A +1BP	PROFIT OR LOSS OF A -1BP
	PARALLEL SHIFT IN	PARALLEL SHIFT IN
	INTEREST RATES	INTEREST RATES
	\$MM	\$MM
USD	0.01	(0.01)
EUR	0.05	(0.05)
GBP	(0.12)	0.12
JPY	(0.02)	0.02
Other	0.06	(0.06)
Total <sup>1</sup>	(0.03)	0.03

1. Due to rounding, numbers do not add up precisely in the above table.

## **12. Operational Risk**

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). Legal, regulatory and compliance risk is included in the scope of operational risk. Operational risk relates to the following risk event categories as defined by Basel Capital Standards: internal fraud; external fraud, employment practices and workplace safety; clients, products and business practices; business disruption and system failure; damage to physical assets; and execution, delivery and process management.

Operational risk may be incurred across the MSI Group's full scope of business activities, including revenuegenerating activities (e.g. sales and trading) and support control functions (e.g. information technology and trade processing).

The MSI Group is subject to operational risks, including a failure, breach or other disruption of operational or security systems, that could adversely affect its business or reputation.

Operational risk management policies and procedures for MSI Group are consistent with those of the Morgan Stanley Group and include escalation to the MSI Board and appropriate senior management personnel. The MSI Group has established an operational risk framework to identify measure, monitor and control risk in the context of an approved risk tolerance appetite, set by the MSI Board.

The MSI Group has implemented operational risk data and assessment systems to monitor and analyse internal and external operational risk events, business environment and internal control factors and to perform scenario analysis.

The MSI Group's business is highly dependent on its ability to process, on a daily basis, a large number of transactions across numerous and diverse global markets. In some MSI Group businesses, the transactions

processed are complex. In addition, new products or services may be introduced that impact or change business processes, thereby resulting in new operational risks that may not have been fully anticipated or identified. In general, the transactions processed are increasingly complex. The trend toward direct access to automated, electronic markets and the move to more automated trading platforms has resulted in the use of increasingly complex technology that relies on the continued effectiveness of the programming code and integrity of the data to process the trades. The MSI Group performs the functions required to operate different businesses either by itself or through agreements with third parties. The MSI Group relies on the ability of the Morgan Stanley Group's employees, internal systems, and systems at technology centres operated by unaffiliated third parties to process a high volume of transactions. Additionally, the MSI Group is subject to complex and evolving laws and regulations governing privacy and data protection, which may differ, and potentially conflict, in various jurisdictions.

As a major participant in the global capital markets, the MSI Group maintains extensive controls to reduce the risk of incorrect valuation or risk management of trading positions due to flaws in data, models, electronic trading systems or processes or due to fraud. Nevertheless, such risk cannot be completely eliminated.

The MSI Group also faces the risk of operational failure or termination of any of the clearing agents, exchanges, clearing houses or financial intermediaries it uses to facilitate securities/ client transactions. In the event of a breakdown or unauthorised or improper operation of the MSI Group's or a third party's systems or unauthorized action by third parties or the firms employees, the MSI Group could suffer financial loss, an impairment to its liquidity, a disruption of its businesses, regulatory sanctions or reputation damage. In addition, the interconnectivity of multiple financial institutions with central agencies, exchanges and clearing houses, and the increased importance of these entities, increases the risk that an operational risk failure at one institution or entity may cause an industry-wide operational failure that could materially impact the MSI Group's ability to conduct business.

Despite the business contingency plans in place, there can be no assurance that such plans will fully mitigate all potential business continuity risks to MSI Group. MSI Group's ability to conduct business may be adversely affected by a disruption in the infrastructure that supports its business and the communities where MSI Group and its affiliates are located, which are concentrated in the New York metropolitan area, London, Hong Kong and Tokyo as well as Mumbai, Budapest, Glasgow and Baltimore. This may include a disruption involving physical site access, cyber incidents, terrorist activities, disease pandemics, catastrophic events, natural disasters, extreme weather events, electrical, environmental, computer servers, communications or other services, employees or third parties with whom MSI Group conducts business.

Although MSI Group devotes significant resources to maintaining and upgrading its systems and networks with measures such as intrusion and detection prevention systems, monitoring firewalls to safeguard critical business applications, and supervising third party providers that have access to its systems, there is no guarantee that these measures or any other measures can provide absolute security. Like other financial services firms, the MSI Group and its third party providers continue to be the subject of attempted unauthorised access, mishandling or misuse of information, computer viruses or malware and cyber-attacks designed to obtain confidential information, destroy data, disrupt or degrade service, sabotage systems or cause other damage, denial of service attacks and other events. These threats may derive from human error, fraud or malice on the part of MSI Group employees or third parties, including third party providers, or may result from accidental technological failure. Additional challenges are posed by external extremist parties, including foreign state actors, in some circumstances as a means to promote political ends. Any of these parties may also attempt to fraudulently induce employees, customers, clients, third parties or other users of MSI Group systems to disclose sensitive information in order to gain access to MSI Group data or that of its customers or clients. There can be no assurance that such unauthorized access or cyber incidents will not occur in the future, and they could occur more frequently and on a more significant scale. If one or more of

these events occur, the events could have a security impact on the MSI Group's systems and jeopardise the MSI Group's or the MSI Group's clients', partners' or counterparties' personal, confidential, proprietary or other information processed, stored in and transmitted through, the MSI Group's, its affiliates' and its third party providers' computer systems. Furthermore, such events could cause interruptions or malfunctions in the MSI Group's, the MSI Group's clients', the MSI Group's counterparties' or third parties' operations, which could result in reputational damage with its clients and the market, client dissatisfaction, additional cost to repair systems, add new protective technologies and/ or personnel, regulatory investigations, litigation or enforcement, or regulatory fines or penalties not covered by insurance maintained by the MSI Group, all or any of which could adversely affect the business, financial condition and results of operations.

Given MSI Group's global footprint and the high volume of transactions processed by the MSI Group, the large number of clients, partners and counterparties with which MSI Group does business, and the increasing sophistication of cyber-attacks, a cyber-attack could occur and persist for an extended period of time without detection. MSI Group expects that any investigation of a cyber-attack would be inherently unpredictable and that it would take time before the completion of any investigation and before there is availability of full and reliable information. During such time MSI Group would not necessarily know the extent of the harm or how best to remediate it, and certain errors or actions could be repeated or compounded before they are discovered and remediated, all or any of which would further increase the costs and consequences of a cyber-attack.

While many of MSI Group's agreements with partners and third party vendors include indemnification provisions, it may not be able to recover sufficiently, or at all, under such provisions to adequately offset any losses. In addition, although MSI Group maintains insurance coverage that may, subject to policy terms and conditions cover certain aspects of cyber risks, such insurance coverage may be insufficient to cover all losses.

Conduct risk refers to 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. Conduct risk includes both intentional and unintentional behaviours.

#### 13. 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 is one that 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 CRDIV, 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.

During the period the MSI Group leverage ratio has moved from 5.1% in December 2015 to 4.8% as of December 2016, driven by an increase in the leverage exposure. The MSI Group's total assets increased from 31 December 2015 to 31 December 2016, principally driven by an increase in securities purchased under agreements to resell, reflecting increased client financing trading activity, as well as an increase as a result of holding more liquid assets in the form of cash.

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.

	MSI GROUP \$MM	MSIP \$MM
Total assets as per published financial statements <sup>1</sup>	426,559	421,943
Adjustments for derivative financial instruments	(60,996)	(59 <i>,</i> 625)
Adjustments for securities financing transactions "SFTs"	27,319	28,178
Adjustment for off-balance sheet items (i.e. conversion to credit equivalent amounts of off-balance sheet exposures)	6,873	5,989
(Adjustment for intragroup exposures excluded from the leverage ratio exposure measure in accordance with Article 429 (7) of Regulation (EU) No 575/2013)	-	(6,136)
Other adjustments	(17,291)	(10,885)
Total leverage ratio exposure	382,464	379,464

## Table 33: Reconciliation of Accounting Assets & Leverage Ratio Exposures

1. See appendix VI for MSI Group total assets.

Table 34: Split of On Balance Sheet Exposures (excluding derivatives,		
SFTs and exempted exposures)	MSI GROUP \$MM	MSIP \$MM
Total on-balance sheet exposures (excluding derivatives, SFTs, and exempted exposures), of which:	150,601	153,284
Trading Book exposures	125,031	129,920
Non-Trading Book exposures, of which:	25,570	23,364
Exposures treated as sovereigns	7,372	6,996
Institutions	11,649	10,730
Corporate	4,759	5,074
Exposures in default	37	9
Other exposures(e.g.equity, securitisations, and other non-credit obligation assets)	1,753	555

## Table 35: Leverage Ratio Common Disclosure

	MSI GROUP ŚMM	MSIF ŚMN
On-balance sheet exposures (excluding derivatives and SFTs)		
On-balance sheet items (excluding derivatives, SFTs and fiduciary assets, but	150 001	152.20/
including collateral)	150,601	153,284
(Asset amounts deducted in determining Tier 1 capital)	(1,800)	(1,310
Total on-balance sheet exposures (excluding derivatives, SFTs and fiduciary assets)	148,801	151,974
Derivative exposures		
Replacement cost associated with <i>all</i> derivatives transactions (i.e. net of eligible cash variation margin)	17,478	17,233
Add-on amounts for PFE associated with <i>all</i> derivatives transactions (mark-to-market method)	97,625	97,030
Gross-up for derivatives collateral provided where deducted from the balance sheet pursuant to the applicable accounting framework	1,445	1,44
(Deductions of receivables assets for cash variation margin provided in derivatives transactions)	(19,998)	(19,660
(Exempted CCP leg of client-cleared trade exposures)	(3,063)	(3,063
Adjusted effective notional amount of written credit derivatives	336,223	336,22
(Adjusted effective notional offsets and add-on deductions for written credit derivatives)	(328,286)	(328,023
Total derivative exposures	101,424	101,18
Securities financing transaction exposures		
Gross SFT assets (with no recognition of netting), after adjusting for sales	155,419	141,33
accounting transactions		
(Netted amounts of cash payables and cash receivables of gross SFT assets)	(43,060)	(27,752
Counterparty credit risk exposure for SFT assets	13,007	12,86
Total securities financing transaction exposures	125,366	126,45
Other off-balance sheet exposures	22.404	21 00
Off-balance sheet exposures at gross notional amount	23,494	21,69
(Adjustments for conversion to credit equivalent amounts)	(16,621)	(15,702
Total Other off-balance sheet exposures	6,873	5,98
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))	-	(6,136
Capital and total exposure measure		
Tier 1 capital	18,359	15,18
Total leverage ratio exposures	382,464	379,46
Leverage ratio	4.8%	4.0%
Choice on transitional arrangements for the definition of the capital measure	Fully Phased In	Full Phased I

## 14. 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 disclosure 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. In compliance with the PRA guidelines, the amounts are presented as a median of the twelve month ends over 2016. Note the rows in the templates are not additive, with the median calculated individually across all cells.

The majority of the on-balance-sheet assets in Table 36 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 template. 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 2016 is relatively consistent to the 2015 disclosure, with the median having increased marginally 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 internal intercompany movements with other Morgan Stanley Group entities.

## Table 36: Assets

	CARRYING	FAIR VALUE OF	CARRYING AMOUNT	FAIR VALUE OF
	AMOUNT OF	ENCUMBERED	OF UNENCUMBERED	UNENCUMBERED
	ENCUMBERED ASSETS	ASSETS	ASSETS	ASSETS
	\$MM	\$MM	\$MM	\$MM
Assets of the reporting institution	95,336	N/A	348,963	N/A
Equity Instruments	33,001	33,001	10,867	10,867
Debt Securities	17,506	17,506	4,792	4,792
Other Assets <sup>1</sup>	45,316	N/A	338,225	N/A

## **Table 37: Collateral Received**

	FAIR VALUE OF ENCUMBERED COLLATERAL RECEIVED OR OWN DEBT SECURITIES ISSUED	FAIR VALUE OF COLLATERAL RECEIVED OR OWN DEBT SECURITIES ISSUED AVAILABLE FOR ENCUMBRANCE
	\$MM	\$MM
Collateral Received by the reporting institution	205,388	33,655
Equity Instruments	85,514	4,425
Debt Securities	120,309	29,208
Other Collateral Received	-	-

## Table 38: Encumbered Assets / Collateral Received and Associated Liabilities

	MATCHING LIABILITIES, CONTINGENT LIABILITIES OR SECURITIES LENT	ASSETS, COLLATERAL RECEIVED AND OWN DEBT SECURITIES OTHER THAN COVERED BONDS AND ABS's ENCUMBERED
	\$MM	\$MM
Carrying Amount of selected financial liabilities <sup>1</sup>	296,941	302,449

1. On- and off-balance-sheet liabilities that are a source of encumbrance are reported.

## **15. Appendix I: Capital Instruments Template**

## Table 39: Capital Instruments Template

	REPORTED IN USD UNLESS OTHERWISE STATED					
DESCRIPTION	COMMON EQUITY TIER 1		ADDITIONAL TIER 1	SUBORDINATED DEBT		
	А	В	С	D	Е	F
lssuer	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
Governing law(s) of the instrument	Companies Act 2006	Companies Act 2006	English Law	English Law	English Law	English Law
Transitional CRR rules	Common Equity Tier 1	Common Equity Tier 1	Additional Tier 1	Tier 2 [24.0% 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
Eligible at solo/(sub-) consolidated/solo&(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 loan facility	Long-term subordinated multicurrency loan facility	Long-term subordinated multicurrency loan facility
Amount recognised in regulatory capital (\$MM)	USD 1,165MM	USD 0MM	USD 1,300MM	USD 5,985MM [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 309MM

