LIMPERG INSTITUTE
PhD Seminar: Advanced Financial Accounting June 2021
Exact dates: June 9 (WED), June 10 (THU), June 11 (FRI), June 14 (MON), June 15 (TUE) and June 16(WED) on ZOOM for 4 hours each starting at 8.30 am eastern

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The research area discussed in this seminar falls into two categories: (1) studies that investigate economic motivations for why firms choose particular accounting methods and those that consider boards of directors and corporate governance including ESG; and (2) a selection of topics where research can potentially inform and alter corporate practice or regulatory policy.

The academic literature in accounting choice, boards, corporate governance, and ESG is vast and the best we can do is to stoke your interest in these areas so that you can pursue your own reading.

Each session will follow the same structure. We will begin with a presentation of an assigned paper. The student's aim will be to present the main ideas of the paper as if they were one of the original authors. They should be prepared to defend and explain all of its contents, and to respond to questions/comments/suggestions from the other participants in the seminar. The student should also provide a list of issues or potential reasons for rejection for publication in one of the major accounting research journals. I know this sounds artificial in that my assigned papers are mostly published. However, no published paper is the final word on the subject. This presentation may take up to 60 minutes, though time constraints may necessitate much shorter presentations.

Occasionally, I will assign a literature review in the area as a short cut to appreciating all the twists and turns the literature has taken till the date on which the literature review was written. Students presenting the literature review might want to identify key pieces in the subsequent literature after the lit review was published. This presentation should take about 60 minutes.

As an assignment for everyone taking the course, I request that each student prepare a written appreciation/critique of each of the papers on the reading list and any other papers that are arguably closely related or central to the theme of the day. As with all critiques, the assignment should include a summary of the main points of each paper, a clear indication of the thread that connects the papers together and holes or gaps in the paper. I would encourage you to go beyond a cursory review of the related papers.

Assessment will be allocated as follows:

(1) Presentation of each paper:	25%
(2) Written critique/lit review of papers covered on the theme:	25%
(3) An original research proposal	50%

(1) Assessments on the presentation of the key paper, the critique and the related paper will be based on rankings by classmates.

(2) The written critique/literature review must be handed in at the beginning of the day in which the papers will be discussed. My aim is to ensure that every student has carefully read every paper and thought carefully about the way they are connected. I realize that this is a time-consuming task. It is, however, essential to becoming prepared to embark on an academic career in accounting. Assessment will be based on the written literature review and participation in class discussion.

(3) The research proposal is due on the last day of class. You may want to start thinking about the proposal ahead of time to ensure that you have a well-thought out idea. Each student will present his/her proposal in that class. We will collectively critique these proposals in class.

Topic 1: Contracting Theory (* key paper to be presented in class)**

1. Jensen, M. C., and W. H. Meckling. “Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure,” Journal of Financial Economics 3, 4 (October 1976): 305-360.

2. ***Watts, R. L., and J. L. Zimmerman. “The Demand For and Supply of Accounting Theories: The Market for Excuses.” Accounting Review 52, 3 (April 1979): 273-305.

3. Watts, R. L., and J. L. Zimmerman. Positive Accounting Theory. (Englewood Cliffs: Prentice Hall, 1986), Chapter 10.

4. Watts, R. L., and J. L. Zimmerman. “Positive accounting theory: A ten year perspective.” Accounting Review 65 (1990): 131-156.

5. Holthausen, R. W. and R. W. Leftwich, "The Economic Consequences of Accounting Choice", Journal of Accounting and Economics 5 (1983) 77-117. Through the end of Section 3 only.

6. ***Graham, John R., Campbell R. Harvey, and Shiva Rajgopal, “The economic implications of corporate financial reporting,” Journal of Accounting and Economics 40 (2005): 3-73.

7. Watts, R.L. 2003a. Conservatism in accounting part I: Explanations and Implications. Accounting Horizons 17: 207-221.

8. Watts, R.L. 2003b. Conservatism in accounting part II: Evidence and research opportunities. Accounting Horizons 17: 287-301.

9. ***Givoly, D. and C. Hayn, "The Changing Time-Series Properties of Earnings, Cash Flows and Accruals: Has Financial Reporting Become More Conservative?" Journal of Accounting & Economics (June 2000), 287-320.

