Dear FIA Candidate

Welcome to the course notes for the **Market Section** of the FISD FIA Syllabus.

This module is designed to prepare you to take the FISD FIA exam.

By using a combination of the videos and course notes - and working through the quiz - you should be ready and feel confident to pass the exam. (One without the other will not work effectively).

You have 60 days to view the videos as many times as you wish and you can also complete the quiz as many times as you wish during this period too. It is however advised that you download and save this pdf so that you can refer back to it should you need to after the 60 days have expired.

We have structured the course notes to match the order of our videos and have referred them back to the FISD syllabus. There are however many occasions when the sequencing of the videos is different to the order of the FISD syllabus - but it is all covered.

The course is divided into four main sections:
Section 1: The Markets ***(covered in this module)***
Section 2: The Data
Section 3: The Technology
Section 4: The Industry

To book your FISD FIA exam, please visit http://siia.net/fisdpc/test.asp and click where it says "Register to take the FIA exam". When you pay for the exam please use discount code **lmod** to receive a **$150 discount on the exam fee**. If you have any problems please contact the FISD co-ordinator David Anderson at email: david.anderson@atradia.com

Good luck!
Best wishes

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PS: We would welcome your feedback and comments at hello@financemodules.com

SECTION 1: THE MARKETS
FISD general overview for the section

The Markets: (FISD syllabus 1)

The FISD requires that a candidate must be able to demonstrate a broad understanding of the markets that generate and make use of the complex array of information and content characterised as market data.

You must understand that different types of organisations have different requirements for data; you must understand what these differences are and why such different requirements exist.

Where, how and why is capital created, and for what purpose.

What is meant by financial intermediation and who are the participants in the investment process.

What is the role of exchanges and related trade crossing services, government and regulatory agencies, and where does market data play a part in the financial markets?

Finance Modules video:
The Markets – Module 1
Capital Markets & Capital Formulation
Time: 1 min 39 sec

THE ROLE OF THE FINANCIAL MARKETS (FISD syllabus 1.1)

FISD syllabus requires you to:
Understand the role of the financial markets, their structure and the capital formulation process. Understand the broad structures and makeup of the global financial markets.

FINANCE MODULES COURSE NOTES:

Capital Markets:
The capital markets are a source for large, long term funding to help start, grow and "reward" companies by matching surplus funds (from lenders, investors) with those in need of funding (borrowers, debtors).
The primary vehicles for funding are equities (stocks) and fixed income (bonds).
Market data is information used in the capital markets – supporting the financial services industry.
It can be:
- Market quote data
- News, opinion, commentary and advice
- Information (data) about individual securities and companies
- Research and analytics
- Pricing and accounting related information to value securities
- …and much more - different participants see different information as data

The core participants in the financial markets are the "buy side", the "sell side", "exchanges & crossing networks" and "governments & regulators".
- The buy side (also referred to as investors) are the holders of surplus capital
- The sell side (brokerage) acts as financial intermediaries to raise and transact capital
- Exchanges and crossing networks facilitate trading transactions by matching buyers with sellers
- Governments and regulators provide oversight and rules for financial markets as well as acting as participants, using the capital markets as a source to fund government spending

Finance Modules video:
The Markets – Module 2
Sell Side & Buy Side
Time: 3 min 25 sec

PARTICIPANTS IN THE FINANCIAL MARKETS (FISD Syllabus 1.2)

FISD syllabus requires you to:
Understand what the major types of institution are, what their broad characteristics are and what role they play in the financial markets.

THE SELL SIDE (FISD Syllabus 1.2.1)
FISD syllabus requires you to:
Understand what types of organisation fall under the broad category of being a "sell side" institution.
- *Investment banks and their role in the primary issuance of equities and bonds*
- *Investment banks and their role in advising clients on mergers and acquisitions*
- *Investment banks and their role in providing corporate and/or project finance*
- *Investment banks and brokerage houses' role in:*

– *Acting as "agency brokers" on behalf of their clients*
- *Provision of advice through equity analysts*
- *Full service, low touch and no touch (e.g. DMA) services*
- *Execution services including algo trading*
- *Prime brokerage" services*

– *Acting as "principal" in transactions i.e. "proprietary traders"*
- *Commercial and retail banks providing bank services to corporations and individuals*

FINANCE MODULES COURSE NOTES:

The Sell Side
The sell side is commonly known as the "brokerage" side or the "broker/dealer".
The sell side's primary function is the issuance of capital and the transacting of securities. At the issuance, proceeds of the capital are provided as funding directly to the issuing company, also known as "the primary markets".

The dealing component provides investment banking services, including:
- Equity initial public offerings
- Fixed income underwriting and issuance.

As well as providing advisory services for mergers and acquisitions (M&A).

The transacting of securities is typical of the "broker" function. Most brokerage transactions are between buyers and sellers of a security after its initial issuance. This takes place in what are known as the "secondary markets".

