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Confidential marketing in seasoned equity offers

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ABSTRACT

Confidentially marketed public offers (CMPOs) represent a popular innovation in the market for seasoned equity offers (SEO) despite large negative announcement reactions. We find that CMPOs are often used by small firms with negative operating cash flows to raise a relatively substantial amount of capital, which is used largely for R&D intensive investments. We argue that the confidential marketing associated with CMPOs has made them a popular way for small firms to make fast-paced public offers, which are known to have reduced price pressure, while sidestepping the problem of inelastic demand. These firms are willing to trade off more negative announcement reactions for the chance to privately assess their prospects for raising capital.

1. Introduction

In the past few decades, the market for seasoned equity has seen a significant shift toward fast-paced offers. The number of firms choosing traditional marketing has declined while the number opting for accelerated issuance has increased (e.g. Autore et al., 2008; Bethel and Krigman, 2008; Bortolotti et al., 2008). Gao and Ritter (2010) argue that a firm's decision to accelerate is related to a tradeoff between the higher fees and the lower underpricing that accompany marketing. Gustafson (2018) shows that extreme acceleration in the form of overnight SEOs helps to reduce issuance costs by avoiding pre-issue price pressure, which helps to explain the rapid growth of accelerated offers. Small firms, however, are less able to enjoy this benefit due to their inelastic demand and consequent need for marketing. Our study examines a relatively new and popular offer type, confidentially marketed public equity offers (CMPOs), which can accommodate the increase in demand for fast-paced offers among small firms by allowing these firms to explore investor receptiveness confidentially before the offering is publicly announced. Firms that choose CMPOs can arguably avoid the pre-issue price pressure associated with non-accelerated offers while sidestepping (at least partially) the problem of inelastic demand.

CMPOs are drawn from shelf registration filings on Form S-3, but they differ from typical shelf offers in that they are confidentially marketed to certain investors before a public announcement is made. Investors that wish to receive additional information are asked to sign a confidentiality agreement, prohibiting them from trading the company's stock or disclosing information about the offer until it is publicly announced. The confidential marketing phase allows firms to assess the level of demand for their shares without revealing potentially proprietary information about upcoming projects. If there is sufficient demand, the offering goes public and the necessary documents are filed with the Securities and Exchange Commission (SEC) as in a typical public offering. The shelf takedown usually

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occurs within 24 h of the public announcement and the offer closes like a standard firm commitment underwritten offer. In this respect, CMPOs differ from Private Investment in Public Equity (PIPE) transactions or other private offerings that have resale restrictions.[1] In Section 2 we provide a more detailed description of CMPOs and compare this offer structure with traditionally marketed offers, shelf-registered offers, accelerated offers, and PIPE offers.

After first appearing in 2008, CMPOs quickly gained in popularity and by 2010 they represented about one-third of all underwritten seasoned public equity offers that meet our sample criteria. We find that CMPO issuers tend to be small firms that are operating at a loss. CMPO issuers have an average market capitalization that is less than one-sixth that of accelerated issuers. Moreover, in our sample, 78% of CMPOs are issued by firms with negative operating cash flows, compared to a more modest 38% for marketed offers and 50% for accelerated offers. This figure for CMPOs is disproportionately large when compared to the universe of Compustat firms in which about one-quarter to one-third exhibit negative operating cash flows (using the same sample screens as in our sample). While Denis and McKeon (2018) show that firms with persistent operating losses have become the predominant equity issuers in recent decades, we report that CMPOs are how these firms often choose to raise equity. Moreover, our analysis of cash holdings suggests that the median CMPO issuer would experience a severe decline in their cash level (30 percentage points below that of industry norms) had they not conducted the issue. These results suggest that CMPO issuers need to raise a relatively large amount of capital. In line with this expectation, we find that CMPO issuers have larger offer sizes (relative to firm size) compared to accelerated offers.

Furthermore, we find that CMPOs are used by R&D intensive firms, for which the confidential nature of CMPOs is attractive because it allows these firms to temporarily shield proprietary information about research and development projects that the proceeds will finance. Together, the results suggest that CMPOs accommodate small, R&D intensive firms with persistently weak operating cash flows seeking to raise a relatively large amount of capital.

Such features arguably raise concerns from outside (non-wall crossed) investors at the time the CMPO is publicly announced. Indeed, in a careful analysis of announcement reactions, we find robust evidence of more negative announcement reactions for CMPOs, averaging about −8%, compared to accelerated or marketed offers. This analysis controls for firm and offer features, uses several benchmarks including the Fama and French (2015) five-factor model and characteristics-adjusted size and book-to-market benchmark portfolios, and includes various event windows spanning the announcement and issue dates. A natural question is why investors partake in these offers. Our analysis shows that, measured from the offer price, CMPO investors experience abnormal (i.e. size and book-to-market matched) buy-and-hold returns of about 5% over horizons ranging from 30 days to 180 days after issuance. Going out five years, abnormal buy-and-hold returns are non-negative and are no worse than the returns of accelerated or marketed offers.

We speculate that CMPOs are popular in light of their poor reception because confidentially engaging potential investors ahead of risky capital investments, particularly during times of low profitability, is valuable enough to offset the announcement penalty at the time the offer goes public.

Our study contributes to recent literature that documents changes in the market for seasoned equity. For example, Gustafson and Iliev (2017) report that small firms are increasingly using accelerated SEOs after a recent deregulation aimed at improving small firms' access to the public equity markets, Denis and McKeon (2018) report that firms with negative operating cash flows now comprise the majority of equity issuers, and Billet et al. (2019) study the increased popularity of at-the-market offerings, which are non-underwritten direct share issuances that can be dribbled-out over time.

Finally, our study of confidential marketing in underwritten seasoned offers via CMPOs is related to recent studies of confidential marketing prior to IPOs. CMPOs predate confidential IPOs, which were first allowed by the Jumpstart Our Business Startups Act (JOBS) enacted on April 5, 2012. Dambra et al. (2015) report that the JOBS Act has increased IPO volume particularly among firms with high proprietary costs such as biotech / pharmaceuticals and research-intensive firms, and Chaplinsky et al. (2017) find that the Act is associated with greater underpricing but no change in the direct costs of IPO issuance for emerging growth companies. For confidential IPOs an analysis of announcement reactions is not possible as there is no public market for the shares before the offer. Our results suggest that confidential marketing is valuable even for firms that are already public, as the popularity of CMPOs is strong despite large negative announcement reactions.

The remainder of the paper is organized as follows. Section 2 describes the sample. Section 3 presents the baseline results and robustness tests. In Section 4 we directly control for a firm effect by studying firms that make multiple sample offers. Section 5 analyzes post-issue outcomes. Section 6 concludes.

2. The transition to faster equity offerings

In 1982 the SEC introduced shelf registration, which enables eligible firms to register securities before the need for capital arises so that the sale of those securities can be completed with no regulatory delay. Until the 1900s, however, most unregulated firms avoided shelf-registered equity offers in favor of traditionally marketed offers (Denis, 1991). Since the late 1990s the use of faster-paced offers has been on the rise. Autore et al. (2008) and Bethel and Krigman (2008) report a revival in the use of shelf offerings, while Bortolotti et al. (2008) document the rise of accelerated offers, which are shelf offers that are either not announced before issuance (this subset is referred to as overnight offers) or are announced during the two business days prior to issue. Gustafson (2018) reports that between 2009 and 2014, 75% of seasoned equity offerings were issued overnight, compared to 27% between 2000 and 2008.

Gao and Ritter (2010) classify SEOs as either marketed or accelerated and show that firms facing an inelastic demand curve and/or

[1] For additional information about CMPOs, see "Confidentially Marketed Public Offerings (CMPOs) – A (Relatively) New Kid in Town" by DeMartino et al. (2014).

make large offers relative to firm size are more likely to use marketed offers. Thus, small firms with inelastic demand that want to raise significant capital find it suboptimal to take full advantage of accelerated offers. This inability for many small issuers to benefit from the growing demand for accelerated offers arguably led to the rise of CMPOs beginning in 2008.

In a typical CMPO, a firm hires an underwriter to engage a select group of institutional investors about a proposed underwritten equity offering. These investors are referred to as "wall-crossed" because they gain access to material, non-public information and therefore must sign a confidentiality agreement. In return, they often receive newly issued shares at a significant discount from the prevailing secondary market price. Once wall-crossed investors agree to the price and size of the deal, the offering goes public allowing the issuing firm to increase the issue size and include retail investors. The public phase begins with a press release and/or regulatory filing in which the firm states that it is issuing shares off its effective Form S-3 shelf registration statement. The public phase is typically very short (e.g. one day) to avoid unfavorable market swings and to re-allow access to wall-crossed investors to trade in the issuer's securities. From a structural/regulatory standpoint, a CMPO follows the settling and closing arrangements of an ordinary firm commitment underwritten offering. The key feature that distinguishes CMPOs from other fast-paced public offers such as accelerated equity offers is the confidential pre-marketing phase.