10. Kothari, S. P., K. Ramanna, and D. J. Skinner. “Implications for GAAP from an analysis of positive research in accounting.” Journal of Accounting and Economics 50 (2010): 246-286.

11. Lambert, R. A. “Discussion of ‘Implications for GAAP from an analysis of positive research in accounting.’” Journal of Accounting and Economics 50 (2010): 287-295.

12. Holmstrom, B. 1999. “Managerial incentive problems: A dynamic perspective.” Review of Economic Studies 66: 169-182.

Topic 2: How Do Boards and Compensation Committees Work?

1. Yermack, D., 1996, "Higher Market Valuation for Firms With a Small Board of Directors," *Journal of Financial Economics* 40, 185-211.

2. Klein, A., 2002, "Audit Committee, Board of Director Characteristics, and Earnings Management," *Journal of Accounting and Economics* 33, 375-400.

3. Fich, E., and A. Shivdasani, 2006 "Are Busy Boards Effective Monitors?" Journal of Finance 61, 689-724.

4. Coles, J., N. Daniel, and L. Naveen, 2008, "Boards: Does One Size Fit All?" Journal of Financial Economics 87, 329-356.

5. Bebchuk, L., and A. Cohen, 2005, "The Costs of Entrenched Boards," Journal of Financial Economics 78, 409-433.

6. ***Ahern, K., and A. Dittmar, 2012, "The Changing of the Boards: The Value Effect of a Massive Exogenous Shock," Quarterly Journal of Economics 127. 137-197.

7. Boone, Audra, Laura Field, Jonathan Karpoff, and Charu Raheja 2007, The determinants of corporate board size and composition: An empirical analysis, Journal of Financial Economics 85, 66-101

8. Guner, A. Burak, Ulrike Malmendier and Geoffrey Tate, 2008, Financial Expertise of Directors, Journal of Financial Economics 88, 323-354

9. Schwartz-Ziv, M. and M. Weisbach. 2013. What do Boards Really Do? Evidence from Minutes of Board Meetings), Journal of Financial Economics, Vol. 108: pp. 349-366.

10. Klein, A. and E. Zur. 2009. Entrepreneurial shareholder activism: Hedge funds and other private investors. Journal of Finance 64, 187-229.

11. ***Jensen, Michael C. and Murphy, Kevin J. and Wruck, Eric G., Remuneration: Where We've Been, How We Got to Here, What are the Problems, and How to Fix Them (July 12, 2004). Available at SSRN: https://ssrn.com/abstract=561305 (this paper is a classic in my view. I go back to it time and again when I run out of ideas or simply want to refresh my thinking on the timeless agency problems confronting capital providers. Its also a very long paper. Hence, I have assigned only two papers for this class session. The student presenting this paper can take 90 minutes)

12. "Zombie Board: Board Tenure and Firm Performance," by Sterling Huang and G Hillary, Journal of Accounting Research, September 2018, 1285-1329.

Topic 3A: Practical implications of accounting research

I am worried that published accounting research is increasingly trying to find answers to questions that no one has. However, the costs of producing a publishable paper in our field are sky rocketing. As outlined in my paper (https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3368611), a top 50 business school spends anywhere between $200,000 to $400,000 on a top-three publication in accounting. This observation leads inevitably to uncomfortable questions about ROI (return on investment) on that large number. More often than that, the $200k-$400k is financed out of MBA or undergraduate tuition. One has to wonder whether the whole top-tier publication business is financially sustainable.

To address this imbalance, I have suggested that business schools should consider ideas on funding research from engineering and medical schools. These schools produce more "practical knowledge" that stakeholders such as private companies and grant giving agencies are more willing to finance. Of course, there are differences between a business school and these other professional schools that I would rather not go into here (discussed in my above referenced paper).

This thought process led me to a need to encourage work that is more relevant to policy makers and to practitioners. The American Accounting Association (AAA) has begun emphasizing the issue in a series of commissioned reports and conferences as well (https://aaahq.org/About/Directories/2017-2018-AAA-Committees-Task-Forces/Research-Relevance-Task-Force). My class and this syllabus takes a small step in this direction. I have tried to pick topics that are potentially interesting to practice and policy makers and are still "publishable" in our top journals. This class does not explicitly address the usual "capital markets based Ball and Brown" or "positive theory from Watts and Zimmerman" type themes. Rather, these are covered indirectly when we discuss issues related to measurement and incentives. No accounting PhD student should be allowed to graduate unless he/she has digested these traditional topics. However, these topics are somewhat over-mined and are unlikely to produce many exciting dissertations. Think of the traditional topics as necessary but not sufficient for career success. That's another reason to invest in the new topics I propose.