In the secondary markets, the transaction takes place between a buyer and seller to their individual interests, and is no longer associated with directly raising funding for the issuing firm. Sell side firms brokering transactions for their customers is known as "agency trading".

Brokerage transactions may additionally be for the broker dealer's own account, inventory of securities and interests - typically known as "proprietary trading".

Firms engaged on the sell side as broker dealers will typically seek to add value to their buy side customers by offering a number of services to attract and retain customers, such as:
• Investment research advice provided to clients, typically known as "sell side research" or "street research" (in the US).
• Prime brokerage, which is typically characterised as a set of services to add value to its customers in order to attract and retain business. Prime brokerage services may include managed services - bundling all brokerage, compliance, accounting and reporting services to reduce a customer's cost and overhead of administrative functions.
• Execution services such as algorithmic trading, low latency trading and high frequency trading.

Summary of the sell side and what it does:
Securities brokerage – aka "broker/dealer"
• Broker – trades customer accounts
– Secondary markets – most active markets
– Prop (proprietary) trading – for "own" account
– Agency trading/agency brokerage – for "customers"
– Prime brokerage – bundled services (back office, securities lending, etc.)
– Execution services – specialised functions: algo, arbitrage, HFT
• Dealer – trades from own inventory (the issuance of capital is typical of the "dealer" function)
– Primary issuance – equity IPO/fixed income underwriting
– Investment banking – merger & acquisition funding and advice
– Corporate finance & project finance – capital investment

Major sell side firms
• Goldman Sachs, Morgan Stanley, Credit Suisse, Deutsche Bank, Citigroup, JPMorgan Chase

THE BUY SIDE (FISD Syllabus 1.2.2)

FISD syllabus requires you to:
Understand what types of organisation fall under the broad category of being a "buy side" institution.
• Traditional "long only" asset management firms
– Describe the role of fund managers
– What are mutual funds, unit trusts, investment trusts? (Finance Modules note: see table under major asset classes in syllabus)
• Other buy side participants
– Describe the role of banks, insurance companies, pension plan sponsors
• Hedge funds
– What is a hedge fund?
– How do hedge funds differ from traditional asset management firms?

FINANCE MODULES COURSE NOTES:

The Buy Side
The buy side is commonly known as the "investor" side of the capital formulation process – this includes institutions and individual investors who are the "buyers" of financial instruments and the "customers" of the investment banks issuing capital (IPOs, Debt, etc.).
These include:
• Mutual funds, ETFs, collective trusts, managed accounts, wealth management services – institutional investment advisors & professional management
• Insurance companies investing to capitalise on premiums to increase returns and fund claims
• Pension plan sponsors (pension funds) may manage or hire investment advisors to manage plan assets
• Hedge funds

The buy side is primarily institutional investors, but would also include retail and individual investors. The buy side provides the sources of funding, typically with surplus funds available for investment.

Most buy side firms are "long only" – meaning they buy securities to hold as investments to gain growth in the value of the security or income from the security.
The term "go long" means the investor bought the security believing the stock price will rise in the future. However, in the case of a hedge fund they can take both "long" and "short" positions. "Short" means that they expect a decrease in the share price.

Hedge funds were initially termed "hedged funds" because they leverage their risk of adverse market direction by the use of both "long and short" positions.

Major buy side firms
• Fidelity, BlackRock, State Street, JP Morgan Asset Management, Travelers, TIAA CREF

Finance Modules video:
The Markets – Module 3:
Primary Business Function by Task & Role
Time: 2 min 33 sec

PRIMARY BUSINESS FUNCTIONS AND RESPONSIBILITIES (FISD Syllabus 1.4)

Part 1: FISD syllabus requires you to:
Understand the following phrases:
• Front office, back office, middle office
Recognise broad job functions/titles:
• Trader
– Salesman
– Sales trader
• Analyst
• Portfolio Manager
• "Quant"'

FINANCE MODULES COURSE NOTES:

The primary business functions of front, back and middle offices:

• The Front Office
The front office is generally the customer facing or primary function such as investment management, investment banking or trading floor functions.

• The Back Office
The back office is that of operations – settlement, clearing, accounting, record keeping, safekeeping, and other supporting functions to manage the securities, risk, reporting and administrative functions.

• The Middle Office
The middle office primarily provides supporting functions for the front office and facilitates connectivity through the organisation – front to back. Typically it would include the systems and applications used for investment research and decision making as well as trading order management and data feeds into the firm. Functions include: systems feeding data, order management, decision support, execution services, risk management

Primary Business Function by Role:

Trader:
A trader works to execute trades effectively and seeks to obtain "best execution" in the trading process, typically on an "agency trading" basis for customers or a "prop desk" if trading for the firm's inventory.
• Best execution is the concept (and legal obligation) to trade at the best available price for the customer.
• Traders seek to obtain best execution in a number of ways, including working a trade order to minimise price impact (for example an order size that makes the price move adversely – down when selling, up when buying) or by the use of speed (lower latency) or by effective management of liquidity (trading in pools of liquidity) or finally by trading with anonymity to avoid telegraphing trading intentions to the marketplace (for example through dark pools).
• A salesman deals with customers and tries to persuade them to buy or sell something. A sales trader is a hybrid role combining the sales function and the trading function.