DESCRIPTION	COMMON EQU	IITY TIER 1	IER 1 ADDITIONAL TIER 1		JBORDINATED DEBT	
	Α	В	C	D	E	F
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 7,906,000,000	Currency of issuance and reporting currency: USD 51,000,000	Currency of issuance: GBP 250,000,000 Reporting currency: USD 308,562,500
Issue Price	USD 1,615,180,150	GBP 2	USD 1,300,000,000	USD 7,906,000,000	USD 51,000,000	GBP 250,000,000
<b>Redemption Price</b>	N/A	N/A	USD 1,300,000,000	USD 7,906,000,000	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
Original date of issuance	13/11/1998	18/06/1998	15/12/2014	31/10/2005	21/12/2015	21/12/2015
Perpetual or dated	Perpetual	Perpetual	Perpetual	Dated	Dated	Dated
Original maturity date Issuer call subject to	No maturity	No maturity	No maturity	31/10/2025	21/12/2025	21/12/2025
prior supervisory approval	No	No	Yes	No	No	No
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
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

DESCRIPTION	COMMON EQUITY TIER 1		ADDITIONAL TIER 1	SUBORDINATED DEBT		
	Α	В	С	D	E	F
Fixed or floating dividend / coupon	Floating	Floating	Fixed Rate	Floating	Floating	Floating
Coupon rate and any related index	N/A	N/A	9% <sup>(2)</sup>	3mth USD LIBOR + 1.475%	OBFR + 2.086%	SONIA + 2.121%
Existence of a dividend stopper	No	No	No	No	No	No
Fully discretionary, partially discretionary or mandatory (in terms of timing)	Fully Discretionary	Fully Discretionary	Fully Discretionary	Mandatory	Mandatory	Mandatory
Fully discretionary, partially discretionary or mandatory (in terms of amount)	Fully Discretionary	Fully Discretionary	Fully Discretionary	Mandatory	Mandatory	Mandatory
Existence of step up or other incentive to redeem	No	No	No	No	No	No
Noncumulative or cumulative	Noncumulative	Noncumulative	Noncumulative	Cumulative	Cumulative	Cumulative
Convertible or non-convertible	Nonconvertible	Nonconvertible	Nonconvertible	Nonconvertible	Nonconvertible	Nonconvertible
If convertible, conversion trigger(s)	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
If convertible, conversion rate	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
If convertible, specify instrument type convertible into	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

DESCRIPTION	COMMON EQUITY TIER 1		ADDITIONAL TIER 1	SUBORDINATED DEBT		
	Α	В	С	D	E	F
Write-down features	No	No	Yes	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
If write-down, full or partial	N/A	N/A	Always full	N/A	N/A	N/A
If write-down, permanent or temporary	N/A	N/A	Permanent	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
Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Perpetual Unsecured Resettable Securities [column C]	Perpetual Unsecured Resettable Securities [column C]	Long-term sub- ordinated loan facility [columns D,E,F,]	Other liabilities	Other liabilities	Other liabilities
Non-compliant transitioned features	No	No	No	No	No	No
If yes, specify non-compliant features	N/A	N/A	N/A	N/A	N/A	N/A

#### Further notes

Note 1: all capital instruments issued by the MSI Group are issued within Morgan Stanley and are not marketable instruments Note 2: Initial rate of interest of 8.75% applied up to and including 31-Jan'16

