

# **Financial Markets Regulatory Practices (FMRP) Study Guide**



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The Institute of Banking & Finance

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# Preface

## Financial Markets Regulatory Practices (FMRP) Examination

The Singapore Foreign Exchange Market Committee ("SFEMC") introduced the Financial Markets Regulatory Practices (FMRP) Examination in June 2012 as the professional certification programme for all dealers and brokers engaged in wholesale dealing of foreign exchange, money market instruments and derivative products in Singapore.

The objective of the FMRP Exam is to assess candidates' understanding of wholesale dealing practices and codes of conduct based on the Singapore Guide to Conduct & Market Practices for Treasury Activities (commonly referred to as "The SFEMC Blue Book"), as well as relevant Singapore laws and regulations. The purpose of the FMRP is to ensure that all market participants have sufficient knowledge that would guide them to act in a way that best safeguards the soundness of the financial markets.

## Organisation of the Study Guide

The Study Guide consists of 8 chapters, each devoted to a specific area of wholesale financial markets and related regulations that the candidates will need to know in order to pass the FMRP Exam.

Each chapter begins with a list of learning objectives, followed by a chapter introduction which provides an overview of the chapter. Examples and case studies are also used where appropriate in the Study Guide to enhance candidate's understanding of key learning points and application of issues discussed.

A summary of each chapter is provided below:

**Chapter 1: Introduction**

Provides an overview of the wholesale financial markets, key players and institutions, regulatory bodies and the regulatory framework and professional bodies in Singapore.

**Chapter 2: Ethics, Behavioural Standards and Professional Conduct**

Outlines the requirements relating to ethics, behavioral standards and professional conduct such as fit and proper guidelines for representatives, how to identify and manage conflicts of interest, proper disclosures when dealing with clients, reporting of misconduct and maintenance of high standards of professional knowledge and conduct.

**Chapter 3: Confidentiality and Information Sharing**

Highlights key practices to safeguard confidential information, such as identifying and limiting access to confidential information, and proper disclosures and communication practices.

**Chapter 4: Governance, Risk Management and Compliance**

Outlines the appropriate governance structures, policies and procedures that Market Participants should have in place that are commensurate with the complexity and risk profile of the business.

**Chapter 5: Execution and Order Handling**

Discusses general dealing principles and market conduct requirements for wholesale financial markets, as well as recommended dealing practices that are specific to FX products, restriction against SGD and specific execution for certain market participants.

**Chapter 6: Confirmation and Settlement**

Explains the appropriate confirmation and settlement systems and post trade processes to mitigate settlement risk.

**Chapter 7: Handling Market Disruption**

Describes the impact of market disruptions and how to manage such disruptions such as alternative communication channels.

**Chapter 8: Benchmark Rate Setting**

Highlights the requirements and best practices for benchmark rate setting in Singapore.

To assist candidates in their preparation of the examination, we have included a set of Review Questions with the answers highlighted in bold.

### Study Guide Updates

The Study Guide is updated at appropriate intervals to reflect changes and developments in the financial industry. Candidates should ensure that they have the latest version of the Study Guide before sitting for the examination. Please refer to the [Updates to the Study Guides](#) page on the IBF website or contact IBF directly to check for the latest updates.

The Study Guide is available in electronic/PDF format. Upon successful registration of the exam, candidates will be able to access and download a complimentary copy of the study guide from their [IBF Portal Account](#). Please note that access to the study guide will expire on the registered exam date.

Candidates should note that the rules and regulations which are referenced in this Study Guide are updated as of 8 May 2018.

### Important Notes about the Exam

The FMRP Exam is conducted at the Assessment Centre of IBF. The examination comprises of 100 multiple-choice questions (MCQ) with a duration of 2 hours. The passing mark is 75%.

The exam includes questions that test candidates' knowledge, understanding and application of the relevant rules, regulations, ethical considerations and codes of conduct to activities in the wholesale financial markets in Singapore.

For more information on all the IBF Examinations, examination rules, regulations and other administrative procedures, please refer to the IBF Examinations page on the IBF website at [www.ibf.org.sg](http://www.ibf.org.sg).

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# Chapter 1: Introduction

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## Learning Objectives

The candidate should be able to:

- ✓ Explain the structure of the Singapore financial markets.
- ✓ Describe the key Market Participants and their functions.
- ✓ Discuss Singapore's regulatory framework and the roles of the regulators.
- ✓ Explain the key functions of the Singapore Foreign Exchange Market Committee (SFEMC), Association of Banks in Singapore (ABS), and ACI Singapore – The Financial Markets Association (ACI).
- ✓ Explain the relationship between the FX Global Code and the Blue Book.

## 1.1 Introduction to this Guide

This study guide presents the information for Representatives and Market Participants that engage in the wholesale financial markets in Singapore.

A “Market Participant” is any entity that conducts business within the financial markets. Such entities include:

Sell-side entities including banks, merchant banks and other financial institutions;

Brokerage firms including inter-dealer brokers (“IDBs”) and firms offering electronic broking services;

Buy-side entities, including asset managers, sovereign wealth funds, hedge funds, pension funds, insurance companies, corporate treasury departments and family offices running treasury operations;

Non-bank liquidity providers;

Firms running automated trading strategies, including high-frequency trading strategies, and/or algorithmic execution;

Trading facilities and platforms, including exchanges and e-trading platforms; and affirmation and settlement platforms.

A “Representative” is any individual who represents the Market Participant.

The information presented in this study guide describes the trading and operational environment of wholesale over-the-counter (“OTC”) financial markets in Singapore, and highlights the rules, regulations, codes of conduct and best practices which should be adopted by the Market Participants and/or Representatives. These are drawn from a variety of sources, including the Securities and Futures Act, the Foreign Exchange Global Code and the Singapore Guide to Conduct and Market Practices for the Wholesale Financial Markets (hereinafter referred to as “The Blue Book”).

All Market Participants, including but not limited to Dealers, IDBs, Prime Brokers and providers of e-trading platforms, should abide by the principles and guidelines which apply to all asset classes presented in this guide, including:

- a. Foreign exchange (FX);
- b. Non-Deliverable Forwards (NDFs);
- c. Money markets instruments (e.g. certificates of deposit which are not considered “securities”);
- d. Debt securities;
- e. Securities borrowing and lending;
- f. Singapore Government Securities; and
- g. OTC derivatives.

## 1.2 Financial Markets Structure

### 1.2.1 What Are Financial Markets?

Financial markets consist of both primary and secondary markets. In the **primary markets**, the origination and new issuance of securities or loans to facilitate the raising of capital take place. In the **secondary markets**, investors and financial institutions or Market Participants are involved in the trading of existing securities and derivatives products to make profits, hedge their positions or manage risk. Financial intermediaries assist in the process of matching investors and borrowers as well as buyers and sellers.

In order for financial markets to function efficiently and effectively, these key features must be present:

- i. Sufficient active Market Participants to ensure liquidity;
- ii. The market is reasonably transparent and participants can see prices dealt;
- iii. The market has clear and enforceable rules that facilitate orderly trading and prohibit market misconduct; and
- iv. Dealing is performed on a fair and objective “best deal” basis and is not based on personal relationships or other extraneous considerations.

### 1.2.2 Types of Financial Markets

#### 1.2.2.1 Foreign Exchange (FX) Markets

The FX market facilitates the exchange of money from one currency to another and helps to determine the relative values of different currencies. It facilitates international trade and investment by enabling currency conversion and the management of Foreign Exchange exposures. The FX market is considered the largest financial market in the world.

#### 1.2.2.2 Money Markets

Money markets facilitate short-term borrowing and lending with original maturities of one year or shorter. **Common money market instruments are Treasury Bills, commercial paper, bankers’ acceptances, certificates of deposits** and other short-term securities. Money markets provide liquidity and funding for participants in financial markets.

#### **1.2.2.3 Capital Markets**

The capital markets facilitate the issuance of debt securities or equity securities to raise medium or long-term funds. They provide opportunities for investors to invest in these long-term assets. Medium-term funds usually refer to funds with maturities exceeding a year. The capital markets can be regarded as comprising both the stock or **equity market** (equity securities) and the **debt market** (debt securities). The debt market is also sometimes referred to as the credit or fixed income market.

#### **1.2.2.4 Securities Markets/Exchanges**

Securities markets or exchanges facilitate the trading of equities, debt securities, and derivatives. These products are “listed” on the exchanges that facilitate the trading, clearing, and settlement of transactions involving these products.

#### **1.2.2.5 Derivatives Markets**

Derivatives markets facilitate the trading of financial derivatives instruments, which are derived from other forms of underlying assets. These assets classes may include FX, debt, equities, or commodities. Participants can use the derivatives market to hedge their financial risk and exposure to the underlying asset.

There are two types of derivatives markets. The **exchange-traded derivatives** markets facilitate the trading of standardized derivative futures and options contracts, while the **OTC derivatives** markets trade both standardized and bespoke derivatives.

## **1.3 Functions of Key Players and Institutions**

### **1.3.1 Banks**

#### **1.3.1.1 Commercial Banks**

Commercial banks are financial intermediaries that typically provide transactional (both retail and institutional) and correspondent banking services to their customers. These include providing savings account, current account, and time deposit services to their customers, while at the same time extending loans and other forms of credit facilities to other customers. Commercial banks also provide various transactional services to facilitate trade financing through the issuance of documentary letters of credits, guarantees, etc.

Most commercial banks will also usually have a branch network to service their pool of retail and corporate customers. In recent times, commercial banks have also acted as intermediaries to facilitate the distribution of other financial products, such as unit trusts and insurance products. The scope of a bank’s activities is usually regulated and determined by the type of licence it holds, and the permitted activities for a given type of license will vary between different jurisdictions.

#### **1.3.1.2 Investment Banks**

Investment banking activities can be carried out by a separate financial institution, known as an investment bank or a merchant bank. These activities may also be conducted within a commercial bank, provided it is licensed to do so by the regulatory authority.

Investment banking activities include:

- i. **Underwriting** - This involves the underwriting of both share equity and debt issues. The underwriting bank may be underwriting the take up and subscription of, as well as guaranteeing a certain price for the bonds, shares or loans. The underwriter earns a fee for the underwriting commitment provided.
- ii. **Mergers and Acquisitions** - This activity involves the investment bank acting as an advisor to the customer on its plans to acquire and/or merge with another entity. In many cases, the transaction will also require financing (equity and/or debt), as well as the additional activity of arranging, underwriting and/or syndicating, and selling down of the equity and debt securities. The investment bank will typically earn advisory fees on the transaction, on top of success fees upon successful execution.
- iii. **Sales and Trading Activities (Flow Business)** - Investment banks are also typically required to make markets for the equity and debt securities that they have originated. This activity of making markets and ensuring that there is a healthy two-way market for the buyers and sellers of the securities is an important part of any underwriting transaction because it assures investors of ongoing liquidity in the securities. This activity also enables the investment bank to meet the ongoing demand of its customers to manage their portfolios of assets and liabilities. As part of this market making activity, traders or dealers in the investment bank are often required to take trading positions in these securities. This, in turn, requires them to manage any resultant currency and interest rate exposure, in addition to credit risk on the underlying security.
- iv. **Proprietary Trading** - Investment banks may decide to take a position in a particular security without any underlying or expected customer demand underpinning the position. Any resultant profit or loss is taken directly into the investment bank's bottom line.

### **1.3.1.3 Private Banks**

A private bank may either be established as a separate entity, or as a business division within a Commercial Bank to provide relationship and transaction management/execution services to high net worth private individuals. Sometimes referred to as private wealth management, private banking services incorporate financial planning, investment portfolio management, and a number of aggregated financial services, which could include estate and tax planning.

## **1.3.2 Inter-Dealer Brokers (IDBs)**

IDBs are wholesale financial market intermediaries that facilitate the trading and execution of financial product transactions through the matching of buyers and sellers of these financial products. They play an important role in the price discovery process, especially for financial products that lack liquidity or are bilaterally negotiated. IDBs act as intermediaries for the execution of these transactions, typically between two financial institutions, and they are not a principal to the transaction. IDBs earn brokerage fees for the services they provide.

Persons who provide money broking services in the FX and money markets in Singapore, and who act as financial intermediaries between banks and financial institutions in Singapore must obtain formal approval as "money brokers" under the Monetary Authority of Singapore (MAS) Act. IDBs cannot act as a principal or take positions in the FX and money markets. Once registered with the MAS, an IDB will be required to comply with requirements imposed by the MAS. Such requirements are typically specified in the relevant approval letter. The IDB will also be subject to the requirements of the Blue Book.

IDBs do not deal in securities unless they operate under an exemption from licensing. A licensing exemption (the "Bond Dealing Exemption") is available to Market Participants who wish to trade in bonds and Singapore

Government Securities under the Securities and Futures (Licensing and Conduct of Business) Regulations (“SFR”) for dealing in bonds (including Singapore Government Securities and plain vanilla bonds) with accredited investors or persons whose business involves the acquisition and disposal of, or holding of securities.

### **1.3.3 Finance Companies**

Finance companies provide small-scale financing, including instalment credit for motor vehicles and consumer durables, and mortgage loans for housing. Finance companies may not offer deposit accounts that are repayable on demand by cheque, draft, or order. However, they are permitted to offer term deposit accounts. They are licensed under and governed by the Finance Companies Act.

### **1.3.4 Insurance Companies**

Registered insurers are approved under Section 8 of the Insurance Act (Cap. 142) to conduct life and/or general insurance business in Singapore. They can be registered as direct insurers, reinsurers, or captive insurers.

### **1.3.5 Capital Markets Intermediaries**

Capital markets intermediaries are licensed and regulated under the Securities and Futures Act (“SFA”). They may provide services or regulated activities such as dealing in securities, trading in futures contracts, leveraged FX trading, advising on corporate finance, fund management, real estate investment trust management, securities financing, providing custodial services for securities and providing credit rating services

In this guide, such Market Participants are referred to as Capital Market Services (“CMS”) License Holders. Please refer to Section 1.4.4 (Capital Markets Services (CMS) Licenses) of this Study Guide for more information.

### **1.3.6 Financial Advisers**

Financial advisers are licensed and regulated under the Financial Advisers Act. They may provide the entire range of financial advisory services as specified in the Second Schedule of the Financial Advisers Act with the appropriate financial advisers licence. Currently, these services include advising customers on investment products, issuance of research reports covering investment products, marketing any collective investment schemes and arranging life policies.

### **1.3.7 Insurance Brokers**

Insurance brokers are registered under the Insurance Act. They may carry out insurance business in Singapore as an agent of insured entity. They can also carry out prospective insured entity in respect of insurance policies relating to general insurance business, long-term accident and health policies, as well as reinsurance of liabilities under insurance policies relating to life business and general business.

### **1.3.8 Trust Companies**

Trust companies carrying out trust services are licensed under the Trust Companies Act. They are allowed to provide the entire range of trust services as specified in the First Schedule of the Trust Companies Act, given the appropriate trust business licence. These services include the provision of services for the creation of an express trust, acting as trustee of an express trust, arranging for any person to act as a trustee of an express trust and the provision of trust administration services in relation to an express trust.

### 1.3.9 Money-Changing and Remittance Businesses

Money-changing and remittance businesses are licensed under the Money-Changing and Remittance Businesses Act. The MAS supervises the money-changing and remittance licensees primarily for anti-money laundering and to counter the financing of terrorism. Money-changing may be conducted under a sole proprietorship, partnership or company. Money-changing licensees must display the exchange rates they are offering to customers at their business premises.

## 1.4 Regulatory Bodies and the Regulatory Framework in Singapore

### 1.4.1 The Role of Central Banks and the Monetary Authority of Singapore

The MAS is Singapore's central bank and financial regulatory authority. It administers the various statutes pertaining to money, banking, insurance, securities, currency issuance and the financial sector in general.

The main functions and responsibilities of the MAS are to:

- i. Act as the central bank of Singapore and oversees the conduct of monetary policy, issuance of currency; and payment systems. The MAS also serves as the banker and financial agent of the Singapore government;
- ii. Conduct integrated supervision of financial services and financial stability surveillance;
- iii. Manage the official foreign reserves of Singapore; and
- iv. Develop Singapore as an international financial centre.

When carrying out its supervisory work, the MAS adopts a risk-focused, stakeholder-reliant, disclosure-based, and business-friendly approach. The MAS's approach to supervision requires it to work closely with financial institutions and stakeholders.

The primary responsibility for the prudential soundness and professional market conduct of an institution lies with its board and senior management. The MAS also looks to the board and senior management to address issues of supervisory concern and it supports the efforts of institutions to maintain an environment of sound risk management and internal processes that commensurate with their business activities and risks.

Depending on the type of institutions and their business activities, the regulatory requirements set out in the following statutes may apply:

- a. Banking Act (Cap. 19)
- b. Monetary Authority of Singapore Act (Cap. 186)
- c. Securities and Futures Act or SFA (Cap. 289)
- d. Financial Advisers Act or FAA (Cap.110)

Non-compliance with the statutes may attract civil and/or criminal liabilities punishable with a fine and/or imprisonment. Apart from the provisions and regulations prescribed under these statutes, a licensed financial institute and its Representatives must also comply with notices and guidelines issued by the MAS.

### 1.4.2 Types of Banking Licenses Issued by the MAS

The Banking Act sets out the basic regulatory framework for the banking industry. Additional and more detailed regulatory requirements are contained in notices, guidelines and circulars issued by the MAS. Under the Banking Act, banking business may only be transacted in Singapore by an entity holding a valid banking licence granted by the MAS. The MAS also periodically issues regulations and guidelines to regulate these activities.

The different types of licenses granted to banks and their types of business activities are:

- i. **Full Banks** – Provide the entire range of banking business as approved under the Banking Act. Singapore Full Banks have no restrictions on the number of branches or other places of business (e.g. ATMs) they can open. Foreign Full Banks, in contrast, are generally only permitted to open a single branch location in Singapore. However, a small number of foreign Full Banks (called Qualifying Full Banks or QFBs) are permitted to have a greater number of branches or places of business.
- ii. **Wholesale Banks** – Provide the range of banking services offered by Full Banks, except that they do not carry out Singapore Dollar retail banking activities. They operate within the Guidelines for Operations of Wholesale Banks issued by the MAS.
- iii. **Merchant Banks** – Approved under the Monetary Authority of Singapore Act. Their operations are governed by the Merchant Bank Directives. The typical activities of Merchant Banks include: corporate finance and advisory work; underwriting of share equity and bond issues; mergers and acquisitions; portfolio investment management; and other fee-based activities.

### 1.4.3 Registration and Licenses Stipulated by the MAS on Regulated Activities

#### 1.4.3.1 Registration of Dealers and IDBs by the MAS

The MAS maintains a register of FX and Money Market Dealers. Banks and Merchant Banks are required to provide the personal particulars of their FX and Money Market Dealers to the MAS, pursuant to the MAS Notice on Appointment and Register of IDBs (MAS 911).

#### 1.4.3.2 Primary Dealers in Singapore Government Securities

A bank must apply to the MAS to be a “Primary Dealer” under the Government Securities Act (Cap.121A) in order to carry on the business of:

- i. Applying to the MAS for the primary purchase of Singapore Government Securities (SGS) on behalf of another person during a public invitation to take up SGS made under Section 30 of the Government Securities Act;
- ii. Offering to redeem any SGS on behalf of another person in pursuance of any public invitation made under Section 24A of the Government Securities Act or otherwise; and/or
- iii. Playing a role as a specialist intermediary in the SGS and SGD Money Markets. A Bank that acts as a “Primary Dealer” is also expected to comply with the relevant requirements set out in the Government Securities Act and its subsidiary legislation, Notice on Obligations of Primary Dealers (MAS 761), Rules and Market Practices of the SGS Market and the SGS Repo Code of Best Practice.

### 1.4.4 Capital Markets Services (CMS) Licences

Banks and Merchant Banks can carry out any regulated activities under the SFA without being separately licensed as a CMS Licence holder. However, Banks and Merchant Banks and their representatives must comply with the business conduct requirements prescribed in the SFA in respect of the regulated activities under the

SFA. Professionals in Banks and Merchant Banks, who carry out regulated activities under the SFA, must be separately appointed as “Representatives” under the SFA.

CMS Licence holders are Market Participants authorized to carry out capital market services. Subject to certain exceptions, a Market Participant that is a CMS Licence holder is generally not allowed to use the word “Bank” or any of its derivatives in any language, or any other word indicating that it transacts banking business in its name, or the description or title under which it is transacting its business. A CMS Licence holder may apply to carry on any or all of the following regulated activities under the SFA:

- i. Dealing in securities;
- ii. Trading in futures contracts;
- iii. Leveraged Foreign Exchange trading;
- iv. Advising on corporate finance;
- v. Fund management;
- vi. Real estate investment trust management;
- vii. Securities financing; and
- viii. Providing custodial services for securities.

Professionals who carry on any or all of the abovementioned regulated activities on behalf of a CMS Licence holder, must be appointed as “Representatives” for the relevant regulated activity.

A CMS Licence holder to deal in securities is permitted to deal in Singapore government securities and bonds. A CMS Licence holder for leveraged FX trading is permitted to deal in FX transactions that are entered into on a margin basis. Such CMS Licence holders would also be required to comply with the Blue Book.

## 1.5 Professional Bodies in Singapore

### 1.5.1 The Singapore Foreign Exchange Market Committee (SFEMC)

The SFEMC was set up to foster the growth of the Singapore financial market as a leading international centre for Foreign Exchange, fixed income and derivatives instruments. Its specific objectives are to:

- i. Foster the growth and development of the treasury market in Singapore;
- ii. Enhance the stature and reputation of the Singapore markets by promoting high standards of professional conduct and competencies;
- iii. Discuss technical issues and recommend appropriate standards and codes for use in the market. The Committee is responsible for the issuing and updating the Blue Book which sets out best practices in dealing in the wholesale financial markets in Singapore;
- iv. Serve as a channel of communication amongst Market Participants and the MAS; and
- v. Mediate disputes among Market Participants (who agree to mediation).

The Committee also works closely with various industry associations such as the Association of Banks in Singapore (“ABS”), the Singapore IDBs Association, ACI Singapore – The Financial Markets and other committees locally and globally.

### 1.5.2 Codes of Conduct and Guidance on Best Market Practices

Market Participants and their Representatives should also abide by the “The Singapore Guide to Conduct and Market Practices for the Wholesale Financial Markets” also commonly referred to as “The Blue Book”, which is issued by the SFEMC, as well as the Principles prescribed in the Foreign Exchange Global Code (“FX Global Code”).

The SFEMC has endorsed the FX Global Code, which is a set of global principles of good practice in the Foreign Exchange market, which has been developed to provide a common set of guidelines to promote the integrity and effective functioning of the wholesale Foreign Exchange market. It is intended to promote a robust, fair, liquid, open, and appropriately transparent market in which a diverse set of Market Participants, supported by resilient infrastructure, are able to confidently and effectively transact at competitive prices that reflect available market information and in a manner that conforms to acceptable standards of behaviour.

The Blue Book applies in parallel with the Foreign Exchange Global Code. While the Global Code applies only to Foreign Exchange, this Guide applies to Foreign Exchange, other asset classes and the setting of financial benchmarks. Together with the Global Code, the Blue Book is intended to foster a high standard of conduct and good market practices, ensure equitable and healthy relationships between Market Participants and facilitate market efficiency.

### 1.5.3 ACI – The Financial Markets Association (ACI)

ACI is a leading global association of wholesale financial market professionals. Its objectives are to promote the professional development of its members, facilitate communication and collaboration among members, markets, and other relevant bodies and maintain the highest standards of market conduct and industry best practices among member-professionals through the ACI Model Code.

ACI Singapore – The Financial Markets Association (“ACI Singapore”) is affiliated to ACI. ACI Singapore is an active participant in the ACI Global arena with Standing Committee Members elected to both the ACI Committee for Professionalism (which administers the Financial Market’s ACI Model Code of Conduct) as well as the ACI Board of Education. ACI Singapore and the Singapore Management University have developed a Financial Markets training roadmap for Treasury Markets professionals in the front, middle, and back offices.

ACI Singapore also organises regular seminars for its members and other industry professionals. These provide updates on market developments and new products as well as a networking forum for industry participants. These initiatives underpin the ACI Singapore’s commitment to the continuing education and professional development of its members and the industry.

### 1.5.4 The Association of Banks in Singapore (ABS)

ABS is an association formed by all licensed banks in Singapore to represent and promote the interests of its members. It also sets standards of good practice and raises industry expertise by organising industry-specific niche seminars and workshops. ABS participates in regular dialogues and consultations with the MAS on industry issues and on promoting a sound financial system in Singapore. ABS is a pivotal channel for feedback on legislation and guidelines relating to the industry. It also liaises with other relevant non-government institutions and trade associations.

### 1.5.5 The Institute of Banking and Finance (IBF)

The Institute of Banking and Finance Singapore (IBF) was established in 1974 as a not-for-profit industry association to foster and develop the professional competencies of the financial sector. IBF represents the interests of close to 200-member financial institutions covering banks, insurance companies, securities brokerages and asset management firms. In partnership with the financial industry and training providers, IBF is now dedicated to empowering practitioners with capabilities to support the growth of the Asian financial industry and to promote the Asian standard of excellence for practitioners in finance.

IBF is the national accreditation and certification agency for financial industry competency in Singapore under the IBF Standards. The IBF Standards represent a set of competency standards developed by the industry, for the industry. It provides a practice-oriented development roadmap for financial sector practitioners to attain the necessary training to excel in their respective job roles. The IBF Standards also offer a comprehensive suite of accredited training and assessment programmes to guide a financial sector practitioner from licensing examinations on through to professional certification.

# Chapter 2: Ethics, Behavioural Standards and Professional Conduct

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## Learning Objectives

The candidate should be able to:

- ✓ Describe the fit and proper guidelines and disclosure requirements.
- ✓ Apply professional and ethical standards of financial markets.
- ✓ Identify conflicts of interest and make recommendations to avoid or address them.
- ✓ Recognise the meaning of confidentiality in the context of dealing in the financial markets, and take action to protect confidential information.
- ✓ Extend and receive entertainment, gifts, and favours in accordance with the prescribed guidelines.
- ✓ Identify the control measures when dealing for personal accounts.
- ✓ Recognize the importance of maintaining professional knowledge to strengthen the professional standards of the dealing community.

## 2.1 Introduction

The financial markets are expected to provide fair, orderly and transparent trading and dependable settlement of trades. The integrity and smooth functioning of financial markets depends on the public's trust in the financial system and on its Market Participants to hold themselves and act in accordance with high ethical standards and professional conduct.

It is thus the collective responsibility of all Market Participants, to establish and maintain other participants' faith in the markets, and follow all the important practices which govern the conduct of Representatives in the financial markets.

## 2.2 Fit and Proper Guidelines and Disclosure Requirements <sup>1</sup>

The MAS has set out the fit and proper criteria applicable to Representatives of licensed financial institutions, such as banks, merchant banks and holders of CMS Licences.

The MAS will take the following criteria into account when considering whether a person is “fit and proper”:

- i. Honesty, integrity, and reputation;
- ii. Competence and capability; and
- iii. Financial soundness.

### 2.2.1 Assessment of Honesty, Integrity, and Reputation

A person does not qualify to be a Representative if he or she, in Singapore or other foreign jurisdictions:

- i. Has been disqualified from acting in any managerial capacity, had his or her applications for business licenses of any sort rejected, or been subjected to disciplinary action including warnings, in financial markets or other industries;
- ii. Has been untruthful, or shown unwillingness or failure to comply with regulatory requirements or professional and ethical standards;<sup>2</sup>
- iii. Has been convicted of, or accepted civil liability for, fraud or misrepresentation;
- iv. Is, or was at the time, a director, partner, substantial shareholder, or concerned in the management of a business that has been involved in criminal offences, had its license suspended or refused by financial regulators, or gone into insolvency; or
- v. Has been dismissed or asked to resign from a position of trust.

### 2.2.2 Assessment of Competency and Capability <sup>3</sup>

The person should possess satisfactory past performance or expertise in carrying out his or her business or duties, whether in Singapore or elsewhere. Where the person assumes concurrent responsibilities, it should be considered whether such responsibilities would give rise to a conflict of interest, or otherwise impair his or her ability to discharge his or her duties in relation to any activity regulated by the MAS under the relevant legislation.

In relation to a relevant person whose activity is regulated by the MAS under the Financial Advisers Act (“FAA”) or Securities & Futures Act (“SFA”), the relevant person or representative must have satisfactory educational qualification or experience, relevant skills and knowledge, with regard to the nature of the duties that she is required to perform. The relevant person must also satisfy the relevant entry and exam requirements under the FAA and SFA.

<sup>1</sup> MAS Guidelines on Fit and Proper Criteria (FSG-G01); SFA 99B - Acting as representative

<sup>2</sup> ABS Code of Conduct, Annex 4 – Code of Conduct for Treasury / Fixed Income Securities Business, Principle 3 - Professional Integrity

<sup>3</sup> Minimum Entry and Examination Requirements for Representatives of Licensed Financial Advisers and Exempt Financial Advisers (FAA-N13); Minimum Entry and Examination Requirements for Representatives of CMS Licence and Exempt Financial Institutions (SFA 04-N09)

### 2.2.3 Assessment of Financial Soundness <sup>4</sup>

In addition, a person is deemed unsuitable in terms of financial soundness to be a Representative when he or she:

- i. Is unable to fulfil any of his or her financial obligations, whether in Singapore or elsewhere;
- ii. Has entered into a compromise or scheme of arrangement with his or her creditors, or made an assignment for the benefit of his or her creditors, being a compromise or scheme of arrangement or assignment that is still in operation, whether in Singapore or elsewhere;
- iii. Is subject to a judgment debt that is unsatisfied, either in whole or in part, whether in Singapore or elsewhere;
- iv. Is or has been the subject of a bankruptcy petition, whether in Singapore or elsewhere; or
- v. Has been adjudicated a bankrupt and the bankruptcy is un-discharged, whether in Singapore or elsewhere.

Failure to meet the “fit and proper” criteria may not lead to an automatic revocation of the status of a Representative. The significance of the failure to meet a specific criterion depends on:

- a. The seriousness of, and surrounding circumstances resulting in the person not meeting the specific criterion;
- b. The relevance of the failure by the person to meet the specific criterion to the duties that are, or are to be, performed and the responsibilities that are, or are to be, assumed by the person; and
- c. The passage of time since the failure by the person to meet the specific criterion.

A CMS Licence holder has a duty to report to the MAS if any of its Representatives has failed to satisfy the MAS Guidelines on Fit and Proper Criteria.

### 2.2.4 Change of Particulars and Additional Regulated Activity of Representatives <sup>5</sup>

A Representative shall notify his or her principal of any change in any of his or her particulars, within 7 days of such change. Changes to be notified include:

- i. His or her personal particulars (e.g. change of name, residential address, contact details, nationality);
- ii. Information about his or her spouse;
- iii. Regulated activities for which he or she is to act as a representative; or
- iv. His or her business interests and shareholdings in any business or corporation in Singapore or elsewhere.

## 2.3 Conflicts of Interest and Ethical Standards <sup>6 7</sup>

Any Representative in the financial markets will encounter multiple occasions where he or she will be offered or be able to obtain some personal gain, whether it is monetary or non-monetary. As a Representative, it is important that one is clear about what is acceptable and what is not. To that end, one must ensure one has

<sup>4</sup> Refer to the MAS Guidelines on Fit and Proper Criteria (FSG-G01) for a complete list of circumstances that details when a person may be considered not fit and proper under FAA & SFA.

<sup>5</sup> Regulation 5 of Securities Futures Regulation (SFR) - Notification of Change in Personal Particulars

<sup>6</sup> FX Global Code Principle 1 – Market Participants should strike for the highest ethical standards; Blue Book Para 1.1 - Adoption of Global Code Principles.

<sup>7</sup> ABS Code of Conduct, Annex 4 – Code of Conduct for Treasury / Fixed Income Securities Business, Principle 2 - Conflicts of Interest

the appropriate knowledge of the governing laws, rules and regulations. Any breach of the regulatory requirements will have serious consequences such as legal penalties (including fines and jail terms), suspension, de-registration, revocation and so on.

There will also be situations where there are no direct breaches of the regulations, yet are not entirely acceptable - what are commonly referred to as “grey areas” or “ethical dilemmas”. In such situations, Representatives will face conflicts of interest where their personal interests are not aligned with the interests of their principals or customers, or where they are required to perform multiple roles which have opposing objectives. Conflicts of interest can be real or perceived, and both should be avoided.

For example, perceived conflicts of interest could arise when a Representative trades in the shares of his or her employer. Even where one has no inside information, any trading in the employer’s shares could easily lead to suspicions that one had inside information, especially if the trades are profitable. Apart from tarnishing one’s own image, it could also lead to speculation by external parties that there were improper internal controls, leading to negative reputational impact for the rest of the firm.

### Example – Perceived Conflict of Interest

John works for BCO Bank (“BCO”), which is listed on the local stock exchange. John is a technical trader and bases all his investment decisions on technical analysis.

In the morning of 16<sup>th</sup> May, John purchases BCO shares for his personal portfolio, having observed that its share price moves above a key resistance level. After the market closes on 16<sup>th</sup> May, BCO announces record profits for the quarter. In the morning of 17<sup>th</sup> May, BCO Bank’s share price rises sharply in response to the profit announcement the night before.

In reality, John had no inside information and had based his decisions entirely on publicly available price data. However, the coincidence of timing of his purchase decision and BCO’s results announcement is likely to raise suspicions that John had prior knowledge of the good results. This would lead to questions about the internal controls and governance of BCO itself, with regards to its management of price sensitive, confidential information.

To mitigate similar situations, Market Participants should require their representatives to obtain approval from their superiors before engaging in any trading activity. Market Participants could also introduce a “black out” period prior to significant corporate announcements, during which their representatives are prohibited from trading in their employer’s stock.

Representatives should apply judgment when facing ethical questions, expect to be held responsible for unethical behaviour, and seek advice from their managers when unsure of the appropriate course of action to be taken.

Market Participants need to have a clear understanding of the relevant codes of conduct and ethical standards, as this will help them to resolve conflicts of interest or ethical dilemmas that may arise, rather than rely on their personal judgement. Ethics can be defined as a framework of moral principles that governs a Representative’s behaviour.

Ethical principles and standards that Market Participants should strive for include:

- i. Honesty in dealing with customers and counterparties;
- ii. Fairness in dealing with customers and counterparties;
- iii. Consistency of action; and

iv. Integrity, which is best described as doing the right thing, even when no one else is watching.

Market Participants should identify actual and potential conflicts of interest that may compromise or be perceived to compromise the ethical or professional judgement of Market Participants. Market Participants should eliminate these conflicts or, if this is not reasonably possible, effectively manage them so as to promote fair treatment of their clients and other Market Participants, up to and including abstaining from undertaking the relevant activity or action due to the conflict of interests.

Market Participants should put in place appropriate and effective arrangements to eliminate or manage conflicts of interest. This could include:

- a. Segregation of duties and/or reporting lines;
- b. Establishing information barriers (for example, physical segregation of certain departments and/or electronic segregation);
- c. Altering the duties of personnel when such duties are likely to give rise to conflicts of interest;
- d. Providing training to relevant personnel to enable them to identify and handle conflicts of interest;
- e. Establishing declaration policies and/or records for identified conflicts of interest and personal relationships, as well as for gifts and corporate entertainment received; and
- f. Having policies and controls on personal dealing.<sup>8</sup>

Where it is concluded that a specific conflict of interest cannot reasonably be avoided or effectively managed (including by ceasing to undertake the relevant service or activity), Market Participants should disclose sufficient details of the conflict to enable the affected parties to decide beforehand whether or not they wish to proceed with the transaction or service.

### 2.3.1 Acting for Only One Principal<sup>9</sup>

A Representative should only act for one principal or licensed Market Participant. This is to avoid conflicts of interest, such as situations where the Representative is remunerated differently by different Market Participants and acts in his or her own best interest instead of that of his or her customers. Representatives have a duty to ensure their customers' interest are placed ahead of their own. Exceptions to this rule are allowed where the Representative acts for Market Participants that are related corporations or where approval from the MAS has been obtained.

