PhD Seminar in Management Accounting Research[1]

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The seminar has three **objectives**. First, you will become familiar with some topics and paradigms in management accounting research. We will discuss a number of alternative approaches to both analytical and empirical research. I aim to build bridges between the various methodological approaches to managerial accounting research by offering content that is topic driven rather than methodology driven. Each session on a topic typically starts from the economic theory that underlies testable hypotheses. A firm believer in the importance of theory to inform any research effort, I will start with discussing the core theory papers that constitute the root thinking on a particular topic. These are often older papers that are heavily (and sometimes wrongly) cited, yet scantly read. Then, we move on to discuss empirical work that tests such hypotheses, illustrating the evolution of research paths on a topic, the hurdles encountered, and the steps taken to overcome them. This empirical work can be experiments, surveys, or using publicly available or proprietary compiled data sets.

Second, it will illustrate the evolution of research paths on a topic, the hurdles encountered, and the steps taken to overcome them. Discussion time is devoted to identifying what the problems are for empirical researchers to test the theory, where the gaps in the theory are, how empirics and theory can be bridged, and how the various empirical methods can best contribute to the empirical testing of theories. Insights here should help you when carving out your own research path.

Third, I aim to build bridges from managerial accounting to other research areas within (and outside of) accounting. In doing so, I show management accounting's relevance to other fields in accounting, trying to overcome the silo-thinking of the different accounting areas which I perceive to be an impediment to learning and progress of the accounting field as a whole. The seminar will exemplify how an understanding of both real managerial decisions and information production within firms is crucial to improve understanding of many issues typically considered

[1] A management accounting system is typically viewed as a system that provides information for internal decision making and decision influencing in an organization. Hence, the internal information serves two roles: planning and control.

to belong in the other areas of accounting research or in other business areas such as corporate finance or operations management.

<u>Course schedule:</u>

All the information for this course is available on Canvas. In the week of October 5, 2020, we will have class every day on Zoom from 14h to 17h30 (Dutch time) with a half hour break approximately mid-through. I will leave the Zoom link open during the break so you will have an opportunity to socialize and discuss with each other.

You will also be expected to attend one session that week in a smaller group between 19-20h (again Dutch time) where we will discuss the empirical paper that you are preparing as a team to record a presentation and discussion of for distribution to your fellow PhD students. See below for more information.

<u>Preparation before first class:</u>

- To ensure that everybody comes with a baseline level knowledge of the Principal-Agent problem, please read chapter 14 (only sections A and B) of Mas-Colell, Whinston and Green (1995) "Microeconomics theory". If your university library doesn't have the book or isn't operational during the pandemic, Googling will help you find pdfs of this book online. Please upload a file with a summary of these sections in your own words in the relevant assignment in Canvas by **September 25**.
- I have precomposed 5 teams on Canvas around the five papers listed for the 19-20h sessions. The ultimate deliverable of your team will be a recorded presentation. Upload, as a group assignment, the first draft of slides (more information below) by **October 1**.
- Reading:
    - For an introduction to my perspective on management accounting research, read Labro (2015), "Journey of management accounting research: hobby horses ridden", *Journal of Management Accounting Research*, 27(1), 133-138.
    - Optional: If you have little exposure to management accounting, read Chapter 3 in Dierynck and Labro (2018), "Management Accounting Information Properties and Operations Management", *Foundations and Trends in Technology, Information and*

Operations Management, 12(1), 1-114, as an introduction aimed at novices. Available under "Files" tab.

  - Optional: If you have limited insight on what might be considered management accounting research topics, read Ittner and Larcker (2001), "Assessing empirical research in managerial accounting: a value-based management perspective", *Journal of Accounting and Economics* 32, 349-410.

- Before each class, including before the first class, answer some short questions on the assigned reading for that day via Canvas.

