

**Professor Ana Fostel**

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**University of Virginia**

**Department of Economics**

**ECON 4365: Global Financial Markets**

**Fall Semester 2024**

**Sections 98 and 99**

**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 financial crises and many market phenomena such as extreme volatility and contagion.

Prerequisites: Intermediate Microeconomics (ECON 3010 or ECON 3110).

**Course time and location:**

Econ 4365-98:

Tuesdays-Thursdays 9.30am-10.45am. Monroe Hall 116.

Econ 4365-99:

Tuesdays-Thursdays 11.00am-12.15pm. Monroe Hall 116.

**Office hours:**

Wednesday 1pm-3pm.

Office hours will take place in Monroe Hall 232, by email appointment only.

**TA information and office hours:**

Name: Jose Ferrer

Email: [whp6ku@virginia.edu](mailto:whp6ku@virginia.edu)

Office hours: Tuesday 10.30am-12.30pm. Monroe Hall Basement.

Name: Zitian Wang

Email: zw3qt@virginia.edu

Office hours: Friday 12.15pm-2.15pm. Monroe Hall Basement.

**Course grading:**

Problems Sets (20%).

There are 4 online problem sets. Although each student will need to individually submit the problem sets, we allow and encourage collaboration on problem sets. Assignments that are **late** will not be accepted and a grade of zero will be assigned.

<b>Problem Set</b>	<b>Material</b>	<b>Date Posted</b>	<b>Due Date</b>
1	I and II	17-Sep	20-Sep
2	III	10-Oct	15-Oct
3	IV	14-Nov	19-Nov
4	V	5-Dec	10-Dec

In-Class Tests (40%).

There will be 3 tests during class time.

<b>Test</b>	<b>Material</b>	<b>Date</b>
1	I and II	8-Oct
2	III	29-Oct
3	IV	21-Nov

The three tests will count for 40% of the final grade. For grading purposes, I will take **the average of the three**.

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

Final (40%).

Econ 4365-98:

The final exam will take place at MH 116 on December 17<sup>th</sup> from 2:00pm to 5:00pm.

Econ 4365-99:

The final exam will take place at MH 116 on December 16<sup>th</sup> from 9:00am to 12:00pm.

The final will cover Parts I to V.

**Computer classes:**

We will hold “Matlab classes” to learn how to use Matlab to solve problems in finance. These classes are an integral part of the course, and student attendance is expected. We will use the computer classes 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.

**Course outline:**

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.

Date	Day	Topic
<b>August</b>		
27	T	Why Finance: introduction
		<b>Part I: General Equilibrium and Allocation Efficiency</b>
29	Th	I.1: GE model
<b>September</b>		
3	T	I.2: GE examples
5	Th	I.3: Efficiency
		<b>Part II: Financial Equilibrium</b>
10	T	II.1: Financial Equilibrium Model
12	Th	II.2 Equivalence of GE and FE. Examples.
17	T	II.3: Matlab Session 1/ PS 1
		<b>Part III: Adding Time into Financial Equilibrium</b>
19	Th	III.1: Present Value/interest rate/Fisher equations/Stock valuation
24	T	III.2: Equivalence I FE and GE. Fisher's theory
26	Th	III.3: Long lived assets
<b>October</b>		
1	T	III.4: Yield curve
		<b>Part IV: Adding Uncertainty into Financial Equilibrium</b>
3	Th	IV.1: States of the world, primitives
8	T	Test 1 (part I and II)
10	Th	III.5: Matlab Session 2/PS 2
15	T	No class. Reading day.
17	Th	IV.2: GE with uncertainty. Spanning. Arbitrage.

22	T	IV.3: Arrow Securities. State pricing. FE-CE Equivalence.
24	Th	IV.4: Matlab Session 3.
29	T	Test 2 (part III)
31	Th	IV.5: CAPM introduction example
<b>November</b>		
5	T	No Class. Election Day.
7	Th	IV.6: CAPM Markovitz
12	T	IV.7: CAPM general results
14	Th	IV.8: Matlab Class 4/PS 3
<b>Part V: Default in Financial Economies. Collateral</b>		
19	T	V.1: C-model and collateral
21	Th	Test 3 (Part IV)
26	T	V.3: L-economy. Overvaluation.CV
28	Th	No class. Thanksgiving
<b>December</b>		
3	T	V.4: Overvaluation, Leverage cycle
5	Th	V.5: Matlab Session 5.PS 4

### 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. 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 are 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, 6<sup>th</sup> 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, 5<sup>th</sup> 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 Financial Crises

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)

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 5<sup>th</sup> 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](http://www.virginia.edu/honor).