Global Financial Systems
Chapter 9
Trading and Speculation

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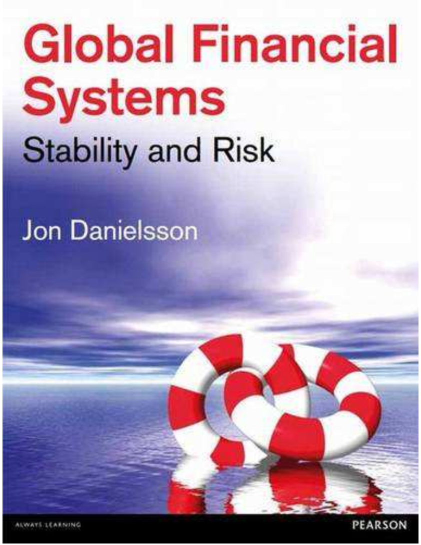
Book and slides



- Updated versions of the slides can be downloaded from the book web page `www.globalfinancialsystems.org`

Introduction

Speculation

Force for good and force for bad

- Speculators help farmers to plan production
- And traders to threaten the financial system
- There is no clear definition of the term "speculation"
- But generally investment is long–term, speculation short–term (buy and hold vs. buy and sell)
- It is often impossible to distinguish between "legitimate" and "illegitimate" speculation
- Speculation cannot be eliminated, even though many political leaders have expressed the desire to do so

Terminology (Appendix)

- Party and counterparty
- Orders, clearing (clearing house), settlement
- Exchange vs. over–the–counter (OTC)
- Market maker (quotes both sides)
- Broker arranges transaction and charges commission
- Netting
- Central counterparty (CCP)

Scandals and Abuse

London whale and JP Morgan

- Chief investment office at JP Morgan lost over $6 billion in London
- Part of adjustment to Basel III, thought to lower risk–weighted assets
- But became a speculative bet on the shape of the yield curve

"flawed, complex, poorly reviewed, poorly executed, and poorly monitored. The portfolio has proven to be riskier, more volatile and less effective as a hedge than we thought,"

LIBOR scandal

- LIBOR/EURIBOR benchmark interest rate (average reported rate)
- Very costly because many contracts (e.g. derivatives and mortgages) have the rates set by LIBOR ($800 billion)
- Some banks manipulated it, have been investigated and paid fines
- For Barclays it happened before/after crisis, e.g. manipulation of reported borrowing costs

Ponzi scheme

- An entity promises very high returns, collects money, pays handsome returns to early investors, which attracts more investors, in a pyramid scheme
- Named after Charles Ponzi in 1920 in US
- Best known recent case is Bernie Madoff ($18 billion paper losses)
- Happens all the time

Rogue traders

- A bank employee manipulates the system to take very high risk
- Nick Leeson and Barings (£824 million)
- Jérôme Kerviel's liberal interpretation of "low–risk arbitrage" causing a €4.91 billion loss to his employer, Société Générale (world record)
  - (Kerviel did not really get bonuses)
- Happens frequently

Trading and Risk

Market participants

- General term referring to those who engage in trading
- Proprietary trading (*prop trading*) buying and selling for a financial institution's own account, in order to make speculative profits
  - this is the target of the Volcker rule, UK Independent Commission on Banking (Vickers report), EU Liikannen report
- Institutionalization, outsource investment decisions, perhaps using a benchmark to evaluate performance
  - plenty of scope for abuse (e.g. underperformance and fraud)
  - hence highly regulated (micro–prudential regulations)

Hedge funds (HFs)

Lightly but not unregulated

- Lightly regulated funds that only sell to sophisticated and wealthy investors (*accredited*)
- Who consequentially should be able to take care of themselves (no need for micro–prudential protection)
- Still subject to securities laws and deal with regulated parts of the financial system
- Prime brokers
- Difficult to classify (except by absence of regulations)
- Before 2007 thought to be the main source of financial instability (echoes of 1998 and LTCM)
- It is a typical example of the *successful general syndrome*

Financial innovation

- Create new types of financial instruments
- Viewed favorably until 2007
- Perhaps because only proponents understood it
- We look at CDS, CDO, SIV, conduits, etc. later

"the most important financial innovation that I have seen in the past 20 years is the automatic teller machine"

Financial innovation "moves around the rents in the financial system", benefiting the inventor, not the clients.

