

Morgan Stanley



**Report on the Internal Controls for
Private Wealth Management Custody
Services of Morgan Stanley Wealth
Management Australia Pty Ltd**

ASAE 3402 report for the period 1 July 2020 to
30 June 2021

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Section I: Executive Summary

Section I: Executive Summary

Overview

This report has been prepared to provide clients (or “users”) of Morgan Stanley Wealth Management Australia Pty Ltd (“MSWM”)’s Private Wealth Management (“PWM”) custody services with a description of its system of internal controls. The system, or internal control environment, is an essential component of an organisation’s governance structure. The objectives of an internal control system are to provide reasonable, but not absolute assurance as to the integrity and reliability of the financial information, the protection of assets from unauthorised use, and that transactions are valid. The management of MSWM have established and maintained an internal control system that monitors compliance with established policies and procedures.

This report will be provided to relevant users and their auditors, who have a sufficient understanding to consider it, along with other information including information about controls operated by users themselves, so they may assess the risks of material misstatements of users’ financial reports. It may be provided to others as authorised by MSWM and Deloitte Touche Tohmatsu (“Deloitte”).

Scope

The scope of this report includes the description of MSWM’s PWM custody services throughout the period from 1 July 2020 to 30 June 2021 (the description), and on the design and operating effectiveness of controls related to the control objectives stated in the description.

This report has been prepared in accordance with Australian Standard on Assurance Engagements 3402 *Assurance Reports on Controls at a Service Organisation* (“ASAE 3402”). ASAE 3402 conforms with the International Standard for Assurance Engagements 3402 *Assurance Reports on Controls at a Service Organization* (“ISAE 3402”).

The control objectives in this report are directly referenced from Guidance Statement GS 007 *Audit Implications of the Use of Service Organisations for Investment Management Services* (“GS 007” or “the Guidance Statement”), issued by the Auditing and Assurance Standards Board in Australia.

The specific controls set out in Section VI of the report have been designed to achieve each of the control objectives. The controls have been in place throughout the period from 1 July 2020 to 30 June 2021 unless otherwise indicated.

Specifically excluded from the scope of the report are complementary user entity controls, that is, controls assumed to be implemented by customers for stated control objectives to be met. Also excluded from the scope are other services provided by us not described in the description of the system and control activities.

This report includes controls operated by internal affiliates of MSWM who perform functions to support the custody services MSWM provides to its PWM clients.

This report does not include (carved out) controls at external sub-service organisations of MSWM. The effectiveness of controls performed by users and their service providers should also be considered as part of the overall system of controls.

Summary of results

Below is a summary of the service auditor’s results and conclusions, by control objective. This summary of results does not provide all details relevant for users and their auditors and should be read in conjunction with the entire report. The details of the specific controls tested, and the nature, timing and extent of those tests, are listed in Section VI.

Control Objective	Number of controls effectively designed and operated	Number of controls per control objective	Results	Conclusion (in all material respects)
A.1 New accounts are set up completely and accurately in accordance with client agreements and any applicable regulations.	2	2	No deviations noted	Control objective met
A.2 Complete and authorised client agreements are established prior to initiating custody activity.	1	1	No deviations noted	Control objective met
A.3 Investment and related cash and foreign exchange transactions are authorised and recorded completely, accurately and on a timely basis in accordance with client instructions.	4	4	No deviations noted	Control objective met
A.4 Investment and related cash and foreign exchange transactions are settled completely, accurately and on a timely basis and failures are resolved in a timely manner.	2	2	No deviations noted	Control objective met
A.5 Corporate actions are identified, actioned, processed and recorded on a timely basis.	4	4	No deviations noted	Control objective met
A.6 Cash receipts and payments are authorised, processed and recorded completely, accurately and on a timely basis	2	2	No deviations noted	Control objective met
A.7 Securities lending programs are authorised and loan initiation, maintenance and termination are recorded on an accurate and timely basis.	N/A – MSWM does not provide its PWM clients securities lending services			
A.8 Loans are collateralised in accordance with the lender’s agreement and the collateral together with its related income is recorded completely, accurately and on a timely basis.	N/A – MSWM does not provide its PWM clients loan services			
A.9 Collateral is completely and accurately invested in accordance with the lender’s agreement.	N/A – MSWM does not obtain collateral from its PWM clients			
A.10 Accounts are administered in accordance with client agreements and any applicable regulations.	3	3	No deviations noted	Control objective met
A.11 Changes to non-monetary static data (for example, address changes and changes in allocation instructions) are authorised and correctly recorded on a timely basis.	2	2	No deviations noted	Control objective met
A.12 Investment income and related tax reclaims are collected and recorded accurately and on a timely basis.	4	4	No deviations noted	Control objective met
A.13 Asset positions for securities held by third parties such as sub custodians and depositories are accurately recorded and regularly reconciled.	2	2	No deviations noted	Control objective met
A.14 Assets held (including investments held with depositories, cash and physically held assets) are safeguarded from loss, misappropriation and unauthorised use.	4	4	No deviations noted	Control objective met

Control Objective	Number of controls effectively designed and operated	Number of controls per control objective	Results	Conclusion (in all material respects)
A.15 Assets held are appropriately registered and client money is segregated.	Refer A.14	Refer A.14	No deviations noted	Control objective met
A.16 Transaction errors are rectified promptly.	3	3	No deviations noted	Control objective met
A.17 Appointments of subservice organisations, including sub-custodians, are approved, subservice organisations are managed in accordance with the requirements of the client agreement and their activities are adequately monitored.	4	4	No deviations noted	Control objective met
A.18 Client reporting in respect of client asset holdings is complete and accurate and provided within required timescales.	3	3	No deviations noted	Control objective met
A.19 Asset positions and details of securities lent (including collateral) are reported to interested parties accurately and within the required time scale.	N/A – MSWM does not provide its PWM clients securities lending services			
G.1 Physical access to computer networks, equipment, storage media and program documentation is restricted to authorised individuals.	1	1	No deviations noted	Control objective met
G.2 Logical access to computer systems, programs, master data, client data, transaction data and parameters, including access by administrators to applications, databases, systems and networks, is restricted to authorised individuals via information security tools and techniques.	6	6	No deviations noted	Control objective met
G.3 Segregation of incompatible duties is defined, implemented and enforced by logical security controls in accordance with job roles.	7	7	No deviations noted	Control objective met
G.4 IT processing is authorised and scheduled appropriately and deviations are identified and resolved in a timely manner.	6	6	No deviations noted	Control objective met
G.5 Appropriate measures, including firewalls and anti-virus software, are implemented to counter the threat from malicious electronic attack.	1	1	No deviations noted	Control objective met
G.6 The physical IT equipment is maintained in a controlled environment.	1	1	No deviations noted	Control objective met
G.7 Development and implementation of new systems, applications and software, and changes to existing systems, applications and Software, are authorised, tested, approved, implemented and documented.	6	6	No deviations noted	Control objective met
G.8 Data migration or modification is authorised, tested and, once performed, reconciled back to the source data.	0*	1	*No instances of the control were operated during the period as	Not applicable

Control Objective	Number of controls effectively designed and operated	Number of controls per control objective	Results	Conclusion (in all material respects)
			there were no relevant data migrations	
G.9 Data and systems are backed up regularly offsite and regularly tested for recoverability on a periodic basis.	1	1	No deviations noted	Control objective met
G.10 IT hardware and software issues are monitored and resolved in a timely manner.	1	1	No deviations noted	Control objective met
G.11 Business and information systems recovery plans are documented, approved, tested and maintained.	1	1	No deviations noted	Control objective met
G.12 Information Technology services provided to clients are approved, managed and performance thresholds met in accordance with the requirements of the client agreement.			N/A – MSWM does not provide IT services to its PWM clients.	
G.13 Appointment of sub-service organisations, including those providing IT services, are approved, subservice organisations are managed in accordance with the requirements of the client agreement and their activities are adequately monitored.			N/A – MSWM has not engaged IT sub-service organisations.	

Section II:
Statement by the Service
Organisation

Section II: Statement by Morgan Stanley Wealth Management Australia Pty Ltd

The accompanying description has been prepared for customers who have used the Private Wealth Management ("PWM") custody services and their auditors who have a sufficient understanding to consider the description, along with other information including information about controls operated by customers themselves, when assessing the risks of material misstatements of customers' financial reports/statements. Morgan Stanley Wealth Management Australia Pty Ltd ("MSWM") confirms that:

- (a) The accompanying description in Section III which includes control objectives and control activities included in Section V, including those controls at internal affiliates of MSWM, fairly presents the PWM custody services throughout the period 1 July 2020 to 30 June 2021. The criteria used in making this statement were that the accompanying description:
 - i. Presents how the system was designed and implemented, including:
 - The types of services provided, including, as appropriate, classes of transactions processed.
 - The procedures, within both information technology and manual systems, by which those transactions were initiated, recorded, processed, corrected as necessary, and transferred to the reports prepared for customers.
 - The related accounting records, supporting information and specific accounts that were used to initiate, record, process and report transactions; this includes the correction of incorrect information and how information was transferred to the reports prepared for customers.
 - How the system dealt with significant events and conditions, other than transactions including the impact of COVID-19 as detailed in the "COVID-19 impact" section in the description.
 - The process used to prepare reports for customers.
 - Relevant control objectives and controls designed to achieve those objectives.
 - Controls that we assumed, in the design of the system, would be implemented by customers, and which, if necessary, to achieve control objectives stated in the accompanying description, are identified in the description along with the specific control objectives that cannot be achieved by ourselves alone.
 - Other aspects of our control environment, risk assessment process, information system (including the related business processes) and communication, control activities and monitoring controls that were relevant to processing and reporting customers' transactions.
 - ii. Includes relevant details of changes to MSWM's system during the period 1 July 2020 to 30 June 2021.

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- iii. Does not omit or distort information relevant to the scope of the system being described, while acknowledging that the description is prepared to meet the common needs of a broad range of customers and their auditors and may not, therefore, include every aspect of the system that each individual customer may consider important in its own particular environment
- (b) The controls related to the control objectives stated in the accompanying description were suitably designed and operated effectively throughout the period 1 July 2020 to 30 June 2021. The criteria used in making this statement were that:
- i. The risks that threatened achievement of the control objectives stated in the description were identified;
 - ii. The identified controls would, if operated as described, provide reasonable assurance that those risks did not prevent the stated control objectives from being achieved; and
 - iii. The controls were consistently applied as designed, including that manual controls were applied by individuals who have the appropriate competence and authority, throughout the period 1 July 2020 to 30 June 2021.

Signed on behalf of Management of MSWM.



Philip Hand
Chief Operating Officer
Morgan Stanley Wealth Management

4 November 2021

Section III:
Description of the System
accompanying the Statement by
the Service Organisation

Section III: Description of the System accompanying the Statement by the Service Organisation

Introduction

This report is designed to provide information to be used for financial reporting purposes by the clients of Morgan Stanley Wealth Management Australia Pty Ltd ("MSWM"), their independent auditors and other persons authorised by MSWM and Deloitte. The information in this report is prepared with reference to the guidance in Standard on Assurance Engagements ASAE 3402 *Assurance Reports on Controls at a Service Organisation May 2017*, and with reference to the guidelines contained in Guidance Statement GS 007 *Audit Implications of the Use of Service Organisations for Investment Services October 2011* ("GS 007" or "the Guidance Statement"), issued by the Auditing and Assurance Standards Board (AUASB).

1 Overview of Operations and Applicability of Report

MSWM offers financial planning services, investment advice and stock broking services to Australian and overseas residents (generally high net worth) who wish to invest locally and internationally. MSWM's international platform, known as 'Private Wealth Management' ("PWM") provides clients with access to a broad range of product offerings, including but not limited to international equities, fixed income products, foreign exchange products, listed options, over-the-counter derivatives, structured products, managed funds and other forms of offshore collective investment vehicles. Only clients that meet the Wholesale Client test under the *Corporations Act 2001* (Cth) are able to access the PWM platform.

1.1 General Overview of MSWM

MSWM's immediate parent undertaking is Morgan Stanley Domestic Holdings Inc. MSWM's ultimate parent undertaking and controlling entity is Morgan Stanley & Co LLC ("MSCL") which, together with MSWM and Morgan Stanley's other subsidiary undertakings, form the Morgan Stanley Group. MSWM is:

- a) a registered Australian proprietary company (ACN 009 145 555);
- b) the holder of an Australian Financial Service Licence (AFSL) (Licence Number 240813) issued by the Australian Securities & Investments Commission (ASIC);
- c) a market participant of the financial market operated by the ASX Limited (ASX);
- d) a clearing participant of ASX Clear Pty Limited; and
- e) a settlement participant of ASX Settlement Pty Limited.