Analyst:
An analyst is tasked with investment research and may approach the role by any number of disciplines, which in part include:
• Fundamental research, or research based on a company's data such as balance sheet and income statement.
• Technical analysis, or research based on "technical data" such as stock price movement over time, obtains information from charting and other measures that capture trends, momentum and numerous indicators based on market behaviour about the company. A technical analyst will rely heavily on charts and charting data.
• Quantitative analysis focuses on the analysis of characteristics about companies used to manage exposure to various industries, sectors or factors. It uses models to create or minimise risk exposure to any number of variables or ideas. Quantitative analysts are typically known as "quants".

Portfolio Manager:
A portfolio manager is in many ways very similar to the analyst role, however the portfolio manager is the actual investment decision maker in the process of securities selection for a portfolio, and may also follow a number of common disciplines which include:
• Active management is the selection of securities based on superior research and decision making in order to outperform the market - in many cases pursuing policies to capture "alpha" in the market, ranging from hidden opportunities, to unrecognised value (value management) to unrecognised growth opportunities (growth management).
– "Alpha" is often considered to represent the value that a portfolio manager adds to (or subtracts from) a fund's return
• Passive management (also known as indexing) is the assumption that by "owning the market" you will produce returns based on the asset class itself and the overall economic drivers. Further, that it is expensive and inefficient to assume a manager can consistently find alpha and that lower cost management will offset the expense of chasing alpha over time. Common to indexing is that it captures the overall market returns, as characterised by the term "beta".
– "Beta" is a measure of the volatility, or systematic risk, of a security or a portfolio in comparison to the market as a whole.

Operations and Systems:
Operations and systems roles provide supporting functions, typically around the management of securities and holdings, and accounting type functions which would include:
• The post trade "clearing and settlement" of a trade transaction – that is, details of the trade (such as the counterparty, agreed upon price, currency and security volume) to enable the swapping of the instrument and the exchange of payment between the parties to complete the transfer of ownership.
• The accounting function of pricing securities to value portfolios and customer accounts.
• The management and collection of income (stock dividends, bond interest payments) as they occur over time.
• The setup and maintenance of securities data, the foundation of descriptive data elements about a security (also known as "reference data") that describe the detailed terms about an instrument such as a bond's start date (dated date), its interest payment rate (coupon), its maturity, currency, whether it can be prepaid prior to maturity (callable) and if so, on what time periods and set price (call schedules) if applicable.

Market Data Management:
Market data management is the grouping of tasks related to the management of information, primarily electronic/digital in nature used across a financial institution's complex functions from front to back office. Market data management is a relatively new discipline in that prior to the rapid growth in electronically available data, information was largely managed either by IT staff for "terminal support" or by library and information professionals for content and information resources.

Finance Modules video:
The Markets – Module 4
Primary Business Functions & The Trade Lifecycle
Time: 4 min 22 sec

PRIMARY BUSINESS FUNCTIONS AND RESPONSIBILITIES (FISD Syllabus 1.4)

Part2: FISD syllabus requires you to:
Understand and describe the primary business functions of the various departments in a financial institution and the types of market data these departments would generate or consume:
- *Trading floor*
- *Securities research*
- *Portfolio management*
- *Risk management*
- *Settlement & clearing*
- *Pricing and accounting*
- *Securities lending*
- *Corporate actions*
- *Performance & attribution*
- *Automated execution services (algo trading)*

FINANCE MODULES COURSE NOTES:

Departments in a financial institution - what data is consumed / the primary business functions:

- Trading floor – consumes real time quotes and news / executes trade orders
- Securities research – uses analytics, models, fundamental data, investment advice / creates recommendations for buying-holding and selling securities
- Portfolio management – similar to securities research, responsible for making holdings decisions
- Risk management – generally internal data on holdings exposure, entity data / polices firm's exposure to risk
- Settlement and clearing – data about the trade itself and the process of transferring ownership and funds from seller to buyer
- Pricing and accounting – consumes end of day pricing and valuations data / performs an operations role to manage pricing and valuation of securities
- Securities lending – the process of managing client accounts or operations for short sales, characterised as the borrowing stocks as part of the "short selling" process, a short seller must own or borrow stocks to then engage in a "short sale" strategy
- Corporate actions – stock dividends, bond interest payments and other complex changes to a corporation such as mergers, acquisitions, stock splits, divestitures and spin-offs - generally managed by the operations group that performs the pricing and accounting function
- Performance and attribution – sector, index and returns data managed generally by an administrative or management function to analyse components of returns and understand the components of returns and performance
- Automated trade execution services – low latency exchange data / may build "algo" models. Typically provided as a trading

