Outlasting the Pandemic: Corporate Payout and Financing Decisions During Covid-19

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Policy Makers Turning to the Big Guns

• "Whatever it takes." — July 26, 2012 President of the European Control Bank Maria Drad

President of the European Central Bank Mario Draghi, expressing the ECB's commitment to the Euro.

• "As long as it takes." — March 22, 2021 Federal Reserve Chairman Jay Powell, pledging continued support

Pandemic was a Massive Cash Flow Shock for Firms

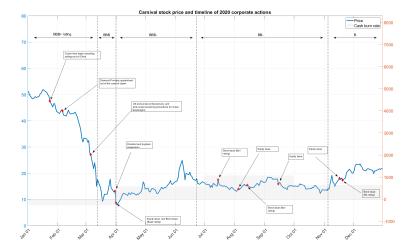
- The Covid-19 pandemic, lockdowns and social distancing measures had an unprecedented effect on economic activity and financial markets
- Massive increase in firms' cash flow risks and uncertainty about
 - virus trajectory (medical risks)
 - responses of governments and central banks (policy risks)
 - household spending, savings, and risk aversion (behavioral risks)
 - firm behavior: sectoral trend shifts (business risks)
 - access to financial markets (financial market risks)
- Pandemic duration risk made firms' financing decisions extraordinarily difficult

Research Questions

- How were firms' payout and financing choices affected by the Covid-19 pandemic and the associated policy responses?
- How did the pandemic affect firms' dividend and buyback decisions along with attempts to issue new bonds and equity?
 - Cutting or suspending dividends or share repurchases preserves short-term capital
 - Raising new funds through loans, bonds and equity issues provides longer-term financing
- How did policy actions affect firms' trade-offs?

Introduction

Motivating example: Carnival Cruise Line



Contributions

- Study the joint dynamics of firms' capital choices during Covid-19: dividends, buybacks, bonds and equity
- Test a "high-frequency" version of the Myers and Majluf (1984) pecking order theory
 - Uniquely, many firms suspended dividends and buybacks and changed their payout policy in a short period of time
- Understand the drivers of firms' decisions to suspend dividends and buybacks, and to issue new bonds and equity
- Analyze the market reaction to these corporate actions

Preview of Results

- 215 (259) firms suspended dividends (share repurchases) during March-December 2020
- **Dividends**. Between March and December of 2020, US firms saved \$29bn through dividend suspensions and another \$56.5bn by reducing dividends.
- **Buybacks**. Savings from buyback suspensions amount to \$140bn in 2020 (conservative estimate)
- Bonds. Market froze in end-February, early March for low-grade bonds.
 \$60-\$80bn per week in mid-March-April, ≤ \$40bn afterwards, only for investment-grade bonds. From May 2020, 30% of new bond issues are below investment-grade.
- Equity. Almost no issues until April, a few afterwards.
- Bond market by far the most important source of new funds

Role of Firm Characteristics

- Firms propensity to issue bonds was far less sensitive to firm and stock characteristics during the pandemic than during the Global Financial Crisis
- Still, large firms with high leverage, low profitability and negative revenue growth were significantly more likely to issue bonds during the pandemic
- Highly levered firms with negative revenue growth were relatively more likely to issue bonds over equity
- Firms with the largest cash holdings were more likely to issue equity but less likely to issue bonds compared to firms with smaller cash holdings

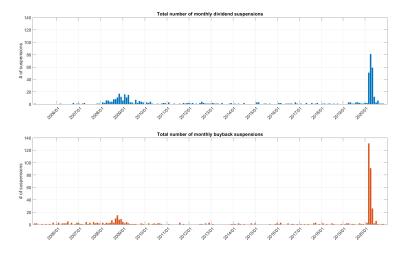
Data Sources

- **Dividends and Buybacks**. CRSP data on daily stock prices and dividend (positive) announcements. No information on dividend suspensions or buybacks announcements/suspensions
- Combine information from Capital IQ and textual data sources using an automated text scraper:
 - 8-K SEC forms (EDGAR)
 - Company press releases from NASDAQ news platform
 - Manual reviews of each case
- 498 (497) dividend (buyback) suspensions from 2005 to 2020 which we merge with price and accounting data from Compustat
- Bonds and Equity. SDC Platinum: convertible and non-convertible bonds, MTN programs. Bond ratings from Moody's. Equity includes new issues of common/preferred shares, and equity rights

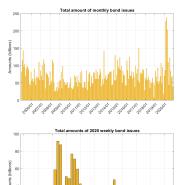
Policy Time Line

- March 13: US declares national emergency
- March 17: Fed announces establishment of commercial paper funding facility (CPFF) and primary dealer credit facility (PDCF) to ensure flows of credit to households and businesses
- March 18: Fed announces establishment of a Money Market mutual fund Liquidity Facility (MMLF)
- March 20: Fed announces enhancement of liquidity flowing to state and municipal markets
- March 23: Other extensive support measures announced by Fed
- March 27: CARES Act signed into law
- April 9: Fed announces the provision of up to \$2.3 trillion in loans aimed at supporting the economy.