Rajgopal, S. 2019. Integrating Practice into Accounting Research. Management Science (forthcoming), available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3368611

Topic 3B: Understanding the operating performance of a firm

Economics 101 tells us that value is added by some combination of materials, labor, capacity and managerial talent. However, the standard reporting model for U.S. companies, shown below, classifies expenses by function and is not very useful to an analyst curious about these value drivers.

Revenue		X
Less Cost of goods sold (COGS)		X
Selling, General and Admin expenses (SGA)	X	
Research and Development (R&D)	X	
Depreciation and amortization		X
Interest expense		X
Provision of taxes		X
Net income		X

In general, it is difficult for an analyst to estimate how much material the firm consumed as that number is hidden in COGS. COGS includes manufacturing labor costs and overhead and most companies do not separately disclose those numbers. Labor costs are hidden in every functional line item on the income statement where labor is employed. For instance, compensation paid to scientists and engineers is in the R&D number. However, very few U.S. firms actually disclose total labor costs, disaggregated by function. Even if firms follow IFRS and disclose labor costs, there is very little information on how many employees work in specific functions.

Capacity costs are poorly handled by the current model because we typically straight-line the historical cost of property, plant and machinery without asking how much capacity costs the firm needs to incur to ensure it retains its market share (also referred to as "maintenance capex."). Such maintenance capex should be expensed in the income statement, as opposed to growth capex (capacity costs incurred to acquire new customers and new markets), which should ideally be capitalized. Financial statements tell us very little about the quality of managerial talent and corporate culture. One of the CFOs interviewed for the Dichev et al. (2013) told us, "we spend a lot of time conducting a fundamental analysis of the numbers. Very few conduct a fundamental analysis of the people running the company."

On top of that, there is little information in the current reporting model to parse out the fixed and variable components of the firm's cost structure. Absent detailed data on costs, it is difficult to answer a question that confronts analysts every quarter: if sales go up by 5%, how much would net income go up by? Answering that question requires information about operating leverage and these data are not easily available from the current income statement.

In the class I co-teach at Columbia with Trevor Harris (FAIME or B8010 and B7010 for Columbia students), we ask the students to recast the income statement into the following format (where price refers to price per unit of the product or service sold, quantity refers to the volume of the product or service sold, FX refers to the component of revenue or costs attributable to changes in foreign currency rates and c refers to variable cost per unit sold):

Revenue (price or p*quantity or q * currency impact or FX)		X
Less: Cost of materials (p*q*FX)		X
Labor costs:		
Manufacturing labor costs	X	
Fixed cost (time*FX) v/s variable cost (c*q)		
Research labor costs (mostly fixed)	X	
Selling labor costs	X	
Fixed v/s variable		
G&A labor costs (mostly fixed)	X	X
Maintenance capex		X
Interest expense		X
Provision of taxes		X
Net income		X

In other words, we ask students to use supplementary data outside of the financial statements to think hard about the actual drivers of value, decomposed into volume, price and fluctuations in foreign currency (FX). The objective is to integrate insights from standard costing in managerial accounting (volume variance, price variance and other variance from other line items such as foreign currency) to understand the sustainability of a firm's earnings. The intuition is that revenue and income increases driven by price hikes or currency changes, as opposed to quantity changes of the product sold, are less likely to sustainable in the long run.

These questions are even more difficult for technology companies that rely on intangible assets for revenue generation. How much maintenance capex and R&D should Netflix invest to ensure it can retain its market dominance in the streaming market? How should we deal with technology companies which are network businesses because networks increase in value with use, as opposed to tangible assets which generally tend to lose value with greater usage? How should digital companies price their product such that they can recover the large fixed costs they incur to create their products? Research into these questions could constitute a fundamental contribution to both the academic literature and to analysts and investors.

A few papers that partially try to address these questions. Note that none of these papers really recasts the income statement along the lines I suggest. So, there is plenty of room for more work:

1. ***"The long run average cost puzzle," by Aytekin Ertan, Stefan Lewellen and Jake Thomas, working paper, London Business School working paper.