<u>Grading:</u>

1. Principal-Agent crash course assignment based on the Mas-Colell et al textbook sections (10%). This is graded based on effort.
2. Participation (20%) and preparation for every class (20%):

   I expect all students to come well prepared to each class by having read and tried to digest the assigned main papers and resorted to the refresher reading if necessary. Further reading is optional based on your interest. Before each class, students submit answers to short questions on Canvas designed to assess their level of preparation. These are graded based on effort and not on accuracy, since we will discuss these papers further in class and ensure a full understanding. All published papers are in journals to which I expect your libraries to have access, but please let me know if that is not the case and I can provide a pdf. I have uploaded my Foundations and Trends pieces to the Files tab on Canvas, as not all libraries subscribe to this series.

   Students can participate during the class through asking questions and making comments. Bear in mind that it is the quality of your contributions that counts, and not the quantity. Criteria considered in evaluating your class participation are the following. Is the participant a good listener? Would the quality of the seminar discussion diminish if this student were not a member of the class? Are the points made relevant to the discussion? Is there a tendency to make "safe" comments (e.g. regurgitating facts of the papers on the program), rather than a willingness to try out communicating new ideas and attempting to see links between the papers on the schedule?

3. Preparing very short review remarks (10%), as explained below under Day 2, Session 1. You do not need to submit these anywhere; just come prepared to class.
4. Group presentation of an empirical paper to be recorded and distributed to the rest of the class (20%). With your group, prepare a presentation/discussion of about 20 minutes (not more than 25), following the guidelines below. The aim is to have a presentation recording that will provide asynchronously some insights on this paper to the rest of the class.
   - Don't just (boringly) present the paper but include discussion of aspects of the paper. Don't leave the discussion points to the very last couple slides but interweave them in the presentation when the points become relevant. Have an eye for the big picture and don't dwell on minute detail.
   - Include an assessment of the strength of the link between theory and empirics. Therefore, it will be useful to read all the other papers assigned to that class before drafting your slides.
   - <u>Include and deliberately point out things you find positive (novel, well executed, interesting, etc.) about the paper.</u> Furthermore, start your presentation off on your first slide with saying some overall positive things about the paper. Our profession as a whole tends to be too focused on the negatives, so I would like to make an attempt at de-biasing.

   <u>Process:</u>
   - Please upload a first version of your presentation/discussion slides **by October 1** through the group assignment in Canvas, so that I can go through them to prepare for the corresponding 19-20h group session.
   - During the 19-20h session with your group, we will first discuss which changes you may want to make to your slides and presentation based on the material covered earlier that day. I will then also provide comment on where to make improvements, and we can discuss the paper in more detail.
   - After this session and your group's incorporation of the changes and comments, please record this presentation in Zoom and upload the website URL to Canvas within 2 days.
   - Watch the recordings of the other teams by **Wednesday, October 14,** so that your understanding of these papers can also help as you develop your own research proposal (next assignment).
5. Write and empirical research proposal (20%): In the last class, we will read Hemmer and Labro (JAR, 2019) which is a theory paper that links managerial and financial accounting. Write a 2

to 3-page research proposal (1.5 spaced) that covers one of the research questions that derives from this theory, focusing on the design of the empirical test(s) and the source of data. Clearly state which research question you are attempting to tackle. Please upload your proposal to me in the relevant Canvas assignment by **Friday, October 23**.

Day 1, Session 1 and 2: Introduction to the Seminar & Costing

After an introduction to management accounting and the seminar, we start with the very basics of information production in a firm and a topic at the core of management accounting: costing as an approximation of the underlying (true) production technology and resource consumption patterns of the firm. An understanding of these measurement / approximation issues is necessary both in terms of improving practice (how can managers know whether or not they have access to a precise information system, and what can they do to obtain or improve on an existing system should they so wish) and advancing empirical work (in order to translate theoretical work on the antecedents and/or consequences of providing more precise information in organizations, we need empirical proxies that capture the concept of information precision with observable data). Viewing accounting systems as approximation exercises, we will discuss in this session what they are trying to approximate (marginal versus full costing debate), how the approximation is done (the costing methods), what can go wrong in a cost approximation and what we can do to improve cost approximations. We will conclude with some discussion on where the literature in this area is going or needs to go. Consistent with my view that different research methods contribute to the understanding of a management accounting topic of interest, this session will include multiple methodological perspectives: analytical, simulation, experimental, archival and field-based research.