CMPOs are similar to accelerated offers in the sense that, once announced publicly they are completed quickly. In an accelerated offer, an issuing firm publicly announces an upcoming offer and then completes the issue within 48 h, during which there is often a limited public marketing phase. If there is weak demand, abandoning the offer could be costly to the firm due to the negative announcement effect. Thus, CMPOs can provide a lower risk alternative to raise public equity quickly. The confidential phase of CMPOs is particularly attractive to small firms with inelastic demand, since these firms often avoid accelerated offers in favor of fully marketed offers for which the public marketing campaign lasts at least three days. The tendency for small firms to avoid accelerated offers arguably spurred the arrival of CMPOs as a structure that can better accommodate fast-paced public offers by these firms.

Billet et al. (2019) study the increased popularity since 2008 of at-the-market offerings, which are non-underwritten direct share issuances. In these offers, firms may issue equity using a "dribble-out" approach where they sell the shares in smaller quantities over three years. The shares are shelf-registered and can be sold immediately. A key difference between at-the-market offers and CMPOs is that at-the-market offers are not underwritten, rather they use a placement agent to sell the shares directly into the secondary market at prevailing market prices without marketing. The rise of at-the-market offers can accommodate firms' increasing desire to use fast-paced public offers, yet the lack of marketing likely attracts firms that are confident in outside demand for their shares, as opposed to CMPO issuers that prefer to test the waters with confidential marketing.

CMPOs are similar in some ways to common stock Private Investment in Public Equity (PIPE) offers. Common stock PIPEs are private equity offers to institutional or accredited investors at (usually) a steep discount from the prevailing secondary market price. The offered shares are subject to resale restrictions until the issuer files a resale registration statement. PIPEs have grown in popularity since the 1990s and are sometimes preferred by small, risky firms that may find it difficult to access the public markets (e.g. Brophy et al., 2009; Chaplinsky and Haushalter, 2010; Chen et al., 2010). A key similarity between common stock PIPEs and CMPOs is the use of private marketing to wall-crossed investors. Two key differences are that CMPOs have a public component where retail participation is possible and, since the offering is publicly registered, there are no resale restrictions. Therefore, the rise of CMPOs represents an opportunity for small, risky firms to raise capital quickly in the public markets.

Given their structure, CMPOs may attract firms that are uncertain about their ability to raise capital possibly due to low profitability, and that plan to use the proceeds for risky and proprietary innovation. We expect that these potential benefits of confidential marketing come at the expense of increased direct issuance costs. We examine these issues in our empirical analysis to follow.

3. Sample construction

The initial sample consists of underwritten SEOs from the Securities Data Company (SDC) Global New Issues Database during 2000–2014.[2] We exclude rights offers, unit offers, warrants, and ADRs as well as utilities (SIC 4900–4999) and financials (6000–6999) due to their unique regulatory environment. We further exclude issuers with stock prices below $1, and issuers not listed on the NYSE, AMEX, or NASDAQ. Issuers must have a share code in CRSP of 10 or 11, and issues must have some primary shares. Finally, we exclude firms with missing stock price and accounting data obtained from CRSP and Compustat, respectively.

We separate the sample of offers into three groups based on issuance method: Marketed offers, accelerated offers, and confidentially marketed public offers (CMPOs). Our approach to classify offers is as follows. We first classify SEOs from SDC as marketed or accelerated based on the speed of issuance. Marketed offers include all non-shelf offers and the subset of shelf offers in which the announcement date and issue date are separated by at least three days (i.e. there are at least two full trading days between these two dates). Accelerated offers are the subset of shelf offers in which the announcement date and issue date are separated by two or fewer days (i.e. there is no more than one full trading day between these dates). We define the announcement date as the date on which the firm publicly announces an upcoming offer. For non-shelf offers, we follow prior researchers and set the announcement date equal to the SDC filing date. For shelf offers, the SDC filing date often does not signal an intent to issue. For shelf offers during 2000–2011 we define the announcement date as the date on which the firm files a pre-issue prospectus with the SEC. We manually collect this date by searching the SEC's Edgar archives following prior literature (e.g., Autore et al., 2011). Starting in 2012 we define shelf announcement dates as the launch date reported by SDC. To check the accuracy of announcement dates, for shelf offers in 2012 we compare the SDC

[2] Ending the sample in 2014 allows an examination of post-issue performance and use of proceeds.

launch date to the pre-issue prospectus filing date on Edgar and find a match in more than 90% of cases.[3]

Next, we classify CMPOs. The SDC database contains CMPOs as part of its public new issues database, but it does not identify these offers as CMPOs. We identify CMPOs by merging our SEO sample from SDC with a sample of CMPOs from PlacementTracker. There are 385 CMPOs on PlacementTracker that meet our sample criteria, of which 328 (approximately 85%) have a matching observation in our SDC sample. In these instances of matching observations, we classify the SEO as a CMPO. We augment this sample with the additional 57 CMPOs covered by PlacementTracker but not SDC.[4] For all CMPOs we use the announcement date and issue date reported on PlacementTracker, but we delete 11 CMPO observations in which the offer date reported by PlacementTracker differs from that reported by SDC by more than three days.

Our final sample consists of 2695 SEOs, including 1367 marketed offers, 943 accelerated offers, and 385 CMPOs.

4. Who issues CMPOs?

This section examines the characteristics associated with firms' choice to use CMPOs.

4.1. Firm and offer characteristics

Table 1 presents firm and offer characteristics of CMPOs versus marketed and accelerated SEOs. All variable definitions are included in Appendix A. We highlight a few important differences between CMPOs and accelerated offers, despite their similarity of little time spent on publicly marketing the issue. First, CMPOs are made by substantially smaller firms based on market capitalization, with a sample average of $310 million versus about $2 billion for accelerated offers. Thus, it is no surprise that institutional ownership averages just 36% for CMPO issuers compared to 55% for accelerated issuers. Second, the relative offer size made by CMPO issuers equals about 20% of shares outstanding, which is much greater than accelerated issuers with offerings of about 12% of shares outstanding. Third, CMPO issuers exhibit lower (and often negative) operating cash flows compared to accelerated issuers. Based on the descriptive evidence, the rise of CMPOs arguably accommodates firms that previously were less able to take advantage of the accelerated issuance process because of inelastic demand for their shares (e.g. small firms) and large relative offer sizes, features that Gao and Ritter (2010) show are associated with the need for marketing.

We employ a multivariate logistic regression framework (unreported) to estimate the firm and offer characteristics that predict CMPO issuance (as opposed marketed or accelerated offers) using the period 2008–2014. The estimates confirm that CMPOs are more likely to be associated with smaller firms (1% level of significance), firms with lower operating cash flows (5% level), and larger relative offer sizes (1% level), consistent with the descriptive evidence. The model also implies that CMPO likelihood is greater for firms with no bond rating and offers that have a larger primary component (i.e. fewer selling shareholders) (both at the 1% level).[5]

CMPOs are associated with greater direct issue costs compared to other offer types. The average gross underwriting spread equals 5.86% for CMPOs compared to 4.43% for accelerated offers and 5.19% for marketed offers. In addition, CMPO offer prices are discounted to a greater extent from the prevailing secondary market price. For CMPOs the offer price is typically set at a discount of 8.84% from the prior day's closing price, whereas the typical offer price discount for accelerated and marketed offers equals about 5.36% and 3.57%, respectively. Finally, there is a more negative stock price reaction to CMPOs than other offer types, which we discuss in more detail in Section 5.

4.2. Operating cash flows, cash levels, and use of proceeds

Denis and McKeon (2018) find that in recent decades equity issuers increasingly exhibit negative operating cash flows. We demonstrate that CMPOs are used disproportionately by firms operating at a loss. We do so first by splitting our sample into issuers with positive versus negative operating cash flows in the year prior to issuance. We calculate operating cash flows following Denis and McKeon (2018) as the Compustat variable, OANCF, or if this variable is missing, as NI + DPC + TXDC + ESUBC + SPPIV + FOPO + FSRCO + WCAPC + APALCH + INVCH + RECCHI.

Table 2 presents these statistics annually for each offer type. The table shows that CMPOs are overwhelmingly used by firms with operating losses. From our sample of 385 CMPOs, 299 (78%) are issued by firms with negative operating cash flows. In comparison, about 50% of accelerated offers and 38% of marketed offers are used by firms with operating losses. For comparative purposes, the table shows that about one-quarter of Compustat firms that meet our sample requirements exhibit negative operating cash flows. Thus, CMPO issuers are more often operating at a loss compared to typical firms, and more often operating at a loss in relation to issuers of accelerated or marketed offers. The rise of CMPOs accommodates these types of firms for raising equity in the public markets.

In Panel A of Table 3, we provide a dynamic analysis of operating cash flows in the years surrounding issuance, reported in millions.

[3] Similarly, Bortolotti et al. (2008) compare the SDC launch date with Lexis/Nexis reports for a random subsample of deals and find that the dates on Lexis/Nexis almost always fall within one or two days of the SDC launch date. They conclude that a 3-day window centered on the SDC launch date almost always captures the SEO announcement date.

[4] Our results are similar if we only include SDC offers (and use PlacementTracker only to identify CMPOs in the SDC sample).