2. *** "Predicting earnings using a model based on cost variability and cost stickiness" by Rajiv Banker, and Lei Chen, 2006, The Accounting Review 81: 285-307.

3. ***"The level and persistence of growth rates," by Louis K. Chan, Jason Karceski, and Josef Lakonishok, April 2003, Journal of Finance LVIII, 2, 643-684.

4. "The cross-section of labor leverage and equity returns" by Andres Donangelo, François Gourio, Matthias Kehrig and Miguel Palacios, 2019, Journal of Financial Economics, 132(2):

497-518. Read more on how to estimate labor costs and less for the asset pricing implications.

5. "Foreign currency: Accounting, communication and management of risks," by Trevor Harris and Shiva Rajgopal, 2018, Available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3031831

6. "Estimating maintenance capex," by Venkat Peddireddy, draft thesis paper from Columbia Business School.

Topic 4: Measuring the ESG footprint of a firm

Think of a firm's Environmental, Social and Governance (ESG) footprint as a way to understand whether or not firm performance, laid out in the previous session, is sustainable. It is often said that one out of every six dollars (and growing) of AUM (Assets Under Management) relies on the ESG footprint of the firm. However, assessing the ESG footprint of a company is very difficult. The commercially available datasets are neither reliable nor relevant sometimes to the problem at hand (see The ABCs of ESG: ESG ratings are not reliable enough," in Reuters, Breaking Views, August 10, 2018. Available at https://www.breakingviews.com/features/guest-view-esg-ratings-arent-reliable-enough/). As opposed to reams of work on taking the commercial data as given (e.g., KLD data or Asset 4 and the like), I intend to concentrate on better ways to measure the ESG footprint of a firm or on an evaluation of the quality of data supplied by these commercial vendors. Other questions related to how to use these data to filter our firms with potentially weak future performance remain open.

A few papers that partially try to address these questions:

1. *** "Corporate sustainability: First evidence on materiality" by Mozaffar Khan, George Serafeim, and Aaron Yoon, 2016, The Accounting Review, Vol. 91, No. 6, pp. 1697-1724.

2. *** "Where's the Greenium?" by David Larcker and Edward Watts, 2019, Journal of Accounting and Economics (forthcoming), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3333847

3. ***"Do the socially responsible walk the talk?" 2021, Aneesh Raghunandan and Shiva Rajgopal. Available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3609056

4. "Do investors care about carbon risk?" by Patrick Bolton and Martin Kacperczyk, 2019, working paper, available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3398441

5. "Are Carbon Emissions Associated with Stock Returns?" J. Aswani, A. Raghunandan and S. Rajgopal, 2021. Available at SSRN: https://ssrn.com/abstract=3800193

6. "Corporate Social Responsibility? An economic and financial framework" By Geoffrey Heal, In Geneva Papers on Risk and Insurance: Issues and Practice (2005). Available at https://www0.gsb.columbia.edu/mygsb/faculty/research/pubfiles/1662/CSR_PAPER_Dec280

4.pdf

7. Just Capital's methodology of ranking socially responsible companies: https://com-justcapital-web-v2.s3.amazonaws.com/pdf/JUSTCapital2020RankingsMethodology.pdf

Topic 5: Reliance on heuristics

The real world is complex and executives are perpetually pressured for time. Fire-fighting and a reactive, as opposed to a proactive, use of executive time is now more the norm than the exception. Such constraints often lead executives to seek "silver bullet" solutions to difficult problems. Many of these simplistic answers manifest themselves as heuristics. The world of accounting and valuation is replete with heuristics. For instance, till recently when operating lease were not required to be capitalized, Moody's relied on an ad-hoc 6X or 8X multiple of operating lease rents to capitalize operating leases on a firm's balance sheet. This is despite footnote availability of a long time series of data on future cash flow obligations on operating leases. Moreover, Moody's assumes that the capitalized lease asset and the liability are set to the same number although we know that's unlikely to be true, except at the beginning and the end of the lease term. This is because the leased asset is usually depreciated at a rate faster than the rate relative to the rate at which the principal component of the lease liability is paid off. Do these heuristics provide a reasonable approximation of a more sophisticated model? Why do these heuristics persist when a simple spreadsheet model can provide better data?

