

The Aggregate Implications of Mergers and Acquisitions: Data and Codes

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Data Availability Statements

1. The Compustat data used in the paper are proprietary and owned by S&P Global. Researchers can subscribe to the data. Many universities and research institutions have such a subscription. More information on data access to Compustat can be found at <https://www.spglobal.com/marketintelligence/en/?product=compustat-research-insight>.
2. The Center for Research in Security Prices (CRSP) data used in the paper are proprietary and owned by the University of Chicago Booth School of Business. Researchers can subscribe to the data. Many universities and research institutions have such a subscription. More information on data access to CRSP can be found at <http://www.crsp.org/form/subscription-information-request>.
3. The SDC Platinum data used in the paper are proprietary and owned by Refinitiv. Researchers can subscribe to the data. Many universities and research institutions have such a subscription. More information on data access to SDC Platinum can be found at <https://www.refinitiv.com/en/products/sdc-platinum-financial-securities>.
4. The data on the Consumer Price Index from the Bureau of Labor Statistics are included in this replication package (data/us_cpi.dta). The original data can be downloaded from the Bureau of Labor Statistics website, <http://www.bls.gov/>, Table “CPI for all Urban Consumers”, series CUUR0000SA0.
5. The data on entry and exit from the US Census Bureau, Business Dynamics Statistics database are included in this replication package (data/entry_exit.xlsx). The original data can be downloaded from the US Census Bureau, Business Dynamics Statistics website, <http://www.census.gov/programs-surveys/bds.html>, BDS Tables, Table “Economy-wide.”
6. The data on year-to-year survival rates of new businesses from the Bureau of Labor Statistics, Business Employment Dynamics database are included in this replication package (data/survival_rates.xlsx). The original data can be downloaded from the Bureau of Labor Statistics, Business Employment Dynamics website, <https://www.bls.gov/bdm/home.htm>, Establishment Age and Survival Data, “Table 7. Survival of Private Sector Establishments by Opening Year.”

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Software Requirements

1. Stata (code was last run with version 15)
2. Matlab (code was last run with Matlab Release 2019a)
 - Optimization Toolbox
 - Statistics Toolbox

Description of Programs

Empirical Analysis

The main empirical analyses are contained in **build_cstatwsdc.do**, **build_scdwcstat** and **data_statistics.do**:

1. **build_cstatwsdc.do** is run first. It reads in transaction-level data from the Refinitiv SDC Platinum Database (1977-2009) and merges it with the CRSP/Compustat Merged Database (1977-2009). The final output is a file of Compustat data with indicators identifying firms that are involved in a merger (as an acquirer or target) in the following year. To perform the merge, acquirer and target CUSIPs from the SDC data were inputted into the CRSP translator, which associates CUSIPs to PERMCOs, the permanent company identifier in the Compustat/CRSP database. CRSP/Compustat data were downloaded from Wharton Research Data Services, <https://wrds-www.wharton.upenn.edu/>. The program also uses data on the Consumer Price Index to deflate nominal variables, obtained from the U.S. Bureau of Labor Statistics (1977-2009).
2. **build_scdwcstat.do** is run second. It reads in transaction-level data from the SDC Platinum database and merges it with data from Compustat. The final output is a transaction-level file of SDC data and Compustat data for the two transacting firms. The program also uses data on the Consumer Price Index to deflate nominal variables, obtained from the U.S. Bureau of Labor Statistics (1977-2009). Note that this program uses some of the files created by **build_cstatwsdc.do** in step (1).
3. **data_statistics.do** is run third. It calculates the statistics in Tables 1 and 2 and reported in Sections 2 and 4.4. It uses files created by **build_cstatwsdc.do** and **build_scdwcstat.do** in steps (1) and (2).

Additional data files:

4. **Figures1and2.m** creates Figures 1 and 2. This program uses data that is outputted from **build_scdwcstat.do** and **data_statistics.do** in steps (2) and (3).
5. The moments in Table 3 are calculated in the following files: **entry_exit.xlsx** contains the original data and calculates entry and exit rates using data obtained from the U.S. Census Bureau, Business Dynamics Statistics Database (1980-2010); **survival_rates.xlsx** calculates five-year survival rates using data obtained from the U.S. Bureau of Labor Statistics, Business Employment Dynamics Database (1994-2011). Tab “Original_Data” contains the original data and tab “Calculations” contain the calculations of the survival rates; annual acquisition rates are calculated in **build_cstatwsdc.do**; acquirer and target deviations, merger premium, decile share of targets and variation of targets are calculated in **data_statistics.do**.

Model Codes

1. The main program is **master.m**. It performs the estimation in Table 3, calculates the statistics in Table 4, Figure 5 and Section 4.3, and performs the counterfactual exercises in Table 5. It calls **estim.m** (estimation and equilibrium statistics), **equilNM.m** (counterfactual with no M&A) and **equil_pol.m** (policy counterfactuals).

List of Figures and Tables

Figure/Table No.	Program	Output File(s)	Note
Figure 1	Figures1and2.m	Figure1a.eps and Figure1b.eps	Uses file ebitda_formatlab.txt created by build_sdcwcstat.do
Figure 2	Figures1and2.m	Figure2a.eps and Figure2b.eps	Uses file acq_targ_ebitda_dec_formatlab.txt created by data_statistics.do
Figure 4	Figure4.m	Figure4a.eps and Figure4b.eps	
Figure 5	master.m	Figure5a.eps and Figure5b.eps	
Table 1	data_statistics.do	Table1.tex	Also contains data statistics calculated in entry_exit.xlsx and survival_rates.xlsx
Table 2	data_statistics.do	Table2.tex	
Table 3	master.m, build_cstatwsdc.do and data_statistics.do	Table3.tex	
Table 4	master.m	Table4.tex	
Table 5	master.m	Table5.tex	

All output files are included in the replication package.

References

- CRSP/COMPUSTAT MERGED DATABASE (1977-2009): Available by subscription. Retrieved from Wharton Research Data Service.
- REFINITIV SDC PLATINUM DATABASE (1977-2009): Available by subscription.
- U.S. BUREAU OF LABOR STATISTICS, BUSINESS EMPLOYMENT DYNAMICS DATABASE (1994-2011): “Table 7. Survival of Private Sector Establishments by Opening Year”.
- U.S. BUREAU OF LABOR STATISTICS (1977-2009): “CPI for All Urban Consumers (CPI-U)”.
- U.S. CENSUS BUREAU, BUSINESS DYNAMICS STATISTICS DATABASE (1980-2010): “Economy-Wide Table”.