### 2.3.2 Personal Relationships

Personal relationships can give rise to conflicts of interest. These can take many forms; some examples follow.

#### Example - Personal Relationships and Conflicts of Interest

Jane is a swaps dealer and she is married to Bernard, who works as an IDB in the swaps market as well.

Bernard receives an order to sell a large amount of USD/JPY which is likely to push the market lower, and at the same time he knows that Jane is holding onto a Long position in USD/JPY. Bernard's fiduciary duty is to maintain confidentiality of the customer's order, but he may be tempted to inform Jane of the order,

<sup>8</sup> ABS Code of Conduct, Annex 4 – Code of Conduct for Treasury / Fixed Income Securities Business, Principle 3 - Professional Integrity

<sup>9</sup> Section 99J of the SFA - Representatives to Only Act for One Principal

knowing that Jane's trading profits (and her annual bonus, which contributes to the family wealth) would be hurt by the order.

Bernard is already working several customer orders to buy USD/JPY at 101.50, when Jane submits an order to similarly buy USD/JPY at 101.50. Market practice on price-time priority would require Bernard to fill the early orders from other customers before filling Jane's order. However Bernard may be tempted to fill Jane's order first.

### 2.3.3 Entertainment, Gifts and Favours <sup>10</sup>

Receiving excessive entertainment might lead to the recipient feeling obligated to the giver, thereby leaving the recipient in a compromised position to execute his or her professional duties in respect to the giver. Market Participants should exercise care and judgement when accepting or offering any forms of gifts, entertainment and favours as this may be open to abuse. Particular care should be taken when dealing with sovereign entities and government officials.

In giving or receiving entertainment, gifts and favours, the following should be considered:

#### i. Nature of entertainment, gifts and favours

One should keep in mind the laws of the country and socially accepted norms when accepting any form of entertainment, gift or favour;

#### ii. Gifts or entertainment of excessive value or frequency

- a. Market Participants should have an internal limit as to the dollar value of any gift or entertainment offered or received. Any excesses beyond the limit should be reported to their Compliance Department. Representatives of Market Participants should notify their supervisors and compliance department if they are offered unusual favours; and
- b. The form, frequency and cost of entertainment, gifts or favours should be considered. For example, buying and delivering breakfast to a counterparty every morning might be misconstrued, even if the value of the breakfast is small.

### 2.3.4 Personal Dealing <sup>11</sup>

Market Participants must have clear guidelines regarding what trading activities are permitted and what approvals are required before Representatives can trade for their own accounts. Such guidelines include appropriate approving officers for the Representatives, frequency of activity and blackout periods (when all activity should be disallowed, such as preceding corporate earnings announcements or other corporate actions). Dealing representatives who trade for their own account must be aware of their responsibilities to avoid any conflicts of interest with their professional roles.

Guidelines and restrictions should apply to the Representatives' personal accounts as well as accounts of connected people. Persons who are deemed to be connected to a Representative include:

- i. The Representative's spouse or civil partner;
- ii. Any relative sharing the same household;

<sup>10</sup> Blue Book, Para 4 - Entertainment, Gifts and Favours; FX Global Code Principle 3 - Market Participants should identify and address conflicts of interest.

<sup>11</sup> Blue Book, Para 5 - Dealing for Personal Account

- iii. Dependent children and step-children;
- iv. Any other person with whom there is a close link; and
- v. Any other person who has a direct or indirect material interest in the outcome of the personal transaction.

The key concerns would relate to insider trading and front-running, which we examine in greater detail in Section 5.2 Market Misconduct of this Study Guide.

### **2.3.5 Disclosure of Interests <sup>12</sup>**

A Representative of a CMS Licence holder who engages in dealing in securities, fund management or advising on corporate finance is required to maintain a prescribed form (Form 15) of a register of his interests in securities which are listed for quotation or quoted on a securities exchange or recognised market operator. He must enter into the register, within 7 days after the date that he acquires any interest in securities or a date where there is any change in his interest in securities, particulars of his interest (or change in his interest) in those securities.

### **2.3.6 Bets and Gambling <sup>13</sup>**

Bets and gambling among Market Participants can easily create actual or perceived conflicts of interest. A situation where a party loses at the cards table, and then loses again to the same counterparty in a market transaction, could be viewed as related incidents where the losing party is using the market transaction to pay off the gambling losses.

Market Participants should be prohibited from gambling or betting with each other, and Market Participants should prohibit their Representatives from betting or gambling in ways that could give rise to potential conflicts of interest with their professional roles or responsibilities.

### **2.3.7 Promotion of Ethical Practices, Values and Conduct <sup>14</sup>**

Senior management should be at the forefront of promoting proper professional and ethical conduct, through their articulated policies and personal conduct. They should also take steps to promote and reinforce all employees' awareness and understanding of the rules and regulations as well as the values and ethical conduct standards expected.

All senior management and employees of Market Participants must be aware of the disciplinary actions that may result from inappropriate conduct. Disciplinary actions for misconduct could include any of the following:

- i. Suspension from conducting any regulated activity;
- ii. Restitution of misappropriated monies;
- iii. Fines;
- iv. Formal warnings;
- v. Demotion; or
- vi. Termination of the representative's employment or arrangement with the Market Participant.

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<sup>12</sup> Regulation 4 of the SFR - Register of interests in securities

<sup>13</sup> Blue Book, Chapter 1, Para 3 - Bets and Gambling.

<sup>14</sup> FX Global Code, Principle 5 - Market Participants should embed a strong culture of ethical and professional conduct with regards to their FX Market activities

## 2.4 Professional Knowledge <sup>15</sup>

Representative should maintain a consistently high level of awareness and understanding of good conduct and market practices, besides being familiar and updated with the rules, regulations and codes of conduct that are applicable to their activities. To achieve this, Representatives should adhere to ongoing standardized industry tests and certification requirements, as well as continuing education requirements as specified by the industry.

Sell-side entities and IDBs must commit to requiring their staff who are involved in conducting activities covered by this Guide to take the relevant courses and certification programmes, unless subject to an applicable exemption. Sell-side entities and IDBs further commit to ensuring that their staff who engage in activities covered by this Guide obtain the relevant certification within 6 months of joining, unless subject to an applicable exemption. In addition, sell-side entities and IDBs undertake to provide details on which of their staff have obtained the relevant certification, on request, to the SFEMC or a relevant regulator.

While optional for other Market Participants, including staff of buy-side entities, they are encouraged to obtain the relevant certification where applicable.

Market Participants should also ensure that their staff have the minimum qualifications required under applicable laws and regulations, such as passing the Capital Markets and Financial Advisory Services (CMFAS) Examinations where applicable.

Continuing education requirements should be met with genuine learning, rather than adopting a check-box mentality. An example of this would be a senior FX dealer attending an “Introduction to FX Markets” training, just to clock his or her continuing education requirement hours. Such behaviour is another example of unethical and unprofessional behaviour.

## 2.5 Dealings with Customers

In dealing with customers, all Market Participants must ensure that the customers’ interest is always put before their own interests, and care should be taken to avoid creating any perception of mistreatment. There are rules in place to ensure consistency in the treatment of customers across the financial industry with respect to disclosures and handling of customer orders.

### 2.5.1 Risk Disclosure <sup>16</sup>

When opening a leveraged FX trading account for a customer, Market Participants and CMS License holders must provide the customer with a separate written risk disclosure document and obtain an acknowledgment signed and dated by the customer that he has received and understood the nature and contents of the risk disclosure document. The content of the risk disclosure document is standardized in Form 13 as stipulated in the SFA. Some of the key disclosures include:

- i. The effect of leverage or gearing; namely that the customer may sustain a total loss of the initial margin funds and any additional funds deposited with the firm and is liable for any resulting deficits in his or her account;

<sup>15</sup> Blue Book, Chapter 1, Para 7 - Professional Knowledge; MAS Notice on Reporting of Misconduct of Representatives by Holders of Capital Markets Services License and Exempt Financial Institutions (SFA04-N11), Para 7. FX Global Code Principle 2 - Market Participants should strive for the highest professional standards.

<sup>16</sup> SFR 47E - Risk disclosure by certain persons in Securities Futures (Licensing and Conduct of Business) Regulations

- ii. The placing of certain orders (e.g. 'stop-loss' orders, or 'stop-limit' orders) which are intended to limit losses to certain amounts may not be effective because market conditions may make it impossible to execute such orders; and
- iii. Variable degrees of risk in options products, highlighting the risk that selling ('writing' or 'granting') an option may result in losses that are well above the amount of premium received.

### 2.5.2 Disclosures for Managed Accounts <sup>17</sup>

For managed accounts where the Market Participant enters into trades on behalf of the customer, or advises or guides the customer on trades, the Market Participant must provide the customers with an additional disclosure as stipulated in Form 14, and obtain an acknowledgment signed and dated by the customer that he or she has received and understood the nature and contents of the disclosure document.

The key disclosure requirement is that the Market Participant must highlight to the customer that managed accounts may be subject to substantial charges for management and advisory fees. As such, it may be necessary for those accounts to make substantial trading profits to avoid depletion of their assets.

Market Participants must ensure that copies of Forms 13 and 14 are delivered to prospective customers and are kept in Singapore.

### 2.5.3 Dealing as Principal <sup>18</sup>

Market Participants should be clear about the capacities in which they act and must inform their counterparty where they are dealing as a principal, not agent. A Market Participant must also state in the contract note that it is acting in the transaction as a principal and not as an agent. This requirement does not apply to a market-maker who is recognised as such by a securities exchange, overseas securities exchange or the MAS.

Market Participants should understand and clearly communicate their roles and capacities in managing orders or executing transactions. Market Participants may also have a standing agreement or other terms of business as to their roles that govern all trades, or they may manage their relationship by determining their roles on a trade-by-trade basis. If a Market Participant wishes to vary the capacity in which it or its counterpart acts, any such alternative arrangement should be agreed by both parties.

### 2.5.4 Handling Customer Money and Assets <sup>19</sup>

When a Market Participant receives money or other assets from, or on account of the customer, it must ensure that the money or assets are applied solely for such purpose as may be agreed to by the customer.

Customer funds shall not be commingled with the Market Participant's own funds. Instead, customer funds must be held in segregated customer trust accounts. Funds from different customers may be commingled and deposited in the same trust account. Interest earned by the customers' funds must be credited to the respective customers.

Customer funds must only be used for the customer's benefit. This might include:

<sup>17</sup> SFR 47E - Risk disclosure by certain persons in Securities Futures (Licensing and Conduct of Business) Regulations; Regulation 39, Para 2 from the Securities and Futures (Licensing and Conduct of Business) Regulations

<sup>18</sup> SFR 47B -Dealing in Securities as Principal from the Securities and Futures (Licensing and Conduct of Business) Regulations; FX Global Code, Principle 8 – Market Participants should be clear about the capacities in which they act.

<sup>19</sup> SFA Section 104- Handling of Customer Assets; Part III of the Securities and Futures (Licensing and Conduct of Business) Regulations Divisions 2, 3 and 4.

- i. Settling the customer's transactions;
- ii. Making payments as instructed by the customer;
- iii. Recovering advances extended to the customer or brokerage and other proper charges owed by the customer to the CMS Licence holder; or
- iv. Being deposited in a clearing house or clearing facility for the purpose of margining and settling trades.

## 2.6 Reporting of Misconduct <sup>20</sup>

Representatives should maintain the highest professional standards when they execute any market activities. All Market Participants should adhere to industry rules, regulations, industry codes and best practices, including any applicable obligations under the SFA, FAA and other applicable related regulations and laws.

It is the duty of all Market Participants to be familiar and updated with the market conduct rules that are applicable to their activities. We will examine several important and common areas of market misconduct in Chapter 5 of this Study Guide.

Licensed financial institutions that are regulated under the SFA and the FAA must shall report to the MAS, any actual or suspected misconduct committed by their Representatives, or any of their Representatives who ceased to be a Representative before the misconduct was discovered.

Reports shall be made to the MAS, not later than 14 days after the discovery of misconduct, for matters such as:

- i. Insider trading;
- ii. Market manipulation;
- iii. Failure to satisfy the Guidelines on Fit and Proper Criteria;
- iv. Non-compliance with any regulatory requirement; or
- v. A serious breach of the Market Participant's internal policy or code of conduct which would render the representative liable to demotion, suspension or termination.

Additionally, a police report needs to be lodged (with a copy forwarded to the MAS) for any offences involving:

- a. Cheating;
- b. Dishonesty;
- c. Fraud;
- d. Forgery;
- e. Misappropriation of monies; and
- f. Criminal breach of trust.

Proper records shall be kept with regards to a summary of the facts of the case, interviews with relevant parties involved, documentary evidence of the alleged misconduct, the investigator's assessment and recommendation and any disciplinary actions taken against the Representative.

<sup>20</sup> MAS Notice on Reporting of Misconduct of Representatives by Holders of Capital Markets Services License and Exempt Financial Institutions (SFA04-N11) (<http://www.mas.gov.sg/Regulations-and-Financial-Stability/Regulations-Guidance-and-Licensing/Securities-Futures-and-Funds-Management/Notices/2010/Notice-on-Reporting-of-Misconduct-of-Reps-by-CMSLs-and-EFIs.aspx>)

# Chapter 3: Confidentiality and Information Sharing

## Learning Objectives

The candidate should be able to:

- ✓ Recognise breaches of confidentiality by Market Participants and their Representatives by adhering to:
  - Clear frameworks to identify confidential information, including trading information and designated confidential information.
  - Robust procedures to protect and limit access to confidential information.
- ✓ Identify allowable disclosures.
- ✓ Employ clear and accurate communications.
- ✓ Point out ambiguous or misleading statements.
- ✓ Use appropriate language to communicate Market Colour.
- ✓ Identify the approved modes of communication.

## 3.1 Introduction <sup>21 & 22</sup>

Sharing of information among the various branches, departments and functions within a Market Participant as well as with external parties is often required to complete and settle transactions, as well as to reduce information asymmetry. Conversely, maintaining confidentiality and customer anonymity are essential for preserving a reputable and efficient market place, as well as being legally required under the various governing Acts.

All Market Participants, including principals and intermediaries (such as IDBs or trading platform providers) share equal responsibility for preserving the integrity of the market through the proper maintenance of confidentiality. Market Participants should ensure the confidentiality of their customers' identities and counterparties, and customer information should not be disclosed except in accordance with the applicable laws and regulations, in particular Section 47 and Third Schedule of the Banking Act.

<sup>21</sup> Blue Book, Chapter 1, Para 2.1-2.2 – Confidentiality

<sup>22</sup> ABS Code of Conduct, Annex 4 – Code of Conduct for Treasury / Fixed Income Securities Business, Principle 1 - Confidentiality

## 3.2 Identify and Limit Access to Confidential Information <sup>23</sup>

### 3.2.1 Market Participants Should Clearly Identify Confidential Information

Confidential information is information that is not in the public domain. Confidential information might be received by a Market Participant (such as details about a customer or their orders) or created by a Market Participant (such as market positions).

Confidential information obtained from customers, prospective customers or any other third parties is to be used only for the specific purpose for which it was given, except as provided above or otherwise agreed with the customer. Market Participants should also identify confidential information in accordance with any legal or contractual obligations that they are subjected to.

There are two broad types of confidential information - **trading information** and **designated confidential information**.

#### 3.2.1.1 Trading Information

This can take various forms, including information relating to the past, present, and future trading activity or positions of the Market Participant itself or of its customers, as well as related information that is produced during the course of such activity.

#### Example - Related Information that is Produced by the Market Participant

You are working as a dealer in a bank. A corporate customer informs you of its intention to take over a Japanese firm, for which it requires a large amount of JPY in 6 months' time, and is concerned about a possible strengthening of the JPY. You recommend that the customer hedge this risk by purchasing a USD Put / JPY Call option. The customer says he will consider your recommendation and let you know if he chooses to execute the option.

The information about the take-over is an example of trading information from the customer. The information that the customer is looking for a USD Put / JPY Call is an example of related information that is produced by the Market Participant. Both pieces of information should not be shared.

Examples of trading information that should not be shared include (but are not limited to):

- i. Information on customers and dealing counterparties;
- ii. Details of the Market Participant's own positions or order book;
- iii. Details about other Market Participant's axes and orders. Please refer to Section 5.2.4 Disclosure of Customer Orders of this Study Guide for details;
- iv. Spread matrices provided by Market Participants to their customers; or
- v. Orders for benchmark fixes. Please refer to Section 8.3.2 Traded Benchmarks of this Study Guide for details.

<sup>23</sup> FX Global Code, Principle 19 - Market Participants should clearly and effectively identify and appropriately limit access to Confidential Information.

### 3.2.1.2 Designated Confidential Information

This refers to information which Market Participants may agree to formally recognise as being confidential, proprietary and other information, through a written non-disclosure or a similar confidentiality agreement.

#### Example - Designated Confidential Information

Patricia works for a bank as an FX specialist, and the bank is advising a large corporate customer on its funding requirements for the next 2 years. The entire FX team has signed non-disclosure agreements which dictate that all information uncovered in the course of this project are to be treated as confidential for the next 6 months. The FX team begins work by identifying the expected cash-flows of the customer by examining their business plans.

In the course of discussions, the customer informed Patricia that it plans to take over a smaller competitor that is listed on the local stock exchange, by buying sufficient shares to become the majority shareholder. At the end of day, Patricia shares this information with her colleagues on in the FX team.

Patricia should not share this information with her colleagues, even though it does not form part of an order, as it is not information that is produced by Patricia or her team. The information also does not relate to an instrument that she trades professionally or personally, and has been designated as confidential information by the non-disclosure agreement.

### 3.2.2 Market Participants Should Limit Access To and Protect Confidential Information <sup>24</sup>

Market Participants should not disclose confidential information to internal or external parties:

- i. Unless they have a valid reason for receiving such information; or
- ii. Under any circumstances where it appears likely that such party will misuse the information.

Additionally, to avoid unwittingly or inadvertently disclosing confidential information, Market Participants should not visit each other's dealing rooms except with the permission of their respective managements.

## 3.3 Disclosure of Confidential Information

Market Participants should only disclose, or ask for, confidential information where appropriate. Appropriate and allowable disclosures are discussed below.

### 3.3.1 Allowable Disclosures <sup>25</sup>

Market Participants only disclose confidential information to internal and/or external parties under specific circumstances or to meet regulatory, risk management, legal, and compliance needs. Contravention of banking secrecy rules is punishable with a fine/imprisonment.

<sup>24</sup> Blue Book, Chapter I, Para 2.7 – Market Participants should not visit each other's dealing rooms except with the permission of their respective managements. FX Global Code, Principle 19 - Market Participants should clearly and effectively identify and appropriately limit access to Confidential Information.

<sup>25</sup> Banking Act, Section 47 – Banking Secrecy and the Third Schedule – Disclosure of information; FX Global Code, Principle 20 - Market Participants should not disclose Confidential Information to external parties, except under specific circumstances; Blue Book, Chapter 1, Para 2.3 – Confidentiality.

Allowable disclosures may include:

- i. Where consent of the counterparty or customer has been obtained;
- ii. For the operation of the markets, such as:
  - a. To agents, market intermediaries (such as IDBs or trading platforms), or other Market Participants to the extent necessary for executing, processing, clearing, novating, or settling a transaction; and
  - b. Where the disclosure is necessary for the operations and risk management of the intermediary and for audit by internal and external auditors, lawyers, or consultants approved or engaged by the intermediary;

Where required by the law or authorities:

- iii. Where the disclosure is required under any law or rules for investigating or prosecuting an offence alleged or suspected to have been committed under any written law;
- iv. Where requested by MAS;
- v. To the Comptroller or any officer authorized by him, in relation to any investigation under the Income Tax Act (Cap 134)<sup>26</sup>;
- vi. Where disclosure is solely in connection with the bankruptcy or winding up of the customer, or is necessary for compliance with a garnishee order served on the Market Participant attaching moneys in the account of the customer; or
- vii. For the payment of compensation under the Deposit Insurance and Policy Owners' Protection Schemes Act 2011<sup>27</sup>.

Sharing of information among branches or subsidiaries within a group should be subjected to the same restrictions and controls as would be enforced on information flow to outside parties.

### Examples of Disclosures (Allowable and Not Acceptable)

#### Example 1

Lavin gets a call from a corporate customer, BHB Ltd, asking "Where can I buy 100 million USD/PHP?" The bank Lavin works for does not quote PHP, and hence she calls out to another bank for a quote. Lavin says, "BHB is looking to buy USD/PHP. What's your offer?"

This is not acceptable because in doing so, she is compromising the confidentiality of the customer before the deal is done. An appropriate communication from Lavin could have been "What's your offer in 100 million USD/PHP?"

#### Example 2

Lavin quotes to BHB, based off the quote she received from the other bank. BHB hits her and she hits the other bank. After the deal is concluded, Lavin tells the other bank "That was for BHB."

This is not acceptable as disclosing the customer name was not necessary for settling the transaction.

<sup>26</sup> Income Tax Act (Cap 134)

<sup>27</sup> Deposit Insurance and Policy Owners' Protection Schemes Act 2011

**Example 3**

Lavin gets a call from a corporate customer, BHB Ltd, asking “Where can I buy 100 million USD/PHP?” The bank Lavin works for does not quote PHP, and hence she calls John, who trades PHP at another bank for a quote. Lavin says, “What’s your offer in 100 million USD/PHP?” John enquires, “Who is this for?”

Lavin asks BHB if they will allow her to reveal their identity to the other bank. BHB agrees. Lavin then informs John, “It is for BHB.”

Lavin has not breached any rules as she has obtained the customer’s explicit approval to disclose its identity. However John should not have asked for the identity of the customer as that was not material to the quote or transaction.

**3.3.2 Prudence before Disclosure <sup>28</sup>**

Whenever a request is received to disclose customer information, it is a good practice to refer the request to the Legal or Compliance Department. Such request can then be professionally assessed by the relevant departments and advised by the Legal or Compliance Officer whether the disclosure is permitted by law or contractual agreement between the Market Participant and the customer. If any disclosure is made, a Market Participant still has the duty to inform and remind the person to whom the information is released to, that they also have an obligation to safeguard confidentiality and the consequence of a breach.

Market Participants may actively choose to share their own prior positions and/or trading activity so long as that information does not reveal any other party’s confidential information and the information is not shared in order to disrupt market function or hinder the price discovery process, or in furtherance of other manipulative or collusive practices.

When determining whether to release confidential information, Market Participants should take into account the applicable laws, as well as any agreed-to restrictions that may limit the release of the information.

**3.4 Communication Practices****3.4.1 Market Participants Should Communicate in a Manner that is Clear, Accurate, Professional, and Not Misleading <sup>29 & 30</sup>**

Communications should be easily understood by their intended recipients. Therefore, Market Participants should use terminology and language that is appropriate for the audience and should avoid using ambiguous terms, and they should be aware that the communications of their personnel reflect not just the Market Participant, but the industry as a whole.

To support the accuracy and integrity of information, Market Participants should:

<sup>28</sup> FX Global Code, Principle 20 - Market Participants should not disclose Confidential Information to external parties, except under specific circumstances

<sup>29</sup> FX Global Code, Principle 21 - Market Participants should communicate in a manner that is clear, accurate, professional, and not misleading.

<sup>30</sup> ABS Code of Conduct, Annex 4 – Code of Conduct for Treasury / Fixed Income Securities Business, Principle 3 - Professional Integrity

- i. Attribute information derived from a third party to that third party (e.g. a news service);
- ii. Identify opinions clearly as opinions;
- iii. Not communicate false information. Please refer to Section 5.2.8 Fraudulently Inducing Persons to Trade in Instruments of this Study Guide for more information;
- iv. Exercise judgement when discussing rumours that may be driving price movements, identify rumours as rumours, and not spread or start rumours with the intention of moving markets or deceiving other Market Participants; and
- v. Not provide misleading information in order to protect confidential information (e.g. when executing partial orders). Accordingly, Market Participants could, if asked, decline to disclose whether their request to transact is in the full quantity of the order or not.

#### Example - Misleading Information

Adam is a FX dealer at Bank XYZ. He calls his counterparties and informs them, “Got to buy a load of USD/CHF. Watch your offers guys”.

Adam then starts to buy small amounts of USD/CHF through various channels, to make his claim seem true. He does this in the hope that the counterparties will start buying as well or shift their quotes higher, as he believes that either action will result in higher bids in the market.

In reality, Adam wants to sell a large amount of USD/CHF, and is only making these small purchases in an attempt to get the market price to rise in the short-term to enable himself to sell at a higher price.

Adam’s verbal communication is an example of providing misleading information. His buy trades are an example of manipulating market prices. Both his actions (verbal communication and the trades done) are not acceptable practices.

### 3.4.2 Market Participants Should Communicate Market Colour Appropriately and Without Compromising Confidential Information <sup>31</sup>

“Market colour” is information about what’s happening in the market and who are the active parties driving the market trades and prices at the time. The timely dissemination of market colour among Market Participants can contribute to an efficient, open, and transparent market through the exchange of information on the general state of the market, views, and anonymised and aggregated flow information.

Market Participants should give clear guidance to personnel on how to appropriately share market colour. In particular, communications should be restricted to information that is effectively aggregated and anonymised.

#### Example - Aggregated and Anonymised Information

Sue is a dealer with a bank. Her Indonesian customers have been buying USD/IDR all morning:

- ✓ Indonesian Customer 1 bought 10 million USD against IDR at 13,200 value Spot
- ✓ Indonesian Customer 2 bought 35 million USD against IDR at 13,250 value Spot

<sup>31</sup> FX Global Code, Principle 22 – Market Participants should communicate Market Colour appropriately and without compromising Confidential Information.

- ✓ Indonesian Customer 3 bought 42 million USD against IDR at 13,150 value Spot
- ✓ Indonesian Customer 4 bought 12 million USD against IDR at 13,400 value Spot
- ✓ Indonesian Customer 5 bought 23 million USD against IDR at 13,300 value Spot

It is acceptable for Sue to say, “My Indonesian customers have been buying USD/IDR between 13,000 and 13,500 in about 120 million USD”. It would not be acceptable to give them the breakdown of each customers’ name, deal size and the traded prices.

### Example - Requesting and Revealing Confidential Information when Sharing Market Colour

Kelvin is a FX dealer. He has a corporate customer, a large hedge fund named Nexus Limited (“Nexus”) which trades infrequently but when it does, typically trades in quantities of USD 500 million and on the same side all day.

When Nexus hits, Kelvin would offset his entire resultant position to a counterparty, chosen from a few favoured counterparties. As such, the trading behaviour of Nexus has become well-known to these counterparties. This is valuable because once these counterparties become aware of the first transaction, say a Sell, they then know there is likely to be continued selling interest for the rest of the day.

Today, Nexus calls Kelvin and hits him. Kelvin then calls a counterparty, asks for a two-way price, and sells, in order to offset his position. The counterparty asks, “It’s for that guy, right?” Kelvin says, “Yes”.

Kelvin then shares market colour with the other counterparties, saying “You know who just sold AUD/USD”.

This behaviour is not allowed. The counterparty that Kelvin traded with should not ask for confidential information, and Kelvin should not divulge such confidential information by confirming in response. Kelvin should also not have indirectly revealed the fact that it was this particular hedge fund that was selling.

To this end:

- i. Communications should not include specific customer names, including code names that implicitly link activity to a specific Market Participant, or information specific to any individual customer;
- ii. Customer groups, locations, and strategies should be referred to at a level of generality that does not allow Market Participants to derive the underlying confidential information;
- iii. Communications should be restricted to sharing market views and levels of conviction, and should not disclose information about individual trading positions;
- iv. Flows should be disclosed only by price range, and not by exact rates relating to a single customer or flow, and volumes should be referred to in general terms, other than publicly reported trading activity;
- v. Option interest not publicly reported should only be discussed in terms of broadly observed structures and thematic interest;
- vi. References to the time of execution should be general, except where this trading information is broadly observable;
- vii. Market Participants should take care when providing information to customers about the status of orders (including aggregated and anonymised orders) to protect the interests of other Market Participants to whom the information relates (this is particularly true when there are multiple orders at the same level or in close proximity to one another); and
- viii. Market Participants should not solicit confidential information in the course of providing or receiving market colour.

### 3.4.3 Market Participants Should Provide Personnel with Clear Guidance on Approved Modes and Channels of Communication <sup>32</sup>

Market Participants should communicate with their customers and other Market Participants through approved methods of communication that allow for traceability, auditing, record keeping and access control. For investigating and resolving differences and disputes, quick resolution is facilitated by recordings of telephone conversations and all other communications of Market Participants.

#### Example - Communicating with Unrecorded Devices

Mary is a sales dealer. She had left an order with an external counterparty to buy USD/SGD at 1.3500 for her customer before she left for a lunch meeting.

During the meeting, she observes from the live price feed on her mobile phone that USD/SGD has traded at a low of 1.3498 after she left the office. She calls her customer via her mobile phone to confirm that the order has been filled.

This is not good practice. Given that there is no centralized price information source for USD/SGD, there is no certainty that the counterparty has filled Mary's order, even though the price feed on her phone suggested that it could have been. More severely, Mary is sending a confirmation to her customer via her phone, which is not recorded. This could lead to disputes later, including the time the confirmation was sent or whether the confirmation was sent at all.

Mary should instead call her dealing room, and have her colleagues contact the counterparty to ascertain that the order was filled, and then send the confirmation to the customer via official channels if so.

#### 3.4.3.1 Electronic Trading System Logs

Electronic trading systems would typically generate audit logs, which should be produced in a form that is readable directly, or can be reconstructed into a readable report.

#### 3.4.3.2 Telephone Recordings

The use of recording equipment in the offices of Market Participants is strongly recommended. Market Participants should inform their counterparties and customers that telephone conversations will be recorded upon installation of recording equipment.

Market Participants should recognise that developments in technology, particularly mobile phones, can be used to circumvent the recording of communications and compromise confidentiality. Market Participants should therefore adopt appropriate policies to restrict the use of mobile phones or such technology in their dealing rooms.

#### 3.4.3.3 Record Retention <sup>33</sup>

Market Participants should have internal policies to ensure they comply with appropriate data and record retention requirements under applicable laws and regulations. In general, records of communications should

<sup>32</sup> FX Global Code, Principle - 23 Market Participants should provide personnel with clear guidance on approved modes and channels of Communication.

<sup>33</sup> Blue Book, Chapter III, Para 8.1 on Recording of Communications

be kept for at least two months. Market Participants dealing in longer term products such as interest rate swaps, forward rate agreements or other similar products where errors or discrepancies may only be discovered on the date when the first movement of funds is due to take place, should retain records relevant to these transactions for longer periods for the sake of prudence.

#### **3.4.3.4 Information Security <sup>34</sup>**

Market Participants should ensure that access to records, whether in use or in store, is strictly controlled so that they cannot be tampered with. Market Participants should implement policies to ensure that appropriate confidentiality of records is maintained.

Standards of information security should apply regardless of the specific mode of communication in use. Such information security may include:

- i. Maintaining back-ups of the recordings;
- ii. Preventing the recordings from being edited or deleted;
- iii. Limiting access to the recordings; and
- iv. Ensuring independent oversight when accessing the recordings (such as having a Middle Office representative of appropriate seniority present).

Where possible, Market Participants should maintain a list of approved modes of communication and it is recommended that communication channels on sales and trading desks be recorded, particularly when being used to transact or share market colour. Market Participants should give consideration, under exceptional circumstances (for example, in an emergency and for business continuity purposes), to allow the use of unrecorded lines but should provide guidance to personnel regarding any permitted use of such unrecorded lines or devices.

### **3.5 Training <sup>35</sup>**

Market Participants are responsible for ensuring that their representatives have been trained to identify and to treat information that is confidential or sensitive and to deal appropriately with situations that require anonymity and discretion.

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<sup>34</sup> Blue Book, Chapter III, Para 8.1 & 8.2 on Recording of Communications

<sup>35</sup> Blue Book, Chapter 1, Para 2.4 on Confidentiality.

# Chapter 4: Governance, Risk Management and Compliance

## Learning Objectives

The candidate should be able to:

### Governance

- ✓ Describe appropriate governance structures
- ✓ Discuss how remuneration packages can dilute the effectiveness of governance functions.
- ✓ Employ clear avenues of escalation for reporting Misconduct.
- ✓ Practice segregation of duties and proper handling of customer assets.

### Risk Management and Compliance

- ✓ Describe appropriate Risk Management and Compliance frameworks.
- ✓ Explain the importance of adherence to the Compliance framework.
- ✓ Describe the measures to effectively monitor the various risk activities.
- ✓ Explain mitigation strategies for the key risk types (market risk, credit / counterparty risk, operational risk).
- ✓ Employ clear avenues of escalation for reporting breaches in Position or Loss Limits.
- ✓ Discuss how Anti-Money Laundering and Know-Your-Customer requirements affect Representatives and their market activities.

## 4.1 Governance Structure <sup>36 & 37</sup>

Market Participants must have appropriate governance structures, policies and procedures in place to provide for oversight, supervision and control to ensure that the applicable rules, regulations, codes of conduct and industry best practices and principles are enforced and adopted by all their representatives.

The nature and complexity of the governance structure will vary among Market Participants, but should be commensurate with the complexity and risk profile of the business. The operational structure should have

<sup>36</sup> Global FX Code, Principle 4 - The body, or individual(s), that is ultimately responsible for the Market Participant's FX business strategy and financial soundness should put in place adequate and effective structures and mechanisms to provide for appropriate oversight, supervision, and controls with regard to the Market Participant's FX Market activity.

<sup>37</sup> ABS Code of Conduct, Annex 4 – Code of Conduct for Treasury / Fixed Income Securities Business, Principle 3 - Professional Integrity

clearly defined and transparent lines of responsibility, and there should be effective oversight of the Market Participant's activities.

Management information should be provided regularly for the senior management to make informed decisions and refine policies. Such management information could include (but is not limited to):

- i. Market risk exposure based on VAR (Value-at-Risk);
- ii. Market risk exposure segmented based on time buckets;
- iii. Counterparty risk exposure; and
- iv. Operational risk issues arising from electronic trading activities, including liabilities arising from any provision of electronic trading services, legal recourse for business and / or operational losses, and contingency plans for electronic trading systems employed.

There should be independent control functions and mechanisms to assess whether the Market Participant's activities are conducted in accordance with the regulatory requirements of the industry, including operational risk and conduct requirements. Such functions should be empowered sufficiently to gain the required insights into the Market Participant's market activities and to challenge the senior management or supervisors who are charged with managing market activity if necessary.

## 4.2 Remuneration Structure <sup>38</sup>

Market Participants should have remuneration and promotion structures that encourage practices and behaviours that are in line with the Market Participant's ethical and professional conduct expectations. They should not directly or indirectly incentivise inappropriate behaviours, such as taking risks beyond the firm's risk parameters, or engaging in unethical practices.

Factors that should be taken into account should include (but are not limited to):

- i. The mix of pay component, such as fixed and variable pay;
- ii. The form and timing of variable pay components, e.g. part of their bonus being paid as company shares;
- iii. How the pay structure aligns to the interest of the firm over the short- and long-term horizon, such as spreading the payment of bonuses over time with a claw-back clause, to prevent excessive risk taking in the short-term; and
- iv. Appropriate penalties to discourage inappropriate behaviour.

## 4.3 Avenues for Reporting Misconduct or Inappropriate Behaviour <sup>39</sup>

Market Participants should put in place proper, effective and confidential channels for the reporting of inappropriate behaviour, and for investigating and responding to such reports as appropriate. These channels should:

<sup>38</sup> FX Global Code, Principle 3 – Market Participants should identify and address conflicts of interest; FX Global Code, Principle 6 - Market Participants should have remuneration and promotion structures that promote market practices and behaviours that are consistent with the Market Participant's ethical and professional conduct expectations.

<sup>39</sup> FX Global Code, Principle 7 - Market Participants should have appropriate policies and procedures to handle and respond to potentially improper practices and behaviours effectively.

- i. Be established in a manner that will ensure confidentiality and insulate the reporting parties from reprisal or retribution;
- ii. Be made available to parties within and outside the Market Participants; and
- iii. Have clear and appropriate contact points and escalation paths.

