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University of Virginia
Department of Economics

ECON [4559]: Global Financial Markets
Spring Semester 2016

General Introduction:

The main objective of this course is to study the role and the importance of the financial system in the global economy. Instead of focusing only on the financial world (as it is usually done in classical portfolio theory), we will construct general equilibrium models that encompass the financial markets as well as the rest of the economy. In this way, we will understand not only how financial markets work, but also how they affect the rest of the economy. We will use these models to understand the recent subprime crisis, the European sovereign debt crisis, and many market phenomena such as extreme volatility and contagion.

Prerequisites: Intermediate Microeconomics (ECON 3010 or ECON 3110)

Course Time and Location:

Tuesdays and Thursdays, 9:30am-10:45 am. Monroe Hall 122.

Office Hours:

Wednesdays 11am-12:30pm.

TA and his Office Hours:

There is a TA, his name is Diego Legal-Cañisá. Email: dal2am@virginia.edu
His office hours are on Thursday 11:00-12:00 a.m. and Friday 1:45-2:45 p.m. at Monroe Hall's basement.

Course Grading:

Problems Sets (20%).

There are 5 problem sets, one for each part of the course. We allow collaboration on problem sets, and **encourage you to work in study groups of at most 4 students**. You should turn in **one** assignment for each study group. Assignments that are **late** will not be accepted and a grade of zero will be assigned.

Midterm 1 (20%).

The midterm will take place during class on 03/03. Midterm 1 will cover Parts I and II.

Midterm 2 (20%).

The midterm will take place during class on 04/26. Midterm 2 will cover Parts III and IV.

There will be **no make-up** midterm. You should have **prior** approval (for example for participation in a University sponsored event) or valid documentation (in case of an illness) for missing a midterm. In the case of a missed midterm, the weight will be added to the final exam. Without prior approval or documentation, a score of zero will be assigned to the midterm.

Final (40%).

The final will take place on 05/09 2pm-5pm. The final will cover all course material; Parts I to V.

Computer Classes:

We will hold “matlab classes” to learn how to use Matlab to solve problems in finance. The computer sections are an integral part of the course, and student attendance is expected. We will use the computer sections to expand on ideas presented in the lectures, to solve problems, to discuss homework problems, and to provide an opportunity for students to ask questions about anything that requires clarification.

Syllabus:

The following outline gives a guide to the material that I will cover in the course. Lectures are indicative: I may well find that some topics require more or less time to cover.

January

Part I: General Equilibrium and Allocation Efficiency

21	Thursday	Why Finance?
26	Tuesday	General equilibrium (GE) model.
28	Thursday	Solving GE examples.

February

2	Tuesday	Allocation Efficiency. First Welfare Theorem.
4	Thursday	Matlab Class 1. Problem Set 1 (due 02/11 in class).

Part II: Financial Equilibrium

9	Tuesday	Financial Equilibrium (FE).
11	Thursday	Equivalence of GE and FE. Examples. Problem Set 2 (due date 02/18 in class)

Part III: Adding Time into Financial Equilibrium

16	Tuesday	Financial Equilibrium with time. Model. Equivalence.
18	Thursday	Fisher’s theory of interest rates. Impatience.
23	Tuesday	Long-lived assets. Present Value with constant interest rates.
25	Thursday	Yield curve. Arbitrage.

March

1	Tuesday	Matlab Class 2. Problem Set 3 (due date 03/15 in class)
3	Thursday	Midterm 1 (It covers Parts I and II).
8	Tuesday	Spring Break
10	Thursday	Spring Break

Part IV: Adding Uncertainty into Financial Equilibrium

15	Tuesday	States of the world. Risk aversion measures.
17	Thursday	Uncertainty in FE. State pricing. Arrow Prices.
22	Tuesday	FE-CE equivalence. Efficiency. Risk Sharing.
24	Thursday	Introduction to CAPM as a FE. Example to show main results.
29	Tuesday	Matlab Class 3.
31	Thursday	Steve Ross Lecture.