# 16. Appendix II: Own Funds Transitional Template

## Table 40: MSI Group Own Funds Transitional Template

RULES POSITIONLOADED POSITIONCapital instruments and the related share premium accounts1,6151,615Paid up capital instruments1,6151,615Paid up capital instruments1,6151,615Accumulated other comprehensive income (and other reserves, to include unrealised gains and losses under the applicable accounting standards)6,770Common Equity Tier 1 (CET1) capital before regulatory adjustments18,62218,622Additional value adjustments (negative amount)(1,165)(1,165)Intangible assets (net of related tax liability) (negative amount)(465)(4(65)Regative amounts resulting from the calculation of expected loss amounts(166)(166)Gains or losses on liabilities valued at fair value resulting from changes in own credit standing233233Common Equity Tier 1 (CET1) capital17,05917,059Capital instruments and the related share premium accounts1,3001,300Additional Tier 1 (AT1) capital1,3001,300Ciptal instruments and the related share premium accounts360360Qualifying own funds instruments included in consolidated T2 capital1,0534,105Al Jissued by subsidiaries and held by thing parties5,9854,465Of which: Instruments issued by subsidiaries subject to phase out1,520-Tier 2 (T2) capital5,9854,465Total capital (TC = T1 + T2)24,34422,824Total capital (T2 = T1 + T2)24,34422,824Total capital (T2 = C11 + T2)24,34422,8		TRANSITIONAL	FULLY
SMMSMMCapital instruments and the related share premium accounts1,6151,615Paid up capital instruments1,6151,615Share premiumRetained earnings10,23710,237Accumulated other comprehensive income (and other reserves, to include6,7706,770Common Equity Tier 1 (CET1) capital before regulatory adjustments18,62218,622Additional value adjustments (negative amount)(1,165)(1,165)Intangible assets (net of related tax liability) (negative amount)(1,65)(1,66)Gains or losses on liabilities valued at fair value resulting from changes in own credit standing233233Total regulatory adjustments to Common equity Tier 1 (CET1)(1,563)(1,563)Common Equity Tier 1 (CET1) capital17,05917,059Copital instruments and the related share premium accounts360360Qualifying own funds instruments included in consolidated T2 capital (Including miontry interests and AT1 instruments on tincluded In rows 5 or 4,1054,10534) issued by subsidiaries and het by third parties5,9854,465Tier 1 capital (TC =T1 + T2)24,34422,824Total capital (TC = T1 + T2)24,34422,824Total capital (TC = T1 + T2)24,34422,824Total capital (as a percentage of risk exposure amount)15,5%15,5%Tier 1 (as a percentage of risk exposure amount)15,5%15,5%Total capital (as a percentage of risk exposure amount)5,5%15,5%Contar cyclical buffe			
SMMSMMCapital instruments and the related share premium accounts1,6151,615Share premium1,6151,615Share premium1,0,23710,237Retained earnings10,23710,237Accumulated other comprehensive income (and other reserves, to include unrealised gains and losses under the applicable accounting standards)6,7706,770Common Equity Tier 1 (CET1) capital before regulatory adjustments18,62218,62218,622Additional value adjustments (negative amount)(1,165)(1,165)(1,165)Intangible assets (net of related tax liability) (negative amount)(465)(465)Gains or losses on liabilities valued at fair value resulting from changes in own credit standing233233Total regulatory adjustments to Common equity Tier 1 (CET1)(1,563)(1,563)Common Equity Tier 1 (CET1) capital17,05917,05917,059Capital instruments and the related share premium accounts1,3001,300Additional Tre 1 (AT1) capital1,8,35918,359360Capital instruments and the related share premium accounts3,60360Qualifying own funds instruments not included in rows 5 or 34) issued by subsidiaries and held by third parties04,105Of which: instruments included in consolidated T2 capital11,080111,080Total capital (T2 = T1 + T2)24,34422,824Total capital (T6 = T1 + T2)24,34422,824Total capital (T6 = 0 rols) by subsidiaries subject to phase out1,520-<			
Paid up capital instruments1,6151,615Share premium10,237Retained earnings10,237Accumulated other comprehensive income (and other reserves, to include6,770unrealised gains and losses under the applicable accounting standards)6,770Common Equity Tier 1 (CET1) capital before regulatory adjustments18,622Additional value adjustments (negative amount)(1,165)Intangible assets (net of related tax liability) (negative amount)(465)(Megative amounts resulting from the calculation of expected loss amounts(166)Gains or losses on liabilities valued at fair value resulting from changes in own credit standing233Total regulatory adjustments to Common equity Tier 1 (CET1)(1,563)(1,563)Common Equity Tier 1 (CET1) capital17,00517,059Capital instruments and the related share premium accounts1,3001,300Additional Tier 1 (AT1) capital1,3001,300Capital instruments included in consolidated T2 capital(1,054,105Alj issued by subsidiaries and hell by third parties04,1054,105Of which: Instruments included in consolidated T2 capital5,9854,465Tier 2 (T2) capital before regulatory adjustments5,9854,465Tier 2 (T2) capital before regulatory adjustments15,5%16,5%Total capital (TC = T1 + T2)24,34422,824Total risk weighted assets11,1080111,080Total capital (as a percentage of risk exposure amount)16,5%16,5%Total capital (as		\$MM	
Share premium       -       -         Retained earnings       10,237       10,237         Accumulated other comprehensive income (and other reserves, to include unrealised gains and losses under the applicable accounting standards)       6,770       6,770         Common Equity Tier 1 (CET1) capital before regulatory adjustments       18,622       18,622         Additional value adjustments (negative amount)       (1,165)       (1,165)         Negative amounts resulting from the calculation of expected loss amounts       (166)       (166)         Gains or losses on liabilities valued at fair value resulting from changes in own credit standing       233       233         Total regulatory adjustments to Common equity Tier 1 (CET1)       (1,563)       (1,563)         Common Equity Tier 1 (CET1) capital       1,300       1,300         Tier 1 capital (T1 = CET1 + AT1)       18,359       18,359         Capital instruments and the related share premium accounts       360       360         Qualifying own funds instruments included in consolidated T2 capital       (Including minority interests and AT1 instruments not included in rows 5 or 4,105       4,105         Syste       4,465       11,200       -       -         Tier 2 (T2) capital before regulatory adjustments       5,985       4,465         Tier 2 (T2) capital before regulatory adjustments       5,985<	Capital instruments and the related share premium accounts	1,615	1,615
Retained earnings10,23710,237Accumulated other comprehensive income (and other reserves, to include unrealised gains and losses under the applicable accounting standards)6,7706,770Common Equity Tier 1 (CET1) capital before regulatory adjustments18,62218,622Additional value adjustments (negative amount)(1,165)(1,165)Intangible assets (net of related tax liability) (negative amount)(465)(465)Negative amounts resulting from the calculation of expected loss amounts(166)(166)Gains or losses on liabilities value at fair value resulting from changes in own credit standing233233Total regulatory adjustments to Common equity Tier 1 (CET1)(1,563)(1,563)Common Equity Tier 1 (CET1) capital1,3001,300Additional Tier 1 (AT1) capital1,3001,300Capital instruments and the related share premium accounts360360Quality fing own funds instruments included in consolidated T2 capital(105)Guital instruments included in consolidated T2 capital(105)Gridial mistruments insued by subsidiaries subject to phase out1,520Tier 2 (T2) capital before regulatory adjustments5,9854,465Tier 1 (21) capital5,9854,465Total capital (TC = T1 + T2)24,34422,824Total capital (TC = T1 + T2)24,34422,55%Tot	Paid up capital instruments	1,615	1,615
Retained earnings10,23710,237Accumulated other comprehensive income (and other reserves, to include unrealised gains and losses under the applicable accounting standards)6,7706,770Common Equity Tier 1 (CET1) capital before regulatory adjustments18,62218,622Additional value adjustments (negative amount)(1,165)(1,165)Intangible assets (net of related tax liability) (negative amount)(465)(465)Negative amounts resulting from the calculation of expected loss amounts(166)(166)Gains or losses on liabilities value at fair value resulting from changes in own credit standing233233Total regulatory adjustments to Common equity Tier 1 (CET1)(1,563)(1,563)Common Equity Tier 1 (CET1) capital1,3001,300Additional Tier 1 (AT1) capital1,3001,300Capital instruments and the related share premium accounts360360Quality fing own funds instruments included in consolidated T2 capital(105)Guital instruments included in consolidated T2 capital(105)Gridial mistruments insued by subsidiaries subject to phase out1,520Tier 2 (T2) capital before regulatory adjustments5,9854,465Tier 1 (21) capital5,9854,465Total capital (TC = T1 + T2)24,34422,824Total capital (TC = T1 + T2)24,34422,55%Tot	Share premium	-	-
unrealised gains and losses under the applicable accounting standards)6,7706,770Common Equity Tier 1 (CET1) capital before regulatory adjustments18,62218,622Additional value adjustments (negative amount)(1,165)(1,165)Intangible assets (net of related tax liability) (negative amount)(465)(465)Negative amounts resulting from the calculation of expected loss amounts(166)(166)Gains or losses on liabilities valued at fair value resulting from changes in own credit standing233233Common Equity Tier 1 (CET1) capital(1,563)(1,563)Common Equity Tier 1 (CET1) capital1,3001,300Capital instruments and the related share premium accounts1,3001,300Capital instruments and the related share premium accounts360360Qualifying own funds instruments included in consolidated T2 capital(1,105)Of which: Instruments and Har leated share premium accounts4,1054,105Aji Susced by subsidiaries and held by third parties04,1054,105Of which: Instruments included in consolidated T2 capital5,9854,465Tier 2 (T2) capital before regulatory adjustments5,9854,465Total capital (TC = T1 + T2)24,34422,824Total risk weighted assets111,080111,080Common Equity Tier 1 (as a percentage of risk exposure amount)16.5%16.5%Total capital (Ce T1 + T2)24,34422,824Total risk weighted assets111,080111,080Common Equity Tier 1 (as a percentage o	Retained earnings	10,237	10,237
Common Equity Tier 1 (CET1) capital before regulatory adjustments18,62218,622Additional value adjustments (negative amount)(1,165)(1,165)Intangible assets (net of related tax liability) (negative amount)(465)(465)Negative amounts resulting from the calculation of expected loss amounts(166)(1166)Gains or losses on liabilities valued at fair value resulting from changes in own credit standing233233Total regulatory adjustments to Common equity Tier 1 (CET1)(1,563)(1,563)Common Equity Tier 1 (CET1) capital17,05917,059Capital instruments and the related share premium accounts1,3001,300Additional Tier 1 (AT1) capital1,3001,300Tier 1 capital (T1 = CET1 + AT1)18,35918,359Capital instruments and the related share premium accounts360360Qualifying own funds instruments included in consolidated T2 capital(1,055)Ghichich: instruments insued by subsidiaries subject to phase out1,520-Tier 2 (T2) capital5,9854,465Total capital (TC = T1 + T2)24,34422,824Total risk weighted assets111,080111,080111,080Common Equity Tier 1 (as a percentage of risk exposure amount)15.4%15.4%Tier 1 (as a percentage of risk exposure amount)21.9%20.5%Institution buffer (G-SII or O-SII buffer), expressed as a percentage of risk25.9%Of which: capital (as a percentage of risk exposure amount)0.63%2.50%Of which: Capital (as a percentage o	•	6,770	6,770
Additional value adjustments (negative amount)(1,165)(1,165)(1,165)Intangible assets (net of related tax liability) (negative amount)(465)(465)Negative amounts resulting from the calculation of expected loss amounts(166)(166)Gains or losses on liabilities valued at fair value resulting from changes in own credit standing233233Total regulatory adjustments to Common equity Tier 1 (CET1)(1,563)(1,563)Common Equity Tier 1 (CET1) capital17,05917,059Capital instruments and the related share premium accounts1,3001,300Additional Tier 1 (AT1) capital1,3001,300Tier 1 capital (T1 = CET1 + AT1)18,35918,359Capital instruments and the related share premium accounts360360Qualifying own funds instruments included in consolidated T2 capital (including minority interests and AT1 instruments not included in rows 5 or4,1054,10534) issued by subsidiaries aubject to phase out1,520Tier 2 (T2) capital before regulatory adjustments5,9854,465Total capital (TC = T1 + T2)24,34422,824Total capital (Ta e CET 1+ appender of risk exposure amount)16.5%16.5%Total capital (as a percentage of risk exposure amount)16.5%16.5%Total capital (as a percentage of risk exposure amount)21.9%20.5%Institution specific buffer requirement (CET1) requirement in accordance with article 22 (1) (a) plus capital conservation and countercyclical buffer requirements, plus systemic risk buffer, plus the systemically		18.622	18,622
Intangible assets (net of related tax liability) (negative amount)(465)(465)Negative amounts resulting from the calculation of expected loss amounts(166)(166)Gains or losses on liabilities valued at fair value resulting from changes in own credit standing233233Total regulatory adjustments to Common equity Tier 1 (CET1)(1,563)(1,563)Common Equity Tier 1 (CET1) capital17,05917,059Capital instruments and the related share premium accounts1,3001,300Additional Tier 1 (AT1) capital1,3001,300Tier 1 capital (T1 = CET1 + AT1)18,35918,359Capital instruments included in consolidated T2 capital (including minority interests and AT1 instruments not included in rows 5 or4,10534) issued by subsidiaries and held by third parties0-Of which: Instruments issued by subsidiaries subject to phase out1,520Tier 2 (T2) capital before regulatory adjustments5,9854,465Total capital (TC = T1 + T2)24,34422,824Total risk weighted assets111,080111,080Common Equity Tier 1 (as a percentage of risk exposure amount)15.4%Tier 1 (as a percentage of risk exposure amount)15.4%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 of which: Capital conservation buffer requirement Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)0.63%2.50%Of			
Negative amounts resulting from the calculation of expected loss amounts(166)(166)Gains or losses on liabilities valued at fair value resulting from changes in own credit standing233233Total regulatory adjustments to Common equity Tier 1 (CET1)(1,563)(1,563)Common Equity Tier 1 (CET1) capital17,05917,059Capital instruments and the related share premium accounts1,3001,300Tier 1 capital (T1 = CET1 + AT1)18,35918,359Capital instruments and the related share premium accounts360360Qualifying own funds instruments included in consolidated T2 capital (including minority interests and AT1 instruments not included in rows 5 or4,10544,1054,4054,40534) issued by subsidiaries subject to phase out1,520-Tier 2 (T2) capital before regulatory adjustments5,9854,465Tier 2 (T2) capital as percentage of risk exposure amount)15.4%111,080Total risk weighted assets111,080111,080Common Equity Tier 1 (as a percentage of risk exposure amount)15.4%16.5%Total capital (CE T1 + T2)24,34422,824Total risk weighted assets111,080111,080Total risk weighted assets111,080115.4%Tier 1 (as a percentage of risk exposure amount)16.5%16.5%Total capital (CS II or O-SII buffer, requirement in accordance with article 92 (1) (a) plus capital conservation and countercyclical buffer requirements, plus systemic risk buffer, plus the systemically important exposure amount)0.63%2.5			
Gains or losses on liabilities valued at fair value resulting from changes in own credit standing233233Total regulatory adjustments to Common equity Tier 1 (CET1)(1,563)(1,563)Common Equity Tier 1 (CET1) capital17,05917,059Capital instruments and the related share premium accounts1,3001,300Additional Tier 1 (AT1) capital1,3001,300Capital instruments and the related share premium accounts360360Qualifying own funds instruments included in consolidated T2 capital (including minority interests and AT1 instruments not included in rows 5 or4,105Adj issued by subsidiaries and held by third parties04,405Of which: Instruments issued by subsidiaries subject to phase out1,520Tier 2 (T2) capital5,9854,465Total capital (TC = T1 + T2)24,34422,824Total capital (TC = T1 + T2)24,34422,824Total capital (as a percentage of risk exposure amount)15,4%15,4%Tier 1 (as a percentage of risk exposure amount)15,5%16,5%Total capital (as a percentage of risk exposure amount)21.9%20.5%Institution specific buffer requirement (CET1 requirement in accordance with article 92 (1) (a) plus capital conservation and countercyclical buffer requirements, plus systemic risk buffer, just persesed as a percentage of risk exposure amount)0.64%2.51%Of which: Capital conservation buffer requirement conter cyclical bu			
credit standing233233Total regulatory adjustments to Common equity Tier 1 (CET1)(1,563)(1,563)Common Equity Tier 1 (CET1) capital17,05917,059Capital instruments and the related share premium accounts1,3001,300Additional Tier 1 (AT1) capital1,3001,300Tier 1 capital (T1 = CET1 + AT1)18,35918,359Capital instruments and the related share premium accounts360360Qualifying own funds instruments included in consolidated T2 capital(including minority interests and AT1 instruments not included in rows 5 or4,10534) issued by subsidiaries and held by third parties5,9854,465Of which: Instruments issued by subsidiaries subject to phase out1,520-Tier 2 (T2) capital before regulatory adjustments5,9854,465Total capital (TC = T1 + T2)24,34422,824Total capital (TC = T1 + T2)24,34422,824Total capital (TC = T1 + T2)24,34422,824Total capital (as a percentage of risk exposure amount)15.4%15.4%Tier 1 (as a percentage of risk exposure amount)16.5%10.5%Total capital (as a percentage of risk exposure amount)21.9%20.5%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 important0.64%2.51%Of which: Counter cyclical buffer requirement0.01%0.01%0.01%Common Equity Tier 1 available t		. ,	(100)
Total regulatory adjustments to Common equity Tier 1 (CET1)(1,563)(1,563)Common Equity Tier 1 (CET1) capital17,05917,059Capital instruments and the related share premium accounts1,3001,300Additional Tier 1 (AT1) capital1,3001,300Tier 1 capital (T1 = CET1 + AT1)18,35918,359Capital instruments and the related share premium accounts360360Qualifying own funds instruments included in consolidated T2 capital(including minority interests and AT1 instruments not included in rows 5 or4,10534) issued by subsidiaries and held by third parties04,1054,405Of which: Instruments issued by subsidiaries subject to phase out1,520-Tier 2 (T2) capital before regulatory adjustments5,9854,465Total capital (TC = T1 + T2)24,34422,824Total capital (C = T1 + T2)24,34422,824Total capital (C = T1 + T2)24,34422,824Total capital (C = T1 + T2)20,5%16,5%Total capital (as a percentage of risk exposure amount)16,5%16,5%Total capital (as a percentage of risk exposure amount)12,9%20,5%Total capital conservation and countercyclical bufferrequirement, blus systemic risk buffer, plus the systemically important0,64%Of which: Capital conservation buffer requirement0,01%0.01% <t< td=""><td></td><td>233</td><td>233</td></t<>		233	233
Common Equity Tier 1 (CET1) capital17,05917,059Capital instruments and the related share premium accounts1,3001,300Additional Tier 1 (AT1) capital1,3001,300Tier 1 capital (T1 = CET1 + AT1)18,35918,359Capital instruments and the related share premium accounts360360Qualifying own funds instruments included in consolidated T2 capital4,1054,105(including minority interests and AT1 instruments not included in rows 5 or4,1054,10534) issued by subsidiaries subject to phase out1,520-Tier 2 (T2) capital before regulatory adjustments5,9854,465Total capital (TC = T1 + T2)24,34422,824Total risk weighted assets111,080111,080Common Equity Tier 1 (as a percentage of risk exposure amount)15,4%15,4%Tier 1 (as a percentage of risk exposure amount)16,5%16,5%Institution specific buffer requirement (CET1 requirement in accordance with article 22 (1) (a) plus capital conservation and countercyclical buffer requirements, plus systemic risk buffer, plus the systemically important 0.64%0.64%2.51%Of which: Counter cyclical buffer requirement exposure amount)0.01%0.01%0.01%Of which: Counter cyclical buffer requirement requirements, plus systemic risk buffer, less a percentage of risk exposure amount)0.5%10.5%Of which: Counter cyclical buffer requirement exposure amount)0.01%0.01%Of which: Counter cyclical buffer requirement exposure amount)0.5%10.5%<		(1,563)	(1,563)
Capital instruments and the related share premium accounts1,3001,300Additional Tier 1 (AT1) capital1,3001,300Tier 1 capital (T1 = CET1 + AT1)18,35918,359Capital instruments and the related share premium accounts360360Qualifying own funds instruments included in consolidated T2 capital(including minority interests and AT1 instruments not included in rows 5 or4,10534) issued by subsidiaries and held by third parties5,9854,465Of which: Instruments issued by subsidiaries subject to phase out1,520Tier 2 (T2) capital5,9854,465Total capital (TC = T1 + T2)24,34422,824Total capital (TC = T1 + T2)24,34422,824Total capital (as a percentage of risk exposure amount)15.4%116.5%Total capital (as a percentage of risk exposure amount)16.5%16.5%Total capital (as a percentage of risk exposure amount)21.9%20.5%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 of which: Capital conservation buffer (equirement conservation buffer requirement0.63%2.50%Of which: Capital conservation buffer requirement common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)0.01%0.01%Of which: Capital conservation buffer requirement conservation buffer requirement common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)0.05%10.5% </td <td></td> <td></td> <td></td>			
Additional Tier 1 (AT1) capital1,3001,300Tier 1 capital (T1 = CET1 + AT1)18,35918,359Capital instruments and the related share premium accounts360360Qualifying own funds instruments included in consolidated T2 capital360360(including minority interests and AT1 instruments not included in rows 5 or4,1054,10534) issued by subsidiaries and held by third parties5,9854,465Of which: Instruments issued by subsidiaries subject to phase out1,520-Tier 2 (T2) capital before regulatory adjustments5,9854,465Total capital (TC = T1 + T2)24,34422,824Total risk weighted assets111,080111,080Common Equity Tier 1 (as a percentage of risk exposure amount)15.4%15.4%Tier 1 (as a percentage of risk exposure amount)15.4%15.4%Total capital (re G-SII or O-SII buffer, plus the systemically important0.64%2.51%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 important0.64%2.51%Of which: Capital conservation buffer requirement0.03%2.50%10.5%10.5%Of which: Capital conservation buffer requirement0.01%0.01%0.01%0.01%Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)0.5%10.5%10.5%10.5%Of which: Capital conservation buffer requirement0.03%2.50% <t< td=""><td></td><td></td><td></td></t<>			
Tier 1 capital (T1 = CET1 + AT1)18,35918,359Capital instruments and the related share premium accounts360360Qualifying own funds instruments included in consolidated T2 capital4,1054,105(including minority interests and AT1 instruments not included in rows 5 or4,1054,10534) issued by subsidiaries and held by third parties5,9854,465Of which: Instruments issued by subsidiaries subject to phase out1,520-Tier 2 (T2) capital before regulatory adjustments5,9854,465Total capital (TC = T1 + T2)24,34422,824Total risk weighted assets111,080111,080Tier 1 (as a percentage of risk exposure amount)15.4%15.4%Tier 1 (as a percentage of risk exposure amount)16.5%16.5%Total capital (as a percentage of risk exposure amount)21.9%20.5%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 unstitution buffer (6-SII or O-SII buffer), expressed as a percentage of risk exposure amount)0.63%2.50%Of which: Counter cyclical buffer requirement Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)10.5%10.5%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 shortOf which: capital conservation of the CET 1 instruments o			
Capital instruments and the related share premium accounts360360Qualifying own funds instruments included in consolidated T2 capital(including minority interests and AT1 instruments not included in rows 5 or4,1054,10534) issued by subsidiaries and held by third partiesOf which: Instruments issued by subsidiaries subject to phase out1,520-Tier 2 (T2) capital before regulatory adjustments5,9854,465-Total capital (TC = T1 + T2)24,34422,824Total capital (TC = T1 + T2)24,34422,824Total capital (as a percentage of risk exposure amount)15.4%15.4%Tier 1 (as a percentage of risk exposure amount)16.5%16.5%Total capital (as a percentage of risk exposure amount)21.9%20.5%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)0.63%2.50%Of which: Capital conservation buffer requirement Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)0.5%10.5%10.5%Of which: Capital conservation buffer requirement common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)0.63%2.50%Of which: Capital conservation buffer requirement conservation buffer (G-SII or O-SII buffer), expressed as a percentage of risk exposure amount)0.01%0.01%Of which: Capital conservation buffer			
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 parties4,1054,10534) issued by subsidiaries and held by third parties5,9854,465-Tier 2 (T2) capital before regulatory adjustments5,9854,465Total capital (TC = T1 + T2)24,34422,824Total capital (TC = T1 + T2)20,5%16,5%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 important0.64%2.51%Institution buffer (G-SII or O-SII buffer), expressed as a percentage of risk exposure amount)0.01%0.01%0.01%Of which: Capital conservation buffer requirement0.63%2.50%01%0.01%Of which: Capital conservation buffer requirement0.63%2.50%01%0.01%Of which: Capital conservation buffer s(as a percentage of risk <td></td> <td>360</td> <td></td>		360	
(including minority interests and AT1 instruments not included in rows 5 or 34) issued by subsidiaries and held by third parties4,1054,105Of which: Instruments issued by subsidiaries subject to phase out1,520-Tier 2 (T2) capital before regulatory adjustments5,9854,465Tier 2 (T2) capital (TC = T1 + T2)24,34422,824Total capital (TC = T1 + T2)24,34422,824Total risk weighted assets111,080111,080Common Equity Tier 1 (as a percentage of risk exposure amount)15.4%15.4%Tier 1 (as a percentage of risk exposure amount)15.5%16.5%Total capital (as a percentage of risk exposure amount)21.9%20.5%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 			
Of which: Instruments issued by subsidiaries subject to phase out1,520Tier 2 (T2) capital before regulatory adjustments5,9854,465Tier 2 (T2) capital5,9854,465Total capital (TC = T1 + T2)24,34422,824Total risk weighted assets111,080111,080Common Equity Tier 1 (as a percentage of risk exposure amount)15.4%15.4%Tier 1 (as a percentage of risk exposure amount)16.5%16.5%Total capital (as a percentage of risk exposure amount)16.5%15.4%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 important0.64%2.51%Of which: Capital conservation buffer requirement0.63%2.50%10.5%Of which: Counter cyclical buffer requirement0.01%0.01%0.01%Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)10.5%10.5%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)Jiret and indirect holdings by the institution of the CET 1 instruments of financial sector entities (amount below 10% threshold and net of eligible shortImatuments of financial sector entities (amount below 10% threshold and net of eligible shortImatuments of financial sector entities where the institution of the CET 1 instruments of financial sector entities where the institution has a significant investment in tho	(including minority interests and AT1 instruments not included in rows 5 or	4,105	4,105
Tier 2 (T2) capital before regulatory adjustments5,9854,465Tier 2 (T2) capital5,9854,465Total capital (TC = T1 + T2)24,34422,824Total risk weighted assets111,080111,080Common Equity Tier 1 (as a percentage of risk exposure amount)15.4%15.4%Tier 1 (as a percentage of risk exposure amount)16.5%16.5%Total capital (as a percentage of risk exposure amount)21.9%20.5%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 important0.64%2.51%Of which: Capital conservation buffer requirement0.63%2.50%2.50%Of which: Capital conservation buffer requirement0.01%0.01%0.01%Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)10.5%10.5%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 shortDirect and indirect holdings by the institution has a significant investment in those entities (amount below 10% threshold and net of eligible short	34) issued by subsidiaries and held by third parties		
Tier 2 (T2) capital5,9854,465Total capital (TC = T1 + T2)24,34422,824Total risk weighted assets111,080111,080Common Equity Tier 1 (as a percentage of risk exposure amount)15.4%15.4%Tier 1 (as a percentage of risk exposure amount)16.5%16.5%Total capital (as a percentage of risk exposure amount)21.9%20.5%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 important0.64%2.51%Of which: Capital conservation buffer requirement0.63%2.50%0.63%2.50%Of which: Capital conservation buffer requirement0.01%0.01%0.01%0.01%Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)10.5%10.5%10.5%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 has a significant investment in those entities (amount below 10% threshold and net of eligible short	Of which: Instruments issued by subsidiaries subject to phase out	1,520	-
Tier 2 (T2) capital5,9854,465Total capital (TC = T1 + T2)24,34422,824Total risk weighted assets111,080111,080Common Equity Tier 1 (as a percentage of risk exposure amount)15.4%15.4%Tier 1 (as a percentage of risk exposure amount)16.5%16.5%Total capital (as a percentage of risk exposure amount)21.9%20.5%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 important0.64%2.51%Of which: Capital conservation buffer requirement0.63%2.50%0.63%2.50%Of which: Capital conservation buffer requirement0.01%0.01%0.01%0.01%Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)10.5%10.5%10.5%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 has a significant investment in those entities (amount below 10% threshold and net of eligible short	Tier 2 (T2) capital before regulatory adjustments	5,985	4,465
Total capital (TC = T1 + T2)24,34422,824Total risk weighted assets111,080111,080Common Equity Tier 1 (as a percentage of risk exposure amount)15.4%15.4%Tier 1 (as a percentage of risk exposure amount)16.5%16.5%Total capital (as a percentage of risk exposure amount)21.9%20.5%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 important0.64%2.51%Of which: Capital conservation buffer requirement0.63%2.50%0.01%0.01%Of which: Capital conservation buffer requirement0.01%0.01%0.01%0.01%Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)10.5%10.5%10.5%Direct and indirect holdings of the capital of financial sector 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			
Total risk weighted assets111,080111,080Common Equity Tier 1 (as a percentage of risk exposure amount)15.4%15.4%Tier 1 (as a percentage of risk exposure amount)16.5%16.5%Total capital (as a percentage of risk exposure amount)21.9%20.5%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 important0.64%2.51%Of which: Capital conservation buffer requirement0.63%2.50%2.50%Of which: Capital conservation buffer requirement0.63%2.50%2.50%Of which: Counter cyclical buffer requirement0.01%0.01%0.01%Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)10.5%10.5%10.5%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-			
Common Equity Tier 1 (as a percentage of risk exposure amount)15.4%15.4%Tier 1 (as a percentage of risk exposure amount)16.5%16.5%Total capital (as a percentage of risk exposure amount)21.9%20.5%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 important0.64%2.51%Institution buffer (G-SII or O-SII buffer), expressed as a percentage of risk exposure amount)0.63%2.50%Of which: Capital conservation buffer requirement0.63%2.50%Of which: Counter cyclical buffer requirement0.01%0.01%Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)10.5%10.5%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-			· · · · · · · · · · · · · · · · · · ·
Tier 1 (as a percentage of risk exposure amount)16.5%16.5%Total capital (as a percentage of risk exposure amount)21.9%20.5%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 important0.64%2.51%Institution buffer (G-SII or O-SII buffer), expressed as a percentage of risk exposure amount)0.63%2.50%2.50%Of which: Capital conservation buffer requirement0.63%2.50%0.01%0.01%Of which: Counter cyclical buffer requirement0.01%0.01%0.01%0.01%Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)10.5%10.5%10.5%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			
Total capital (as a percentage of risk exposure amount)21.9%20.5%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 important0.64%2.51%institution buffer (G-SII or O-SII buffer), expressed as a percentage of risk exposure amount)0.64%2.51%Of which: Capital conservation buffer requirement0.63%2.50%Of which: Counter cyclical buffer requirement0.01%0.01%Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)10.5%10.5%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			16.5%
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 important0.64%2.51%institution buffer (G-SII or O-SII buffer), expressed as a percentage of risk exposure amount)0.64%2.50%0Of which: Capital conservation buffer requirement0.63%2.50%0.01%0.01%Of which: Counter cyclical buffer requirement0.01%0.01%0.01%0.01%Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)10.5%10.5%10.5%Direct and indirect holdings of the capital of financial sector 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-		21.9%	20.5%
article 92 (1) (a) plus capital conservation and countercyclical bufferrequirements, plus systemic risk buffer, plus the systemically important0.64%institution buffer (G-SII or O-SII buffer), expressed as a percentage of risk2.51%exposure amount)0f which: Capital conservation buffer requirement0.63%2.50%Of which: Counter cyclical buffer requirement0.01%0.01%0.01%Common Equity Tier 1 available to meet buffers (as a percentage of risk10.5%10.5%exposure amount)Direct and indirect holdings of the capital of financial sector entities wherethe institution does not have a significant investment in those entitiesOirect and indirect holdings by the institution of the CET 1 instruments offinancial sector entities (amount below 10% threshold and net of eligible shortthose entities (amount below 10% threshold and net of eligible short			
requirements, plus systemic risk buffer, plus the systemically important0.64%2.51%institution buffer (G-SII or O-SII buffer), expressed as a percentage of risk exposure amount)0.63%2.50%Of which: Capital conservation buffer requirement0.63%2.50%Of which: Counter cyclical buffer requirement0.01%0.01%Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)10.5%10.5%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 has a significant investment in those entities (amount below 10% threshold and net of eligible short			
exposure amount)0.63%2.50%Of which: Capital conservation buffer requirement0.63%2.50%Of which: Counter cyclical buffer requirement0.01%0.01%Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)10.5%10.5%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		0.64%	2.51%
Of which: Capital conservation buffer requirement0.63%2.50%Of which: Counter cyclical buffer requirement0.01%0.01%Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)10.5%10.5%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	institution buffer (G-SII or O-SII buffer), expressed as a percentage of risk		
Of which: Counter cyclical buffer requirement0.01%0.01%Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)10.5%10.5%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 (amount below 10% threshold and net of eligible short	exposure amount)		
Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)10.5%10.5%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 (amount below 10% threshold and net of eligible short	Of which: Capital conservation buffer requirement	0.63%	2.50%
exposure amount)10.5%10.5%Direct and indirect holdings of the capital of financial sector entities where10.5%10.5%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 offinancial sector entities where the institution has a significant investment inthose entities (amount below 10% threshold and net of eligible short	Of which: Counter cyclical buffer requirement	0.01%	0.01%
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	Common Equity Tier 1 available to meet buffers (as a percentage of risk	10 5%	10 5%
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	exposure amount)	10.5%	10.5%
(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	Direct and indirect holdings of the capital of financial sector entities where		
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	the institution does not have a significant investment in those entities	-	-
financial sector entities where the institution has a significant investment in those entities (amount below 10% threshold and net of eligible short	(amount below 10% threshold and net of eligible short positions)		
those entities (amount below 10% threshold and net of eligible short	Direct and indirect holdings by the institution of the CET 1 instruments of		
	financial sector entities where the institution has a significant investment in		
positions)	those entities (amount below 10% threshold and net of eligible short	-	-
	positions)		