Policies and procedures should be put in place to ensure proper investigation of reported incidents by independent parties or functions that possess sufficient skill and experience. Such parties and functions should have sufficient resources and access to conduct the investigation. Investigations should be concluded within a reasonable time and appropriate responses made for incidents which have been raised.

Any necessary reporting to external parties, such as the MAS under the conditions discussed in Section 2.6 Reporting of Misconduct of this Study Guide, should be observed.

## 4.4 Segregation of Duties <sup>40</sup>

From Nick Leeson in Barings Singapore, to Kweku Adoboli of UBS London, trading-related scandals are often a result of inadequate internal controls as well as cross-functional breaches, where trading activities by the front office are not appropriately counter-checked by the middle or back office.

To minimise the risk and occurrence of such incidents, Market Participants should implement appropriate segregation of duties, establish independent reporting lines and set up appropriate information barriers amongst:

- i. The trading function (Front Office), the risk management and compliance functions (Middle Office) and the processing, accounting and settlement functions (Back Office);
- ii. The proprietary trading functions and the customer-facing functions; and
- iii. The trading functions, the research functions and the corporate finance functions.

While the breadth and complexity of the appropriate governance structure and risk management and compliance frameworks will vary amongst Market Participants and be commensurate with the nature and size of the firm's business activities, all Market Participants should ensure proper segregation of duties which meet the above requirements at a minimum.

## 4.5 Overview of Risk Management and Compliance

The management of risk is a crucial element of the financial markets. To earn returns that are higher than the risk-free rate of return, one must take on some risk. That does not mean that risks should be ignored or accepted without due consideration of their probability of occurrence and their impact.

In this guide, we present some basic considerations and approaches to how Market Participants can manage risks. The onus remains on the Market Participant to be aware of and comply with any other recommendations or requirements which may arise from regulators or industry bodies, and implement appropriate measures within its organisation, taking into account the scale and complexity of its operations.

<sup>40</sup> Blue Book, Chapter II, Para 2 - Segregation of Duties; FX Global Code, Principle 24 – Market Participants should have frameworks for risk management and compliance.

It is important that all areas are consistently and completely addressed by the risk management policies and procedures of the Market Participant. Consistent compliance with these policies ensures that these risks are adequately mitigated.

A **risk management framework** should be created with clear, well-defined processes and procedures. A separate **compliance framework** should be created to ensure compliance with the risk management framework, policies and procedures.

There should be effective oversight by the senior body or individual(s) for these two frameworks, including support for the stature and independence of risk management and compliance functions. In particular:

- i. The senior body or individual(s) should make strategic decisions on the risk appetite of the trading business;
- ii. The senior body or individual(s) should be responsible for the establishment, communication, enforcement, and regular review of a risk management and compliance framework that clearly specifies authorities, limits, and policies. Risks should be managed prudently and responsibly in accordance with established principles of risk management and applicable law;
- iii. The provision of concise, timely, accurate, and understandable risk and compliance related information to the senior body or individual(s);
- iv. The appropriate segregation of duties and independent reporting lines, including the segregation of trading from risk management and compliance, and from deal processing, accounting, and settlement. While risk managers and compliance personnel may work closely with business units, the risk management and compliance functions should be independent of the business units and should not be directly involved in revenue generation. Compensation structures should be designed not to compromise such independence; and
- v. Adequate resources and employees with clearly specified roles, responsibilities, and authority, including appropriate access to information and systems. These personnel should have appropriate knowledge, experience, and training.

## 4.6 Risk Management Frameworks <sup>41</sup>

Business units are responsible for the risk that they incur in conducting their activities, so business units should identify, measure and mitigate the risk appropriately. However, this structure readily gives rise to conflicts of interests, because the originator of the risk is motivated to understate the risk. As such, independent risk management and compliance functions that oversee and assess risk-taking activities should be formed.

There may be a further review or audit function that provides independent review of the internal control systems, valuation models, and activities of the business units and risk management and compliance functions. The review should consider quantitative inputs (such historical data) and qualitative assumptions (such as expected future correlation of instruments) within the risk system.

The issue of conflicts of interest has been discussed in Chapter 2 but is worth mentioning again here in the context of market, counterparty and operational risk. Because of such conflicts, orders might be routed to favoured counterparties or IDBs, instead of to the ones who can give the best fills, or overly lenient assessments of credit risk might be performed or execution of proper counter-checks in dual-control work processes might be neglected. Remuneration structures could also give rise to conflicts of interest. Remuneration for risk management roles should be independent of trading profits.

<sup>41</sup> FX Global Code, Risk Management and Compliance - Leading Principle Definition; Blue Book, Chapter II, Para 2.3 – Segregation of Duties; FX Global Code, Principle 3 - Market Participants should identify and address conflicts of interest.

**Example - Conflicts of Interest which Undermine Risk Management Frameworks**<sup>42</sup>

XYZ Pte Ltd (“XYZ”) is a proprietary trading firm where Peter works as a trader. Peter has the responsibility to ensure the risk levels of his trading are in line with the risk appetite of the firm. However, given that Peter’s remuneration is directly impacted by the profit he makes, he could be tempted to under-declare the risk presented by the instruments he trades, thus allowing him to establish a larger position. For example, he could use a non-current lookback window to derive a lower VAR value of \$2 million, which would allow him a notional exposure of \$5 million given a \$10 million VAR limit.

Mary works in the risk management function of XYZ. She provides an independent risk valuation function which determines VAR to be \$3 million given recent volatility. This results in a reduced notional position size of \$3.33 million for Peter.

Paul works for the audit function in XYZ, and periodically reviews the valuation models used by Peter and Mary for deriving VAR. Additionally, Paul reviews the systems used by Peter and Mary, to verify that their inputs, methodology and outputs are accurate, sound and robust.

*Potential conflicts of interest:*

- Mary’s remuneration should not be impacted by Peter’s trading activity. If it were, she might be less likely to highlight that VAR is more accurately \$3 million, as that would reduce Peter’s position size and hence profits.
- Peter might be motivated to route his orders to a particular IDB, even where they don’t have the best price, because he receives frequent entertainment from them.
- Paul may be motivated not to raise an audit point about the inability of the valuation systems to handle sufficient input parameters, such as the number of data points on an interest rate curve, because the systems are provided by a vendor where his cousin is the relationship manager.

Market Participants should maintain an appropriate risk management framework with systems and internal controls to identify and manage the market risk that they face.

Market Participants should identify and understand the various types of risks to which they are exposed. They should then establish risk limits and monitoring mechanisms, and adopt of risk-mitigating and other prudent practices to control the risks related to their market trading activity. These practices could comprise, but are not limited to the following:

- i. Approval of risk limits;
- ii. Implementation of risk measures;
- iii. Monitoring of risk activity; and
- iv. Periodic evaluation of the valuation models.

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<sup>42</sup> Principles covered:

- FX Global Code, Principle 26 - Market Participants should maintain an appropriate risk management framework with systems and internal controls to identify and manage the FX risks they face.

- FX Global Code, Principle 27 - Market Participants should have practices in place to limit, monitor, and control the risks related to their FX Market trading activity.

### 4.6.1 Approval of Risk Limits <sup>43</sup>

Market Participants should implement an effective risk management framework which comprises of internal control measures such as:

- i. An appropriate and well-documented approval process for the setting of risk limits;
- ii. A comprehensive and well-documented strategy for the identification, measurement, aggregation, and monitoring of risks across the trading business;
- iii. A robust risk assessment for all (and approval processes for new) products, services, and procedures to identify new or emerging risks; and
- iv. Sound accounting policies and practices encompassing prudent and consistent valuation methods and procedures.

### 4.6.2 Implementation of Risk Measures <sup>44</sup>

In implementing their risk management measures, Market Participants should ensure:

- i. The clear communication of risk management policies and controls within the Market Participant to promote awareness and compliance, as well as processes and programmes to facilitate the understanding of such policies and controls by personnel;
- ii. Transactions should be promptly and accurately captured so that risk positions can be calculated in an accurate and timely manner for monitoring purposes;
- iii. Regular reconciliations of front, middle, and back office systems, with differences identified and their resolution tracked by personnel independent of the business units; and
- iv. Appropriate controls around proper order and quote submission, such as kill switches or throttles in the case of electronic trading submissions. These controls should be designed to prevent the entry or transmission of erroneous orders or quotes that exceed pre-set size and price parameters as well as financial exposure thresholds.

#### Example - Implementation of Risk Measures

GHC Bank trades with various counterparties over the phone system. Paper tickets are raised for these deals, and then entered into the central trade capture system by the dealing assistants. The resultant problem is that exposures from these trades are not captured by the central trade capture system as quickly as compared to the trades done via e-trading platforms.

To mitigate this problem, GHC Bank deploys an electronic trade booking system on each dealer's desk, allowing them to enter the details of trades done on the phone immediately after the transaction is concluded. However, Bank GHC still has to ensure that its dealers enter the trade details immediately after execution, rather than at their own leisure.

<sup>43</sup> FX Global Code, Principle 26 - Market Participants should maintain an appropriate risk management framework with systems and internal controls to identify and manage the FX risks they face.

<sup>44</sup> FX Global Code, Principle 26 - Market Participants should maintain an appropriate risk management framework with systems and internal controls to identify and manage the FX risks they face; FX Global Code, Principle 27 - Market Participants should have practices in place to limit, monitor, and control the risks related to their FX Market trading activity.

### 4.6.3 Monitoring Risk Activity

To ensure trading activity does not exceed the allowed risk limits, Market Participants should:

- i. Conduct regular monitoring of trading activities, including the identification and internal escalation, as appropriate, of failed, cancelled, or erroneous trades;
- ii. Employ automated or manual monitoring systems to detect actual or attempted market misconduct and market manipulation. Relevant personnel should be qualified to detect trading patterns that may suggest unfair or manipulative practices. Market Participants may use certain statistics or metrics to flag behaviour warranting further review, such as off-market rates, repetitive orders, and unusually small or large orders. There should be appropriate processes whereby suspicious practices can be promptly reviewed and escalated as appropriate; and
- iii. Implement independent reporting on a regular and timely basis of risk positions and trader profit/loss statements to the relevant risk management function or senior management, as appropriate, including a review of exceptional deviations of profit/loss from expected levels.

#### Example - Monitoring Risk Activity and Market Misconduct

Following the implementation of the deal entry facility on each dealer's desk, GHC Bank would have to conduct regular reconciliation of the positions reported by its dealers against that reported by its counterparties. Traders' profit and losses should be monitored, with special highlights on unusually large profits or losses.

It would be beneficial for the system to flag incidents where orders for a trader's proprietary account are entered just before customer orders with large quantities in the same instrument and direction. These could be investigated further for possible front-running offences.

Where an actual or suspected breach of risk limits occur, there should be:

- a. Robust incident management, including appropriate escalation, mitigating actions, and lessons learned; and
- b. Timely reporting to a senior body or individual(s) when risk limits have been breached, including follow-up action to bring exposures within limits, and any appropriate measures to prevent a recurrence.

### 4.6.4 Periodic Validation of the Valuation Models

To mitigate the risk of valuation models and risk limits becoming irrelevant due to changing market conditions, Market Participants should conduct periodic validation of the models and limits in use. This includes:

- i. **Independent verification:** Periodic verification of the valuations used for risk management and accounting purposes, conducted by personnel independent of the business unit that owns the risk; and
- ii. **Internal verification:** An appropriately robust risk control self-assessment process, performed by the business unit, which includes processes to remediate identified gaps or weaknesses.

## 4.7 Framework for Compliance and Review <sup>45</sup>

Market Participants should familiarise themselves with, and abide by, all applicable law and standards that are relevant to their market activities and should have an appropriate compliance framework in place. An effective compliance framework should provide independent oversight and control and could comprise of, but is not limited to:

- i. Identification of the applicable law and standards that apply to their market activities;
- ii. Appropriate processes designed to prevent and detect abusive, collusive, or manipulative practices, fraud, and financial crime, and to mitigate material risk that could arise in the general conduct of the market activities;
- iii. Capturing and retaining adequate records to enable effective monitoring of compliance with applicable law and standard;
- iv. Well-defined escalation procedures for issues identified;
- v. Consideration of the need to periodically restrict relevant personnel's access through measures such as mandatory vacation to facilitate detection of possible fraudulent activities;
- vi. Provision of advice and guidance to senior management and personnel on the appropriate implementation of applicable law, external codes, and other relevant guidance in the form of policies and procedures and other documents such as compliance manuals and internal codes of conduct;
- vii. Training and/or attestation processes to promote awareness of and compliance with applicable laws and standards;
- viii. Appropriate implementation and utilisation of compliance programmes (for example, the establishment of processes to monitor daily activities and operations);
- ix. The periodic review and assessment of compliance functions and controls, including mechanisms to alert senior management about material gaps or failures in such functions and controls; and
- x. The appropriate senior body or individual(s) should oversee the timely resolution of any issues.

## 4.8 Ensuring Adherence to Risk Management and Compliance Frameworks <sup>46</sup>

Market Participants should have processes in place to independently review the effectiveness of and adherence to the risk management and compliance functions. These processes should include the following:

- i. Independent review should be performed regularly, with any review findings recorded and corrective action tracked;
- ii. All material risks related to market activities should be covered, using an appropriate assessment methodology;
- iii. The review team should be given the necessary mandate and support, including adequate personnel with requisite experience or expertise; and

<sup>45</sup> FX Global Code, Principle 25 — Market Participants should familiarize themselves with, and abide by, all Applicable Law and Standards that are relevant to their FX Market activities and should have an appropriate compliance framework in place.

<sup>46</sup> FX Global Code, Principle 28 – Market Participants should have processes in place to independently review the effectiveness of and adherence to the risk management and compliance functions.

- iv. Findings should be reported to an appropriately senior level for review and follow-up. These duties may be undertaken by the audit function where appropriate.

## 4.9 Addressing Key Risk Types <sup>47</sup>

Market Participants should establish policies and procedures on the conduct of transactions with customers, especially high-risk or highly leveraged customers, paying particular attention to credit evaluation and approval.

### 4.9.1 Market Risk

**Market risk** arises from the movement of prices, which can be equity prices, exchange rates or interest rates, or their co-movement or correlation. There is also risk that there is no liquidity in the market when a Market Participant needs to execute a trade. As such, we approach market risk from the angles of **price risk** and **liquidity risk**.

#### 4.9.1.1 Price Risk <sup>48</sup>

Changes in prices or rates give rise to price risk, which could have an adverse effect on the financial condition of Market Participants. Market Participants should have processes to measure, monitor, report, and manage price risk in an accurate and timely way, as discussed below:

- i. **Position and Loss Limits** - Market Participants should develop both position limits and loss limits for their trading activities. Position limits define the largest position, long or short, that can be undertaken by the Representative or Market Participant. Loss limits define the maximum unrealised loss that can be endured by the Representative or Market Participant. When either limit is reached, there should be immediate escalation processes to appropriate senior management representatives.

It is good practice to have “early warning” systems set up, which signal the appropriate senior management representatives before the limits are actually hit; these early warnings could sound when say 80% of the limit is utilized. This allows pre-emptive action by senior management.

- ii. **After Hours and Off Premises Dealing** - If Market Participants allow after hours and off premises dealing, there should be:
  - a. Guidelines that specify personnel authorized to engage in such activity;
  - b. Possible reduction of the position and loss limits allowed, reflecting the reduced decision-making resources available outside the dealing room;
  - c. Possible restrictions on type of transactions allowed, such as only allowing risk-reducing transactions;
  - d. Other risk mitigating measures, such as the mandatory inclusion of stop-loss orders;
  - e. A prompt written reporting process should be developed, and appropriate records should be kept for any after hours and off premises transactions undertaken.

<sup>47</sup> Blue Book, Chapter II, Para 4.1 on Transactions with Clients and Counterparties

<sup>48</sup> FX Global Code, Principle 30 - Market Participants should have processes to measure, monitor, report, and manage market risk in an accurate and timely way. FX Global Code, Principle 38 – Market Participants should have in place reasonable policies and procedures (or governance and controls) such that trading access, either direct or indirect, is limited to authorized personnel only

- iii. **Detecting Fraudulent Activity** - Market Participants should implement monitoring practices designed to detect the concealment or manipulation of (or the attempt to conceal or manipulate) profit and loss and/or risk using trades or adjustments that are not for a genuine business purpose.

Market Participants should generate a timely and accurate record of transactions undertaken to enable effective monitoring and auditability.

- iv. **Measuring Market Risk** - Market risk measurement should be based on generally accepted measurement techniques and concepts, including the use of stress testing. Such measurement techniques should be periodically and independently reviewed. The measurement of market risk should take hedging and diversification effects into account.

#### **4.9.1.2 Liquidity Risk** <sup>49</sup>

With regards to liquidity risk, Market Participants should be aware of the risks associated with reliance on a single source of liquidity and incorporate contingency plans as appropriate. Such contingencies could include the establishment of an alternative liquidity provider or the identification of a proxy instrument for hedging exposures, should liquidity in the primary instrument become insufficient. Market Participants should be aware of, monitor, and, where appropriate, mitigate the liquidity risks that could arise from their transactions in the market.

#### **4.9.1.3 Mark-to-Market Sources** <sup>50</sup>

Market Participants should have independent processes in place to mark-to-market their open positions, thus allowing them to quantify their unrealised profits or losses. This enables them to measure the market risk arising from those positions.

Current quoted prices are generally the best source for marking-to-market, since they reflect present market levels. In performing mark-to-market operations, the following should be kept in mind:

- i. Sources of information should be neutral and reflective of the market conditions. Such information could be taken from IDBs, market data providers, or other third-party vendors;
- ii. Mark-to-market should be performed by a function that is independent of the front office, such as the middle office. This promotes a fair and accurate valuation;
- iii. Mark-to-market should be performed at least once a day. More frequent valuations should be performed for portfolios which are at risk or under volatile market conditions; and
- iv. The nature of the data used for valuation should be clearly understood. For example, whether the price being used is the last actual trade and when that last trade occurred, or if it is a derived price, such as an interpolated price. Concerns around these are that while an actual trade is typically a valid data point, if it occurred many hours before in an illiquid market, the current market price could be at a different level. Interpolated prices could be inaccurate, given the convexity of the price curve.

Given that there is no formal closing time for the OTC market, Market Participants should have an internal “close” for each trading day. This will be used to determine end-of-day positions, which can then be evaluated and monitored according to overnight or after-hours limits.

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<sup>49</sup> FX Global Code, Principle 30 - Market Participants should have processes to measure, monitor, report, and manage market risk in an accurate and timely way.

<sup>50</sup> FX Global Code, Principle 31 - Market Participants should have independent processes in place to mark to market transactions to measure the size of their profit and loss and the market risk arising from trading positions.

Where external reference prices are not available, for example, when marking-to-market exotic options or structured products, internal valuation models may be used. However, these models should be validated by a function such as the middle office, which is independent of the front office.

## 4.9.2 Credit / Counterparty Risk

It is important to consider the credit worthiness of a counterparty; in the event the counterparty defaults on their obligations arising from transactions, the Market Participant could risk losing a part or all of the notional amount transacted. This risk is known as **credit risk**.

### 4.9.2.1 Establishing Counterparty Limits

Market Participants should determine financial integrity of counterparties and customers, and assign appropriate limits with them. These limits could be in the form of credit limits for money market loans, or position limits for FX trading.

### 4.9.2.2 Credit Limits with IDBs <sup>51</sup>

Market Participants should conduct know-your-customer (“KYC”) checks on IDBs, and examine their reputation and market standing. Market Participants should also determine if the IDB will act only as an intermediary or will also take a principal position in certain circumstances. If the IDB will take a principal position, Market Participants should also assess the creditworthiness of the IDB. It is suggested that Market Participants should set up their own credit evaluation and approval policy relating to the appointment of IDBs.

### 4.9.2.3 Pre-Trade Limit Checks

Settlement failures can expose Market Participants to market and credit risks. Market Participants should have policies and procedures designed to properly monitor and limit settlement exposures to counterparties, including the accurate and timely assessment of a counterparty’s creditworthiness prior to a transaction.

### 4.9.2.4 Pre-Settlement Risk

**Pre-settlement risk** refers to the risk of the counterparty defaulting after the transaction has been concluded but before the settlement of the transaction. The impact of such a default would be the difference in value of the defaulted contract and the current market price, where the Market Participant can replicate the defaulted transaction. Limits should be assigned for each counterparty, defining the maximum open position that can be maintained with that counterparty.

### 4.9.2.5 Margin Accounts <sup>52</sup>

Margin or leverage trading accounts function on the basis of the customer (or account holder) depositing funds, called **margins**, into their account with the Market Participant, thus allowing the customer’s pre-settlement risk to be mitigated. These margins are a percentage of the notional value that is traded, typically between 2% to 10%, depending on the volatility of the traded instrument and the credit standing of the customer.

Procedures should be in place to:

- i. Determine the required margin deposits;

<sup>51</sup> Blue Book, Chapter II, 4.3 – Transactions with Clients and Counterparties

<sup>52</sup> Blue Book, Chapter II, 4.2 - Transactions with Clients and Counterparties

- ii. Mark-to-market open positions as least once a day. Refer to Section 4.9.1.3 Mark-to-Market Sources of this Study Guide for details;
- iii. Issue margin calls for under-margined accounts;
- iv. Monitor the customer's answer to margin calls; and
- v. Close out the customer's positions if margin calls remain unanswered.

#### 4.9.2.6 Settlement Risk <sup>53</sup>

**Settlement risk** arises when the Market Participant has paid its counterparty in settlement of the transaction, and the counterparty then defaults before making good on its payment to the Market Participant. This results in the loss of the entire transaction notional amount.

Market Participants should have adequate processes to manage counterparty credit risk exposure including appropriate netting and collateral arrangements, such as legally enforceable master netting agreements and credit support arrangements.

#### Example - Netting Agreements

Today, Bank ABC does the following trades with Bank XYZ:

- ✓ Buys 5 million USD/JPY at 100.10 value Spot
- ✓ Sells 2 million USD/JPY at 100.15 value Spot
- ✓ Buys 7 million USD/JPY at 100.20 value Spot
- ✓ Sells 10 million USD/JPY at 100.30 value Spot

Settling on a gross basis would result in the following:

- At 1000h Tokyo Time, Bank ABC pays Bank XYZ JPY 1,201.9 million\*, while Bank XYZ pays Bank ABC JPY 1,203.3 million\*.
- Then at 1000h New York Time, Bank ABC pays Bank XYZ USD 12 million, while Bank XYZ pays Bank ABC USD 12 million.

The risk arises where one bank pays its counterparty but the counterparty does not make the corresponding payment. This could leave either bank facing a USD 12 million default.

If there is a netting agreement in place, the following could be the resultant cash flow:

- If these trades are settled on a netting basis, the only payment required would be for Bank XYZ to pay Bank ABC JPY 1.4 million JPY at 1000h Tokyo time. This results in a lower capital requirement and a greatly reduced settlement risk.

\* Calculation note: JPY 1,201.9 million = (USD 5 million x 100.10) + (USD 7 million x 100.20)

+ Calculation note: JPY 1,203.3 million = (USD 2 million x 100.15) + (USD 10 million x 100.30)

**Real-time gross settlement (RTGS)** solutions enable counterparties to settle individual legs of each transaction in full, immediately after the transaction is concluded, instead of waiting for the normal settlement cycles. This greatly reduces settlement risk by reducing the window of default risk to a few minutes.

<sup>53</sup> FX Global Code, Principle 29 - Market Participants should have adequate processes to manage counterparty, credit risk exposure, including where appropriate, through the use of appropriate netting and collateral arrangements, such as legally enforceable master netting agreements and credit support arrangements. Blue Book, Chapter II, 4.4 - Transactions with Clients and Counterparties

#### **4.9.2.7 Adherence to Counterparty Limits and Diversification of Counterparties**

Market Participants should strive for sufficient diversification of counterparty exposure where appropriate, the prompt setting and monitoring of counterparty exposure limits, and the acceptance of transactions only if they fall within approved limits.

#### **4.9.2.8 Handling Discrepancies in Settlements**<sup>54</sup>

Where discrepancies arise, Market Participants should implement prompt resolution measures to minimise disruption to trading activities. Examples of these would include clear procedures for tracing the transactions to verify the “correct” settlement amount and clearly defined escalation paths and timelines for actions and responses.

### **4.9.3 Operational Risk**<sup>55</sup>

Market Participants should have appropriate processes in place to identify and manage operational risks. The causes of such risk could be internal issues, such as human error or misconduct, inadequate systems or processes, system failures, sabotage or gaps in processes.

Market Participants should also consider operational risks which arise from factors beyond their organisation’s control. Such external events include civil disturbances and natural disasters, time differences and differing industry conventions across countries and terrorism.

Security measures should be put in place to reduce the vulnerability of the dealing room and other trading infrastructure, such as controlling access to them. For non-dealing staff and external visitors, controls should be enforced, such as obtaining management approval and performing security checks before access is granted, and limiting visiting time and duration.

#### **4.9.3.1 Recording Beneficiary and Validity of Orders**<sup>56</sup>

Each trade must have a legitimate beneficiary. Problems begin when a trade, usually a losing one, cannot be traced to a beneficiary. This often arises from poor order-taking practices where the beneficiary was not recorded or incorrectly recorded, or at other times where the order received is not from a legitimate customer or a Representative of a customer.

Market Participants should take sufficient measures to satisfy themselves that customers, counterparties and IDBs, and their respective representatives are duly authorized to deal in the relevant financial products. Market Participants should not deal with any individual who is not authorized or who cannot be positively identified. Positive identification of customers could be achieved by verifying the trading terminal locations through their IP addresses, pre-authorized login ID and password combinations, or through the use of verbal passwords for communication over telephones.

The validity of orders, such as whether it is a Day order or a Good-Till-Cancelled order, must also be clearly specified. This is ensuring that orders are worked during the period they are supposed to be worked, and for not any longer or shorter duration.

<sup>54</sup> FX Global Code, Principle 35 - Market Participants should take prudent measures to manage and reduce their settlement risks, including prompt resolution measures to minimise disruption to trading activities.

<sup>55</sup> FX Global Code, Principle 32 - Market Participants should have appropriate processes in place to identify and manage operational risks that may arise from human error, inadequate or failed systems or processes, or external events.

<sup>56</sup> Blue Book, Chapter II, Para 4.5 - Transactions with Clients and Counterparties

#### 4.9.3.2 Business Continuity Plans <sup>57</sup>

Proper **Business Continuity Plans (BCPs)** should be in place to meet the nature, scale, and complexity of a Market Participant's trading business. In situations of market disruptions or critical services being compromised (e.g. loss of access to significant trading platforms), BCPs should be able to be implemented in a fast and effective manner.

BCPs could comprise of, but are not limited to, the following elements:

- i. Contingency plans that enable business continuity for the trading business, risk management and settlement, including data storage and usage plans, and procedures in situations of the non-availability of benchmark fixes, where relevant;
- ii. Crucial and essential systems which must be identified by the Market Participant. Clearly documented disaster recovery plans, which could be manual or automated, must be available for these systems;
- iii. Backup sites of non-prime location that can house crucial personnel, systems, and operations should be in place and are maintained and tested regularly;
- iv. The BCP should take into account external parties and their ability to continue to provide services, such as connectivity, data, trading and settlements, under the environmental conditions that triggered the Market Participant's BCP;
- v. Emergency contact information for both internal and external dependencies, along with secure communications devices should be in place;
- vi. Regular review of the BCP and drills to familiarise the personnel who are required in the BCP with the arrangements and their required actions. Drills should be based on the likely scenarios that would trigger the BCP; and
- vii. BCPs should be updated regularly in response to environmental changes.

#### Example - Business Continuity Plans

Example 1 - Bank A has its Primary Dealing Room in Tower 1 of Sontek Plaza, and its BCP Dealing Room in Tower 2 Sontek Plaza. This is not a good BCP plan, since the occurrence of a natural disaster, such as a flood or a power outage, is likely to impact both locations at the same time.

Example 2 - Bank B has its primary trading engines in a data centre in Singapore, and its BCP trading engines in London. This is an example of a good BCP plan, as the internet connections of Singapore and London do not rely on the same undersea cables. Hence a single geographic event, such as an earthquake, is unlikely to knock out both connections at the same time.

#### 4.9.3.3 Technology Risk <sup>58</sup>

Market Participants should have processes in place to address potential adverse outcomes arising from the use of or reliance on technological systems (hardware and software).

<sup>57</sup> FX Global Code, Principle 33 – Market Participants should have business continuity plans (BCPs) in place that are appropriate to the nature, scale, and complexity of their FX business and that can be implemented quickly and effectively in the event of large-scale disasters, loss of access to significant trading platforms, settlement, or other critical services, or other market disruptions.

<sup>58</sup> FX Global Code, Principle 34 - Market Participants should have in place processes to address potential adverse outcomes arising from the use of or reliance on technological systems (hardware and software). MAS Internet Banking & Technology Risk Management Guidelines

Market Participants should have processes in place to assign clear ownership of every system on which they rely, and changes should be approved according to internal policies. Any system should be thoroughly tested before release into production use, with an audit trail of all actions taken saved and available for review. This should apply to the development, testing, deployment, and subsequent updates of trading systems and algorithms. Market Participants should also be aware of broader risks that may exist and affect their market activity, such as risks related to cyber security.

Additionally, Market Participants should:

- i. Preserve data confidentiality by encrypting all messages;
- ii. Ensure system integrity is not compromised by the installation of monitoring or surveillance systems to alert them to any erratic system behaviour or unusual online transactions taking place;
- iii. Ensure system availability by maintaining adequate capacity, reliable performance, fast response time, scalability and swift recovery capabilities;
- iv. Perform appropriate customer and transaction authentication before allowing the customer to login to the system. Such authentication measures include the use of “two factor authentication” for system login and transaction authorisation;
- v. Be able to check the authenticity and integrity of the software being used by the customers, while customers likewise should be able to verify the provenance and integrity of the downloaded software and authenticate the Bank’s digital signature incorporated in the software via a digital certificate provided by the Bank.

Any material which breaches security, such as hacking or other intrusions, that affect customers or other Market Participants, should be promptly communicated to the relevant regulators and affected parties.

#### **4.9.3.4 Electronic Trading Activities** <sup>59</sup>

Before embarking on electronic trading activities, it is important for all Market Participants to adopt prudent risk management frameworks, as well as comply with regulatory standards issued by the MAS where applicable. Aspects of a robust electronic trading framework would include, but are not limited to:

- i. **System Security** - Market Participants that offer electronic trading systems (this includes E-trading platforms and electronic broking systems) should ensure that those systems are robust and have adequate controls and security features. Any material breach of security to those systems, such as through hacking or other intrusions, which affect other Market Participants or customers, should be promptly communicated where necessary to the relevant regulators and the affected parties.
- ii. **Capacity Monitoring** - Market Participants that are operating E-Trading Platforms should monitor the intraday health of the platform (for example, capacity utilisation) and should conduct periodic capacity

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<sup>59</sup> Principles covered:

- Blue Book, Chapter 2, Paras 5.1 – 5.9 – Electronic Trading Activities.

- FX Global Code, Principle 34 - Market Participants should have in place processes to address potential adverse outcomes arising from the use of or reliance on technological systems (hardware and software).

- FX Global Code, Principle 38 - Market Participants should have in place reasonable policies and procedures (or governance and controls) such that trading access, either direct or indirect, is limited to authorized personnel only.

- FX Global Code, Principle 36 – Market Participants should keep a timely, consistent, and accurate record of their market activity to facilitate appropriate levels of transparency and auditability and have processes in place designed to prevent unauthorized transactions.

- FX Global Code, Principle 39 - Market Participants should generate a timely and accurate record of transactions undertaken to enable effective monitoring and auditability.

testing of critical systems to determine such system's ability to process transactions in an accurate, timely, and robust manner.

- iii. **Operational Controls** - Market Participants involved in electronic trading should put in place appropriate and proportionate controls to reduce the likelihood of and mitigate any consequences of generating or acting upon electronic quotations that may result in erroneous transactions or market disruption such as off-market quotes or trades, fat finger errors, unintended or uncontrolled trading activity arising from technological failures, flaws in trading logic, and unexpected or extreme market conditions.

Market Participants should have in place reasonable policies and procedures (or governance and controls) such that trading access, either direct or indirect, is limited to authorized personnel only.

- iv. **Appropriate Usage of Systems** - Transactions executed through an electronic trading system should be handled in accordance with the provisions of the individual provider's terms and conditions and all documents and agreements relating to the utilisation of the electronic trading system.

Market Participants should not knowingly generate or attempt to act upon quotations in a way that is beyond the technical capabilities of the recipient or inconsistent with advertised protocols. Excessive message rates that are known to approach or breach the limitations of the platform should be controlled, for instance via the application of throttling logic and/or circuit breakers. Any identified platform flaws or features that may risk its continued operations should be escalated appropriately.

- v. **Escalation Channels for System Related issues** - Clear channels should be established for the communication of breakdowns in the system or software inadequacies or limitations, i.e. bugs

- vi. **Liability and Responsibility** - The inclusion of a third party into the electronic workflow among those participants generating and acting upon quotations does not remove either party's obligations.

- vii. **Centralised Trading Venues** - Market Participants such as aggregators and multi-bank venues that may perform both the function of distributing and acting upon electronic quotations should abide by all relevant principles.

- viii. **Allowable Instruments** - Market Participants should maintain trader or desk mandates, which detail what products each trader is permitted to trade, as well as post-trade surveillance to detect exceptions from the trader's mandate. Market Participants should periodically review trading access to confirm that such access, either direct or indirect, is limited to authorized access only.

- ix. **Audit Trail and Record Keeping for Transactions and Order Handling** - Market Participants should keep a timely, consistent, and accurate record of their market activity to facilitate appropriate levels of transparency and auditability and have processes in place designed to prevent unauthorized transactions.

Market Participants should keep an accurate and timely record of orders and transactions that have been accepted and triggered/executed, to create an effective audit trail for review and to provide transparency to customers where appropriate. Records may include, but is not limited to, the following:

- a. Date and time;
- b. Product type;
- c. Order type (for example, a Stop Order, or an order where price is subject to last look);
- d. Quantity;
- e. Price;
- f. Trader; and
- g. Customer identity.

Market Participants should apply sufficiently granular and consistent time-stamping so that they record both when an order is accepted and when it is triggered/executed.

- x. **Data Storage and Retention** - Market Participants should have processes in place to support appropriate related data storage and retention of such detail.
- xi. **Provision of Market Information** - Information should be made available to customers upon request, to provide sufficient transparency regarding their orders and transactions to facilitate informed decisions regarding their market interactions. Customers requesting data from a Market Participant are expected to do so in a reasonable manner, avoiding spurious or extraneous requests. When requesting data, a customer should outline the reason for the request. Market Participants should have processes in place to respond to customer requests for the data.

Information may also be used in resolving trade disputes. Records should allow Market Participants to effectively monitor their own compliance with internal policies, as well as their adherence to appropriate market behaviour standards.

#### **4.9.3.5 Legal Risk** <sup>60</sup>

Market Participants should have processes in place to identify and manage legal risks arising in relation to their market activities. Market Participants should understand where applicable law may affect the legality or enforceability of rights and obligations with other Market Participants and should take steps to mitigate material legal risks.

Market Participants should have in place legal agreements with their counterparties, and should use standard terms and conditions, where appropriate. Market Participants should maintain a record of the agreements they have in place with their counterparties.

When trading, Market Participants should make clear if standard terms are used, and if changes are proposed. Where changes are substantial, these should be agreed before any transaction. Where standard terms do not exist, Market Participants should exercise greater care in the negotiation of terms. Market Participants should strive to finalise documentation promptly.

#### **4.9.3.6 Legal, Tax and Accounting Advice for Derivative Instruments** <sup>61</sup>

Derivative instruments carry with them additional considerations in terms of pay-out structure, terms and conditions for pay-outs and handling market disruptions and other events, as well as tax and accounting implications, especially under IFRS9 and IAS39 international accounting standards. To that end, it is recognised as market practice for all Market Participants to obtain their own legal, tax and accounting advice.