MSWM is also a member of the Australian Financial Markets Association.

1.2 Structure of PWM

In respect of MSWM's PWM platform, MSWM acts as the introducing broker to a Morgan Stanley affiliate in the United Kingdom, Morgan Stanley & Co International plc (MSIP). That is, MSWM has a direct relationship with the clients of the PWM platform and provides financial advice and certain administrative services to those clients, but MSIP is responsible for certain other functions, including the provision of custody services.

MSIP (FCA registration number 165935) is authorised by the Prudential Regulatory Authority ("PRA") and regulated by the PRA and the Financial Conduct Authority ("FCA") in the United Kingdom ("UK"). MSIP is subject to the rules of the FCA ("FCA Rules") with respect to holding of client assets, which supplement common law principles of trust. The FCA Rules exist to protect client assets held with an investment firm. FCA regulated financial services firms that hold client assets and client money are subject to the Client Asset Sourcebook section of the FCA Rules ("CASS"), which sets out the requirements relating to holding client assets and client money.

MSIP is exempt from the requirement in Australia to hold an AFSL under the *Corporations Act 2001* (Cth) in respect of the provision of certain financial services. When providing financial services to Australian wholesale clients, MSIP does so through reliance on ASIC Corporations (Repeal and Transitional) Instrument 2016/396.

MSIP is registered as a foreign company in Australia (ARBN 613 032 705).

As noted above, MSIP is responsible for the provision of custody services in relation to assets held on the PWM platform. MSIP does not accept orders or instructions directly from PWM clients – all instructions are placed through MSWM. MSWM is responsible for:

- (a) accepting and transmitting orders and instructions regarding investments;
- (b) approving, opening and monitoring PWM accounts including obtaining, verifying and retaining client account information and documents;
- (c) determining whether persons placing instructions for the PWM accounts are authorised to do so;
- (d) investigating and responding to any questions or client complaints related to the PWM accounts;
- (e) maintaining the required books and records with respect to the functions it performs; and
- (f) providing discretionary investment services in certain circumstances.

1.3 Applicability of Report

This report relates only to the PWM custody services provided to MSWM PWM clients. This report is intended to provide an understanding of the description of the custody controls related to transactions in equities, fixed income, cash, mutual funds, alternative investments, foreign exchange products, listed options, over-the-counter derivatives, structured products, managed funds and other forms of offshore collective investment vehicles. The control functions are located in Sydney, London, Hong Kong, Singapore, India and the United States.

The report covers controls over the following areas with regard to accounts on the PWM platform:

- Account set-up and account modification
 - Open new accounts, maintain existing accounts and update client account information, as required, and in accordance with internal processes
- Trading, trade support and settlement
 - Execution, booking and settlement of all trades executed through the MSIP platform
- Cash management
 - Manage deposits and payments for all clients on the PWM platform
- Security transfers
 - Process incoming and outgoing security transfers
- Errors handling
 - Manage all errors in a timely manner and in accordance within defined Risk procedures
- Investment income and corporate income
 - Process all investment related income directly to the client account
- Reconciliation
 - Reconcile all positions and ensure all positions are accurately reflected on client accounts
- Custody
 - Maintain client assets through agent Custodians and Sub-Custodians in different countries and monitor the network of Custodians through an ongoing review process

- Client reporting
 - Report all positions held in Custody and provide monthly reporting to all clients on the PWM platform
- Information system security
 - Maintain information security to the highest standards to protect business information from modification and disruption
- Information system operations
 - Internal systems used to process day-to-day transactions on the PWM platform
- Application development and maintenance, and
 - Develop and maintain internal applications to ensure systems are up-to-date and software product development is maintained effectively.
- Business continuity management.
 - Global Business Continuity management plan that ensures the Firm is prepared in advance for potential business-impacting incidents

For the above mentioned areas the operational and technology controls are the responsibility of MSWM however many are operated by MSWM internal affiliates. Controls at internal affiliates MSIP, MSCL and Morgan Stanley Institutional Securities Group (MSISG) are included in scope of this report to the extent they relate to custody services provided to MSWM PWM clients. Refer to Section VI for these relevant controls.

With regards to the custody process, MSIP may outsource certain functions to sub-custodians as part of Morgan Stanley's global custody network. These outsourced functions are controlled by Morgan Stanley's Global Network Management department. The report does not extend to the controls at sub-custodians.

Some MSWM clients have the custody service provided outside of Morgan Stanley by third party service providers. This occurs in some circumstances for specific products (e.g. hedge funds). For these client relationships, the activities handled by third party service providers are outside the scope of this report.

2 Business Structure

MSWM is dedicated to serving clients through a relationship based on advice, integrity and mutual trust. When a new client comes to MSWM, the relationship begins with a discovery process; an in-depth dialogue to identify all the factors surrounding and defining the client's wealth. This includes the client's short and long-term goals and concerns, the structure of his or her holdings, and the client's exposure to, and tolerance for, risk.

The client's dedicated team, along with Morgan Stanley's wealth management specialists, then work with the client to construct, implement and monitor a service that will help the client achieve his or her objectives.

The MSWM business is divided in two key functions and responsibilities:

(a) Financial Advisers

Financial advisers are the client's primary point of contact. They work closely with clients to devise the appropriate investment approach. This may include developing and implementing a strategic asset allocation and risk management solution. Thereafter, financial advisers work with the client to meet their needs on a day-to-day basis. They ensure that any change in financial circumstances or risk profile is reflected in the construction of the portfolio. The financial advisers also provide access to Morgan Stanley's global research and trading franchise and can provide additional investment solutions on an advisory basis.

(b) Administration, risk management, technology and support

MSWM provides financial advisers and their clients support through a number of business activities including the provision of investment research and products, holistic financial planning services and portfolio administration activities. On a day-to-day basis, risk management controls assist financial advisers to ensure that portfolios are being structured within agreed client risk tolerances. Oversight of the business is conducted at multiple layers by risk management, business management and autonomous compliance, legal and audit teams.

Through the Morgan Stanley's PWM platform clients can receive real-time access to their portfolios via a client web portal, called Matrix, as well as access to Morgan Stanley's published research.

3 Control environment and risk management

The control environment is an essential component of an organisation’s governance structure and includes the control consciousness of its people. It is the foundation for all other components of internal control, providing discipline and structure. The objectives of an internal control structure is to provide reasonable, but not absolute, assurance as to the integrity and reliability of the financial information, the protection of assets from unauthorised use or disposition, and that transactions are executed in accordance with management’s authorisation and client instructions. The management of MSWM have established and maintained an internal control structure that monitors compliance with established policies and procedures.

MSWM’s executive management are accountable to the Board of Directors of MSWM for monitoring the system of internal control within the business. MSWM’s executive management have implemented an internal control system designed to facilitate effective and efficient operations. The control environment has been designed to enable management to respond appropriately to significant business, operational, financial, compliance and other risks. The system of internal control contributes to ensuring adequate control of internal and external reporting and compliance with applicable laws and regulations.

MSWM regards its internal control environment as fundamental to its business strategy. All business development initiatives are required to adhere to stringent control standards.

The control objectives and related controls activities are described in more detail in Section VI. In determining the controls and control objectives we took into account the following criteria:

- The risks that threatened achievement of the control objectives stated in the description were identified;
- The identified controls would, if operated as described, provide reasonable assurance that those risks did not prevent the stated control objectives from being achieved; and
- The description of the controls and control environment does not omit relevant information.

3.1 Organisational Structure

MSWM’s organisational structure provides a framework within which its business activities are planned, executed, controlled and monitored. A significant aspect of the set structure is defining key areas of authority and responsibility and establishing appropriate lines of reporting.

Organisational Chart

The organisational chart for the senior management of MSWM as at 30 June 2021 is shown below:



Functional Groups

The functional groups and their key responsibilities for areas in scope for this report are:

Group	Function
Branch Administration	Account set-up and modification Errors handling
Risk Management	Risk monitoring Business Continuity Management
Operations	New account set up Client reporting Trade support and settlement Deposit and payments Security transfers

	Reconciliation Investment income and corporate income Corporate actions
Information Technology	Information system security Information system operations System development and maintenance
Sales & Marketing	Client interface Trading Cash management
Legal Entity Group	AML checks

3.2 Communication and Enforcement of Integrity and Ethical Values

For MSWM, maintaining an environment that demands integrity and ethical values is critical for the establishment and maintenance of an effectively controlled organisation. The effectiveness of internal controls cannot rise above the integrity and ethical values of the people who create, administer and monitor them. Therefore MSWM Board and Management promote integrity and ethical values.

MSWM as well as the whole of Morgan Stanley focuses on recruiting only high quality individuals for each position. MSWM provides specific rules, procedures and training for employees to fulfil the given tasks in the best interest of the organisation.

MSWM adheres to the Morgan Stanley codes and policies (such as Code of Conduct, Non-discrimination, and Anti-harassment policy) by requiring employees to read and acknowledge the codes and policies. Morgan Stanley conducts regular training and education sessions that are mandatory for employees. MSWM's management expect employees to maintain high moral and ethical standards.

Employees of MSWM have pre-clearance and reporting obligations with regards to employee securities accounts, personal securities transactions, outside activities, private placements, gifts and entertainment.

3.3 Assignment of Authority and Responsibility

The control environment is greatly influenced by the extent to which individuals recognise that they are held accountable. MSWM encourages individuals and teams to use initiative in addressing issues and solving problems. Management communicates, through various means (such as emails and meetings), its policies describing appropriate business practices to the staff.

MSWM has developed departmental responsibilities and reporting structures to ensure that there is adequate segregation of functions and duties throughout the business.

Key functions and duties are appropriately segregated as follows

- The front office (trade execution and processing) function must be segregated from the back-office function (setting up new client accounts, reconciliation process and financial reporting);
- Compliance, legal and audit are separate functions and provides compliance and monitoring oversight across the business.

3.4 Internal Audit Reviews

MSWM's risks and controls are reviewed by Morgan Stanley's Internal Audit department. Internal Audit evaluates the adequacy and effectiveness of controls over MSWM's governance, operations, and information systems. Audit reports, which carry an audit rating and outline the degree to which unacceptable risk exposures were identified, are presented to senior management. The audit reporting process actively considers and recommends ways in which control weakness may be corrected or risks may be mitigated. Management is required to respond to audit findings and to indicate target dates as to when appropriate corrective action will be completed.

3.5 Risk Management

Risk Management is responsible for the supervision and oversight of all aspects of MSWM risk, including market and non-market risks, and ensures that risks assumed are identified, understood and appropriately managed. Key risks facing the MSWM business are:

- Credit Risk: the most significant credit risk is that MSWM does not get paid back margin loans granted to clients (including risks associated with managing the collateral lodged by clients).
- Client Suitability Risk: the risk that MSWM faces financial loss as a result of selling products to clients for which they are not suitable (considered on both an upfront and ongoing basis).
- Product Suitability Risk the risk that MSWM faces financial loss as a result of Morgan Stanley doing insufficient due diligence on the products which it distributes to clients.
- Operational Risk: The risk that MSWM faces losses arising from failed or inadequate internal processes, systems or people, or from external events.

Additionally, MSWM has the following in place to reduce risk:

- Insurance Policies - MSWM maintains adequate levels of insurance and is review on a yearly basis.
- Business Continuity Plans - Business continuity involves infrastructure solutions that have been implemented to provide full application redundancy whilst simplifying business continuity arrangements so that they are either initiated automatically or can be actioned by staff in a timely manner.
- Disaster Recovery Plan - MSWM has disaster recovery plans in place. Testing is done annually for work area recovery (WAR) site and plans are updated annually.

COVID-19 impact

The outbreak of COVID-19 and the global response to reduce the spread of the virus has resulted in the implementation of unprecedented social distancing and people movement restrictions and a contraction in global economic activity. The timing and trajectory of the economic recovery remains uncertain.

The impact on business operations have been assessed and reflected in the description of the Morgan Stanley Wealth Management systems and controls.

Risk Assessment

Risk assessment approach and conclusions have been reviewed to ensure that they are appropriately responsive to the changes in the organisation that have occurred since the outbreak of COVID-19 and include the following key areas:

- offices being closed or access is limited;
- technology and other infrastructure disruption including risk of cyber attack;
- processes that are manual or reliant on key employees;
- access to relevant data that is used to prepare certain financial information and reports;
- delays in processing of transactions due to employee constraints;
- assessment of the fraud risk and any changes to the control environment;
- assessment of subservice organisations' ability to reliably execute their processes and controls; and
- impact on the design, implementation and operating effectiveness of controls throughout the period due to the working from home arrangements.