Main papers:

- Labro, E. (2019). "Costing Systems", *Foundations and Trends in Accounting*, edited by Sunil Dutta and Stefan Reichelstein, 13(3-4), 267-404. Available under "Files" tab.
    - Chapters 1, 3, 4, 5 and 6
- Anand, V., R. Balakrishnan and E. Labro (2019). "A Framework for Conducting Numerical Experiments on Cost System Design", *Journal of Management Accounting Research*, 31(1), 41-61.

Refresher reading:

- Labro, E. (2019). "Costing Systems", *Foundations and Trends in Accounting*, edited by Sunil Dutta and Stefan Reichelstein, 13(3-4), 267-404.
    - Chapter 2 offers a thorough "compare and contrast" of different types of costing methods used in practice, including very recent developments in costing.

Further reading:

- Cardinaels, E. and E. Labro (2008). "On the Determinants of Measurement Error in Costing Systems", *The Accounting Review,* 83(3):735-756.

Day 1, Session 19-20h for Group 1:

Next, we study larger scale archival work that documents what is done in costing practice, as well as outcomes of improved costing.

Paper to be recorded for presentation and distribution: Labro, E. and L. Stice-Lawrence (forthcoming). Updating Accounting Systems: Longitudinal Evidence from the Health Care Sector. *Management Science*. Available in Online Early.

Day 2, Session 1: Reviewing

Using an archival paper on costing for which I was one of the reviewers at a top journal, we will have a discussion on reviewing in this session. I will provide access to a pdf under the Files tab on Canvas that bundles the manuscript for the first round, the review letters and the revised manuscript submitted to the second round. **Your assignment** for this class is to read the paper critically, and think about which points you would make in the second round referee report on this paper. Also decide what you will recommend to the editor (choose between accept, conditional accept, minor revision, major revision, reject & revise, and reject). You do not need to write an actual referee report, but I expect you to be prepared to discuss your points in class. Each student will be called on in random sequence to recommend their decision and provide in maximum 3 minutes the core grounds on which you base your recommendation. We will also discuss the refereeing process more generally, as well as use the opportunity to talk about how a second round review may differ from a first round review – an experience that takes a bit longer in ones career to get multiple observations on! Note that this paper illustrates the opportunity offered by having a deep understanding of costing to research issues of broader relevance, and is an example of a paper that links cost information to the wider information environment.

Day 2, Session 2: Agency Theory, Monitoring and Performance Measurement

Note that the classes on costing have mostly focused on the role of cost information to support decision-making, although if you read on in the Foundations and Trends in Accounting reading, you will have noticed that the second pillar of management accounting (performance measurement) also is supported by cost information. This class, we start by comparing and contrasting the role of information more generally in both contexts (decision making and performance measurement). We kick off the performance measurement literature with a coverage of Holmström (1979) to make sure also those students who have not covered this seminal paper in much depth previously are up to scratch on basic agency theory. Holmström (1979) shows in a single Agent, single Period model that any publically observed piece of information that does not satisfy the sufficient statistic condition generates value for an agency. This is good news for accounting, since many of the accounting numbers we provide do not satisfy the sufficient statistic condition.

Papers:

- Labro, E. (2019). "Costing Systems", *Foundations and Trends in Accounting*, edited by Sunil Dutta and Stefan Reichelstein.
    - Chapter 10
- Holmström, B. (1979). "Moral Hazard and Observability", *Bell Journal of Economics* 10 (Spring), 74-91.