## **4.10 Anti-Money Laundering and Know Your Customer (KYC) Requirements** <sup>62</sup>

The financial markets are one of the arenas where criminals can launder their ill-gotten gains into seemingly legitimate deposits which are used to fund illegal activities even further. Market Participants should be careful when on-boarding customers and when executing transactions with certain counterparties to ensure they do

<sup>60</sup> FX Global Code, Principle 40 - Market Participants should have processes in place to identify and manage legal risks arising in relation to their FX Market activities

<sup>61</sup> Blue Book, Chapter 9, Para 3.1 - Dealing Procedures (IRS/NDS/CCS/FRA); Para 5.1 - Dealing Procedures (Currency Options); Para 7.1 - Dealing Procedures (Interest Rate Options)

<sup>62</sup> FX Global Code, Principle 37 - Market Participants should perform "know-your-customer" (KYC) checks on their counterparties to ascertain that their transactions are not used to facilitate money laundering, terrorist financing, or other criminal activities. Blue Book, Chapter II, Section 3 – Money Laundering, Fraud and Other Criminal Activities; Section 4 – Transactions with Clients and Counterparties.

not wittingly or unwittingly participate in money laundering activities or trade with any sanctioned counterparties.

#### 4.10.1 Anti-Money Laundering <sup>63</sup>

Money laundering is a process intended to mask the proceeds obtained from criminal activities such as drug trafficking and other serious crimes so that they appear to have come from a legitimate source.

There are generally three steps in the process of money laundering:

- i. The **placement stage** refers to the physical disposal of benefits for criminal conduct. These are placed with licensed deposit-taking companies like banks and finance companies;
- ii. The **layering stage** refers to the separation of benefits of criminal conduct from their sources by creating layers of financial transactions designed to disguise the audit trail. Criminals may buy luxury or high value assets from genuine sellers, resell them to unknowing customers and then place the legitimate funds back in the bank as payments by cheque or wire transfers;
- iii. The **integration stage** refers to the provision of apparent legitimacy to the benefits of criminal conduct. If the layering succeeds, the integration schemes place the laundered funds back into the financial system, making them appear as legitimate business funds.

These stages do not need to take place sequentially.

#### 4.10.2 The Regulatory Framework of Financial Crimes

There are several international and local rules and regulations that Market Participants must conform to, in order to be able to prevent the occurrence of financial crimes such as money laundering and countering the financing of terrorism.

##### **4.10.2.1 Corruption, Drug Trafficking & Other Serious Crimes (Confiscation of Benefits) Act (CDSA)**

CDSA regulates money laundering activities and includes among others, drug trafficking, prostitution, gambling, terrorist financing and tax evasion offences. It was first introduced to criminalize money laundering and to allow for investigation and confiscation of benefits from money laundering. At the time of introduction of CDSA, drug trafficking was the primary source of funds for money laundering.

It has since been amended to include money laundering activities and confiscation of benefits and criminal conduct including bribery, criminal breach of trust, counterfeiting, theft extortion, robbery, cheating etc. Tax evasion has recently been added to the CDSA as a listed crime.

##### **4.10.2.2 The Mutual Assistance in Criminal Matters Act. Chapter 190A (MACMA)**

MACMA was passed by Parliament in 2000, which was enacted to allow the Government of Singapore to provide mutual assistance to other countries, in relation to investigations or criminal proceedings for offences covered under the Act. This is because money laundering or terrorism financing crimes usually involve cross-border transactions. It is difficult to only see one side of the transactions and during investigation, it is easier and more effective if both sides of the transactions are investigated and analyzed. This is especially so where it involves high value ticket items where investments can be outside the country.

<sup>63</sup> FX Global Code, Principle 52 – Market Participants should request Direct Payments.

#### **4.10.2.3 Terrorism (Suppression of Financing) Act, Chapter 325 (TSOFA)**

The TSOFA was enacted to give effect to the International Convention for the Suppression of the Financing of Terrorism which Singapore signed in 2001 and the United Nations Security Council Resolution 1373. The TSOFA criminalizes terrorism financing and allows for the seizure and confiscation of property related to terrorist and terrorism purposes. It also imposes a duty on all to provide information pertaining to terrorism financing to the Police, and failure to do so is a criminal offence.

#### **4.10.2.4 MAS Notices & Regulations on Prevention of Money Laundering & Countering the Financing of Terrorism**

MAS Notice 626 sets out the requirements for banks to exercise due diligence when on-boarding and dealing with customers. Banks need to know the identity of beneficial owners of accounts and their sources of funds. The notice adopts a risk-based approach to customer due diligence, with provisions for simplified and enhanced measures depending on customer's risk profile. Similar Notices have been issued by MAS to other types of licensed financial institutions, such as merchant banks and CMS License holders

### **4.10.3 Customer Onboarding Processes**

When onboarding customers, it is important to obtain information from the customers to assess their sources of funds as well as their reputation. Financial institutions must ensure that they do not open any anonymous accounts or accounts in fictitious names.

#### **4.10.3.1 Account Opening – Know Your Customer (KYC)**

Market Participants should perform "Know-Your-Customer" (KYC) checks on their counterparties to ascertain that their transactions are not used to facilitate money laundering, terrorist financing, or other criminal activities.

Market Participants should have appropriate measures in place to enforce the KYC principles. Market Participants should have internal processes in place to facilitate the prompt reporting of suspicious activities (for example, to the compliance officer or the appropriate public authority, as necessary).

Effective training should be provided for relevant personnel, to raise awareness of the serious nature of these activities, and to familiarize them with reporting obligations which do not reveal their suspicions to the entity or individual suspected of illegal activities. Such training should be regularly updated to keep pace with the rapidly changing methods of money laundering.

Before opening an account for a customer, it is important for a Representative to:

- i. Investigate the customer's background, including beneficial owners and connected parties;
- ii. Verify sources of wealth, both historical and current;
- iii. Investigate current business and income;
- iv. Investigate political connections, business associates and related parties ; and
- v. Establish the objectives for the account.

Information on the customer can be sourced from the following sources, amongst others:

- a. Internet;
- b. Newspapers and other news sources;

- c. Company reports;
- d. Official subscribed databases such as: Factiva or Thomson Reuters Complinet;
- e. Intermediary Introduction certificates and disclosures; and
- f. Others – e.g. grapevine.

**Which information source is most reliable?** Official databases and original identification records are reliable because official databases provide indemnity and assurances of accuracy of information, but they are expensive. Original documents issued by regulatory bodies are accepted because they are official documents approved by authorities.

Other sources like newspapers, internet and grapevine must not be taken as accurate but can be used to make further checks. Information which is not authenticated cannot be relied upon absolutely. Intermediaries' disclosures should only be relied upon if you have assessed the intermediary's reputation and reliability. Otherwise it is best to carry out due diligence directly.

#### **4.10.3.2 Documentation and Verification of Customer Information**

Documentation which can be used to verify customer information include:

- i. Individual – ID/passports, utility bills as address proof;
- ii. Corporates – business constitution documents (and from that determine whether shares are registered or bearer), board resolutions, ID documents of ultimate beneficial owner, connected parties, signatories;
- iii. Offshore companies – as above, plus certificate of incumbency and good standing; and
- iv. Trust structures – trust deed, trustee's resolution, letter of reference from trustee, identity documents of trust relevant parties (i.e. settlors, trustee, and beneficiaries) signatories.

#### **4.10.3.3 Simplified Customer Due Diligence and Enhanced Due Diligence**

Market Participants are allowed to carry out risk-based Customer Due Diligence ("CDD").

Simplified CDD can be performed in the following circumstances:

- i. For companies listed on approved exchanges in FATF recognised countries where reliable public information is readily available; or
- ii. Where reliance can be placed on another regulated financial intermediary but with a confirmation that due diligence has indeed been carried out and is satisfactory;
- iii. The customer is a financial institution under supervision of the MAS; and
- iv. The customer is a Singapore government entity.

However, if there are reasons to believe there may be questionable information on a potential customer, such as when a financial institution is on the MAS sanctioned list or warning list, or when it is unwilling to provide information or document, then full due diligence should be conducted.

Reliance on information from another financial institution does not diminish the responsibility of the Representative in fulfilling his obligations to the regulations and regulator.

When the risk score is high, a financial institution must carry out Enhanced Due Diligence ("EDD"). EDD must be carried out in the following situations:

- i. **Potentially high-risk customers.** Examples of “high-risk” customers include customers who:
  - (a) Conduct business in higher risk businesses activities/sectors identified by the financial institution or in Singapore’s National Money Laundering / Terrorism Financing Risk Assessment (NRA);
  - (b) Have an ownership structure that appears unusual or excessively complex given the nature of the legal person’s or legal arrangement’s business;
  - (c) Are legal persons or legal arrangements that are personal asset holding vehicles;
  - (d) Conduct their business relationships under unusual circumstances (e.g. significant unexplained geographic distance between the bank and the customer);
  - (e) Are companies that have nominee shareholders or shares in bearer form; or
  - (f) Are cash intensive businesses.
- ii. **Geographical risk.** Examples of higher geographic risk include countries or jurisdictions which have been as identified by the FATF or other credible international bodies such as Transparency International as having significant levels of corruption, terrorism financing, inadequate money laundering / terrorism financing mitigating measures or other criminal activity.
- iii. **Product/service/transaction or delivery channel risk.** Examples of product/service/transaction or delivery risk include:
  - (a) Anonymous transactions (which may involve cash); or
  - (b) Frequent payments received from unknown or associated third parties.
- iv. **Local and foreign politically exposed persons.** Customers which have directors, connected persons or beneficial owners who are known to be politically connected or politically exposed persons (PEPs) are considered to have higher risk.

Simplified CDD should not be performed if the bank suspects that money laundering or terrorist financing is involved. In instances where Market Participants rely on other intermediaries to perform CDD, the Market Participant would need to immediately obtain the CDD information from the intermediaries. If this is not done, Market Participant should carry out their own due diligence.

#### **4.10.3.4 Personal Data Protection Act (PDPA)**

As Market Participants will obtain detailed information on the customer, they will need to comply with the Banking Act and the Personal Data Protection Act (“PDPA”), which protects customer confidentiality.

Market Participants should include disclosure clauses in the terms and conditions for account opening, to provide for the disclosure of information to regulators and authorities when such requests are made. Express consent from the customer is required and should be obtained. Failure to do so may render the Market Participant in breach of banking secrecy provisions under Section 47 of the Banking Act, or the PDPA.

Market Participants should check the “Do Not Call Registry” (DNC) if marketing calls are intended.

#### **4.10.3.5 Reporting and Monitoring of Suspicious Transactions**<sup>64</sup>

Financial institutions shall report any suspicious transactions to the Commercial Affairs Department (“CAD”) of the Singapore Police Force, as well as extend a copy of the report to the MAS. When a suspicion arises, an investigation should be conducted by Compliance and Management, and a Suspicious Transaction Report (“STR”) should be filed within 15 business days.

<sup>64</sup> Section 39 of The Corruption, Drug Trafficking and Other Serious Crimes (Confiscation of Benefits) Act

For example, a transaction or circumstance could be considered suspicious and warrant filing a STR to the relevant authorities if the customer:

- i. Is unable to complete CDD measures;
- ii. Is reluctant, unable or unwilling to provide any information requested by the financial institution; or
- iii. Decides to withdraw a pending application to establish business relations or a pending transaction or to terminate existing business relations.

STRs should be filed to the Suspicious Transaction Reporting Office, CAD of the Singapore Police Force, as required under the various Prevention of Money Laundering and Countering the Financing of Terrorism Notices applicable to it. For incidents of fraud, the financial institution should lodge a police report and submit to the MAS a copy of the report. Where the financial institution has not lodged a police report, it should notify the MAS of the reasons for its decision.

Financial institutions must establish appropriate policies and procedures to combat financial crimes and appoint a central point of contact as liaison for regulators.

During the course of business relations, financial institutions should observe the conduct of the customer's account and transactions undertaken to ensure that the customer's behaviour is consistent with their knowledge of the customer, its business and risk profile and where appropriate, the source of funds. Complex or unusually large transactions or unusual patterns of transactions that have no apparent or visible economic or lawful purpose should be given further scrutiny and attention. Financial institutions should make further inquiries into the background and purpose of any unusual transactions and document its findings with a view to making this information available to the relevant authorities should the need arise.

Periodic review of customer identification and beneficial ownership information should be conducted to ensure the information is kept up to date, particularly for higher-risk categories of customers.

#### **4.10.3.6 Record Keeping**

All documents pertaining to checks and transactions with the customer have to be kept for audit purposes. The retention period is 5 years after termination of business with a customer for customer information, and 5 years after the completion of each transaction for transaction information.

# Chapter 5: Execution and Handling of Orders

## Learning Objectives

The candidate should be able to:

- ✓ Discuss the general dealing principles and market conduct for wholesale OTC markets in Singapore.
- ✓ Recognise the various forms of market misconduct.
- ✓ Discuss Risk Controls and Audit requirements.
- ✓ Apply best practice in dealing with the various products:
  - Foreign Exchange (FX); Spot, Forwards and Options
  - Non-Deliverable Forward (NDF)
  - Money Markets; Deposits and Options
  - Debt Securities
  - Securities Borrowing and Lending
  - Singapore Government Securities
- ✓ Identify actions that may contravene the restrictions against lending of Singapore Dollar.
- ✓ Recognise the specific execution requirements for certain Market Participants including:
  - Inter-Dealer Brokers
  - Prime Brokers
  - E-Trading Platform Providers

This chapter discusses general dealing practices, market conduct requirements and specific dealing practices that are specific to the markets for FX, Non-Deliverable Forwards (NDF), money market securities, debt securities, securities borrowing and lending, Singapore Government Securities and OTC derivatives. It also presents other important practices related to risk controls and audit, restrictions on lending of Singapore Dollar and specific execution requirements for other Market Participants such as Inter-Dealer Brokers (IDBs), Prime Brokers and E-Trading Platform Providers.

## 5.1 General Dealing Principles and Market Conduct

Market Participants should ensure their Representatives adhere to professional standards. This is to ensure a fair, orderly and transparent market.

The guidelines contained in this Study Guide illustrate the general practices of the industry. Each Market Participant could have their own unique practices. Representatives in doubt of how to conduct themselves in certain situations and conditions should seek their supervisor's advice.

### 5.1.1 Rates and Quotes <sup>65</sup>

All Market Participants, whether acting as a Principal or Intermediary, should make absolutely clear whether the prices they are quoting are firm or merely indicative. Prices quoted by IDBs should be taken to be firm in marketable amounts unless otherwise qualified.

A Market Participant, quoting a firm price/rate and stating his requirements to an IDB, should deal at those terms with an acceptable name, regardless of the market level. For their part, IDBs are expected to confirm with their Principal at regular intervals on whether the latter's interests at specific prices/rates are still firm.

Typical market syntax expresses quotes and prices by articulating the bid and ask prices, followed by their respective quantities, and separated by the word "by". For example, a USD/JPY price, where the bid is 100.05 with a size of 20 million USD and the ask is 100.10 with a size of 40 million USD, would be articulated as "100.05/100.10, 20 by 40".

### 5.1.2 Dealing Amounts

#### 5.1.2.1 Minimum Dealing Amounts <sup>66</sup>

For the markets to function smoothly, there must be a consensual understanding of minimum dealing amounts between Market Participants when an amount is not specified with a quoted price.

The minimum dealing amounts vary depending on the product and currencies involved. Market Participants must be aware that this could result in amounts being fulfilled which are less than what the Market Participant intended when hitting a price.

Where there is any doubt between two Market Participants about what constitutes the minimum dealing amount, it is strongly recommended that a clear understanding be established before attempting to transact with each other.

#### 5.1.2.2 Odd Sizes and Small FX <sup>67</sup>

Market Participants who wish to deal in odd amounts should specify their conditions to their counterparties at the outset. The price maker has the right to reject odd amounts if no prior indication of amount is given.

#### 5.1.2.3 Challenging Amounts or Quantities <sup>68</sup>

Market Participants should avoid the challenging of amounts or quantities. If a Market Participant says, "Your amount", "All yours" or "All mine", he or she is committed to honour the counterparty's full amount. If the price maker's price is dealt simultaneously by two or more IDBs, the price maker should honour, subject to limit, the minimum dealing amount with each IDB.

<sup>65</sup> Blue Book, Chapter III, Para 2.1, 2.2 - Price / Rate Quotations

<sup>66</sup> Blue Book, Chapter III, Para 10.1 - Dealing Amounts

<sup>67</sup> Blue Book, Chapter III, Para 10.2 - Dealing Amounts

<sup>68</sup> Blue Book, Chapter VI, Paras 9.1, 9.2, 9.3, 9.4 - Dealing Amounts; Blue Book, Chapter VI, Paras 20.1-20.4 - Dealing Amounts

A Market Participant should specify his or her amount immediately after dealing on a price and the price maker should immediately state the amount which he is honouring. In instances where a Market Participant hits a IDBs quote for an amount in excess of the minimum dealing amount, and the IDB can honour the full amount, the Market Participant should not insist that the whole amount be in one deal but rather should accept split amounts done reasonably.

### 5.1.3 Discovering Names from IDBs <sup>69</sup>

Market Participants should not place partial orders with IDBs with the intention of identifying the counterparty, so as to conclude the full amount of the order in a direct transaction. It is considered unethical practice for a Market Participant to deal in a minimal amount through an IDB with the intention of identifying the counterparty and make direct contact to deal with them.

A Market Participant should not, in any way, pressure an IDB by inducement, threat or promise, for information which would be improper for the IDB to divulge. Pressure includes any statement to the effect, or which could be construed as implying, that a failure to cooperate would lead to a reduction in the business given by the Market Participant or other Market Participants to the IDB. Market Participants should similarly reject any request from their clients to divulge confidential information and any such incident should be reported by staff of Market Participants to their management.

### 5.1.4 Direct Dealing <sup>70</sup>

Market Participants are not obliged to quote when called upon. However, the answering party should respond and indicate quickly when it is unwilling to quote. Market Participants are not obliged to deal on any pre-determined amount.

### 5.1.5 Market Convention for Trades Done Electronically <sup>71</sup>

A deal should be considered “done” whether it is intentionally or unintentionally “hit”. In the event of a wrong hit owing to input error or otherwise, and where the rate dealt is deemed to be way off the prevailing market price, the hitting Market Participant should contact the counterparty involved immediately to get the deal cancelled.

Market Participants should be prepared to honour any and all orders which they key into an electronic trading system. In the event of a line failure or “connection lost”, immediate attempt should be made to contact the counterparty involved to clarify on the transaction.

### 5.1.6 Handling Customer Orders <sup>72</sup>

Market Participants involved in transactions with customers should act honestly and in good faith when marketing financial products and transacting with customers. Customer orders should be handled promptly, professionally, with fairness and transparency and with due regard to the best interests of the customer. Market

<sup>69</sup> Chapter I, Para 2.6 – Confidentiality; Blue Book, Chapter III, Para 9.2 - Direct Dealing; Blue Book, Chapter VIII, Para 3.4 - Closing Deals

<sup>70</sup> Blue Book, Chapter III, Para 9.1 - Direct Dealing.

<sup>71</sup> Blue Book, Chapter II, Paras 5.4, 5.6 – Electronic Trading Activities.

<sup>72</sup> Blue Book, Chapter III, Para 3.1, 3.3 – Handling Client Orders; FX Global Code Principle 8 - Market Participants should be clear about the capacities in which they act & Principle 9 - Market Participants should handle orders fairly and with transparency in line with the capacities in which they act.

Participants should not enter into any transaction which may conflict with a duty of care owed to a customer, unless such conflict is disclosed to the customer and the customer consents to the transaction.

All Market Participants must have a clear understanding about their roles and capacities. A Market Participant receiving a customer order may be acting in the capacity of principal or agent as discussed below.

- i. **Acting as principal** - The Market Participant takes on one or more risks in connection with an order, including market and credit risk. Principals act on their own behalf and there is no obligation to execute the order until both parties are in agreement. Where the acceptance of an order grants the principal executing the order some discretion, it should exercise this discretion reasonably, fairly, and in such a way that is not intended to disadvantage the customer.

Principals must have market-making and risk management activities, such as hedging, commensurate with their trading strategy, positioning, risk assumed, and prevailing liquidity and market conditions.

Market Participants acting as principal should inform the customer:

- a. That it acts as counterparty to the customer;
  - b. How it will handle requests for indicative prices or firm quotes, orders placed by the customer, and all other communications that may result in orders or transactions; and
  - c. How potential or actual conflicts of interest arising from its dealing as principal, or its market making activities will be identified and addressed.
- ii. **Acting as agent** - The Market Participant executes orders on behalf of the customer in accordance with the customer mandate, and without taking on market risk in connection with the order.

Market Participants acting as agent should:

- a. Inform the customer that it is acting as agent;
- b. Strive to obtain the result requested by the customer;
- c. Have a transparent policy regarding:
  - I. The execution venues it may use to execute the customer's order;
  - II. The factors that determine the choice of execution venues;
  - III. How it intends to provide for the fair, prompt, and efficient execution of the customer's order;
  - IV. Clearly articulate the terms, conditions, fees and commissions applicable under the agreement with the customer; and
  - V. Preserve customer order confidentiality by sharing only such details about a customer order that is required to get a competitive quote from principal trading or market making desks.

In either capacity, Market Participants must have clear standards in place to handle orders with fairness and transparency. These standards include:

- a. Clearly stating if prices are firm or indicative;
- b. Whether orders are to be executed manually or electronically;
- c. Whether orders are aggregated or follow price-time priority;
- d. Other factors that might affect the order's execution, including whether the Market Participant is taking the risk associated with the order, the prevailing market conditions and liquidity, its own positions or trading strategy or that of other customers;
- e. Whether an order carries discretion and how that may be exercised; and

- f. The point at which market risk is transferred from one party to the other.

### Examples on Handling of Customer Orders

Source: Foreign Exchange Global Code, Annex 1

#### Market Participants should be clear about the capacities in which they act. (PRINCIPLE 8)

✓

A Client asks a Market Participant to buy EUR/NOK on their behalf in the market. The Market Participant has an agreement with the client stating it acts as an agent and that the Market Participant will add a fee. The Market Participant executes the order in the market, showing a post trade execution analysis of the fills and adding the fee.

**Interpretation:** Market Participants should be clear about the capacities in which they act. In this example, the parties have made clear in advance the capacities in which they act and that the Market Participant would add a fee. Specifically, the Market Participant executes the client's request in an agent capacity and is transparent about the nature of execution and the associated cost.

✓

A Client asks a Market Participant to buy EUR/NOK as a Market Order. The Market Participant and the client have a principal-based relationship as stipulated in their terms and conditions. The Market Participant fills the client's order in accordance with the terms agreed, possibly using its own inventory and the available liquidity in the market.

**Interpretation:** Market Participants should be clear about the capacities in which they act. In this example, the parties have made clear in advance the capacities in which they act, by previously disclosing the terms and conditions under which it will interact with the Client. Specifically, the Market Participant and the client, acting as principals, agree to execute the transaction.

#### Market Participants should handle orders fairly and with transparency. (PRINCIPLES 9 AND 10)

✓

A bank receives a large order from a fund (the client) to sell EUR/PLN at the London 1600h fix. According to their pre-agreed terms and conditions, the bank and the client have agreed that the bank will act as the principal and may hedge fixing transactions depending on market conditions. The bank hedges some of the order amount before the fixing window since it judges that the 5-minute fixing window is too short to clear such a large amount without affecting the market rate to the client's disadvantage. The bank also keeps some of the risk on its book and does not trade the full amount in the market, therefore lessening the market impact of the client's order in the fixing, with the intention of benefiting the client.

**Interpretation:** Market Participants are expected to handle orders with fairness and transparency. In this example, the client and the bank have agreed that the bank will act as principal. The bank executes the transaction in a manner that benefits the client by lessening the market impact of the client's order on the market.

✗

A Market Participant has orders from several clients to buy USD/ZAR. The Market Participant has disclosed to clients its policy that electronic orders are processed in the order in which they are received from clients. The Market Participant fills first an order of another customer even though that order was received after other orders.

**Interpretation:** Market Participants should make clients aware of factors that affect how orders are handled and transacted, including whether orders are aggregated or time prioritised, and should have clear standards in place that strive for a fair and transparent outcome for the client. In this example, the Market Participant has made the clients aware of its order-processing policy, but it violated that policy when it executed the orders in a non-sequential way.

X

A client calls a Market Participant to execute a series of trades, stating that it is relying on the agency agreement they have in place. The agency agreement includes a pre-negotiated transaction fee. While executing the trades, the execution desk of the Market Participant adds an additional undisclosed spread to every trade it executes, resulting in the client paying above the pre-negotiated transaction fee.

**Interpretation:** A Market Participant handling client orders in an agent role should be transparent with its clients about its terms and conditions, which clearly set out fees and commissions. In this example, the Market Participant charges a fee in excess of the pre-negotiated fee and does not disclose it to the client.

X

Dealer A tells Voice Broker B that he has a large amount to execute at the fix and wants some help establishing a favourable rate to its benefit. Broker B then informs Dealer C who has a similar order and they all agree to combine their orders so as to make a greater impact in or before the fix window.

**Interpretation:** Market Participants should handle orders fairly and with transparency, should not disclose confidential client trading information (Principle 19), and should behave in an ethical and professional manner (Principles 1 and 2). The collusion illustrated in this example to intentionally influence a benchmark fixing rate is neither ethical nor professional. It divulges information about the client's trading activity to an external party and is non-competitive behaviour that undermines the fair and effective functioning of the FX market.

✓

A corporate treasury calls a bank to buy a large amount of GBP/SEK at the 1100h fixing tomorrow morning, New York time. The client and the bank agree that the bank will act as principal and may hedge the transaction. Judging that the liquidity around 1100h not good enough to absorb the order, the bank starts to buy small parcels of GBP/SEK during the morning to limit the market impact of the transaction. The bank fills the client's order at 1100h at the fixing price, using its inventory.

**Interpretation:** Market Participants should handle orders fairly and transparently. In this example, the Market Participant strived for a fair outcome for the client.

**Interpretation:** Market Participants handling orders that have the potential to have sizable market impact should do so with care and attention. The order described in this example is large and could have sizable market impact and the parties involved take several steps to appropriately monitor and execute the order.

X

A client instructs a Market Participant to buy 5 billion USD/JPY at the 1600h fix as part of a cross-border merger and acquisition transaction. After receiving this instruction, but before 1600h, the Market Participant buys 300 million USD/JPY for its own book, and not part of a risk management strategy for the transaction. After the 1600h fix, the Market Participant sells 300m USD/JPY for its own book, with the sole intent of taking advantage of the price movement caused by the client order.

**Interpretation:** Market Participants should handle orders fairly and transparently, and the confidential information obtained from a client is to be used only for the specific purpose for which it was given. In this example, the Market Participant instead used its knowledge of the client's order

*and the expected market impact of the fixing order to gain profits for its own book, potentially disadvantaging the client.*

v

A bank is anticipating an order related to a potential merger and acquisition transaction on behalf of a client that involves selling a very large amount of a specific currency. The bank recognises that this transaction could have a sizeable impact on the market and therefore proactively engages the client to discuss a potential execution strategy, including but not limited to the matching of internal flows, the timing of the execution, the use of algorithms, and pre-hedging. The bank transacts in anticipation of the order in agreement with the client and with the intent to manage the risk associated with the anticipated transaction and to seek a better outcome for the client.

#### **5.1.6.1 Appropriateness of Transactions**<sup>73</sup>

Market Participants should ascertain that the customer is allowed to transact in the given instrument, and has sufficient credit, margins and/or limits for the order, before accepting the order.

Market Participants should satisfy themselves that the nature, complexity and risks of proposed transactions are appropriate for their customers<sup>74</sup>. It is also important that Market Participants provide all relevant disclosures and information to a customer to ensure that the customer fully understands the nature and potential risks of the product and to allow the customer to make an informed decision as to whether to transact or not.

#### **5.1.6.2 Recording Orders and Time Stamping**<sup>75</sup>

A Market Participant must, as soon as possible, prepare and keep a written record of the following information in relation to a customer's order:

- i. Particulars of the customer's instruction in the order;
- ii. Date and time of receipt of the order, amendment or cancellation;
- iii. Where the order, amendment or cancellation, is transmitted to a member of a securities exchange or an overseas securities exchange, the date and time the order, amendment or cancellation is transmitted; and
- iv. Date and time of execution, partial and/or full, of the order or amended order (if any).

Timely and accurate time stamping is crucial to the resolution of trade disputes, as it provides evidence and documentary proof of the chronology of events and market prices at the time of the events. Representatives or Market Participants who breach this requirement are guilty of an offence punishable with a fine.

<sup>73</sup> Blue Book, Chapter III, Para 3.2 – Handling Client Orders.

<sup>74</sup> ABS Code of Conduct, Annex 4 – Code of Conduct for Treasury / Fixed Income Securities Business, Principle 4 - Fair Dealings with Customers

<sup>75</sup> Securities & Futures (Licensing & Conduct of Business) Regulations (SFR), Regulation 39 – Books of holder of capital markets services license

### 5.1.6.3 Order Execution <sup>76</sup>

Market Participants should handle orders fairly, with transparency, and in a manner consistent with the specific considerations relevant to different order types. Market Participants should be aware that different order types may have specific considerations for execution.

- i. **Credit Issues and Limit Availability** - Market Participants should ascertain that there are sufficient credit lines and/or available limits to transact with a given customer placing the order, or a given counterparty in the market, before entering into the transaction.
- ii. **Reference Prices for Executing Orders** - Market Participants should understand how reference prices, including highs and lows, are established in connection with their transactions and/or orders.

This understanding should be supported by appropriate communications between the parties, which may include disclosures. In the event that a third-party pricing source is an input in establishing this reference price, both parties should understand how that pricing measure is determined and what the contingency arrangements are in the event that the third-party pricing is unavailable. Where a dispute arises as to whether the market reached the level required to trigger the execution of the stop or limit order, it should be borne in mind that regardless of which source is used to verify the market range, a totally accurate definitive record may be difficult to obtain.

Any one source such as an individual IDB who may be asked to indicate market highs and lows may not always have the full trading range for the day and can only indicate the highs and lows which it has seen. Consequently, such information should be treated with professional discretion and caution.

- iii. **Stop orders** - Parties giving or receiving stop orders should ensure that both parties mutually understand the terms under which such orders are made. For example, Market Participants handling a customer's stop order should:
  - a. Obtain from the customer the information required to fully define the terms of a stop order, such as the reference price, order amount, time period, and trigger; and
  - b. Disclose to customers whether risk management transactions may be executed close to a stop order trigger level, and that those transactions may impact the reference price and result in the stop order being triggered.

#### Example - Stop Order with Conditions

Stop orders are typically triggered when there is a transaction at the stop order's trigger price. However, the party placing the stop orders could choose to have his stop order use a different trigger, for example, choosing to trigger a stop buy order only when the market is bid at the trigger price (commonly known as a "Stop on Bid" order).

The triggering condition should be clearly communicated to all parties.

In accepting stop orders, while a Market Participant should make every reasonable effort to execute the order promptly, it should be acknowledged that there is no guarantee of fixed price execution to the counterparty.

<sup>76</sup> FX Global Code, Principle 10 - Market Participants should handle orders fairly, with transparency, and in a manner consistent with the specific considerations relevant to different order types; FX Global Code Principle 13 – Market Participants should understand how reference prices, including highs and lows, are established in connection with their transactions and/or orders. Blue Book, Chapter III, Paras 7.1- 7.4 – Stop-loss orders.

- iv. **Partial Fills** - Market Participants filling a customer order, which may involve a partial fill, should:
  - a. Be fair and reasonable based upon prevailing market circumstances, and any other applicable factors disclosed to the customer, in determining if and how a customer order is filled, paying attention to any other relevant policies;
  - b. Make a decision on whether, and how, to fill a customer order, including partial fills, and communicate that decision to the customer as soon as practicable; and
  - c. Fully fill customer orders they are capable of filling within the parameters specified by the customer, subject to factors such as the need to prioritise among customer orders and the availability of the Market Participant's credit line for the customer at the time.
- v. **Communications** - Any Market Participant accepting a stop or limit order should have adequate lines of communication with the giver of the order so that contact can be made in the event of extremely volatile market conditions or other unusual situations.

#### 5.1.6.4 Pre-Hedging Customer Orders <sup>77</sup>

Pre-hedging is the management of the risk associated with one or more anticipated customer orders, designed to benefit the customer in connection with such orders and any resulting transactions. Market Participants should only pre-hedge customer orders when acting as a principal, and should do so fairly and transparently.

Market Participants may pre-hedge for such purposes and in a manner that is not meant to disadvantage the customer or disrupt the market. Market Participants should communicate their pre-hedging practices to their customers in a manner meant to enable customers to understand their choices as to execution.

In assessing whether pre-hedging is being undertaken in accordance with the principles above, a Market Participant should consider prevailing market conditions (such as liquidity) and the size and nature of the anticipated transaction.

While undertaking pre-hedging, a Market Participant may continue to conduct ongoing business, including risk management, market making, and execution of other customer orders. When considering whether pre-hedging is being undertaken in accordance with the principles above, pre-hedging of a single transaction should be considered within a portfolio of trading activity, which takes into account the overall exposure of the Market Participant.

When a Market Participant is acting as an agent, the Market Participant should not pre-hedge.

#### Examples on Pre-Hedging Customer Orders

*Source: Foreign Exchange Global Code Annex 1*

**A Market Participant should only pre-hedge Client orders when acting as a principal, and should do so fairly and with transparency. (PRINCIPLE 11)**



A bank has disclosed to a client that the bank acts as principal and may pre-hedge the client's orders. The bank has a large Stop Loss buy order for the client, which it anticipates might be triggered. The bank expects that there are many similar orders in the market at this important technical level and recognises the risk for substantial slippage during execution.

<sup>77</sup> FX Global Code, Principle 11 – A Market Participant should only Pre-Hedge Client Orders when acting as a Principal, and should do so fairly with transparency.

The bank decides to pre-hedge part of the order and starts buying in advance without any intent to push up the market price. However, the market spikes above the stop loss level due to the buying by other Market Participants which is triggered when the market price hits the technical level. The order is triggered but, as a result of pre-hedging, the bank is able to provide an execution price close to the stop loss level.

**Interpretation:** Market Participants should only pre-hedge client orders when acting as principal and when the practice is used with the intention to benefit the client. Stop loss orders are conditional on breaching a specific trigger level, and in many cases orders are placed at significant levels in the market with the potential for substantial slippage when the level is reached. In this example, the bank has utilised pre-hedging to build up inventory in advance. The bank is better positioned than it would otherwise be, had it not pre-hedged, to enable the bank to protect the client from slippage and thus benefiting the client.



A Market Participant has disclosed to a client that the Market Participant acts as principal and may pre-hedge the client's anticipated order. The client asks the Market Participant for a bid price for a large amount of USD/CAD during a non-liquid period of the day.

Due to liquidity conditions and the size of the anticipated order, the Market Participant expects that it may need to quote a significantly lower bid than is shown on the interdealer broker (IDB) screen. But before determining its quote, and in an effort to improve its price to the client, the Market Participant tests the market liquidity by selling a small amount through the IDB. The Market Participant quotes the client a bid price for the full amount, taking into account, for the client's benefit, the amount already sold.

**Interpretation:** Market Participants should only pre-hedge anticipated client orders when acting as a principal and in a manner not meant to disadvantage the client. In this example, the Market Participant has pre-hedged part of the order to manage the potential risk associated with the anticipated order and in a way intended to benefit the client, specifically by taking into account the pricing benefit of the pre-hedged amount for the client.

#### 5.1.6.5 Mark Up on Customer Transactions <sup>78</sup>

Mark up is the spread or charge that may be included in the final price of a transaction in order to compensate the Market Participant for a number of considerations such as the risks taken, costs incurred, and services rendered to a particular customer. The mark up applied to customer transactions by Market Participants acting as Principal should be fair and reasonable.

Market Participants should have processes to monitor whether their mark-up practices are consistent with their policies and procedures, and with their disclosures to customers. Mark up should be subject to oversight and escalation within the Market Participant.