April

5	Tuesday	CAPM. Theory results.
7	Thursday	CAPM. Theory results.
12	Tuesday	Matlab Class 4. Problem Set 4 (due date 04/19 in class).

Part V: Default in Financial Economies. Collateral

14	Thursday	Financial Models with Collateral.
19	Tuesday	Experiment in the Laboratory.
21	Thursday	Collateral and Asset Pricing. Collateral Value.
26	Tuesday	Midterm 2 (Covers Parts III and IV).
28	Thursday	The Leverage Cycle. Contagion and Flight to Collateral.

May

3	Tuesday	Matlab Class 5. Problem Set 5 (due on day of Final 05/09)
9	Monday	Final Exam. 2pm-5pm.

Course reading:

You will be examined exclusively on material explicitly covered in class or on problem sets. Lecture notes (on the web) will accompany every class except the first. There is no official textbook. The closest source for the course is an undergraduate course at Yale University taught by Professor John Geanakoplos. You can always get those notes online from Yale in case you decide to complement the class. I have also listed good alternatives and supplements, to give you an idea of where you could read more if you become interested. None of these is required. You should be able to follow the course simply by attending the lectures, reading the web notes, and doing the problem sets.

Finance Textbooks

Corporate Finance, Stephen Ross, Randolph Westerfield, Jeffrey Jaffe, New York, Irwin, McGraw Hill, 1999, 868 pp.

A Random Walk Down Wall Street, Burton Malkiel, New York, W.W. Norton, 1999, 461 pp.

Investment Science, David G. Luenberger, New York: Oxford University Press, 1998, 494 pp.

Investments, 6th edition, William F. Sharpe, Gordon J. Alexander, Jeffery V. Bailey, Upper Saddle River, NJ: Prentice Hall, 1999, 962 pp.

Finance, Zvi Bodie and Robert C. Merton, Upper Saddle River, New Jersey: Prentice Hall, 2000, 479 pp.

Quantitative Analysis for Investment Management, Robert A. Taggart, Jr., Upper Saddle River, New Jersey: Prentice Hall, 1996, 306 pp.

Modern Portfolio Theory and Investment Analysis, 5th edition, Edwin J. Elton and Martin J. Gruber, New York: John Wiley & Sons, Inc., 1995, 715 pp.

Money, Credit, and Capital, James Tobin, with Stephen Golub, Boston, Irwin-McGraw Hill, 1998, 316 pp.

Pioneering Portfolio Management. An Unconventional Approach to Institutional Investment, David F. Swensen, New York: The Free Press, 2000, 366 pp.

Probability and Statistics, Morris H. DeGroot, Reading, Massachusetts: Addison-Wesley Publishing Co., 1975, 607 pp.

Books about the Current Crisis

Fool's Gold by Gillian Tett (Free Press 2009)

Street Fighters: The Last 72 Hours of Bear Stearns, The Toughest Firm on Wall Street by Kate Kelly (Penguin Group 2009)

House of Cards: A Tale of Hubris and Wretched Excess on Wall Street by William D. Cohen (Doubleday 2009)

A Colossal Failure of Common Sense: The Inside Story of the Collapse of Lehman Brothers by Lawrence G. MacDonald with Patrick Robinson (Crown 2009)

Lords of Finance: The Bankers Who Broke the World by Liaquat Ahamed (Penguin Press 2009)

The Cost of Capitalism: Understanding Market Mayhem and Stabilizing our Economic Future by Robert J. Barbera (McGraw-Hill 2009)

The Origin of Financial Crises: Central Banks, Credit Bubbles and the Efficient Market Fallacy by George Cooper (Vintage Books 2008)

Bad Money: Reckless Finance, Failed Politics, and the Global Crisis of American Capitalism
by Kevin Phillips (Penguin Group Updated Edition 2009)

The Two Trillion Dollar Meltdown: Easy Money, High Rollers, and the Great Credit Crash
by Charles R. Morris (Public Affairs Revised Edition 2009)

