

Discussion of *Shielding from the Pandemic: COVID-19 Exclusion  
Provision in Debt Contracting*

by Song, Sunder, Yan, and Zhang. Arthur Morris (HKUST) Discussant

## Outline:

- ▶ Why this paper deserves our attention.
- ▶ Three thoughts for a stronger paper:
  1. Theoretical Foundation
    - ▶ What is the underlying model?
  2. Institutional Questions
    - ▶ What is the context of these exceptions in the contract?
  3. Empirical Focus
    - ▶ How/why do these exceptions get into the contracts?
    - ▶ What makes these borrowers so special?

## Why this paper deserves our attention:

1. MAE's are important in practice.
  - ▶ Meaning: People who negotiate the contracts actually care about them.
2. MAE's are important in theory.
  - ▶ The existence and use of MAE's have important implications for theory.
3. Exceptions to MAE's can tell us a lot about MAE's themselves.
4. MAE's are vastly understudied.
  - ▶ As far as I can tell, when this paper gets into a top accounting journal the 380 MAEs in the sample will be all of the MAEs ever used in studies published in those journals.
5. **The authors actually read these contracts.**

## Three thoughts for a stronger paper:

1. Theoretical Foundation
2. Institutional Questions
3. Empirical Focus

## Theoretical Foundation: What is the underlying model?

*How do unpredictable and uncontrollable risks affect debt contract design? Theoretically, covenants are mappings from the state space to a set of actions, and they are included and modified to improve contracting efficiency. (Song et al., 2023)*

- ▶ **This sounds like a complete contract.**

## Theoretical Foundation: What is the underlying model?

*However, outside events that could not have been anticipated or controlled . . . can distort these mappings and lead to unintended consequences associated with ex post inefficiencies. . . . Specifically, we explore how lenders and borrowers use debt contract terms to allocate risks arising from **uncontrollable** events and whether such terms impact corporate policies. (Song et al., 2023)*

- ▶ **This sounds like the justification for incomplete contracts!**
- ▶ See Hiemann (2020) for an interesting treatment of the relationship between uncontrollable risks, interest rates, and covenants.

## Theoretical Foundation: What is the underlying model?

*Prior literature provides little empirical evidence about the mechanisms through which debt contracting parties deal with risks generated from exogenous and uncontrollable events. (Song et al., 2023)*

- ▶ This sounds like the research agenda laid out in Christensen et al. (2016).
- ▶ See: Christensen and Nikolaev (2012), Murfin (2012), Christensen et al. (2022), Ferracuti et al. (2022 WP)

## Theoretical Foundation: What is the underlying model?

*The logic for the inclusion of an MAE clause is simple. Contracts are inherently incomplete and therefore cannot specify a course of action in every future state of the world. As such, an MAE clause can serve as an effective mechanism for lenders to address borrower moral hazard. (Song et al., 2023)*

1. Incomplete contracts are concerned with the efficient allocation of control rights ex-post.
2. Complete contracts are concerned with aligning incentives ex-ante. This stream of literature is more concerned with moral hazard.



## Theoretical Foundation: What is the underlying model?

*Incomplete contract theory suggests that contracts are inherently incomplete because the future state is uncertain, and contracts cannot specify the course of action in every future contingency. As we discussed before, the MAE clause serves as a key tool to limit uncertainty for the lender. (Song et al., 2023)*

# Theoretical Foundation: What is the underlying model?

## **Incomplete contract theory has a role for performance measurement:**

*“Accounting information plays an important role within incomplete contract theory because the optimal allocation of control rights is contingent on a contractible signal that reflects the underlying economics of the borrower (Aghion and Bolton [1992], Zender [1991], and Hart and Moore [1988]).” (Christensen et al., 2016)*

**MAEs *do not* rely on contractible signals!**

# Theoretical Foundation: What is the underlying model?

The current theoretical foundation is intuitive: MAEs make sense in an uncertain world.

- ▶ The current theoretical/intuitive foundation is not unique to MAEs.
- ▶ Motivation seems to overlap with covenants in general and performance covenants in particular.

## Theoretical Foundation: What is the underlying model?

- ▶ What is the unique problem that MAEs are solving?
- ▶ Why is this not solved by performance covenants?
- ▶ What can MAEs teach us about performance covenants?
- ▶ What do we learn about the MAE from the exceptions?

# Theoretical Foundation: Jensen & Meckling & Probability

Clarifying the sort of uncontrollable or uncertain events that you have in mind may help develop this motivation.

## Theoretical Foundation: Jensen & Meckling & Probability

*Jensen and Meckling (1976) argue that post-contractual moral hazard arises because the lender and owner-manager have asymmetric payoff functions, which causes the owner-manager to have a greater incentive to invest in risky projects at the expense of debt holders (i.e., asset substitution). The MAE clause addresses the information asymmetry issue and moral hazard problem by creating a threat of lenders calling default on loans even in the absence of covenant violations, prompting the owner-manager to behave in the lender's interest and not engage in excessive risk-taking. (Song et al., 2023 p. 10)*

What sort of uncertainty did Jensen and Meckling have in mind?

## Theoretical Foundation: Jensen & Meckling & Probability

*An apt analogy is the way one would play poker on money borrowed at a fixed interest rate, with one's own liability limited to some very small stake. Fama and Miller (1972, pp. 179-180) also discuss and provide a numerical example of an investment decision which illustrates very nicely the potential inconsistency between the interests of bondholders and stockholders. (Jensen & Meckling 1976)*

## Theoretical Foundation: Jensen & Meckling & Probability

- ▶ This view of uncertainty as quantifiable like poker goes back to the 17th century when European aristocrats were trying to understand their games of chance.
- ▶ J.M. Keynes and Frank Knight did not believe that this approach was applicable to real economic activity.
- ▶ Frank Ramsey disagreed and won the debate.
- ▶ Friedman, Fama, and the field of financial economics largely inherits the view as articulated in Jensen and Meckling (1978) this view.
- ▶ However, the incomplete contracting literature seems much closer to the sort of uncertainty that Keynes and Knight had in mind in their work on probability.



