Factor Models of Returns

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About Me

Outline

Securities Markets

Spot Transactions

If I give you q units of some asset A, and you give me $\$p$, then:

- I have **sold** q units of A to you at $\frac{\$p}{q}$
- You have **bought** q units of A from me for $\frac{\$p}{q}$

Buying and selling are collectively called ‘trading’.

Securities Markets and Exchanges

The **market** is whatever lets you make trades. When we don't care who we trade with, we can just 'trade with the market'.

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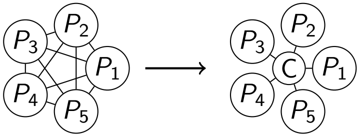
If you agree to give something to someone, you have an **obligation**. If someone agrees to give you something, you have a **right**.

Counterparty Risk

If I have an agreement with P_1 to buy 10 units for $\$p_1$ at T, and an agreement with P_2 to sell 10 units at $\$p_2$ at T, and no further rights/obligations, am I guaranteed to meet my obligations?

Settlement and Clearing

A **securities exchange** is a centralised venue serving a securities market for **exchange participants** (e.g. ASX, NYSE, TSE, HKEX, LME).



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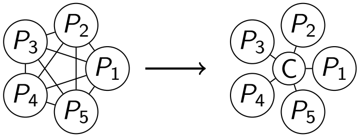

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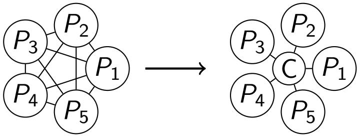

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Collateralisation

At certain intermediate times t' ($t \leq t' \leq T$), participants may be required to physically give ('post') something to the exchange to **collateralise** their obligations.

1. Money ('margin')
2. Assets ('locate'/'borrow')

If an agreement made on the exchange gives you rights to money or assets, this is typically as good as posting actual money or assets.

Summary

1. **Trading** is swapping money and assets
2. A **market** is whatever you use to trade
3. A **securities market** is a standardised way to agree to trades
4. Agreements consist of **rights** and **obligations**
5. A **securities exchange** is a centralised trading venue
6. After trades are agreed to, they will be **settled** in some standardised way
7. Traders may be obligated to post assets ('locate') or money ('margin')

Trading

Trade Formation

Market Data & Market Prices

Valuation

Portfolio Capitalisation

Because of collateralisation requirements, **the amount you can trade (and therefore your potential profits) are constrained by how much money you have at the exchange.**

Transaction Costs

Uncertainty

Decision-Making

Portfolio Management

Risk

Decision Theory

Capital Asset Pricing Model

Factor Models

Statistical Arbitrage

Options Trading