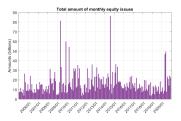
Dividend and Buyback Suspensions



Bonds and Equity Issues



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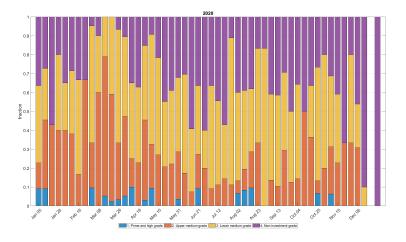


Pettenuzzo, Sabbatucci & Timmermann (2021)

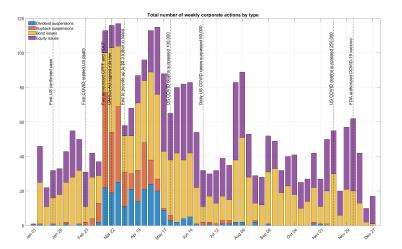
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Bond Issues by Ratings (2020)



Corporate Actions (2020)



Pettenuzzo, Sabbatucci & Timmermann (2021)

Testing the Pecking Order Theory

Pecking Order Theory

- Use internal funds
- Issue debt
- Issue equity
 - We should not expect to see firms issuing equity prior to suspending dividend payments or buybacks (internal funds)
 - Pandemic is well suited to test this: large number of firms took corporate actions

Data

• However, lots of confounders...