[5] The independent variables in the logistic model include: Market cap, low price indicator, residual volatility, institutional ownership, market-to-book, leverage, turnover, relative offer size, BHAR60, VWR60, percent primary, indicator for no bond rating, and operating cash flows (all from Table 1), as well as industry fixed effects based on the Fama and French 49 classification.

Table 1
Firm and offer characteristics.

	Means			Difference of means (P-value)			Medians			Difference of medians (P-value)		
	1	2	3	2–1	3–2	3–1	1	2	3	2–1	3–2	3–1
	Marketed	Accelerated	CMPO				Marketed	Accelerated	CMPO			
Mktcap (mil $)	1281.40	2046.60	310.6	<0.001	<0.001	<0.001	542.10	693.40	194.00	<0.001	<0.001	<0.001
Residual volatility (%)	4.08	4.05	4.50	0.779	<0.001	<0.001	3.62	3.39	4.06	0.029	<0.001	<0.001
Inst. Ownership (%)	48.32	55.13	35.90	<0.001	<0.001	<0.001	48.53	61.14	30.35	<0.001	<0.001	<0.001
Relative offer size (%)	20.88	12.47	20.14	<0.001	<0.001	0.307	17.71	11.00	17.09	<0.001	<0.001	0.493
Percent primary (%)	83.26	97.88	98.98	<0.001	0.037	<0.001	100.00	100.00	100.00	<0.001	0.016	<0.001
Proceeds (mil $)	175.90	177.00	42.16	0.930	<0.001	<0.001	99.00	81.00	30.00	<0.001	<0.001	<0.001
MTB	4.04	3.66	4.19	0.025	0.019	0.490	2.51	2.28	3.24	0.003	<0.001	0.001
Low price	0.06	0.21	0.50	<0.001	<0.001	<0.001	0.00	0.00	1.00	<0.001	<0.001	<0.001
BHAR60 (%)	32.77	24.81	22.06	<0.001	0.395	0.001	20.25	11.29	8.16	<0.001	0.064	<0.001
VWR60 (%)	3.81	4.86	5.63	<0.001	0.034	<0.001	4.57	5.14	5.64	0.002	0.086	<0.001
Cash (%)	27.85	32.69	47.98	<0.001	<0.001	<0.001	15.73	17.20	48.61	0.006	<0.001	<0.001
Operating CF (mil $)	55.63	246.90	−14.35	0.003	<0.001	<0.001	6.73	−0.19	−12.80	0.092	<0.001	<0.001
Turnover (%)	10.86	14.72	11.18	<0.001	<0.001	0.620	7.84	10.26	7.66	<0.001	<0.001	0.625
Leverage (%)	22.90	28.84	18.80	<0.001	<0.001	0.004	18.01	25.69	7.95	<0.001	<0.001	<0.001
Bond rating	5.96	5.94	3.89	0.927	0.001	0.001	6.00	6.00	4.00	0.6057	0.0160	0.0046
No bond rating	0.79	0.67	0.98	<0.001	<0.001	<0.001	1.00	1.00	1.00	<0.001	<0.001	<0.001
Gross spread (%)	5.19	4.43	5.86	<0.001	<0.001	<0.001	5.25	4.75	6.00	<0.001	<0.001	<0.001
Discounting(%)	3.57	5.36	8.84	<0.001	<0.001	<0.001	2.50	3.72	8.31	<0.001	<0.001	<0.001
CAR(−1,+1) (%)	−3.08	−3.97	−7.99	0.011	<0.001	<0.001	−2.90	−3.56	−7.82	0.019	<0.001	<0.001

This table displays firm and offer characteristics for marketed offers, accelerated offers, and confidentially marketed public offers (CMPOs). Detailed definitions of all variables are provided in Appendix A. Mktcap equals the stock price multiplied by shares outstanding on the day prior to the offer announcement, reported in millions. Residual volatility is defined as the standard deviation of the residuals from regressing daily excess returns on the value-weighted market return over the 250 trading days ending two days prior to the announcement. Inst. ownership equals the percentage of shares outstanding held by institutional investors. Relative offer size is defined as shares offered divided by common shares outstanding one day prior to the announcement. Percent primary is the percentage of shares offered being sold by the firm (as opposed to selling shareholders). Proceeds equals the amount specified on the launch date, or if not available, the amount raised in the offering, reported in millions. MTB is defined as total assets minus book value of equity plus market capitalization divided by book value of assets. Low price is a binary variable indicating a closing price on the day prior to the offer announcement below $5. BHAR60 is defined as the issuer's buy-and-hold stock return minus the buy-and-hold value-weighted market return over the 60 trading days ending two days prior to the issue announcement. VWR60 is the buy-and-hold value-weighted market return over the 60 trading days ending two days prior to the issue announcement. Cash is cash and short-term equivalents divided by book value of assets, in the issue year. Operating CF is the issuer's operating cash flow in the issue year, defined as OANCF from Compustat, or if missing, by NI + DPC + TXDC+ESUBC+SPPIV+FOPO+FSRCO+WCAPC+APALCH +INVCH+RECCHI. Turnover is the average daily volume divided by shares outstanding in the 250 trading days ending two days prior to the announcement. Leverage is defined as the sum of short- and long-term debt divided by book value of total assets. Bond rating is the coded S&P long-term bond rating, where higher values represent better ratings. No bond rating is a binary variable taking the value of one if the firm has no long-term bond rated. Gross spread is the dollar amount paid to underwriters scaled by the issue proceeds. CAR(−1,+1) is the 3-day market model-adjusted cumulative abnormal return centered on the issue announcement date. All variables not otherwise specified are measured one quarter prior to the SEO announcement. *P*-values for differences between means and medians are based on *t*-tests and Wilcoxon rank sum tests, respectively.

Table 2
Annual frequency of total offers and the number with negative operating cash flow.

	Marketed			Accelerated			CMPO			Compustat		
Year	N	N Negative Operating CF	% Negative Operating CF	N	N Negative Operating CF	% Negative Operating CF	N	N Negative Operating CF	% Negative Operating CF	N	N Negative Operating CF	% Negative Operating CF
2000	217	102	47%	18	2	11%	.	.	.	5049	1948	39%
2001	119	38	32%	33	19	58%	.	.	.	4501	1948	34%
2002	109	26	24%	39	12	31%	.	.	.	4104	1218	30%
2003	130	49	38%	42	15	36%	.	.	.	3797	989	26%
2004	136	44	32%	50	20	40%	.	.	.	3752	1006	27%
2005	107	51	48%	44	17	39%	.	.	.	3659	966	26%
2006	100	40	40%	50	26	52%	.	.	.	3587	931	26%
2007	107	47	44%	34	13	38%	.	.	.	3496	892	26%
2008	39	11	28%	39	10	26%	3	3	100%	3304	832	25%
2009	63	19	30%	157	67	43%	40	26	65%	3122	657	21%
2010	39	9	23%	90	62	69%	64	42	66%	3024	613	20%
2011	47	18	38%	51	29	57%	55	36	65%	2915	654	22%
2012	39	17	44%	74	42	57%	78	68	87%	2840	633	22%
2013	52	23	44%	116	65	56%	72	63	88%	2858	666	23%
2014	63	32	51%	106	73	69%	73	61	84%	2986	813	27%
Total	1367	526	38%	943	472	50%	385	299	78%	52,994	14,766	28%

This table displays annual statistics for each offer type on the number of offers and the number (and percentage) of offers in which the issuer has a negative operating cash flow in the offer year. The table also displays the annual percentage of Compustat firms meeting our sample restrictions that have negative operating cash flows.

Table 3
Operating cash flows, cash levels, and post-issue use of proceeds.

Panel A: Operating cash flow (millions).

	Marketed (1)	Accelerated (2)	CMPO (3)	diff. (2–1) p-value	diff. (3–2) *p*-value	diff. (3–1) p-value
Operating CF_{-3}	96.24 [7.365]	202.3 [−0.987]	−12.3 [−8.349]	0.1754 [0.0011]	0.0039 [<0.0001]	<0.0001 [<0.0001]
Operating CF_{-2}	103.6 [5.913]	204.8 [−1.226]	−10.93 [−7.721]	0.1537 [0.0005]	0.0012 [<0.0001]	<0.0001 [<0.0001]
Operating CF_{-1}	127.9 [7.794]	205.5 [−2.679]	−12.22 [−9.495]	0.2561 [0.0002]	0.0002 [<0.0001]	0.0001 [<0.0001]
Operating CF_{0}	105.2 [10.13]	198.7 [−3.882]	−14.35 [−12.8]	0.2434 [0.0003]	0.0051 [<0.0001]	<0.0001 [<0.0001]
Operating CF_{+1}	114.90 [14.66]	240.00 [−2.41]	−15.49 [−15.06]	0.1692 [0.0084]	0.0027 [<0.0001]	0.0001 [<0.0001]
Operating CF_{+2}	183.70 [24.07]	231.70 [−1.085]	−10.46 [−14.45]	0.4860 [0.0022]	<0.0001 [<0.0001]	<0.0001 [<0.0001]
Operating CF_{+3}	248.70 [33.52]	307.70 [1.689]	−14.46 [−17.31]	0.5663 [0.0143]	0.0002 [<0.0001]	<0.0001 [<0.0001]

Panel B: Median cash levels.