Paul Volcker 2009

Trading Activities

Trading strategies

- Rules used by traders when deciding what to buy and sell
- Can be highly formalized and automated (like HFTs)
- Or a vague preference for low–risk or safe investments
- Often are unconscious
- We have seen several examples, especially in the endogenous risk chapter

Value investing

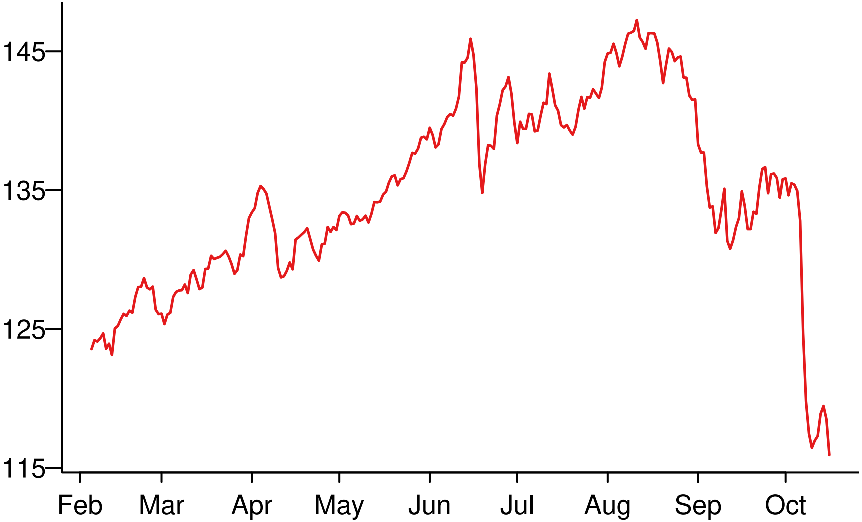
- Find companies trading below their *inherent worth*
- Stocks with strong fundamentals like earnings, dividends, book value, cash flow
- The strategy of Warren Buffett
- One example of a mean reversion trade

> Seeking yield is maximizing risk
>
> Warren Buffett

Carry trades

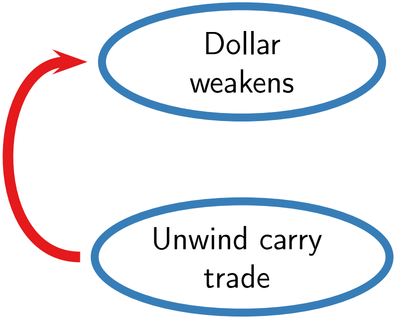
- Exploiting differences in yields
- We focus on foreign exchange carry trades
- Borrow money in a country with low interest rates, exchange it for a currency with high interest rates
- Profit from interest differential and the resulting foreign–exchange appreciation
- Very controversial because leads to excessive inflows of *hot money* and inability to manage exchange rates (we discuss this in detail later)

Yen–Dollar 1998



Endogenous risk feedback in unwinding

up by the escalator and down by the elevator (lift)



Carry trades as a source of contagion

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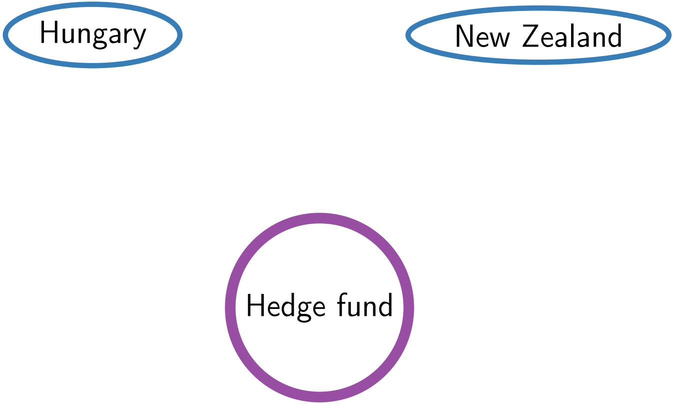

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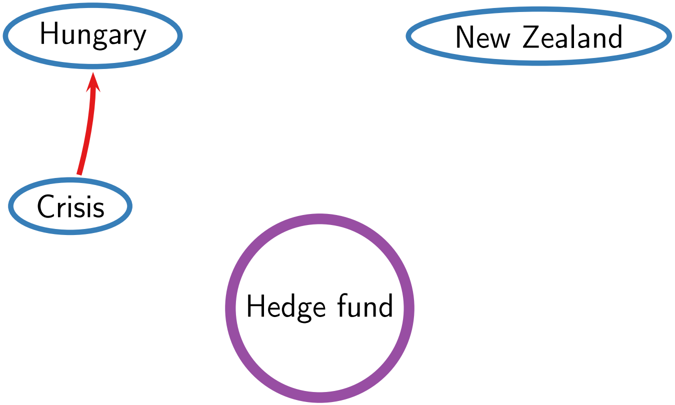