Data

Pecking Order Theory: Consistent Firms

| | Panel A | | | | |
|----------------------------------|--|-------------------|--------------------|-----------------|-------------------|
| Company | Industry | Buyback stop date | Dividend stop date | Bond issue date | Equity issue date |
| Gap Inc | Retail Stores | 12-Mar-2020 | 26-Mar-2020 | 23-Apr-2020 | |
| Expedia Inc | Other | 13-Mar-2020 | 23-Apr-2020 | 23-Apr-2020 | 07-Jul-2020 |
| Alaska Air Group Inc | Transportation | 16-Mar-2020 | 25-Mar-2020 | 23-Jun-2020 | |
| Texas Roadhouse Inc | Retail Stores | 17-Mar-2020 | 24-Mar-2020 | | |
| Hawaiian Holdings Inc | Transportation | 18-Mar-2020 | 20-Apr-2020 | 07-Aug-2020 | 01-Dec-2020 |
| Ford Motor Co | Automobiles | 19-Mar-2020 | 19-Mar-2020 | 17-Apr-2020 | |
| Emerald Expositions Events Inc | Other | 20-Mar-2020 | 20-Mar-2020 | | |
| SYNNEX Corp | Other | 24-Mar-2020 | 24-Mar-2020 | | |
| Marriott Vacations Worlwide | Banks, Insurance Companies, and Other Financials | 24-Mar-2020 | 06-May-2020 | | |
| Cracker Barrel Old Country Store | Retail Stores | 25-Mar-2020 | 25-Mar-2020 | | |
| Dick's Sporting Goods | Retail Stores | 25-Mar-2020 | 14-Apr-2020 | | |
| Terex Corp | Other | 25-Mar-2020 | 23-Apr-2020 | | |
| Carter's Inc | Retail Stores | 26-Mar-2020 | 05-May-2020 | | |
| Abercrombie & Fitch Co | Retail Stores | 26-Mar-2020 | 21-May-2020 | 18-Jun-2020 | |
| La-Z-Boy Incorporated | Consumer Durables | 29-Mar-2020 | 29-Mar-2020 | | |
| Herman Miller Inc | Other | 30-Mar-2020 | 03-Apr-2020 | | |
| Kohl's Corp | Retail Stores | 30-Mar-2020 | 17-Apr-2020 | 27-Apr-2020 | |
| Polo Ralph Lauren Corp | Textiles, Apparel & Footware | 31-Mar-2020 | 27-May-2020 | 01-Jun-2020 | |
| Phillips-Van Heusen Corp | Textiles, Apparel & Footware | 01-Apr-2020 | 01-Apr-2020 | 21-Apr-2020 | 06-Jul-2020 |
| Bed Bath & Beyond Inc | Retail Stores | 02-Apr-2020 | 02-Apr-2020 | | |
| Group 1 Automotive Inc | Automobiles | 07-Apr-2020 | 07-Apr-2020 | 03-Aug-2020 | |
| National Oilwell Varco Inc | Machinery and Business Equipment | 09-Apr-2020 | 20-May-2020 | | |
| Jack In The Box | Retail Stores | 15-Apr-2020 | 13-May-2020 | | |
| DineEquity Inc | Retail Stores | 16-Apr-2020 | 29-Apr-2020 | | |
| HCA Inc | Other | 21-Apr-2020 | 21-Apr-2020 | | |
| Yum China Holdings | Retail Stores | 28-Apr-2020 | 28-Apr-2020 | | |
| Standard Motor Products Inc | Automobiles | 29-Apr-2020 | 29-Apr-2020 | | |
| Dunkin Brands Group Inc | Other | 30-Apr-2020 | 30-Apr-2020 | | |
| Foot Locker | Retail Stores | 03-May-2020 | 22-May-2020 | | |
| Marathon Oil Corp | Oil and Petroleum Products | 06-May-2020 | 06-May-2020 | | |
| Domtar Corporation | Other | 08-May-2020 | 08-May-2020 | | |
| Twin River Worldwide Holdings | Other | 11-May-2020 | 13-May-2020 | 06-Oct-2020 | |
| Viad Corp | Other | 14-May-2020 | 14-May-2020 | | |
| Maxim Integrated Products Inc | Machinery and Business Equipment | 13-Jul-2020 | 28-Jul-2020 | | |
| Park Hotels & Resorts Inc | Other | | 16-Mar-2020 | 15-Sep-2020 | |
| Triumph Group Inc | Transportation | | 19-Mar-2020 | 05-Aug-2020 | |
| Macy's Inc | Retail Stores | | 20-Mar-2020 | 27-May-2020 | |
| Boyd Gaming Corp | Other | | 25-Mar-2020 | 13-May-2020 | |
| Vail Resorts Inc | Other | | 01-Apr-2020 | 29-Apr-2020 | |
| Arconic Corporation | Steel Works Etc | | 06-Apr-2020 | 29-Apr-2020 | |
| Continental Resources Inc | Oil and Petroleum Products | | 07-Apr-2020 | 10-Nov-2020 | |
| Meredith Corp | Other | | 20-Apr-2020 | 25-Jun-2020 | |
| Designer Brands | Retail Stores | | 01-May-2020 | 08-May-2020 | 04-Sep-2020 |
| KAR Auction Services Inc | Automobiles | | 07-May-2020 | 26-May-2020 | |
| Penske Automotive Group Inc | Automobiles | | 13-May-2020 | 04-Aug-2020 | |
| Townsquare Media Inc | Other | | 15-Jun-2020 | 16-Dec-2020 | |

Pecking Order Theory: Violations (equity issues prior to dividend or buyback suspensions)

| Violations | | | | | | |
|---|-----------|------|---|--|--|--|
| Industry | 2008-2009 | 2020 | List in 2020 | | | |
| Food | 1 | 0 | | | | |
| MiningandMinerals | 5 | 1 | Gold Resource Corp: 15-Jun | | | |
| OilandPetroleumProducts | 8 | 2 | Brigham Minerals: 09-Jun; Panhandle Oil & Gas: 28-Aug | | | |
| ConsumerDurables | 1 | 0 | | | | |
| Chemicals | 5 | 0 | | | | |
| Drugs,Soap,Perfumes,Tobacco | 2 | 3 | Owens & Minor: 01-Oct; Turning Point Brands: 08-Jul | | | |
| ConstructionandConstructionMaterials | 6 | 0 | Vector Group: 13-May | | | |
| Constructionand Construction Materials SteelWorksEtc | 0 | | | | | |
| | 1 | 0 | | | | |
| MachineryandBusinessEquipment | 5 | 2 | GrafTech International: 14-Dec; Vertiv Holdings: 12-Aug | | | |
| Automobiles Transportation | 2 | 0 | | | | |
| Utilities | 12 | 7 | Heartland Express: 21-Jul; Werner Enterprises: 03-Jun | | | |
| Utilities | 12 | ' | Avista: 15-May; Chesapeake Utilities: 30-Jun; MGE Energy: 12-May | | | |
| | | | Dominion Resources: 17-Mar; Consolidated Edison: 01-Dec | | | |
| RetailStores | 5 | 0 | Ormat Technologies: 18-Nov; South Jersey Industries: 06-Apr | | | |
| Banks.InsuranceCompanies.andOtherFinancials | 58 | 4 | Bain Capital Specialty Finance: 30-Mar; Flagstar Bancorp: 10-Aug | | | |
| banks, insurancecompanies, and other mancials | 50 | - | Houlihan Lokey: 18-May; Stewart Information Services: 12-Aug | | | |
| Other | 24 | 10 | The ADT Corp: 15-Sep; Bentley Systems Inc: 12-Nov; Cable One: 19-May; | | | |
| 0000 | -4 | 10 | Hamilton Lane: 02-Jun; Kinsale Capital Group: 04-Aug | | | |
| | | | Mesa Laboratories: 09-Jun; Simulations Plus: 05-Aug; Shutterstock: 11-Aug-202 | | | |
| | | | Strategic Education: 05-Aug; Towers Watson: 22-Apr | | | |
| Total | 136 | 31 | | | | |