	Marketed offers	Accelerated offers	CMPOs
$Cash_{-1}$	0.144	0.253	0.545
$Cash_{0}$	0.241	0.345	0.624
$Cash_{+1}$	0.189	0.282	0.609
Excess $cash_{-1}$	0.000	0.000	0.028
Excess $cash_{0}$	0.019	0.006	0.053
Excess $cash_{+1}$	0.000	0.002	0.007
Pro-forma cash	−0.011	0.101	0.145
Excess pro-forma cash	−0.158	−0.111	−0.284

Panel C: Use of proceeds.

	Marketed (1)	Accelerated (2)	CMPO (3)	diff. (2–1) p-value	diff. (3–2) p-value	diff. (3–1) p-value
Capital exp. [0,+1]	0.3364 [0.1112]	0.2239 [0.0628]	0.1320 [0.0473]	0.0026 [<0.0001]	0.0001 [0.0049]	<0.0001 [<0.0001]
Capital exp. [0,+3]	0.7481 [0.2417]	0.6220 [0.1639]	0.3379 [0.1255]	0.2699 [0.0004]	0.0016 [0.0697]	0.0002 [<0.0001]
R&D [0,+1]	0.2848 [0.0176]	0.436 [0.0891]	0.6801 [0.5026]	0.0002 [0.0020]	<0.0001 [<0.0001]	<0.0001 [<0.0001]
R&D [0,+3]	0.5212 [0.018]	0.8119 [0.073]	1.4770 [1.2110]	0.0041 [0.0642]	<0.0001 [<0.0001]	<0.0001 [<0.0001]
Acquisitions [0,+1]	0.1820 [0.0042]	0.0970 [0.0000]	0.0774 [0.0000]	0.0021 [<0.0001]	0.3423 [0.0216]	0.0003 [<0.0001]
Acquisitions [0,+3]	0.3702 [0.0466]	0.2514 [0.0000]	0.1794 [0.0000]	0.0848 [<0.0001]	0.2505 [0.0079]	0.0101 [<0.0001]
Reduction in long-term debt [0,+1]	0.3331 [0.1410]	0.2899 [0.1144]	0.1708 [0.0248]	0.2121 [0.1121]	<0.0001 [<0.0001]	<0.0001 [<0.0001]
Reduction in long-term debt [0,+3]	0.8044 [0.3713]	0.7341 [0.3565]	0.3623 [0.061]	0.4979 [0.3397]	<0.0001 [<0.0001]	<0.0001 [<0.0001]

This table presents statistics on operating cash flows, cash holdings, and use of proceeds across different offer types during 2008–2014. Panel A provides operating cash flows defined as OANCF from Compustat. If missing, operating cash flow is replaced by NI + DPC + TXDC+ESUBC+SPPIV+FOPO+ FSRCO+WCAPC+APALCH+INVCH+RECCHI (Denis and McKeon, 2018). In Panel A, means and medians [in brackets] are reported. P-values for differences in means and medians are based on t-tests and Wilcoxon rank sum tests, respectively. Panel B provides measures of cash levels following DeAngelo et al. (2010). Median values are reported. Cash is cash and short-term investments divided by book assets. Excess cash is cash in excess of the median cash level of firms in the same 2-digit SIC code. Pro-forma cash and Pro-forma excess cash are the above variables respectively, with the proceeds raised deducted, at the end of the issue fiscal year. Panel C displays changes in capital expenditures, R&D, acquisitions, and post-issue reductions in long-term debt. Each variable is accumulated from the offer year and scaled by book assets prior to the offer. This approach follows Kim and Weisbach (2008) and Hertzel and Li (2010). All variables are defined in Appendix A.

Table 4
Announcement reactions.

	Risk adj.	Marketed (1)	Accelerated (2)	CMPOs (3)	P-value (2)–(1)	P-value (3)–(2)	P-value (3)–(1)
Panel A: CAR (−1, +1)	Market model	−3.079*** [−2.897***]	−3.966*** [−3.562***]	−7.994*** [−7.819***]	0.0106 [0.0187]	<0.0001 [<0.0001]	<0.0001 [<0.0001]
	FF5	−3.237*** [−3.169***]	−4.037*** [−3.375***]	−7.976*** [−7.622***]	0.0209 [0.0455]	<0.0001 [<0.0001]	<0.0001 [<0.0001]
	Size and BTM	−3.31*** [−3.137***]	−3.999*** [−3.409***]	−7.866*** [−7.727***]	0.0457 [0.1153]	<0.0001 [<0.0001]	<0.0001 [<0.0001]
Panel B: CAR (−1 announce, +1 issue)	Market model	−1.958*** [−2.458***]	−3.945*** [−3.465***]	−8.169*** [−8.124***]	0.0019 [0.0064]	<0.0001 [<0.0001]	<0.0001 [<0.0001]
	FF5	−2.94*** [−3.075***]	−3.972*** [−3.35***]	−8.187*** [−7.618***]	0.1128 [0.1061]	<0.0001 [<0.0001]	<0.0001 [<0.0001]
	Size and BTM	−2.631*** [−3.214***]	−3.972*** [−3.307***]	−8.126*** [−7.708***]	0.0343 [0.0722]	<0.0001 [<0.0001]	<0.0001 [<0.0001]
Panel C: CAR (−1 announce, +5 issue)	Market model	−1.4** [−1.786***]	−3.802*** [−3.276***]	−8.011*** [−6.92***]	0.0006 [0.0022]	<0.0001 [<0.0001]	<0.0001 [<0.0001]
	FF5	−2.353*** [−2.581***]	−3.762*** [−3.539***]	−8.001*** [−7.155***]	0.0482 [0.0260]	<0.0001 [<0.0001]	<0.0001 [<0.0001]
	Size and BTM	−2.135*** [−2.783***]	−3.914*** [−3.233***]	−8.089*** [−7.17***]	0.0098 [0.0245]	<0.0001 [<0.0001]	<0.0001 [<0.0001]
Panel D: CAR (−1 announce, +30 issue)	Market model	−0.7896 [−1.65]	−3.91*** [−3.011***]	−8.217*** [−7.999***]	0.0018 [0.0050]	0.0023 [0.0003]	<0.0001 [<0.0001]
	FF5	−0.626 [−1.22*]	−3.634*** [−3.009***]	−7.660*** [−7.240***]	0.0029 [0.0200]	0.0045 [0.0007]	<0.0001 [<0.0001]
	Size and BTM	−1.681** [−2.227***]	−4.164*** [−3.764***]	−7.791*** [−7.295***]	0.0115 [0.0241]	0.0082 [0.0015]	<0.0001 [<0.0001]
Panel E: CAR (+2 issue, +30 issue)	Market model	1.387*** [1.904***]	−0.0572 [0.4922]	−0.0897 [0.4209]	0.0447 [0.0150]	0.9759 [0.8894]	0.1478 [0.0704]
	FF5	2.414*** [1.612***]	0.3023 [0.4441]	0.5973 [0.6541]	0.0040 [0.0081]	0.7862 [0.9090]	0.0851 [0.0856]
	Size and BTM	1.204*** [1.506***]	−0.2683 [0.0489]	0.2886 [0.902]	0.0387 [0.0175]	0.5812 [0.7025]	0.3590 [0.1838]

This table reports announcement reactions and CARs in different windows, all reported in percentages. Means and medians [in brackets] are reported. The first window (Panel A) is a 3-day window centered on the announcement date. The next three alterative windows start one day prior to the SEO announcement date and end one, five, or thirty trading days after the issue date. The last window is a post-event window that starts two days after the issue date and extends to 30 days post-issue. For each window, CARs are reported using the market model, the Fama-French 5 factor model (FF5), and a risk adjustment with size and book-to-market characteristic matched portfolio returns. P-values for differences between means and medians are based on t-tests and Wilcoxon rank sum tests, respectively.

For comparative purposes across offer types, the table covers 2008–2014. The panel reports that CMPO issuers are associated with persistently negative operating cash flows in the seven years centered on the issue year. In contrast, the average marketed or accelerated offer is associated with positive operating cash flows. Differences in means and medians between CMPOs and accelerated or marketed offers are highly significant.

Panel B of Table 3 reports issuers' median cash level in the year prior to, the year of, and the year following the issue. Cash equals cash and short-term investments divided by book assets. Following DeAngelo et al. (2010), excess cash is defined as cash in excess of the median cash for firms in the same 2-digit SIC code. Pro-forma cash and pro-forma excess cash are cash and excess cash minus the SEO issue proceeds. These pro-forma measures reflect what would have been the firm's cash ratio had the firm not conducted the SEO. The results indicate that firms conducting CMPOs carry a high cash level (over 50% of book assets), which is above that of same-industry firms. Without conducting a CMPO, these issuers' cash level would fall severely, close to 30 percentage points below that of industry norms. The results for operating cash flows and cash levels suggest that CMPO issuers need to raise a relatively large amount of capital.