Market Participants should promote transparency by documenting and publishing a set of disclosures regarding their trading business that, among other things:

- i. Makes it clear to customers that their final transaction price may be inclusive of mark up;

<sup>78</sup> FX Global Code, Principle 14 – The Mark Up applied to Client Transactions by Market Participants acting as Principal should be fair and reasonable.

- ii. Makes it clear to customers that different customers may receive different prices for transactions that are the same or similar;
- iii. Helps customers understand the determination of mark up, such as by indicating the factors that may contribute to the mark up (including those related to the nature of the specific transaction and those associated with the broader customer relationship, as well as any relevant operating costs); and
- iv. Discloses to customers how mark-up may impact the pricing and/or execution of any order linked to or triggered at a specific level.

Market Participants should have policies and procedures that enable personnel to determine an appropriate and fair mark up. These policies and procedures should include, at a minimum:

- a. Guidance that prices charged to customers should be fair and reasonable considering applicable market conditions and internal risk management practices and policies; and
- b. Guidance that personnel should always act honestly, fairly, and professionally when determining mark up, including not misrepresenting any aspect of the mark up to the customer.

### Examples on Mark-Up on Customer Transactions

**Source: Foreign Exchange Global Code Annex 1**

#### Mark up should be fair and reasonable. (PRINCIPLE 14)



A bank receives a client's Stop Loss sell order for GBP/USD at a certain level. When that level is traded in the market, the bank executes the Stop Loss order with some slippage. However, the bank fills the client at a slightly lower rate after taking mark up and without having previously disclosed to the client that the all-in price for executing a Stop Loss was subject to mark up.

**Interpretation:** *Mark up should be fair and reasonable, and Market Participants should promote transparency by disclosing to clients that their final transaction price may include mark up and that it may impact the pricing and execution of orders triggered at a specific level. In this example, the bank has not disclosed to the client how mark-up will affect the all-in price for the order.*



A bank charges a corporate higher mark-up than other corporates of the same size, credit risk, and relationship, exploiting the corporate's relative lack of sophistication in understanding and challenging the pricing of its bank.

**Interpretation:** *Mark up should be fair and reasonable and can reflect a number of considerations, which might include risks taken, costs incurred, and services rendered to a particular client, factors related to the specific transaction and to the broader client relationship. The application of mark up in this example is not fair and reasonable as it discriminates between clients based only on their level of sophistication. In the example, the different mark-up charged to each of the clients is motivated by differences in the broader client relationship—in this case, the volume of business. A bank charges corporates of similar size and credit standing different mark ups because the broader client relationship differs. For example, the volume of business these clients transact with the bank is of very different magnitudes.*

## 5.2 Market Misconduct <sup>79</sup>

Market Participants should observe proper standards of conduct at all times. Market Participants should implement internal policies and procedures which prohibit all forms of market misconduct. Representatives of Market Participants should not engage in practices which may realise immediate gain (or avoid loss) but may compromise their employer's or their own reputation.

Market Participants share the responsibility of maintaining the smooth and efficient functioning of the Singapore financial market, and therefore should avoid adopting policies which may lead to circumstances that contribute to disrupting the normal operations of another Market Participant.

Market Participants should not engage in any fraudulent, deceptive or manipulative practices. Market Participants must also ensure that they are familiar and comply with the applicable market conduct requirements under the SFA, FAA and related legislations such as the Securities & Futures (Licensing and Conduct of Business) Regulations (SFR).

### 5.2.1 Insider Trading <sup>80</sup>

Insider trading occurs when persons who have privileged, non-public price sensitive or confidential information about important events, such as earnings information from a company, use the special advantage of that knowledge to reap profits or avoid losses on the market.

Persons with such inside or confidential information must not enter into transactions in instruments that will be impacted by the information. They should also not communicate the information to other parties. Please refer to Section 3.2.1 Market Participants Should Clearly Identify Confidential Information of this Study Guide for more information.

It is an offence to directly or indirectly be involved in insider trading. Offences are subject to a fine and/or jail term.

#### Example - Insider Trading

Wang works on the FX Sales desk of a local bank. Wang's childhood friend, Chung, owns a public listed company, Chung Holdings Limited, which has bonds issued on the OTC market.

One day over dinner, Chung confided that business was not good and that Chung Holdings would not be able to meet the coupon payments due at the end of the week. The next day, Wang tells his colleagues on the equities trading desk to Short Chung Holdings shares and bonds, being careful not to reveal the source of his information.

This is not acceptable, because it constitutes insider trading, as the information about the impending coupon default is not public.

<sup>79</sup> Blue Book, Chapter III, Paras 3.4-3.5 - Handling Client Orders

<sup>80</sup> SFA Sections 213-231 –Market Conduct Division 3 - Insider Trading

### 5.2.1.1 Exceptions

There are specific situations where Representatives who have privileged information can execute transactions in the impacted instruments, and not be considered to be guilty of insider trading. The following are considered exceptions to insider trading:

- i. Persons acting as underwriters and pursuant to the performance of their roles (SFA Section 223);
- ii. Price-sensitive information communicated pursuant to legal requirements, such as requirements imposed by written law or court order SFA Section 225);
- iii. Knowledge by virtue of a natural person's own transactions; and
- iv. Knowledge of a corporation's own transactions.

### 5.2.1.2 Defences

The following will be considered effective defences against charges of insider trading:

- i. The information had been made known in a manner that would, or would be likely to, bring it to the attention of persons who commonly invest in the securities affected by the information; and
- ii. The counterparty to the transaction knew, or ought reasonably to have known of the information, before entering into the transaction.

The nuances of insider trading are complex. Representatives should check with their respective Compliance Department if they are unsure if they possess insider information. Most Market Participants have instituted internal practices that require all employees, including Representatives, to seek approval from their managers before they engage in transactions in instruments that might be affected by insider information.

## 5.2.2 Front Running<sup>81</sup>

Front running occurs when an employee executes a trade, for the benefit of the Market Participant he or she works for or for his or her own account, in advance of a customer's order, with the view of benefiting from the anticipated price change following the execution of the customer's order (usually a large order which is likely to impact the market price). Front-running is prohibited conduct.

It is an offence to directly or indirectly be involved in front running. Offences are subject to a fine and/or jail term.

## 5.2.3 Withholding of Orders<sup>82</sup>

A Representative shall not withhold or withdraw from a market, any order or any part of a customer's order, for the benefit of the Market Participant or himself/ herself, or of any other person.

## 5.2.4 Disclosure of Customer Orders<sup>83</sup>

A Representative shall not divulge information relating to a customer's order, unless the disclosure is:

<sup>81</sup> SFR 44(1) – Priority of customers' orders, Blue Book Chapter 1, Para 6.2 – Market Misconduct & Para 5.1 – Dealing for Personal Account.

<sup>82</sup> SFR 47(1) – Trading standards

<sup>83</sup> SFR 47(2) – Non-Disclosure of Client's Order; Blue Book, Chapter 1, Para 2.6 - Confidentiality

- i. Necessary for the effective execution of the order;
- ii. Permitted under the rules of the relevant approved exchange, clearing facility, market operator or recognised trading system provider; or
- iii. Required by the relevant authority under the Acts or regulations.

A Market Participant should not, in any way, pressure an IDB by inducement, threat or promise, for information which would be improper for the IDB to divulge. Pressure includes any statement to the effect, or which could be construed as implying, that a failure to cooperate would lead to a reduction in the business given by the Market Participant or other Market Participants to the IDB. Market Participants should similarly reject any request from their customers to divulge confidential information and any such incidents should be reported by representatives of Market Participants to their management.

It is an offence to directly or indirectly be involved in the disclosure of customer orders. Offences are subject to a fine and/or jail term.

### 5.2.5 Bucketing <sup>84</sup>

Bucketing occurs when a Market Participant, acting as an intermediary and hence accepting a customer's order for execution but NOT dealing as Principal, directly or indirectly, takes the opposite side of a customer's order, with the aim of attempting to profit from the customer's order.

Bucketing of orders is prohibited conduct. If a Market Participant wishes to take the opposite side of a customer's trade, it must get the customer's prior consent. It is an offence to directly or indirectly be involved in the bucketing. Offences are subject to a fine and/or jail term.

#### Example - Bucketing

An intermediary (i.e. not dealing in the capacity of a principal) receives an order to buy 10 million Spot USD/JPY at 104.00. The market is presently 103.99 bid / 104.01 offer. Instead of placing the customer's order into the market, the intermediary withholds the order. When the market falls to 103.98 offer, the intermediary then tells the customer his order is filled at 104.00. At the same time, the intermediary buys USD/JPY in the market at 103.98, and pockets the difference of 0.02 JPY.

If the market had not fallen but risen instead, the intermediary would have informed the customer that the order could not be executed, when in truth it was never placed for execution. Obviously this practice is very unfavourable for the customer.

### 5.2.6 Price Manipulation and Cornering <sup>85 86</sup>

The prices of instruments should not be manipulated away from their fair value. Market Participants should not request for transactions, create orders, or provide prices with the intent of disrupting market functioning or hindering the price discovery process. Market Participants providing quotations should always do so with a clear intention to trade. Any prices that are provided for reference purposes only should clearly be labelled as such.

<sup>84</sup> SFA Section 207 – Bucketing; SFR 47B - Dealing as Principal

<sup>85</sup> SFA Section 208 – Manipulation of price of futures contract and cornering; FX Global Code, Principle 12-- Market Participants should not request transactions, create orders, or provide prices with the intent of disrupting market functioning or hindering the price discovery process.

<sup>86</sup> ABS Code of Conduct, Annex 4 – Code of Conduct for Treasury / Fixed Income Securities Business, Principle 3 - Professional Integrity

Practices which should be avoided include:

- i. Entering orders or trades that create a false impression of market prices;
- ii. Deliberately entering orders into an instrument to cause a new “high” or “low” price to be recorded, which then allows a trader to trigger stops for other instruments which use that contract as a reference price;
- iii. Causing artificial price movements;
- iv. Engaging in “cornering”, which is the practice of purchasing an asset in large volumes so that the manipulator gains a monopoly over it and, hence, control over its price is achieved. Short sellers are left having to pay an inflated price to cover their positions;
- v. Entering a bid or offer with the intent to cancel before execution (sometimes referred to as “spoofing” or “flashing”);
- vi. Creating a false impression of depth, or liquidity (sometimes referred to as “quote stuffing” or “wash trades”); or
- vii. Causing undue latency or delays in the market or other related instruments.

Market Participants should give appropriate consideration to market conditions and the potential impact of their transactions and orders. Transactions should be conducted at prices or rates based on the prevailing market conditions at the time of the transaction. Exceptions to this, such as historical rate rollovers, should be covered by internal compliance policies.

Market Participants handling customer orders may decline a transaction when there are grounds to believe that the intent is to disrupt or distort market functioning. Market Participants and their Representatives should escalate any suspicious practices to their supervisors or Compliance Departments as appropriate.

It is an offence to directly or indirectly be involved in the Price Manipulation and Cornering. Offences are subject to a fine and/or jail term.

### Examples on Price Manipulation and Cornering

**Source: Foreign Exchange Global Code Annex 1**

**Market Participants should not request transactions, create orders, or provide prices with the intent of disrupting market functioning or hindering price discovery. (PRINCIPLE 12)**

**X**

**Scenario 1:** A Market Participant wishes to sell a large amount of USD/MXN. Before doing so, the Market Participant executes a number of small, successive purchases of USD/MXN on a widely viewed E-Trading Platform with the intention of moving the market price higher and inducing other Market Participants to buy USD. The Market Participant then executes the original large sell order in one or more E-Trading Platforms at a higher price.

**Interpretation:** Market Participants should not request transactions or create orders with the intention of disrupting market functioning or hindering the price discovery process, including undertaking actions designed to result in a false impression of market price, depth, or liquidity. This example illustrates a strategy intended to cause artificial price movements. While Market Participants often break large trades into smaller transactions to mitigate the impact of a transaction, in this case the small transactions are intended to cause an artificial price movement. The Market Participant plans to sell a large quantity.

**X**

**Scenario 2:** A Market Participant wishes to sell a large amount of USD/MXN. It repeatedly places small offers to sell on a widely viewed E-Trading Platform. The Market Participant chooses to use another

dealing code of the same institution on the same E-Trading Platform in order to lift these successive higher offers with the intention of misleading the market.

**Interpretation:** *This is an extension of the previous example. The behaviour gives the false impression that multiple counterparties are participating in a rally whereas they are actually from the same institution. The use of such strategies should be avoided.*

X

**Scenario 3:** A client stands to gain by moving the market higher into the 1600h fix for a particular currency pair. They call a bank at 1545h and place a large fixing order and then instruct the bank to “buy the amount as quickly as possible in the first minute of the fix calculation window.”

**Interpretation:** *Market Participants should not request transactions or create orders with the intention of disrupting market functioning or hindering the price discovery process, including adopting strategies designed to result in a false impression of market price, depth, or liquidity. The client’s request in this example is intended to result in a false impression of market price and depth.*

X

**Scenario 4:** A hedge fund is long an exotic Euro put. The currency has been weakening towards the option’s knock-in level during the New York session. Knowing that liquidity will be lower during the Asian session, due to a major holiday, and intending to knock in the option, the hedge fund leaves a large Euro stop loss sell order for the Asian open with bank A at a price just above the knock-in level. At the same time, the hedge fund leaves a limit buy order with bank B for the same amount of Euros but at a level just below the knock-in level. Neither bank A nor bank B is aware that the hedge fund is long the exotic Euro put.

**Interpretation:** *Market Participants should not request transactions or create orders with the intention of creating artificial price movements. In this example, the hedge fund has sought to profit (to knock-in the option) by leaving orders designed to cause artificial price movements inconsistent with prevailing market conditions.*

X

**Scenario 5:** An IDB advertises a price without any instruction from a broker-dealer, dealer bank, or other financial institution. When a trader attempts to hit or lift the price, the IDB advises the trader that the quote has been traded by another party or has been withdrawn.

**Interpretation:** *Market Participants should not provide prices with the intent to hinder the price discovery process, including strategies designed to result in a false impression of market price, depth or liquidity. The practice illustrated in the example, sometimes known as “flying a price,” is a pricing strategy that intentionally gives the false impression of more liquidity than is actually available. It may occur on an IDB operating by voice or electronically or on an E-Trading platform that falsely attributes its own pricing to another party. This behaviour is similarly inappropriate for other types of Market Participants.*

### 5.2.7 False Trading <sup>87</sup>

False trading is any form of transaction that is not driven by a genuine investment objective in the market, but rather is designed to create the impression of greater market activity or to push prices off from their current levels. The intention of this is to delude others into sending orders into the market, which the perpetrators will attempt to profit from.

<sup>87</sup> SFA Section 206 – False trading; FX Global Code, Principle 12-- Market Participants should not request transactions, create orders, or provide prices with the intent of disrupting market functioning or hindering the price discovery process.

Representatives must ensure that all orders are entered in good faith and for the purpose of executing bona fide transactions.

False trading includes:

- i. Creating or intend to create an appearance of active trading on a security;
- ii. Buying and selling without a change in beneficial ownership in securities just to cause fluctuation in the market price of a security in the market; or
- iii. Creating transactions that is intended to give a false and misleading appearance with respect to the price of any security.

The most common false trading practices are:

**Hunting for Stops:** This occurs when a Representative deliberately places subsequently higher (or lower) bids (or offers) into the market, effectively pushing the market up (or down). This is done in the hope that eventually the market price will be moved to a point where stop orders are triggered. The Representative will either already be long and take profit as the buying momentum from the triggered stop orders kick in, or will go short after the buying momentum kicks in, expecting the market to fall-back off thereafter.

**Wash Trades:** This occurs when a Representative enters into transactions, either with another collaborator or using different accounts he controls. There is no real economic value to the trade. The trades are merely done to create the impression of volume.

It is an offence to directly or indirectly be involved in false trading. Offences are subject to a fine and/or jail term.

### 5.2.8 Fraudulently Inducing Persons to Trade in Instruments <sup>88</sup>

Another common form of market misconduct is the circulation of false information. This could be done by:

- i. Making or publishing any statement, promise or forecast that a Market Participant or Representative knows or should have known to be false, misleading or deceptive;
- ii. Deliberately concealing material facts; or
- iii. Recording or storing in, or by means of, any mechanical, electronic or other device information that a Market Participant knows to be false or misleading.

It is an offence to directly or indirectly be involved in the fraudulently inducing persons to trade in instruments. Offences are subject to a fine and/or jail term.

#### Example - Fraudulently Inducing Persons to Trade

An IDB publishes a market commentary that contains fake news that North Korea has declared war on the South and America, knowing that the news is false. His market commentary causes his readers to go short on the KRW and USD. The IDB would be considered guilty of engaging in market misconduct and fraudulently inducing persons to trade.

<sup>88</sup> SFA Section 209 - Fraudulently inducing persons to trade in futures contracts.

### 5.2.9 Employment of Fraudulent or Deceptive Devices <sup>89</sup>

It is not possible to define all types of “fraudulent devices”, since criminals are always inventing new way to deceive their victims, but some examples are:

- i. Using any device, act, practice or scheme to deceive customers and Market Participants is prohibited; or
- ii. Making any false statement or omitting to state a material fact.

A recent infamous case of fraudulent practice was the Ponzi scheme by Bernard Madoff.

It is an offence to directly or indirectly be involved in the employment of fraudulent or deceptive devices. Offences are subject to a fine and/or jail term.

### 5.2.10 Dissemination of Information about Illegal Transactions <sup>90</sup>

Since the manipulative devices discussed above each have the effect of creating artificial market conditions, the dissemination of information that such illegal transactions are taking place or are going to take place can have an equally deleterious effect. It is an offence to be involved, directly or indirectly, in the circulation and/or dissemination of any information about illegal transactions.

This is because persons who are aware of such transactions can then try to take advantage of the expected market movements without themselves being involved in carrying out the fraud. Their entry into the market can then either exacerbate the artificial market conditions being created, or themselves create the desired artificial market conditions. Market manipulators may disseminate information about illegal transactions in conjunction with the illegal transactions to boost the desired effect, or to create the desired effect without actually engaging in the illegal transactions. As such, Market Participants should not disseminate information about illegal transactions to ensure they do not unwittingly assist the market manipulators.

It is an offence to directly or indirectly be involved in the circulation and/or dissemination of information about illegal transactions. Offences are subject to a fine and/or jail term.

#### Example - Dissemination of Information about Illegal Transactions

Anna is a dealer at NGC Bank. She becomes aware that a large asset management fund is trying to buy up bonds of Red Tongue Dog Ltd, a local brewery company, in attempt to drive the price of the bonds higher.

She shares this information with her corporate customers, with the intention of warning them not to maintain Short position in the bonds of Red Tongue Dog Ltd.

Market manipulation is illegal, and by sharing the information, Anna is unwittingly helping the asset management fund succeed in its attempt to drive prices higher. This happens because as a result of the information shared by Anna, her customers may buy these bonds to get out of their short positions, or establish long positions in attempt to benefit from the expected price rise.

<sup>89</sup> SFA Section 210 - Employment of fraudulent or deceptive devices, etc.

<sup>90</sup> SFA Section 211 - Dissemination of information about illegal transactions

### 5.2.11 Points and Positions Parking <sup>91</sup>

Under no circumstances should Market Participants engage in artificial transactions for the purpose of concealing positions or transferring profits and losses.<sup>92</sup> Such activities, sometimes referred to as “points” or “position” parking, not only undermine the integrity of the markets, but may also attract legal liability for the Representatives or Market Participants concerned.

## 5.3 Risk Controls and Audit

### 5.3.1 Intra-day Deal Checks and Confirmations <sup>93</sup>

The practice of intra-day deal checks is strongly recommended as it can be an important means of helping to reduce the number and size of differences, particularly when dealing through non-electronic means such as voice calls or for deals involving foreign counterparties. It can also be useful in the faster moving markets such as foreign exchange or when dealing in other products which have short settlement periods.

Market Participant should agree with their IDBs (or counterparties) whether it wishes to institute this practice; and if so, how many such checks a day are required.

### 5.3.2 Articulation of Deal Confirmations <sup>94</sup>

In deal confirmations, Market Participants should ensure that the key details should be clearly articulated, namely:

- i. The buyer and seller of the transaction or deal;
- ii. Quantity;
- iii. Instrument;
- iv. Price; and
- v. Value date.

Since the interpretation of date conventions might differ (e.g. DDMM versus MMDD), it is recommended that the month be spelt out to avoid confusion.

#### **Example - Confirmation with Value / Settlement Date Clearly Articulated, with the Month Spelt Out**

A value date indicated as 11/12/17 could be interpreted as the 11<sup>th</sup> of December or the 12<sup>th</sup> of November. To avoid confusion, the Value Date should be presented with the month spelt out in letters for example:

“Confirmed, I buy 10 million USD/CAD at 1.3000, value 11Dec17.”

<sup>91</sup> Blue Book, Chapter III, Para 6.1 - Points & Position Parking

<sup>92</sup> ABS Code of Conduct, Annex 4 – Code of Conduct for Treasury / Fixed Income Securities Business, Principle 4 - Fair Dealings with Customers

<sup>93</sup> Blue Book, Chapter III, Paras 4.1, 4.2 - Intraday Deal Checks. FX Global Code, Principle 15 - Market Participants should identify and resolve trade discrepancies as soon as practicable to contribute to a well-functioning FX Market.

<sup>94</sup> Blue Book, Chapter VI, Para 3.3 - Value Dates.

Arguably the year could be confused too, but the year of the Value Date (e.g. the present year) should be obvious to most people.

### 5.3.3 Handling Trade Discrepancies or Out-trades <sup>95</sup>

There should always be an acknowledgement between the parties on completion of the check that all deals have been agreed or, if not, that any identified discrepancies are resolved as a matter of urgency. Where the discrepancy involves a dispute resulting in an open risk for either party, it is recommended that the position should be immediately closed out in the market without inference that either party is wrong pending final resolution of the dispute.

Where either party first highlights an error or difference, a lack of response from the other party should not be construed as an acknowledgement by the latter. Any action taken as an act of prudence to eliminate the risk of further losses should not be taken as an admission of liability by that party.

Trade disputes should be referred to the management for resolution and where appropriate, the dispute may be referred to the SFEMC. Refer to Section 5.3.5 Arbitration Procedures of this Study Guide for further details.

### 5.3.4 Complaints Procedure <sup>96</sup>

If the management of a Market Participant believes that another Market Participant it has dealt with has breached the letter or spirit of the relevant code of conduct, it should escalate appropriately and seek to settle the matter amicably with the other party. If this is not possible, either party may bring the matter to the attention of the SFEMC, with notification to the other party. In addition, if a Market Participant observes serious misconduct or material breaches of the relevant codes of conduct, it should notify the SFEMC.

### 5.3.5 Arbitration Procedures <sup>97</sup>

Where disputes arise, Market Participants should take prompt action to resolve or settle the matter fairly and with utmost integrity and mutual respect. The SFEMC provides a forum for resolution of any disputes between Market Participants on dealing ethics or current market practices in relation to specific transactions in the wholesale financial markets, after the parties have exhausted their own efforts to resolve the matter directly. All parties must agree to the SFEMC's role and accept its decision as full and final settlement of the dispute.

Requests for arbitration should be addressed to the Secretary of the SFEMC. A request should be concise but needs to contain all necessary information to facilitate the SFEMC's actions.

### 5.3.6 Trade Cancellations or Error Trades <sup>98</sup>

While the SFEMC wholly accepts that trades executed substantially away from the prevailing market price may impact Market Participants' confidence in the market, the SFEMC also considers it essential to the integrity of

<sup>95</sup> Blue Book, Chapter III, Para 4.3 - Intraday Deal Checks; Blue Book, Chapter VI, Paras 5.1, 15.1 - Transaction Dispute (Foreign Exchange and Non-Deliverable Forward Dealing Practices).

<sup>96</sup> Blue Book, Chapter III, Para 11.1 - Complaints Procedure; FX Global Code Principle 7 – Market Participants should have appropriate policies and procedures to handle and respond to potential improper practices and behaviours effectively.

<sup>97</sup> Blue Book, Chapter III, Paras 12.1, 12.2 - Arbitration Procedure

<sup>98</sup> Blue Book, Chapter III, Para2 13.1, 13.2, 13.3, 13.4 - Error Trades

the market that trades, once executed, will stand and not be adjusted or cancelled arbitrarily. Trades, once executed, may trigger further trades and the subsequent cancellation of the trigger may cause confusion and loss to other Market Participants who have acted in good faith.

Under normal circumstances, trades should only be cancelled on the basis that the price traded is not representative of the prevailing market price. Any trade where the only error is the notional value or the number of contracts traded, should not ordinarily be subject to cancellation, unless in exceptional circumstances.

Trades will only ever be subject to cancellation where both parties to the trade agree to the cancellation. Parties should always act in a reasonable manner in such situations. A Market Participant that is seeking to have a trade cancelled on the basis that the price traded is not representative of the prevailing market price should notify its counterparty as soon as possible.

## 5.4 FX Market Dealing Practices

### 5.4.1 FX Market Trading Hours <sup>99</sup>

While it is recognised that markets trade continuously, market convention in the FX markets is that the market is open from 0500h for Sydney time on a Monday morning, to 1700h New York time on a Friday evening. For the purposes of working customer orders, these times may be varied by contractual agreement.

### 5.4.2 FX Value Dates

Quotations for foreign exchange are for **value spot**, which is defined as two (2) business days from the date of transaction. There are exceptions to this, including USD/CAD and USD/PHP, for which by market convention value spot is defined as one (1) business day from the date of transaction.

Misunderstandings can arise over the definition of “value date” and “business day”, given the observance of different holidays in various financial centres. In quoting prices, Market Participants are therefore strongly urged to make clear to their counterparties the precise dates for settlement of transactions.

### 5.4.3 Market Disruptions and Unforeseen Holidays <sup>100</sup>

In the event of significant market disruption, which result in settlement or payment delays, the SFEMC will endeavour to make clear recommendations on appropriate settlement prices and/or mechanisms for the affected transactions. Parties to such deals are strongly encouraged to adopt the SFEMC’s recommendations to facilitate rapid and efficient resolutions to such delays.

On unforeseen market holidays, subject to relevant contractual documentation, it is market practice to extend contracts maturing on a non-business day to the next business day. In principle, there should be no adjustment of exchange rates on account of such an extension unless expressly provided for in any bilateral agreement between the parties concerned.

For more information on Market Disruptions, see Chapter 7 Handling Market Disruptions of this Study Guide for more details.

<sup>99</sup> Blue Book, Chapter VI, Para 1.1 - Market Trading Hours

<sup>100</sup> Blue Book, Chapter VI, Paras 4.1, 4.2 - Market Disruption & Unforeseen Holidays

#### 5.4.4 FX Swap Dealing <sup>101</sup>

Whilst a FX swap transaction usually involves the same name on both maturity dates, transactions involving two different names should be accepted unless previously stated. Market Participants should also specify the price being dealt. For example, “Yours at X” or “Mine at Y”. This is to avoid confusion between overseas and local terminology.

#### 5.4.5 Rate Setting on FX Swaps <sup>102</sup>

The setting of the spot rate in a FX swap transaction should be done immediately after a price has been hit and before clearing of the counterparty’s name. The price maker has the right to set the spot rate in a FX swap transaction. However, the price maker is responsible for setting a fair and unbiased rate within the current spread.

#### 5.4.6 Rollovers of Foreign Exchange Transactions at Off-Market Rates <sup>103</sup>

As deals done at off-market rates may be used as a means to conceal profits or losses, or to perpetuate a fraud, the use of off-market rates is strongly discouraged, particularly for the purposes of the extension or rollover of a maturing forward contract. The current market spot rate should be used to liquidate the maturing contract and used as a base from which the new forward rate is derived. The resulting gains/losses on the maturing contract should be taken up by customers.

However, there may also be customers who request for the rollover of maturing contracts using off-market rates for various reasons. Such requests should not be accommodated as normal practice and they should remain exceptional.

Market Participants should have internal policies and procedures regarding transactions at off-market rates and these should be complied with. In particular, the express approval of a Market Participant’s senior management should be obtained before any transaction may be conducted at off-market rates. Market Participants should also ensure that the express authorisation of the senior management of the customer is in place before transacting at off-market rates with the customer.

Market Participants should ensure that proper systems are established for the monitoring, recording and control of such transactions. Credit exposures and funding costs should be reflected in the transaction when they occur. When extending contracts at off-market rates, unrealised losses should be booked as a credit extension to the customer against established credit lines and subject to the Market Participant’s normal assessment of the customer’s creditworthiness.

<sup>101</sup> Blue Book, Chapter VI, Paras 7.1, 7.2 - Foreign Exchange Swap Dealing

<sup>102</sup> Blue Book, Chapter VI, Paras 8.1, 8.2 - Rate Setting on Foreign Exchange Swaps

<sup>103</sup> Blue Book, Chapter VI, Paras 2.2, 2.3 - Rollovers of Foreign Exchange Transactions At Off-Market Rates; FX Global Code, Principle 12 – Market Participants should not request transactions, create orders or provide prices with the intent of disrupting market functioning or hindering the price discovery process.

### 5.4.7 Currency Options <sup>104</sup>

In the wholesale financial markets, FX or currency options are generally quoted in implied volatility terms. In such instances, a **delta hedge** (i.e. a FX contract) is simultaneously entered into between the Market Participants. However, in cases where the price is quoted in premium terms, there will generally be no separate delta hedge.

The syntax for quoting options with or without the delta hedge can vary across counterparties and locations. Representatives should follow the syntax prescribed by the Market Participant they work for.

It is acknowledged that an option would not be a legally binding contract until, among other things, the premium has been agreed. Therefore, to ensure the ongoing viability of the volatility method of dealing, the Market Participants should agree that the calculation of the premium accurately reflects the agreed volatility and market conditions at the time volatility is agreed. If the Markets Participants cannot resolve a dispute through good faith negotiation, the matter should be promptly referred to arbitration by a mutually acceptable third party.

## 5.5 Non-Deliverable Forward (NDF) Market Dealing Practices <sup>105</sup>

**Non-deliverable forwards (NDFs)** refer to forward FX transactions which are cash-settled in a settlement currency based on the differences between the contracted price and settlement price. The contracted and settlement prices will be determined between the counterparties when the deal is entered into.

### 5.5.1 NDF Market Trading Hours <sup>106</sup>

Although market hours generally follow that of the respective local currency markets, NDF markets continue to trade outside these hours when other currency markets are open.

### 5.5.2 Market Disruptions and Unscheduled Holidays <sup>107</sup>

In the event of the occurrence of a market disruption and/or unscheduled holiday, the contractual terms governing the transaction should be followed. It is recommended that Market Participants adopt the standardized Template Terms published by the SFEMC<sup>108</sup>, which detail efficient settlements across the market for NDFs in the event of a disruption in a local market.

For more information on Market Disruptions, see Chapter 7 Handling Market Disruptions of this Study Guide for more details.

<sup>104</sup> Blue Book, Chapter 9, Paras 5.2, 5.3 - Dealing Procedures

<sup>105</sup> Blue Book, Chapter VI, Para 10 - Product Definition

<sup>106</sup> Blue Book, Chapter VI, Para 12 - Trading Hours

<sup>107</sup> Blue Book, Chapter VI, Para 14 - Market Disruption & Unscheduled Holiday

<sup>108</sup> Refer to the SFEMC website for more information (<http://www.sfemc.org/ndf.asp>)

### 5.5.3 Quoting Conventions

#### 5.5.3.1 Quoting as Outright or “Spot + Pips” <sup>109</sup>

Depending on the specific NDF currency, prices may be quoted in the form of “outright forward” or “spot FX and swap pips”. Market Participants should familiarise themselves with the convention for each currency before transacting.

#### 5.5.3.2 Liquidity Swap <sup>110</sup>

A liquidity swap is essentially a forward/forward transaction made up of two NDF transactions. Whilst a NDF liquidity swap transaction usually involves the same name on both maturity dates, transactions involving two different names should be accepted unless stated otherwise before a price is placed or hit.

The setting of the start rate for NDF liquidity swap transactions should be guided by the same principles that are applicable to deliverable FX swap transactions. Please refer to Section 5.4.5 Rate Setting on FX Swaps of this Study Guide for further details.

#### 5.5.3.3 Swap against Fix <sup>111</sup>

Swaps pips against the fix are normally quoted on the day of fixing before the respective fixing time for each NDF currency. Rates are set after the official fixing rate is published and the deal is confirmed like a normal NDF deal. Alternatively, two NDF liquidity swap deals can be booked immediately once the swaps pips against the fix, is agreed between the two counterparties. This is usually the case when the deal is done one (1) day before the fixing day.

### 5.5.4 Articulation of Valuation (Fixing) Dates and Maturity (Settlement) Dates

The mechanics and fair settlement of NDF contracts result in the need for a **valuation date** which is different from the **maturity date**. This is a deviation from the Spot transactions where there is a single Value Date. To avoid misunderstandings and out-trades, Market Participants should be specific about the valuation and maturity dates.

### 5.5.5 Settlement Procedures and Fixing <sup>112</sup>

The difference between the contracted forward exchange rate and prevailing spot exchange rate on the valuation date will be settled in the settlement currency, usually USD on the maturity date. Fixing convention and reference rates used are unique to the different NDF currencies. Market Participants should familiarise themselves with the specific convention before transacting. Where doubts exist, clarification should be sought before transacting.

Market Participants are urged to make clear both the settlement date and fixing dates for deals given the observance of different holidays for the different NDF currencies. Calculation of fixing date from settlement

<sup>109</sup> Blue Book, Chapter VI, Para 17 - Quoting Convention

<sup>110</sup> Blue Book, Chapter VI, Paras 18.1, 18.2 - Liquidity Swap

<sup>111</sup> Blue Book, Chapter VI, Para 19.1 - Swaps Against Fix

<sup>112</sup> Blue Book, Chapter VI, Paras 11.1, 11.2, 11.3 - Settlement Procedure and Fixing, Para 13 - Settlement Dates & Fixing Dates; FX Global Code, Principle 13 - Market Participants should understand how reference prices, including highs and lows, are established in connection with their transactions and/or orders.

date should only use local currency holidays and not settlement currency holidays. In addition, where the fixing is published on Thomson Reuters page ABSFIX01, the fixing date should not be on a Singapore holiday.

#### Example - NDF Valuation and Maturity Dates

On 1<sup>st</sup> Mar, Jack enters into a 3-month USD/KRW NDF with a maturity date of 31<sup>st</sup> May at a rate of 1,100 for USD 10 million, where he is Long USD. The valuation date (or fixing date as some might call it) would be on 29<sup>th</sup> May.

On 29<sup>th</sup> May, Jack and his counterparty refer to the mutually agreed reference rate, in this case usually the rate published by the Bank of Korea at 1000h Korean Time. In the case where the Reference Rate is 1,200, Jack would have made a profit of KRW 1 billion. At the Reference Rate, this converts to USD 833,333.33. On 31<sup>st</sup> May, this USD amount will be credited to Jack's account.

It is good practice to articulate both the maturity date and the valuation date in the deal confirmation, in order to avoid any misunderstandings.

If the reference rates cannot be obtained as specified, Market Participants should use the fall-back mechanism set out in the NDF contract to determine the rate. The SFEMC publishes standard template terms for NDFs (the "Template Terms") for certain Asian currencies. The Template Terms are reviewed and updated periodically and Market Participants should familiarise themselves with the Template Terms accordingly.

When dealing in non-standard NDFs, the parties to the transaction should agree the fixing methodology with proper documentation.

## 5.6 Money Market Dealing Practices

### 5.6.1 Money Market Value Dates <sup>113</sup>

Unless otherwise specified, quotations for all money market transactions are for value spot. Market Participants who wish to trade on a different basis should specify when quoting or asking for a price.

Misunderstandings can arise over the definition of "value date" and "business day", given the observance of different holidays in various financial centres. In quoting prices, Market Participants are therefore strongly urged to make clear to their counterparties the precise dates for settlement of transactions.

