BC3402 Tutorial 4 Question 3

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Agenda

- Background Information wrt CFDs
- Question 3a)
- Question 3b)
- Question 3c)

Case Summary

The collapse of US brokerage **MF Global** in October 2011 highlighted the popularity and the dangers of a derivative product known as a **contract for difference (CFD)**. MF Global's now-stricken Singapore arm was a big provider of this potentially lucrative product. In the wake of the scandal, which left many investors scrambling to get their money back, the Singapore Exchange (SGX) is looking at the possibility of clearing CFDs as part of its business. This would add another string to the SGX's bow, but it would also serve to safeguard the interests of investors who now buy and sell CFDs as part its business.

Case Summary

- ➔ MF Global - one of the largest brokers in the world (also a CFD provider).
- ➔ In Oct 2011, it filed for bankruptcy (8th largest business failure in US history).
- ➔ US$1.6bn was missing from customer accounts despite longstanding safeguards designed to protect the funds of brokerage firm customers.
- ➔ Company had made bets on the European debt situation in 2010.
- ➔ Bought government bonds that they felt were oversold (underpriced).
- ➔ However, the debt situation steadily worsened and bond prices continued to decrease.

Case Summary

- ➔ Company had a questionable practice of making intra-day borrowings from the customer portion of the segregated funds account, transferring funds out in the morning and returning them by the end of the trading day when the final balances were determined for regulatory purposes.
- ➔ By regulation, customer funds had to be **segregated** from the brokerage firm's operating capital to prevent a brokerage firm from diverting customer funds for its own use.
- ➔ Came to the point where MF Global was unable to repay customers' funds that it had borrowed.
- ➔ CFD investors had their positions closed out involuntarily.

CFDs (Contract for Differences)

- Leverage instrument, usually traded OTC with CFD Providers. It is a **Specified Investment Product (SIP)**
- **Cash-settled** but usually ample margin trading allowed
- Contract between buyer and seller:
  - Buyer must pay the seller the difference in the value of asset at contract time (if difference is negative then seller pays buyer instead)
  - Only considers the **price change** between entering and exit (**Not** the **underlying asset's value**)
- **No delivery of physical goods/securities**
- Allows exposure to price movement of the underlying assets **without ownership**

CFDs (Contract for Differences)

CFDs supports a range of underlying assets

- Shares
- Commodities
- Foreign Exchange

CFDs are popular as it allows for speculation on the future market movements of the underlying assets, without taking ownership of the asset. Moreover, it is traded **on margin**, hence, allowing for **amplification of gains** (but also applies for losses).

CFDs are attractive to traders who trade assets that are more costly, since they can use leverage to speculate on the price movement of the underlying asset.

Risk involving CFDs

1. **Market Risk**
   a. Taking position on the future **direction** of the underlying asset
   b. **Losses** may **potentially** be **unlimited** where losing positions are exposed to **margin calls**
   c. May have to satisfy margin calls at a short notice when markets are volatile, or risk being liquidated
   d. Spread may be large due to difference in bid and ask prices (thereby reducing profits)
2. **Counterparty Risk**
   a. Parties to a CFD may fail to meet **payment obligations due** if they become insolvent
   b. **No rights** to underlying assets
3. **Foreign Exchange Risk**
   a. Face exchange risk if CFD is quoted in a **different currency**

Risk involving CFDs

4. Regulatory Risk

a. **Not highly regulated**, broker credibility is based on reputation and financial viability

5. Client Money Risk

a. By law, money transferred to CFD providers (in countries where it is legal) **must be segregated** from the provider's money so as to prevent these providers from hedging their own investments.
b. However, the law may not prohibit client's money from being **pooled** into one or more accounts.
c. If other clients in the pooled account fail to meet their margin calls, the CFD provider can rightfully draft from the pooled account, and this could potentially **affect returns**.

a) Why do you think the current CFD market in Singapore does not have a central clearing system?

Unlike most other derivatives, CFDs have **no expiry date**, and most traders will likely prefer to open and close their positions ASAP.

If CFDs were centrally cleared, a **clearing duration** of T+3 will be **too slow.**

a) Why do you think the current CFD market in Singapore does not have a central clearing system?

Counterparty risks extend even beyond the broker/exchange in the case of CFDs

In the MF Global 2011 incident, several brokerages such as Kim Eng, CIMB, and AMFraser, used MF Global as the counterparty to their CFD products. They subsequently had **no market access** and had to **freeze trading/access** to their CFD products.

Since counterparty risks extend to multiple parties, the risk that CDP will be bearing will be **skyhigh**. **More collaterals** from the brokers will be **required** for CDP to centrally clear CFDs.

a) Why do you think the current CFD market in Singapore does not have a central clearing system?

As traders of CFDs do not actually own the underlying assets

CFDs will likely have to be **tracked separately** and **differently** from other financial securities.

The administrative and maintenance workload of this might be too heavy for one single entity to sustain. The costs outweigh the benefits.

a) Why do you think the current CFD market in Singapore does not have a central clearing system?

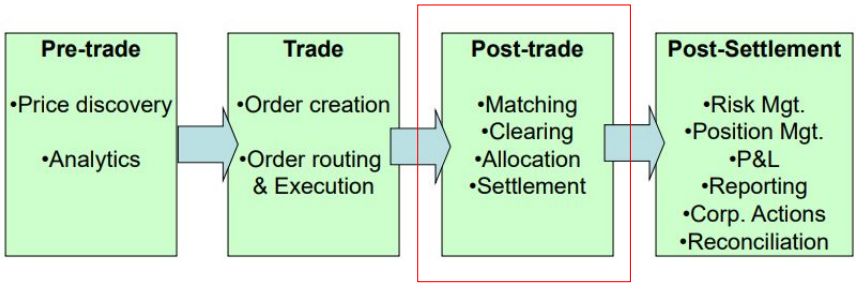
CFDs are highly leveraged

In addition to the high counterparty risks that CDP & SGX will have to bear, there are also **high margin risks** since CFDs are highly leveraged instruments.