Day 2, Session 19-20h for Group 2:

The first best solution in agency theory implies observing the effort the agent puts in, a.k.a. monitoring. The second best solution models a situation where such observation is costly or impossible, and relies on putting performance measurement systems in place to incentivize the agent to put in effort. Heese and Pérez-Cavazos (forthcoming) attempt to empirically capture that first-hand monitoring using airline route changes, to study facility-level misconduct.

Paper to be recorded for presentation and distribution: Heese, J. and G. Pérez-Cavazos (forthcoming). "When the Boss Comes to Town: the Effects of Headquarters' Visits on Facility-level Misconduct", *The Accounting Review*. Available in Online Early.

Day 3, Session 1: Multiple Agents, Teams and Relative Performance Evaluation

Bit by bit, we are relaxing the assumptions of Holmström (1979)'s one agent – one task – one period - public information model. This class, we extend the baseline model to a multi-agent world, by working through Holmström (1982) which is the seminal paper that studies team-based performance measurement. One section in Holmström (1982) discusses Relative Performance Evaluation (RPE), the use of data on the performance of peers to assess the agent's performance. We will also spend time on understanding the "misunderstanding" created for empiricists by the hypotheses derived on the basis of overly simplifying models of RPE. After covering the theory, we will move to an empirical look at RPE. Our discussion will involve what the problems are for empiricists to test agency theory predictions and what hurdles need to be overcome to bridge agency theory and empirics. A great example of a paper that does this well is Ball, Bonham and Hemmer (forthcoming), which we will briefly cover.

Papers:

- Holmströn, B. (1982). "Moral Hazard in Teams", *Bell Journal of Economics* 13(2), 324-340.
- Ball, R., J. Bonham and T. Hemmer (forthcoming). "Does it Pay to "Be Like Mike"? Aspriational Peer Firms and Relative Performance Evaluation", *Review of Accounting Studies*. Available under "Files" tab.

Day 3, Session 2: Multiple tasks, multiple performance measures and the Balanced Scorecard

We continue relaxing the assumptions of Holmström (1979)'s model. During this class, we are moving away from the one task setting to looking at multiple tasks. Multiple tasks naturally bring up the issue of multiple performance measures and the Balanced Scorecard. We start with Holmström and Milgrom (1991), which is the seminal paper on multi-tasking. This paper also explains why we find so many instances where employees are not offered strong incentives but are paid flat wages, an empirical phenomenon that is hence entirely consistent with agency theory. The real seminal paper is their predecessor Holmström and Milgrom (1987), but this is such a hard paper to read that the more accessible 1991 paper has become more widely cited.

Papers:

- Holmström, B. and P. Milgrom (1991). “Multitask principal agent analysis: Incentive contracts, asset ownership, and job design”, *Journal of Law, Economics & Organization* 7, 524-552.

Further reading:

- Holmström, B. and P. Milgrom (1987). “Aggregation and linearity in the Provision of Intertemporal Incentives”, *Econometrica* 55(2), 303-328.

<u>Day 3, Session 19-20h for Group 3:</u>

Next, we study an empirical paper on the Balanced Scorecard and the use of multiple performance measures that uses a behavioral perspective rather than an economics-based perspective as the majority of this course has.

Paper to be recorded for presentation and distribution: Chen, Y., Jeremias, J. and T. Panggabean (2016). “The role of visual attention in the managerial judgment of Balanced-Scorecard performance evaluation: insights from using an eye-tracking device”, *Journal of Accounting Research* 54(1): 113-145.

<u>Day 4, Session 1 and 2: Information, Delegation, Performance Measurement and Incentives</u>

Information needs differ from firm to firm, and hence information production will also differ. Delegation can create incentives for information production and use, but comes at a cost of increased agency problems between the principal in headquarters and the agent in the business unit. These agency problems may, in turn, be resolved through incentive compensation and performance measurement. As Prendergast (2002)’s theory explains, this may be the reason for puzzling results in the empirical literature.