### 5.6.2 Interest Rate Options <sup>114</sup>

Interest rate options refers to **interest rate swaptions**, **interest rate caps and floors**, and **bond options**. For all interest rate options transactions, it is assumed that a simultaneous delta hedge would not be entered into unless otherwise clearly stated.

<sup>113</sup> Blue Book, Chapter VIII, Paras 1.1, 1.2 - Value Dates

<sup>114</sup> Blue Book, Chapter IX, Para 6.1 - Product Description; Para 7.2 - Dealing Procedures

## 5.7 Debt Securities Market Dealing Practices

### 5.7.1 Debt Securities Value Dates, Settlement Date Convention and Holiday Convention <sup>115</sup>

Misunderstandings can arise over the definition of “value date” and “business day”, given the observance of different holidays in various financial centres. In quoting prices, Market Participants are therefore strongly urged to make clear to their counterparties the precise dates for settlement of transactions.

### 5.7.2 Price Quotations <sup>116</sup>

Prices are usually quoted “clean” i.e. excluding accrued interest. Prices can be quoted as fractions (e.g. 1/32) or in cents. Representatives should be aware of what is applicable for the instrument they are trading.

### 5.7.3 Interest Accrual Basis

There are different interest calculation basis applied to different debt securities. For example, some debt securities could calculate monthly interest using the actual number of days in the month divided by the actual number of days in the year (ACT/ACT, 29/365) while others may calculate the same using 30/360.

It is important to know the market convention for the bond being traded.

### 5.7.4 Coupon Period

Some debt securities pay coupon annually while others pay them semi-annually. Representatives should be aware of what is applicable for the instrument they are trading.

### 5.7.5 Clearing System and Settlement Platform <sup>117</sup>

There are different clearing systems and settlement platforms commonly used for different G3 and Asian markets. Market Participants should check if they have the necessary membership or access arrangements prior to trading in a given market to avoid disruptions.

## 5.8 Singapore Government Securities

### 5.8.1 Compliance with Rules for SGS <sup>118</sup>

<sup>115</sup> Blue Book, Chapter VII, Paras 3.1 - Value Dates, Settlement Date Convention and Holiday Convention

<sup>116</sup> Blue Book, Chapter VII, Para 2.1 - Price Quotations

<sup>117</sup> Blue Book, Chapter VII, Para 4 - Clearing System and Settlement Platform

<sup>118</sup> SFR Regulation 48 – Compliance with Rules and Market Practices; MAS Notice on Obligations of Primary Dealers (MAS 761)

A Market Participant that is a CMS Licence Holder, Bank or Merchant Bank, or a person who acts under the “Bond Dealing Exemption”, which could include an IDB licensee, must comply with the rules and market practices of the SGS Market when dealing in SGS. The rules of conduct apply to a Bank or Merchant Bank whose business includes dealing in SGS and which is approved by the MAS to carry out business as a Primary Dealer or Secondary Dealer (hereinafter referred to as “Dealers”).

Primary dealers:

- i. Provide liquidity to the SGS bond and T-bill market by quoting two-way prices under all market conditions;
- ii. Underwrite issuance at SGS bond and T-bill auctions;
- iii. Provide market feedback to the MAS; and
- iv. Assist in the development of the SGS market.

Secondary dealers are approved secondary financial institutions that are in the business of dealing with SGS bonds or T-bills with customers, whether as a principal or agent.

In this regard, the preservation of confidentiality and the maintenance of integrity at all times by a Dealer is essential for the proper conduct of business in the SGS market. A dealer must not, in any circumstances, commit any act that constitutes a breach of confidentiality, e.g. disclosing the name, size of transactions or profits/losses of a customer/counterparty to another dealer or a third party.

All Primary Dealers must:

- i. **Participate in SGS auctions:** The Primary Dealer is required to participate in all SGS auctions. At every SGS auction, the Primary Dealer must apply for at least  $(1/x)$  of the SGS issuance amount, where  $x$  is the number of “Primary Dealers” in the First Schedule to the Government Securities Regulations
- ii. **Engage in Market Making:** The Primary Dealer must provide liquidity in the SGS market by quoting effective two-way prices for every SGS sale and repurchase agreement and every outright SGS purchase or sale transaction, under all market conditions, when requested by another counterparty.

The rules also address issues and procedures relating to customer’s orders, outright transactions, failed trades, SGS auctions, repurchase agreements, interest calculations, and standard yield and price calculations.

### 5.8.2 Guidelines and Directives for Dealing in SGS <sup>119</sup>

In addition to the rules, a Dealer is required to comply with the Guidelines (the “Guidelines”) for licenced Banks whose business includes dealing in government securities issued by the MAS, and Directives issued by the MAS respectively. Where any provision of the Guidelines or Directives (as the case may be) conflicts with any provision set out in the Rules, the former will prevail.

The requirements imposed on licensed Banks under the Guidelines are largely similar to the requirements imposed on Merchant Banks under Directives issued by the MAS. A summary of the requirements is set out below.

<sup>119</sup> MAS Guidelines for Banks whose Business includes Dealing in Government Securities ([http://www.mas.gov.sg/~media/resource/legislation\\_guidelines/banks/guidelines/Guidelines%20for%20Banks%20whose%20Business%20includes%20Dealing%20in%20Government%20Securities.pdf](http://www.mas.gov.sg/~media/resource/legislation_guidelines/banks/guidelines/Guidelines%20for%20Banks%20whose%20Business%20includes%20Dealing%20in%20Government%20Securities.pdf))

**Guideline 1 / Directive 23: Compliance and Approval**

Subject to certain exceptions, a Bank/Merchant Bank should not carry on a business of, or include as part of its business, dealing in government securities whether as a Primary or Secondary Dealer or hold itself out as carrying on such business unless prior approval has been granted by the MAS to that Bank/Merchant Bank.

**Guideline 3 / Directive 25: Conduct of Business**

Unless the Market Committee of the Government securities market considers a particular SGS illiquid, a primary dealer must regularly publish bona fide competitive bid and offer quotations in securities. It must be ready, willing and able to effect transactions at its quoted prices with other persons in respect of those securities in such amounts as stipulated in the Rules.

A primary dealer must, at the request of the MAS, make bid and offer quotations for securities, which shall give effect to the MAS conduct of open market operations through transactions in such securities. Primary dealers should tender for primary issues of securities, provided such dealers prove, to the satisfaction of the MAS, their willingness to tender for a percentage of each primary issue of securities that approximately corresponds to their market share of securities transactions in the secondary market for such securities.

No dealer may represent or imply or knowingly permit to be represented or implied in any manner to any person that its abilities or qualifications have in any respect been approved by the MAS. A statement that a corporation/Merchant Bank has been approved by the MAS as a SGS dealer or as a primary or secondary dealer is not a contravention of this Guideline, provided that the statement is true.

A dealer must in respect of a transaction of securities (but in any event not later than the next business day) send a confirmation note of the transaction to the person, whether with or for whom, the dealer has entered into the transaction.

A dealer must take reasonable precautions against any falsification of books, accounts, documents, or records required to be kept by him, and for facilitating the discovery of any falsification.

A dealer must supply on demand to any customers or any person authorized by the customer copies of contract notes and vouchers and extracts of entries in its books relating to any transaction carried out on behalf of that customer, and shall be entitled to levy a reasonable charge for the service. However, a dealer will not be required to keep copies of contract notes, vouchers and other documents relating to any securities transaction carried out on behalf of a customer, for a period that exceeds six years from the date of the transaction.

A dealer other than one that is also an “Offshore Bank” may enter into repurchase agreements with any persons. A dealer that is also an “Offshore Bank” may enter into repurchase agreements only where (a) the other party to the agreements is a Market Participant; or (b) the other party to the agreements are non-residents and the value of the transaction of each repurchase agreement is not less than SGD 250,000.

A dealer that is an approved Merchant Bank may enter into repurchase agreements only where the other party to the transaction is a Market Participant.

**Guideline 5 / Directive 27: Dealings by Employees of a Dealer**

A dealer must not give unsecured credit to its employee or its employee’s spouse, father, mother, son, daughter, adopted son, adopted daughter, step son, step daughter, sister or brother if (a) the unsecured credit is given for the purpose of enabling or assisting the person to purchase or subscribe for any SGS; or (b) that dealer giving the unsecured credit knows or has reason to believe that the unsecured credit will be used for the purpose of purchasing or subscribing for securities.

**Guideline 6 / Directive 28: Accounts**

A dealer must maintain and keep records that show, in sufficient detail, certain particulars relating to its business of dealing in SGS. The records must also contain copies of acknowledgements of the receipt of securities or of documents of title to securities received by the Dealer from customers for sale or safe custody clearly showing the name or names in which the particular securities are kept.

In addition, a dealer must keep records in sufficient detail to show separately particulars of all SGS transactions by the dealer, with or for the account of (a) Customers of the dealer; (b) The dealer himself; and (c) Employees of the dealer.

**Guideline 7 / Directive 29: Time Stamping**

In relation to each transaction of securities, a dealer must at the time of receipt of each order from its customer, enter immediately onto an order form his customer's order. The order must be dated and time-stamped when received and upon execution or cancellation. The order form shall be in accordance with the format set out in the Rules and Market Practices of Singapore Government Securities.

**Guideline 8 / Directive 31: Trust Accounts**

Guideline 8 sets out the Rules relating to trust accounts kept by dealers. In this regard, dealers must account for all securities or property received from the customer or accruing to the customer in one or more separate trust accounts designated or evidenced as such. The dealer must not co-mingle these securities or property with the securities or property of itself, or use them to guarantee, pledge, hypothecate, charge or mortgage or extend the credit of any customer or person other than the person for whom they are held provided that in no event shall the guarantee, pledge, hypothecation, charge or mortgage of the securities or property of the customer by the dealer exceed the sum owed by the customer to that Dealer.

**Guideline 9 / Directive 30: Information to be furnished by a Dealer**

Subject to certain exceptions, a Dealer must furnish to the MAS at such time and in such manner as the MAS may prescribe by notification or otherwise, such returns and information as the MAS may reasonably require for the proper discharge of its functions.

**Guideline 10 / Directive 32: Exempt Bank Government Securities Dealer / Exempt Merchant Bank Government Securities Dealer.**

Subject to certain conditions, an exempt bank government securities dealer (which is not a primary or secondary dealer) may, without approval from the MAS, carry on or include as part of its business dealing in government securities for its own account with an exempt Market Participant or for the account of an exempt Market Participant.

Subject to certain conditions, an exempt merchant bank government securities dealer may, without approval from the MAS, carry on or include as part of its business dealing in Government securities solely for its own account with an exempt Market Participant.

Guideline 10 and Directive 32 also set out further requirements that must be complied by an exempt bank government securities dealer and an exempt merchant bank government securities dealer respectively.

### 5.8.3 Trading Hours <sup>120</sup>

#### 5.8.3.1 Regular Trades

The normal business hours for regular trades (next business day settlement) are 0900h to 1630h from Mondays to Fridays.

#### 5.8.3.2 Cash Trades

The normal business hours for cash trades (same day settlement) are 0900h to 1530h from Mondays to Fridays.

### 5.8.4 Price Quotations

Government bonds/notes are traded on a price basis but settled on a price "plus accrued" basis. Prices are to be quoted in multiples of 0.01 for all transactions.

For "when issued" trading on or prior to the auction date, quotations are on a yield basis specified to two decimal places. The prices, based on the transacted yields, are to be expressed to three decimal places. Similarly, for new issues sold at auctions, bidding for competitive tenders is on a yield basis with bids specified to two decimal places. The prices, based on the successful yield bids, are to be expressed to three decimal places.

Treasury bills are quoted on a rate of discount basis, in percentage terms, expressed to two decimal places. The resultant prices are to be expressed to three decimal places.

### 5.8.5 "Market Lot" Transactions

The standard "market lot" transaction between dealers shall be SGD 5 million for current and 'off-the-run' Government notes/bonds and Treasury bills.

### 5.8.6 Securities Borrowing and Lending <sup>121</sup>

The "Rules and Market Practices of the Singapore Government Securities Market" do not allow short positions to be held.

A short position would result in a failure to deliver the SGS on the value date of the trade. If the party holding the short position (the short seller) still does not deliver the SGS by 1600h on the business day following the original value date, a 'buy-in' notice will be delivered to the short seller at 0915h on the second business day following the original value date.

At 1015h on the second business day following the original value date, acting as the buy-in agent, the MAS will proceed to buy SGS to cover the short position on behalf of the short seller. The MAS shall have the discretion to vary the bid or hit the offers, until the order is done.

In order to avoid buy-in, short sellers will need to borrow SGS from other parties to fulfil their delivery obligations on the value date of the trade.

<sup>120</sup> Rules and Market Practices of the Singapore Government Securities Market  
(<http://www.sgs.gov.sg/~media/SGS/SGSRulesMktPractices.pdf>)

<sup>121</sup> SFR Regulation 45 – Securities borrowing and lending; SFR Regulation 33 – Lending of customer's securities

Short sellers incentivize parties holding SGS to lend their SGS by offering interest payments.

Where a Market Participant engages in borrowing or lending of securities to a customer, a written agreement should be put in place, setting out the terms and conditions of the borrowing or lending. Before the commencement of such lending, the Market Participant should:

- i. Enter into a written agreement with the customer setting out the terms for the lending; or
- ii. If the Market Participant arranges with a custodian to lend the customer's securities, enter into an agreement with the custodian to set out the terms for the lending and disclose these terms to the customer.

The agreement must:

- a. State the capacities in which the parties are entering into the agreement (whether as principal or agent);
- b. Provide for the transfer of the title to and interest in the securities lent and collateral pledged, from the lender to the borrower;
- c. Detail the treatment of dividend payments, voting and other rights and arrangements for dealing with any corporate action;
- d. Provide for the procedure for calculating the lending or borrowing fees;
- e. Include the requirement to mark to market on every business day the securities lent or borrowed, and any securities pledged as collateral, and the procedures for calculating the margins;
- f. Provide for the procedures for the request for the return of the securities lent, and the arrangements for dealing with the situation where such securities cannot be delivered by borrower;
- g. Provide for the termination of the agreement by any party to the agreement, including any early termination fees;
- h. State whether there is any right of set-off of claims;
- i. Detail the events of default and the rights and obligations of the parties in such events;
- j. Provide for the law governing the agreement and the jurisdiction to which it is subject.

The securities borrowing and lending transactions must be fully collateralized. The acceptable forms of collateral include cash, government securities, marginable securities and letters of credits. However, when a Market Participant borrows securities from a person who is an accredited investor, it is not required to provide collateral to the accredited investor.

When the "securities" being lent by a Market Participant belong to its customer, employees acting on behalf of the Market Participant must:

- I. Explain the risks involved in the transaction to the customer whose securities are to be lent (unless the customer is an "accredited investor").
- II. Obtain the customer's (including an accredited investor's) written consent to the lending.

## 5.9 Restrictions against Lending of Singapore Dollar (SGD) <sup>122</sup>

Certain Market Participants that are licensed financial institutions, such as banks, merchant banks or CMS Licence holders are subject to restrictions against the lending of SGD. These restrictions imposed by the MAS limit the lending of SGD by such licensed Market Participants to non-resident financial institutions in order to prevent excessive speculation in the SGD currency market. These restrictions do not apply to the lending of SGD to individuals and non-financial institutions (including corporate treasury centres).

A licensed Market Participant may lend SGD to non-resident financial institutions for any purpose whether in Singapore or elsewhere as long as the aggregate SGD credit facilities do not exceed SGD 5 million per borrower. “Financial institutions” for this purpose are entities whose main business is in financial services, including one or more of the following:

- i. Banking;
- ii. Merchant banking;
- iii. Investment banking;
- iv. Financing;
- v. Insurance;
- vi. Securities dealing;
- vii. Asset / fund management (including hedge funds); and
- viii. Money, futures, and prime brokering.

Financial institutions are regarded as being “non-resident” if they are entities other than:

- a. Companies that are at least 50% owned by Singapore citizens;
- b. Banks licensed under the Banking Act;
- c. Merchant Banks approved under Section 28 of the Monetary Authority of Singapore Act;
- d. Finance companies licensed under the Finance Companies Act;
- e. Registered insurers (other than a captive insurer) under the Insurance Act; or
- f. CMS Licence Holders for “dealing in securities” licensed under the SFA.

“SGD credit facilities” include loans, contingent credit lines, and foreign exchange swaps involving a sale of SGD to a non-resident financial institution in the first leg of the transaction.

### Example - Lending SGD via a FX Swap

A dealer in Singapore, enters into a FX Swap with a British Bank branch in the US, where the British Bank:

1. Sells USD 10,000,000, Buys SGD, at 1.3500 Value Spot
2. Buys USD 10,000,000, Sells SGD, at 1.3450 Value 13Oct

This would be considered a breach of the regulations, since the Spot leg of the transaction essentially results in the dealer lending SGD to the British Bank till 13<sup>th</sup> October.

For amounts exceeding SGD 5 million per borrower, the following conditions apply:

<sup>122</sup> MAS Notice on Lending of Singapore Dollar to Non-Resident Market Participant (MAS 757) for Banks; MAS Notice on Lending of Singapore Dollar to Non-Resident Market Participant (MAS 1105) for Merchant Banks; MAS Notice on Lending of Singapore Dollar to Non-Resident Market Participant for Capital Markets Services Licence (SFA 04-N04).

- I. Where the Singapore Dollar proceeds are to be used outside Singapore, licensed Market Participants must ensure that the Singapore Dollar proceeds are swapped or converted into foreign currency upon draw-down;
- II. Notwithstanding paragraph (I), licensed Market Participants may extend temporary Singapore Dollar overdrafts of any amount to vostro accounts of non-resident financial institutions for the purpose of preventing settlement failures. However, licensed Market Participants must take reasonable steps to ensure that the overdrafts are covered within 2 business days; and
- III. Notwithstanding paragraphs (I) and (II) above, licensed Market Participants must not extend Singapore Dollar credit facilities to non-resident financial institutions if there is reason to believe that the Singapore Dollar proceeds may be used for Singapore Dollar currency speculation.

A licensed Market Participant may arrange Singapore Dollar equity or bond issues for non-resident financial institutions. If the Singapore Dollar proceeds are to be used outside Singapore, they must be swapped or converted into foreign currency before remitting abroad. A licensed Market Participant is required to report to the MAS its aggregate outstanding Singapore Dollar lending to non-resident financial institutions every month.

## 5.10 Specific Execution Requirements for Certain Market Participants

This section deals with requirements specific to the roles of Inter-dealer brokers (IDB), Prime Brokers and E-Trading Platform providers.

Candidates who operate in roles or are employed by IDBs, Prime Brokers and E-Trading Platform Providers must familiarise themselves with the requirements pertaining to their roles. However all candidates should be familiar with the requirements so that they know what to expect of these specific roles, when dealing with them.

### 5.10.1 Inter-Dealer Brokers

Inter-dealer brokers (IDBs) provide order matching services to other Market Participants. Orders could be matched manually, electronically or a combination of both. IDBs should meet the same standards as those expected of Market Participants acting as Agents with regards to customer orders, as described in Section 5.1.6 Handling Customers Orders of this Study Guide.

IDBs may execute customer orders through e-trading platforms. If so, they should observe the same standards expected of e-trading platform providers detailed in Section 5.10.3 E-Trading Platform Providers of this Study Guide.

The following are additional specific execution requirements for IDBs who handle customer orders.

#### **5.10.1.1 Cancellation of Remaining Side** <sup>123</sup>

If a Market Participant has interest on one side of a two-way price and the other side is dealt away by other parties, the IDB should automatically put the price “under reference”. The IDB should then check with the Market Participant to ascertain the latter’s original interest.

<sup>123</sup> Blue Book, Chapter 3, Para 2.3 - Price/Rate Quotations

**5.10.1.2 Deal Sizes Less Than Minimum Dealing Amounts**

Unless otherwise provided for in any applicable contractual agreement with an IDB, Market Participants should specify to the IDB where a deal for less than the minimum dealing amount is involved.

**5.10.1.3 Explicit Articulation of Conditional Orders** <sup>124</sup>

When Market Participants place orders with special conditions attached, IDBs must accurately relay the said conditions. A common example of such conditional orders would be “All-or-None” orders.

**5.10.1.4 Name Disclosures for Money Market Transactions** <sup>125</sup>

IDBs should not reveal names prematurely. IDBs should reveal the names of their principals/counterparties only after the material terms of the transaction have been agreed, including the agreed level and volume.

A lender is considered committed to do business at the price quoted, subject to credit approval, when the lender asks the key question “who pays”.

When a potential lender asks, “who pays”, the IDB is to provide one name at a time. IDBs should avoid putting up more than one name when asked the question “who pays”. Only after the lender has finished his business with one borrower and intends to check another name may another name be shown.

When a borrower’s name provided by an IDB is unacceptable to the lender, especially when it is a borrower taking on the offer of a lender, the borrower may sometimes question the existence of a lender at the price quoted by the IDB. In this instance, the IDB should obtain approval from the lender that the lender’s name be disclosed to the borrower. The lender is encouraged to accede to the request. In exceptional circumstances where the lender disagrees, the IDB may seek the assistance of the Secretary of the SFEMC to facilitate in the process of verifying the authenticity of the price quoted and inform the borrower of the outcome of the process.

**5.10.1.5 Clearing of Counterparty’s Name for Money Market Transactions** <sup>126</sup>

Clearing of the borrower’s name by a lender should be done within a reasonable period of time. Where a reply is not forthcoming, the IDB is to enquire with the lender of the outcome. Where, in spite of this, there is still no definite answer, the IDB is allowed to take the order off or cancel the deal.

It is generally accepted that a borrower has the right to decline the name of the lender after the name is passed. This could be due to concerns over the lenders identity or source of funds, with regards to know-your-customer and anti-money laundering concerns. Such rejections should have either verbal or written confirmation from a senior representative of the borrower.

Where a Market Participant cannot deal with another Market Participant on grounds of credit limit, this information should be given to the IDB at an early stage of negotiations.

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<sup>124</sup> Blue Book, Chapter 3, Para 2.4 - Price/Rate Quotations

<sup>125</sup> Blue Book, Chapter 1, Para 2.5 – Confidentiality; Blue Book, Chapter 8, Paras 2.1, 2.2, 2.3 - Name Disclosure

<sup>126</sup> Blue Book, Chapter 6, Para 8.3 - Rate Setting on Foreign Exchange Swaps; Blue Book, Chapter 8, Paras 3.1, 3.2 - Closing Deals

**5.10.1.6 Name Switching** <sup>127</sup>

After closing a deal, a lender may discover that it has exceeded the limits to a borrower. The Chief Dealer of the lender should immediately, upon discovery of the excess, advise both the IDB and the borrower of the oversight. The borrower should not insist on the original lender as the counterparty if another acceptable lender can be found. Both the original lender and IDB should endeavour to find a third party to take over the transaction. Any cost incurred should be borne by the original lender. If no alternative lender can be found, the original deal should stand.

If a Market Participant is unable to trade, in whole or in part, with a counterparty due to credit reasons, the IDB and Market Participant may agree to allow the IDB to go “choice” for a reasonable period of time. A “name switch” may also be allowed in such situations. In these situations, the IDB cannot be held liable for any amount by either party. IDBs should exercise care that lending rates are different for different classes of counterparties.

If a Market Participant does not have sufficient limits to accommodate the counterparty’s full amount, but is trying to raise limits, the Market Participant should indicate the minimum amount that can be done. If raising limits takes too long in a fast-moving market, the IDB cannot be held liable for the balance if the counterparty has executed the balance elsewhere.

IDBs should only employ name switching where there is insufficient credit between parties to the transaction.

IDBs that undertake name switching should:

- i. Have proper controls and appropriately monitor such transactions;
- ii. Have proper approvals;
- iii. Execute, and book, such transactions as promptly as possible, consistent with the appropriate protection of related confidential information; and
- iv. Maintain proper records of such activity.

A dealer should not solicit or accept favours from an IDB for switching names.

**5.10.1.7 Deal Confirmation** <sup>128</sup>

IDBs should confirm all transactions in writing to both counterparties immediately. Where after a transaction, an IDB fails to send a confirmation and the principal misses out the deal entirely, liability for any financial losses should be shared equally.

Trades arranged via an IDB should be confirmed directly between both parties to the transaction. Market Participants should receive an affirmation from the IDB to assist in accurately booking trades.

**5.10.1.8 IDBs Taking Positions** <sup>129</sup>


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<sup>127</sup> Principles covered:

- Blue Book, Chapter 6, Paras 6.1, 6.3, 16.1 – 16.3, - Handling Credit Issues; Blue Book, Chapter 8, Paras 3.3, 3.5, 3.6 - Closing Deals;  
 - FX Global Code, Principle 16 - Market Participants acting as Voice Brokers should only employ name switching where there is insufficient credit between parties to the transaction.

<sup>128</sup> Blue Book, Chapter 4, Para 2.3 - Confirmation Procedure; FX Global Code, Principle 46 – Market Participants should confirm trades as soon as practicable, and in a secure and efficient manner.

<sup>129</sup> Blue Book, Chapter 3, Para 5.1 - Broker Positions

An IDB should not engage, however temporarily, in taking positions by closing a deal without first having a principal to substantiate the price and assume a deal. An IDB should not quote a price, which it represents to be firm but which is not substantiated by a principal.

#### **5.10.1.9 Stuffing IDBs** <sup>130</sup>

Where an IDB quotes a firm price to a principal, the principal is entitled to hold him to that price. Market Participants are however prohibited from holding an IDB to a price, where the IDB is unable to substantiate a firm quote, provided that the IDB immediately informs the Market Participant of the fact, and gives a good reason for the inability to substantiate a firm quote.

If holding an IDB to a price (also known as “stuffing”) is deemed justifiable in accordance with the above paragraph, the management of the Market Participant and IDB should be informed.

Market Participants should not insist that the deal be contracted at the original rate or with the counterparty originally proposed by the IDB, but should accept a cheque in settlement of the difference. In the absence of prior arrangements, differences are payable on spot date.

The IDB should close the deal at the next available price and settle the difference by sending a cheque for the amount to its principal setting out the details of the deal.

Settlement by any other means where accountability and transparency is impaired should be avoided. It is recommended that such settlements be clearly documented by both the IDB and the Market Participant.

#### **5.10.1.10 Brokerage** <sup>131</sup>

Brokerage is subject to negotiation between IDBs and Market Participants. Such charges should be agreed upon by appropriate representatives of each side in writing. Revisions should follow the same procedure.

Brokerage agreements between IDBs and Market Participants should be reviewed and executed on a timely basis. While the settlement of brokerage charges is a commercial matter between a Market Participant and its IDB, it is recommended that such settlements should not be delayed on account of isolated disputed transactions. It is recommended that undisputed amounts should be settled expeditiously.

Market Participants should reconcile brokerage bills against their internal records promptly. Market Participants that identify discrepancies in their brokerage bills should investigate and promptly inform their IDB. Market Participants and IDBs should promptly resolve such discrepancies with the aim to settle the brokerage bill as soon as practicable.

### **5.10.2 Prime Brokers**

Prime Brokers provide services that facilitate complex trading strategies, such as providing market access and by coordinating the borrowing of cash and securities for and amongst its customers, thus enabling them to invest on a netted basis.

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<sup>130</sup> Blue Book, Chapter 3, Paras 5.2, 5.3 - Broker Positions

<sup>131</sup> Blue Book, Chapter 3, Paras 14.1 - 14.4 - Brokerage

**5.10.2.1 Real-Time Controls <sup>132</sup>**

Prime Brokers should strive to monitor and control trading permissions and credit provision in real-time at all stages of transactions in a manner consistent with the profile of their activity in the market to reduce risk to all parties.

Prime Brokers should strive to develop and/or implement robust control systems that include the timely allocation, monitoring, amendment, and/or termination of credit limits and permissions and adequately manage associated risks.

- i. Prime brokerage customers should strive for real-time monitoring of their available lines and permitted transaction types and tenors so that only trades within permitted parameters are executed;
- ii. Executing dealers should strive for real-time monitoring of designation limits to validate trade requests prior to execution; and
- iii. Prime Brokers should have systems reasonably designed to monitor trading activity and applicable limits upon receiving give-up trades.

**5.10.2.2 Customer Orders, Positions and Limits**

Prime Brokers should be in a position to accept trades in accordance with terms and conditions within prime brokerage agreements and designation notices. Prime Brokers should have policies and procedures reasonably designed to address limit breach exceptions, limit changes, amendments, and novation.

**5.10.2.3 Confidential Information**

Market Participants acting as Prime Brokers should additionally have appropriate levels of separation between their prime brokerage business and their other sales and trading businesses. To avoid any potential conflict of interest, a Prime Broker should have appropriate information barriers in place. Prime Brokers should be transparent as to the standards they require and adopt.

**5.10.2.4 Resolving Trade Discrepancies <sup>133</sup>**

Market Participants acting as Prime Brokers play a unique role in assuming the credit risk of authorized trades executed by their prime brokerage customers. Where the customer identity is known, prime brokerage customers and executing dealers are responsible for resolving trade discrepancies to achieve timely amendments and matching of trade terms through the Prime Broker.

When anonymous market access is provided, the access provider should assist in the resolution of trade discrepancies.

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<sup>132</sup> FX Global Code, Principle 41 – Prime Brokerage Participants should strive to monitor and control trading permissions and credit provision in Real Time at all stages of transactions in a manner consistent with the profile of their activity in the market to reduce risk to all parties.

<sup>133</sup> FX Global Code, Principle 15 – Market Participants should identify and resolve trade discrepancies as soon as practicable to contribute to a well-functioning FX Market.

**5.10.2.5 Frameworks for Credit Intermediation and Providing Market Access** <sup>134</sup>

Prime Brokers who provide credit intermediation and/or market access to other Market Participants should have a risk management and compliance framework that takes this activity into account. Prime Brokers are encouraged to engage in ongoing dialogue with those for whom they are providing credit intermediation and/or access to the market to underscore expectations regarding appropriate behaviour in the market.

**5.10.3 E-Trading Platform Providers** <sup>135</sup>

Market Participants providing E-Trading Platforms and services (termed “E-Trading Platform Providers”) should:

- i. Make their rules transparent to users;
- ii. Clearly inform users of any requirements or restrictions that may apply to the use of the electronic prices;
- iii. Make evident the point at which market risk transfers;
- iv. Ensure appropriate disclosure regarding subscription services offered and their associated benefits, including market data, thus allowing customers the opportunity to choose among the services they are eligible for.

**5.10.3.1 Frameworks for Credit Intermediation and Providing Market Access** <sup>136</sup>

E-Trading Platform Providers who provide credit intermediation and/or market access to other Market Participants should have a risk management and compliance Framework that takes this activity into account. E-Trading Platform Providers are encouraged to engage in ongoing dialogue with those for whom they are providing credit intermediation and/or access to the market to underscore expectations regarding appropriate behaviour in the market.

**5.10.3.2 Last Look** <sup>137</sup>

E-Trading Platform Providers employing “last look” should be transparent regarding its use and provide appropriate disclosures to customers.

Last look is a practice utilised in electronic trading activities whereby a Market Participant receiving a trade request has a final opportunity to accept or reject the request against its quoted price. Market Participants receiving trade requests that utilise the last look window should have in place governance and controls around its design and use, consistent with disclosed terms. This may include appropriate management and compliance oversight.

<sup>134</sup> FX Global Code, Principle 2 – Market Participants should maintain an appropriate risk management framework with systems and internal controls to identify and manage the FX risks they face. FX Global Code, Principle 26 – Market Participants should maintain an appropriate risk management framework with systems and internal controls to identify and manage the FX risks they face.

<sup>135</sup> FX Global Code, Principle 9 – Market Participants should handle orders fairly and with transparency in line with the capacities in which they act.

<sup>136</sup> FX Global Code, Principle 26 – Market Participants should maintain an appropriate risk management framework with systems and internal controls to identify and manage the FX risks they face.

<sup>137</sup> FX Global Code, Principle 17 – Market Participants employing last look should be transparent regarding its use and provide appropriate disclosures to clients.

An E-Trading Platform Provider should be transparent regarding its last look practices in order for the customer to understand and to be able to make an informed decision as to the manner in which last look is applied to their trading. The E-Trading Platform Provider should disclose, at a minimum, explanations regarding whether, and if so how, changes to price in either direction may impact the decision to accept or reject the trade, the expected or typical period of time for making that decision, and more broadly the purpose for using last look.

If utilised, last look should be a risk control mechanism used in order to verify validity and/or price. The validity check should be intended to confirm that the transaction details contained in the request to trade are appropriate from an operational perspective and there is sufficient available credit to enter into the transaction contemplated by the trade request. The price check should be intended to confirm whether the price at which the trade request was made remains consistent with the current price that would be available to the customer.

In the context of last look, the Market Participant has sole discretion, based upon the validity and price check processes, over whether the customer's trade request is accepted or not, leaving the customer with potential market risk in the event the trade request is not accepted. Accordingly:

- i. Last look should not be used for purposes of information gathering with no intention to accept the customer's request to trade; and
- ii. Confidential Information arises at the point the Market Participant receives a trade request at the start of the last look window, and use of such confidential information should be consistent with the guidelines presented in Section 3.3 Disclosure of Confidential Information of this Study Guide.

During the last look window, trading activity that utilises the information from the customer's trade request, including any related hedging activity, is likely inconsistent with good market practice because it may signal to other Market Participants the customer's trading intent, skewing market prices against the customer, which is not likely to benefit the customer, and in the event that the Market Participant rejects the customer's request to trade, constitutes use of confidential information in a manner not specified by the customer.

#### **5.10.3.3 Disclosure of Execution and Matching Algorithms** <sup>138</sup>

E-Trading Platform Providers should engage in regular dialogue with their customers on how their trade requests are handled, and how information associated with those orders should be treated. The dialogue should include metrics that improve transparency about the pricing and execution of the customer's trade requests, so that customers can assess whether the execution methodology meets their needs over time.

#### **5.10.3.4 Algorithm and Aggregation Services** <sup>139</sup>

E-Trading Platform Provider may provide customers with other services including:

- i. Algorithmic trading services that use computer programmes applying algorithms to determine various aspects, including price and quantity of orders;
- ii. Aggregation services, which consolidate quotes from different liquidity providers, thus giving a tighter spread and deeper liquidity; and

<sup>138</sup> FX Global Code, Principle 18 – Market Participants providing algorithmic trading or aggregation services to Clients should provide adequate disclosure regarding how they operate.

<sup>139</sup> FX Global Code, Principle 18 - Market Participants providing algorithmic trading or aggregation services to Clients should provide adequate disclosure regarding how they operate.

- iii. Services that provide access to multiple liquidity sources or execution venues, which may include order routing to those liquidity sources or venues.

When providing algorithmic trading services or aggregation services, E-Trading Platform Providers should be mindful of circumstances that could rise to conflicts of interest. E-Trading Platform Providers should also be transparent and perform their services in the same manner disclosed to their customers. E-Trading Platform Providers should make the following disclosures about how they operate:

- i. A clear description of the algorithmic execution strategy or the aggregation strategy, along with sufficient information to enable the customer to evaluate the performance of the service, in a manner that is consistent with appropriate confidentiality requirements;
- ii. Whether the E-Trading Platform Provider could execute as principal;
- iii. The fees charged for the provision of their services;
- iv. In the case of algorithmic trading services, general information regarding how routing preferences may be determined; and
- v. Information on the sources of liquidity to which access may be provided, for aggregation services providers.

Customers that use aggregation services should understand the parameters that will define the prices displayed by the aggregation service. Market Participants should be aware of operational situations within their organisation that could give rise to similar conflicts of interest.

# Chapter 6: Confirmation and Settlement

## Learning Objectives

Candidate should be able to:

- ✓ Recognise the importance of the Back Office function.
- ✓ Discuss appropriate confirmation and settlement systems and frameworks.
- ✓ Describe procedures to confirm and settle transactions in an efficiently predictable, smooth and timely manner.
- ✓ Describe the risk-mitigating post-trade processes.

## 6.1 Confirmation and Settlement Systems and Frameworks <sup>140</sup>

Robust confirmation and settlement frameworks reduce the impacts of erroneous transactions (commonly called out-trades), and settlement risk. Market Participants must ensure that their adopted policies and frameworks are clearly documented and diligently implemented into their daily operations.