# Table 41: MSIP Own Funds Transitional Template

	TRANSITIONAL	FULLY
	RULES	LOADED
		POSITION
	\$MM	\$MM
Capital instruments and the related share premium accounts	11,978	11,978
Paid up capital instruments	11,465	11,465
Share premium	513	513
Retained earnings	1,763	1,763
Accumulated other comprehensive income (and other reserves, to include	1,220	1,220
unrealised gains and losses under the applicable accounting standards)		
Common Equity Tier 1 (CET1) capital before regulatory adjustments	14,961	14,961
Additional value adjustments (negative amount)	(1,139)	(1,139)
Intangible assets (net of related tax liability) (negative amount)	(2)	(2)
Negative amounts resulting from the calculation of expected loss amounts	(169)	(169)
Gains or losses on liabilities valued at fair value resulting from changes in own	234	234
credit standing		
Total regulatory adjustments to Common equity Tier 1 (CET1)	(1,076)	(1,076)
Common Equity Tier 1 (CET1) capital	13,885	13,885
Capital instruments and the related share premium accounts	1,300	1,300
Additional Tier 1 (AT1) capital	1,300	1,300
Tier 1 capital (T1 = CET1 + AT1)	15,185	15,185
Capital instruments and the related share premium accounts	7,906	7,906
Qualifying own funds instruments included in consolidated T2 capital	7,500	7,500
(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		
	7.000	7.000
Tier 2 (T2) capital before regulatory adjustments	7,906	7,906
Tier 2 (T2) capital	7,906	7,906
Total capital (TC = T1 + T2)	23,091	23,091
Total risk weighted assets	102,350	102,350
Common Equity Tier 1 (as a percentage of risk exposure amount)	13.6%	13.6%
Tier 1 (as a percentage of risk exposure amount)	14.8%	14.8%
Total capital (as a percentage of risk exposure amount)	22.6%	22.6%
Institution specific buffer requirement (CET1 requirement in accordance with	0.64%	2.51%
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	0.63%	2.50%
Of which: Counter cyclical buffer requirement	0.01%	0.01%
Common Equity Tier 1 available to meet buffers (as a percentage of risk	8.8%	8.8%
exposure amount)		
Direct and indirect holdings of the capital of financial sector entities where	85	85
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	-	
Direct and indirect holdings by the institution of the CET 1 instruments of financial sector entities where the institution has a significant investment in	-	
Direct and indirect holdings by the institution of the CET 1 instruments of	-	

## 17. Appendix III: Reconciliation of Balance Sheet Total Equity to Regulatory Capital

## Table 42: MSI Group Reconciliation of Balance Sheet Total Equity to Regulatory Capital<sup>1</sup>

		CET1 CAPITAL	AT1 CAPITAL	TIER 2 CAPITAL
	\$MM	\$MM	\$MM	\$MM
Equity Instruments	2,915	1,615	1,300	-
Other reserves	7,461	7,461	-	-
Other Comprehensive Income	(691)	(691)	-	-
Retained Earnings	10,871	10,871	-	-
Non-controlling interest	74	74	-	-
Balance sheet total equity	20,630	19,330	1,300	-
Add:				
Tier 2 instruments classified as other liabilities	9,086			9,086
Less:				
Qualifying own funds subordinated debt	(3,101)	_	-	(3,101
instruments not included in consolidated T2 capital				(3)101
Part of interim or year-end profit not eligible	(634)	(634)	-	-
Non-controlling interest (amount not allowed in consolidated CET1)	(74)	(74)	-	-
Additional value adjustments (negative amount)	(1,165)	(1,165)	-	-
Negative amounts resulting from the calculation of expected loss amounts	(166)	(166)	-	-
Gains or losses on liabilities valued at fair value resulting from changes in own credit standing	233	233	-	-
Intangible assets (net of related tax liability) (negative amount)	(465)	(465)	-	-
Total Own Funds (Transitional Rules)	24,344	17,059	1,300	5,985
Less:				
Qualifying own funds subordinated debt				
instruments issued by subsidiaries subject to phase	(1,520)	-	-	(1,520)
out	• • •			• • •
Total Own Funds (Fully Loaded Position)	22,824	17,059	1,300	4,465

Due to the exemption allowed under section 401 of the Companies Act 2006, the MSI Group does not publish its own audited statutory consolidated group accounts because the MSI Group is consolidated into the accounts of Morgan Stanley. However, audited, consolidated non-statutory financial information has been produced for the MSI Group, as received 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 VI.