Review of controls

Review of controls which needed adjustment (as well as appropriate documentation of the adjustment maintained) to compensate for changes in risk, or contingency plans put in place. Our consideration focused on the following key areas:

- reviewing policies and control design, including the review of any manual controls;
- invoking the business continuity plan (BCP) and review and update of the BCP;
- remote working arrangements changing how a control traditionally operated or how consistently the control operated;
- review and contacting subservices organisations to understand and assess any risk from changes to their services; and ensuring monitoring activities cover any newly implemented controls or processes

Invoking BCP

In response to advice issued by Australian government authorities regarding COVID-19 and to support the health and wellbeing of our staff, clients and communities, Morgan Stanley Wealth Management Australia invoked its BCP on 16 March 2020 and required all staff to work from home until further notice, with core staff allowed to come to the office in a Team A/B split format on a weekly rotation. As at the date of this report all staff are allowed back to the offices on a voluntary basis in Adelaide, Perth, Brisbane and Sydney, however Melbourne staff continue to work from home.

Remote access arrangements were, prior to the BCP being invoked in response to COVID-19, in place for all staff and operated in line with internal requirements and technology solutions. Established systems and processes enabled continuity of Wealth Management Services to clients throughout the working from home period. In terms of business activities:

- investment management and monitoring of portfolio assets continued in accordance with the established investment management framework;
- trading and advice activity continued with the increased market volatility in particular around March/April providing for an increase in trading volumes;
- reporting and compliance requirements continued to be satisfied, operating in accordance with established procedures and processes;
- the operational risk committee continued to operate as usual with members available to meet on an as required basis; and
- the board continued to operate as usual with directors available to meet on an as required basis.

3.6 Information and Communication

Information and communication is integral to the continual competitiveness of an organisation. Morgan Stanley's management has policies and procedures in place to initiate, record, process, and report entity transactions and to effectively communicate and distribute relevant information timely. Both management and operations personnel are provided with an understanding of their individual roles and responsibilities pertaining to internal controls.

MSWM management encourage individuals and teams to use initiative in addressing issues and solving problems. Employees are made aware of changes to policies and procedures, significant business events and other major announcements by written communication (such as email). General Morgan Stanley announcements are communicated either through email or via Morgan Stanley's intranet. The employees are obligated to safeguard and prevent disclosure of sensitive, proprietary, confidential, privileged, or secret information. MSWM has various policies in place governing this.

3.7 Monitoring

An important management responsibility is to establish and maintain internal controls and to monitor business developments on an ongoing basis. MSWM management reviews such areas through various metric figures, reviews and committees.

MSWM's policies and procedures are subject to an annual review by the Executive Committee, MSWM Board, Audit Committee and Legal and Compliance Division (LCD).

These included:

- Compliance Monitoring – MSWM's compliance team performs the independent checking and observing of each business or function's adherence to relevant rules and/or policies and procedures (e.g. through sample-based re-performance, review of possible exceptions flagged via detection scenarios, and trends analysis of first-line compliance activities, or through other methods)
- Conflict of interest – MSWM manages conflicts of interest via the implementation of internal control policies, processes and procedures, including standards of conduct; disclosure; avoidance; and monitoring.
- Breach reporting – MSWM maintains a breach register for internal and external breaches. This is monitored and reported to the Board.

3.8 Complimentary User Entity Controls

MSWM's services were designed with the assumption that certain controls would be placed in operation at user entities. This section describes controls that should be in operation at user entities to complement the controls at MSWM.

Specifically, controls should be established to validate that:

- User entity instructions and information provided to MSWM should be in accordance with the provisions of the client agreement or other applicable governing agreements or documents in effect between MSWM and the client (A2,A3,A6 & A11)
- The user entity should have sufficient controls to ensure that proper instructions are authorised, timely and in accordance with regulatory requirements. User entities should have effective controls over the authorisation, periodic review and removal of access rights for their staff to access systems. (A2, A3, A6 & A11)
- User entities should provide proper instructions and information to MSWM using data transmission delivery methods in accordance with MSWM security standards. Instructions and information provided to MSWM using methods not in accordance with the security standards may be less secure. The user entity should have sufficient controls to ensure that the set-up of new accounts on applicable systems or changes to existing accounts are authorised, approved and implemented. (A2, A3, A6 & A11)
- User entities should provide MSWM with timely written notification regarding changes to those individuals authorised to instruct on behalf of client activities. (A2, A3 & A6)
- User entities should periodically review standing instructions provided to MSWM (A2, A3 & A6)
- User entities should establish, monitor and maintain effective controls over physical and logical access to their computer systems via PCs at client locations. (A2, A3 & A6)
- User entities should perform a timely review of reports provided for holdings and cash balances and related activity and provide written notice of any discrepancies. (A16)
- User entities should provide timely tax information to MSWM to ensure the efficient completion of year-end reporting (A12 & A18)

This list does not represent a comprehensive set of all the controls to be employed by user entities. Other controls may be required at user entities, depending upon each individual circumstance.

4 Operations and infrastructure support model – affiliates controls

MSWM relies in part on Morgan Stanley's support infrastructure to conduct its business through the outsourcing of some services and systems.

Services that are provided to MSWM by MSIP (and other entities of the Morgan Stanley Group) include:

- information technology
- operations
- legal and compliance
- risk management
- tax
- financial and regulatory controls, and
- treasury

As part of the delegated operations services, certain activities to support the delivery of custody services such as the handling of corporate actions and dividends/income, and the segregation of assets are delegated to Morgan Stanley's ISG Operations (MSISG) as outlined below:

- MSISG handles for MSWM's PWM customers the receipt and distribution of dividends and other distributions, the processing of exchange offers, right offerings, warrants, tender offers, exercises, calls, redemptions and sales and transfers of shares subject to any applicable restriction, other corporate actions and such other functions
- MSISG ensures the segregation of client assets and firm assets in line with FCA regulations. The Operations team protects positions by keeping client assets in a segregated safekeeping account.

Key Third Party / External Subservice Organisations

MSWM uses the services of third-party service providers in some operations with Service Level agreements in place. Monitoring of service providers is overseen by Management, with compliance undertaking periodic monitoring to ensure that counterparties are complying with reporting and other contractual obligations.

MSWMs key external subservice provider relevant to supporting custody services for MSWM PWM clients is Clearstream, in the provision of investor statement reporting. This report does not include controls at Clearstream or any other external sub-service organisation.

The effectiveness of controls performed by users and their service providers should also be considered as part of the overall system of controls.

5 IT systems

5.1 Network and Infrastructure

MSWM PWM utilises both mainframe and distributed technology. The key system platforms are standardized on z/OS, Linux and Windows operating systems. Morgan Stanley owns and operates the Data Centres located in Somerset, New Jersey, Piscataway, New Jersey, and Ashburn, Virginia.

5.2 Information Technology Organisation

Morgan Stanley IT is divided into the business units with a New York based IT Senior Manager heading up PWM IT from a global perspective while global functional heads report to the New York based IT Senior Manager. Some of the functional heads also have a regional responsibility, in which case they also report to local business heads in their regional offices. Staff working on global projects will have a link, organized by function, to the functional area that is leading and managing that project.

Morgan Stanley's Enterprise Infrastructure Group ("EI") is responsible for each business line's server management and deployment needs, providing adherence to Morgan Stanley IT standards. PWM is a business line under the responsibility of the Engineering/service account manager for PWM. While the responsibility is centralized, the specialized support groups are resident in each location. Specialized groups include Network, UNIX, Windows and database support. The IT functions generally operate based on firm wide standards. There are policies and procedures for many functions set by Quality Assurance and Production Management (QAPM).

Production Management is responsible for supporting PWM applications and ensuring the stability of the IT environment. Responsibilities include application support, software turnovers/deployments and monitoring of overnight batch processes. ASG personnel are located across several regions which ensures that there is coverage throughout the day and night. Refer below to Section III 5.4 In Scope Application for further details.

In-bound instructions to Clearstream are received and processed electronically via a number of systems like B3, Cash Application System and Webstreame (which is a secure order management system to receive instructions). An ASAE 3402 Assurance Report on Controls at a Service Organisation has been received from Clearstream which is referred to as "Report on the Internal Controls for Custody, Investment Administration and Related Information Technology Services".

5.3 BCM/DRP

Morgan Stanley maintains global programs for business continuity management and technology disaster recovery that facilitate activities designed to protect the Firm during a business continuity event. A business continuity event is an interruption with potential impact to normal business activity of the Firm's people, operations, technology, suppliers, and/or facilities.

The business continuity program's core functions are business continuity planning (with associated testing) and crisis management. The Firm has dedicated Business Continuity Management staff responsible for coordination of the program governed by the Business Continuity Governance Committee and a Risk Oversight Committee. In addition, a Committee of the Board of Directors (the "Board Committee") and senior management oversee the program. BCM reports to the Board Committee at least annually on the status of program components such as business continuity events and business continuity testing results.

BCM facilitates the exchange of information within the Firm during an incident. BCM works with partners in Technology, Security, and Corporate Services to assess incidents for the level of impact to businesses

and, as appropriate, escalate them accordingly. BCM provides 24/7 global coverage to monitor and manage incidents.

5.4 In Scope Applications

The following applications are applicable to the delivery of custody services to MSWM PWM clients.

Application	Description
AQUA	US Aqua coverage includes but is not limited to (1) daily SEC 15c3-3 customer reserve; (2) daily and monthly SEC 15c3-1 securities haircuts; (3) monthly SEC 15c3-1 FOCUS reporting. UK Aqua calculates the daily client money lockup required by the FCA.
CashForecasting	CashForecasting automates the process of forecasting cash requirements in various currencies and generating fx spot, money market, fiduciary and bank deposit orders, as appropriate and electronically transmit to the relevant execution and processing systems.
IWM Client Management	Strategic project for IWM to create a centralized client data repository.
FC3	FC3 is a Client trade confirmation system that delivers trade confirmations. Confirms are delivered to clients based in incoming trade messages matching rules that are managed by client service in Operations. This platform is responsible for intra-day confirmation of client trading to custodians and clients globally, supporting both industry standard and client specific formats to meet internal, external and regulatory requirements.
Intellimatch (Ops Control Apps)	Intellimatch is a generic reconciliation system that receives data from a variety of both internal and external data sources to carry out reconciliations for multiple internal customers. Data from the Intellimatch system is downloaded to a number of risk tracking and management reporting functions.
QWEST	QWEST (Query Workflow Exceptions Services Technology) is an Enterprise-wide application that consolidates information from many underlying data sources into one portal.
SAFE Global Settlements	SAFE is Morgan Stanley's in-house settlement system. SAFE ensures that the contract agreed between two trading parties is fulfilled. In its simplest form, SAFE facilitates the transfer of securities and cash as per the agreement on the trade contract and notes exceptions.
Scorpio	Covers the Scorpio application for calculation of entitlements arising from corporate actions and dividends and processing elections of those entitlements
STP Workstation	PWM STP Workstation is a PWM Proprietary order entry and order management system. It supports Equities, Options, OTC's, Mutual Funds and Fixed Income products. It performs order capture, pre-trade checks, execution and client side booking support.
T2	T2 is a trade capture and lifecycle management system for Equity OTC derivative trades and positions and their hedges. For listed equity derivatives and cash equities, it also provides the ability to move positions between internal firm accounts and to capture off-exchange trades with external brokers.
LiveWire	LiveWire GUI enables maintenance & tracking of deals, rates and clients in Wire, track charges in Global Billing System and create overrides in RBC system.
ASRV	This is the renovated platform for Asset Services applications.
Presto	Presto is a strategic solution to automate critical manual processes and replace the EUCs and tactical applications in the Firm. Presto is best fit for: 1) Control reporting - reports/alerts to facilitate users to perform control/monitoring functions 2) Data integration - data exchange between MS and external system in a variety of data formats 3) Data integrity check - detect data integrity issue before further user or downstream processing.
Client Suitability Engine (CSE)	Web application and middle tier services, that will be used for assessing the client Suitability and Eligibility - for pre and post trade checks (PRR checks for example) for Asia and Australia Clients.
FCO	FCO Overnight regulatory confirmation system FCO is a Client trade confirmation system that delivers overnight official trade confirmations for

Application	Description
	Equity, Fixed Income, PWM and Prime Brokerage. It is a close relation to the FC3 system which delivers real time confirms for the same trades.
EPS (Expert Payment System)	Assessment system used to analyze cash payments leaving the Firm.
CMI	CMI is the cash management instruction system.
GIM2	PWM portfolio accounting system front end applications and database.
Client RefData Mgmt (CRD/PIPE)	Client RefData Mgmt (CRD/PIPE) supports the creation of new accounts and parties, including regulatory tasks for the on-boarding process.
Libra and Operational GUIs	Libra is the TAPS Position & Balance subledger. Libra contains the P&B data and the journal audit trail forming this data. Libra also contains the JEMS (Renovated Manual Journal System).
MSPA-IVWM Reporting	MSPA Cost Accounting Engine for all ISG businesses. The Backend GRN performing all the key accounting functionality is the mspa3 grn (EON 13572) This is the reporting database part of the functionality; and the user interface part IWM Asia/AU/EMEA business. A separate GRN is being opened as this part of the application handles PII
PWMSecure	System entitlements are managed through

Section IV:
Independent Service Auditor's
Assurance Report on the
Description of Controls, their
Design and Operating
Effectiveness

Independent Service Auditor's Assurance Report on the Description of Controls, their Design and Operating Effectiveness

To the Directors of Morgan Stanley Wealth Management Pty Ltd ("MSWM")

Opinion

We have been engaged to report on MSWM's description in Section III of its internal controls over Private Wealth Management's ("PWM") custody services system and on the design and operation of controls related to the control objectives stated in the Section VI throughout the period from 1 July 2020 to 30 June 2021 (the description).

