

# REPLICATION PROGRAMS FOR “SHADOW INSURANCE”

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## 1. PROGRAMS FOR DATA CONSTRUCTION

A.M. Best Company owns the copyright to *Best’s Statement File* and *Best’s Schedule S*, which we use with permission through their license agreement with the Federal Reserve Bank of Minneapolis. We provide the following STATA programs to replicate the data construction from the raw data. These programs assume that the raw data are organized in subfolders by year (i.e., “data\1999” to “data\2013”).

1. We extract the raw data from *Best’s Statement File* CD-ROM (A.M. Best Company (1999–2013)). We then convert the raw data to STATA format using Stat/Transfer. We then process the raw data in STATA format through the following programs.
  - 3 Liabilities, Surplus & Other Funds.do
  - 12 Exhibit 5 - Aggregate Reserve for Life Contracts.do
  - 26 Exhibit of Life Insurance (Continued).do
  - 43 Schedule S Part 3.1.do
  - 47 Schedule S Part 6.do
  - All General Information.do
  - Liquidity Analysis.do
  - Profitability Analysis.do
2. We extract the raw data from *Best’s Schedule S* CD-ROM (A.M. Best Company (2003–2013)). We then convert the raw data to STATA format using Stat/Transfer. We then process the raw data in STATA format through the following programs.
  - Schedule S Part 1.1.do
  - Schedule S Part 4.do

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- Schedule S Part 3.1.do

3. We merge the data from steps 1 and 2 through the following programs.

- Reinsurance.do: Creates Reinsurance.dta.
- Unauthorized.do: Creates Unauthorized.dta.
- Company.do: Creates Company.dta.

If you enter a licence agreement with and obtain written permission from A.M. Best Company, we can send you the constructed data: Reinsurance.dta, Unauthorized.dta, and Company.dta.

## 2. PROGRAMS TO REPLICATE TABLES AND FIGURES

We provide the following STATA programs to replicate the tables and figures.

- Summary.do (uses Reinsurance.dta and Company.dta): Tables I, II, and III and the counterfactuals in Appendices E.2 and E.3.
- Estimation1.do (uses Company.dta): Table D.1.
- Estimation2.do (uses Estimation1.dta): The counterfactuals in Section 5.3.
- Ratings.do (uses Company.dta): Tables E.1 and E.2.
- Plots1.do (uses Reinsurance.dta and Unauthorized.dta): Figure 1 (Reinsurance.eps), Figure 2 (Type.eps), Figure 3 (Geography.eps), Figure 4 (Rating.eps), and Figure 5 (Unauthorized.eps).
- Plots2.do (uses Reinsurance.dta and Company.dta): Figure 6 (Shadow.eps).

## REFERENCES

- A.M. BEST COMPANY (1999–2013): *Best's Statement File: Life/Health, United States*, Oldwick, NJ: A.M. Best Company.
- (2003–2013): *Best's Schedule S: Life/Health, United States*, Oldwick, NJ: A.M. Best Company.