Data Description Sheet
The effect of credit ratings on disclosure: Evidence from the recalibration of Moody's municipal ratings

Jacquelyn R. Gillette, Delphine Samuels, Frank S. Zhou

April 2020

1. *A description of which author(s) handled the data and conducted the analyses.*

   Jacquelyn R. Gillette, Delphine Samuels, and Frank S. Zhou have all handled all data and jointly conducted all the empirical analyses.

2. *A detailed description of how the raw data were obtained or generated, including data sources, the date(s) on which data were downloaded or obtained, and the instrument used to generate the data (e.g., for surveys or experiments). We recommend that more than one author is able to vouch for the stated source of the raw data.*

   (a) Thomson Reuters SDC Platinum, downloaded on 10/08/2015.

   (b) Municipal continuing disclosure data from Municipal Securities Rulemaking board, downloaded on 11/03/2015.

   (c) Data on municipal bond issues that had a "change in scale" on April 16, April 23, May 1, or May 7, 2010 from Mergent, downloaded on 05/03/2017.

   (d) Municipal bond secondary market trading data, downloaded from WRDS on 03/28/2017.

   (e) Unemployment rates from the Bureau of Labor Statistics, downloaded on 09/08/2016.

   (f) Gross State Product and State Per Capita income from the Bureau of Economic Analysis, downloaded on 01/29/2016.

   (g) The Housing Price Index from the Federal Housing Finance Agency, downloaded on 08/22/2017.

   (h) The Single Audit data is obtained from WRDS Audit Analytics. The data is manually merged to Thomson Reuters SDC Platinum based on the issuer name on 08/01/2018.

3. *If the data are obtained from an organization on a proprietary basis, the authors should privately provide the editors with contact information for a representative of the organization who can confirm data were obtained by the authors. The editors would not make this information publicly available. The authors should also provide information to the editors about the data sharing agreement with the organization (e.g., non-disclosure agreements, any restrictions imposed by the organization on the authors, such as restrictions to publish certain results).*

(a) SDC data was purchased from Thomson Reuters by the University of Chicago while Frank Zhou was at the University of Chicago. The liaison person of TR is Susanna Lim (susanna.lim@thomsonreuters.com) and the correspondant from the University of Chicago is Marisa Milazzo (Marisa.Milazzo@ChicagoBooth.edu).

(b) MIT purchased the Mergent Municipals database, which comes as a DVD. The purchase was supervised by Wesley Harrell at MIT (IT personnel), and the corresponding sales rep at Mergent is John Carino. The data was purchased on May of 2017.

4. *A complete description of the steps necessary to collect and process the data used in the final analyses reported in the paper. For experimental and survey papers, we require information about the instructions and instruments used to generate the data, subject eligibility and/or selection, as well as any exclusion criteria. The full set of instructions and instruments can be provided in the online appendix.*

The main sample period covers 2009 to 2014. The steps to clean the raw data are described below. Please refer to the README file, which explains the codes for each step.

(a) SDC

i. Create two output files at the issuer- (6-digit CUSIP) year-issuance level and the bond- (9-digit CUSIP) year-issuance level. Both files include issuance-level characteristics (e.g., callable) included in the SDC data. If an issuance covers multiple bonds or issuers, the issuance characteristics will be replicated for each bond or issuer. The years are defined from July 1st to June 30th. For example, year 2009 refers to July 1st, 2009 to June 30th, 2010. An issuer's underwriter in the case of multiple underwriters is defined as the underwriter with the largest market share in that year.

ii. Create a Stata file at the issuer-year level to be merged with the disclosure data.

(b) MSRB disclosures

i. We assign MSRB disclosures into years, where years are defined from July 1st to June 30th. For example, year 2009 refers to July 1st, 2009 to June 30th, 2010.

ii. MSRB contains two types of disclosures, event based (for example, ratings downgrade) and financial operating data. We separately examine each type. Our measures of financial information can be further categorized as:

- Audited financial statements (or CAFRs),
- Other annual financial information (e.g., annual unaudited financial statements and operating data),
- Interim financial information (e.g., quarterly financial statements or monthly operating data),
- Budgets,
- Other miscellaneous filings (e.g., interim operating data, etc.).

(c) Merge SDC with MSRB Disclosure

i. Merge SDC and Change in scale (i.e., recalibration) from Mergent by issuer.

ii. Merge MSRB disclosure data by issuer and year.

iii. Merge macro variables by state and year, lagging the macro variables by one year.

iv. Merge secondary market trading data from MSRB (trading volume and bond yield) by issuer and year

v. Merge credit rating and underwriter data from SDC by issuer and year.

vi. Merge Single Audit data based on the issuer name.

(d) For the parallel trends analysis of the secondary market bond yield, we merge the sample constructed above with MSRB secondary market trading data by issuer-year. The analysis is performed at the bond-year level, covering 2007 to 2014. All statistics are averaged for a given bond-year, weighted by trade size whenever appropriate.

5. *The computer programs or code used to convert the raw data into the final dataset used in the analysis plus a brief description that enables other researchers to use this program. The purpose of this requirement is to facilitate replication and to help other researchers understand in detail how the raw data were processed, the final sample was formed, variables were defined, outliers were treated, etc. The code or programming is in most circumstances not proprietary. However, we recognize that some parts of the code or data generation process may be proprietary, including from the authors' perspective. Therefore, instead of the code or program, researchers can provide a detailed step-by-step description of the code or the relevant parts of the code such that it enables other researchers to arrive at the same final dataset used in the analysis. In such cases, the authors should inform the editors upon initial submission, so that the editors can consider an exemption from the code sharing requirement. Whenever feasible, authors should also provide the identifiers (e.g., CIK, CUSIP) for their final sample. Authors should consult our FAQ Sheet on the JAR website for further details.*

   Our codes are numbered from 01 to 11, which should be run sequentially to produce the final data used to produce the tables. We also provide a README file that describes the function of each code file. A list of the identifiers (six-digit CUSIPs and year) for the final sample can be found in the file Identifiers.dta.

6. *An assurance that the data and programs will be maintained by at least one author (usually the corresponding author) for at least six years, consistent with National Science Foundation guidelines.*

   The authors agree to maintain the data and programs used in this paper for the six-year time period suggested by the National Science Foundation.