Papers:

- Prendergast, C. (2002). “The Tenuous Trade-off between Risk and Incentives”, *Journal of Political Economy* 110(5), 1071-1102.
- Aghion, P., Bloom, N. and J. Van Reenen (2014). “Incomplete Contracts and the Internal Organization of Firms”. Journal of Law, Economics and Organization 30(1): 37-63.
- Acemoglu, D., P. Aghion, C. Lelarge, J. Van Reenen, and F. Zilibotti (2007). “Technology, Information, and the Decentralization of the Firm”, *Quarterly Journal of Economics*, Nov, 1759-1799.

- Campbell, D., Srikant M. Datar, and T. Sandino (2009). "Organizational Design and Control across Multiple Markets: The Case of Franchising in the Convenience Store Industry", *The Accounting Review* 84(6), 1749-1779.

Day 4, Session 19-20h for Group 4:

On day 3, we discussed alternative compensation incentives offered in multiple tasking situations. There are many other alternatives to compensation to ensure employees work hard, such as selecting the right employees. Deller and Sandino (2020) consider such selection, in a setting we recognize from day 4, where they consider delegation and information asymmetry.

Paper to be recorded for presentation and distribution: Deller, C. and T. Sandino (forthcoming). "Who Should Select New Employees, Headquarters or the Unit Manager? Consequences of Centralizing Hiring at a Retail Chain", *The Accounting Review*. Available in Online Early.

Day 5, Session 1: Information and Internal Capital Allocation

Continuing on the theoretical roads taken last class, this class we will look at the role of information in internal capital allocation. Stein's (2002) model introduces a distinction between hard and soft information, and connects it to organizational design. This has implications for the role of managerial accounting which can potentially harden soft information. We will briefly look at an empirical paper by Berger et al (2005), which relies strongly on this theory.

Papers:

- Stein, J (2002). "Information Production and Capital Allocation: Decentralized versus Hierarchical Firms", *Journal of Finance* 57(5): 1891-1921.
- Berger, A., Miller, N., Petersen, M., Rajan, R. and J. Stein (2005). "Does Function Follow Organizational Form? Evidence from the Lending Practices of Large and Small Banks", *Journal of Financial Economics*, 76: 237-269.

Day 5, Session 2: Interdependence of Managerial Accounting and Financial Accounting

As discussed at the start of the seminar, I strongly believe in the interconnectedness of the various accounting subfields, even though many researchers take a more "pigeon holed" perspective. I also discussed the importance of focus on the second pillar of management accounting: decision-making. This class, we will combine both of my pet peeves – what a great class!:-) We explore the theoretical relation between earnings and market returns as well as the properties of accounting earnings frequency distributions under the maintained hypothesis that managers use unbiased accounting information benevolently to prudently manage the firms of which they are appointed stewards (Hemmer and Labro, 2019). This paper finds that reported losses are less persistent than reported gains, the market response to earnings exhibits an "S-shape" and earnings relate to returns asymmetrically in the way documented by e.g. Basu (1997). Furthermore, the implied frequency distribution of aggregate earnings is neither symmetric nor necessarily unimodal. Instead, it is likely to exhibit a clear discontinuity at zero and looks similar to the plots reported by Burgstahler and Dichev (1997). However, within our set-up, none of these phenomena are due to reporting noise, bias or some undesirable strategic managerial behavior. Rather, the manager using information internally to learn about the quality of his decision-making causes these phenomena.

Paper:

- Hemmer, T. and E. Labro (2019). Management by the Numbers: A Formal Approach to Deriving Informational and Distributional Properties of "Un-managed" Earnings. *Journal of Accounting Research*, 57(1), 5-51.

<u>Day 5, Session 19-20h for Group 5:</u>

Combining both themes of day 5, the empirical paper to study links internal capital market efficiency with a particular aspect of the financial accounting environment: segment disclosure transparency.

Paper to be recorded for presentation and distribution: Cho, Y. J. (2015). "Segment Disclosure Transparency and Internal Capital Market Efficiency", *Journal of Accounting Research* 53(4):669-723.