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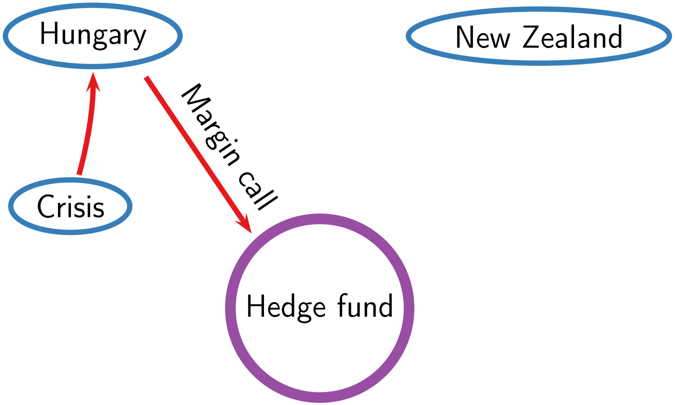

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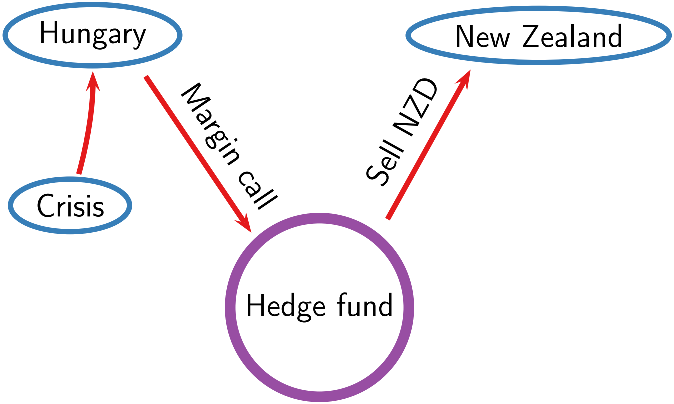
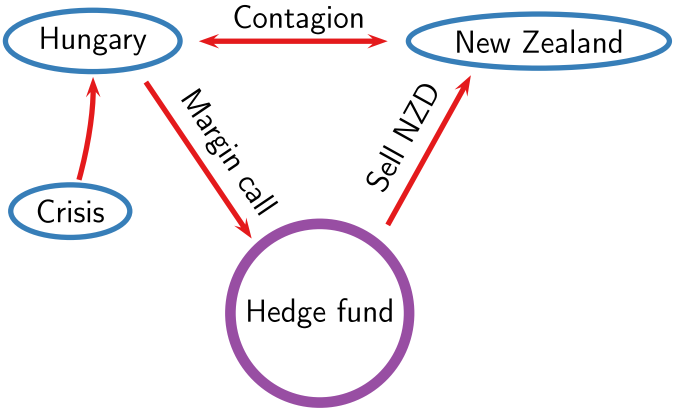


Carry trades as a source of contagion



Technical trading

- Forecasting prices with quantitative methods
- Often successful with statistical arbitrage and HFT
- Less likely to work at lower frequencies
- Many studies proclaiming it works
- A problem with data mining. Forecasting in–sample not a proof of success
- Most public studies have methodological problems
- However, if someone is successful they will not really talk about it in any detail