THE TRADE LIFECYCLE (FISD Syllabus 1.1.1)

FISD syllabus requires you to:
Understand the overall concept of the trade lifecycle, including:
- *Pre trade price discovery*
- *Pre trade risk management and compliance assessment*
- *Trading venue selection – the Trade*
- *Post trade confirmation*
- *Post trade clearing and settlement*
- *…and the typical groups involved*

FINANCE MODULES COURSE NOTES:

The Trade Lifecycle

The foundation of the capital markets and capital formulation is the securities transaction - known as "the trade" or "trading".

The lifecycle of the trade includes a number of steps – pre trade analysis and risk management, the trade itself, and post trade settlement and clearing as well as subsequent securities accounting functions.

Before the trade is a process of "pre-trade analysis" (investment research process), generally involving a securities research & analysis function, which may include:
- Active management or stock selection, where individual securities are evaluated and selected to buy or sell
- Fundamental analysis – generally an active management discipline of selection based on company data
- Technical analysis – also generally an active management discipline based on trend analysis, generally price behavior over a time series
- Passive management or indexing – where securities are evaluated for their suitability to represent the characteristics of an underlying index
- Quantitative analysis – may be used for both active and passive management, based more on characteristics and factors (the impact parts) of a company's industry, sector or other measures

Pre trade risk management includes a number of tasks related to the appropriateness of the security for any number of risk mitigation interests, which would seek to measure and manage risk exposure as well as manage compliance functions.
- Whether or not a security is appropriate for the needs of the customer, and whether or not the security is overly complex and/or that the risk associated with the instrument may not be fully understood by the customer.
- Measurement of risk associated with potential over-exposure to a number of factors, which could include concentration in a company, an industry or an economic sector.
- Counterparty risk as a concentration to an individual counterparty or obligor to repay or make good on the other side of an investment.

The trading venue or "the exchange" (could be a physical exchange or one of many forms of "crossing" services)
The trade itself takes place at a venue and process where the best available price to trade is obtained.

Terms such as trading on the "national best bid and offer" (NBBO) are one measure of obtaining "best execution". Best execution is described as minimising the price impact, particularly when trading a large share volume, generally by directing the trade to wherever the greatest "pools of liquidity" exist.

A "pool of liquidity" is where there are many available shares to buy and sell, such that the trade can be readily matched and filled, and that the trade does not create upward or downward price pressure, which would be the case if few shares were available to trade or the market were hence "illiquid".

The trading exchange – whether a physical exchange such as the New York Stock Exchange or an alternative type of exchange such as an ATS, MTF, crossing network or dark pool.
• An ATS (alternative trading system) is a form of crossing network in the US markets
• An MTF (multilateral trading facility) is a form of crossing network in the EU markets
A crossing network is generally a system to match large buyers and sellers to provide ease of trading.

A dark pool is a crossing network that provides anonymity to the buyer and seller to reduce a number of factors that could otherwise create price movement or market impact based on the marketplace being informed of a large participant's trading intentions.

Specialised trading – Low latency, algo trading, high frequency trading to take advantage of sophisticated trading strategies
• Low latency is the ability to shorten the time delay between a quote being published and being in receipt of the data to act upon it. Currently low latency is measured by speed of light delay from the exchange's order matching engine and the shortest distance connected by fiber optic cable – which generally implies being "co-located" at the same physical site and building as the exchange's order matching engine.
• Algo trading or algorithmic trading is a set of trading decision rules created as a trading programme and is automated to act on market data and execute trades ahead of other market participants by leveraging low latency (co-location) and automated (programmatic) decision rules.
• HFT or high frequency trading is a form of low latency algorithmic trading that may make buy and sell transactions in the same security, many times within milliseconds. HFT trades off price behaviors and other decision rules where large volumes of minute transactions add up to potentially significant trading profits.

Post Trade Accounting & Custody
After the trade is executed, the post trade activity and processes commence, which include:
• The trade confirm - essentially a "ticket" describing the security, trade price and volume, and the parties to the trade.
• Settlement - the transaction process of swapping ownership and funds, generally at trade plus 3 days (also known at T+3).
• Custody and safe keeping - the physical (or electronic) holding of the security by an institution on behalf of itself or its clients.
• Accounting/pricing/valuation/statements – collectively describe the accounting and record keeping functions.
• Corporate actions/dividend and coupon income – may provide income or changes to an instrument over time that must be managed by the post-trade process.

