

**Syllabus**  
**Empirical Corporate Finance (FINC 489)**  
**Winter 2014**

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### **Course Description**

The aim of this course is to prepare Ph.D. students to do research in Empirical Corporate Finance. This course strictly relates to the Ph.D. course Corporate Finance (486) (Benmelech and Krishnamurthy) offered in the fall. While 486 is a theory class, Empirical corporate finance focuses on the empirical literature. The scope is to discuss empirical papers that are related to the theories formulated in the corporate finance theory class, but also to help students to develop identification strategies for testing corporate finance hypothesis. The course is organized around published and working papers in the field with an emphasis on the identification problem and solutions. Rather than providing an exhaustive overview of the field, the course focuses in depth on selected topics to illustrate different empirical approaches to the same or related questions. The course requires a good knowledge of the 1st year Ph.D. courses in econometrics and the corporate finance class. It is open to all Ph.D. students. Part of the course will be devoted to teaching how to use the basic databases in Finance (Computstat, CRSP, WRDS databases), including an introduction to UNIX and SAS. Stata knowledge is assumed. Empirical exercises to learn to extract and manipulate those data will be given to the students. At the end of the course, the students will master how to use the most common databases in finance.

### **Grading**

Grades will be based largely on referee reports, discussion of papers, and homework (90% of the total grade). The remaining 10% of the grade will be based on class participation.

### *Homework*

The objective of the homework is to reproduce some empirical results in other papers and get accustomed with the data and the econometric part of the course. You should use and learn STATA to do the exercises. Some very preliminary knowledge of STATA will be taught during review session, the rest is to be learned by the students while doing the homework.

### *Referee reports*

Referee reports are an integral part of being an academic. They are used in this course to encourage the students to read paper in a critical way. I will share with you some of mine referee reports and we will discuss how to distinguish between a good and a bad referee report. Referee reports should be written as if you were the reviewer for potential publication of the article in a major academic finance journal. Each report should: (1) succinctly state each of the paper's important contributions in the best possible light; (2) critique any shortcomings; (3) make suggestions for improvements; and (4) be accompanied by a short letter to the editor recommending rejection, revision, or acceptance and the reason for the recommendation.

### *Research proposal*

The proposal should be approximately five pages. You should explain the contribution that you hope the proposed paper will make, what is the background literature, and where you will get the data.

### ***Recommended Books***

There is no textbook that matches the contents of the course exactly. A useful reference for event studies is chapter 4 of

\* Campbell, J. Y., A. W. Lo and A. C. McKinlay, *The Econometrics of Financial Markets*, Princeton: Princeton University Press, 1997.

A basic book covering Corporate Finance is:

\* Grinblatt, M. and S. Titman, *Financial Markets and Corporate Strategy*, Irwin/McGraw-Hill, 2nd edition.

There is also no textbook that is the absolute bible for conducting empirical work. I have found the following book to be extremely useful:

\* Wooldridge, J. M., *Econometric Analysis of Cross Section and Panel Data*, Cambridge, Massachusetts: The MIT Press, 2002.

Other useful econometrics books are:

\* Goldberger, A., *A Course in Econometrics*, Cambridge, Massachusetts: Harvard University Press, 1991.

\* Green, W., *Econometric Analysis*, New Jersey: Prentice Hall, 5th edition, 2003.

(Covered readings are indicated on the course outline)

**Structure of the lectures and readings (tentative—I will send updates with paper to read)**

## **Mandatory Review Session:**

### **Introduction to UNIX, and STATA, SAS, Computstat and CRSP – Selwyn Sze Wing Yuen**

#### **Lecture 1/2: Course overview, structure and introduction & Corporate Investment**

##### *Investment and Cash Flow Sensitivity*

- o Fazzari, Steven M., Glenn R. Hubbard, and Bruce C. Petersen, 1988, Financing constraints and corporate investment, *Brookings Papers on Economic Activity* 1, 141–195.
- o Fazzari, Steven M., Glenn R. Hubbard, and Bruce C. Petersen, 2000, Investment-cash flow sensitivities are useful: A comment on Kaplan-Zingales, *Quarterly Journal of Economics* 115, 695–705.
- o Kaplan, Steven N., and Luigi Zingales, 1997, Do Investment-Cash Flow Sensitivities Provide Useful Measures of Financing Constraints?, *Quarterly Journal of Economics* 112, 169-215.
- o Kaplan, Steven N., and Luigi Zingales, 2000, Investment-cash flow sensitivities are not valid measures of financing constraints, *Quarterly Journal of Economics* 115, 707–712.