In our opinion, in all material respects, based on the criteria in Section II:

- (a) The description fairly presents the PWM's custody services system as designed and implemented throughout the period from 1 July 2020 to 30 June 2021;
- (b) The controls related to the control objectives stated in Section VI were suitably designed throughout the period from 1 July 2020 to 30 June 2021; and
- (c) The controls tested, which were those necessary to provide reasonable assurance that the control objectives stated in Section VI were achieved, operated effectively throughout the period from 1 July 2020 to 30 June 2021.

Basis of Opinion

We conducted our engagement in accordance with Standard on Assurance Engagements ASAE 3402 *Assurance Reports on Controls at a Service Organisation*, and with reference to Guidance Statement GS 007 *Audit Implications of the Use of Service Organisations for Investment Management Services*, issued by the Auditing and Assurance Standards Board. That standard requires that we plan and perform our procedures to obtain reasonable assurance about whether, in all material respects, the description is fairly presented and the controls are suitably designed and operating effectively.

We have not evaluated the suitability of design or operating effectiveness of complementary user entity controls. The control objectives stated in the service organisation's description of its system can be achieved only if complementary user entity controls are suitably designed or operating effectively, along with the controls at the service organisation.

The following internal affiliates perform functions to support the custody services MSWM's provides to its PWM clients:

- MSIP – in the provision of custody services
- MSISG – in the provision of custody operations
- MSCL - in the provision of IT services

The inclusive method has been used in relation to the above internal affiliates, meaning MSWM's description of its PWM custody services system includes control objectives and related controls at the abovenamed internal affiliates. Our procedures extended to controls at the abovenamed internal affiliates to the extent they related to the custodial services.

Clearstream is an external subservice organisation who perform functions on behalf of MSWM's custody services provided to PWM clients in relation to investor statement reporting. The carve-out method has been used in relation to Clearstream. MSWM's description of its PWM custody services system excludes control objectives and related controls at Clearstream, consequently our procedures did not extend to controls at Clearstream.

Our opinion has been formed on the basis of the matters outlined in this report.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

MSWM's Responsibilities

MSWM is responsible for: preparing the description and accompanying statement in Section II, including the completeness, accuracy and method of presentation of the description and statement; providing the services covered by the description; stating the control objectives; and designing, implementing and effectively operating controls to achieve the stated control objectives.

Our Independence and Quality Control

We have complied with independence and other relevant ethical requirements relating to assurance engagements, and apply Auditing Standard ASQC 1 *Quality Control for Firms that Perform Audits and Reviews of Financial Reports and Other Financial Information, Other Assurance Engagements and Related Services Engagements* in undertaking this assurance engagement.

Service Auditor's Responsibilities

Our responsibility is to express an opinion on MSWM's PWM custody services system description and on the design and operation of controls related to the control objectives stated in that description, based on our procedures.

An assurance engagement to report on the description, design and operating effectiveness of controls at a service organisation involves performing procedures to obtain evidence about the disclosures in the service organisation's description of its system, and the design and operating effectiveness of controls. The procedures selected depend on our judgement, including the assessment of the risks that the description is not fairly presented, and that controls are not suitably designed or operating effectively. Our procedures included testing the operating effectiveness of those controls that we consider necessary to provide reasonable assurance that the control objectives stated in Section VI were achieved. An assurance engagement of this type also includes evaluating the overall presentation of the description, the suitability of the objectives stated therein, and the suitability of the criteria specified by the service organisation (MSWM) and described in Section II.

In evaluating the suitability of the objectives stated in the description, we have determined whether each of the minimum control objectives provided in GS 007 for custody services is included, or, if any of them are omitted or amended, that the reason for the omission or amendment is adequately disclosed in the description.

Limitations of Controls at a Service Organisation

MSWM's description is prepared to meet the common needs of a broad range of customers and their auditors and may not, therefore, include every aspect of the system that each individual customer may consider important in its own particular environment. Also, because of their nature, controls at a service organisation may not prevent or detect all errors or omissions in processing or reporting transactions. Also, the projection of any evaluation of effectiveness to future periods is subject to the risk that controls at a service organisation may become inadequate or fail.

Description of Tests of Controls

The specific controls tested and the nature, timing and results of those tests are listed in Section VI.

Other Information

Management is responsible for the other information. The other information comprises the information included in Section I. Other information provided by the Service Organisation that does not form part of our Opinion for the year ended 30 June 2021 but does not include the statement in Section II, Description in Section III and the control objectives and controls stated in the description and our service auditor's report thereon.

Our opinion on the description in Section III and on the design and operation of controls related to the control objectives stated in Section VI does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our assurance engagement, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the description in Section III or our knowledge obtained during the assurance engagement, or otherwise appears to be materially inconsistent or contains a material misstatement of fact. If, based on the work we have performed, we conclude that there is a material inconsistency or a material misstatement of fact of this other information, we are required to report that fact. We have nothing to report in this regard.

Intended Users and Purpose

This report and the description of tests of controls in Section VI are intended only for customers who have used MSWM's PWM custody services and related information system, and their auditors, who have a sufficient understanding to consider it, along with other information including information about controls operated by customers themselves, when assessing the risks of material misstatements of customers' financial reports/statements.

Restriction of distribution and use

We disclaim any assumption of responsibility for any reliance on this report to any person other than the MSWM's clients and their auditors or for any purpose other than that for which it was prepared. This report is not intended to and should not be used or relied upon by anyone else and we accept no duty of care to any other person or entity.

Deloitte Touche Tohmatsu



Vincent Sita
Partner
Chartered Accountant
Sydney, 5 November 2021

Section V: Overview of the Work Performed

Section V: Overview of the Work Performed

Introduction

This report on the description of the system is intended to provide customers and their auditors with information for their evaluation of the effect of a service organisation on a customer's internal control relating to MSWM's internal controls over Private Wealth Management's ("PWM") custody services system throughout the period 1 July 2020 to 30 June 2021.

Deloitte Touche Tohmatsu's engagement was conducted in accordance with the Standard on Assurance Engagements 3402, *Assurance Reports on Controls at a Service Organisation*, issued by the Auditing and Assurance Standards Board. Testing of MSWM's PWM controls was restricted to the control objectives and related control activities listed in Section VI and was not extended to controls that may be in effect at user organisations.

Deloitte Touche Tohmatsu's work was carried out remotely using virtual tools and technologies in Sydney as well as across Asia, the US and UK. The scope of work was based on criteria (control objectives) agreed with management of MSWM prior to the commencement of work.

Control environment elements

The control environment sets the tone of an organisation, influencing the control consciousness of its people. It is the foundation for other components of internal control, providing discipline and structure. In addition to the tests of design, implementation, and operating effectiveness of controls identified by MSWM, Deloitte Touche Tohmatsu's procedures included tests of the relevant elements of MSWM's control environment as outlined in Section III.

Such tests included inquiry of the appropriate management, supervisory, and staff personnel; observation of MSWM's activities and operations, inspection of MSWM's documents and records, and re-performance of the application of MSWM's controls. The results of these tests were considered in planning the nature, timing, and extent of testing of the control activities described in Section VI.

Obtaining Evidence Regarding the Description

Deloitte Touche Tohmatsu obtained and read the service organisation's description of its system in Section III, and evaluated whether those aspects of the description included in the scope of the engagement are fairly presented, including whether:

- a) Control objectives stated in the service organisation's description of its system are reasonable in the circumstances;
- b) Controls identified in that description were implemented;
- c) Complementary user entity controls, if any, are adequately described; and
- d) Services performed by a subservice organisation, if any, are adequately described, including whether the inclusive method or the carve-out method has been used in relation to them.

Obtaining Evidence Regarding Design of Controls

In determining which of the controls at the service organisation are necessary to achieve the control objectives stated in the service organisation's description of its system, Deloitte Touche Tohmatsu assessed whether those controls were suitably designed. This included:

- a) Identifying the risks that threaten the achievement of the control objectives stated in the service organisation's description of its system; and
- b) Evaluating the linkage of controls identified in the service organisation's description of its system with those risks. Some of the considerations Deloitte Touche Tohmatsu took into account included:
 - Appropriateness of the purpose of the control and its correlation to the risk/assertion
 - Competence and authority of the person(s) performing the control
 - Frequency and consistency with which the control is performed

- Level of aggregation and predictability
- Criteria for investigation (i.e. threshold) and process for follow-Up

Tests of operating effectiveness

Deloitte Touche Tohmatsu's tests of the controls were designed to cover a representative number of transactions throughout the period from 1 July 2020 to 30 June 2021. In determining the nature, timing and extent of tests we considered the following:

- Nature and frequency of the controls being tested
- Types of available evidential matter
- Nature of the control objectives to be achieved
- Assessed level of control risk
- Expected effectiveness of the test, and
- Results of tests of the control environment.

Testing the accuracy and completeness of information provided by MSWM is also part of the testing procedures performed. Information we utilised as evidence may have included, but was not limited to:

- Standard "out of the box" reports as configured within the system
- Parameter-driven reports generated by MSWM's systems
- Custom-developed reports that are not standard to the application such as scripts, report writers, and queries
- Spreadsheets that include relevant information utilized for the performance or testing of a control
- MSWM prepared analyses, schedules, or other evidence manually prepared and utilised by MSWM.

While these procedures may not be specifically called out in the test procedures listed in Section VI, they may be completed as a component of testing to support the evaluation of whether or not the information is sufficiently precise and detailed for purposes of fully testing the controls identified by MSWM.

Description of testing procedures performed

Deloitte performed a variety of tests relating to the controls listed in Section VI throughout the period from 1 July 2020 to 30 June 2021. The tests were performed on controls as they existed during this period and were applied to those controls relating to control objectives specified by MSWM.

Tests performed for the purpose of this report may have included, but were not limited to those described below:

Test	Description
Inquiry	Conducted detailed interviews with relevant personnel to obtain evidence that the control was in operation during the report period and is accompanied by other procedures noted below that are necessary to corroborate the information derived from the inquiry.
Observation	Observed the performance of the control multiple times throughout the report period to evidence application of the specific control activity.
Inspection of documentation	If the performance of the control is documented, inspected documents and reports indicating performance of the control.
Reperformance of monitoring activities or manual controls	Obtained documents used in the monitoring activity or manual control activity and independently reperfomed the procedures. Compared any deviation items identified with those identified by the responsible control owner.
Reperformance of programmed processing	Input test data, manually calculated expected results, and compared actual results of processing to expectations.

Sampling Methodology

In terms of frequency of the performance of the control by MSWM, we consider the following guidance when planning the extent of tests of control for specific types of control.

- a) The purpose of the procedure and the characteristics of the population from which the sample will be drawn when designing the sample;
- b) Determine a sample size sufficient to reduce sampling risk to an appropriately low level;
- c) Select items for the sample in such a way that each sampling unit in the population has a chance of selection;
- d) If a designed procedure is not applicable to a selected item, perform the procedure on a replacement item; and
- e) If unable to apply the designed procedures, or suitable alternative procedures, to a selected item, treat that item as a deviation.