Confirmations should be transmitted in a secure manner whenever possible, and electronic and automated confirmations are encouraged. When available, standardized message types and industry-agreed templates should be used to confirm transactions.

The International Swaps and Derivatives Association (“ISDA”) is the global trade association representing leading participants in the privately negotiated derivatives industry, a business that includes interest rate, currency, commodity and equity swaps, as well as related products.

The ISDA Master Agreement documents detailed terms and conditions binding derivative transactions executed between parties. With an ISDA Master Agreement, the non-defaulting party has the right to close-out and net all transactions covered by the Master Agreement in the event of a counterparty default to reduce its counterparty credit risk on derivative transactions. The ISDA Master Agreement also facilitates cross-border netting, minimising settlement risk on derivative transactions.

The ISDA Master Agreement states the full spectrum of terms, conditions, provisions, and definitions clearly. It is a legal enforceable document and can help Market Participants to reduce the cost of negotiating legal and credit terms on a transaction by transaction basis.

<sup>140</sup> FX Global Code, Principle 46 - Market Participants should confirm trades as soon as practicable, and in a secure and efficient manner. FX Global Code, Principle 42 – “Market Participants should establish consistency between their operating practices, their documentation, and their policies for managing credit and legal risk”.

The core documents that make up the ISDA Master Agreement are the “Master Agreement”, “Schedule” and definitional booklets. Each transaction under the agreement is then supported by a confirmation that incorporates the relevant definitional booklets. Optional documents include the Credit Support Annex and Credit Support Deed.

### 6.1.1 Monitoring and Management of Processing Capacity <sup>141</sup>

Market Participants should institute a robust framework for monitoring and managing capacity in both normal and peak conditions. At a minimum, Market Participants should have sufficient technical and operational capability to support end-to-end trade processing in both normal and peak market conditions without undue impact on the processing timeline.

Market Participants should have defined mechanisms in place to respond to extreme changes in demand, as required and on a timely basis. Furthermore, clearly defined and documented capacity and performance management processes should be in place and reviewed regularly, including with external vendors.

### 6.1.2 Straight-through-Processing (STP) <sup>142</sup>

Market Participants are encouraged to implement straight-through automatic transmission of trade data from their front office systems to their operations systems.

Such transfer of trade data should be facilitated by means of secure interfaces where the transmitted trade data cannot be changed or deleted during transmission. When trade data cannot be transmitted automatically from the front office to the operations system, adequate controls should be in place so that trade data are captured completely and accurately in the operations system.

### 6.1.3 Data Integrity <sup>143</sup>

Open communication methods such as e-mail can significantly increase the risk of fraudulent correspondence or disclosure of Confidential Information to unauthorized parties. If confirmations are communicated via open communication methods, those methods should comply with information security standards.

If Market Participants bilaterally choose to match trades using front-end electronic dealing platforms in place of exchanging traditional confirmation messages, the exchange of trade data should be automated and flow straight-through from the front-end system to operations systems. Strict controls should be in place so that the flow of data between the two systems is not changed and that data are not deleted or manually amended.

<sup>141</sup> FX Global Code, Principle 43 - Market Participants should institute a robust framework for monitoring and managing capacity in both normal and peak conditions.

<sup>142</sup> FX Global Code, Principle 44 - Market Participants are encouraged to implement straight-through automatic transmission of trade data from their front office systems to their operations systems

<sup>143</sup> FX Global Code, Principle 46 - Market Participants should confirm trades as soon as practicable, and in a secure and efficient manner; FX Global Code, Principle 23 - Market Participants should provide personnel with clear guidance on approved modes and channels of Communication.

## 6.2 Confirmation Procedures

Immediately after a transaction is concluded, amended or cancelled, Representatives of both counterparties must also confirm and verify key details of the transaction such as direction, quantity, instrument, price, and value date of the transactions. The use of confirmation templates provided in the ISDA, with its format and terminology, is encouraged to ensure consistency and reduce the risk of misunderstandings.

It is not unusual to exchange payment instructions as well. The practice of deal confirmation helps to detect discrepancies immediately after the transaction, when market prices would likely not have moved significantly.

### 6.2.1 Deal Confirmations by Segregated Functions <sup>144</sup>

Market Participants should implement operating practices that segregate responsibility for trade confirmation from trade execution. A separate confirmation must also be sent by an independent function such as the back office, to confirm all transactions. This is to reduce the possibility of fraudulent transactions being covered up by the Representatives who transacted them.

Processes for novating, amending, or cancelling transactions should be clearly defined, carefully controlled and should provide for the maintenance of appropriate segregation between operations and sales and trading personnel. Reporting on amendments and cancellations should be made available to management in these areas on a regular basis.

### 6.2.2 Confirmations to be Sent As Soon As Practicable <sup>145</sup>

Market Participants should confirm transactions as soon as practicable after execution, amendment, or cancellation of the trades. All transactions should be confirmed in writing (this includes confirmation by electronic means) by both parties and should be addressed to the back office or settlements department of the counterparty.

Confirmations, or contract notes, must be sent no later than the business day following the transaction.

### 6.2.3 Key Data in Trade Confirmations <sup>146</sup>

The format and content of a confirmation will vary according to the product dealt in and reference should be made to any applicable standard terms and conditions published to ascertain the correct content and format for any particular product. All confirmations should include the following information:

- i. The Market Participant's own name
- ii. Date of transaction;

<sup>144</sup> FX Global Code, Principle 46 - Market Participants should confirm trades as soon as practicable, and in a secure and efficient manner; FX Global Code, Principle 45 - Market Participants should conduct any novations, amendments, and/or cancellations of transactions in a carefully controlled manner.

<sup>145</sup> Blue Book, Chapter IV, Para 2.1 - Confirmation Procedure; FX Global Code, Principle 46 -Market Participants should confirm trades as soon as practicable, and in a secure and efficient manner.

<sup>146</sup> Blue Book, Chapter IV, Para 2.2 - Confirmation Procedure; SFR 42

- iii. By which means effected (IDB, phone, dealing system, etc.);
- iv. Name and location of counterparty;
- v. Rate, amount and currency;
- vi. Type and size of deal;
- vii. Trade date, value date, maturity date and all other relevant dates (e.g. exercise date, etc.);
- viii. Commission and other charges incurred;
- ix. Required adjustments to the traded price (e.g. for accrued coupon);
- x. Standard terms/conditions applicable as set out in the relevant Master Agreement; and
- xi. All other important, relevant information.

#### 6.2.4 Confirmations by a Single Party <sup>147</sup>

It is not uncommon in some derivatives markets, and perfectly acceptable if the two parties involved agree, for only one party to the deal (rather than both) to send out a confirmation. But where this is so, it is imperative not only that the recipient checks the confirmation promptly, but that it also in good time responds to the issuer of the confirmation agreeing/querying the terms. It is also essential that the issuer of the confirmation has in place procedures for chasing a response if one is not forthcoming within a reasonable time.

#### 6.2.5 Automatically Generated Confirmations <sup>148</sup>

The use of automated trade confirmation matching systems, when available, is strongly recommended. Provided these are verified in the back office, no additional confirmation need be sent. Any agreements between the parties to use electronic dealing platforms for trade matching rather than exchanging traditional confirmation messages should be documented in the legal agreement between the parties.

#### 6.2.6 Block Transactions <sup>149</sup>

Market Participants should review, affirm, and allocate block transactions as soon as practicable.

Investment managers or others acting as an agent on behalf of multiple sub-parties, may undertake block transactions that are subsequently allocated amongst sub-parties. Each sub-party in a block transaction should be an approved and existing customer of the primary party (e.g. the investment manager) prior to allocation. Each post-allocation transaction should be advised to the sub-parties and confirmed as soon as practicable. This is to reduce the risk of mistakes in aggregation or misallocations.

<sup>147</sup> Blue Book, Chapter IV, Para 2.5 - Confirmation Procedure

<sup>148</sup> Blue Book, Chapter IV, Para 2.6 - Confirmation Procedure

<sup>149</sup> FX Global Code, Principle 47 - Market Participants should review, affirm, and allocate block transactions as soon as practicable.

### 6.2.7 Resolution of Discrepancies <sup>150</sup>

Market Participants should carefully reconcile all alleged trades to identify discrepancies between received confirmations or alleged trades and their own trade records to identify and resolve confirmation and settlement discrepancies as soon as practicable.

If the counterparty confirmation is incorrect, the counterparty should immediately be informed in writing. A new confirmation (or written agreement to a correction) should be requested from and be provided by the counterparty whose original confirmation was incorrect. Market Participants should also inform senders of unknown confirmations that the recipient cannot allocate to any internal trade record.

Escalation procedures should be established to resolve any unconfirmed or disputed terms as a matter of urgency, and processes should be in place to detect and report adverse trends that emerge in the discrepancies. Escalation procedures should also include notification to trading and other relevant internal parties so that they know which counterparties may have practices that do not align with best practices regarding confirmation of trades. Senior management should receive regular information on the number and latency of unconfirmed deals so that they can evaluate the level of operational risk being introduced by maintaining dealing relationships with their counterparties.

### 6.2.8 Confirmation Procedures for Specific Products <sup>151</sup>

Market Participants should be aware of the particular confirmation and processing features specific to life cycle events of each product.

Market Participants should establish clear policies and procedures for the confirmation, exercise, and settlement of all products in which they transact, including those with unique features.

Where applicable, Market Participants should familiarise personnel responsible for operations with the additional terms and conditions associated with various products and the protocols and processes around life cycle events in order to reduce operational risk. Market Participants should also be fully versed in the appropriate terminology, contract provisions, and market practices associated with products.

## 6.3 Settlement Procedures

### 6.3.1 Mitigating Settlement Risk <sup>152</sup>

Market Participants should measure and monitor their settlement risk and seek to mitigate that risk when possible.

<sup>150</sup> Blue Book, Chapter IV, Para 2.4 - Confirmation Procedures; FX Global Code, Principle 48 - Market Participants should identify and resolve confirmation and settlement discrepancies as soon as practicable.

<sup>151</sup> FX Global Code, Principle 49 - Market Participants should be aware of the particular confirmation and processing features specific to life cycle events of each FX.

<sup>152</sup> FX Global Code, Principle 50 - Market Participants should measure and monitor their Settlement Risk and seek to mitigate that risk when possible.

Market Participants should develop timely and accurate methods of quantifying their settlement risk. The management of each area involved in a participant's operations should obtain at least a high-level understanding of the settlement process and the tools that may be used to mitigate settlement risk.

### 6.3.2 Netting Agreements <sup>153</sup>

The netting of FX settlements (including the use of automated settlement netting systems) is encouraged. Where used by Market Participants, a process of settling payments on a net basis should be supported by appropriate bilateral documentation. Such netting may be bilateral or multilateral, see Section 4.9.2.6 Settlement Risk of this Study Guide for more information about Netting Agreements.

The initial confirmation of trades to be netted should be performed as it would be for any other FX transaction. All initial trades should be confirmed before they are included in a netting calculation. In the case of bilateral netting, processes for netting settlement values used by Market Participants should also include a procedure for confirming the bilateral net amounts in each currency at a predetermined cut-off point that has been agreed upon with the relevant counterparty. More broadly, settlement services that reduce settlement risk—including the use of payment-versus-payment settlement mechanisms—should be utilised whenever practicable.

### 6.3.3 Direct Payments <sup>154</sup>

Market Participants should request payments to be made directly to their accounts (also known as “direct payments”), when settling transactions. Third-party payments may significantly increase operational risk and potentially expose all parties involved to money laundering or other fraudulent activity. Market Participants engaging in third-party payments should have clearly formulated policies regarding their use and any such payments should comply with such policies.

At a minimum, these policies should require the payer to be furnished with a clear understanding of the reasons for third-party payments and for risk assessments to be made in respect of anti-money laundering, counter-terrorism financing, and other applicable laws. Arrangements for third-party payments should also be agreed upon and documented between the counterparties prior to trading. In the event a third-party payment is requested after a trade has been executed, the same level of due diligence should be exercised, and relevant compliance and risk approvals should be sought and secured.

## 6.4 Standing Settlement Instructions <sup>155</sup>

Market Participants should utilise standing settlement instructions (“SSIs”). SSIs for all relevant products and currencies should be in place, where practicable, for counterparties with whom a Market Participant has a trading relationship. The responsibility for entering, authenticating, and maintaining SSIs should reside with personnel clearly segregated from a Market Participant's trading and sales personnel and ideally from those operational personnel responsible for trade settlement.

<sup>153</sup> FX Global Code, Principle 50 - Market Participants should measure and monitor their Settlement Risk and seek to mitigate that risk when possible.

<sup>154</sup> FX Global Code, Principle 52 - Market Participants should request Direct Payments

<sup>155</sup> FX Global Code, Principle 51- Market Participants should utilize standing settlement instructions (SSIs)

SSIs should be securely stored and provided to all relevant settlement systems so as to facilitate straight-through processing.

The use of multiple SSIs with the same counterparty for a given product and currency is discouraged. Because of the Settlement Risks it introduces, the use of multiple SSIs with the same counterparty for a given product and currency should have appropriate controls.

SSIs should be set up with a defined start date and captured and amended (including audit trail recording) with the appropriate approvals, such as review by at least two individuals. Counterparties should be notified of changes to SSIs with sufficient time in advance of their implementation. Changes, notifications, and new SSIs should be delivered via an authenticated, and standardized, message type, such as SWIFT MT671, whenever possible.

All transactions should be settled in accordance with the SSIs in force on the value date. Trades that are outstanding at the time SSIs are changed (and have a value date on or after the start date for the new SSIs) should be reconfirmed prior to settlement (either bilaterally or through an authenticated message broadcast). Where SSIs are not available (or existing SSIs are not appropriate to the particular trade), the alternate settlement instructions to be used should be delivered as soon as practicable. These instructions should be exchanged via an authenticated message or other secure means and subsequently verified as part of the trade confirmation process.

## 6.5 Projecting Nostro Balance Requirements <sup>156</sup>

Market Participants should have adequate systems in place to allow them to project, monitor, and manage their intraday and end-of-day funding requirements to reduce potential complications during the settlement process.

Market Participants should have clear procedures outlining how each of their accounts used for the settlement of transactions is to be funded. Whenever possible, those Market Participants with nostro accounts<sup>157</sup> should be projecting the balance of these accounts on a real-time basis, including all trades, cancellations, and amendments for each tenor (value date) so that they can diminish the overdraft risk from the nostro account.

Market Participants should send payment instructions as soon as practicable, taking into consideration time zone differences as well as instruction receipt cut-off times imposed by their correspondents. Market Participants should communicate expected receipts (via standardized message types, when possible) to allow nostro banks to identify and correct payment errors on a timely basis and aid in the formulation of escalation procedures.

Market Participants should communicate with their nostro banks to process the cancellations and amendments of payment instructions. Market Participants should understand when they can unilaterally cancel or amend payment instructions and should negotiate with their nostro banks to make these cut-off times as close as possible to the start of the settlement cycle in the relevant currencies.

### 6.5.1 Singapore Dollar Payments <sup>158</sup>

<sup>156</sup> FX Global Code, Principle 53 – Market Participants should have adequate systems in place to allow them to project, monitor, and manage their intraday and end-of-day funding requirements to reduce potential complications during the settlement process.

<sup>157</sup> A “nostro” account is an account that a financial institution holds in a foreign currency in another bank, e.g. Bank A’s nostro account is its account with Bank B in Bank B’s home currency. For Bank B, that same account is a “vostro” account.

<sup>158</sup> Blue Book, Chapter IV, Para 3.2, 3.3 - Settlement Procedures.

Settlements in Singapore Dollar between banks in Singapore should be made through accounts maintained with the MAS, unless otherwise stated. Singapore Dollar payments are settled on a real-time gross settlement basis, therefore banks are expected to take all necessary steps to prevent a gridlock to the system by making payments promptly and minimising operational errors in settling transactions.

## 6.6 Account Reconciliation <sup>159</sup>

Market Participants should perform timely account reconciliation processes.

Market Participants should conduct a regular reconciliation process to reconcile expected cash flows against actual cash flows on a timely basis. The sooner reconciliations are performed, the sooner a Market Participant can detect missing or erroneous entries and know its true account balances so that it can take appropriate actions to confirm that its accounts are properly funded. Reconciliations should be carried out by personnel who are not involved in processing transactions that would affect the balances of accounts held with correspondent banks.

Full reconciliation should occur across nostro accounts as early as possible. To aid in the full reconciliation of their nostro accounts, Market Participants should be capable of receiving automated feeds of nostro activity statements and implement automated nostro reconciliation systems. Market Participants should also have measures in place to resolve disputes.

Escalation procedures should be in place and initiated to deal with any unreconciled cash flows and/or unsettled trades.

Market Participants should identify settlement discrepancies and submit compensation claims in a timely manner.

Market Participants should establish procedures for detecting non-receipt of payments, late receipt of payments, incorrect amounts, duplicate payments, and stray payments and for notifying appropriate parties of these occurrences. Escalation procedures should be in place for liaising with counterparties that fail to make payments and more broadly for the resolution of any disputes.

Escalation should also be aligned to the commercial risk resulting from failures and disputes. Market Participants that have failed to make a payment on a value date or received a payment in error (for example, a stray payment or duplicate payment) should arrange for proper value to be applied or pay compensation costs in a timely manner.

All instances of non-receipt of payment should be reported immediately to the counterparty's operations and/or trading units. Market Participants should update their settlement exposure with the most recent projected cash flow movements. Market Participants may wish to consider a limited dealing relationship with counterparties that have a history of settlement problems and continue to fail on their payments.

## 6.7 Penalties for Late Payment <sup>160</sup>

Where difference in payment arises because of errors in the payment of funds, Market Participants are reminded that they should not benefit from undue enrichment by retaining the funds. Where a Market

<sup>159</sup> FX Global Code, Principle 54 - Market Participants should perform timely account reconciliation processes; FX Global Code, Principle 55 - Market Participants should identify settlement discrepancies and submit compensation claims in a timely manner.

<sup>160</sup> Blue Book, Chapter IV, Paras 4.1- 4.3 - Penalties for Late Payment.

Participant suffers penalties for overdrawing an account arising from late payment of funds, it is entitled to seek reimbursement from the party responsible for the late payment.

In the case of SGD transactions, late payments should be settled in accordance with Section K2 of the ABS By-laws and Regulations.

# Chapter 7: Handling Market Disruptions

## Learning Objectives

The candidate should be able to:

- ✓ Identify what constitutes a market disruption.
- ✓ Recognise the impact of such disruptions.
- ✓ Discuss the alternative communication channels and procedures for managing trading activity during such disruptions.
- ✓ Recognise the SFEMC roles during market disruptions.
- ✓ Describe the rules of the Central Clearing Party during market disruptions.

## 7.1 Introduction

Market activities can be disrupted by unforeseen events from time to time. In such circumstances, both trading and settlement operations will be adversely affected, impacting the entire market or a significant portion of the trading population. Each disruption event bears its own characteristics whether it is a natural catastrophe, government actions or civil disorders, and so on. Therefore it is not possible to predict the manner which Market Participants should conduct their business. This Chapter outlines some key principles on handling market disruption events.

## 7.2 General Description <sup>161</sup>

Market disruption events refer to circumstances where normal trading or settlement of financial transactions are inhibited or have become impossible or illegal due to governmental actions, natural catastrophes, civil disorders or other causes beyond the control of any individual Market Participant. The exact period of disruption may or may not be determinable.

Market disruptions could be caused by exceptional events such as those outlined below (note that this list is not exhaustive):

- i. **Unscheduled non-business days** - Every country or city has its own schedule of public holidays/non-business days. These are usually announced and gazetted well in advance. However, should unforeseen circumstances such as epidemic outbreaks, serious civil disorder, havoc caused by severe weather or natural

<sup>161</sup> Blue Book, Chapter V, Para 1.1 - General Description

catastrophes, terrorist attacks, and so on arise, the government of a country or city may be forced to declare a non-business day should the country or city be unable to function in a normal mode;

- ii. **Unforeseen market events** - An unforeseen event may trigger a sudden wave of collapse of financial institutions or large corporations, which will affect the stability of financial markets. It may potentially cause events like a liquidity squeeze; a collapse in equity markets; default in payment by debt issuers, etc. Such circumstances may lead to panic among Market Participants. They may be forced to take unusual steps to contain their risk or reduce their market exposure to prevent financial loss.
- iii. **Sudden changes of national practices or policies by the government or central bank** - This refers to situations where the government or central bank makes a sudden and dramatic change of its policy or practice that impacts the normal functioning of the financial markets. For example, during the Asian financial crisis of 1997-1998, the Malaysian authorities decided to unilaterally peg the USD/MYR exchange rate at MYR 3.8000 per USD. This caused significant confusion in the markets, which had until then traded a freely floating USD/MYR.

### 7.3 The Role of the SFEMC <sup>162</sup>

The role of the SFEMC in a market disruption event depends on the nature of the event and the magnitude of its impact on the wholesale financial markets in Singapore. It is generally envisaged that the SFEMC would work closely with Market Participants, related industry bodies both locally and overseas, as well as regulators to minimise uncertainties and impact on trading and settlement operations. In the event of significant market disruptions, the SFEMC will, where appropriate, endeavour to make clear recommendations on appropriate settlement arrangements for affected transactions. All members of the SFEMC agree to adopt such recommendations to the fullest extent possible, taking into consideration all relevant circumstances.

Notwithstanding the above, the SFEMC's role is limited to offering practical recommendations to Market Participants to minimise the risks created by a market disruption event. While it is acknowledged that Market Participants will have to negotiate bilaterally with their counterparties in accordance with any contractual terms agreed to between them to achieve a satisfactory resolution of any affected transactions or obligations, Market Participants are at the same time strongly encouraged to adopt the SFEMC's recommendations.

In the past, the SFEMC has taken the following actions to manage market disruptions:

- i. Convened a meeting of members to discuss issues;
- ii. Developed a proposal on appropriate measures and codes of conduct to manage market disruptions;
- iii. Discussed the proposal with regulators and other relevant Market Participants (e.g. clearing houses, exchanges) to get their consent to implement the proposal;
- iv. Issued statements to get Market Participants to follow the announced measures and codes of conduct to manage market disruptions; and
- v. If market fixing arrangement is required, it will make clear recommendations on procedures to determine the fixing rate and monitor behaviour or actions of Market Participants to ensure that they are in compliance with such recommendations to the fullest extent possible.

<sup>162</sup> Blue Book, Chapter V, 2.1, 2.2 on Role of SFEMC

## 7.4 Communication During Market Disruptions <sup>163</sup>

Market Participants should, to the fullest extent possible, maintain effective communication with their counterparts and other related parties such as settlement agents, clearing platforms, customers and the MAS throughout a market disruption event. This is regardless whether an operation remains in Singapore or has to be relocated elsewhere due to the nature of the market disruption event.

The SFEMC will endeavour to disseminate its recommendations or other information to Market Participants through the most efficient means available, including but not limited to announcements through its website, broadcasts through MASNET or direct telephone contacts with or e-mails to senior management of Market Participants. However, Market Participants are also encouraged to establish contacts with the Secretary of the SFEMC where needed.

## 7.5 Ethical Standards and Conduct During Market Disruptions <sup>164</sup>

Market Participants are expected to uphold the highest standards of professionalism not only under normal market conditions but more so during a crisis.

All negotiations between Market Participants should be carried out in utmost good faith and by persons who are properly authorized by their respective firms. It is deemed bad practice for any Market Participant to withdraw from an agreement on the ground of a representative not having sufficient authority during the negotiation.

Some of the measures that senior management of Market Participants should implement in their organisations include making sure that:

- i. Dealing representatives are not using the disruption to speculate;
- ii. All deals are executed by authorized personnel;
- iii. Dealing representatives honour and conclude trades with prices/rates confirmed with counterparties even though he or she may suffer a loss as markets move against the positions;
- iv. Dealing representatives have applied appropriate measures<sup>165</sup>, such as telephones with voice recorders or using a dealing system (where details of deal are recorded) to execute trades, as this can be used as evidence to resolve any trade disputes; and
- v. Settlement of trades is done in accordance with market best practice/procedures.

## 7.6 Settlement During Market Disruptions <sup>166</sup>

The relevant Master Agreements or other contractual documentation between Market Participants will typically prescribe settlement arrangements to be applied during market disruption events. In general, settlements

<sup>163</sup> Blue Book, Chapter V, Para 3.1, 3.2 - Communication During Disruption

<sup>164</sup> Blue Book, Chapter V, Para 4.1, 4.2 - Ethical Standards

<sup>165</sup> ABS Code of Conduct, Annex 4 – Code of Conduct for Treasury / Fixed Income Securities Business, Principle 4 - Fair Dealings with Customers

<sup>166</sup> Blue Book, Chapter V, Para 5.1 - Settlement During Market Disruption

during market disruption events should therefore always be guided by the relevant contractual obligations laid down by the Master Agreement or other contractual documentation between the parties to transactions.

### 7.6.1 Alternative Settlement Procedures

FX transactions require the settlement of two currencies on the same value date. In the event of one currency's settlement being affected by a market disruption event, the settling parties should, as far as possible, establish a clear understanding of each other's intention before the value date in respect of settlement of the unaffected currency.

Alternative settlement practices and procedures that can be applied include:

- i. The value date, settlement date, maturity date, or fixing date of the trade that falls on this specific date should be adjusted by extending the date to the next business day;
- ii. The value dates in FX transactions may need to be dates where both parties agree or where special local practice allows for split delivery;
- iii. The affected parties should agree to adjust the exchange rate according to the prevailing relevant swap mid-rate;
- iv. Support staff must perform deal confirmations swiftly to avoid any potential dispute with dealing party; or
- v. The settlement department must perform extra due diligence checks, for example, the recommended settlement procedures given by the SFEMC or the MAS, before making payments on affected trades with counterparties.

### 7.6.2 Unilateral Suspensions of Settlements to be Avoided <sup>167</sup>

Unilateral suspension of settlements not only increases credit risks but might also trigger systemic risks, and as such should be avoided.

Market Participants should not perform unilateral suspension of settlements by not fulfilling its settlement obligations to counterparties. If a counterparty fails to receive cash or security on a settlement date, it may in turn be unable to settle another transaction with another party. This failed settlement generates additional credit risk exposure to trade counterparties. The chain effect of a series of failed settlements might also trigger systemic risks. For example, it was the failure of hedge funds to meet some of their settlement obligations that caused the collapse of Lehman Brothers and the chain effect on the U.S. and other global financial markets. Therefore, unilateral suspension of settlements should be avoided.

### 7.6.3 SGD Settlement Disruptions <sup>168</sup>

Where settlements in Singapore Dollar have been disrupted by unforeseen events, Market Participants should follow closely the instructions issued by the MAS.

<sup>167</sup> Blue Book, Chapter V, Para 5.2 - Settlement During Market Disruption

<sup>168</sup> Blue Book, Chapter V, Para 5.3 - Settlement During Market Disruption

## 7.7 Central Counterparty Rules <sup>169</sup>

In an effort to reduce pre-settlement risk, central banks around the world have mandated that long-dated FX forward and interest rate swap OTC transactions be cleared on a central counterparty (“CCP”) or clearing house. This would require both counterparties to place margin deposits with the clearing house, proportionate to their exposures, which can be used to cover unrealised losses in event of default by either counterparty. The concepts are similar to those presented in Section 4.9.2.5 Margin Accounts of this Study Guide.

Market Participants should follow the applicable rules of the relevant CCP in relation to market disruptions as necessary, where transactions have been registered with a CCP for clearing.

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<sup>169</sup> Blue Book, Chapter V, 6.1 on Central Counterparty Rules

# Chapter 8: Benchmark Rate Setting

## Learning Objectives

Candidate should be able to:

- ✓ Explain the role of IOSCO and how it relates to benchmark rate setting in Singapore.
- ✓ Describe the benchmark setting eco-system, including the responsibilities of benchmark administrators, calculation agents, the oversight committee and submitters.
- ✓ Discuss the methodology behind Surveyed and Traded Benchmarks and the requirements pertaining to their inputs and submissions.
- ✓ Demonstrate understanding of the code of conduct required of submitters.
- ✓ Employ best practices for surveyed and traded benchmarks.
- ✓ Recognise prohibited behaviour such as collusion or manipulation of the benchmark rates.

## 8.1 Introduction <sup>170</sup>

FX and interest rate benchmarks are a key component of financial markets. These benchmarks are used for the settlement of contracts, such as NDFs and loans, such as floating rate loans. In recent years, there have been several cases where benchmarks have been manipulated, which go against the fair and transparent principles of the financial markets. To reduce the risk of such manipulation, the MAS has introduced measures to increase accountability and reduce subjectivity in setting benchmarks.

This chapter sets out requirements and best practices for the conduct of benchmark rate setting in Singapore, such as the governance and requirements for surveyed benchmarks (including specific provisions for benchmarks with limited liquidity) and traded benchmarks.

### 8.1.1 Surveyed Benchmarks and Traded Benchmarks

There are 2 types of benchmarks:

- i. **Surveyed Benchmarks** - Submitters contribute benchmark rates, along with documentation substantiating the basis of their contributed rates. These are then collated by the calculation agent and a trimmed mean is published as the benchmark; and

<sup>170</sup> Blue Book, Chapter X, Para 1 – Application.

- ii. **Traded Benchmarks** - Transactions that occur through an IDB, during a specified period during the trading day (the calculation window), are submitted to the calculation agent, who then derives the Volume Weighted Average Price (VWAP) of those transactions. This VWAP is published as the benchmark.

In Singapore, SGD SIBOR (Singapore Interbank Offered Rates) are, in the longer term, subject to survey-based methodology<sup>171</sup>. Surveyed Benchmarks are also required during a transition period to Traded Benchmarks. For other benchmarks, survey-based methodology may be invoked if ISDA market disruption contractual fallbacks are triggered.

### 8.1.2 The Role of the International Organisation of Securities Commissions (IOSCO) and Benchmark Rate Setting

IOSCO publishes the Principles for Financial Market Benchmarks. These provide the overarching framework of principles for benchmarks used in financial markets to enhance the integrity, reliability and oversight of benchmarks.

IOSCO Principles provide guidance on:

- i. **Governance:** Addressing Conflicts of Interest and protecting the integrity of the Benchmark determination process;
- ii. **Benchmark quality:** Improving the integrity and quality of Benchmark determination;
- iii. **Methodology:** Improving the integrity and quality of adopted Methodologies;
- iv. **Accountability:** Establishing complaints processes, documentation requirements and audit reviews.

## 8.2 Parties Involved in the Benchmark Rate Setting Process <sup>172</sup>

The roles and responsibilities of the parties involved in the benchmark rate setting process are discussed below.

### 8.2.1 Oversight Committee

The Oversight Committee comprises of members from financial institutions and independent professionals, and it is responsible for the supervisory oversight of the benchmark rate setting process and the review and challenge of key policies and processes applicable to Surveyed and Traded Benchmarks.

### 8.2.2 Benchmark Administrator

The benchmark administrator is responsible for:

- i. The administration of both surveyed benchmarks and traded benchmarks which includes:
  - a. Appointing participants for all surveyed benchmarks and traded benchmarks, such that the overall composition of participants should reflect adequate and representative market participation;

<sup>171</sup> Refer to the ABS website (<https://abs.org.sg/industry-guidelines/rate-setting-benchmarks>) for more information.

<sup>172</sup> Blue Book, Chapter X, Paras 1.2-1.4 – Application; Para 2 – Governance; Para 3.1-3.2 – Surveyed Benchmarks – Requirements.

- b. Appointing submitters for all surveyed and traded benchmarks. Please refer to Section 8.5 Best Practices for Surveyed and Traded Benchmarks for more information;
- c. Determining and disseminating the benchmarks. This includes timely compilation, publication and distribution of the benchmarks, and ensuring continuity / fall-back arrangements. To this end, the benchmark administrator could appoint a calculation agent. Please refer to Section 8.2.3 Calculation Agent of this Study Guide for more information;
- d. Maintaining appropriate confidentiality in relation to all information received in relation to benchmark contributions to ensure that no market advantage is gained from the inappropriate use of such information;
- ii. The supervision of relevant benchmarks, including the management of all aspects of the benchmark determination process, including maintaining proper oversight of the calculation agent for outsourced processes;
- iii. The maintenance of the overall credibility and supervision of benchmarks, ensuring that benchmarks being administered are representative, reliable and transparent. This is done by establishing the methodology for computing all surveyed benchmarks and traded benchmarks and maintaining adequate documentation for such methodology;
- iv. The execution of relevant processes to derive the benchmarks, including:
  - a. Conducting the process without any actual or perceived influence from any particular Market Participant or group of Participants;
  - b. Collating and compiling data that is required as inputs for the determination of benchmarks within the agreed qualifying window time;
  - c. Applying the appropriate formula to compute the benchmark;
  - d. Distributing the benchmark through a reliable and easily accessible platform to the benchmark users;
  - e. Supporting the continuity of benchmark determination and dissemination process during any disruption;
  - f. Implementing fall-back arrangements when necessary.
- v. Ensuring governance and accountability mechanisms for the benchmark determination process, such as ensuring that IDBs and submitters establish processes for identification and escalation of inappropriate contributions involving designated benchmarks;
- vi. Ensuring the confidentiality of all information received in the course of the administration duties by:
  - a. Ensuring that all information received in relation to benchmark contributions are handled as confidential data and impose restricted access to this information; and
  - b. Ensuring that no market advantage is gained from the inappropriate use of such information.

The benchmark administrator should carry out its duties independently without any actual or perceived influence from any parties. Key personnel responsible for administration cannot be employees of any Market Participant. Such personnel shall have no actual or de facto reporting obligation to a participant or group of participants and ensure that all information received in the course of their administration duties is kept confidential.

The publication of the names of the submitters and their individual submissions for surveyed benchmarks shall be subject to a delay of 90 days. However, individual submissions will remain available to the benchmark administrator and the MAS in real-time for the purpose of supervision and market monitoring.

### 8.2.3 Calculation Agent

The calculation agent is an independent third party appointed by the benchmark administrator to provide technical support relating to the determination and dissemination of the benchmark on behalf of the administrator. The service level agreement between the calculation agent and the benchmark administrator should include obligations relating to confidentiality, data retention, data availability / transparency to the market, ongoing surveillance of submitted rates and annual auditing of the data gathering and calculation process.

The responsibilities of the calculation agent include:

- i. Providing the required platform and technical support for the determination and dissemination of the benchmarks;
- ii. Ensuring timely compilation, publication and distribution of the benchmarks on behalf of the administrator in accordance with the methodology;
- iii. Conducting ongoing surveillance of submitted rates; and
- iv. Conducting annual audits of the integrity of the data gathering and calculation process.

### 8.2.4 Submitter

Submitters refer to IDBs, banks and dealers who are surveyed for computing surveyed benchmarks, as well as any Market Participant whose transactions form the basis for the calculation of a traded benchmark.

The responsibilities of the submitter include:

- i. Maintaining adequate policies to:
  - a. Substantiate benchmark contributions against available objective evidence;
  - b. Mitigate against risk or perception of conflict of interest between the benchmark contribution process and other activity;
  - c. Ensure the integrity of data submitted to the calculation agent; and
- ii. For IDBs, they must provide transaction data for the computation of Traded Benchmarks. Banks must submit transaction data or quotes for Traded or Surveyed Benchmarks respectively.

## 8.3 Market Practices for Benchmark Rate Submissions

For the benchmarks to remain representative of the true market state, the input submissions or trades must be of reasonable basis and give a complete and accurate view of the market. To that end, the following should be observed.

### 8.3.1 Reasonable Basis for Submissions in Surveyed Benchmarks <sup>173</sup>

<sup>173</sup> Variations could result from considering proximity of time to actual transactions, application of interpolation techniques, or changes in credit standing, or exercise of expert judgment in using indirectly relevant data such as proxy asset classes or quotes.

In making a contribution to a surveyed benchmark, a submitter should always have a reasonable basis for being able to trade at that particular rate, and should identify and document which hierarchy that it is relying on. Refer to Section 8.3.3 Specific Provisions for Benchmarks Which May Have Limited Liquidity and Section 8.5 Best Practices for Surveyed and Traded Benchmarks of this Study Guide for details.