##### *Empirical strategies to study the Investment and CF Sensitivity*

- o Blanchard, Lopez-de-Silanes and Shleifer, 1994. “What do firms do with cash windfalls?” *Journal of Financial Economics*
- o Eberly, Janice, Sergio Rebelo, and Nicolas Vincent “Investment and Value: A Neoclassical Benchmark,” working paper, Northwestern University.
- o Erickson, Timothy and Toni Whited (1999), “Measurement Error and the relation between Investment and  $q$ ,” *Journal of Political Economy* 108, 1027-1057.
- o Lamont, Owen 1996. “Cash flow and investment: evidence from internal capital markets” NBER
- o Rauh, Joshua 2006, Investment and Financing Constraints: Evidence from the Funding of Corporate Pension Plans, *Journal of Finance* 61, 33-71.

#### **Lecture 3 (first part): Correction of Standard Errors**

o Mitchell Petersen is teaching “Estimating Standard Errors in Finance Panel Data Sets: Comparing Approaches,” *Review of Financial Studies*, *Review of Financial Studies*, January, 2009, Volume 22, pp 435-480. Read the paper before class:  
<http://www.kellogg.northwestern.edu/faculty/petersen/htm/published.htm>

Read the following papers before class

1. “Estimating Standard Errors in Finance Panel Data Sets: Comparing Approaches,”  
<http://www.kellogg.northwestern.edu/faculty/petersen/htm/published.htm>
2. Pastor, Lubos and Pietro Veronesi, 2003, “Stock Valuation and Learning about Profitability” *Journal of Finance* 58, 1749-1789.
3. Baker, Malcolm, and Jeffrey Wurgler, 2002, “Market Timing and Capital Structure” *Journal of Finance*, 117, 1-32..
4. Fama Eugene and Ken French, 2002, “Testing Tradeoff and Pecking Order Predictions about Dividends and Debt” *Review of Financial Studies* 15, 1-32

(you will be asked to present the results of these papers)

### **Lecture 3 (second part): Regression Discontinuity Design**

- o Imbens, Guido W. & Lemieux, Thomas, 2008. "Regression discontinuity designs: A guide to practice," *Journal of Econometrics*, Elsevier, vol. 142(2), pages 615-635, February.
- o McCrary, J (2008), Manipulation of the running variable in the regression discontinuity design: A density Test *Journal of Econometrics* 142 (2), 698-714.
- o Campbell, Donald (1969) Reforms as experiments, *American Psychologist*. 1969 Apr Vol 24(4) 409-429
- o Thistlethwaite and Campbell (1960) “Regression-discontinuity analysis: an alternative to the ex-post facto experiment.” *Journal of Educational Psychology* 51, 309–317.
- o Van der Klaauw (2002) “Estimating the Effect of Financial Aid Offers on College Enrollment: A Regression-Discontinuity Approach; *International Economic Review* Vol. 43, No. 4 (Nov., 2002), pp. 1249-1287”
- o Angrist and Lavy (1999) “Using Maimonides rule to estimate the effect of class size on scholastic achievement” *Quarterly Journal of Economics* 114, 533–575.
- o Butler, Lee, and Moretti (2004) Do Voters affect or elect policies? Evidence from the US House?, *Quarterly Journal of Economics*.

Lecture 4 – continuation Regression Discontinuity Design

### **Lecture 4: Regression Discontinuity Design in Finance**

- o Rauh, Joshua 2006, Investment and Financing Constraints: Evidence from the Funding of Corporate Pension Plans, *Journal of Finance* 61, 33-71.
- o Berry and Lee (2006) “The Community Reinvestment Act: a Regression Discontinuity Analysis, Harris School Working Paper.
- o Chava and Roberts (2007) “How does financing impact investment? The role of debt covenant violations”
- o Black, Jang and Kim (2006) “Does Corporate Governance Predict Firms’ Market Values? Evidence from Korea,” *The Journal of Law, Economics, & Organization*, V22 N2

And anticipation of Lecture 5 ideas.