The following guidelines are at a minimum followed in performing the test of controls:

Frequency of control activity	Minimum sample size
Annual	1
Quarterly	2
Monthly	2
Weekly	5
Daily	15
Many times per day	25
Automated Controls	Test one instance of each automated control.
Indirect Controls (e.g., indirect entity-level controls, general IT controls)	For those indirect entity-level controls that do not themselves directly address risks of material misstatement, the above is the suggested minimum sample size for the test of operating effectiveness. In the event that the indirect control is directly responsive to the control objective, the above is the minimum sample size for the test of operating effectiveness.
The table assumes zero deviations.	

The nature and cause of deviations identified (if any), were evaluated to conclude on whether the deviations are material individually or in combination.

Reporting on results of testing

In most instances, controls are performed in the same manner and with the same degree of intensity for all clients. For this reason, samples were chosen from the whole population of MSWM transactions. Deloitte Touche Tohmatsu does not have the ability to determine whether a deviation will be relevant to a particular user, consequently all deviations are reported.

Results of testing

The concept of effectiveness of the operation of controls recognises that some deviations in the way controls are applied by MSWM may occur. Deviations from prescribed controls may be caused by such factors as changes in key personnel, significant seasonal fluctuations volume of transactions and human error.

We use judgement in considering the overall operating effectiveness of the control by considering the number of deviations detected, the potential significance of the financial statement effect, as well as other qualitative aspects of the deviations such as the cause of the deviation.

When we identify a deviation for a periodic or automated control, we consider whether other controls / mitigating controls may provide the evidence we require.

If we find a single deviation in the initial sample for a recurring manual control operating multiple times per day, when we did not expect to find control deviations, we consider whether the deviation is representative of systematic or intentional deviations.

If control deviations are found in tests of controls which operate daily or less frequently, the sample size cannot be extended and we assess such controls as ineffective.

Section VI:
Control Objectives, Control
Activities, Testing of Design
and Implementation and
Operating Effectiveness

Section VI: Control Objectives, Control Activities, Testing of Design and Implementation and Operating Effectiveness

Introduction

This section presents the following information provided by MSWM:

- The control objectives specified by the management of MSWM.
- The controls established and specified by MSWM and its affiliates to achieve the specified control objectives.

Also included in this section is the following information provided by Deloitte Touche Tohmatsu:

- A description of the tests performed by Deloitte Touche Tohmatsu to determine whether MSWM's controls were operating with sufficient effectiveness to achieve specified control objectives. Deloitte Touche Tohmatsu determined the nature, timing, and extent of the testing performed.
- The results of Deloitte Touche Tohmatsu's tests of controls.

It is each user's responsibility to evaluate the information included in this report in relation to internal control in place at individual user entities to obtain an understanding and to assess control risk at the user entities. The controls at user entities and MSWM's controls should be evaluated together. If effective customer controls are not in place, MSWM's controls may not compensate for such weaknesses.

Controls that are performed by MSWM's users remain their responsibility and were not tested as part of this engagement.

Accepting Clients

A1 – New accounts are set up completely and accurately in accordance with client agreements and any applicable regulations.

Control Reference	Control Activity	Test Procedures	Results of Tests
A.1.A	A. The account opening forms are reviewed by the Branch Administration Management (BAM) Team after reviewing information provided and entered into NAO. From NAO the account flows through to Pipeline whereby AML (if required) reviews are performed. Once the data is entered into NAO, the BAM manager reviews for completeness and accuracy.	Inspection Inspected a sample of account opening forms to test whether sign off from BAM and Legal regarding AML (Compliance) review was evident.	No deviations noted
A.1.B	The set-up of client accounts in the system is performed by the Operations team and reviewed by a supervisor, who signs off on the account opening checklist.	Inspection Inspected a sample of account opening checklists to test whether appropriate review and sign off by a supervisor was performed.	No deviations noted

A2 – Complete and authorised client agreements are established prior to initiating custody activity.

Control Reference	Control Activity	Test Procedures	Results of Tests
A.2	The General Terms form is signed off by the client prior to an account system set up.	Inspection Inspected a sample of General Terms forms to test whether sign off by the client prior to an account system set up was done.	No deviations noted

Authorising and processing of transactions

A3 – Investment and related cash and foreign exchange transactions are authorised and recorded completely, accurately and on a timely basis in accordance with client instructions.

Control Reference	Control Activity	Test Procedures	Results of Tests
A.3.A	Trade Processing Once trades have been executed by the Financial Adviser, a contract note is automatically generated by the FC3/FCO trade confirmation system and provided to the client.	Observation Observed the automatic generation of a contract note after trade details had been entered into the system.	No deviations noted
A.3.B	Payment Processing All payment instructions are signature verified by BAM - these include Standing Letters of Authority.	Inspection Inspected a sample of payment instructions to test whether checks on letters of authority and approval by BAM had been performed.	No deviations noted
A.3.C	There is a segregation of duties when BAM approves and Operations processes payments requests via the SAFE system.	Inspection Observed manual segregation of duties between BAM and Operations. Further, inspected a sample of payment instructions to test whether checks on letters of authority and approval by BAM had been performed. Refer to testing at G.3 for logical separation of access though the SAFE system.	No deviations noted
A.3.D	A 4 eye check for amounts that are < USD1M and 6 eye check (inputter and 2 authorizers) for amounts > USD1M. Both inputter and authorizer(s) will validate the completeness and accuracy of the instructions.	Inspection Inspected a sample of input transactions to test whether review was performed to ensure accuracy and completeness according to client instruction.	No deviations noted

A4 – Investment and related cash and foreign exchange transactions are settled completely, accurately and on a timely basis and failures are resolved in a timely manner.

Control Reference	Control Activity	Test Procedures	Results of Tests
A.4.A	SAFE automatically identifies daily settlement exceptions for the population of trades.	Observation Inspected system configurations to test whether SAFE appropriately identifies settlement exceptions and corroborated this with the reconciliation report in A.4.B.	No deviations noted
A.4.B	Agent cash and stock activities are reconciled by the Reconciliations Utility team. Outstanding breaks will be assigned by the Settlement team to appropriate teams for investigation and resolution.	Inspection Inspected a sample of reconciliations to test whether follow up and resolution of trade breaks was performed by the settlements team.	No deviations noted

A5 – Corporate actions are identified, actioned, processed and recorded on a timely basis.

Control Reference	Control Activity	Test Procedures	Results of Tests
A.5.A	Exception Report A workflow tool records all incoming SWIFTs (Corporate Action notices) from the local custodians. There is an exception report auto-generated from the workflow system twice per week. This report highlights all the events that have not been set up. The team manager reviews this report and ensures exceptions are cleared	Inspection Inspected a sample of exception reports to test whether breaks were appropriately identified / reported and individually reviewed by the team manager.	No deviations noted
A.5.B	Reconciliation on Corporate actions Settlement team validates announcements against the information received from local custodian or exchanges as additional control before sending the notification to the entitled shareholders.	Inspection Inspected a sample of announcements to test whether they were validated by the Settlements Team against local custodian and Firm's internal systems before sending the notification to the shareholders.	No deviations noted

Control Reference	Control Activity	Test Procedures	Results of Tests
A.5.C	Upon payment, Operations reconcile the cash/stock outturn versus an internal calculation and reflect the corporate action (CA) economics in the books and records.	Inspection Inspected a sample of daily reconciliations between the cash/stock outturn and internal calculation to test whether key positions and payments were properly reconciled and approved, with the CA economics reflected in the books and records.	No deviations noted
A.5.D	High value/ risk issues are also escalated to MS internal functional management to ensure no client assets are in risk.	Inspection Inspected a sample of daily reconciliations to test whether high value risk issues are escalated and reviewed by MS internal functional management.	No deviations noted

A6 – Cash receipts and payments are authorised, processed and recorded completely, accurately and on a timely basis.

Control Reference	Control Activity	Test Procedures	Results of Tests
A.6.A	Payment and receipt requests are processed and validated through systemic maker and checker process. Any exception will require additional validation before instructions are released to the agent.	Inspection Inspected a sample of daily cash receipts/payments requests and related status emails from maker to checker to test whether execution status and any follow-ups was performed as necessary.	No deviations noted
A.6.B	Operations will tally all requests received against system entries to ensure completeness. Approval and exception queues are checked to ensure all requests for the day are fully validated in the system.	Inspection Inspected a sample of cash receipts/payments requests to test whether all requests in the system had an associated downstream status and whether a sign off was provided in a report acknowledging completion of task.	No deviations noted

A7 – Securities lending programs are authorised and loan initiation, maintenance and termination are recorded on an accurate and timely basis.

Not applicable, securities based lending is currently not offered to MSWM PWM clients.

Maintaining financial and other records

A8 – Loans are collateralised in accordance with the lender’s agreement and the collateral together with its related income is recorded completely, accurately and on a timely basis.

Not applicable, loan services are not provided to MSWM PWM clients.

A9 – Collateral is completely and accurately invested in accordance with the lender’s agreement.

Not applicable, collateral is not obtained from MSWM PWM clients.

A10 – Accounts are administered in accordance with client agreements and any applicable regulations.

Control Reference	Control Activity	Test Procedures	Results of Tests
A.10.A	<p><i>Ongoing reviews are carried out to ensure that a client's investments are in line with pre-determined limits. These limits have been set as part of the client on-boarding process and are based on their risk tolerance and suitability for certain investment types.</i></p> <p>The firm's risk systems, including Actimize, Compliance Monitoring Inventory (CMI), and Client Suitability Engine (CSE), monitor all client holdings as well as pre- and post-trade checks. Any breaches of these checks are automatically highlighted to the financial adviser. Breaches are escalated by the Risk team if not resolved in a timely manner.</p>	<p>Inspection</p> <p>Inspected a sample of automated e-mails from the system to the Financial adviser, containing breach specifications to test whether a follow up e-mail to the Risk team requiring further action had been sent. We also inspected the system configuration to validate whether pre and post trade checks were set up appropriately to automatically identify breaches.</p>	No deviations noted

Control Reference	Control Activity	Test Procedures	Results of Tests
A.10.B	The Compliance team perform quarterly reviews of daily surveillance completed by the PWM BAM in relation to trading by MSWM clients on the PWM platform, to ensure adherence to appropriate regulatory requirements and SLAs.	Inspection Inspected a sample of IWM Short Term Trading Reports, Black Out Trade International Reports and Equity Solicitation Violation Report to test whether reviews were performed to ensure adherence to appropriate regulatory requirements.	No deviations noted
A.10.C	The Compliance Monitoring Inventory system (CMI) is where monitoring alerts are maintained globally. Alerts related to trading by MSWM clients on the PWM platform are published to the Actimize system where the oversight function is performed by Compliance.	Observation Observed that alerts are kept on the CMI system and transferred to Actimize for oversight function performed by BAM and Compliance.	No deviations noted

A11 – Changes to non-monetary static data (for example, address changes and changes in allocation instructions) are authorised and correctly recorded on a timely basis.

Control Reference	Control Activity	Test Procedures	Results of Tests
A.11.A	Instructions received from clients are verified by the Fund Adviser or CSA, who completes a change request form and submits the form to BAM for approval. For changes that don't require client consent, instructions are communicated through e-mail by BAM. Amendments are done in the system by Operations, after BAM approval.	Inspection Inspected a sample of change requests to test whether in each case, a change request form was completed and approved by BAM or e-mail from BAM was sent to Operations, requesting amendments.	No deviations noted
A.11.B	A checklist of changes processed by the maker is reviewed and signed off by a supervisor, who compares changes to the client change request documentation.	Inspection Inspected a sample of checklists of changes to test whether it was reviewed and signed off by a supervisor, to ensure records are correctly recorded on a timely basis.	No deviations noted

A12 – Investment income and related tax reclaims are collected and recorded accurately and on a timely basis.

Investment Income - Refer to A.5 for Investment Income Recording.

Tax Reclaims - MS does not provide a reclaim service for MSWM PWM clients.

A13 – Asset positions for securities held by third parties such as sub custodians and depositories are accurately recorded and regularly reconciled.