Finance Modules video:
The Markets – Module 5
Exchanges
Time: 3 min 57 sec

Part 1:EXCHANGES AND OTHER INTERMEDIARIES (FISD Syllabus 1.2.3)

FISD syllabus requires you to:
Understand the different types of exchange and broadly understand the regulatory framework within which they operate.
• Equities and exchange traded bonds (stock exchanges)
– What do they do – listing, trading, settlement, data etc
– Who are the main organisations globally (see exchange appendix)
– In what ways are they automated and why does that matter
– What is "floor trading" and does it still exist
• Commodities (futures and options) exchanges
– What do they do
– Who are the main organisations
– How are they automated
– Where does floor trading still exist and how does it work

FINANCE MODULES COURSE NOTES:

Traditional Exchanges

Traditional exchanges have primarily been equities based exchanges (ie "stock" exchanges). They are typically "brick and mortar" exchanges except for NASDAQ which, although considered a traditional exchange, was the first fully electronic exchange.

Exchanges provide a number of key benefits and capabilities to market participants which include:
• Providing "liquid markets" and publishing best available prices for buyers and sellers
• Generally being highly regulated – primarily to provide principles of "equal treatment to all participants"
• Setting standards that offer protection to investors to know a listed company has met or exceeded a set of criteria such as the company's audited financial statements, its size, profitability and corporate governance

Traditionally, trading was conducted by "open outcry" (also known as "floor trading"). The prices were conveyed between buyers and sellers in the open, such that there was transparency that the best prices were being transacted between all trading parties.

Currently, due to the demands for higher speed trading, virtually all open outcry and "floor trading" is largely electronic and automated.

Types of market data elements that would be used with exchange data would include:
• Bid – the price a buyer is willing to buy at
• Ask or offer – the price a seller is offering to sell a security at
• Trade – a transaction price
• Open and close – open is the first price of the day, close is the final price at the end of the trading session, also known as "EOD" (end of day) price. In cases where markets never close or trade after hours in extended trading sessions, an EOD price will generally be arbitrarily set as a standard, for example "a 4:00pm close".
• Other exchange data may include market statistics such as leaders, laggards, hi, low, 52 week high, 52 week low, price change from prior trade or session, % change, % YTD (year to date) change.

Depth of market data is a key concept to understand best execution and measures of liquidity:
• Level 1 data, also termed "top of book", is the very best bid price to buy and offer price to sell at
– National best bid and offer (NBBO) is the term applied to Level 1 data in the US when a security can be quoted and traded on multiple exchange venues. It is governed by principles of Reg NMS (Regulation National Market System) where the NBBO must be shown to direct the next available trade to the exchange venue with the best price.
• Level 2 data is both the NBBO (Level 1) and the listing of nearby bids and offers along with volume (size) to provide detail on how liquid the market is in a particular security. That is, whether or not there are many shares available at a similar price to the NBBO (in which case it's highly liquid) or very few (which is a sign of an illiquid market).

The "full order book" is the entire inventory of bids and offers currently open on any particular security.

Commodities
Commodities exchanges differ from traditional exchanges in that the investment objectives were initially founded upon the transfer of risk from producers of agricultural goods to speculators willing to take on risk in the expectation and opportunity of financial reward.
• It started when farmers sought to obtain security in the price they would receive at harvest, hoping to obtain a harvest price greater than the cost to produce the goods or to protect against future uncertainty.
• Speculators sought to lock in a price with the expectation that the prices would move directionally to allow for profit when later selling the goods.
• The farmer model is an example of a "hedger"…one hedges one's bet. If it costs me $2.00 a bushel to grow wheat and I can sell it today for delivery at harvest for $3.00, I have locked in my profit and eliminated the risk that come harvest time the wheat may sell at a loss (any price less than $2.00).
• The buyer of the risk is a "speculator", willing to pay $3.00 for wheat today. It is his/her belief (usually based on research) that the wheat will sell for more than $3.00 at harvest.

Commodities today cover a large number of products, including:
• Agricultural products (wheat, corn, other grains etc.)
• Soft commodities (tea, coffee, sugar, cotton, orange juice etc.)
• Energy (petroleum, crude oil, natural gas, coal etc.)
• Precious metals (gold, platinum, silver etc.)
• Financial instruments (futures and options)

Futures
Futures provide the ability to buy and sell commodities at a set price for delivery at a future date. For example, if one purchased a "railroad car of pork bellies" for delivery in one month from today, the buyer (unless they are producing bacon and wish to take delivery of the pork bellies) will physically receive the commodity upon the delivery date. As a result, most commodities contracts for investment (speculation) purposes are "unwound" or sold prior to the delivery date.

Options
Another important instrument that evolved from the commodities markets is the option.
• Options provide the right to purchase at a set price, but not an obligation to do so, creating significant leverage due to the small premium price for the right, typically known as a "call option". Conversely, the right to sell at a set price, but not the obligation to do so, is termed a "put option".
• As stocks in the US became traded in "pennies" – from what had been in "1/8th of a dollar quotes called "decimalisation (e.g. $48.25 up 1/8th to $48.375 up 1/8th to $48.50, etc.)" – it created a significant increase in quote volumes ("the tick rate"). This has been particularly true with options tick rates based on the larger number of underlying (potential) strike prices for the optioned stock.
• Options are valued using a number of analytic formulas that utilise complex sets of data such as measures of price volatility of the underlying instrument and time. Traders refer to these formulas as "the greeks".