### **Lecture 5: Investment when the Market is Irrational**

- o Stein, Jeremy C. (1996), “Rational Capital Budgeting in an Irrational World,” *Journal of Business* 69: 429-455.
- o Morck, Randall, Andrei Shleifer, and Robert W. Vishny, 1990. The stock market and investment: Is the market a sideshow?, *Brookings Papers on Economic Activity* #2, 157-215
- o Baker, Malcolm, Jeffrey Wurgler and Jeremy C. Stein (2003), “When Does the Market Matter? Stock Prices and the Investment of Equity-Dependent Firms,” *Quarterly Journal of Economics* 118: 969-1005.
- o Polk and Sapienza (forthcoming), *The Stock Market and Corporate Investment: a Test of Catering Theory*, *Review of Financial Studies*.
- o Baker, Malcolm, and Jeffrey Wurgler. "Behavioral Corporate Finance: A Current Survey" In *Handbook of the Economics of Finance*. Vol. 2, edited by George M. Constantinides, Milton Harris, and Rene M. Stulz. *Handbooks in Economics*. New York, 2012.

### **Investment when the Manager displays behavioral biases**

- o \*Malmendier, Ullrike and G. Tate. CEO Overconfidence and Corporate Investment *Journal of Finance*, December 2005, vol. 60 (6), pp. 2661-2700.
- o \*Malmendier, Ullrike and G. Tate. Does Overconfidence Affect Corporate Investment? CEO Overconfidence Measures Revisited. *European Financial Management*, November 2005, vol. 11 (5), pp. 649-659.

## **Lecture 6: Capital Structure: an Overview**

- o Graham, John, 2000, How big are the tax benefits of debt?, *Journal of Finance* 55, 1901-1941.
- o Harris, M. and Arthur Raviv (1991): "The theory of capital structure", *Journal of Finance*, 46-1
- o Leary, Mark T. and Roberts, Michael R., "Do Firms Rebalance Their Capital Structures?" (June 7, 2004). 14th Annual Utah Winter Finance Conference; Tuck Contemporary Corporate Finance Issues III Conference Paper. Available at SSRN: <http://ssrn.com/abstract=571002>
- o Rajan, R. and Luigi Zingales (1995), "What do we know about Capital structure" *Journal of Finance*. Vol. 50-5

Welch, Ivo (2007): "Common Flaws in Empirical Capital Structure Research" Working Paper. Downloadable at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=931675](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=931675)

Empirical Capital Structure: A Review, Christopher Parsons and Sheridan Titman, *Foundations and Trends in Finance*, Vol. 3, No. 1 (2008) 1–93.

## **Lecture 7 (first part): Event Studies**

- o Asquith, Paul, and David Mullins, 1986, Equity issues and offering dilution, *Journal of Financial Economics* 15, 61-89.
- o Bhattacharya et al. (2000): "When an event is not an event: the curious case of an emerging market" *Journal of Financial Economics*, Vol. 55, 69-101
- o Glenn V. Henderson, Jr. (1990): "Problems and Solutions in Conducting Event Studies" *The Journal of Risk and Insurance*, Vol. 57, No. 2. (Jun., 1990), pp. 282-306.
- o MacKinlay, Craig (1997): "Event Studies in Economics and Finance" *Journal of Economic Literature*, Vol. 35

## **Lecture 7 (second part): Capital Structure and Costs of Financial Distress**

- o Andrade, Gregor, and Steven N. Kaplan, 1998, How costly is financial (not economic) distress? Evidence from highly leveraged transactions that became distressed, *Journal of Finance* 53, 1443-1493.
- o Benmelech Efi "Asset Salability and Debt Maturity: Evidence from 19th Century American Railroads," *Review of Financial Studies*, Forthcoming.

- o Pulvino Todd, 1998, "Do Asset Fire-Sales Exist?: An Empirical Investigation of Commercial Aircraft Transactions" *Journal of Finance*, Vol. 53, No. 3, June 1998
- o Stromberg, Per, 2000, Conflicts of interest and market illiquidity in bankruptcy auctions: Theory and evidence, *Journal of Finance*, 55, 2641-2692.
- o Weiss, Larry, 1990, Bankruptcy resolution: Direct costs and violation of priority of claims, *Journal of Financial Economics* 27, 285-314.