# Table 43: MSIP Reconciliation of Balance Sheet Total Equity to Regulatory Capital

		CET1 CAPITAL	AT1 CAPITAL	TIER 2 CAPITAL
	\$MM	\$MM	\$MM	\$MM
Equity Instruments	12,765	11,465	1,300	-
Share Premium	513	513		
Other reserves	1,403	1,403	-	-
Other Comprehensive Income	(183)	(183)	-	-
Retained Earnings	2,275	2,275	-	-
Balance sheet total equity	16,773	15,473	1,300	0
Add:	7 006			7 006
Tier 2 instruments classified as other liabilities	7,906			7,906
Less:				
Part of interim or year-end profit not eligible	(512)	(512)	-	-
Additional value adjustments (negative amount)	(1,139)	(1,139)	-	-
Negative amounts resulting from the calculation of expected loss amounts	(169)	(169)	-	-
Gains or losses on liabilities valued at fair value resulting from changes in own credit standing	234	234	-	-
Intangible assets (net of related tax liability) (negative amount)	(2)	(2)	-	-
Total Own Funds (Fully Loaded Position and Transitional Rules)	23,091	13,885	1,300	7,906

## **18. Appendix IV: Countercyclical Capital Buffer**

Table 44: Geographi	: Geographical distribution of credit exposures relevant for the calculation of the countercyclical capital buffer (CCYB) <sup>1</sup> General Credit Trading Book Securitisation Own Funds											
	Ехр	osures	Sum of	osures	Ехро	sures		Requi	rements			
	Exposure Value for SA	Exposure Value for IRB	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	Countercyclica Capital Buffer Rate
Breakdown by Country	010	020	030	040	050	060	070	080	090	100	110	120
Anguilla	-	7	-	-	-	-	-	-	-	-	0.01%	0.00%
Argentina	-	-	-	-	-	-	-	-	-	-	0.00%	0.00%
Australia	77	2,207	-	49	-	-	57	-	-	57	1.66%	0.00%
Austria	-	293	3	36	-	-	10	-	-	10	0.30%	0.00%
Azerbaijan	-	-	-	3	-	-	-	-	-	-	0.00%	0.00%
Bahamas	-	48	-	-	-	-	3	-	-	3	0.08%	0.00%
Bangladesh	-	-	-	-	-	-	-	-	-	-	0.00%	0.00%
Belgium	-	157	-	49	-	-	4	-	-	4	0.11%	0.00%
Belize	-	1	-	-	-	-	-	-	-	-	0.00%	0.00%
Bermuda	2	118	-	6	-	-	12	-	-	12	0.35%	0.00%
Brazil	-	13	1	2	-	-	3	-	-	3	0.09%	0.00%
Brunei Darussalam	-	-	-	-	-	-	-	-	-	-	0.00%	0.00%
Canada	1	956	2	5	-	-	12	-	-	12	0.37%	0.00%
Cayman Islands	111	11,563	5	30	-	-	555	1	-	557	16.30%	0.00%
Chile	-	13	-	-	-	-	1	-	-	1	0.03%	0.00%
China	4	134	2	366	-	-	8	-	-	8	0.24%	0.00%
Colombia	-	4	-	-	-	-	-	-	-	-	0.01%	0.00%
Curacao	-	-	-	-	-	-	-	-	-	-	0.00%	0.00%
Cyprus	-	58	-	-	-	-	6	-	-	6	0.16%	0.00%
Czech Republic	-	12	-	-	-	-	-	-	-	-	0.01%	0.00%
Denmark	2	762	-	100	-	-	27	-	-	27	0.80%	0.00%
Egypt	-	-	-	-	-	-	-	-	-	-	0.00%	0.00%
Estonia	-	2	-	5	-	-	-	-	-	-	0.00%	0.00%
Finland	-	108	-	38	-	-	4	-	-	4	0.13%	0.00%
France	226	2,631	30	857	-	-	88	3	-	91	2.67%	0.00%
Georgia		-,	-	-	-	-	-	-	-	-	0.00%	0.00%
Germany	13	3,156	23	680	-	-	91	2	-	93	2.73%	0.00%
Gibraltar	-	2	-	-	-	-	-	-	-	-	0.01%	0.00%
Greece	-	1	-	4	-	-	-	-	-	-	0.00%	0.00%
Guernsey	-	171	-	-	-	-	3	-	-	3	0.09%	0.00%

	General Credit Exposures		Exposures Exposures Exposures		Own Funds Requirements							
	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	Countercyclical Capital Buffer Rate
Hungary	-	2	2	-	-	-	-	-	_	-	0.01%	0.00%
Hong Kong	43	1,105	290	112	-	-	42	3	-	46	1.33%	0.63%
Iceland	-	-	-	382	-	-	-	-	-	-	0.00%	0.00%
India	-	48	-	25	-	-	2	-	-	2	0.07%	0.00%
Indonesia	1	20	-	35	-	-	1	-	-	1	0.03%	0.00%
Ireland	22	2,263	200	66	-	1	83	109	1	193	5.64%	0.00%
Isle of Man		5	2	-	-	-	1	-	-	1	0.02%	0.00%
Israel	-	5	-	37	-	-	-	-	-	-	0.01%	0.00%
Italy	161	1,089	31	307	_	-	56	1	-	57	1.68%	0.00%
Japan	101	5,737	-	46	_	-	95	-	-	95	2.79%	0.00%
Jersey	9	603	-	15	_	-	29	-	-	29	0.85%	0.00%
Kazakhstan	-	-	-	56	_	-	-	-	-	-	0.00%	0.00%
Kenya	-	-	-	-	_	_	-	-	_	-	0.00%	0.00%
Korea, Republic of	83	647	3	47	_	_	31	-	_	31	0.90%	0.00%
Kuwait	-	-	-	3	_	_	-	-	_	-	0.00%	0.00%
Liberia	_	-	_	-	_	_	_	-	_	-	0.00%	0.00%
Liechtenstein	-	2	-	_	_	_	-	_	_	-	0.00%	0.00%
Luxembourg	39	3,806	25	69	_	_	90	3	_	93	2.73%	0.00%
Macao	13	-	25	2	_	_	1	5	_	1	0.03%	0.00%
Malaysia	3	1	6	19	-	_	-	_	_	1	0.03%	0.00%
Malta	-	21	-	19	-	-	3	-	-	3	0.08%	0.00%
	-	-	-	-	-	-	3	-	-	-	0.08%	
Marshall Islands Mauritius	-		-	-	-	-	20	-	-	20	0.58%	0.00% 0.00%
		345	-	1 30	-	-	20 16	-	-		0.58%	
Mexico	1	348	-	30	-	-	-	-	-	16		0.00%
Monaco	-		-	-	-		-	-	-		0.00%	0.00%
Morocco		-	- 243	372	-	-		-	- 7	-	0.00%	0.00%
Netherlands	54	2,955			-	110	115	164	7	286	8.36%	0.00%
New Zealand	1	230	-	6	-	-	1	-	-	1	0.04%	0.00%
Nigeria	-	-	-	-	-	-	-	-	-	-	0.00%	0.00%
Norway	-	59	2	50	-	-	2	-	-	2	0.06%	1.50%
Pakistan	-	-	-	-	-	-	-	-	-	-	0.00%	0.00%
Panama	-	-	-	-	-	-	-	-	-	-	0.00%	0.00%
Papa New Guinea	-	-	-	-	-	-	-	-	-	-	0.00%	0.00%
Peru	-	11	-	-	-	-	-	-	-	-	0.01%	0.00%
Philippines	-	11	-	11	-	-	1	-	-	1	0.03%	0.00%

	General Credit Exposures			ng Book Dsures		isation sures			Funds rements			
	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	Countercyclical Capital Buffer Rate
Poland	-	7	-	-	-	-	-	-	-	-	0.01%	0.00%
Portugal	-	70	17	103	-	-	3	1	-	5	0.14%	0.00%
Puerto Rico	-	-	-	-	-	-	-	-	-	-	0.00%	0.00%
Qatar	-	-	-	16	-	-	-	-	-	-	0.00%	0.00%
Romania	-	-	-	-	-	-	-	-	-	-	0.00%	0.00%
Russian Federation	3	65	1	193	-	-	4	-	-	4	0.12%	0.00%
Samoa	-	5	-	-	-	-	1	-	-	1	0.03%	0.00%
Saudi Arabia	2	1,396	-	-	-	-	21	-	-	21	0.62%	0.00%
Singapore	20	1,070	23	47	-	-	17	1	-	18	0.54%	0.00%
Slovakia	-	-	-	-	-	-	-	-	-	-	0.00%	0.00%
South Africa	98	13	2	28	-	-	1	-	-	1	0.03%	0.00%
Spain	181	525	127	229	-	-	26	24	-	49	1.44%	0.00%
Sri Lanka	-	-	-	4	-	-	-	-	-	-	0.00%	0.00%
Sweden	86	297	27	134	-	-	8	3	-	10	0.30%	1.50%
Switzerland	1	559	-	249	-	-	12	-	-	12	0.36%	0.00%
Taiwan	43	319	-	-	-	-	16	-	-	16	0.46%	0.00%
Thailand	2	14	-	14	-	-	1	-	-	1	0.03%	0.00%
Trinidad and Tobago	-	-	-	-	-	-	-	-	-	-	0.00%	0.00%
Turkey	-	6	-	20	-	-	-	-	-	-	0.01%	0.00%
United Arab Emirates	2	1,006	-	75	-	-	4	-	-	4	0.11%	0.00%
Ukraine	-	-	-	11	-	-	-	-	-	-	0.00%	0.00%
United Kingdom	6,409	6,988	595	1,529	291	142	423	312	12	746	21.85%	0.00%
United States	186	24,347	232	1,212	-	-	685	6	-	691	20.23%	0.00%
Uruguay	-	70	-	-	-		4	-	-	4	0.11%	0.00%
Venezuela	-	-	-	-	-	-	-	-	-	-	0.00%	0.00%
Vietnam	-	-	7	7	-	-	-	1	-	1	0.02%	0.00%
Virgin Islands, British	6	399	-	25	-	-	58	-	-	58	1.70%	0.00%
TOTAL	7,915	78,886	1,901	7,817	291	253	2,757	634	20	3,412	100.00%	

## **19. Appendix V: Board of Directors Knowledge, Skills and Expertise**

## Ian Plenderleith

Ian Plenderleith was appointed a non-executive director in December 2011 and as Chairman of the MSI Board in January 2014. He is also interim Chairman of the MSI Risk Committee and a member of the MSI Audit, Nomination and Governance and Remuneration Committees<sup>i</sup>.

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).

Ian 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.

#### **David Cannon**

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

#### **Mary Phibbs**

Mary Phibbs was appointed a non-executive director of the MSI Board in May 2013. She chairs the MSI Nomination and Governance Committee and Remuneration Committee<sup>i</sup> and is a member of the Audit Committee and Risk Committee.

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.

#### Jonathan Bloomer

Jonathan Bloomer was appointed a non-executive director at the MSI Board in November 2016. He is a member of the Audit, Risk and Nomination and 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 time 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.

#### Terri Duhon

Terri Duhon was appointed a non-executive director of the MSI Board in April 2016. She is a member of the MSI Risk, Audit, Nomination and Governance and Remuneration<sup>i</sup> 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 currently sits on the board of CHAPS and lectures at Oxford University Said Business School. She graduated from MIT in Mathematics in 1994.

#### Arun Kohli

Arun Kohli 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.

## Christopher Castello

Christopher Castello 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, Christopher 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 Guy 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.

#### **Robert Rooney**

Robert Rooney 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. 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 Fixed Income Client Coverage.

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

#### **David Russell**

David Russell 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.

#### Jakob Horder

Jakob Horder is Head of EMEA Fixed Income and an executive director of the 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 MS 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.

<sup>&</sup>lt;sup>i</sup> Remuneration committee was established on 1<sup>st</sup> January 2017.

## **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 five times during 2016. 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.

	NUMBER OF DIRECTORSHIP HELD AS AT 31 DECEMBER 2016	DIRECTORSHIPS ADJUSTED FOR SYSC4.3A.7(2)
lan Plenderleith	6	3
David Cannon	3	1
Mary Phibbs	7	3
Jonathan Bloomer	7	4
Terri Duhon	5	3
Arun Kohli	6	2
Christopher Castello	3	1
Lee Guy	3	1
Robert Rooney	2	1
David Russell	6	3
Jakob Horder	4	1

## Figure 5: MSI Directors: Number of Directorships

**20.** Appendix VI: Morgan Stanley International Limited Group Non Statutory Financial Information

## MORGAN STANLEY INTERNATIONAL LIMITED

Consolidated non statutory financial information

**31 December 2016** 

## CONTENTS

## PAGE

Directors' responsibilities statement	1
Independent auditor's report	2
Consolidated income statement	3
Consolidated statement of comprehensive income	4
Consolidated statement of changes in equity	5
Consolidated statement of financial position	6
Notes to the consolidated non statutory financial information	7

## 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:

astello

Director 3 August 2017

## **Board of Directors:**

J W Bloomer D O Cannon	(appointed 1 November 2016)
C Castello	
T Duhon	(appointed 14 April 2016)
L Guy	
J Horder	(appointed 8 June 2016)
C Kelleher	(resigned 5 February 2016)
A Kohli	(appointed 9 August 2016)
M C Phibbs	
I Plenderleith (Chairman)	
R P Rooney	
D A Russell	
C Woodman	(resigned 5 February 2016)

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

We have audited the consolidated non statutory financial information of the Morgan Stanley International Group which comprises of Morgan Stanley International Limited ("the Company") and its subsidiaries (together "the Group") for the year ended 31 December 2016 which comprises 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 to 2. The basis of preparation and accounting policies applied in their preparation are detailed in notes 1 and 2.

This report is made solely to the Company's directors in accordance with our engagement letter dated 11 April 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 independent auditors' 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.

#### Respective responsibilities of directors and auditor

The directors are responsible for the preparation of the consolidated non statutory financial information. Our responsibility is to audit and express an opinion on this consolidated non statutory financial information in accordance with applicable law and International Standards on Auditing (UK and Ireland). Those standards require us to comply with the Auditing Practices Board's Ethical Standards for Auditors.