Panel C examines the use of proceeds. The panel presents capital expenditures, R&D expenses, acquisition-related expenses, and change in long-term debt, cumulated over the issue year and one (or three) years subsequent to the issue, scaled by pre-issue book assets. By cumulating these variables over multiple years, we can assess the use of proceeds raised in the SEO. Our methodology closely follows Kim and Weisbach (2008) and Hertzel and Li (2010). The results suggest that CMPOs are associated with significantly larger increases in R&D expenditures in the one to three years after issuance compared to marketed or accelerated offers. This effect is not due to a general increase in spending, as CMPOs are also associated with smaller increases in capital expenditures, less acquisition activity, and less reduction in long-term debt compared to other offer types. This evidence suggests the confidential nature of CMPOs is an attractive feature because it allows firms to temporarily shield proprietary information about research and development projects that the proceeds will finance.

Together, the results reported in Section 4 and Tables 1–3 suggest that CMPOs accommodate small, R&D intensive firms with persistently weak operating cash flows seeking to raise a relatively large amount of capital.

5. The CMPO announcement effect

The features associated with CMPOs (i.e. low market capitalization, large relative offer sizes, negative operating cash flows, R&D intensive projects) suggest that investors assume a high degree of risk by buying newly issued shares. In this section we study the stock price effects associated with CMPOs in relation to accelerated and marketed offers. A key question is why wall-crossed investors are incentivized to participate in CMPOs given the high degree of risk compared to accelerated or marketed offers.

5.1. Announcement effect

Our key measure of the offer announcement reaction is the three-day cumulative abnormal return (CAR) centered on the announcement date, *CAR(−1,+1)*. We estimate abnormal reactions by cumulating abnormal returns, where a sample stock's daily abnormal return equals the stock's return minus a benchmark return. Benchmarks are estimated using three methods: (i) a market model in which parameters are estimated using daily returns and the CRSP value-weighted market return over the one-year period ending 45 trading days prior to the announcement date; (ii) the Fama and French (2015) five-factor model with parameters estimated over the same period as the market model; and (iii) the equal-weighted return of a portfolio of stocks from the same market capitalization and book-to-market quintile as the firm.

Table 4 presents univariate statistics on announcement reactions. Panel A reports statistics on *CAR(−1,+1)*. For marketed offers, mean and median values of *CAR(−1,+1)* are approximately −3% irrespectively of the risk adjustment model used. This result is consistent with numerous prior studies that report underwritten seasoned equity offers are associated with average announcement reactions of −2% to −3% (e.g. Asquith and Mullins, 1986; Masulis and Korwar, 1986; Mikkelson and Partch, 1986; Kim and Purnanandam, 2014; and Ferreira and Laux, 2016). Accelerated offers are associated with a more substantial negative reaction averaging about −4%. Comparatively, CMPOs exhibit more severe announcement reactions, with significant negative mean and median of almost −8%. The results suggest that investors view CMPOs more negatively than other types of SEOs. In a related study, Gustafson (2018) reports that the stock price reaction to overnight offers (which include both CMPOs and non-CMPO overnight accelerated offers) is about −6%. Our separate classification of CMPOs allows for a more precise estimate of the CMPO announcement effect and suggests that the large negative reaction to overnight offers is largely driven by CMPOs.

In Panel B, we use an alternative event window, *CAR(−1 announce, +1 issue)*, which starts one day prior to the SEO announcement date and ends one day after the issue date. This window accounts for systematic differences across offer types with respect to the number of days between the offer announcement and the issue date. Specifically, in marketed offers there is a minimum of two full trading days (with a mean of 21 days and median of 12 days) between announcement and issue dates, whereas in accelerated offers and CMPOs these two dates are close together and coincide 48% of the time. Using this alternative window, the substantially more negative reaction to CMPOs remains. In an unreported test, we adjust the window for marketed offers to include only the sum of the three days around the announcement and the three days around the issue, to account for a possible recovery between dates. This six-day cumulated reaction for marketed offers averages about −4%, which is still dwarfed by the much larger reaction to CMPO announcements.

In Panels C-E, we address the concern that investors initially overreact to CMPOs leading to a reversal in the subsequent days. In Panels C and D, we use windows that start one day prior to the announcement date and extend through five and 30 trading days after

the issue date, *CAR(−1 announce, +5 issue)* and *CAR(−1 announce, +30 issue)*, respectively. In Panel E, the window begins two days after the issue date and goes out 30 trading days, *CAR(+2 issue, +30 issue)*. In Panels C and D, the more negative reactions to CMPOs remain, and in Panel E there is no evidence of a post-issue reversal in the days following CMPOs. Our conclusion is that investors react substantially more negatively to CMPOs than to other offer types. Given the robustness of our baseline measure, *CAR(−1,+1)*, we use it in subsequent tests.

5.1.1. Announcement effect in a multivariate setting

We specify multivariate regressions to identify the extent to which SEO announcement reactions differ for CMPOs versus other offer types. We control for information asymmetry by including measures of residual volatility, institutional ownership, and firm size, and we account for price pressure by including relative offer size. These inclusions are important given the sharp differences between CMPOs and other offer types along many of these dimensions. We also include several additional variables shown in Table 1 as controls.

Table 5 reports the estimates from OLS regressions. The dependent variable equals the SEO announcement reaction centered on the announcement date, *CAR(−1,+1)*. The key explanatory variable is the CMPO indicator. Each specification includes year and industry fixed effects and standard errors clustered by year. Models (1) and (2) include the full sample. In Model (1) we include an indicator that equals one for issuers with negative operating cash flows, and in Model (2) we replace this variable with *Ln(Runway)* that measures how long the firm's existing cash can support the firm, defined as the natural logarithm of the absolute value of the ratio of cash to operating cash flow net of dividends and capital expenditures, if net operating cash flow is negative, and zero otherwise. We also include an indicator that equals one if Runway equals zero (*No burn*). In Models (1) and (2), the coefficient of *CMPO* equals −3.86 and − 3.82, respectively (both significant at the 1% level), indicating that the average announcement reaction is close to 4 percentage points lower for CMPOs than other offer types, after controlling for firm and offer characteristics. The indicator for negative operating cash flows and *Ln(Runway)* are insignificant, suggesting these factors do not influence reactions after controlling for issue type and firm/offer traits. The other control variables indicate that larger relative offer sizes, offers by firms with share prices less than $5, and firms with greater share turnover are associated with more negative announcement reactions, and offers by firms with higher institutional ownership are associated with less negative announcement reactions.

In Models (3)–(8) we test (and reasonably rule out) several reasons why CMPOs are penalized more than other issue methods. First, in January 2008 the SEC eliminated the $75 million public float requirement for using shelf registrations, through which firms can conduct accelerated offers and CMPOs. In Model (3), we exclude shelf offers during 2008–2014 that would have previously been shelf-ineligible; i.e. all shelf offers with a public float under $75 million (or if missing, market capitalization under $200 million).[6,7] This reduces the regression sample from 2675 observations to 2353 observations and excludes 322 offers, of which 151 are CMPOs. The CMPO indicator reduces in magnitude slightly to −2.25% but remains highly significant.

Second, in Model (4) we exclude firms with negative operating cash flows. The CMPO effect remains strong with an impact of −2.47% despite the exclusion of many CMPO issuers due to this exclusion (see Table 2). Third, Model (5) excludes CMPOs sourced solely from PlacementTracker. This includes 57 CMPOs that are not on SDC. The CMPO effect remains large and significant.

Fourth, in Model (6), we control for the dilution in the offering. Typically, SEO offer prices are discounted in relation to the prevailing secondary market price.[8] A larger offer price discount, all else equal, increases dilution to existing shareholders and can potentially contribute to a negative stock price reaction. However, the size of the discount is often not known at the time of the SEO announcement and therefore it is usually not included in estimations of the SEO announcement reaction. Accelerated offers and CMPOs are often announced and priced immediately, which potentially allows investors to react to the announcement with full knowledge of the actual dilution effect. Thus, we include a measure of dilution, constructed to be comparable across offer types, as the lowering of the offer price in relation to the pre-announcement stock price. *Dilution* is defined as the percentage return from the closing stock price on the day prior to the SEO announcement to the offer price, multiplied by negative one. This measure, by definition, includes the announcement effect for all offer types. In Model (6), *Dilution* enters strongly negative, indicating that lower offer prices in relation to the prevailing pre-announcement secondary market price (i.e. larger dilution) are associated with more negative SEO announcement reactions. The coefficient of *CMPO* remains large at −3.85, indicating that variation in the dilution effect across offer types does not drive the more negative reaction to CMPOs.

Finally, Models (7) and (8) in Table 5 show that the CMPO effect is strong and similar in magnitude in subsamples of issuers classified either as pharmaceuticals or non-pharmaceuticals in the Fama and French 49 industry classification, respectively. We provide this test (in addition to including industry fixed effects in each model) because 177 of the 385 sample CMPOs (46%) are conducted by firms in the pharmaceutical industry. This compares to 31% of accelerated offers in this industry. In Table A.1 in the online appendix, we provide the frequency of offers and announcement reactions across industries and partitioning by offer type.

