FINC-UB.0049 Principles of Securities Trading
New course, offered Spring, 2015

Preliminary Syllabus

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Description

Most finance courses focus on how securities are defined, valued and used. This course is about how securities are *traded*: the design, operation and regulation of trading processes, mechanisms and protocols. Today's markets for stocks, bonds, and derivatives span a wide range in sophistication and complexity. For some securities, the market has evolved to an integrated network that offers very high levels of access and transparency. At the other exteme we have markets that operate as small dealer networks sustained by reputation and relationship. Some mechanisms are new (the open electronic limit order book); some are as old as antiquity (the single-price call auction). We have a general sense that all markets are heading toward some sort of electronic future, but the speed of progress and convergence varies widely. Our markets are infused with tensions between efficiency and fairness, competition and regulation, consolidation and fragmentation, speed and stability, and so on.

The course is based on a realistic picture of the trading process, so we go into a fair amount of insitutional detail, as well as some law and market regulation. The intellectual framework for the material comes from mainstream economics, financial economics, and the newer subfield of financial economics known as market microstructure.

- The course is aimed at people who are working for (or plan careers in) securities exchanges, securities trading, or trading support IT.
- The course covers general features trading strategies and algorithms. The goal here is determining how to implement our hedging and portfolio strategies in some optimal (cheap and effective) manner. It is not about developing trading strategies that are profitable in and of themselves. It will not teach you how to become a day trader or high-frequency trader. In fact, I hope that you come away with a better sense of the substantial barriers to long-term success in these activities.
- This course is an expanded version of the half-semester MBA course FINC-GB.3149. Click here for the most recent syllabus to the MBA course.

Workload and deliverables

The course requirements will involve a mix of midterm and final exams, one or more data

analysis projects, short written assignments, and participation in trading exercises. Some of the trading exercises are involve face-to-face non-automated trading: I usually set up a floor market in Kryptonite futures contracts. Most present day trading takes place on computers, though, and so too are most of the exercises. ***It is very important that you have a Windows laptop computer that you can bring to class.*** (Some of the software simply doesn't run on Mac OS.)

One piece of software that we're presently using is the Rotman Interactive Trader. If you're curious, there's a demo page where you can download the software and play with it (http://rit.rotman.utoronto.ca/)

Readings

- The principle text for the course is my set of teaching notes Securities Trading: Principles and Protocols (STPP). Note: these notes are in a constant state of revision, and chapter references given below may change.
- Other useful material can be found off my SDFM links and sources page.

Topics and schedule (Tenative)

Introduction to the US equity market.

- STPP Ch. 1 and 2.
- Download the 7EXv04.xlsm Excel spreadsheet and the 7EX Users Guide. Run the "demo" setup to verify that 7EX works on your machine. (*7EX* is a light-weight interactive Excel spreadsheet that simulates trading in a securities market. It presents you with a trading screen where you can track the market and place market and limit orders. You can play scenarios of varying complexity and trade/price dynamics, using market and limit orders. The simulations are short (generally under two minutes), and suitable for quick in-class exercises. 7EX requires Microsoft Excel 2010 or 2013 on a Windows machine. The simulation is coded in Visual Basic for Applications (VBA); macros must be enabled.)

The basic mechanisms of trade in equity markets.

- Limit order book markets STPP ch. 3.
- Fragmented markets STPP ch. 4.
- Public information STPP ch. 5
- In-class trading games/exercises
    - Veconlab bargaining game. (Trading in a "take it or leave it" situation.)
    - 7EX basic operations.

Trading mechanisms that augment or supplement limit order books

- Auctions and open/close procedures. STPP ch. 8.
- Dealers and designated market-makers. STPP ch. 9.
- Dark trading mechanisms, STPP ch 10.
- In-class trading games/exercise: the Veconlab common value call auction.
- In-class exercise: 7EX in the role of a dealer.

Trading costs

- Trading costs. STPP ch. 11.
- In-class trading games/exercises
  - Trading Kryptonite futures in a floor market.
  - Veconlab continuous double auction. This is an anonymous computerized version of the floor market.

Trading algorithms

- Conditional orders. Stop orders (market, limit, trailing); pegged orders; discretionary orders; reserve/iceberg orders, STPP Ch. 12.
- Order splitting. STPP Ch. 13.

Information

- Public information and trading halts, STPP Ch. 5.
- Private and inside information, STPP Ch. 6, 7.

Current issues

- Fees, rebates and other inducements. Maker/taker pricing; inverted ("taker/maker" pricing); payment for order flow. SEC Rule 606, STPP, Ch. 15.
- High-frequency trading.