Every year, I interview three analysts, drawn from the buy side and the sell side, before I teach my elective on fundamental statement analysis. I usually ask them questions that we address in the class such as (i) how do you forecast revenue? (ii) how do you estimate the fixed and the variable component of the company's cost structure? and so on. Most analysts forecast costs as a proportion of sales. For instance, when asked about next year's R&D costs, they would forecast R&D for the next year as X% of forecasted sales where X is the usually the historical average of R&D/Sales. But forecasting a specific line item as a function of sales is conceptually inaccurate because the underlying assumption is that the specific cost is variable in nature. R&D spending does not necessarily rise or fall in proportion to sales. Lab scientists and software engineers are not necessarily hired and fired as annual sales rise or fall. When confronted with this argument, the analyst would often say, "forecasting is very hard and assuming X% of sales is a reasonable approximation." Is X% of sales indeed a reasonable approximation?

For another example, consider the rampant use of EBITDA multiples. EBITDA or earnings before interest, tax, depreciation and amortization, is supposed to proxy for operating cash flows although they obviously exclude working capital accruals that should be subtracted out to derive operating cash flows. More damaging, reliance on EBITDA assumes that the company does not have pay for interest or taxes or set aside resources for maintenance capex. I have asked several analysts (i) how they decide to value a company at 10X earnings or 10X EBITDA; and (ii) are they not aware that EBITDA is an inaccurate and potentially misleading measure? Where does 10X come from? The answer I often get that, "we need some kind of valuation shorthand to discuss the stock with our clients and EBITDA multiples serve that role."

When I asked the analyst about the number of classes devoted to teaching MBA students discounted cash flow calculations (DCF) and the residual income model, the analyst said, "I estimated a DCF perhaps once last year. I rely mostly on P/E and EBITDA multiples and I stopped using residual income models for technology companies as they report negative earnings. Eventually, I stopped using residual income models for all companies." Are these statements a "market test" of whether better technology is cost-effective? Or do these statements suggest that

most of these analysts did not fully understand the better technologies in their MBA (or finance) programs?

In general, it might be worth understanding (i) how did these heuristics become so prevalent in the real world? and (ii) what are the costs and benefits of using such heuristics? Documenting clear long-term costs to reliance on heuristics might convince analysts to take the academic tools more seriously. Alternatively, we might discover that heuristics used in practice are "good enough." Such a finding would raise questions about the value of over-refining existing tools used in academe for fundamental analysis and valuation.

A few papers that partially try to address these questions are listed. Shiller's CAPE is widely used in practice but has attracted little to no academic scrutiny especially from accountants. Graham and Harvey's seminal paper highlights the extensive use of simple heuristics by CFOs to come up with cost of capital and capital budgeting rules. The AQR paper on quality minus junk to me is a nice summary of all heuristic signals that appear to explain stock prices. Academics have worked hard to understand whether or not the signals summarized by the AQR paper are "rationally" priced but these remain open questions as of now in my view.

1. ***"Uncloaking Campbell and Shiller's CAPE: A comprehensive guide to its construction and use," Thomas Philips and Cenk Ural, Journal of Portfolio Management Fall 2016, 43 (1) 109-125.

2. ****"The theory and practice of corporate finance: Evidence from the field," by John Graham and Campbell Harvey, 2001, Journal of Financial Economics Volume 60, Issues 2–3, May 2001, Pages 187-243.

3. *****"Quality minus Junk," by Clifford Asness, Andrea Frazzini & Lasse Heje Pedersen, Review of Accounting Studies, 2019, 24: 34-112.

4. Anchoring on credit spreads," by Casey Dougal, Joseph Engelberg, Christopher Parsons, and Edward van Wesep, 2015, Journal of Finance, LXX, 3, 1042-1080.

5. "Equity valuation using multiples," by Jing Liu, Doron Nissim and Jake Thomas, 2002, Journal of Accounting Research 40(1):135 – 172

6. "EBITDA and managers' investment and leverage choices," by Oded Rozenbaum, Contemporary Accounting Research, 2019, 36(1): 513-546.

7. "Similarity in bond covenants," by Gus Defranco, Florin Vasvari, Dushyant Vyas and Regina Moerman, 2016, available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2288723

DAY 6: WE DISCUSS RESEARCH PROPOSALS. EACH STUDENT WILL PRESENT FOR 20-30 ODD MINUTES WITH INTERRUPTION FOR QUESTIONS.