The Return of Depression Economics and the Crash of 2008
by Paul Krugman (W. W. Norton & Company 2008)

The New Paradigm for Financial Markets: The Credit Crisis of 2008 and What it Means by
George Soros (New York: PublicAffairs 2008)

Regulating Wall Street: The Dodd-Frank Act and the New Architecture of Global Finance edited
by Viral V. Acharya, Thomas F. Cooley, Matthew P. Richardson, Ingo Walter (John Wiley &
Sons, Inc. 2011)

On the Brink: Inside the Race to Stop the Collapse of the Global Financial System by Henry M.
Paulson, Jr. (Business Plus 2010)

The Fall of the House of Credit: What Went Wrong in Banking and What Can Be Done to Repair
the Damage by Alistair Milne (Cambridge University Press 2009)

Third World America: How Our Politicians Are Abandoning the Middle Class and Betraying the
American Dream by Arianna Huffington (Crown Publishers 2010)

Credit Crises: From Tainted Loans to a Global Meltdown by Jochen Felsenheimer, Philip
Gisdakis (Wiley-VCH Verlag GmbH & Co. KGaA 2008)

The Greatest Trade Ever: The Behind-the-Scenes Story of How John Paulson Defied Wall Street
and Made Financial History by Gregory Zuckerman (Broadway Books 2009)

The Housing Boom and Bust by Thomas Sowell (New York: Basic Books Revised Edition 2010)

The Trillion Dollar Meltdown: Easy Money, High Rollers, and the Great Credit Crash by Charles
R. Morris (New York: [PublicAffairs](#) 2008)

The Big Short: Inside the Doomsday Machine by [Michael Lewis](#) (New York: W. W. Norton &
Company 2010)

After the Music Stopped: The Financial Crisis, the Response, and the Work Ahead by Alan S.
Blinder. (New York: Penguin Press 2013)

The Bankers' New Clothes What's Wrong with Banking and What to Do about It by Anat
Admati & Martin Hellwig (Princeton University Press 2013)

Books about Past Crises

Stabilizing an Unstable Economy by Hyman P. Minsky (New York: McGraw-Hill 2008)

Devil Take the Hindmost: A History of Financial Speculation by Edward Chancellor (New York:
Farrar, Straus, Giroux 1999)

When Genius Failed: The Rise and Fall of Long Term Capital Management by Roger Lowenstein (New York: Random House 2000, 252 pp.)

A Primer on Money, Banking, and Gold by Peter L. Bernstein (Hoboken, N.J.: John Wiley & Sons, Inc. 2008)

Lords of Finance: The Bankers Who Broke the World by Liaquat Ahamed (The Penguin Press HC 2009)

The Ascent of Money: A Financial History of the World by Niall Ferguson (New York: Penguin Books 2009)

Panic: The Story of Modern Financial Insanity by Michael Lewis (New York: W.W. Norton & Company 2009)

Manias, Panics, and Crashes: A History of Financial Crises by Charles P. Kindleberger, Robert Aliber, (Hoboken, N.J.: John Wiley & Sons 5th Edition 2005)

Honor Policy:

I trust every student in this course to comply with all of the provisions of the UVa Honor System. By enrolling in this course, you have agreed to abide by and uphold the Honor System of the University of Virginia.

- All graded assignments must be pledged, including the homework.
- You may not access any old problem sets, old exams, answer keys without my explicit permission.
- When given permission to collaborate with others, do not copy answers from another student.
- Always cite any resources or individuals you consult to complete an assignment.
- All suspected violations will be forwarded to the Honor Committee and at my discretion, you may receive a grade of zero on that assignment regardless of any action taken by the Honor Committee.

Please let me know if you have any questions regarding the course honor policy.

If you believe you may have committed an Honor Offense, you may wish to file a Conscientious Retraction (“CR”) by calling the Honor Offices at (434) 924-7602. For your retraction to be considered valid, it must, among other things, be filed with the Honor Committee before you are aware that the Act in question has come under suspicion by anyone. More information can be found at www.virginia.edu/honor.