

## LLM Financial Constraints Index

### Overview

This document provides a brief overview of the publicly available **LLM Financial Constraints Index**, an annual firm-level measure of financial constraints constructed from the Management Discussion and Analysis (MD&A, Item 7) section of firms' SEC Form 10-K filings. The dataset covers fiscal years 1997–2022 and is intended for academic research. A complete description of the construction, validation, and implementation of the index is available in the Internet Appendix accompanying our paper, “[Debt and Assets](#).”

The index is generated using a large language model (LLM) that classifies firms based solely on the information contained in their MD&A disclosures. Higher values indicate greater financial constraints.

### Dataset Contents

The dataset contains one observation per firm-year and includes the following variables:

| Variable | Description                     |
|----------|---------------------------------|
| gvkey    | Compustat firm identifier       |
| year     | Calendar year of 10-K filing    |
| index    | LLM Financial Constraints Index |

The index takes the following values:

| Value | Interpretation                                                                                                                                         |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1     | Financially unconstrained                                                                                                                              |
| 2     | Neutral                                                                                                                                                |
| 3     | Financially constrained (including firms classified as either <i>potentially financially constrained</i> or <i>financially constrained</i> by the LLM) |

### Construction of the Index

The index is constructed from firms' Item 7 (Management Discussion and Analysis) disclosures in annual 10-K filings obtained from the SEC EDGAR database. Each firm-year disclosure is evaluated using ChatGPT, which classifies the firm's financial constraint status based exclusively on the narrative discussion contained in the filing.

The original four-category classification (financially unconstrained, neutral, potentially financially constrained, and financially constrained) is aggregated into the three-level index released in this dataset.

### **Recommended Use**

The LLM Financial Constraints Index is an **ordinal** measure of financial constraints. Researchers may use the index as:

- an ordinal variable taking values from 1 to 3;
- a binary indicator for financially constrained firms ( $llm\_fc = 3$ )

Higher values indicate greater financial constraints.

### **Coverage and Missing Observations**

The dataset covers fiscal years 1997–2022. Not all Compustat firm-years are included because an Item 7 (MD&A) disclosure could not be reliably extracted for every filing.

### **Citation**

If you use this dataset, please cite our paper “Debt and Assets” forthcoming at the *Journal of Financial Economics*. The paper describes the construction and validation of the LLM Financial Constraints Index.

### **Contact**

Questions regarding the dataset may be directed to the authors.