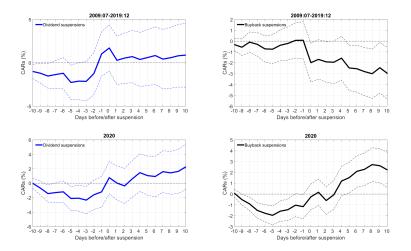
Transitions Between Corporate Actions

| From/To | Bond issue Buyback stop | | Dividend stop Equity issu | | / issue | e Total | | Single action | | | |
|---------------|-------------------------|-------|---------------------------|---------------|---------|--------------|-------|---------------|--------|---------------|-------|
| | N | % | N | % | N | % | N | % | N | % | N |
| Bond issue | 5,483 | 0.347 | 15 | 0.001 | 11 | 0.001 | 2,163 | 0.137 | 7,672 | 0.486 | 1,372 |
| Buyback stop | 18 | 0.001 | 1 | 0.000 | 2 | 0.000 | 12 | 0.001 | 33 | 0.002 | 450 |
| Dividend stop | 12 | 0.001 | 1 | 0.000 | 0 | 0.000 | 13 | 0.001 | 26 | 0.002 | 25 |
| Equity issue | 1,975 | 0.125 | 2 | 0.000 | 3 | 0.000 | 6,078 | 0.385 | 8,058 | 0.510 | 54 |
| Total | 7,488 | 0.474 | 19 | 0.001 | 16 | 0.001 | 8,266 | 0.524 | 15,789 | 1 | 1,901 |
| | | | | | I | Panel B: 20 | 20 | | | | |
| From/To | Bond issue Buyback st | | ack stop | Dividend stop | | Equity issue | | Total | | Single action | |
| | N | % | N | % | N | % | N | % | N | % | N |
| Bond issue | 370 | 0.346 | 33 | 0.031 | 9 | 0.008 | 120 | 0.112 | 532 | 0.498 | 441 |
| Buyback stop | 68 | 0.064 | 0 | 0.000 | 20 | 0.019 | 5 | 0.005 | 93 | 0.087 | 349 |
| Dividend stop | 45 | 0.042 | 9 | 0.008 | 0 | 0.000 | 8 | 0.008 | 62 | 0.058 | 118 |
| Equity issue | 91 | 0.085 | 1 | 0.001 | 1 | 0.001 | 289 | 0.270 | 382 | 0.357 | 115 |
| Total | 574 | 0.537 | 43 | 0.040 | 30 | 0.028 | 422 | 0.395 | 1.069 | | 1,023 |

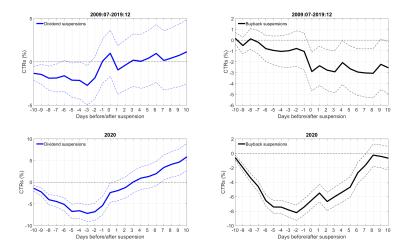
Stock market reaction

- Dividend suspensions associated with CARs of -2% up to day -3, followed by modest trend upwards on and after announcement date
- Buyback suspensions were both preceded and followed by a sequence of positive abnormal returns: Markets anticipated announcements and viewed them as prudent actions
- Very large movements in cumulative *total* returns prior to dividend and buyback suspension dates
- Firms announced suspensions on the back of a string of large drops in their stock prices
- Suspension announcements were followed by an 8-10% gain in stock prices during the 10-day post-announcement window

CARs - Dividend and Buyback Suspensions



CTRs - Dividend and Buyback Suspensions



Conclusion

- Firms' financing decisions changed sharply in the days and weeks after the pandemic outbreak
 - Unprecedented suspensions in dividends and buybacks
 - Stock and bond markets (low investment grade) essentially froze
- Massive policy interventions re-opened capital markets
- Possible for most firms (regardless of credit rating) to tap bond market
- Record fund raising in bond markets
- Looking ahead: How will growth be affected by all the newly issued debt?