Finance Modules video:
The Markets – Module 6
Other Types of Exchanges
Time: 2 min 50 sec

Part 2: EXCHANGES AND OTHER INTERMEDIARIES (FISD Syllabus 1.2.3)

FISD syllabus requires you to:
Have an understanding of:
• Alternative Trading Systems (ATS) and Multilateral Trading Facilities (MTF), ECN electronic communications networks
– What are they
– Where do they exist and why
– How did they evolve
– What regulatory framework do they operate under
– Electronic trading
• Fixed Income, FX and other non exchange traded instruments
– The role of the inter dealer broker
• Evolution of voice and electronic trading
• The issue of counterparty credit management
– Role of FX dealing systems

FINANCE MODULES COURSE NOTES:

Alternative Exchanges & Crossing Networks
In the US markets, there are Alternative Trading Systems (ATS) that can function similarly to a traditional exchange and facilitate trading.

An Electronic Communications Network (ECN) is a form of an ATS.

In the United States, an ATS may be a "dark pool" trading facility as it provides anonymity to the underlying participants. In the European Union, the Multilateral Trading Facilities (MTF) is the European equivalent of a US market's ATS.

Multilateral Trading Facilities (MTF) were created under the regulatory initiative known as MiFid in the EU, whereas ATS are governed by the SEC in the US.

ATS and MTF exchanges evolved as alternatives to listing exchanges, primarily due to electronic crossing of block sized trades to transact a large volume and minimise creating a market impact or price swing as a result of the large trade size.

Fixed Income
Fixed income trading has historically been "off exchange" (or "over the counter" – OTC) and conducted by two transacting parties such as a sell side firm to a buy side firm or broker to broker.
As a result of not being traded openly on an exchange, fixed income "bid and offer" data has historically been limited in competitive price transparency e.g. what is the National Best Bid and Offer (or NBBO) for a bond.
Fixed income, however, is increasingly becoming more transparent, in part as ATS (or ECN) like services such as Bond Desk Group, Tradeweb, MSRB and others are increasingly offering fixed income quotes to market participants.

Foreign Exchange

Another non-traditional exchange is that of Foreign Exchange (FX).

• FX generally match international business interests with currency investors acting as risk takers to capture higher profits - that is, the FX market, much like the commodities market, acts as a vehicle to transfer risk from hedgers to speculators

• FX trading is often conducted on market data terminals or "dealing systems" which provide a similar function to a traditional exchange in supporting the trade transaction

• Common platforms today include Thomson Reuters Dealing3000, Bloomberg Trading and ICAP

Interdealer Brokers (IDBs)

Interdealer brokers or IDBs are known as a "broker's broker" or "broker to broker" - they provide anonymity between the trading parties.

• Providing anonymity between trading parties prevents one firm from front running or second guessing the intention of a buying or selling brokerage entity, which could often be seen as a competitor to the trading party

• It is similar in concept to dark pools because it removes the "who's selling, who's buying and why" aspect

Finance Modules video:
The Markets – Module 7
Governments, Central Banks and Regulators
Time: 4 min 16 sec

1.3 ROLE OF GOVERNMENT, CENTRAL BANKS AND REGULATORY AUTHORITIES (FISD Syllabus 1.3)

FISD syllabus requires you to:
Understand the role and function of governments, central banks and regulatory authorities that govern the financial markets. You should also understand:
• What the key regulatory bodies are
• How regulatory bodies impact market data and securities at a conceptual level, such as listings, ownership restrictions and trading rules
• What are the key laws and regulations that impact the creation, distribution and usage of financial information

FINANCE MODULES COURSE NOTES:

Governments
Governments function primarily as regulators in the financial markets, but it should be noted that governments are also often large scale participants in the market as borrowers.
One of the most significant government bodies is the European Union. As of April 2013, the EU consists of 27 member countries and in many ways has become a single government entity.