Control Reference	Control Activity	Test Procedures	Results of Tests
A.13.A	<p>A reconciliation between banks statements and internal books and records (TAPS) is performed using the reconciliation tool Intellimatch. Logic is incorporated to allow for automated matching and assignment of remaining breaks.</p> <p>Following the automated process, any pending break is reviewed by the global reconciliation team to identify further potential matching or assign them to the appropriate Business units for resolution.</p>	<p>Inspection</p> <p>Inspected a sample of reconciliations on asset/ cash positions held by third parties to test whether discrepancies are followed up by the global reconciliation team, investigated and assigned for resolution.</p>	No deviations noted
A.13.B	<p>In the event of a Stock position break and Cash balances break, Intellimatch, a settlement exception monitoring system, will automatically flag up as a mismatch. MS settlement teams will be notified by Intellimatch and will reach out to the respective operations teams to further investigate on the booking.</p>	<p>Observation</p> <p>Observed that Intellimatch automatically flag breaks identified, during the system reconciliation. We also inspected the system configuration to validate whether pre and post trade checks were set up appropriately to automatically identify breaks.</p> <p>We also tested whether follow up from the Settlements team to business units was performed for investigation and resolution of breaks.</p>	No deviations noted

Safeguarding assets

A14 – Assets held (including investments held with depositories, cash and physically held assets) are safeguarded from loss, misappropriation and unauthorised use.

A15 – Assets held are appropriately registered and client money is segregated.

Control Reference	Control Activity	Test Procedures	Results of Tests
A.14.A	Custodian Agreements with Asset Segregation letters are in place for all Client Custody accounts as well as Trust Acknowledgement Letters for all Client Money locations.	<p>Inspection</p> <p>Inspected a sample of Custodian Agreements and Asset Segregation letters to verify segregation of client money and responsibilities.</p> <p>Inspected a sample of Trust Acknowledgement Letters to test whether the rules set out in the CASS were followed.</p>	No deviations noted
A.14.B	There is an annual due diligence programme in place for all agent banks, custodian and brokers, holding client money, in scope of CASS - custodian rules faced by MSIP in UK.	<p>Inspection</p> <p>Inspected a sample of custodians, banks and brokers' annual due diligence and risk assessment performed to test whether it was performed under scope of CASS.</p>	No deviations noted
A.14.C	Matters related to assets held by third parties are discussed during the monthly Assets Governance Committee meeting.	<p>Inspection</p> <p>Inspection of evidence of Client Assets Governance Committee meetings throughout the audit period to test whether client money and assets is discussed in the meeting.</p>	No deviations noted
A.14.D	Internal and External Reconciliations: Daily Reconciliations are in place to confirm Internal books and Records match Agents records. Breaks and discrepancies are fully investigated until resolution.	<p>Inspection</p> <p>Inspected a sample of internal reconciliations between internal books and Agents records to test whether discrepancies were investigated.</p> <p>Refer to A.13.A for external reconciliation test procedures.</p>	No deviations noted

Monitoring compliance

A16 – Transaction errors are rectified promptly.

Control Reference	Control Activity	Test Procedures	Results of Tests
A.16.A	The financial adviser must inform BAM as soon as they become aware of the necessity of correcting a trade on the back of a trade error made and rebooking. The financial adviser has to complete and sign off on an error & rebooking form, detailing the impacted client, advisor code and reason for the errors made. The error & rebooking form is checked and signed off by Branch risk team, who instructs PWM BAM to approve and notifies Trade Support team to rebook trades as soon as possible.	Inspection Inspected a sample of error forms to test whether sign off/approval by BAM and notifications were sent to trade support for rectification as soon as possible.	No deviations noted
A.16.B	A monitoring report capturing all cancel and corrects is reviewed by BAM, who reconcile the report with the cancel & correct forms on file, to ensure the cancel & corrects have been duly recorded. This report is signed off by BAM to evidence review and follow up.	Inspection Inspected a sample of cancel and correction forms, checked these against the daily reconciliation report, to test whether approval by BAM and instructions were triggered through the workflow system to operations for rectification.	No deviations noted
A.16.C	Operations perform real-time daily trade reconciliation of the wash accounts, which both the client and execution trades are booked against, to ensure the accuracy of all bookings. Breaks are investigated and steps taken to resolve. Breaks reports are reviewed and signed off by the Supervisor daily.	Inspection Inspected a sample of real time reconciliations and break reports (between Equity and Fixed Income products) to test whether they were signed off by the supervisor and followed up for resolution.	No deviations noted

Monitoring Subservice Organisations

A17 – Appointments of subservice organisations, including sub-custodians, are approved, subservice organisations are managed in accordance with the requirements of the client agreement and their activities are adequately monitored.

Control Reference	Control Activity	Test Procedures	Results of Tests
A.17.A	MS Global Network Management team assess custodians and agent banks suitability on appointment and an ad-hoc basis, based on a list of considerations	<p>Inspection</p> <p>Inspected a sample of due diligence questionnaires sent to custodians/agent banks in the year to test whether MSWM had reviewed the responses in its assessment of suitability.</p> <p>For the Annual Due Diligence of providers, refer to A14.B.</p>	No deviations noted
A.17.B	MS Global network Management team produce a risk rating annual market report for the custodians and agent banks in question.	<p>Inspection</p> <p>Inspected a sample of annual market reports to test whether a risk rating was produced for the custodian/bank in question and whether a checklist was signed off by the reviewer to ensure completeness.</p>	No deviations noted
A.17.C	Incidents with providers are logged into the Global system and until resolution.	<p>Inspection</p> <p>Inspected a sample of incidents to test whether they were recorded and monitored in the Global Incident Network.</p>	No deviations noted
A17.D	The performance of Morgan Stanley affiliates is monitored via monthly operational risk meetings and KRI reporting.	<p>Inspection</p> <p>Inspected a sample of monthly operational risk reporting packs to test whether there was ongoing monitoring of the performance of Morgan Stanley affiliates.</p>	No deviations noted

Reporting

A18 – Client reporting in respect of client asset holdings is complete and accurate and provided within required timescales.

Control Reference	Control Activity	Test Procedures	Results of Tests
A.18.A	Daily position and balance reconciliation on client asset holdings between client reporting database and upstream feed is carried out throughout the day. Any exceptions are highlighted in the Intellimatch and Safe Exception Monitoring Tool, so errors can be cleared without blocking clients' accounts.	Observation Observed, for an automated reconciliation, that breaks identified during the automated daily position and balance reconciliation are highlighted appropriately in the Exception Monitoring tool, for investigation and resolution.	No deviations noted
A.18.B	Monthly Asset Under Management (AUM) figures are verified and sample checked against the month end official statement generated.	Inspection Inspected a sample of monthly asset under management reports to test whether checks were performed against the official statement, and discrepancies were investigated.	No deviations noted
A.18.C	Monthly statement delivery reconciliation is performed to ensure clients receive their online and physical statements by KRI (Key Risk Indicator) date of Business Day 10. Statement exceptions are identified and resolved daily until all client statements are sent.	Inspection Inspected a sample of monthly statement delivery reconciliations to test whether over 99% of physical and electronic statements had been sent to clients during the following month. We also tested whether exceptions were identified and resolved daily until all client statements were sent.	No deviations noted

A19 – Asset positions and details of securities lent (including collateral) are reported to interested parties accurately and within the required time scale.

Not applicable, securities lending is currently not offered to MSWM PWM clients.

Information Technology

Control Objective No.	Control Objective	Control Activity No.	Control Activity Description	Test Procedures	Test Results
G1	Physical access to computer networks, equipment, storage media and program documentation is restricted to authorized individuals.	G1.A	<p>Physical access to data centers is restricted to individuals who require such access to perform their job responsibilities.</p> <p>Data center access is secured by key card and biometric security systems, and monitored by Corporate Security via video surveillance.</p> <p>Physical access to data centers requires approvals by the designated silo manager and Enterprise Data Center ("EDC") operations manager. On a quarterly basis, the Enterprise Data Center ("EDC") operations manager performs a review of users who have card key access to the data center and ascertains whether their access is commensurate with their job responsibility.</p> <p>On a monthly basis, the EDC operations manager reviews the inactivity report from the key card system and determines whether access is still needed. If not, the access is revoked.</p>	<p>Through inquiry with Enterprise Data Center operations management and inspection of video surveillance, digital images of the data center secure access points and in conjunction with biometric security system access logs to capture key card and biometric security activity, ascertained that card key and biometric security systems were used to secure access points and access was monitored by Corporate Security via video surveillance.</p> <p>For a selection of individuals granted access to the data center, ascertained through inspection of MyCardAccess (MCA) logs that user's access was authorized by the designated silo manager and Enterprise Data Center operations manager. For a selection of quarters, ascertained through inspection of MyCardAccess (MCA) logs that the access review was completed by the respective Enterprise Data Center operations manager and any required access revocations were performed.</p> <p>For a selection of months, ascertained through inspection of the monthly inactive card key review documentation prepared by the EDC Operations manager, that the review was completed and that any required access changes were performed.</p>	No deviations noted.
G2	Logical access to computer systems, programs, master data, client data, transaction data and parameters, including access by administrators	G2.A	Privileged access to the network and production databases and operating systems is restricted to IT Operations and Production Management personnel whose job functions require such access.	For the full population of privileged users, inspected the privileged access user listing to the Windows Active Directory network (e.g. Domain Administrators) and ascertained that the access was appropriate based on their assigned job roles and responsibility.	No deviations noted.

Control Objective No.	Control Objective	Control Activity No.	Control Activity Description	Test Procedures	Test Results
	to applications, databases, systems and networks, is restricted to authorized individuals via information security tools and techniques.			<p>For a selection Windows servers, inspected the privileged access user listing to the Windows operating system (e.g., Windows Local Administrators) and ascertained that the access was appropriate based on their assigned job roles and responsibility.</p> <p>For the full population of users assigned privileged access to the mainframe, ascertained that the access was appropriate based on their assigned job responsibility within production management.</p> <p>For a selection of Linux servers, inspected the privileged access user listing to the Unix operating system (e.g., users with root access) and ascertained that the access was appropriate based on their assigned job roles and responsibility.</p> <p>For a selection of Linux servers, inspected the security settings for key files to ascertain that access to files is appropriately restricted. For a sample of systems and corresponding databases, inspected the listing of users with privileged access to ascertain the access was appropriate based on their assigned job responsibility within production management.</p>	
		G2.B	Access to systems (e.g., network, application, databases, operating systems) require a unique user ID and password. Passwords are implemented to restrict access and are in accordance with the Technology Security Policy.	<p>Through observation with Morgan Stanley Security Administration personnel, ascertained that access to systems (e.g., network, application, databases, operating systems) was restricted through the use of unique User IDs and passwords.</p> <p>Through the inspection of system password policies, ascertained the parameters were defined with minimum password length, password expiration, and password complexity parameters that comply with the Technology Security Policy.</p> <p>For a selection of quarterly password expiration</p>	No deviations noted.

Control Objective No.	Control Objective	Control Activity No.	Control Activity Description	Test Procedures	Test Results
				reviews, inspected documentation to ascertain accounts with password expiration set to Not Expire were reviewed and authorized.	
				Discrepancies were monitored, documented and tracked through to resolution.	
		G2.C	A Global Technology Security Policy is maintained by the Technology & Information Risk (TIR) Policy Management Team. The Global Technology Security Policy contains requirements for the security of information assets, as well as the necessary procedures to protect such assets for areas such as; identity access management, data security, system and infrastructure security, and network security. The policy and procedures apply to all technology assets and data and are available on the Corporate intranet.	Inspected the Global Technology Security Policy on the Morgan Stanley intranet website and ascertained that it is maintained/available on the intranet, contained guidance related to protecting information assets.	No deviations noted.
		G2.D	The identity of remote users is authenticated to the network via a two-factor authentication system. Prior to accessing any system remotely, authentication of the user is verified via an RSA SecurID and the Windows Network Domain Login.	Inspected configuration settings of Production MyDesk servers and ascertained that Active Directory and SecurID authentication policies are enforced. Inspected the system parameters and requirements of the MyDesk system and ascertained that two-factor authentication (e.g. Active Directory and SecurID) is utilized for users to gain remote access.	No deviations noted.
		G2.E	Procedures have been established for granting temporary access for technology personnel to the production infrastructure environment (e.g., operating systems and databases) upon appropriate approval for incident handling or production management support. Temporary access is managed through the TAM tool via a	Through observation with Morgan Stanley Security personnel ascertained that temporary access was managed through the TAM tool via a Temporary Access Privilege (TAP) or Secure Temporary Access Privilege (STAP) request. Through observation with Morgan Stanley Security personnel ascertained that TAP/STAP requests required the requestor to enter the	No deviations noted.

