Opponent's Report on Dissertation Thesis

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Title of the Thesis:	Three Essays on Corporate Financial Misconduct and Market
	Reactions
Type of Defense:	DEFENSE
Date of Pre-Defense	November 25, 2020
Opponent:	Doc. PhDr. Tomáš Havránek Ph.D.

Address the following questions in your report, please:

Address the following questions in your report, please:

a) Can you recognize an original contribution of the author?

Yes, in all three chapters (here I reply very briefly to the questions above; please see my report for details and context).

b) Is the thesis based on relevant references?

Yes, the most relevant papers are properly cited.

c) Is the thesis defendable at your home institution or another respected institution where you gave lectures?

Yes, the thesis would be defendable at solid European universities.

d) Do the results of the thesis allow their publication in a respected economic journal?

Yes, two papers have already been published (one in the Journal of Economic Behavior and Organization!); the third paper is publishable in a good journal after revisions.

e) Are there any additional major comments on what should be improved?

Yes, but these comments are not necessary to implement in the dissertation; they are necessary in order to publish the third paper high.

f) What is your overall assessment of the thesis?

I recommend the thesis for defense without substantial changes.

The revised version of the thesis addresses all the main concerns that I raised after reading the pre-defense version, and so I recommend the thesis for defense without any further changes and below just repeat comments that Laure may use in the future. I also appreciate Laure's responses to my comments and take note of all the additional revisions made.

Laure de Batz has crafted a superb thesis. It consists of a well-written introduction and 3 research papers, two of which are solo-authored and have already been published in international journals (including the Journal of Economic Behavior and Organization, which is quite remarkable for a PhD thesis in the context of Central and Eastern Europe). This means that the two papers have already gone through multiple rounds of quality peer-review; I have read the papers as well and have no further comments. The last chapter is a working paper that can be improved along multiple dimensions and published in a good journal, perhaps even better than JEBO. To be clear, I consider the thesis defendable without any changes. The comments I provide below can be useful to Laure as she prepares to submit this paper to a journal. My comments follow.

1) The third chapter provides a meta-analysis of the effect of financial misconduct on stock returns. For full disclosure I note that I have been consulted several times before on this paper, which is understandable given that the methods used fall right into my core area of expertise. So I know the paper quite well and do not have major objections to the way it is conducted; hence my readiness to support the dissertation for defense without changes. The meta-analysis is meticulous, and also very large and laborious: Laure collected estimates from 111 studies along with dozens of variables reflecting the context in which the estimates were obtained. It follows that she had to collect thousands of data points by hand, after reading each study in detail. I believe that such an exercise is exceptionally well suited for a PhD thesis; Laure is to be congratulated on her efforts. Nevertheless, if she wants to publish the paper high, it needs to be rewritten and shortened. The paper must be concise: one research question, brief intro, most of the related literature section relegated to the appendix, focus on the main results (instead of tables with dozens of specifications), use of the most modern techniques. This first comment is rather general, and I will provide details below.

- 2) As I have noted, the thesis is competently executed. Ten years ago I would have had very little to add. But since then meta-analysis has evolved, and few of these innovations are reflected in the thesis. Without incorporating these innovations, potentially only as robustness checks, I see little chances of this paper reaping the sweetest available fruits of Laure's hard work on the dataset.
- 3) One innovation concerns the identification of publication bias. Laure uses linear and quadratic techniques, but many empirical and simulations papers suggest that publication bias is a more complex function of the standard error, and that this fact has important consequences for the mean estimated effect corrected for publication bias. I recommend Laure uses (and discusses in more detail) the following techniques: Andrews and Kasy, stem-based technique (Furukawa), endogenous kink (Bom and Rachinger), and WAAP (Ioannidis et al). If these techniques corroborate the strong publication bias detected by Laure earlier using simpler methods, this will substantially strengthen the paper. I take note of the revisions done by Laure with respect to this comment raised at the pre-defense.
- 4) Even the advanced techniques mentioned above assume that in the absence of publication bias there is no correlation between estimates and standard errors. This might be a defensible assumption in medicine, but every economist will give you examples of why this doesn't have to hold in general. Consider, for example, that one half of the literature uses IV to properly identify the effect in question; the other half ignores endogeneity and uses OLS. Furthermore assume that endogeneity biases OLS estimates downwards. Because OLS estimates will typically appear more precise, and will also be smaller because of the endogeneity bias, a simple regression of estimated effects on the standard errors in the literature will yield a positive correlation that nevertheless has nothing to do with publication bias. Moreover, the standard error is estimated, so that the typical meta-regression analysis will suffer from attenuation bias. One solution is to use the fact that the estimated standard error is by definition a function of the number of the degrees of freedom, a quantity that is not estimated and also unlikely to be much correlated with methodology (such as whether the primary study uses OLS or IV), making it an attractive instrument for the standard error. Another option is to use estimators from psychology (where meta-analysis is much more

commonly used than in economics); some of these estimators do not need the zero-correlation assumption. Examples include the caliper test, p-uniform*, and p-curve. And of course the good old Hedges test. I take note of the revisions done by Laure with respect to this comment raised at the pre-defense.

- 5) The main specification in Table 5 should be a model averaging exercise. With so many variables funneled into an OLS regression, one cannot trust the standard errors. Certainly many unimportant variables are included, and model uncertainty is huge. Use Bayesian or frequentist model averaging.
- 6) Another reason one cannot trust the current Table 5 is multicollinearity. I suggest you use the dilution prior for BMA, which explicitly tackles this problem.
- 7) You have done a very good job collecting many aspects of studies that can potentially be correlated with the reported estimates. But it seems like a fishing expedition to control for the number of pages per article and the number of authors. Yes, the pool of variables is potentially unlimited, but focus on the ones for which a plausible economic mechanism can be found. The number of pages does not qualify, since you already control for quality using much, much better proxies like journal ranking and citations.

A revision that incorporates these comments can target journals at the level of EER.

Date:	January 12, 2021
Opponent's Signature:	
	Digitally signed, Tomas Havranek
Opponent's Affiliation:	Doc. PhDr. Tomáš Havránek Ph.D.
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