FRE 517 (1.5) Futures Trading in Agricultural Commodities

Course Outline

Class Time: Mondays 10:00 -1:00 PM Room: FSC 1613

Instructor
Mark Liew mark.liew@ubc.ca

Prerequisite
FRE 501: Commodity Markets and Price Analysis.

Description
In this course, students will learn how commodity futures markets work, practice risk management, and test their own trading strategies in a competitive setting. This is a face-to-face course that includes an accompanying online component: students will trade in the online competitive setting of the 2016 CME Group Trading Challenge.

Students are expected to do the online trading outside of the class time. During class time the instructor will lead an overview of the traded futures contracts as well as issue weekly assignments which will cover contract specifications. The assignments will be designed to assist the teams in formulating their trading strategies, risk management limits/practices and seek out informative websites to guide their trading. During class time, students will also be asked to share their lessons learned, and trading ideas for the upcoming week.

Class Format
Classes of 3 hours duration, once a week for 7 weeks, beginning on January 4th, 2016.

Schedule of CME Group Trading Challenge:

- Jan 11 to Feb 1: Practice Round
- Feb 2 to Feb 19: Competition Round

The CME competition continues during the UBC midterm break and students are expected to continue with their online trading during that period of time.

Class Size
Minimum 6 students, Maximum 15 students. The CME Competition allows 3 graduate teams to compete per university and each team is required to have 3 to 5 students from the same academic program. MFRE wants to register a minimum of two teams, in order to make the class more interactive, hence a minimum of 6 students.

Interested students should apply by Dec. 5th by sending an email to mark.liew@ubc.ca (cc: Gabrielle Menard) with a statement of interest, describing why they think this class would be beneficial for them. Students will be selected on the basis of their academic preparedness and their

level of interest. Selected students will hear back by Dec. 7th, and teams will be registered then. The instructor will determine the team members randomly.

More details about the competition can be found here:
http://www.cmegroup.com/education/trading_challenge.html

Learning Objectives

- To learn about commodity futures – their history and role and how they function.
- To discover price setting patterns and systemic risk management (Novation, Margining).
- To analyze factors driving commodity prices, filter and weight old vs new information.
- To practice formulating trading and communicating those ideas effectively.
- To identify, evaluate, and articulate the risks associated with trading commodity futures, and to be capable of managing these risks.
- To gain experience in portfolio construction, and assessment of outcome over 6 weeks of trading and usefulness in determining longer-term results

Course Requirements

Assessments	Date	Percent of Grade
Assignments	First four weeks (1/week)	30 percent
Class participation	Every week	10 percent
Final report	Due 2 weeks after the end of the competition	50 percent
Peer evaluation	Due 2 weeks after the end of the competition	10 percent

Assignments

The assignments will be designed to assist the teams in formulating their trading strategies, risk management limits/practices and seek out informative websites to guide their trading.

Participation

As a peer learning class, participation is highly valuable and desired. The class participation grade will be based on contributions to class discussions. In particular, students will be taking on different roles (portfolio manager, risk manager, and analyst) throughout the practice round, before fixing their roles for the competition round. Participation will be graded weekly, according to how well each student has played their respectively assigned roles that week. The instructor will be assigning these grades.

Final Report

Each group will submit a final report on their trading experience and lessons learned, due two weeks after the end of the competition. This report will also include an analysis of the factors driving prices, risk management etc.

Peer Evaluation

Peer evaluation is an important part of the grading rubric because students spend a significant majority of the time for this class together outside of the classroom (trading a few hours each day). Each student will fill out a peer evaluation form for other students in the class. Peer evaluations

will be weighted more heavily for team members (10%) vs. non-team members (5%). The instructor will explain the rationale behind such a high weight on peer evaluation and go over the evaluation rubric during the first class.

Academic Dishonesty

Please review the UBC Calendar "Academic regulations" for the university policy on cheating, plagiarism, and other forms of academic dishonesty. **Academic dishonesty will be dealt with very seriously in this course.**

Online Course Material

Available at Connect: http://www.connect.ubc.ca. You are required to regularly login to your course page for FRE 517. Your syllabus, course-lecture slides, additional material, announcements, assignments, and grades are available.

Software and Readings

Software:

1. CME Group CQG trading platform

Readings:

1. Clark, E., Lesourd, J.-B., & Thiéblemont, R. (2001). *International commodity trading: Physical and derivative markets*. Chichester [UK: Wiley].
2. Katsanos, M. (2008). *Intermarket trading strategies*. Chichester: John Wiley & Sons, (Asia) Pte Ltd.
3. Bloomberg, Reuters News, USDA crop reports, Economic Releases

Tentative Lecture Topics (to be finalized)

Admin & Preparation	▪ Dec 5: Deadline to submit statement of interest to instructor ▪ Dec 7: Registration of teams by the instructor ▪ Dec15 to Jan 4: Participants will be given some background material to read
Weeks 1-4	▪ Review of the basics of commodity and futures contracts and in particular, the origin of futures markets and function that they serve. ▪ Discussing the role of new information in markets ▪ Discussing the role of financial speculation in commodity markets ▪ Weekly assignments will cover specific commodity contracts - margin calculations, position sizing, and trading hours ▪ Fundamental and Technical review of the various contracts and strategies (spreads) allowed in the competition, including Corn, Soybeans, Palm Oil, Live Cattle, Crude Oil, Natural Gas, Forex (EURUSD), Gold and S&P 500. ▪
Weeks 5-7	▪ Discussing hedging strategies used in the corporate world, using derivatives such as swaps, collars, options, swaptions and how market intermediaries structure such solutions using the futures markets ▪ Choosing portfolio of contracts to trade, by identifying the highest reward to risk potential contracts ▪ Formulating trading and hedging strategies for the competition ▪ Risk management utilizing the following: o Daily/weekly Reporting o Daily/Weekly Trading Limits (volume) o Overnight/Daily/Weekly Position Limits (leverage limits) o Portfolio optimization utilizing reward/risk ratios ▪ Weekly student led discussion about their trading experiences