For benchmarks that reflect a cost of funding or borrowing, due consideration may be given to the current funding position or transactional pipeline of a particular submitter. Due consideration should also be given to documenting a brief but adequate explanation if the contribution varies from the actual objective data referenced. It is not considered necessary to generate voluminous documentation or justification for choosing to rely on any particular hierarchy, but at a minimum, documentation should be generated that specifies which factor or combination of factors was relied on in making a submission. Any such documentation should be retained for at least 5 years from the date of contribution (or such other period as may be statutorily prescribed for benchmarks).

### 8.3.2 Traded Benchmarks <sup>174</sup>

#### **8.3.2.1 Regular Contact with Benchmark Administrator**

Since traded benchmarks are computed using transaction data, traded benchmarks could be significantly impacted by low liquidity, market volatility and/or market abuse. As such, all IDBs should ensure adequate staffing to maintain regular contact with the benchmark administrator and calculation agent if market conditions are such that it is reasonable to expect an impact on a traded benchmark. This will enable efficient implementation of fall-back or market disruption resolution mechanisms.

#### **8.3.2.2 Maintaining a True View of Transactions**

Submitters who transact knowing (or having reasonable grounds to believe) that a particular transaction may/could be incorporated into a traded benchmark must ensure that any cancellations or amendments are routed through the same IDB through which the original transaction was routed.

#### **8.3.2.3 Handling Customer Fixing Orders** <sup>175</sup>

Market Participants handling a customer's order to transact at a particular fixing rate (Fixing Order):

- i. Should understand the associated risks and be aware of the appropriate procedures;
- ii. Should not, whether by collusion or otherwise, inappropriately share information or attempt to influence the exchange rate;
- iii. Should not intentionally influence the benchmark fixing rate to benefit from the fixing, whether directly or in respect of any customer-related flows at the underlying fixing;
- iv. Should price transactions in a manner that is transparent and is consistent with the risk borne in accepting such transactions; and

<sup>174</sup> Blue Book, Chapter X, Para 4.2-4.3 – Traded Benchmarks - Requirements

<sup>175</sup> FX Global Code, Principle 10 - Market Participants should handle orders fairly, with transparency, and in a manner consistent with the specific considerations relevant to different order types.

- v. Establish and enforce internal guidelines and procedures for collecting and executing fixing orders.

Some indicative examples of acceptable practices include:

- a. Transacting an order over time before, during, or after its fixing calculation window, so long as not to intentionally negatively impact the market price and outcome to the customer; and
- b. Collecting all customer interest and executing the net amount.

Indicative examples of unacceptable practices include:

- I. Buying or selling a larger amount than the customer's interest within seconds of the fixing calculation window with the intent of inflating or deflating the price against the customer;
- II. Buying or selling an amount shortly before a fixing calculation window such that there is an intentionally negative impact on the market price and outcome to the customer;
- III. Showing large interest in the market during the fixing calculation window with the intent of manipulating the fixing price against the customer;
- IV. Informing others of a specific customer dealing at a fixing rate; and
- V. Acting with other Market Participants to inflate or deflate a fixing rate against the interests of a customer.

Finally, Market Participants handling orders that have the potential to have sizable market impact should do so with particular care and attention. For example, there are certain transactions that may be required in the course of business, such as those related to merger and acquisition activity, which could have a sizable impact on the market.

### 8.3.3 Specific Provisions for Benchmarks Which May Have Limited Liquidity <sup>176</sup>

It is recommended that the submitter of contributions use observable transactions to determine the contributions. Due to market conditions, there could be limited actual transactions that can be based on to substantiate a contribution. Under such circumstance, the submitter can apply alternative evidence, such as bids and offers data or adjustments based on expert judgment, as the submitter considers as most appropriate to determine the contribution for submission.

The different levels of the hierarchy of evidence that can be applied are outlined below.

#### **8.3.3.1 1<sup>st</sup> Level of Hierarchy of evidence**

Such evidence includes:

- i. Actual and directly relevant arms-length transactions concluded by the submitter in the underlying interest or related markets;
- ii. Use of interpolation / extrapolation techniques from related tenors to determine the contributions for longer tenors based on actual and directly relevant arms-length transactions done at shorter tenors.

<sup>176</sup> Blue Book, Para 3.5 – Specific provisions for Benchmarks which may have limited liquidity.

**8.3.3.2 2nd Level of Hierarchy of evidence**

This includes quotes given by the submitter to other Market Participants.

**8.3.3.3 3rd Level of Hierarchy of evidence**

Quotes received from IDBs (e.g. deal-able bids and offers).

**8.3.3.4 4<sup>th</sup> Level of Hierarchy of evidence**

This includes actual but indirectly relevant arms-length transactions in the underlying interest or related markets. For example:

- i. The transaction size is too small, and it is not appropriate to directly use the transacted rate as the contribution. The submitted contribution can be derived by applying appropriate adjustment to the transaction rate of the actual transaction.
- ii. The submitter does not execute any trade that can be used as base to determine the contribution. It can rely on observable transactions done by peer banks to determine the contribution.
- iii. The submitter does not execute any trade in the same asset class. It can use transactions in proxy asset classes such as government bonds to determine the contribution rate.

**8.3.3.5 5<sup>th</sup> Level of Hierarchy of evidence**

If the submitter fails to find any transaction or data that can be applied to determine the contribution rate, the submitter can use other market information such as indicative prices or expert judgement to determine the contribution rate. "Expert judgment" for this purpose may include:

- i. Impact assessment of market conditions;
- ii. Assessment of the impairment of the credit quality of one or more market participants; and
- iii. Assigning more weighting to bids/offers which are more current in time than actual traded data.

## 8.4 Code of Conduct for Submitters

### 8.4.1 Integrity, Professionalism and Ethical Standards

All IDBs and submitters must conduct themselves with integrity, professionalism and adopt the highest ethical standards with respect to benchmark contributions. In providing submissions, submitters should abide by the usual market conduct regulations and ethical standards, in addition to the requirements specific to benchmarking.

Submitters shall maintain adequate policies to:

- i. Adhere to the methodologies used for computing a traded benchmark (in particular to exclude transaction data that is gathered but which should not be used in computation);
- ii. Substantiate benchmark contributions against available objective evidence;

- iii. Mitigate against risk or perception of conflict of interest between the benchmark contribution process and other activity;
- iv. Ensure the integrity of data gathered through trades routed electronically and that access to such transaction data is made available to the Calculation Agent. This includes the maintenance of a reasonable audit trail to demonstrate that trades meet qualification criteria described in any methodology published by the benchmark administrator. Proper time stamping of trades is considered an appropriate means of ensuring a reasonable audit trail; and
- v. Ensure that staff members involved in the benchmark contribution process are not inappropriately influenced by other staff members or external parties.

#### 8.4.2 Providing Commentaries on Benchmarks <sup>177</sup>

Market Participants should ensure clear and prominent disclosures of actual, potential or perceived conflict of interest in writing when providing opinions and market commentary on the benchmarks in which they are submitters.

It is preferable that individuals responsible for contributions do not publish commentaries. Alternatively, individuals should be restricted from commenting prior to benchmark publication or where not possible, there should be clear and prominent disclosures of actual and potential conflicts of interest in writing. The submitter's individual submission should not be disclosed prior to the 90-day delay.

#### 8.4.3 Prohibited Behaviour

##### 8.4.3.1 Collusion <sup>178</sup>

Under no circumstances should a submitter collude with any parties or attempt to influence or be influenced on the subject of a contribution. Submitters must not consider the stated preference of any internal or external party.

##### Example - Avoiding Collusion

Lim is a money market dealer working for KBH Bank. Part of Lim's duties is to contribute rates for the daily benchmark fixing for SIBOR.

Chew, Lim's counterpart at another bank, calls asking what rates Lim intends to contribute today. Lim declines to discuss his intended contribution rates.

Lim's actions are appropriate as any discussion on contributions could directly or indirectly influence other contributors.

##### 8.4.3.2 Manipulation of Benchmark Input Transactions <sup>179</sup>

Submitters should not attempt to manipulate the benchmark in any way, including the use of the following actions:

<sup>177</sup> Blue Book, Chapter X, Para 3.4 – Surveyed Benchmarks – Requirements.

<sup>178</sup> Blue Book, Chapter X, Para 3.3 - Surveyed Benchmarks – Requirements.

<sup>179</sup> Blue Book, Chapter X, Para 4.4 – Traded Benchmarks – Requirements

- i. Executing an actual trade with a counterparty during the time window for computing a benchmark and later unwind the position after the window time, i.e. “wash” trading;
- ii. Deliberately trading in volumes at inappropriate prices in order to impact the calculation;
- iii. Executing a trade with the intent of cancelling it after the time window for computing a benchmark closes;
- iv. Deliberately withholding bona fide trades from a trading window, or from a trading venue, for the purposes of excluding such trades from the computation of a Traded Benchmark.

Please note that nothing in this section prevents a bona fide trade from being executed under open market competitive conditions (regardless of size, timing or pricing).

#### 8.4.4 Benchmarks That Are Not Overseen by the Benchmark Administrator <sup>180</sup>

Any participant based in Singapore may contribute to other benchmarks that are not overseen by the benchmark administrator. Appropriate conduct for such benchmarks should be determined by reference to the laws, regulations and practices of the relevant owner, sponsor or market responsible. In the absence of such laws, regulations and practices, the requirements laid out in the Blue Book may be used as a guide.

### 8.5 Best Practices for Surveyed and Traded Benchmarks <sup>181</sup>

#### 8.5.1 Experience, Seniority and Character

Staff responsible for benchmark submissions and oversight of the submission process should have appropriate experience and seniority, and adhere to relevant “fit and proper” standards of conduct. Relevant and regular training should be given to staff to ensure they are familiar with the methodology and process for rate submissions and the ethical standards in submitting rates. Staff responsible for benchmark submissions should be appropriately authorized to report such rates on behalf of the submitter. Roles and responsibilities and accountability should be formalised.

##### Example - Experience, Seniority and Character

Peter is the senior dealer at Bank Two. Bank Two is required to contribute rates for daily benchmark fixing.

Peter is often busy, and hence delegates the responsibility to Pauline, an intern from the local university. His rationale is that Pauline has more time to attend to this task, will be able to gauge the appropriate market rate from the deals that are transacted, and the responsibility would be good character building for her.

Peter gives Pauline the assurance that he will take responsibility for any issues that may arise, and that she should not be overly concerned about any inaccuracies in her contributions as the impact from that, if any, would be diluted by the contributions from the other contributors.

This is inappropriate, because it is important that contributions from all contributors are accurate and representative of the market rate, in order for the benchmark to be meaningful and reliable. Pauline does not have the experience or seniority to undertake this task.

<sup>180</sup> Blue Book, Chapter X, Para 1.4 – Applicability.

<sup>181</sup> Blue Book, Chapter X, Para 5 – Surveyed and Traded Benchmarks – Best Practices.

### 8.5.2 Supervision

There should be adequate supervision over staff responsible for benchmark submissions. For surveyed benchmarks, consideration should be given to documented dual controls for pre-submission validation of inputs where different staff performs “submitter” and “checker” responsibilities. Staff performing a “checker” function should be of appropriate seniority to challenge the submissions made.

### 8.5.3 Management of Information

For surveyed benchmarks, appropriate management of information, including historical information on submissions and trend/exception analysis, should be developed and tabled monthly (or such other period as may be considered appropriate) at relevant risk management committees or forums for the purposes of ensuring oversight of contributions.

### 8.5.4 Record Retention

Records and documentation of all market data, submissions and data/information relied upon for the benchmark determination should be retained by all IDBs and submitters, for at least 5 years from the date of contribution (or such other period as may be statutorily prescribed). Where appropriate or relevant, this includes formalised policies and procedures for benchmark rate determination, information on submissions as well as any deviations (including those made during periods of market stress or disruption); data used to derive traded benchmarks; names and roles of relevant staff involved in the benchmark rate determination, queries and responses relating to data inputs and submissions (internal and external).

### 8.5.5 Confidentiality

Except for information provided to regulators, information on contributions must not be sent to any party who is not involved in or responsible for the benchmark contribution process.

Please note that provision or exchange of general market information between desks is not prohibited. General market information includes, but is not limited to:

- i. Size/volumes of market;
- ii. Anticipated direction of market and target price
- iii. Information on size or number of active participants; or
- iv. General discussion that does not involve expressing an opinion on desired benchmark prices.

### 8.5.6 Conflicts of Interest and Segregation of Duties

All IDBs and submitters shall maintain policies to minimise conflicts of interest. With regard to segregation, this should include a consideration of appropriate seating arrangements for:

- i. Staff responsible for submissions;
- ii. Staff responsible for sales and trading; and

- iii. Staff responsible for reviewing the submission process.

### 8.5.7 Escalation Processes

IDBs and submitters should establish a process for identifying and escalating rates which are not considered appropriate, suspicious, or breaches of any benchmark contribution process, or other inappropriate behaviour, whether internal or external. This should include whistle blowing policies. Where appropriate, this information should also be provided to the benchmark administrator and the MAS.

### 8.5.8 Electronic Communication Surveillance

Submitters should implement appropriate surveillance over electronic communications including relevant communications between submitting parties.

### 8.5.9 Audit and Quality Assurance

IDBs and submitters should ensure that the benchmark rate setting process is appropriately covered, annually, in an independent audit or independent assurance plan. The outcome of the audit should be promptly made available to the MAS upon request. For surveyed benchmarks, due consideration should be given to more frequent independent checks by for example, the product control or valuation functions.

# Appendix A: Review Questions

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Candidates should note that the sole purpose of the Review Questions is to familiarise candidates with the scope and general nature of the examinations, and the format of the examination questions.

The Review Questions are not intended to be used as preparatory study material for the examinations, **nor do the questions cover all the material tested in the examination.**

The correct answer for each question is in **bold**.

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## Chapter 1 – Introduction

1. Which of the following asset classes / products are covered in the Blue Book?
  - a. Equity securities
  - b. Non-deliverable forwards (NDFs)
  - c. Money market instruments
  - d. OTC derivatives
  - (a) and (b).
  - (b) and (c).
  - **(b), (c) and (d).**
  - (a), (b) and (c).
2. Which of the following statements relating to Capital Markets Services (CMS) licences is CORRECT?
  - a. A CMS Licence holder must either be a Bank or a Merchant Bank and cannot be other types of financial institutions.
  - b. **Merchant Banks can carry out any regulated activities under the Securities and Futures Act (SFA) without being separately licensed as a CMS Licence holder under the SFA.**
  - c. Merchant Banks can ignore the business conduct requirements prescribed in the SFA in respect of the regulated activities under the SFA.
  - d. The MAS must grant a CMS Licence to merchant banks in order for them to conduct any regulated activities under the SFA.

## Chapter 2 – Ethics, Behavioural Standards and Professional Conduct

3. Which of the following statements relating to guidelines on entertainment, gifts and favours is TRUE?
  - a. **Representatives can buy gifts for customers that are not so excessive that they are viewed as an offer of inducement to conduct business.**
  - b. IDBs cannot make lunch appointments with Representatives.

- c. IDBs must obtain permission from the Compliance Department before making any dinner appointments with customers.
  - d. Without approval from the Compliance department, Representatives cannot buy gifts for customers.
4. Which of the following statements relating to dealing for personal accounts is TRUE?
- a. Representatives can start trading for their own account once they have provided the account details to the Compliance department.
  - b. Representatives cannot execute any personal trade on the same securities placed by customers.
  - c. **Representatives must avoid any conflicts of interest with their professional roles while dealing for personal accounts.**
  - d. Representatives should strictly not be allowed to deal for personal accounts.
5. Which of the following are considered “persons deemed connected to a dealing staff member”?
- a. Friends connected through Facebook.
  - b. A nephew living in the same house as the staff.
  - c. A staff member’s spouse.
  - d. Step-children of the staff member.
- (a) and (b).
  - (b) and (c).
  - **(b), (c) and (d).**
  - (c) and (d).
6. Under which circumstance would a Market Participant be required to submit a “Misconduct Report” to MAS?
- a. The Representative has been fined for a smoking in a non-smoking area.
  - b. **The Representative has done trades which artificially inflate market prices.**
  - c. The Representative has done trades with counterparty with a low credit rating.
  - d. The Representative has the habit of buying lottery tickets on a weekly basis.
7. Which of the following statements most correctly describes the appropriate action a Market Participant should take when it receives money from or on behalf of a customer?
- a. The Market Participant can use the money for purposes approved by the Compliance Department.
  - b. The Market Participant can use the money for purposes approved by the Head of Trading.
  - c. The Market Participant cannot use the money at all.
  - d. **The Market Participant must use the money for any purpose as instructed by the customer.**
8. Under what situation must a Market Participant provide its customer with a separate written risk disclosure document as prescribed under the Securities and Futures Act?

- a. **When the customer wants to open a leveraged foreign exchange trading account.**
- b. When the customer wants to open a securities trading account.
- c. When the Market Participant does not perform Enhanced Due Diligence.
- d. When the trade has increased the risk exposure of the customer.

### Chapter 3 – Confidentiality and Information Sharing

9. Which of the following statements is TRUE about confidentiality and customer anonymity principles?
- a. **Customer data should be disclosed in accordance with the applicable laws and regulations.**
  - b. Customer verification can only be done by checking with the customer directly.
  - c. The customer must complete the account opening form in front of the employee in the bank branch.
  - d. The responsibility for maintaining confidentiality of information rests with customer.
10. Which of the following would be considered confidential information in relation to financial markets?
- a. Customer or counterparty name, and any other information that may lead to the identification of the customer or counterparty.
  - b. Details of a Market Participant's order book.
  - c. Spread matrices provided by Market Participants to their clients.
  - d. Spreads on bids and offered available in the market.
- **(a), (b) and (c).**
  - (b) and (c).
  - (b), (c) and (d).
  - (c) and (d).
11. Market Participants only disclose confidential information to internal and / or external parties under specific circumstances, such as:
- a. When required under the Income Tax Act (Cap 134).
  - b. When required under the Banking Act, Section 47 – Banking Secrecy and Parts I and II of the Third Schedule.
  - c. To investigate or prosecute an offence that is alleged or suspected to have been committed.
  - d. When required by other Market Participants.
- **(a), (b) and (c).**
  - (b) and (c).
  - (b), (c) and (d).
  - (c) and (d).
12. Market Participants should communicate in a manner that is clear, accurate, professional and not misleading. To ensure this, Market Participants should do which of the following?

- a. Not communicate false information.
  - b. Not provide misleading information in order to protect confidential information (i.e. when executing partial orders).
  - c. Decline to disclose whether their request to transact is in the full quantity of the order or not.
  - d. Not identify opinions as opinions.
- **(a), (b) and (c).**
  - (b) and (c).
  - (a) and (b).
  - (c) and (d).
13. Market Participants should communicate market colour appropriately and without compromising confidential information. Which of the following are appropriate ways to share market colour?
- a. Bank Salesperson to hedge fund: We've seen large NZD/USD demand from Real Money names this morning.
  - b. Asset manager to bank market maker: Can you give me some colour around the 100 point rally in GBP/USD in the past hour?
  - c. Bank salesperson to hedge fund: We've seen large NZD/USD demand from Royal Bank of Singapore this morning.
  - d. Market maker to hedge fund: Yen liquidity has deteriorated. Just now it took me 15 ticks to cover my sale of 100 million USD/JPY to a Japanese automaker.
- (a) and (d).
  - (b) and (c).
  - **(a) and (b).**
  - (c) and (d).

## Chapter 4 – Governance, Risk Management and Compliance

14. Which one of the following statements relating to segregation of duties is TRUE?
- a. Back office staff should not have any communication with front office personnel.
  - b. It is acceptable for front office, middle office and back office to share access to their respective systems.
  - c. **Management should establish appropriate information barriers between trading, risk management and processing units.**
  - d. Market Participants should not to share any trading profit and loss reports with the middle office.
15. What would be an effective internal control procedure to mitigate the risk of rogue traders committing fraud?
- a. Front office personnel cannot communicate to staff in the processing unit to resolve issues.
  - b. Front office personnel should not contact middle office staff to resolve trade related issues.

- c. **Front office personnel should not have access rights to middle office systems to process trades.**
  - d. Front office personnel should not physically be at the back office department area.
16. Which of the following constitute anti-money laundering (AML) and know-your-customer (KYC) requirements that are relevant to Market Participants?
- a. Establish internal procedures and controls to mitigate AML and KYC risk.
  - b. Establish procedures to inform customers when a report has been made to the authorities for suspicious transactions.
  - c. Maintain records of all CDD documentation.
  - d. Perform customer due diligence (CDD) for all customers.
- (a) and (b).
  - (c) and (d).
  - (a) and (c).
  - **(a), (c) and (d).**
17. Which of the following is an example of operational risk?
- a. Risk of losses as a result of an adverse movement in the markets.
  - b. Risk of losses due to holding a short position in a particular financial instrument.
  - c. **Risk as a result of inadequate processes and controls.**
  - d. Risk caused by a counterparty going bankrupt.
18. Which one of the following actions should be taken to minimise losses when a customer fails to meet margin top-up requirements?
- a. **Close out the customer's positions if margin calls remain unanswered.**
  - b. Contact the customer to request for settlement instructions.
  - c. Execute a trade for the customer that hedges against the loss-making position.
  - d. Issue a contract note on the trade done.
19. Which of the following is a key control that should be implemented for off-premises dealing?
- a. Trade details of "off-premises" trades should be clearly documented in the letterhead of the Market Participant.
  - b. Trade details of "off-premises" trades should be clearly reported to the Compliance Department.
  - c. Trade details of "off-premises" trades should be clearly reported to the Risk Department.
  - d. **Trade details of "off-premises" trades should promptly reported to the counterparty via approved communication channels.**
20. In Business Continuity planning, which of the following is MOST important?
- a. A contingency plan for front office Representatives to ensure that they can continue dealing in any market disruption event.
  - b. **A contingency plan for treasury operations in the front, middle and back offices to ensure that these operations can continue in any market disruption event.**

- c. A contingency plan for Representatives to work from home to continue perform treasury operations in the front, middle and back office areas in any market disruption event.
  - d. Internal Standing Instructions to withhold all payments during any market disruption event.
21. Which of the following statements are TRUE about the use of technology within trading and risk management?
- a. “Open source” system architecture is encouraged to allow integration of customer systems.
  - b. Representatives should have ready access to all systems to facilitate timely processing of transactions.
  - c. Sufficient capacity should be maintained for normal and peak loads.
  - d. Data confidentiality should be preserved by encrypting messages.
- (a) and (d).
  - (b) and (d).
  - (a) and (c).
  - **(c) and (d).**
22. Why should Market Participants obtain their own legal, tax and accounting advice before executing any OTC derivative trade?
- a. To advise on the credit risk posed by derivative transactions.
  - b. To determine if their license granted by the MAS legally allows to engage in derivative trading.
  - c. To determine the pay-out accounting structure that results in the lowest tax payable.
  - d. **To gain clarity on the handling of market disruptions, as well as tax and accounting implications.**
23. Which of the following should be undertaken when a Market Participant appoints an IDB?
- a. Conduct the “Know Your Customer” process of the IDB.
  - b. Determine the position limits assigned to the IDB.
  - c. Perform a credit evaluation of the IDB.
  - d. Ask the IDB to provide market colour and predict investment trends.
- (a) and (b).
  - (c) and (d).
  - **(a), (b) and (c).**
  - (a), (c) and (d).

## Chapter 5 – Execution and Handling of Orders

24. What should be done by an IDB when it receives an order from a Principal with special conditions?
- a. **IDBs must accurately relay the special conditions to the counterparties.**
  - b. IDBs should advise the Principal not to impose the special conditions.
  - c. IDBs should exclude the special conditions.

- d. IDBs should increase its brokerage for orders with special conditions.
25. Which of the following actions should NOT be done by IDBs?
- a. **Engage in taking its own positions by executing its own trades.**
  - b. Provide settlement instructions to the counterparties.
  - c. Provide the names of the counterparties after the deal has been concluded.
  - d. Relay price quotations upon receipt of an order from a counterparty.
26. If a price maker's price is dealt simultaneously by two or more IDBs, what must the price maker do?
- a. Choose which IDB to honour his quoted amount.
  - b. Honour, subject to limit, his quoted amount, split equally with each IDB.
  - c. Honour, subject to limit, his quoted amount, with each IDB.
  - d. **Honour, subject to limit, the minimum dealing amount with each IDB.**
27. What types of transactions are restricted under the MAS' regulations on Lending of Singapore Dollar to Non-Resident Financial Institutions?
- a. A foreign bank in Singapore executes a EUR/SGD FX swap where the first leg of the swap is to buy SGD 10 million from its Head Office in Europe.
  - b. A foreign bank in Singapore executes a EUR/SGD FX swap where the first leg of the swap is to sell SGD 10 million to its Head Office in Europe.
  - c. A foreign bank in Singapore lends SGD 6 million to a finance company licensed in Singapore.
  - d. A foreign bank in Singapore lends SGD 6 million to its head office in Europe.
- (a) and (d).
  - **(b) and (d).**
  - (a) and (c).
  - (b) and (c).
28. Which of the following is TRUE about "stop-loss" orders?
- a. **There is no guarantee of fixed price execution to the counterparty.**
  - b. The trade should be immediately concluded at the highest market price with the counterparty.
  - c. The trade should be immediately concluded at the lowest market price with the counterparty.
  - d. Trade will be executed at a fixed price with the counterparty.
29. What is the appropriate practice for trade cancellations?
- a. Trades can be cancelled before the settlement date.
  - b. Trades must always be cancelled if the price traded is not representative of the prevailing market price.
  - c. **Trades will only be subject to cancellation where both parties to the trade agree to the cancellation.**
  - d. Trades with minor errors in their notional value should be subject to cancellation.

30. What are the market trading hours for foreign exchange transactions?
- 0500h Sydney time on a Monday morning to 1700h New York time on a Friday.**
  - 0900h to 1700h daily.
  - 0900h to 1700h from Monday to Friday.
  - 0900h Sydney time on a Monday morning to 1700h New York time on a Friday.
31. Which of the following should be observed when trading FX swaps?
- The forward rate of the far leg of the FX swap should be determined on the value date of the near leg.
  - The near leg of the FX swap must always be value spot.
  - The price maker has the right to set the spot rate in a FX swap.
  - The setting of the spot rate in a FX swap transaction should be done immediately after a price has been hit and before clearing of the counterparty's name.
- (a) and (d).
  - **(c) and (d).**
  - (a) and (c).
  - (b) and (c).
32. Jane is an FX dealer. What should Jane do before transacting an off-market rate FX trade with a corporate customer?
- Obtain the express approval of her own Senior Management.**
  - Obtain the express approval of the customer's senior management.
  - Obtain the express approval of the MAS.
  - Obtain the express approval of the SFEMC.
33. A Market Participant does not have sufficient limits to accommodate the counterparty's full amount but is trying to raise limits. What action should be taken by the Market Participant?
- Ask the IDB to commit the trade with the counterparty.
  - Execute the trade and obtain approval from credit risk department later.
  - Indicate the minimum amount required that can be done.**
  - Inform the IDB that it does not have sufficient limits.
34. What should be a Market Participant do before it enters into a trade as principal with a customer in respect of securities that are traded on a local or overseas securities exchange?
- Indicate the types of securities to be dealt with the customer.
  - Instruct the customer to engage an agent to deal with the Market Participant.
  - Notify the customer that it acts as counterparty to the customer.**
  - State the name of the securities exchange that the Market Participant will use to deal with the customer.

35. Which of the following statements concerning conduct of business in Singapore Government Securities is CORRECT?
- a. **A dealer must send a confirmation note of the transaction to its counterparty not later than the next business day.**
  - b. A dealer must send a confirmation note of the transaction to its counterparty on trade day via MEPS+.
  - c. A dealer must send a confirmation note of the transaction to its counterparty on trade date via secured media.
  - d. A dealer must send a confirmation note of the transaction to its counterparty on trade day via SWIFT.
36. To avoid any misunderstanding while executing money market transactions, which appropriate action should be taken by Market Participants?
- a. Apply the standard value date, tenor, and marketable amount when quoting the price.
  - b. State the precise settlement amount of the transaction clearly to their counterparties when quoting the price.
  - c. **State the settlement dates of the transaction clearly to their counterparties when quoting the price.**
  - d. State the trade date of the transaction clearly to their counterparties when quoting the price.
37. Which of the following statements about delta hedges in interest rate option transactions is TRUE?
- a. Delta hedges only apply to foreign exchange options and are not application to interest rate options.
  - b. It is assumed that a simultaneous delta hedge will be entered into.
  - c. **It is assumed that a simultaneous delta hedge will not be entered into.**
  - d. There is no standard market convention; delta hedges should be explicitly discussed in the terms.

## Chapter 6 – Confirmation and Settlement

38. What are purposes of generating trade confirmations?
- a. To advise the counterparty of the full details of the trade executed.
  - b. To detect any incorrect economic details of the trade.
  - c. To minimise operational risk.
  - d. To obtain approval from Senior Management for the trade executed.
- (a) and (b).
  - (c) and (d).
  - **(a), (b) and (c).**
  - (a), (c) and (d).
39. Which of the following statements relating to market practices on settlement is CORRECT?
- a. The beneficiary of the payment must always be the counterparty or one of its branches.
  - b. The beneficiary of the payment must only be requested at the time of payment.
  - c. **Market Participants can make third party payments if it is instructed by the counterparty with a valid reason and documentation.**

- d. Market Participants must report to the Monetary Authority of Singapore when it makes third party payments.
40. Which of the following statements is TRUE about the rights of the non-defaulting party in an Interest Rate Derivative transaction, under the terms of the ISDA Master Agreement?
- a. The non-defaulting party may exercise its right to apply margin received from the defaulting counterparty to reduce the outstanding amount owed by the counterparty.
  - b. The non-defaulting party may exercise its right to close-out and net all transactions with all counterparties covered by the Master Agreement to reduce its credit exposure.
  - c. **The non-defaulting party may exercise its right to close-out and net all transactions executed with the defaulting counterparty (that are covered by the Master Agreement) to reduce its credit exposures.**
  - d. The non-defaulting party may exercise its right to demand for payment to reduce the outstanding amount owed by the defaulting counterparty.
41. What are the core documents that make up the ISDA Master Agreement?
- a. Credit Support Annex.
  - b. Master Agreement.
  - c. Schedule.
  - d. Trade confirmation template.
- (a) and (d).
  - (c) and (d).
  - (a) and (c).
  - **(b) and (c).**

## Chapter 7 – Handling Market Disruptions

42. What are possible actions to be taken by SFEMC to manage market disruption?
- a. Convene a meeting of members to discuss issues.
  - b. Discuss proposals with regulators and other relevant Market Participants to manage the disruption.
  - c. Issue statements to get Market Participants to follow the announced measures and codes of conduct.
  - d. Make clear recommendations on procedures to determine the fixing rate.
- (a) and (b).
  - (c) and (d).
  - (a), (b) and (c).
  - **(a), (b), (c) and (d).**
43. What is the most important action that Market Participants should do during market disruptions?
- a. **Maintain effective communication with their counterparts, settlement agents, customers and MAS.**
  - b. Maintain non-stop communication with their counterparts, customers and MAS.

- c. Record all communications with their counterparts and report to MAS.
  - d. Use multimedia to communicate effectively with their counterparts, customers and MAS.
44. Which of the following actions should be undertaken during a market disruption to ensure proper settlement of SGD trades?
- a. **Follow the settlement instructions issued by MAS.**
  - b. Follow the guidelines given by SFEMC.
  - c. Follow the agreed settlement instruction as stated in the trade confirmation.
  - d. Follow the recommendations made by SFEMC and MAS.

## Chapter 8 – Benchmark Rate Setting

45. Which of the following parties are involved in the benchmark rate setting process?
- a. Benchmark Administrator.
  - b. Benchmark Submitter.
  - c. The Association of Banks in Singapore (ABS).
  - d. The Monetary Authority of Singapore (MAS).
- **(a) and (b).**
  - (c) and (d).
  - (a) and (c).
  - (b) and (c).
46. With regards to handling customer fixing orders in relation to Traded Benchmarks, which of the following actions are acceptable?
- a. Buying a larger amount than the customer's interest to inflate the price against the customer.
  - b. **Collecting all customer interest and executing the net amount.**
  - c. Informing other Market Participants of a specific customer dealing at the fixing rate.
  - d. Showing large interest in the market during the fixing calculation window to manipulate the fixing price.
47. To avoid conflicts of interest, what action should be taken by a dealer who is responsible for both benchmark contributions and providing opinions on benchmarks?
- a. Provide opinions on benchmarks for which he is responsible for as long as they are not published.
  - b. **Declare the conflict of interest and only express his opinions on benchmarks after benchmark publication.**
  - c. Stop providing opinions on benchmarks.
  - d. Ask his colleague to submit his benchmark contribution on his behalf.
48. Which of the following statements describes the best practice that should be adopted by the dealer who is responsible for determining the contributions of benchmark?
- a. The dealer should be seated in a separate location clearly segregated from the trading room.

- b. The dealer should retain the documentation of submissions and information relied upon for the benchmark determination for 90 days.
- c. The dealer should not attend any briefing given by the economist employed by the Market Participant.
- d. **The dealer should not provide information on contributions to any party who is not responsible for the benchmark contribution process.**

# Appendix B: Essential Readings

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## **Attorney-General's Chambers in Singapore (<https://sso.agc.gov.sg/>)**

1. Securities and Futures Act
2. Securities and Futures (Licensing and Conduct of Business) Regulations
3. Securities and Futures (Financial & Margin Requirements for Holders of Capital Markets Services Licences) Regulations
4. Banking Act, Section 47 (Banking Secrecy)
5. Income Tax Act
6. Deposit Insurance and Policy Owners' Protection Schemes Act
7. Corruption, Drug Trafficking and Other Serious Crime (Confiscation of Benefits) Act
8. Mutual Assistance in Criminal Matters Act
9. Terrorism (Suppression of Financing) Act

## **Singapore Foreign Exchange Market Committee (<http://www.sfemc.org/>)**

10. The Singapore Guide to Conduct & Market Practices for the Wholesale Financial Markets ("the Blue Book")

## **Global Foreign Exchange Committee ([https://www.globalfx.org/fx\\_global\\_code.htm](https://www.globalfx.org/fx_global_code.htm))**

11. FX Global Code

## **MAS Notices, Guidelines and Circulars ([www.mas.gov.sg](http://www.mas.gov.sg))**

12. MAS Guidelines on Fit and Proper Criteria (Guideline No. FSG-01)
13. Notice on Reporting of Misconduct of Representatives by Holders of CMS Licence and Exempt Financial Institutions (Notice No. 04-N11)
14. Notice on Minimum Entry and Examination Requirements for Representatives of Holders of CMS Licence and Exempt Financial Institutions (Notice No. 04-N09)
15. MAS Guidelines for Banks whose Business includes Dealing in Government Securities

16. Notice to Capital Markets Intermediaries on Prevention of Money Laundering and Countering the Financing of Terrorism (Notice No. SFA04-N02)
17. MAS Notice on Prevention of Money Laundering and Countering the Financing of Terrorism – Banks (Notice No. 626)
18. Circular on Due Diligence Checks and Documentation in Respect of the Appointment of Appointed, Provisional and Temporary Representatives (CMI 01/2011)
19. MAS Notice on Lending of Singapore Dollar to Non-Resident Market Participant (MAS 757) for Banks
20. MAS Notice on Lending of Singapore Dollar to Non-Resident Market Participant (MAS 1105) for Merchant Banks
21. MAS Notice on Lending of Singapore Dollar to Non-Resident Market Participant for Capital Markets Services Licence (SFA 04-N04).
22. Rules and Market Practices of the Singapore Government Securities Market (<http://www.sgs.gov.sg/~media/SGS/SGSRulesMktPractices.pdf>)

**Association of Banks in Singapore (<https://abs.org.sg/>)**

23. ABS Co. – Rate Setting Benchmarks (<https://abs.org.sg/industry-guidelines/rate-setting-benchmarks>)

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