#### Scope of the audit of the consolidated non statutory financial information

An audit involves obtaining evidence about the amounts and disclosures in the consolidated non statutory financial information presented to give reasonable assurance that it is free from material misstatement, whether caused by fraud or error. This includes an assessment of: whether the accounting policies are appropriate to the Group's circumstances and have been consistently applied and adequately disclosed; the reasonableness of significant accounting estimates made by the directors; and the overall presentation of the consolidated non statutory financial information. If we become aware of any apparent material misstatements or inconsistencies we consider the implications for our report.

## Opinion on the consolidated non statutory financial information

In our opinion the consolidated non statutory financial information has been properly prepared in accordance with the basis of preparation and accounting policies stated in notes 1 and 2.

21 the LLP

Deloitte LLP London, UK August 2017

## CONSOLIDATED INCOME STATEMENT Year ended 31 December 2016

	2016 \$millions	2015 \$millions
Net gains on financial instruments classified as held for trading	3,862	3,639
Net gains on financial instruments designated at fair value through profit and loss	94	161
Net gains on available-for-sale financial assets	7	2
Interest income	(60)	180
Interest expense	(576)	(674)
Other income	2,248	2,353
Other expense	(4,651)	(4,846)
Loss on disposal of fixed assets	(1)	-
PROFIT BEFORE INCOME TAX	923	815
Income tax expense	(332)	(346)
PROFIT FOR THE YEAR	591	469
Attributable to:		
Owners of the parent	589	455
Non-controlling interests	2	14
PROFIT FOR THE YEAR	591	469

## CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME Year ended 31 December 2016

	2016 \$millions	2015 \$millions
PROFIT FOR THE YEAR	591	469
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	(42) 1 1	20 (22) 2
Items that may be reclassified subsequently to profit or loss: Currency translation reserve:		
Foreign currency translation differences arising on foreign operations	(99)	(135)
Available-for-sale reserve: Net change in fair value of the available-for-sale financial assets	(12)	(1)
OTHER COMPREHENSIVE INCOME AFTER INCOME TAX FOR THE YEAR	(151)	(136)
TOTAL COMPREHENSIVE INCOME FOR THE YEAR Attributable to:	440	333
Owners of the parent	453	326
Non-controlling interest	(13)	7
TOTAL COMPREHENSIVE INCOME FOR THE YEAR	440	333

# CONSOLIDATED STATEMENT OF CHANGES IN EQUITY Year ended 31 December 2016

	Equity instruments \$millions	Currency translation reserve \$millions	Available- for-sale reserve \$millions	Capital contribution reserve \$millions	reserve	Pension reserve \$millions	Debt valuation adjustment reserve \$millions	Retained earnings \$millions	Attributable to owners of the parent \$millions	Non- controlling interests \$millions	Total equity \$millions
Balance at 1 January 2015	2,914	(348)	42	6,061	1,400	(136)	-	9,972	19,905	1,856	21,761
Profit for the year	-	-	-	-	-	-	-	455	455	14	469
Other comprehensive income		(128)	(1)	-	-	20	-	(20)	(129)	(7)	(136)
Total comprehensive (loss)/income	-	(128)	(1)	-	-	20	-	435	326	7	333
Transactions with owners:											
Dividends	-	-	-	-	-	-	-	(12)	(12)	-	(12)
Movement in non- controlling interest	-	-	-	-	-	-	-	-	-	(1,776)	(1,776)
Balance at 31 December 2015	2,914	(476)	41	6,061	1,400	(116)	-	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	-	(84)	(12)	-	-	1	(42)	1	(136)	(15)	(151)
Total comprehensive (loss)/income	-	(84)	(12)	-	-	1	(42)	590	453	(13)	440
Transactions with owners:											
Issue of capital	1	-	-	-	-	-	-	-	1	-	1
Dividends	-	-	-	-	-	-	-	(117)	(117)	-	(117)
Balance at 31 December 2016	2,915	(560)	29	6,061	1,400	(115)	(45)	10,871	20,556	74	20,630

## CONSOLIDATED STATEMENT OF FINANCIAL POSITION As at 31 December 2016

As at 51 December 2010	2016 \$millions	2015 Smillions
ASSETS		
Loans and receivables:		
Cash and short-term deposits	20,617	12,199
Cash collateral on securities borrowed	19,601	22,433
Securities purchased under agreements to resell	77,218	58,523
Trade receivables	52,197	51,315
Other receivables	1,003	1,254
	170,636	145,724
Financial assets classified as held for trading (of which \$50,485 million		
(2015: \$40,384 million) were pledged to various parties)	250,047	248,108
Financial assets designated at fair value through profit or loss	4,312	1,636
Available-for-sale financial assets	68 173	79 197
Current tax assets Deferred tax assets	203	210
Prepayments and accrued income	193	185
Property, plant and equipment	462	458
Intangible assets	465	410
TOTAL ASSETS	426,559	397,007
LIABILITIES AND EQUITY	420,000	557,007
-		
Financial liabilities at amortised cost:	121	161
Bank loans and overdrafts	131	161
Cash collateral on securities loaned Securities sold under agreements to repurchase	21,224 47,746	16,268 37,274
Trade payables	85,866	82,323
Subordinated loans	9,086	9,145
Other payables	7,884	8,675
·	171,937	153,846
Financial liabilities classified as held for trading	226,764	216,855
Financial liabilities designated at fair value through profit or loss	6,020	4,865
Provisions	253	85
Current tax liabilities	185	174
Deferred tax liabilities	44	39
Accruals and deferred income	720	828
Post-employment benefit obligations	6	9
TOTAL LIABILITIES	405,929	376,701
EQUITY		
Equity instruments	2,915	2,914
Pension reserve	(115)	(116)
Currency translation reserve	(560)	(476)
Available-for-sale reserve	29	41
Capital contribution reserve	6,061	6,061
Capital redemption reserve	1,400	1,400
Debt valuation adjustment reserve	(45)	
Retained earnings	10,871	10,395
Equity attributable to the owners of the parent	20,556	20,219
Non-controlling interests	74	87
TOTAL EQUITY	20,630	20,306
TOTAL LIABILITIES AND EQUITY	426,559	397,007

The consolidated non statutory financial information was approved by the Board and authorised for issue on 3 August 2017.

Signed on behalf of the Board

C Castello

Director

## NOTES TO THE CONSOLIDATED NON STATUTORY FINANCIAL INFORMATION Year ended 31 December 2016

## 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 2016. The Company confirms in accordance with section 435 of the Companies Act 2006 that:

- i) 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 2016 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 2016.

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 2016. 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 2016

## 1. BASIS OF PREPARATION (CONTINUED)

# Changes in presentation of gains and losses on financial liabilities designated at fair value through profit or loss

At 1 January 2016, the Group early adopted, in isolation, the requirements within IFRS 9 'Financial instruments' ('IFRS 9') as reissued by the IASB in July 2014 and endorsed by the EU in November 2016, 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, in accordance with the transition provisions therein and IAS 8 'Accounting Policies, Changes in Accounting Estimates and Errors'. Information on the effect of this is disclosed below. The Group has not early adopted the remaining requirements of IFRS 9.

From 1 January 2016, the Group presents in other comprehensive income 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 own credit risk of those liabilities, including the foreign exchange differences on this change in fair value (together "DVA"), other than those changes that create or enlarge an accounting mismatch. Such amounts are recorded within the 'Debt valuation adjustment reserve' in the consolidated statement of financial position.

Previously, all DVA had been reflected in the consolidated income statement.

Pursuant to the transitional provisions within IFRS 9, any accounting mismatches have been determined at the initial date of application, 1 January 2016, and the specific provisions of IFRS 9 relating to this area have been applied retrospectively on the basis of that determination. Prior periods have not been restated. A cumulative loss, net of tax, of \$3 million was recorded as of 1 January 2016 to move the cumulative net DVA loss on financial liabilities designated at fair value through profit or loss from retained earnings to the 'Debt valuation adjustment reserve'.

## 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.

#### b. 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 anising from the net investment(s) in the foreign operations are taken to the 'currency translation reserve'.

## NOTES TO THE CONSOLIDATED NON STATUTORY FINANCIAL INFORMATION Year ended 31 December 2016

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

#### b. Foreign currencies (continued)

From 1 January 2016, 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) below.

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'.

#### c. 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.

More information regarding these classifications is included below:

## i) 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'.

## NOTES TO THE CONSOLIDATED NON STATUTORY FINANCIAL INFORMATION Year ended 31 December 2016

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

#### c. Financial instruments (continued)

#### ii) 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) below).

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.

See Note 1 'Changes in presentation of gains and losses on financial liabilities designated at fair value through profit or loss' above for further information on the adoption on 1 January 2016 of the provisions within IFRS 9 for the presentation of gains and losses on financial liabilities 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 are 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) 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 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'.

## NOTES TO THE CONSOLIDATED NON STATUTORY FINANCIAL INFORMATION Year ended 31 December 2016

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

#### c. Financial instruments (continued)

#### 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) below) 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) below) 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.

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.

## NOTES TO THE CONSOLIDATED NON STATUTORY FINANCIAL INFORMATION Year ended 31 December 2016

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

#### d. Fair value (continued)

#### Fair value measurement (continued)

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 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 applies funding valuation adjustments ("FVA") into 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.

#### NOTES TO THE CONSOLIDATED NON STATUTORY FINANCIAL INFORMATION Year ended 31 December 2016

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

#### d. Fair value (continued)

#### 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.

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.

Credit valuation adjustments are applied to short-term and long-term borrowings (primarily structured notes) which are designated at fair value through profit or loss and to OTC derivatives. The impact of changes in own credit spreads based upon observations of the secondary bond market spreads is considered 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.

#### NOTES TO THE CONSOLIDATED NON STATUTORY FINANCIAL INFORMATION Year ended 31 December 2016

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

#### d. Fair value (continued)

#### Valuation techniques (continued)

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.

#### 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.

#### NOTES TO THE CONSOLIDATED NON STATUTORY FINANCIAL INFORMATION Year ended 31 December 2016

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

#### d. Fair value (continued)

#### Valuation process (continued)

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.

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.

#### NOTES TO THE CONSOLIDATED NON STATUTORY FINANCIAL INFORMATION Year ended 31 December 2016

#### 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.

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'.

#### 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 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.

#### NOTES TO THE CONSOLIDATED NON STATUTORY FINANCIAL INFORMATION Year ended 31 December 2016

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

#### g. Impairment of non-financial assets

Non-financial assets that are subject to 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.

#### h. 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. 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.

#### i. 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

#### NOTES TO THE CONSOLIDATED NON STATUTORY FINANCIAL INFORMATION Year ended 31 December 2016

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

#### j. Business combinations and disposals

#### i) 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.

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.

#### NOTES TO THE CONSOLIDATED NON STATUTORY FINANCIAL INFORMATION Year ended 31 December 2016

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

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

#### i) Combination of businesses (continued)

#### 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 owners of the parent are reclassified to the consolidated income statement within 'Gain/ (loss) on disposal of subsidiary'.

#### 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.

#### k. 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).

#### NOTES TO THE CONSOLIDATED NON STATUTORY FINANCIAL INFORMATION Year ended 31 December 2016

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

#### l. 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.

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.

#### 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. 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.

#### NOTES TO THE CONSOLIDATED NON STATUTORY FINANCIAL INFORMATION Year ended 31 December 2016

#### 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.

#### 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 plans 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 '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.

#### p. Employee compensation plans

#### i) 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 delivery 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 2016

#### 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. 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.

#### r. Interest income and interest expense

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

- (a) when interest is included as a component of the financial instruments fair value, interest is reflected in 'net gains/ (losses) on financial instruments classified as held for trading'; and
- (b) interest expense otherwise generated from '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 incurred 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', and foreign exchange differences and impairment losses and reversals of impairment losses disclosed in 'Other expense'.

#### 21. Appendix VII: List of Abbreviations

TERM	DEFINITION
ACPR	Autorité de contrôle prudentiel et de résolution
APR	All Price Risk
AT1	Additional Tier 1 Capital
BASEL II	International Convergence of Capital Measurement and Capital Standards: A Revised
b) (GEE II	Framework — Comprehensive version June 2006
CASS	Client Assets Sourcebook
CCB	Capital Conservation Buffer
ССҮВ	Countercyclical Capital Buffer
CDS	Credit Default Swaps
CET1	Common Equity Tier 1 Capital
CQS	Credit Quality Step
CRD	Capital Requirements Directive
CRDIV	Capital Requirements Directive — EU implementation of Basel 3
CRM	Credit Risk Management
CRR	Capital Requirements Regulation
CVA	Credit Valuation Adjustment
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
FCA	Financial Conduct Authority
Federal Reserve	Board of Governors of the Federal Reserve System
FRS	Financial Reporting Standards
G-SIIs	Global Systematically Important Institutions
ICAAP	Individual Capital Adequacy Assessment Process
ICG	Individual Capital Guidance
FRS	International Financial Reporting Standards
IRB	Foundation Internal Ratings Based
IRC	Incremental Risk Charge
IMA	Internal Modelling Approach
IMM	Internal Models Method
ISDA	International Swaps and Derivatives Association
LCR	Liquidity Coverage Ratio
LGD	Loss Given Default
MRD	Market Risk Department
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
MSIP	Morgan Stanley & Co. International plc
MSIP Group	Morgan Stanley & Co. International plc and its subsidiaries
отс	Over-the-counter
PD	Probability of Default
PRA	Prudential Regulation Authority
RWAs	Risk Weighted Assets
SEC	US Securities and Exchange Commission
SFTs	Securities Financing Transactions
SPV	Special Purpose Vehicles
SREP	Supervisory Review Process
S&P	Standard and Poor's
TRS	Total Return Swaps
RST	Reverse Stress Testing
UK	United Kingdom
US	United States

# Pillar 3

Part 2:

## Article 450 of CRR Disclosure: Remuneration Policy

Morgan Stanley International Limited Group

As at 31 December 2016

#### **Table of Contents**

1:	Rem	nuneration policy disclosures for year ended 31 December 2016	3
2:	Cate	egories of staff whose professional activities have a material impact on the Company's risk	
pro	ofile a	and compliance with the UK Remuneration Rules	3
3:	Dec	ision-making process used for determining the remuneration policy	4
	a. C	omposition and mandate of the Remuneration Committee	4
		ole of relevant stakeholders and external consultant	
4:	Link	between pay and performance	5
5:	Desi	ign characteristics of the Remuneration System	6
	a. R	isk Adjustment	8
	b. P	erformance Measurement	8
6:	Ratio	s between fixed and variable remuneration set in accordance with Article 94(1)(g) of	
	Dired	ctive 2013/36/EU (CRD IV)	8
7:	Perfo	rmance criteria on which the entitlement to variable compensation is based	9
8:	Main	parameters and rationale for any variable component scheme and any other non-cash benefits	9
9:7	Aggre	egate quantitative information on remuneration, broken down by business area	.0
10	: Agg	regate quantitative information on remuneration, broken down by senior management and members	
of	staff	whose actions have a material impact on the risk profile of the institution, indicating the following 1	.0
	a.	Amounts of remuneration for the financial year 2016, split into fixed and variable remuneration, and	
		the number of beneficiaries	.0
	b.	Amounts and the forms of variable remuneration for 2016, split into cash, shares, share-linked	
		instruments and other types1	.1
	с.	Amounts of outstanding deferred remuneration, split into vested and unvested portions1	.1
	d.	Amounts of deferred remuneration awarded during the financial year 2016, paid out, and reduced	
		through performance adjustments1	.1
	e.	New sign-on payments made during the financial year 2016, and the number of beneficiaries of those	:
		payments1	.1
	f.	Amount of severance payments awarded during the financial year 2016, number of beneficiaries and	
		highest such award to a single person1	.1
	g.	The number of individuals being remunerated EUR 1 million or more per financial year, broken down	
		into pay bands of EUR 500,000 for remuneration between EUR 1 million and EUR 4 million, and	
		EUR 1 million pay bands for remuneration between EUR 4 million and EUR 7 million, and aggregated	
		for remuneration of EUR 7 million and above1	
11	: Qua	ntitative information outlined in section 10, at the level of members of the management body1	.2

#### 1. Remuneration Policy Disclosures for Year Ended December 31, 2016

Morgan Stanley, together with its subsidiaries and affiliates (the Company) is committed to a responsible and effective compensation program that is aligned to shareholders and Firm strategy, and is motivating, competitive, and reflects current best practices in corporate governance, risk management and regulatory principles.

## 2. Categories of staff whose professional activities have a material impact on the Company's risk profile and compliance with the UK Remuneration Rules

The information outlined in this disclosure provides an overview of Morgan Stanley's compliance with the Financial Conduct Authority's (FCA) Dual-Regulated Firms Remuneration Code set out in the FCA's Senior Management Arrangements, Systems and Controls (SYSC) at SYSC 19D, and the Prudential Regulation Authority (PRA) Rulebook (Remuneration Part) (together the "Remuneration Rules") and relates primarily to Senior Management and other employees whose professional activities have a material impact on the risk profile of the Company in the UK and global subsidiaries and branches of the UK regulated entities, as required in SYSC 19D.3.13, Rule 7.5 of the PRA Rulebook (Remuneration Part), and Article 450 of Capital Requirements Regulation ((EU) No 575/2013).

In compliance with the European Banking Authority (EBA) Regulatory Technical Standards' (RTS) definition of 'material risk takers' for remuneration purposes ((EU) No 604/2014), the following criteria are used in the determination of employees that are subject to the full requirements of the Remuneration Rules, known as "Code Staff" (references to Articles in this paragraph are to those in the RTS): Roles identified under qualitative criteria (Article 3) include Directors of the main UK Boards (Article 3(1)), Non-Executive Directors (Article 3(2)), Voting Members of the EMEA Operating Committee and EMEA Risk Committee, and employees that hold Significant Influence Function roles (Article 3(3)), EMEA Heads of Control Functions (Article 3(4) and Article 3(9)), In-Business Risk Managers (Article 3(5)), Heads of Material Business Units (Article 3(6)), direct reports, with managerial responsibility of those identified in Article 3(4) and Article 3(5) (Article 3(7)), direct reports who have material delegated or stand in responsibility of those identified in Article 3(6) (Article 3(8)), members of the EMEA Risk Committee and other committees with risk management responsibilities (Article 3(10)), Managers within Credit and Market Risk, Trading Desk Heads and any Trader with responsibility for risk exposures over prescribed thresholds (Article 3(11) and Article 3(12)), all Managing Director Traders (not already identified under Article 3(11) or Article 3(12)) (Article 3(13)), employees with New Product Approval (NPA) authority (Article 3(14)), and any manager of employees identified under Article 3(1) through to Article 3(14) (Article 3(15)). Many employees are identified under multiple qualitative criteria.

With regard to the quantitative criteria, employees are identified by the quantitative thresholds outlined in Article 4 of the RTS. We sought and received approval from the Company's regulators to exclude, as Code Staff, employees who met the quantitative threshold but have no material impact on the risk profile of a Material Business Unit through their professional activities (as outlined in SYSC 19D.3.5 and Rule 3.2 of the PRA Rulebook (Remuneration Part)), and employees who only carry out professional activities and have authority in a Non-Material Business Unit.

In 2016, the Human Resources department continued to enhance the way in which the Company monitors and manages the composition of employees, including newly hired employees, considered Code Staff throughout the year through reviews with Control Function Heads, Senior Management and Business Unit Heads. There is also on-going dialogue among Legal, Compliance, Risk Functions and Human Resources to analyse the population (e.g., whether changes in organizational or functional responsibilities or employees' individual risk profiles may warrant any change in Code Staff designations). In addition, the Company analyses risk capital

thresholds in the overseas subsidiaries and branches within the Morgan Stanley UK Group to ascertain the material risk posed therein to ensure Code Staff representation where necessary.

The EMEA Remuneration Oversight Committee (EROC) provides formal oversight of EMEA remuneration matters to ensure remuneration practices in EMEA are compliant with relevant UK and EU legislation and follow good practice standards. The EROC met nine times in 2016 and consisted of the EMEA Chief Executive Officer (CEO) (from 10 June 2016), the EMEA Deputy Head of Human Resources (HR), the EMEA Chief Finance Officer (CFO), the EMEA Chief Legal Officer (CLO), the International Head of Compliance, and the EMEA Chief Risk Officer. EROC certified compliance to regulatory requirements to the UK Remuneration Director.

A UK Remuneration Director was appointed on 7 March 2016 to review the activities of the EROC and its compliance with remuneration policies and matters pertaining to adjustment of variable compensation. The UK Remuneration Director had responsibility for overseeing the development and implementation of the Company's remuneration policies and practices in accordance with the Remuneration Rules.

#### 3. Decision-making process used for determining the remuneration policy

#### *3a. Composition and mandate of the Remuneration Committee*

The Remuneration Committee of Morgan Stanley is the Compensation, Management Development and Succession (CMDS) Committee of the Morgan Stanley Board of Directors (the Board), which consists of four directors, including the independent Lead Director of the Board, all of whom are independent under the New York Stock Exchange listing standards and the independence requirements of the Company. In 2016, the CMDS Committee members were: Hutham Olayan (Chair), Erskine B. Bowles (independent Lead Director), James Owens, and Klaus Kleinfeld. The CMDS Committee held 9 meetings during 2016. The CMDS Committee operates under a written charter adopted by the Board. The CMDS Committee Charter is available on Morgan Stanley's website at http://www.morganstanley.com/about-us-governance/comchart.html.

Each year, the CMDS Committee reviews the annual incentive compensation pool for variable compensation and the design and structure of the Company's compensation programs, including the form of deferred incentive awards, deferral formulas, vesting and timing of payments and cancellation/clawback provisions. Annual incentive compensation is granted to eligible employees after a comprehensive review and evaluation of Company, business unit and individual performance for the year.

#### *3b. Role of the relevant stakeholders and external consultant*

The CMDS Committee oversees the Company's compensation programs, including with the Chief Risk Officer (CRO), to help ensure that such arrangements are consistent with the safety and soundness of the Company, do not encourage excessive risk-taking, and are otherwise consistent with applicable related regulatory rules and guidance. The CMDS Committee receives information and guidance throughout the year on matters relating to compensation globally, including regulatory and legislative developments. The Chair of the CMDS Committee certified that the Company's remuneration related policies and practices for 2016 complied with the Remuneration Rules.

The CMDS Committee retains an independent compensation consultant and evaluates the independence of such consultant and other advisors as required by any applicable law, regulation and listing standard. The CMDS Committee's compensation consultant, Pay Governance, has been retained since October 2012 and has assisted the CMDS Committee in collecting and evaluating external market data regarding executive compensation and performance and advises the CMDS Committee on developing trends and best practices in executive compensation and equity and incentive plan design. In performing these services, Pay Governance met regularly with the CMDS Committee, including without management present. Pay Governance does not provide any other services to the Company or its executive officers. The Company has affirmatively

determined that no conflict of interest has arisen in connection with the work of Pay Governance as compensation consultant for the CMDS Committee.

#### 4. Link between pay and performance

The CMDS Committee and the Company continually evaluate the Company's compensation programs with a view toward balancing the following key objectives:

#### 1. DELIVER PAY FOR SUSTAINABLE PERFORMANCE

The Company's compensation program emphasises discretionary variable annual incentive compensation (including deferred incentive compensation) and for senior executives (who are not Code Staff), long-term incentive compensation with specific financial targets. Variable annual incentive compensation and long-term incentive compensation are adjusted year-over-year to appropriately reward annual achievement of the Company's financial and strategic objectives. In addition, long-term incentive compensation serves the shareholders' interests by conditioning payment upon future performance that executes on the Company's long-term business strategy. The structure of the Company's compensation program balances the objectives of delivering returns for shareholders and providing appropriate rewards to motivate superior and long-term individual performance, as well as taking into account Company strategy.

#### 2. ALIGN EXECUTIVE COMPENSATION WITH SHAREHOLDERS' INTERESTS

The Company delivers a significant portion of incentive compensation in deferred equity awards to align employee interests with those of shareholders. The Company believes that linking incentive compensation amounts to performance and delivering a significant portion of annual and long term incentives as deferred equity awards that are impacted, up or down, by future stock price performance and are subject to cancellation and clawback over a multi-year period, helps motivate employees to achieve the Company's financial and strategic goals.

Members of the Company's Operating Committee are subject to an Equity Ownership Commitment. With effect from January 2016, based on feedback from shareholders, the Company revised its Equity Ownership Commitment in order to enhance the alignment between the long-term interests of shareholders and Operating Committee members. Further information on the Equity Ownership Commitment can be found at http://www.morganstanley.com/about-us-governance/ownershipcommit.

#### 3. ATTRACT AND RETAIN TOP TALENT

The Company competes for talent globally with investment banks, commercial banks, brokerage firms, hedge funds and other companies offering financial services, and the Company's ability to sustain or improve its position in this highly competitive environment depends substantially on its ability to continue to attract and retain the most highly qualified employees. In support of the Company's recruitment and retention objectives, the Company continually monitors competitive pay levels and structures its incentive awards to include vesting, deferred payment and cancellation and clawback provisions that retain employees and protect the Company's interests.

#### 4. MITIGATE EXCESSIVE RISK-TAKING

The Company is committed to responsible and effective compensation programs that mitigate excessive risktaking by employees. As noted above, the CMDS Committee is advised by the CRO and the CMDS Committee's independent compensation consultant to help ensure that the structure and design of compensation arrangements do not incentivize unnecessary or excessive risk-taking that threatens the Company's interests or gives rise to risk that could have a material adverse effect on the Company. The CRO concluded that the Company's current compensation programs for 2016 do not incentivize employees to take unnecessary or excessive risk and that such programs do not create risks that are reasonably likely to have a material adverse effect on the Company.

#### 5. Design characteristics of the Remuneration System

Compensation for the majority of employees is comprised of two key elements:

- Fixed pay that is comprised of base salary and, in certain circumstances, one or more allowances that are reviewed at least annually; and
- Variable annual incentive compensation that is discretionary based on risk-adjusted performance measures.

The variable annual incentive compensation for Code Staff may be payable in upfront cash bonus, stock bonus awards and a mix of deferred cash-based and equity awards and, at a minimum, is structured to satisfy the following requirements of the FCA's Dual-Regulated Firms Remuneration Code, Principle 12 ('Remuneration Structures'), and Rule 15 of the PRA Rulebook (Remuneration Part) ('Remuneration Structures'):

- Ratio between the fixed and the variable components of total compensation does not exceed 1:2 (this
  is maximum allowed under the applicable law and regulations, and follows approval from Morgan
  Stanley International Holdings Inc. (as the sole shareholder of Morgan Stanley International Limited)
  and was obtained in accordance with the applicable UK rules and regulations);
- 40% of variable annual incentive compensation (or 60% if £500,000 or more) to be deferred as follows:
  - Senior Managers (as defined under the UK Senior Managers Regime) have a minimum of a 7 year deferral, with vesting starting in year 3 on a pro rata basis between years 3 and 7.
  - Risk Managers (as defined in the PRA Policy Statement PRA PS12/15) have a minimum of a 5 year deferral, with vesting starting from year 1 on a pro rata basis.
  - All other Code Staff employees have a minimum of a 3 year deferral, with vesting starting from year 1 on a pro-rata basis.
- The deferred variable annual incentive compensation is in the form of 50% deferred equity awards, with the remaining 50% in the form of deferred cash-based awards;
- The remaining variable annual incentive compensation is awarded 50% as stock bonus awards, with the remaining 50% as upfront cash bonus;
- Deferred equity awards are subject to a 6 month post-vest sales restriction and stock bonus awards vest and distribute after 6 months; and
- Variable annual incentive compensation is subject to clawback for a period of up to 7 years from the date on which it is awarded in those jurisdictions where legally enforceable.

Per the FCA's Dual-Regulated Firms Remuneration Code and PRA Rulebook (Remuneration Part), Code Staff whose (i) variable annual incentive compensation is no more than 33% of their total compensation, and (ii) total compensation is no more than £500,000 (or the local currency equivalent) are not subject to the full scope of Remuneration Rules. However, such Code Staff continue to be subject to the Company's deferral practices for the general employee population. The following table provides details of the principal variable annual incentive compensation elements for Code Staff in 2016, including the deferral policy and vesting criteria.