Control Objective No.	Control Objective	Control Activity No.	Control Activity Description	Test Procedures	Test Results
			Temporary Access Privilege ("TAP") or Secure Temporary Access Privilege ("STAP") request. The TAP/STAP request requires the requestor to enter the purpose of the request, the specific resource for which access is being requested, the length of time access is required, and selection of the role needed. Once the request is entered, TAM utilizes a workflow process to route the request to the appropriate resource owner for approval. Once access is approved, the requestor is provided access via TAM with the access automatically revoked once the assigned time period has elapsed.	<p>purpose of the request (e.g., emergency, production outage, etc.), the specific resource for which access was being requested, the length of time access was required, and selection of the role needed.</p> <p>Through observation with Morgan Stanley Security personnel ascertained that the role was granted and was revoked automatically once the assigned time had elapsed.</p> <p>For a selection of users granted temporary access, inspected the TAP request and approval documentation to ascertain that the request had the required level of documentation to support the request and was authorized and approved by the appropriate resource owner based on their assigned job responsibility and the revocation of access matched the access requested.</p> <p>For each in-scope STAP infrastructure component, inspected the associated configurations to ascertain that Privileged Access for each technology was appropriately restricted.</p> <p>For a selection of users granted temporary access, inspected the STAP request and approval documentation to ascertain that the request had the required level of documentation to support the request and was authorized and approved by the appropriate resource owner based on their assigned job responsibility and the revocation of access matched the access requested.</p>	
		G2.F	For terminations, an automated process exists that removes the user's account (i.e., Windows A/D account, Kerberos and SecurID) once the Human Resource ("HR") Department updates a personnel's (employee and consultant) status to "terminated" and	Through observation with Human Resource Department (HR), Windows Active Directory, Sun Identity Manager (SIM), Kerberos and SecurID personnel, ascertained that Workday sent daily data feeds of newly terminated personnel to the Sun Identity Manager (SIM) for systems access disablement of all core system	No deviations noted.

Control Objective No.	Control Objective	Control Activity No.	Control Activity Description	Test Procedures	Test Results
			<p>enters a termination date and last day on premise in the HR system. The Human Resource system sends daily data feeds of newly terminated personnel to the Sun Identity Manager ("SIM"), which then disables all core system accounts (Active Directory, Kerberos, TSS, and SecurID).</p> <p>For the termination of employees, vendors, or contractors which requires urgency, Morgan Stanley utilizes the Immediate Access Disablement ("IMAD") process. HR enters the user's information into the SIM tool, which then immediately disables all core system accounts (Active Directory, Kerberos, TSS, and SecurID).</p>	<p>accounts (Active Directory, Kerberos, TSS, and SecurID) based upon termination date and last day on premise.</p> <p>Through observation with Identity and Access Management (IDM) personnel, ascertained the Immediate Access Disablement (IMAD) process utilizes SIM to immediately disable all core system accounts (Active Directory, Kerberos, TSS, and SecurID).</p> <p>For a selection of terminated users, ascertained through inspection of the system generated listing of users (i.e., Windows A/D, Kerberos, TSS and SecurID), that user accounts were disabled in a timely manner.</p>	
G3	Segregation of incompatible duties is defined, implemented and enforced by logical security controls in accordance with job roles.	G3.A	Privileged access to the network and production databases and operating systems is restricted to IT Operations and Production Management personnel whose job functions require such access.	<p>For the full population of privileged users, inspected the privileged access user listing to the Windows Active Directory network (e.g. Domain Administrators) and ascertained that the access was appropriate based on their assigned job roles and responsibility.</p> <p>For a selection Windows servers, inspected the privileged access user listing to the Windows operating system (e.g., Windows Local Administrators) and ascertained that the access was appropriate based on their assigned job roles and responsibility.</p> <p>For the full population of users assigned privileged access to the mainframe, ascertained that the access was appropriate based on their assigned job responsibility within production management.</p> <p>For a selection of Linux servers, inspected the privileged access user listing to the Unix operating system (e.g., users with root access)</p>	No deviations noted.

Control Objective No.	Control Objective	Control Activity No.	Control Activity Description	Test Procedures	Test Results
				<p>and ascertained that the access was appropriate based on their assigned job roles and responsibility.</p> <p>For a selection of Linux servers, inspected the security settings for key files to ascertain that access to files is appropriately restricted.</p> <p>For a sample of systems and corresponding databases, inspected the listing of users with privileged access to ascertain the access was appropriate based on their assigned job responsibility within production management.</p>	
		G3.B	<p>If a user requires access to a Non-WM application, a request needs to be submitted via an access request tool (i.e., GetAccess, Maverick, ServiceNow). The access request tool utilizes an automated workflow, to request approval from the appropriate approver (e.g., cost center manager, risk officer). The approver confirms the access is commensurate with the user's job responsibilities. Once approval is obtained, the access request tool programmatically provides the requested access, or the access is manually granted by the application admin team.</p>	<p>For a selection of users granted access to Non-WM applications, ascertained through inspection of corresponding documentation that the access to the designated application was authorized and approved by appropriate personnel, and the access granted was commensurate with the users' job responsibilities.</p>	No deviations noted.
		G3.C	<p>User access to applications and systems (e.g., databases, operating systems, network) is reviewed annually by the user's manager or individual(s) nominated by the business unit. The reviews are performed in a centralized access review tool (i.e., Aveksa). Reviewers have the ability to maintain or revoke the user's access, and the reviewer decisions are recorded within the centralized access review tool. The reviews are divided into the</p>	<p>Through observation with Morgan Stanley Access Management personnel within Technology & Operations Risk division ascertained that the two entitlement review campaigns (i.e., BER and TER) were performed and completed within the Aveksa entitlement review tool.</p> <p>For a selection of users with access to applications and systems, ascertained through inspection the BER documentation from Aveksa that the review was completed, and the users' access was reviewed and authorized by the</p>	No deviations noted.

Control Objective No.	Control Objective	Control Activity No.	Control Activity Description	Test Procedures	Test Results
			<p>following user access review campaigns:</p> <ul style="list-style-type: none"> • Business Entitlement Review ("BER") – review of all Non-WM users with Non-WM business entitlements; and • Technology Entitlement Review ("TER") – review of all users with system entitlements. 	<p>user's manager or individual(s) nominated by the business unit.</p> <p>For a selection of users with access to applications and systems, ascertained through inspection of the TER documentation from Aveksa that the review was completed, and the user's access was reviewed and authorized by the user's manager or individual(s) nominated by the business unit.</p> <p>For a selection of users whose access was revoked as part of the review, ascertained through observation and inspection that that the users' access in the respective application or system was revoked.</p>	
		G3.D	<p>Privileged user access to systems (e.g., databases, operating systems, network) is reviewed quarterly by the user's manager. The reviews are performed in a centralized access review tool (i.e., Aveksa). Reviewers have the ability to maintain or revoke the user's access, and the reviewer decisions are recorded within the centralized access review tool.</p>	<p>For a sample of quarterly reviews, ascertained through observation with Morgan Stanley Access Management personnel within Technology & Operations Risk division that the privileged user access review was performed and completed within the Aveksa entitlement review tool.</p> <p>For a selection of privileged users, ascertained through inspection of the quarterly privileged access review documentation from Aveksa that the review was completed, and the users' access was reviewed and authorized by the user's manager.</p> <p>For a selection of users whose access was revoked as part of the review, ascertained through observation and inspection that the users' access in the respective application or system was revoked.</p>	No deviations noted.
		G3.E	<p>Access to IT Infrastructure (e.g., operating systems and databases) is controlled via Technology Access Management ("TAM"). Only designated and appropriately secured TAM accounts, as well as production support personnel (e.g.,</p>	<p>Through observation with Morgan Stanley Security Administration personnel ascertained that access to distributed IT Infrastructure is controlled via Technology Access Management (TAM).</p> <p>Obtained a system generated listing of users</p>	No deviations noted.

Control Objective No.	Control Objective	Control Activity No.	Control Activity Description	Test Procedures	Test Results
			database/systems administrator) have the ability to access production.	with TAM access to IT Infrastructure and inspected a sample of users to ascertain access was only granted to production support personnel who require such access as per their assigned job responsibilities.	
		G3.F	Access to distributed systems (e.g., operating system and databases) is managed via the Technology Access Management ("TAM") tool. TAM utilizes defined entitlement roles that provide access to the specific technology resource (e.g., database or operating system). Technology personnel request access via TAM the specific entitlement role needed. The request is then routed to an approver with the appropriate entitlement role for approval. The approver confirms the access is commensurate with the user's job responsibilities. Once approved, the TAM tool will systematically assign the role to the user.	<p>Through observation with Morgan Stanley Security personnel ascertained that access to distributed systems (e.g., operating system and databases) is managed via the Technology Access Management (TAM) tool.</p> <p>Through observation with Morgan Stanley Security personnel ascertained that access to distributed systems requires the use of defined entitlement roles that provide access to the specific technology resource (e.g., database or operating system) within TAM.</p> <p>For a selection of TAM access requests to distributed systems, ascertained through inspection of the corresponding documentation that the requests were authorized and approved by an approver with the appropriate entitlement role for approval and the approved role was assigned to the user.</p>	No deviations noted.
		G3.G	<p>On a weekly basis, transfer reviews are performed in a centralized access review tool (i.e., Aveksa). Reviewers have the ability to maintain or revoke the user's access, and the reviewer decisions are recorded within the centralized access review tools.</p> <p>Non-WM user transfers will result in the following actions:</p> <ul style="list-style-type: none"> • If a user transfers cost center, entitlements of the user are reviewed by the user's manager or individual(s) nominated by the business unit. If any entitlements are not reviewed within the defined time, 	<p>Performed an observation with Morgan Stanley Access Management personnel within Technology & Operations Risk division to ascertain transfer reviews were performed and completed within the Aveksa entitlement review tool.</p> <p>For a selection of Non-WM users who transferred divisions, inspected transfer review documentation from Aveksa to ascertain access was automatically marked for revocation.</p> <p>For a selection of Non-WM users who transferred cost center or who transferred division and access revocation was challenged, inspected transfer review documentation from Aveksa to ascertain the review was completed,</p>	No deviations noted.

Control Objective No.	Control Objective	Control Activity No.	Control Activity Description	Test Procedures	Test Results
			<p>the entitlements are marked for revocation.</p> <ul style="list-style-type: none"> • If a user transfers divisions, all entitlements are automatically marked for revocation, and individual(s) nominated by the business unit have the ability to review and challenge the revocation. <p>For users whose access revocation was challenged, entitlements of the users are reviewed by the user's manager or individual(s) nominated by the business unit.</p>	<p>and the users' access was reviewed by the user's manager or individual(s) nominated by the business unit.</p> <p>For a selection of users whose access was requested to be revoked as part of the review, ascertained through observation and inspection that the users' access in the respective application or system was revoked.</p>	
G4	IT Processing is authorized and scheduled appropriately, and deviations are identified and resolved in a timely manner.	G4.A	<p>For the distributed environment automated scheduling tool (i.e., Autosys) is implemented for systems and application processing.</p> <p>Access to the scheduling tools is restricted to production management personnel requiring such access to perform their assigned job responsibility.</p> <p>The automated scheduling tool alerts appropriate teams in the event of errors. Job failures are monitored and resolved by the production management personnel.</p>	<p>For a sample of production Autosys jobs, inspected the job instruction language file to ascertain that production jobs are configured to only allow authorized production management personnel.</p> <p>For a sample of users with access to production Autosys jobs, ascertained that access was appropriate based on their assigned job responsibility within production management.</p> <p>For a selection of production Autosys jobs, inspected the job instruction language file to ascertain that job failure alert settings are configured to alert appropriate teams in the event of errors.</p> <p>For a selection of job failures, ascertained through inspection of ServiceNow tickets, that each alert was monitored by the production management personnel and tracked to resolution.</p>	No deviations noted.
		G4.B	<p>Access to update the ISG Mainframe job scheduling tool, Submitter, is restricted to production management personnel required to perform their assigned job roles and responsibilities.</p>	<p>For the full population of privileged users with access to the Submitter job scheduler, ascertained that access was authorized to production management personnel and consistent with their assigned job roles and responsibilities.</p>	No deviations noted.