Leveraged trades can lead to larger losses and are highly regulated in Singapore. However, CFD is an OTC product and **does not pass through regulated exchanges.**

Tutorial 4 | Question 3a

b) With the lifecycle of the trade in mind, explain how will SGX safeguard the interest of investors if it manages the clearing of CFDs?



Tutorial 4 | Question 3b

b) With the lifecycle of the trade in mind, explain how will SGX safeguard the interest of investors if it manages the clearing of CFDs?

Post Trade | Clearing & Settlement

Netting by Novation

- CCP manages interconnectedness of the market. Without a central party, **exposure is built up** bilaterally where there can be accumulation to large sums of monies over time. When interconnectedness are extensive, the **risk exposure increased** when engaging a party with a lower standard of risk control.
- By replacing bilateral agreements with CCP through **"novation"**, risk can be centrally managed and the CCP can net our offsetting transaction and absorb counterparty risk.

Benefits of Netting

- Reduction of credit risk
- Reduction of settlement risk
- Reduction of liquidity risk
- Reduction of systemic risk

Tutorial 4 | Question 3b

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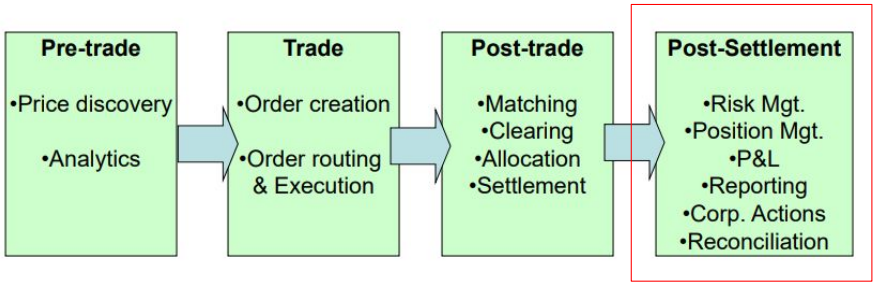

Tutorial 4 | Question 3b

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Post Settlement | Risk Management, P&L Accounting

Collateral Management (Margins)

- Bilateral OTC contracts can negotiate terms of collateral e.g. who pays and when
- In contrast, CCP requires posting of collaterals on all derivatives transactions. With **periodic** and **frequency** adjustment of collateral to **reflect changes in market price and conditions.**
- Using **initial margin** as an initiation to reflect the riskiness of the underlying transaction
- **Variation margin** in response to changes in market values, CCP is able to tailor its exposure to losses from default.
- Can require higher margin % for CFDs as well

Tutorial 4 | Question 3b

b) With the lifecycle of the trade in mind, explain how will SGX safeguard the interest of investors if it manages the clearing of CFDs?

Post Settlement | Corporate actions

Insurance

Historically used to cover some losses

Presently, utilized for operational risk where losses arising from such risk cannot be assign to CCP Default fund

Equity

CCPs are usually subsidiaries of for profit corporations.

Equity can be on a first loss position to absorb default losses.

Incentivise appropriate risk taking and risk management measures

Mutualisation

Having member firms to absorb default losses

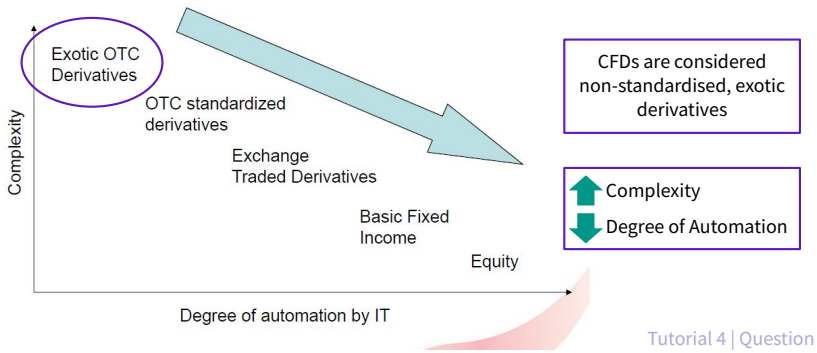
Contribution towards a default fund where it is covered. Additional contribution such as "Capital Calls" are capped.

Hence, losses are shared and risk is re-allocated.

Tutorial 4 | Question 3b

c) Assuming SGX takes up the role of clearing CFDs. Describe some of the technological and non-technological challenges SGX will face in designing the clearing mechanism.

Degree of automation by IT for different asset classes:



Tutorial 4 | Question 3c

c) Assuming SGX takes up the role of clearing CFDs. Describe some of the technological and non-technological challenges SGX will face in designing the clearing mechanism.

International connectivity & IT requirements
Allow for facilitation of smooth trading for CFD derivatives locally

Operational Risk Management
Combat possibilities of cyber attacks and inculcate cyber resilience

Distributed Ledger Technologies (DLTs)
Option to adopt blockchain technology to enable immutable trade record to increase efficiency, may lead to high cost

Tutorial 4 | Question 3c

c) Assuming SGX takes up the role of clearing CFDs. Describe some of the technological and **non-technological** challenges SGX will face in designing the clearing mechanism.

Creation & implementation of clear & effective regulations
To safeguard traders and mitigate risks associated with highly leveraged CFDs

Establishment of appropriate ownership and governance
To break down complexity of default funds and respective risk contagions

Balance of cost, risk, staffing and IT infrastructure
To strike a balance with the aforementioned to ensure optimisation