[6] For a more detailed discussion of this rule change, refer to SEC Release No. 33–8878. It is available at http://www.sec.gov/rules/final/2007/33-8878.pdf.

[7] Gustafson and Iliev (2017) estimate that the public float of small firms is about half of the market value of equity. Thus, where public float data is missing from the issuing firm's most recent pre-offer 10-K filings (about one-third of the time), we use the market value of equity one day prior to the issue announcement to approximate pre-rule shelf eligibility and choose a conservative cutoff of $200 million.

[8] See, for example, Altinkilic and Hansen (2003).

Table 5
Estimations of announcement reactions.

Dependent variable: *CAR(−1,+1)*								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Full sample	Full sample	Excluding previously ineligible shelfs	Excluding firms with negative operating cash flows	Excluding CMPOs on PlacementTracker but not on SDC	Full sample controlling for dilution	Non-pharmaceuticals	Pharmaceuticals
CMPO	−3.8666***	−3.8198***	−2.2537***	−2.4703** (1.1287)	−3.4566*** (0.5289)	−3.8548***	−3.6636***	−4.2332***
	(0.5485)	(0.5527)	(0.5945)			(0.5593)	(0.6473)	(0.8473)
Accelerated	−1.304**	−1.2952**	−1.2525**	−0.9896 (0.7964)	−1.3305** (0.6379)	−1.2188***	−1.2987**	−1.1236
	(0.6333)	(0.6304)	(0.5569)			(0.4647)	(0.6431)	(0.9510)
Residual volatility	0.1504	0.1578*	0.1942* (0.1046)	−0.3902** (0.1787)	0.1254 (0.0832)	0.3527***	−0.0726	0.2769**
	(0.0961)	(0.0960)				(0.0730)	(0.1653)	(0.1405)
Inst. ownership	0.0252***	0.0248***	0.022***	0.0045 (0.0055)	0.0214*** (0.0083)	0.0145**	0.0173**	0.0352**
	(0.0083)	(0.0084)	(0.0084)			(0.0063)	(0.0074)	(0.0155)
Relative offer size	−0.0753***	−0.0754***	−0.055**	−0.0084 (0.0346)	−0.0698*** (0.0240)	−0.043 (0.0302)	−0.0636**	−0.1351***
	(0.0240)	(0.0242)	(0.0248)				(0.0297)	(0.0464)
Percent primary	0.0141	0.0152	0.0118 (0.0100)	0.0171* (0.0090)	0.013 (0.0102)	0.0244***	0.0124 (0.0089)	0.093* (0.0480)
	(0.0103)	(0.0101)				(0.0080)		
Ln(Proceeds)	−0.3934	−0.4042	−0.5705	−1.2392***	−0.4095 (0.3937)	−0.1568	−0.656*	1.0186 (1.2407)
	(0.4014)	(0.4084)	(0.3634)	(0.3928)		(0.5380)	(0.3783)	
MTB	0.0429	0.0392	0.0298 (0.0334)	0.0718 (0.0520)	0.0244 (0.0339)	0.0584* (0.0327)	0.094* (0.0583)	0.0237 (0.0673)
	(0.0308)	(0.0303)						
Ln(Mktcap)	0.2037	0.2253	0.3165 (0.4287)	1.0889*** (0.3639)	0.2822 (0.4053)	0.3041 (0.5712)	0.4316 (0.4341)	−1.0492
	(0.4134)	(0.4253)						(1.0516)
Low price	−2.4791***	−2.4826***	−2.3342**	−2.7967** (1.4173)	−2.042** (0.8595)	−2.182***	−2.6269***	−1.8845
	(0.8747)	(0.8599)	(0.9708)			(0.8239)	(0.8929)	(1.4634)
BHAR60	−0.002	−0.002	0.0005 (0.0029)	−0.009* (0.0055)	−0.0022 (0.0027)	−0.002 (0.0024)	−0.0039	0.0002 (0.0056)
	(0.0029)	(0.0030)					(0.0034)	
VWR60	0.0594	0.0598	0.0566* (0.0352)	−0.0069 (0.0315)	0.0596 (0.0439)	0.0277 (0.0320)	0.0613 (0.0513)	0.0745 (0.0567)
	(0.0404)	(0.0403)						
Cash	0.0142	0.0189**	0.0092 (0.0084)	0.0289** (0.0125)	0.0123 (0.0095)	0.0171* (0.0090)	0.0017 (0.0107)	0.0234 (0.0176)
	(0.0098)	(0.0083)						
Turnover	−0.043***	−0.0438***	−0.0428**	−0.0288 (0.0280)	−0.0397** (0.0169)	−0.0553***	−0.053***	0.0165 (0.0400)
	(0.0168)	(0.0165)	(0.0199)			(0.0132)	(0.0178)	
Leverage	0.0024	0.0022	−0.0034	0.005 (0.0160)	0.0004 (0.0133)	0.0044 (0.0106)	−0.0002	0.003 (0.0158)
	(0.0120)	(0.0119)	(0.0091)				(0.0146)	

(*continued on next page*)

Table 5 (*continued*)

Dependent variable: *CAR(−1,+1)*								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Full sample	Full sample	Excluding previously ineligible shelfs	Excluding firms with negative operating cash flows	Excluding CMPOs on PlacementTracker but not on SDC	Full sample controlling for dilution	Non-pharmaceuticals	Pharmaceuticals
Bond rating	0.2622* (0.1478)	0.2511* (0.1482)	0.3051* (0.1803)	0.0308 (0.1454)	0.2648* (0.1423)	0.2379* (0.1401)	0.1451 (0.1462)	1.2582*** (0.4437)
No bond rating	1.2118 (0.9714)	1.1609 (0.9784)	1.0401 (1.0606)	−0.1336 (1.0204)	1.1733 (0.9612)	1.3593 (0.9150)	0.3673 (1.0107)	9.4036*** (3.5220)
Negative operating CF	0.3493 (0.5545)	-	0.1033 (0.4388)	-	0.508 (0.5685)	0.3044 (0.4467)	0.7061 (0.5416)	−1.5406 (1.6245)
Ln(Runway)	-	−0.1982 (0.1451)	-	-	-	–	-	-
No burn	–	−0.4064 (0.6311)	–	–	–	–	–	–
Dilution	-		-	-	-	-0.207*** (0.0487)	-	-
Industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-square	0.10	0.11	0.093	0.12	0.094	0.21	0.11	0.13
N	2675	2675	2353	1365	2618	2659	1987	688

This table presents OLS estimations in which the dependent variable is *CAR(−1,+1)*, defined as the cumulative market model abnormal return over the three days centered on the offer announcement date. OLS estimations are presented for the full sample and subsamples specified in the column header. All variables are defined in Appendix A. Standard errors clustered by year are reported in parentheses. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 6
Repeat issuers: univariate evidence.

Panel A: CMPO as the later offer.

	Marketed ➔ CMPO ($N = 77$)				Accelerated ➔ CMPO ($N = 81$)			
	Earlier offer	Later offer	Difference	Paired T-stat	Earlier offer	Later offer	Difference	Paired T-stat
CAR (−1, +1)	−2.89	−6.65	−3.91	−2.53	−2.75	−7.79	−5.04	−3.25
Residual volatility	4.63	4.64	0.01	0.04	4.20	4.29	0.09	0.41
Inst. ownership	39.72	46.71	6.99	2.37	37.88	40.73	2.85	1.68
Relative offer size	21.30	18.93	−2.37	−1.11	13.94	18.16	4.22	2.50
Percent primary	88.17	98.30	10.13	3.81	99.61	99.71	0.10	0.21
Proceeds (mil $)	81.51	47.39	−34.12	−4.32	34.69	49.55	14.86	3.49
MTB	5.05	4.19	−0.86	−1.60	4.72	5.24	0.53	1.00
Mktcap (mil $)	498.10	449.00	−49.09	−0.71	305.97	462.76	156.79	2.50
BHAR60	35.19	22.77	−12.43	−1.13	19.43	13.69	−5.74	−0.77
VWR60	3.88	7.15	3.27	2.91	6.01	5.62	−0.39	−0.39
Cash	54.24	46.54	−7.70	−3.36	55.53	52.24	−3.29	−1.69
Operating CF (mil $)	−12.50	−15.44	−2.98	−0.77	−22.05	−18.49	3.79	0.94
Turnover	10.24	12.08	1.84	1.28	8.21	12.18	3.97	3.45
Leverage	16.53	22.76	6.23	2.29	19.16	21.61	2.46	1.19

Panel B: CMPO as the earlier offer.