Control Objective No.	Control Objective	Control Activity No.	Control Activity Description	Test Procedures	Test Results
		G4.C	Job monitoring is performed by the ISG Data Center utilizing Problem Report Facility Dashboard for Submitter job abends. In the event of a job failure, designated stakeholders (e.g. Production Management, Mainframe Scheduling and Application Owner) are notified of the issue via a ServiceNow ticket where issues are tracked to resolution.	For a selection of Submitter abends, inspected the Submitter Job History to ascertain that either the Job was successfully rerun by operations personnel, or the incident was escalated to ServiceNow ticketing system. For those instances that were escalated, inspected the corresponding ServiceNow tickets to ascertain that each incident was acknowledged by technology personnel and tracked to resolution.	No deviations noted.
		G4.D	For all changes executed through ADHOC (used to initiate one-time jobs that do not previously exist in the scheduler), Production Management (PM) and Mainframe Computing Data Center (DC) approvals are required in the system prior to execution to the production environment.	For a selection of ADHOC Jobs, ascertained through inspection of the documentation that requests were approved by authorized individuals prior to job being executed into production environment.	No deviations noted.
		G4.E	For all changes executed through DCRQ (used for one time out of schedule changes made to existing production jobs), Production Management (PM) and Mainframe Computing Data Center (DC) approvals are required in the system prior to execution to the production environment.	For a selection of DCRQ requests, ascertained through inspection of the documentation, that requests were approved by authorized individuals prior to job being executed into production environment.	No deviations noted.
		G4.F	Critical components of the environment, including production databases, production application processes, network, backups, and hardware, are monitored and alerts transmitted to the appropriate individuals in the event of failure. Tickets are logged in the ServiceNow ticketing systems and are tracked to resolution. On a weekly basis, Weekly Incident	For a selection of incidents, ascertained through inspection of ServiceNow tickets that each incident was acknowledged by technology personnel and tracked to resolution. For a selection of S1, S2, and S3 incidents, ascertained through inspection of Weekly Incident Management Review Meeting (WIRM) minutes that incidents were discussed and documented during WIRM meetings, and that the root cause/owner were identified.	No deviations noted.

Control Objective No.	Control Objective	Control Activity No.	Control Activity Description	Test Procedures	Test Results
			Management Review Meetings (WIRM) are conducted by the Enterprise Command Center (ECC), which is a part of the Enterprise Technology & Services (ETS) division, to review and track resolved firm wide technology incidents that are categorized with a business impact of S1- Severe, S2 – Major, or S3 – Near Miss. The review determines the accountability and ownership of these incidents and their associated problems.		
G5	Appropriate measures, including firewalls and anti-virus software, are implemented to counter the threat from malicious electronic attack.	G5.A	<p>Firewalls are utilized to restrict incoming and outgoing traffic from external networks.</p> <p>Intrusion detection systems are implemented at key points throughout the network to monitor suspicious traffic. Alerts are monitored by the MSSOC (Security Operations Center) and escalated to MSCIRT (Cyber Incident Response Team) for investigation and potential remediation.</p>	<p>Through inquiry and observation with Morgan Stanley Security personnel ascertained that firewalls to restrict traffic and intrusion detection systems were utilized within the Morgan Stanley IT environment.</p> <p>For a selection of firewall rule changes, ascertained through inspection of the change documentation that changes were documented and approved prior to implementation into production.</p> <p>For a selection of incidents, ascertained through inspection of corresponding tickets, that each incident was monitored and tracked to resolution by the MSSOC and MSCIRT.</p>	No deviations noted.
G6	The physical IT equipment is maintained in a controlled environment.	G6.A	<p>Data centers have independent air conditioning systems, humidity and temperature controls, smoke and fire detection, and fire suppression systems.</p> <p>Data centers are equipped with surge protectors, uninterruptible power supplies, and generators to protect IT resources in the event of a power disruption.</p> <p>Environmental control systems in each data center are monitored</p>	<p>Through inquiry with Enterprise Data Center operations management, ascertained that environmental protection measures are in place to ensure availability of IT resources.</p> <p>Through inspection of digital images and maintenance logs of independent air conditioning systems, humidity and temperature control, smoke and fire detection, and fire suppression systems within the data centers, ascertained the existence of independent air conditioning systems, humidity and temperature control, smoke and fire</p>	No deviations noted.

Control Objective No.	Control Objective	Control Activity No.	Control Activity Description	Test Procedures	Test Results
			through local monitoring stations.	<p>detection, and fire suppression systems.</p> <p>Through inspection of digital images and maintenance logs of surge protectors, power supplies and generators within the data centers, ascertained the existence of surge protectors, power supplies, and generators to protect IT resources in the event of a power disruption.</p> <p>Through inspection of digital images and maintenance logs of environmental control systems within the data centers, ascertained the environmental control systems are monitored through local monitoring stations.</p>	
G7	Development and implementation of new systems, applications and software, and changes to existing systems, applications and software, are authorized, tested, approved, implemented and documented.	G7.A	Applications within the distributed environment have their code and other files maintained within Perforce or Git. Perforce and Git are version management systems that track and provide controls over changes to source code. It provides the option to lock files or allow simultaneous changes of files with the ability to merge such changes into one final version. Access to "check out" and "check in" changes for each application is restricted to appropriate personnel responsible for application development.	<p>Through observation with Morgan Stanley Change Management personnel, ascertained that source code and other file-based artifacts were maintained within Perforce and Git for applications on the distributed platform.</p> <p>Through observation with Morgan Stanley technology personnel, ascertained that Perforce and Git allows simultaneous changes of files with the ability to merge such changes into one final version.</p> <p>Through inspection of a system generated listing of users with the ability to "check out" and "check in" files within the Perforce and Git version management tools, ascertained that access was authorized to application development personnel and consistent with assigned job roles and responsibilities.</p>	No deviations noted.
		G7.B	Application and Database changes to the Morgan Stanley's distributed environment are documented, tested, and approved prior to implementation into production. The distributed environment utilizes automated tools (i.e., VMS, Autosys, DB2TS, SYTS and Runway) together with the EDM system to migrate changes into production. In	<p>Through observation with Morgan Stanley Change Management personnel, ascertained that the distributed environment utilized automated change tools to migrate changes into production and changes required an approved TCM ticket that appropriately correlates with the application name, production location of files to be moved, and the time and date of turnover.</p> <p>Through observation of turnover tools</p>	No deviations noted.

Control Objective No.	Control Objective	Control Activity No.	Control Activity Description	Test Procedures	Test Results
			order to migrate a change into production, the turnover tools require an approved Technology Change Management (TCM) ticket. An approved TCM ticket requires appropriate signoff from key stakeholders (e.g., technology owner, business unit, and operations) depending on the severity of the change. EDM correlates the turnover request with an approved TCM ticket in terms of the application name, production location of files to be moved, and the time and date of turnover. If the change request does not have an approved TCM ticket or the required turnover details do not correlate, EDM will prevent the change from being moved into production.	<p>configurations, ascertained that the tools prevent a change from being turned over into production when it was not associated with an approved TCM.</p> <p>For a selection of changes in the distributed environment, ascertained through inspection of the change documentation that changes were documented, tested, and approved prior to implementation into production.</p>	
		G7.C	A turnover to the distributed environment can be moved into production without an approved TCM in cases of emergencies. These changes are logged and tracked in the Change Management Reporting System ("CMRS"). Application owners are required to review and sign-off on each emergency change for their assigned application according to policy. Late signoffs to emergency changes are monitored by Technology Risk Committee (TRC) and reported via the Top 30 (T30) Risk Metrics during the TRC monthly meetings. If the total number of emergency changes exceed the minimum threshold defined in the T30, developers are required to provide additional rationale for each change to be included in the T30 commentary and shared with senior management.	<p>For a selection of emergency changes in the distributed environment, ascertained through inspection of the documentation, that late-signoffs were monitored, commentary and rationale were shared in the meeting, and the change was reviewed through resolution during monthly TRC meetings.</p> <p>For a selection of TRC meetings, ascertained through inspection of meeting minutes, (where attendees were logged, meeting focus areas and agenda topics were included, and emergency changes reviewed) that management monitored the use of emergency changes through resolution.</p>	No deviations noted.

Control Objective No.	Control Objective	Control Activity No.	Control Activity Description	Test Procedures	Test Results
		G7.D	Infrastructure system changes (e.g., network, operating system, firewall) to the distributed and mainframe environment are documented and approved prior to implementation into production.	For a selection of infrastructure changes (i.e., network, operating system, firewall) to the distributed and ISG mainframe environment, ascertained through inspection of the change documentation that the changes were documented and approved prior to implementation into production.	No deviations noted.
		G7.E	Applications within the ISG Mainframe production environment have their source code maintained within CM Suite. CM Suite is a version management system that tracks and provides controls over changes to source code.	Through observation with Morgan Stanley Change Management personnel, ascertained that source code were maintained within CM Suite for applications on the ISG Mainframe environment. Through observation of CM Suite, ascertained that CM Suite enables users to lock or unlock files when editing a code to allow multiple developers to work on the same piece of code without overriding the existing code.	No deviations noted.
		G7.F	Changes to ISG mainframe environment (applications, databases, and jobs) are documented, tested, and approved prior to implementation into production. The ISG mainframe environment utilizes automated tools (i.e., ICUA and FMOD) together with Technology Change Management (TCM) to migrate changes into production. In order to migrate a change into production, the turnover tools require an approved Technology TCM ticket.	For a selection of ICUA changes (i.e., applications, databases, and jobs) to the mainframe environment, ascertained through inspection of the change documentation that the changes were documented, aligned with TCM tickets, which include testing and approval information, and approved prior to implementation into production. For a selection of FMOD changes (i.e., databases) to the mainframe environment, ascertained through inspection of the change documentation that the changes were documented, aligned with TCM tickets, which include testing and approval information, and approved prior to implementation into production.	No deviations noted.
G8	Data migration or modification is authorized, tested and, once performed, reconciled back to the source data.	G8.A	Management approves the results of the conversion of data from the old application system or data structure to the new application system or data structure and monitors that the conversion is performed in accordance with established	Through corroborative inquiry with IT System Owners and Risk Officers, ascertained there were no data migration or modifications to the in-scope applications during the examination period. Further corroborated during testing of in scope applications that no data migrations or modifications occurred.	There were no occurrences of data migration or modifications to the in-scope applications during the period.

Control Objective No.	Control Objective	Control Activity No.	Control Activity Description	Test Procedures	Test Results
			conversion policies and procedures.		
G9	Data and systems are backed up regularly offsite and regularly tested for recoverability on a periodic basis.	G9.A	Backups of databases, datasets, application programs, system software and files are executed through an automated backup tool according to Company policy. Throughout the week, incremental backups are performed daily and full backups are performed weekly. The backup process is monitored and errors are resolved by the production support team.	Through multiple observations with Morgan Stanley Enterprise Infrastructure personnel, Ascertained that an automated tool is used to perform daily / weekly backups according to Company policy. For a selection of servers, ascertained through inspection of Enterprise Server Platform (ESP) that incremental backups were performed daily and full backups were performed weekly. For a selection of backup failures, ascertained through inspection of ServiceNow tickets that full and incremental backup processes were monitored and errors were tracked to resolution by the production support team.	No deviations noted.
G10	IT hardware and software issues are monitored and resolved in a timely manner.	G10.A	Please refer to G4.A, G4.C, and G4.F above for control activities identified above to achieve G10.	Please refer to G4.A, G4.C, and G4.F above for control activities identified above to achieve G10.	Please refer to G4.A, G4.C, and G4.F above for control activities identified above to achieve G10.
G11	Business and information systems recovery plans are documented, approved, tested and maintained.	G11.A	The 'Global Technology Disaster Recovery Standard' outlines the requirements for conducting Technical Recovery Plan reviews and disaster recovery tests for Morgan Stanley assets. BCPs and TRPs are reviewed and signed off by appropriate personnel as defined in the governing 'Global Technology Disaster Recovery Standard'. Disaster recovery tests are conducted in accordance with the 'Global Technology Disaster Recovery Standard'.	Inspected the 'Global Technology Disaster Recovery Standard' to ascertain if frequency of TRP testing and tier mapping for required approvals are defined in the governing policy. Inspected a sample of Technical Recovery Plans for in-scope applications to ascertain that the TRP was tested in accordance with 'Global Technology Disaster Recovery Standard'.	No deviations noted.
G12	Information technology services provided to clients are approved,	G12.A	Not Applicable – No IT services are provided to customers.		

Control Objective No.	Control Objective	Control Activity No.	Control Activity Description	Test Procedures	Test Results
	managed and performance thresholds met in accordance with the requirements of the client agreement.				
G13	Appointment of sub-service organisations, including those providing IT services, are approved, sub-service organizations are managed in accordance with the requirements of the client agreement and their activities are adequately monitored.	G13.A	Not Applicable – No IT subservice organisations have been engaged by MSWM.		