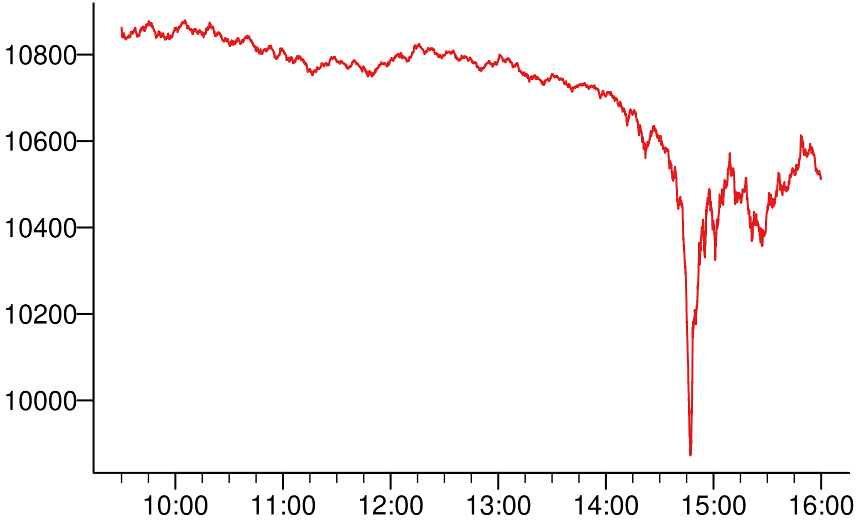
Momentum — trend following

- Buying assets that have seen recent price increases and selingl those that have fallen in price
- Can endogenously affect prices (self–validating in the short run)
- In the long run may cause bubbles and crashes
- May be conscious, but perhaps more likely done subconsciously
- For example, we only engage with successful managers

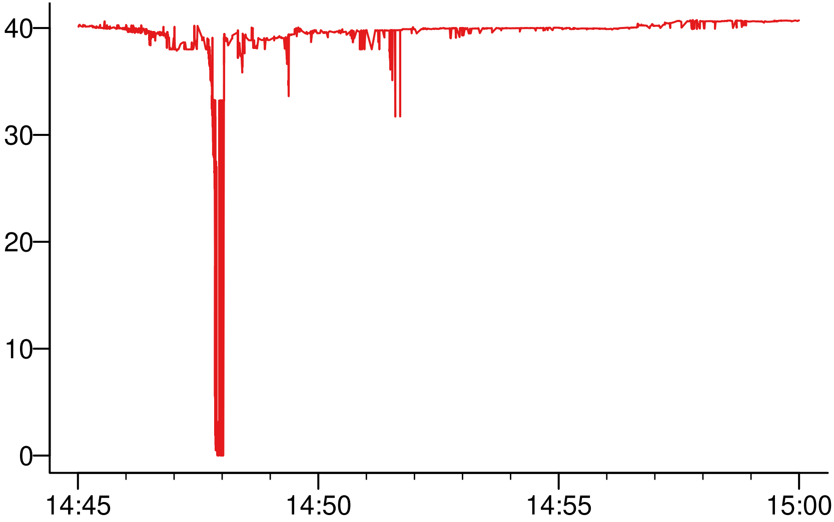
High–frequency trading (HFT)

- Using technology to beat everybody else
- Famous example Nathan Rothschild, pigeons and Napoleon's defeat in Waterloo in 1815
- Now done with high–speed computers, data networks and algorithmic trading
- Main fears crystallized in the flash crash of May 2010

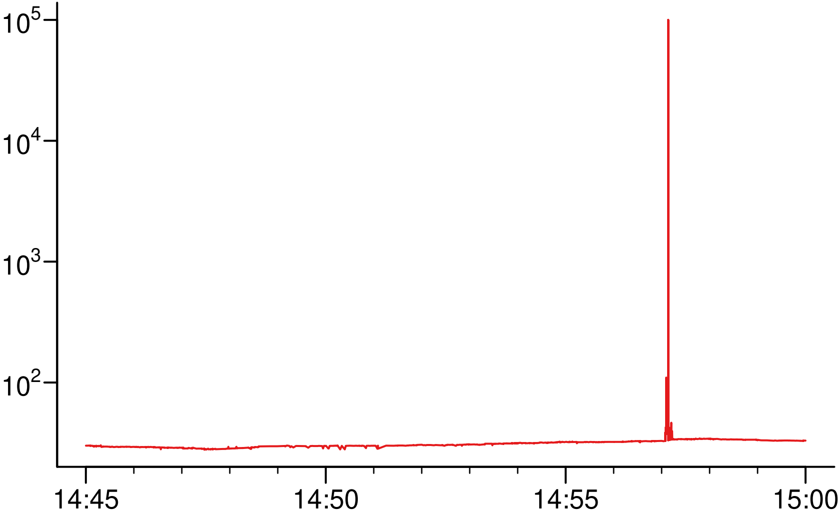
Flash Crash, May 6, 2010. DJIA



Accenture transaction prices



Sotheby's transaction prices



Impact

- The Flash Crash had little impact
- It happened intra day, and by closing time the market had recovered
- So did not impact on margins, mark–to–market, daily risk, etc.
- Hid the danger of HFT