# Theoretical Foundation: Jensen & Meckling & Probability

- ▶ How do MAEs fit into the traditional quantifiable probability framework?
- ▶ How do MAEs fit into the incomplete contracting framework (unique from covenants)?

## Institutional Question: What is the context of the exceptions?

This is the part where the discussant imagines that the authors have infinite time and resources.

## Institutional Question: What is the context of the exceptions?

### An example from the draft:

*“No Material Adverse Effect. Since December 31, 2019, no event or circumstance shall have occurred or be existing that has resulted in, or would reasonably be expected to result in, a Material Adverse Effect; provided that in determining whether a Material Adverse Effect has occurred for purposes of this Section 6.5, **current financial and market conditions engendered by the Coronavirus 2019 pandemic (“COVID-19”) shall not be given effect** and the direct impacts of COVID-19 on the business, operations or financial condition of Credit Parties that occurred and were disclosed in any Form 10-K, Form 10-Q or Form 8-K filed by the Credit Parties prior to the Closing Date, shall be disregarded.” Source.*

## Institutional Question: What is the context of the exceptions?

- ▶ “Material Adverse Effect” occurs 50 times in the filing.
- ▶ The first occurrence a general definition.
- ▶ Subsequent references are to this definition.

## Institutional Question: What is the context of the exceptions?

- ▶ Two of the remaining 49 have COVID-19 exclusions.
- ▶ The first (the example from the draft) is located in “Section 6: Conditions Precedent to Initial Borrowing”
- ▶ The second is in “SECTION 8. Representations, Warranties and Agreements”
- ▶ The MAEs in the sections on “Incremental Facilities” *do not have COVID-19 exclusions.*

## The Definition of MAE:

*Material Adverse Effect” means (a) a material adverse effect on the business, property, results of operations, or financial condition of the Borrower and its Subsidiaries, taken as a whole; (b) material impairment of the ability of the Credit Parties, taken as a whole, to perform their material obligations under any Credit Document; (c) material impairment of the rights of or benefits or remedies available to the Lenders under any Credit Document, taken as a whole; or (d) a material adverse effect on the Collateral or the Liens in favor of the Secured Parties on the Collateral or the priority of such Liens, taken as a whole.*

## The Second Exclusion:

- ▶ The second is in “SECTION 8. Representations, Warranties and Agreements”
- ▶ “In order to induce the Lenders to enter into this Agreement and to make the Loans as provided for herein, the Borrower makes the following representations and warranties to, and agreements with, the Lenders, all of which shall survive the execution and delivery of this Agreement and the making of the Loans: . . . ”
- ▶ “All historical financial statements relating to the Credit Parties and their Subsidiaries that have been delivered by the Borrower to Administrative Agent in connection with this Agreement have been prepared in accordance with GAAP (except, in the case of unaudited financial statements, for the lack of footnotes and being subject to year-end audit adjustments) and present fairly in all material respects, the Credit Parties’ and their Subsidiaries’ consolidated financial condition as of the date thereof and results of operations for the period then ended. Since December 31, 2019, no Material Adverse Effect has occurred; provided that in determining whether a Material Adverse Effect has occurred for purposes of this Section 8.9, current financial and market conditions engendered by COVID-19 shall not be given effect and the direct impacts of COVID-19 on the business, operations or financial condition of Credit Parties **that occurred and were disclosed** in any Form 10-K, Form 10-Q or Form 8-K filed by the Credit Parties prior to the Closing Date, shall be disregarded.”

## Institutional Question 1:

- ▶ A more complete taxonomy of MAEs and Exclusions may help clarify both the theory and empirics.
- ▶ An ideal taxonomy would capture the context of the exclusion.
- ▶ This is asking a lot.



## Institutional Question 2:

- ▶ How do MAE defaults actually work?
- ▶ Song et al., (2023) write: > “After loan initiation, the occurrence of an MAE often constitutes an event of default for the borrower, which allows the lender to void the contract and cease its lending obligation (Koff and Singer, 2021).” (Song et al., 2023)
- ▶ Erkins et al., (2014) seem to have something similar in mind: > “These renegotiations could occur either in anticipation of future covenant violations (Roberts and Sufi 2009b), or without reference to covenant violations, either through invoking the Material Adverse Change (MAC) clause or through relational contracts that can exist when there are strong ties between lenders and borrowers (Gibbons and Henderson 2012).” (Erkins et al., 2014)

## Institutional Question 2:

- ▶ But Koff and Singer seem to have something different in mind:  
*“Even when the market allowed a free-standing MAE event of default, it was a dangerous default upon which to rely as a lender.”*

## Institutional Question 2:

- ▶ We need more detail about how MAE defaults work.
- ▶ The LSTA's Complete Credit Agreement Guide.
- ▶ The law literature has a lot of detail about enforcement MAEs in debt and M&As.

## Empirical Focus

- ▶ The top 10 banks have these in 3%-10% of their loans.
- ▶ These are very special loans.
- ▶ Consider focusing the empirics on who gets these and why.
- ▶ Borrowers, projects, other contract terms, COVID-19 itself (these are in the paper).
- ▶ The cash/R&D results seem like they may be determinants.

## Minor points

- ▶ Separate measurement and interpretation.
  - ▶ esp. in naming variables (i.e. 'COVID exposure')
- ▶ Plain English variable names where possible.
  - ▶ esp. the COVID exposure variable