

The COVID-19 Bailouts

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Abstract

We use hand-collected data to investigate the COVID-19 bailouts for all publicly listed US firms. The median tax rate is 4% for bailout firms and 16% for no-bailout firms. The bailouts are expensive when compared to past corporate income tax payments of the bailout firms. We compute the number of years a bailout recipient has to pay corporate income tax to generate as much tax revenue as it received in bailouts: 135.0 years for the Paycheck Protection Program and 267.9 years for the airline bailouts. We also document a dark side of the bailouts. For many firms, the bailouts appear to be a windfall. Numerous bailout recipients made risky financial decisions, so bailing them out might induce moral hazard. Moreover, lobbying expenditures positively predict bailout likelihood and amount.

Institutional Details of the Bailouts

We focus on the two bailout programs that have been widely used:

- \$659 billion in small-business loans through the Paycheck Protection Program (PPP)
 - \$349 billion through the CARES Act starting on 4/3/20
 - \$310 billion in additional funding available starting on 4/27/20
 - Eligibility rules loosened following the approval of the Paycheck Protection Program Flexibility Act (PPPFA) on 6/5/20
 - Loan details:
 - Amount:** 2.5x mean monthly payroll pre-COVID-19 (capped at \$100,000 per employee)
 - Interest rate:** 1%
 - Term:** 2 years (5 years post PPPFA)
 - 75% (60% post PPPFA) of loan must be used for payroll costs
 - PPP loans are forgivable if recipient maintains employment and pay levels for 8 weeks (24 weeks post PPPFA) following origination
 - Eligibility
 - Most firms with at most 500 employees are eligible
 - There are exceptions to the 500-employee cutoff for some industries (e.g., hotels and restaurants)
- \$32 billion in airline bailouts through the Payroll Support Program
 - Large recipients must issue loans and at-the-money warrants in exchange for the bailouts
 - Face value of loans
 - Up to 30% of bailout amount for passenger airlines
 - 49% for Atlas Air, the only cargo airline to issue a loan
 - Warrant amount: 10% of loan amount (i.e., up to 3% of bailout for passenger airlines)

Data and Definitions

Bailout Amount (Grant Portion):

- Airline bailouts: total funds received minus the face value of the loan
- PPP bailouts: total funds received

Data Sources:

- Compustat/CRSP for firm accounting and stock price data
- OpenSecrets.org for lobbying expenditure data

Bailout Summary Stats

Bailout amounts are in millions. Per-employee figures are in thousands.

	Total	Mean	Median	N
PPP Loans	1,383.62	1.86	0.80	742
Per Employee		21.70	16.16	545
Airline Bailouts	16,489.47	1,268.42	336.62	13
Per Employee		34.39	31.76	13
All Bailouts	17,873.09	23.67	0.81	755
Per Employee		21.99	16.40	558

Years to Repay

Years to repay equals the bailout amount divided by the average cash taxes paid from 2018-2019. Firms with a negative amount of taxes paid are excluded.

	Mean	Median	N
PPP Loans	135.0	22.1	262
Airline Bailouts	267.9	138.3	8

Summary Stats Analysis

Bailout Data:

- 755 publicly listed firms received a total of \$17.9 billion in bailouts
- On a per-employee basis, the airline bailouts are more generous than the PPP bailouts. The median bailout per employee is 16.16 thousand for PPP recipients and 31.76 thousand for airlines.

Bailouts and Taxes Paid:

- Based on an average of firms' tax payments from 2018-2019, it would take the mean PPP (airline) bailout recipient 135.0 (267.9) years to repay the bailout amount.
 - Example: American Airlines has \$13 million in taxes paid (on \$2.1 billion in pre-tax income) and a bailout of \$4.1 billion, resulting in 315.4 years to repay.
- The averages are biased downward since companies with negative tax payments are excluded.

Industry Distribution of Bailout Firms:

- Pharmaceutical products and medical equipment comprise 25.8% of bailout recipients, which is about twice their share among all public firms.
- Computer software is also overrepresented, when one would have expected that these firms are less affected by COVID-19.

Summary Statistics of Bailout vs No-Bailout Firms:

- In comparing bailout vs no-bailout firms, bailout firms have
 - Lower market cap, book assets, sales, employees, and EBITDA/assets
 - Higher R&D/assets and cash/assets

Dark Side of the Bailouts:

- Of the 579 bailout recipients with non-missing financials,
 - 66 had more total payouts (net repurchases + dividends) from 2015-2019 than they received in bailouts
 - 437 had more cash and cash equivalents in 2019 than they received in bailouts
 - 279 firms had persistent negative cash flow (negative EBITDA in each of 2017, 2018, and 2019)
 - 104 had a market cap of at least \$100 million at the end of 2019

	Bailout Dummy	ln(Bailout Amount)
$\mathbb{1}(\text{Lobbying Amount} > 0)$	6.55** (2.97)	0.29** (0.11)
$\mathbb{1}(\text{3-Yr EBITDA} < 0)$	8.18*** (2.97)	0.27*** (0.10)
Controls	Yes	Yes
Industry FE	Yes	Yes
Estimation Method	OLS	Tobit
Bailout Prob.	21.04	
N	1,868	1,916
Adjusted R ²	0.259	
Pseudo R ²		0.268

Regression Analysis

The table above analyzes the determinants of the incidence (OLS) and magnitude (Tobit) of the bailouts using cross-sectional regressions at the firm-level. The sample includes firms with at most 500 employees that did not receive an airline bailout.

Results:

- Positive relation with bailout likelihood and magnitude: firm age, ln(sales), persistent negative cash flow, lobbying expenditures
- Negative relation with bailout likelihood and magnitude: ln/assets), cash/assets, Tobin's Q, crisis return (stock return from 2/19/20 to 3/23/20)

Some Noteworthy Interpretations:

- Having a persistent negative EBITDA is associated with an 8.18 percentage point higher likelihood of receiving a bailout
- Having some lobbying expenditures is associated with a 6.55 percentage point higher likelihood of receiving a bailout

Policy Implications

- The bailouts should have been conditioned based on whether the firm is/will be affected by the COVID-19 pandemic
- Employment could have been subsidized by directly paying employees, similar to the German "Kurzarbeitergeld" scheme
- Bankruptcy likely would have been more effective in restructuring the airlines (the four largest airlines went bankrupt an average of 4.25 times since the 1980s)

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