Short selling

- Selling assets one does not own — borrow with the intention of buying back later
- In many cases a legitimate hedging activity
- But can be used to make directional speculative bets
- Difficulties in sorting out economic vs. political or moral arguments

Naked short selling

Two different activities

A. A short speculative position, rather than hedging

B. Short selling an asset without borrowing it

Issues

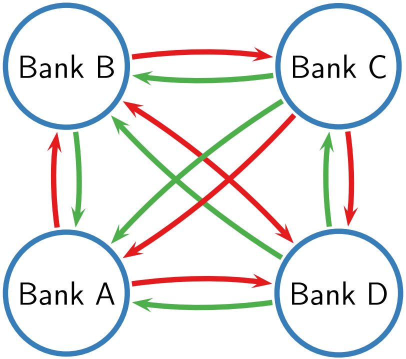
- Profits from falling markets
- But is it any different from just selling assets one owns?
- Hard to see an economic distinction
- Hence the political/moral dimension of profiting from a crisis, or causing prices to fall
- Frequently banned
- However little empirical evidence indicating damage from short–selling or effectiveness of banning

Policy

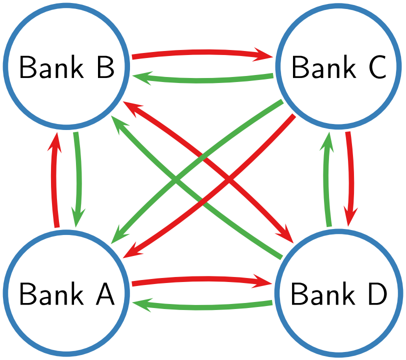
CCPs

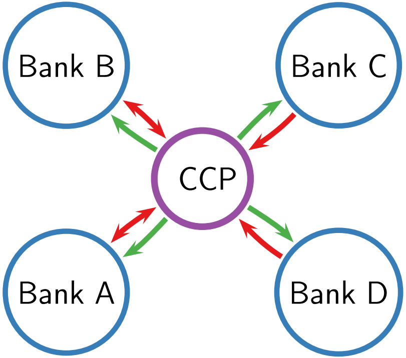
- The problem of asymmetric information
- And OTC instruments
- Makes it hard to net out positions, get a clear overview of size of market/positions, and can create enough uncertainty to cause an institution to fail, and even a crisis
- This is the problem a CCP aims to solve (see next slide)

CCPs



CCPs





How many CCPs

- Ideally only one in the world
- But this concentrates vulnerability
- And everybody wants to host it

Vulnerabilities

- The CCP cannot be allowed to fail — that would be a systemic crisis
- Hence is a candidate for a government bailout — Hong Kong bailed its CCP out in 1987
- Therefore, a CCP may practice *self preservation to the extreme*
- And therefore trigger vicious endogenous feedbacks
- Alternatively, it may take risk knowing it gets bailed out — moral hazard

Universal and narrow banking

- Should we restrict banking by activities?
- Glass–Steagall
- Investment banking and commercial banking
- Volcker rule, UK Independent Commission on Banking (Vickers report), EU Liikannen report

The rest of these slides relate to compensation and FTT as discussed in Chapter 9. The same discussion, but with updated content is in Chapter 21.

Bonuses

- Some bank employees get performance bonuses
- Presumably incentivizes them to take more risk than society likes
- Like creating a portfolio that delivers steady profits 99.9% of the time, but blows up the bank (and even the financial system) 0.1% of the time
  - can be very easy to create such portfolios
  - can be very difficult to identify

So does limiting bonuses reduce systemic risk?

- No evidence exists either way
- The biggest banking crisis in recent history involved no bonuses — Japan
- In the 19th century bonuses were absent
- And we still get crises and bank failures without bonuses
- It is unclear if bonuses make this worse

Policy options on bonuses

- Limit bonuses
- Will the rainmakers leave?
- EU now has a Directive limiting bonuses (discussed later)
- Banks say activity will migrate out the EU
- But no evidence suggests that would happen on a large scale
- And proponents say “good riddance”

Financial transaction tax (FTT)

- Impose a low tax on financial transactions
- Tobin tax
- Originally an anti–complexity device
- And has considerable merits as such
- However, sold as a way to fund governments
  - does not make much sense,
  - trading would sharply fall
  - and the very same banks that are receiving massive bailouts would have to pay the tax
- We return to the EU FTT later