Appendix – EU Members & Currencies

EU member	Euro Currency (€)	Local Currency (Non EURO €)
Austria	€	
Belgium	€	
Bulgaria	-	BGN – Bulgarian Lev
Cyprus	€	
Czech Republic	-	CZK – Czech Koruna
Denmark	-	DKK – Danish Krone
Estonia	€	
Finland	€	
France	€	
Germany	€	
Greece	€	
Hungary	-	HUF – Hungarian Forint
Ireland	€	
Italy	€	
Latvia	-	LVL – Latvian Lats
Lithuania	-	LTL – Lithuanian Litas
Luxembourg	€	
Malta	€	
Netherlands	€	
Poland	-	PLN – Polish Zloty
Portugal	€	
Romania	-	RON – Romanian Leu
Slovakia	€	
Slovenia	€	
Spain	€	

Sweden	-	Swedish Krona
United Kingdom	-	Great British Pound

Non EU members using the EURO include: Andorra, Kosovo, Monaco, Montenegro, San Marino, Vatican City. The typical types of securities that are issued by governments as borrowers in the US are: Treasury Bills (short term, under 1 year) Bonds (long term, 5 plus years to maturity) and Notes (medium term, generally between 1 and 5 years to maturity). In the US markets therefore, most government debt is known as "Bills, Bonds, and Notes", whereas outside the US, most government debt is known as or termed "Sovereign Debt".

Regulating Agencies

Regulating agencies are government bodies that regulate publicly traded corporations, exchanges, investment companies and ensure operation of securities laws.

In the US:

• The SEC (Securities and Exchange Commission) – regulates public companies and capital markets
• The CFTC (Commodities and Futures Trading Commission) – regulates commodities markets
• FINRA (Financial Regulatory Authority) – regulates participants, primarily advisors and traders
• OFR (Office of Financial Research) a new regulatory body formed out of the Dodd Frank Act in the US (covered in more detail in the "Industry issue and trends" section)
• OCC & FDIC (Office of the Comptroller of the Currency & Federal Deposit Insurance Corp) US banking system regulators

In the EU:

• On 1 January 2011, the new European Supervisory Authorities, namely the European Banking Authority (EBA), the European Insurance and Occupational Pensions Authority (EIOPA) and the European Securities and Markets Authority (ESMA), as well as the Joint Committee of the European Supervisory Authorities (Joint Committee) commenced operation. Additionally, the European Systemic Risk Board (ESRB) was established. Together with national supervisory authorities, the new authorities are meant to ensure improved and harmonised financial supervision in the EU.
– The ESMA (European Securities Markets Authority) was formerly CESR (Committee of European Securities Regulators) in the EU, governing markets, public companies and participants

• In addition there are a number of national regulators such as
– The FSA (Financial Services Authority) in London, governing markets, public companies and participants in the UK. However in early 2013 the FSA split into two regulatory authorities: The Financial Conduct Authority (www.fca.org.uk) and the Prudential Regulation Authority at (www.bankofengland.co.uk)
– Federal Financial Supervisory Body (better known as BaFin) regulating Germany
– Each EU country has its own financial regulator who co-ordinates with the European Commission

Central Banks

Central banks are primarily responsible for the control of monetary policy, money supply and managing interest rates

• In the US: Federal Reserve (the FED)
• In the EU: European Central Bank (the ECB)
• By country: Bank of England, Bank of Japan, Central Bank of Ireland, Central Bank of Brazil, etc.

Finance Modules video:
The Markets – Module 8
Asset Types-Part 1
Time: 5 min 59 sec

MAJOR CLASSES OF ASSETS (FISD Syllabus 1.5)

Part 1: FISD syllabus requires you to:
Understand the primary asset classes, and what their basic characteristics are.
- *What are equities and the key types*
- *What are ETFs and CFDs*
- *What are fixed income instruments and the key types*
- *What are short term money markets*
- *What is FX including spot, forwards and swaps*
- *What are commodities*
- *What are futures and options*
- *What are credit derivatives*
- *What are structured products*

What are the broad data requirements/interests of such groups?

FINANCE MODULES COURSE NOTES:

Major Classes of Assets:

Equities – the traditional stock in a company
- Common stock is the traditional "stock" or ownership share in a company
- Preferred stock is similar to common stock but typically pays a fixed dividend
- Warrants/rights are instruments that provide the ability to buy stock at a fixed price during a set time frame

Mutual Funds & ETFs – pooled funds
- Mutual funds are pools of securities with professional management, typically offering lower cost and diversification
- ETFs (Exchange Traded Funds) are similar to mutual funds but trade actively on an exchange in real time much like a stock
- UITs (Unit Investment Trusts) are a fixed pool of securities that trade as a single security
- Collective Investment Trusts are a pooled investment, typically offered similarly as a mutual fund

Bonds – fixed income, interest bearing debt instruments
- Corporate bonds are typically longer term borrowing instruments used by corporations to fund company financing needs
- Government/sovereign bonds are similar to corporate bonds, but the borrower is a government
- Agencies are US sponsored agencies to support funding for home mortgages, however they are not the same as government agencies
- Municipal bonds are typically tax free bonds carrying lower interest rates to fund a community's development projects
- MBS (Mortgage Backed Securities) – a pooling of mortgage loans to consumers, packaged into a security
- CMO (Collateralised Mortgage Obligation) – a set of restructured components typically made out of a MBS
- ABS (Asset Backed Security) – any security that has some form of collateral in the form of a physical asset