### **Lecture 8: Behavioral Capital Structure and its criticism**

- o Baker, Malcolm, and Jeffrey Wurgler. "Appearing and Disappearing Dividends: The Link to Catering Incentives." *Journal of Financial Economics* 73, no. 2 (August 2004): 271-288.
- o Baker, Malcolm, and Jeffrey Wurgler. "A Catering Theory of Dividends." *Journal of Finance* 59, no. 3 (June 2004): 1125-1165.
- o Baker, Malcolm, and Serkan Savasoglu. "Limited Arbitrage in Mergers and Acquisitions." *Journal of Financial Economics* 64, no. 1 (April 2002): 91-116.
- o Baker, Malcolm, and Jeffrey Wurgler. "Market Timing and Capital Structure." *Journal of Finance* 57, no. 1 (February 2002): 1-32. (Winner of the 2002 Brattle Prize for Outstanding Paper in Corporate Finance in the *Journal of Finance*. Reprinted in *Recent Developments in Corporate Finance*, edited by Jay Ritter. Edward Elgar Publishing: UK, 2005.)
- o Baker, Malcolm, and Jeffrey Wurgler. "The Equity Share in New Issues and Aggregate Stock Returns." *Journal of Finance* 55, no. 5 (October 2000): 2219-57.
- o Jenter (2004) "Market Timing and Managerial Portfolio Decisions" *Journal of Finance*
- o Shleifer and Vishny (2003) "Stock Market Driven Acquisitions" *Journal of Financial Economics*, December.
- o Weston James, Alex Butler, Gustavo Grullon "Can Managers Successfully Time the Maturity Structure of their Debt Issues?", Forthcoming at the *Journal of Finance*.
- o Weston James, Alex Butler, Gustavo Grullon "Can Managers Forecast Aggregate Market Returns?" Forthcoming at the *Journal of Finance*.

Mark T. Leary, Michael R. Roberts "Do Firms Rebalance Their Capital Structures?" *Journal of Finance*, Volume 60, Issue 6, December 2005

### **Lecture 9: Corporate Governance**

Andrei Shleifer, Robert W. Vishny “A Survey Of Corporate Governance” Journal of Finance, Volume 52, Issue 2 June 1997

Rafael La Porta, Florencio Lopez-De-Silanes, Andrei Shleifer, Robert W. Vishny “Legal Determinants Of External Finance” Journal of Finance, Volume 52, Issue 3 July 1997

Rafael La Porta, Florencio Lopez-de-Silanes, Andrei Shleifer  
What Works in Securities Laws?  
Journal of Finance, Volume 61, Issue 1  
February 2006

Art Durnev, E. Han Kim  
To Steal or Not to Steal: Firm Attributes, Legal Environment, and Valuation  
Journal of Finance, Volume 60, Issue 3  
June 2005

Alexander Dyck, Luigi Zingales  
Private Benefits of Control: An International Comparison  
Journal of Finance, Volume 59, Issue 2  
April 2004

K. J. Martijn Cremers, Vinay B. Nair  
Governance Mechanisms and Equity Prices  
Journal of Finance, Volume 60, Issue 6  
December 2005

Eliezer M. Fich, Anil Shivdasani  
Are Busy Boards Effective Monitors?  
Journal of Finance, Volume 61, Issue 2  
April 2006

## **Lecture 10: Topics in Empirical Corporate Finance**

(very preliminary) – ask for recommendations from the students

John Y. Campbell “Household Finance” Journal of Finance, Volume 61, Issue 4  
August 2006

Steven N. Kaplan, Antoinette Schoar “Private Equity Performance: Returns, Persistence, and Capital Flows” Journal of Finance, Volume 60, Issue 4 August 2005

David H. Hsu, What Do Entrepreneurs Pay for Venture Capital Affiliation?  
Journal of Finance, Volume 59, Issue 4 August 2004

Yael V. Hochberg, Alexander Ljungqvist, Yang Lu “Whom You Know Matters: Venture Capital Networks and Investment Performance” *Journal of Finance*, Volume 62, Issue 1  
February 2007