	CMPO➔ Marketed ($N = 10$)				CMPO ➔ Accelerated ($N = 55$)			
	Earlier offer	Later offer	Difference	Paired T-stat	Earlier offer	Later offer	Difference	Paired T-stat
CAR (−1, +1)	−12.91	−4.56	8.34	2.70	−6.26	−2.92	3.14	1.42
Residual volatility	4.44	3.87	−0.57	−2.02	4.88	4.31	−0.57	−1.66
Inst. ownership	24.63	43.47	18.84	2.90	34.44	40.56	6.13	2.77
Relative offer size	25.63	27.40	1.77	0.22	21.44	12.09	−9.35	−4.76
Percent primary	100.00	95.00	−5.00	−1.00	99.95	98.84	−1.11	−1.00
Proceeds (mil $)	23.40	52.00	28.59	2.49	37.79	52.04	14.25	3.57
MTB	3.33	3.64	0.31	1.25	4.94	5.91	0.97	2.00
Mktcap (mil $)	156.67	347.64	190.97	2.41	279.04	544.76	265.72	4.65
BHAR60	38.89	5.32	−33.57	−1.86	19.82	26.11	6.29	0.62
VWR60	6.23	4.96	−1.27	−0.50	6.11	4.62	−1.49	−1.42
Cash	34.01	32.15	−1.86	−0.27	57.88	56.02	−1.86	−1.14
Operating CF (mil $)	10.55	8.13	−2.42	−0.24	−13.09	−20.07	−7.04	−2.12
Turnover	8.09	12.65	4.56	2.52	8.42	13.00	4.58	3.64
Leverage	19.80	16.97	−2.82	−0.76	22.82	25.44	2.62	1.16

This table reports statistics on paired offers by the same firms. The sample includes firms that made multiple offers during the sample period. The table reports announcement reactions, CAR(−1,+1), and characteristics of matched pairs of issues. Each offer of a particular type is matched with the most recent of the firm's earlier offers of a particular type. The block headings indicate: Type of the earlier issue ➔ Type of the later issue. All variables are defined in Appendix A.

5.1.2. Firms that conduct multiple offers

We study firms that conduct multiple offers (with at least one CMPO) during our sample period to isolate the effect of offer type on announcement reactions. This approach is fruitful because a relatively large number of sample firms conduct multiple sample offers. We match each sample CMPO with the most recent of the same firm's earlier marketed and accelerated offers. We also match each sample marketed and accelerated offer to the same firm's earlier CMPO. In the sample of 385 CMPOs, there are 77 firms that have made a previous marketed offer, and 81 firms that have made a prior accelerated offer as part of our sample. Similarly, there are 10 firms that have made a marketed offer after a CMPO, and 55 firms that conduct an accelerated offer after a CMPO. For each type of paired offers, we examine the change in announcement reaction across paired offers, along with changes in other firm and offer traits.

Table 6 presents univariate statistics on repeat issuers. Panel A reports statistics for firm-offer pairs in which a CMPO is the later offer. In the subsample of 77 firms that conduct a marketed offer followed by a CMPO, the average firm's announcement reaction, (*CAR (−1,+1)*, is 3.91% lower for its CMPO (paired $t = -2.53$). Similarly, for the 81 firms that switch from an accelerated offer to a CMPO, the reaction is 5.04% lower for the CMPO (paired $t = -3.25$).

Panel B examines firm-offer pairs in which a CMPO is conducted before an accelerated or marketed offer. Announcement reactions are substantially more negative in magnitude for the earlier CMPO; about 3% more negative compared to the firm's later accelerated offer, and about 8% more negative compared to the firm's later marketed offer, though only the latter difference is statistically significant.

Across offers by the same firm, there are some important changes in the firm and offer traits. Institutional ownership is usually larger in the later offer, intuitively because the firm's prior offer should expand the base of institutional owners. Residual volatility usually declines or stays similar across offers, which is not surprising given the firm's greater capital market experience. The relative offer size is uniformly greater for CMPOs. When an accelerated offer is followed by a CMPO, the relative offer size increases by roughly 30%, from about 14% to 18% (paired $t = 2.50$), and when a CMPO is followed by an accelerated offer, the relative offer size is nearly

Table 7
Repeat issuers: regressions of paired differences in announcement reactions.

Dependent variable: CAR(−1, +1) in earlier offer minus CAR(−1, +1) in later offer by the same firm				
	(1)	(2)	(3)	(4)
CMPO later offer	−3.3664*** (1.0310)	−3.5774*** (1.1155)	−3.1194*** (1.0773)	−3.2561*** (1.1346)
CMPO earlier offer	5.2590*** (0.5855)	4.896*** (0.6290)	4.4406*** (0.4991)	4.1428*** (0.5330)
Accelerated later offer	-	-	−1.066 (0.6908)	−1.2954* (0.7434)
Accelerated earlier offer	-	-	1.8734** (0.8114)	1.7855** (0.7807)
Crisis at later offer	-	2.5937* (1.3624)	-	2.6218* (1.4178)
Crisis at earlier offer	-	−3.392*** (0.9522)	-	−3.3896*** (0.9342)
ΔOperating CF	0.0000 (0.0007)	0.0007 (0.0007)	−0.0001 (0.0007)	0.0006 (0.0007)
ΔResidual volatility	0.2586 (0.1725)	0.5066*** (0.1622)	0.2718* (0.1631)	0.5223*** (0.1493)
ΔInst. ownership	−0.0317 (0.0290)	−0.0258 (0.0277)	−0.0272 (0.0276)	−0.0224 (0.0267)
ΔRelative offer size	−0.1107*** (0.0308)	−0.1154*** (0.0297)	−0.1196*** (0.0303)	−0.1246*** (0.0298)
ΔPercent primary	−0.0125 (0.0214)	−0.0078 (0.0199)	−0.0042 (0.0220)	0.0008 (0.0214)
ΔLn(Proceeds)	0.4208 (0.4661)	0.2162 (0.4802)	0.2848 (0.5061)	0.0757 (0.5161)
ΔMTB	0.0320 (0.1679)	0.0027 (0.1728)	0.0046 (0.1756)	−0.0226 (0.1791)
ΔLn(Mktcap)	0.3800 (0.5701)	0.4031 (0.6028)	0.4711 (0.6030)	0.5006 (0.6320)
ΔBHAR60	−0.0048 (0.0079)	−0.0048 (0.0077)	−0.0052 (0.0075)	−0.0051 (0.0073)
ΔVWR60	0.0960** (0.0428)	0.1104*** (0.0400)	0.1010** (0.0425)	0.1155*** (0.0397)
ΔCash	0.0268 (0.0325)	0.0301 (0.0329)	0.0233 (0.0320)	0.0265 (0.0322)
ΔTurnover	0.0018 (0.0361)	−0.0113 (0.0355)	0.0027 (0.0374)	−0.0108 (0.0371)
ΔLeverage	0.0391*** (0.0153)	0.0452*** (0.0152)	0.0421*** (0.0154)	0.0482*** (0.0154)
ΔBond rating	0.3869 (0.3938)	0.4233 (0.4011)	0.4024 (0.4016)	0.4312 (0.4103)
ΔNo bond rating	−0.7674 (2.7393)	−0.4265 (2.7265)	−0.713 (2.6952)	−0.4301 (2.7016)
Industry fixed effects	Yes	Yes	Yes	Yes
R-square	0.079	0.090	0.083	0.094
N	1078	1078	1078	1078

For issuers with multiple offers over the sample period, each issue is matched with the most recent of the same firm's earlier issues of each offer type. The table reports OLS regressions in which the dependent variable is the difference between the later and earlier issue's announcement reaction ΔCAR (-1,+1) for each firm-matched offer pair. Specifically ΔCAR(-1,+1) equals the reaction to the later offer minus the reaction to the earlier offer. CMPO later (earlier) offer is a binary variable indicating that the later (earlier) offer of the matched pair is a CMPO. Accelerated later (earlier) offer is a binary variable indicating that the matched pair's later (earlier) offer is an accelerated offer. Crisis at later offer is a binary variable indicating that the matched pair's later issue is during 2008–2009. Crisis at earlier offer is a binary variable indicating that the matched pair's earlier issue is during 2008–2009. The other explanatory variables are differences of firm and offer characteristics of the same matched pair of offers for the same firm (later minus earlier). All variables are defined in Appendix A. Standard errors clustered by the issue year of the later offer are reported in parentheses. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

cut in half, from about 21% to 12% (paired $t = -4.76$). Firms that use both CMPOs and marketed offers choose similar relative offer sizes across these offer types. This evidence suggests that the advent of CMPOs in 2008 accommodates larger offer sizes while still enabling a fast-paced issuance process once the public announcement is made. The market, however, severely penalizes firms that use this approach.

In Table 7 we present multivariate OLS regressions to account for changes in each control variable across paired offers. Each observation represents a paired difference of offers from a particular repeat issuer. There are a total of 1078 SEO pairs in the sample, including all firms with multiple sample offers irrespective of type. The dependent variable is the change in the announcement reaction, *CAR(−1,+1)*, from the prior offer to the later offer. Specifically, it equals the reaction to the later offer minus the reaction to the earlier offer. All firm and issue characteristics included as control variables are similarly differenced to account for changes in characteristics for the same firm over time. In Models (1) and (2), the main variables of interest are *CMPO Later Offer*, which equals one for firms that conduct a CMPO as their later offer, and *CMPO Earlier Offer*, which equals one for firms that conduct a CMPO as their earlier offer of the pair. The coefficients of these variables capture the paired difference in announcement reactions between CMPOs and other offer types for a particular issuer. Models (3) and (4) additionally include the indicator variables *Accelerated Later Offer* and *Accelerated Earlier Offer*, defined similarly to the CMPO indicators, and thus in these models each issue method indicator, by itself, is interpreted relative to marketed-to-marketed offer pairs. Models (2) and (4) include the indicator variables *Crisis at Later Offer* and *Crisis at Earlier Offer*, which take the value of one if the later or earlier offer, respectively, occurred during 2008 or 2009.