Asset Class Asset Description

Asset Class	Asset	Description
Equities	Common stock	General stock issuance of a company
Equities	Preferred stock	Class of stock with generally a fixed and set dividend rate
Equities	Warrants/rights	Subclass offering to buy common stock at a fixed, set price (with expiry)
Equities	American Depository Receipt	Initial method of US listing of non US shares (ADR) traded in US markets
Mutual Funds / ETF (Exchange Traded Funds)	Mutual funds	Fund comprised of numerous underlying instruments
Mutual Funds / ETF (Exchange Traded Funds)	ETFs	Exchange traded funds, similar to mutual funds, but trade in real time
Mutual Funds / ETF (Exchange Traded Funds)	UIT/Collective Investment Trusts	Similar to mutual funds, generally a pooling of investments
Bonds	Corporate	Bonds issued to provide financing to corporates, may be fixed or variable
Bonds	Government/agencies	Sovereign debt of nations (bills, bonds, notes) / Agency – GNMA, FNMA
Bonds	Municipals	Issued by local municipalities to fund bridges, hospitals, schools etc.
Bonds	Mortgage backed securities (MBS)	Pooling of homeowner mortgages
Bonds	Collateralised Mortgage Obligation (CMO)	Hybrid of MBS where the repayment is sliced into “tranches”
Bonds	Asset Backed Securities (ABS)	Similar to MBS, but a pool of other debts; credit card, car loans etc.

Finance Modules video:
The Markets – Module 9
Asset Types – Part 2
Time: 6 min 6 sec

MAJOR CLASSES OF ASSETS (FISD Syllabus 1.5) - continued

FINANCE MODULES COURSE NOTES:

Derivatives
A security based on or linked to another instrument, but not the actual underlying security (hence, "derived from") these include:

• **Options are the most common derivative:**
– Call option - provides the buyer the right, but not the obligation, to buy the underlying instrument at a set price within a set time frame.
– Put option - provides the seller the right, but not the obligation, to sell the underlying instrument at a set price within a set time frame.

• **Future and Forwards** are contracts between two parties for deferred delivery of an asset, commodity or index. Both obligate the seller to sell and the buyer to buy at a predetermined price. (This is different to an Option where you have the right but not the obligation.)

• **Swaps** are typically a transferring of risk on a specified characteristic of typically a fixed income instrument such as a credit default swap. A credit default swap is an agreement whereby the party that holds a bond will pay a counterparty a premium to step in and ensure repayment to the holder should the bond default.

• **CDO (Collateralised Debt Obligations)** are similar to CMO (Collateralised Mortgage Obligations) whereby fixed income securities are repackaged to "slice" the underlying debt into a group of instruments designed to meet differing risk and time-horizon interests of the buyer.

• **CFD (Contract for Difference)** is an instrument, available in Europe only, where each party agrees to pay for the price difference in an underlying instrument's price movement, such that one party pays if the price goes up and the other party pays if the price goes down.

• **Structured Products** are hybrid instruments with multiple components, typically linked with an index to lower the borrower's cost by providing incentives in the structured instrument for greater upside while preserving a set minimum return.

• **Money Markets** are instruments with less than 1 year in maturity used for short term funding.
Commodities are typically physical goods (e.g. agricultural products) but can be financial instruments (e.g. S&P500 Index) or precious metals (e.g. gold, platinum, silver) traded primarily to transfer risk between hedgers and speculators.

• **Foreign Exchange** is traded similarly to commodities, typically traded to transfer currency fluctuation risk.

Asset Class Asset Description

Asset Class	Asset	Description
Derivatives	Options	Right to buy (call) or sell (put) an instrument at a set price for a time period
Derivatives	Swaps	Two parties "swap" obligations – a variable rate for fixed and vice versa
Derivatives	Credit Default Swaps (CDS)	Holder pays "insurance" to counterparty for guarantee payoff if they default
Derivatives	Collateralised Debt Obligation	Derived by "slicing" a portfolio of corporate (CDO) bonds into new tranches
Derivatives	Contract for Difference (CFD)	Europe ONLY – parties pay each other on the price direction up or down
Derivatives	Structured Products	Hybrid instruments with multiple components, generally linked to an index
Money markets	Commercial Paper, Repos, CDs	Short term instruments of under one year
Commodities	Futures, Spot	Physical products purchased or sold in options and futures markets
Foreign exchange	FX, Forwards, Spot	Foreign exchange trading instruments

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You have now reached the end of the Market Section.

Feel free to watch the videos again, study the notes and research some of the terminology if you need to.

You can also work through the quiz as a "mock exam" to test your knowledge as many times as you like.

The other sections that the FISD FIA Syllabus covers are:

- The Data
- The Technology
- Industry Issues & Trends

To book the FISD FIA exam visit: http://siia.net/fisdpc/test.asp

Good luck!