#### CODE STAFF COMPENSATION ELEMENTS

a. Deferred Cash-Based

Awards

#### DESCRIPTION

#### CANCELLATION AND CLAWBACK FEATURES

All vested and unvested awards will be cancelled in full or, in the case of (a)(iii) in full or in part, if any of the following events occur prior to the applicable scheduled distribution date:

(a) the employee takes any action, or omits to take any action (including with respect to direct supervisory responsibilities), where such action or omission:

i. causes a restatement of the Company's consolidated financial results;

ii. constitutes a violation of the Company's Global Risk Management Principles, Policies and Standards (where prior authorization and approval of appropriate senior management was not obtained) whether such action results in a favorable or unfavorable impact to the Company's consolidated financial results; or

iii. causes a loss in the current year on a trade or transaction originating in the current year or in any prior year for which revenue was recognized and which was a factor in the participant's award determination, and violated internal control policies that resulted from the employee's:

1. violation of business unit, product or desk specific risk parameters;

2. use of an incorrect valuation model, method, or inputs for transactions subject to the "STAR" approval process;

3. failure to perform appropriate due diligence prior to a trade or transaction or failure to provide critical information known at the time of the transaction that might negatively affect the valuation of the transaction;

4. failure to timely monitor or escalate to management a loss position pursuant to applicable policies and procedures; or

(b) the Company and/or relevant business unit suffers a material downturn in its financial performance or the Company and/or relevant business unit suffers a material failure of risk management.

Furthermore, awards are subject to cancellation for competition, cause (i.e., any act or omission that constitutes a breach of obligation to the Company, including failure to comply with internal compliance, ethics or risk management standards and failure or refusal to perform duties satisfactorily, including supervisory and management duties), disclosure of proprietary information and solicitation of employees or clients. Beginning with awards made in 2014, awards granted to members of the Company's Operating Committee are also subject to clawback if the CMDS Committee determines that the Operating Committee member had significant responsibility for a material adverse outcome for the Company or any of its businesses or functions.

Any shares or amounts distributed in respect of variable incentive compensation awards are subject to repayment, recovery and recapture pursuant to the Morgan Stanley Code Staff Clawback Policy, as amended from time to time, and any applicable clawback, repayment, recapture or recovery requirements imposed under applicable laws, rules and regulations.

Any cash bonus is subject to repayment, recovery and recapture pursuant to the Morgan Stanley Code Staff Clawback Policy, as amended from time to time, and any applicable clawback, repayment, recapture or recovery requirements imposed under applicable laws, rules and regulations.

b. Equity Awards — Restricted Stock Units (RSUs) and Stock Bonus Awards The deferred cash-based awards provide a cash incentive with a rate of return based upon notional reference investments. The terms of deferred cash-based awards support retention objectives and mitigate excessive risk-taking. Awards are payable, and cancellation provisions lift, pro-rata over the 3, 5, or 7 (depending if the employee is a Senior Manager, a Risk Manager, or other Code Staff employee) years following grant.

RSUs support retention objectives and link realized value to shareholder returns. The terms of RSUs serve to mitigate excessive risk-taking. RSUs convert to shares of Morgan Stanley common stock, and cancellation provisions lift, pro-rata over the 3, 5, or 7 (depending if the employee is a Senior Manager, a Risk Manager, or other Code Staff employee) years following grant.

Stock bonus awards vest and convert after 6

Employees receive dividend equivalents

bonus awards in the form of additional stock units, which are subject to the

same vesting, cancellation and payment

with respect to the RSUs and stock

provisions as the award to which

dividend equivalents relate.

months.

c. Cash Bonus

Paying a portion of compensation in upfront cash bonus is aligned with competitive pay approaches.

#### 5a. Risk Adjustment

The Company continues to monitor the effectiveness of its compensation structure and evaluate whether it achieves balanced risk-taking and has a thorough process of considering risk-adjusted performance, compliance with risk limits and the market and competitive environment when sizing and allocating annual incentive compensation pools.

The Company's independent control functions take part in a formalized review process for identifying and evaluating situations occurring throughout the course of the year that could require explicit ex-post adjustment, such as cancellation or clawback of previously awarded compensation as well as adjustments to current year compensation. Starting from 2014, this process was enhanced by the formalized EMEA malus review process as part of the EROC governance.

All variable compensation for Code Staff have provisions that allow for clawback of any awards or compensation paid or delivered. The Operating Committee cancellation provision allows for Operating Committee deferred equity and deferred cash awards to be cancelled in full or in part prior to distribution at the sole discretion of the CMDS Committee if the Operating Committee member had significant responsibility for a material adverse outcome for the Company or any of its businesses or functions.

#### *5b. Performance Measurement*

Employee eligibility for annual incentive compensation is discretionary and subject to a multi-dimensional performance measurement, which considers amongst other factors, individual, Company and business segment performance. In order to maintain a fully flexible annual remuneration policy, including the possibility to pay zero annual incentive compensation, pre-established Company performance priorities are non-formulaic in nature.

The Company has a Global Incentive Compensation Discretion Policy that sets forth standards for the exercise of managerial discretion in annual incentive compensation decisions. The policy requires that when determining the amount of discretionary incentive compensation to award an eligible employee, a compensation manager must consider only those factors that are legitimate, business-related and consistent with the Company's legal and regulatory obligations and policies and practices. These factors include but are not limited to: (1) the eligible employee's absolute and relative performance in an individual and, if relevant, supervisory capacity; (2) the eligible employee's conduct and adherence to the Company's performance evaluation procedures; (3) performance feedback elicited through the Company's performance evaluation processes; (4) information provided by control function personnel (e.g., the eligible employee's involvement in any adverse Internal Audit findings); (5) any discipline administered to the eligible employee during the performance year; (6) any circumstances during the performance year that may result in clawback of the eligible employee's previously awarded incentive compensation; and (7) market and competitive conditions.

## 6. Ratios between fixed and variable remuneration set in accordance with Article 94(1)(g) of Directive 2013/36/EU (CRD IV)

Morgan Stanley's policy on ratios between fixed and variable compensation is to allow for flexibility, whilst recognizing the need to ensure that levels of compensation are appropriately balanced between fixed, shortand long-term variable incentive compensation. Morgan Stanley International Holdings Inc., as the sole shareholder of Morgan Stanley International Limited (the senior UK holding company), approved a ratio of 1:2 of fixed compensation to variable compensation for Code Staff in the EU businesses with effect from the date of implementation of CRD IV in accordance with SYSC 19D.3.49 and Rule 15.10 of the PRA Rulebook (Remuneration Part). The ratio approved is the maximum allowed under CRD IV.

#### 7. Performance criteria on which the entitlement to variable compensation is based

The Global Incentive Compensation Discretion Policy, noted above at 5b, also provides guidelines to help ensure that annual incentive compensation decisions take relevant factors into consideration, including actual and potential risks to the Company that the employee may be able to control or influence. The policy specifically provides that all compensation managers must consider whether or not an employee managed risk appropriately and effectively managed and supervised the risk control practices of his or her employee reports during the performance year. Compensation managers are required to certify that they have followed the requirements of Company policies and escalated situations potentially requiring attention for possible cancellations or clawback.

Other performance criteria that may be taken into account in deciding whether to award variable compensation and the amount to award includes: business and market conditions, conduct, adherence to the Company's Code of Conduct and policies, and contribution to the performance and profitability of both the business unit and the Company. Pursuant to the Company's Global Incentive Compensation Discretion Policy, in order to be eligible for any annual incentive compensation, the individual also must remain an active employee performing duties on behalf of the Company, who has not given or been given notice of termination at the time the annual incentive compensation is communicated across the Company to the eligible population of employees.

## 8. Main parameters and rationale for any variable component scheme and any other non-cash benefits

Employees who reach a certain compensation eligibility threshold receive a portion of their variable annual incentive compensation in the form of deferred incentive compensation awards. In 2016 and in general over the years (and also as a result of following the Remuneration Rules), as an eligible employee's compensation and responsibilities increase, a greater percentage of his or her annual incentive compensation is delivered as deferred incentive compensation awards, rather than as an upfront cash bonus.

The mix of deferred cash-based awards and equity awards is determined based on a variety of factors, including the number of shares available for grant under the Company's equity plans and, for Code Staff, ensuring compliance with the Remuneration Rules requirements that at least 50% of any variable remuneration consists of an appropriate balance of shares or share linked instruments. Delivering a portion of deferred incentive compensation awards in the form of equity links variable compensation to Company performance through the Company's stock price performance. In addition, risk outcomes that result in a negative impact to the Company reduce the value of the equity, and the employee is subject to this decline in value through the deferral period.

In 2016, the Company continued to include cancellation provisions that apply to a broad scope of employee behaviour in all deferred incentive compensation awards. Beginning with awards made in 2014, awards granted to members of the Company's Operating Committee are also subject to cancellation if the CMDS Committee determines that the Operating Committee member had significant responsibility for a material adverse outcome for the Company or any of its businesses or functions. In addition, from 1 January 2015, awards of variable annual incentive compensation made to the Company's identified Code Staff are subject to clawback requirements in those jurisdictions where it is legally enforceable, per the Morgan Stanley Code Staff Clawback Policy.

Morgan Stanley believes that its compensation decisions for 2016 demonstrate its focus on long-term profitability and commitment to sustainable shareholder value with appropriate rewards to retain and motivate top talent throughout economic cycles.

## 9. Aggregate quantitative information on remuneration, broken down by business area

The following tables set out aggregate quantitative information on remuneration of Code Staff who are employed by, or are seconded to, the following Morgan Stanley entities that were subject to the Remuneration Code in 2016:

- Morgan Stanley & Co. International plc
- Morgan Stanley International Incorporated
- Morgan Stanley Bank International Limited
- Morgan Stanley Investment Management Limited
- Morgan Stanley UK Limited
- OOO Morgan Stanley Bank

	INSTITUTIONAL SECURITIES GROUP	NON-INSTITUTIONAL SECURITIES GROUP <sup>1</sup>
Aggregate Remuneration (£MM)	328.9	121.8

<sup>1</sup> Group includes Company functions, Investment Management, Operations and Technology.

When reviewing the below tables, please note that a number of employees have shifted from the 'Senior Management' to 'Other' category from 2015 to 2016 in order to align with Senior Manager and Certification Regime (SMCR) definitions.

## 10. Aggregate quantitative information on remuneration, broken down by senior management and members of staff whose actions have a material impact on the risk profile of the institution, indicating the following:

10a. Amounts of remuneration for financial year 2016, split into fixed and variable remuneration, and the number of beneficiaries

	SENIOR MANAGEMENT	MANAGEMENT BODY	OTHERS
Number of Beneficiaries (Code Staff)	16	20	395
Fixed Remuneration (£MM)	17.7	13.5	182.5
Variable Remuneration $(fMM)^1$	18.4	11.1	207.5

<sup>1</sup> Variable remuneration awarded for performance year 2016 contained deferred equity incentives including restricted stock units plus deferred cash incentives.

## 10b. Amounts and forms of variable remuneration for 2016, split into cash, shares, share-linked instruments and other types

	SENIOR MANAGEMENT	MANAGEMENT BODY	OTHERS
Variable Remuneration (£MM)	-	-	
Cash	2.9	2.4	69.4
Deferred Cash	6.4	3.8	58.7
Deferred Stock	9.1	4.8	79.4

#### 10c. Amounts of outstanding deferred remuneration, split into vested and unvested portions

	SENIOR MANAGEMENT	MANAGEMENT BODY	OTHERS
Deferred Remuneration (£MM)			
Vested at Year End 2016 <sup>1</sup>	4.2	10.4	31.2
Unvested at Year End 2016 <sup>2</sup>	31.4	54.0	268.7

<sup>1</sup> Vested deferred equity and cash-based incentives awarded prior to performance year 2016 and vested at 31 December 2016.

<sup>2</sup> Deferred equity and cash-based incentives awarded during or prior to performance year 2016 and unvested at 31 December 2016.

## 10d. Amounts of deferred remuneration awarded during the financial year 2016, paid out, and reduced through performance adjustments

	SENIOR MANAGEMENT	MANAGEMENT BODY	OTHERS
Deferred Remuneration (£MM)			
Awarded	15.5	8.6	138.1
Paid out from Prior Years <sup>1</sup>	23.2	25.6	206.0
Reduced from Prior Years	0.1	0.4	7.2

<sup>1</sup>Deferred equity and cash-based incentives paid in 2016.

10e. New sign-on payments made during the financial year 2016, and the number of beneficiaries of those payments

	SENIOR MANAGEMENT	MANAGEMENT BODY	OTHERS
Remuneration (£MM)			
No. of Beneficiaries	-	-	-
Total	-	-	-

10*f.* Amounts of severance payments awarded during the financial year 2016, number of beneficiaries and highest such award to a single person

	SENIOR MANAGEMENT/	OTHERS
	MANAGEMENT BODY	
Severance payments awarded in 2016 (£MM)	-	3.5
Number of beneficiaries	-	17
Highest such award to a single person (£MM)	-	1.1

10g. The number of individuals being remunerated EUR 1 million or more per financial year, broken down into pay bands of EUR 500,000 for remuneration between EUR 1 million and EUR 4 million, and EUR 1 million pay bands for remuneration between EUR 4 million and EUR 7 million, and aggregated for remuneration of EUR 7 million and above

REMUNERATION (€MM)	NUMBER OF INDIVIDUALS
Over €1MM and up to €1.5MM	94
Over €1.5MM and up to €2MM	40
Over €2MM and up to €2.5MM	16
Over €2.5MM and up to €3MM	12
Over €3MM and up to €3.5MM	7
Over €3.5MM and up to €4MM	3
Over €4MM and up to €5MM	6
Over €5MM and up to €6MM	2
Over €6MM and up to 7MM	2
Over €7MM	5

## **11.** Quantitative information outlined in section 10, at the level of members of the management body

See disclosures in tables above.

This document represents the annual Remuneration Disclosure of Morgan Stanley International Limited and its subsidiaries (the MSI Group), as required under the Capital Requirements Regulations (CRR).