The regression estimates support the univariate analyses of paired offers. In Models (1) and (2), when a CMPO represents a firm's later offer the reaction is considerably worse (by more than 3%), and when a CMPO is the firm's earlier offer the reaction is worse by about 5%, all else equal. These differential effects are similar if we estimate separate models for *CMPO Later Offer* versus *CMPO Earlier Offer*. In Models (3) and (4) the CMPO effect remains strong, and there is some evidence that accelerated offers have more negative reactions in comparison to marketed offers. Examining other variables, if the firm's relative offer size has increased from the first to the second offer, the announcement reaction to the second offer is more negative. Offers conducted following larger market returns are penalized less, and firms that undergo an increase in leverage suffer smaller penalties for the later offer.

The Table 7 regression results indicate that CMPOs elicit a particularly sharp stock price reaction after controlling for a firm's identity and its changes in firm and offer features between offers. Thus, the poor reception to CMPOs likely reflects investors' skepticism about the CMPO issuance method.

Table 8
The investor's experience.

	Marketed (1)	Accelerated (2)	CMPO (3)	P-value (2) minus (1)	P-value (3) minus (2)	P-value (3) minus (1)
Panel A: Offer-to-close return	4.30***	3.78***	3.88***	0.4294	0.8817	0.5099
Panel B: Raw buy-and-hold returns starting from the closing price prior to the issue day (%)						
30 days	2.80**	−1.78**	−2.76***	0.0020	0.4527	0.0011
60 days	2.11	0.41	−2.15	0.3366	0.1442	0.0320
180 days	2.73	6.69***	0.76	0.2620	0.0600	0.5799
1 year	12.52***	11.71***	4.56	0.8864	0.1386	0.1908
3 years	40.08***	36.68***	34.34***	0.7990	0.8741	0.7244
5 years	77.58***	112.4***	70.63**	0.2335	0.3124	0.8510
Panel C: Size and book-to-market characteristic matched portfolio adjusted returns starting from the closing price prior to the issue day (%)						
30 days	1.10	−3.66***	−3.88***	<0.0001	0.8540	0.0003
60 days	0.28	−3.41***	−4.43***	0.0221	0.5258	0.0087
180 days	−0.89	−2.94	−4.78	0.5205	0.5353	0.2315
1 year	−0.04	−6.22**	−8.36**	0.2602	0.6485	0.1535
3 years	−15.31	−18.88**	−12.32	0.7912	0.6600	0.8556
5 years	−34.29**	−13.48	−5.84	0.4838	0.8511	0.4327
Panel D: Raw buy-and-hold returns from the offer price (%)						
30 days	6.69***	4.80***	6.89***	0.1596	0.1241	0.8959
60 days	6.86***	7.13***	7.55***	0.8883	0.8223	0.7451
180 days	7.07**	13.94***	10.64***	0.0565	0.3318	0.3405
1 year	16.78***	18.99***	14.57***	0.7032	0.3868	0.7239
3 years	44.79***	45.25***	45.25***	0.9739	0.9738	0.9548
5 years	83.10***	128.50***	89.70**	0.1434	0.3994	0.8724
Panel E: Size and book-to-market characteristic matched portfolio adjusted returns from the offer price (%)						
30 days	5.66***	2.95***	5.77***	0.0251	0.0286	0.9353
60 days	4.97***	3.33***	5.26***	0.3242	0.2673	0.8811
180 days	3.37	4.36**	5.1**	0.7639	0.8197	0.6163
1 year	4.11	1.12	1.66	0.5950	0.9134	0.6824
3 years	−10.77	−12.05	−0.94	0.9708	0.5594	0.5717
5 years	−29.21*	2.80	13.15	0.3098	0.8199	0.2959

This table compares post-issue stock performance for existing and new investors of the different offer types during 2008–2014. Panel A presents the average offer-to-close return defined as the stock return from the offer price to the first post-issue closing price. Panels B and C present average long-term raw and size/book-to-market characteristics adjusted abnormal returns in the 30 days through 5 years following the issue, measured from the last closing price prior to the issue date. Panels D and E differ from Panels B and C only in that returns are measured from the offer price. Panel B presents earnings announcement reactions in the four quarters following the offer. P-values are based on t-tests. ***, **, * denote significance at the 1%, 5%, and 10% level, respectively.

5.1.3. Market expectations and announcement reactions

In this section we examine announcement reactions partitioned on whether the issuing firm is a likely CMPO issuer. We define a predicted CMPO issuer as one whose firm and offer attributes fit the average CMPO issuer. To assign each sample CMPO issuer as a predicted CMPO issuer or a predicted non-CMPO issuer, we rely on the logistic estimation discussed in Section 4.1. From the logistic estimates, we find the cutoff for the predicted CMPO likelihood that minimizes the error that a non-CMPO offer is classified as a CMPO. Then we apply the model coefficient estimates to the full sample to estimate the likelihood that the firm would have chosen a CMPO as its preferred offer method. If the estimate is above the established cutoff, then the firm is a predicted CMPO issuer, else it is a predicted non-CMPO issuer.

For a firm predicted to conduct a CMPO, the announcement reaction is more negative if the firm does a CMPO (−11.7%) as opposed to another offer type (−6.8%). For a firm predicted to do a non-CMPO, again the reaction is more negative if the firm does a CMPO (−6.2%) versus another type (−4.1%). Moreover, for offers occurring before CMPOs were used (2000–2007), if the issuer has the features of a predicted CMPO issuer, its announcement reaction is lower by about one percentage point (−3.7%) compared to offers of other firms (−2.7%).

The takeaway from Section 5.1 is that announcement reactions are more negative for CMPO issuers, and the effect is related to using a CMPO as opposed to firm or offer features. It seems that investors rationally discount the share price at CMPO announcements because issuers are signaling risk associated with the capital raise by deciding to use confidential marketing. A remaining question is why investors participate in CMPOs given such risk. We address this question below.

5.2. The investor experience

Why do investors participate in CMPOs given their poor market reception? In this section we examine returns to investors over a variety of windows and from different starting points to gauge investor outcomes. Arguably investors participate in CMPOs only if they expect to benefit from participation — if wall-crossed investors fare particularly poorly by participating in CMPOs, their participation

would be puzzling.

Table 8 presents the analysis. We start in Panel A by examining offer-to-close return, defined as the stock return from the offer price to the first closing price after issuance. The offer-to-close return is approximately 4% for each offer type with no significant differences across groups. Thus, participating investors who purchase primary shares in CMPOs fare no worse than investors of other offer types immediately after the issuance.

Next, in Panels B – E we examine buy-and-hold returns going out 30 days, 60 days, 180 days, 1 year, 3 years, and 5 years after issuance. We use two separate starting points: (i) the closing price on the day prior to the offer, which reasonably reflects firm value before issuance; (ii) the offer price, which is the entry point for participating investors. We measure raw returns and size and book-to-market characteristic matched portfolio adjusted returns. Two key results stand out. First, matched returns from the prior day's closing price are generally negative at longer horizons, though differences across offer types are generally insignificant. This result is consistent with the well-documented SEO underperformance in the literature (e.g. Loughran and Ritter, 1997; Eckbo et al., 2000; Jegadeesh, 2000; Carlson et al., 2006; and Lyandres et al., 2008). Second, matched returns from the offer price are positive over the next 180 days and the magnitude of these returns for CMPOs is greater than for other offer types, though differences are statistically insignificant.

The results in Section 5 suggest that managers of CMPO issuers do not hold more unfavorable inside information about share value compared to other issuers. The more negative announcement reaction reasonably reflects investors' perceived risks associated with a relatively large capital raise for R&D intensive projects. In summary, issuers are willing to accept greater issuance costs (higher gross spreads and greater offer price discounting, in addition to the indirect cost of a more negative announcement reaction) in return for confidentiality and the embedded option to abandon a potentially unfunded offer without public knowledge, while participating investors who purchase shares at the discounted offer price benefit from positive abnormal returns over the next 6 months.

6. Conclusion

Confidentially marketed public offers first appeared in 2008 and are a popular choice among equity issuers. CMPO issuers are small firms with persistent operating losses, and they make relatively large offers (compared to firm size) to take on research & development intensive investments. This evidence points to the confidential nature of CMPOs as an attractive feature because it allows firms to temporarily shield proprietary information about innovative projects that the proceeds will finance. Importantly, CMPOs are often used by the types of firms that previously would have preferred the increased public marketing associated with marketed SEOs; i.e. firms with inelastic demand and firms that want to make relatively large offers compared to firm size. Thus, the rise of CMPOs accommodates the increase in demand for fast-paced offers among small firms by allowing these firms to explore investor receptiveness confidentially before the offering is publicly announced.

Despite their popularity, we provide robust evidence of large negative announcement reactions for CMPOs averaging around −8%. This poor reception to CMPOs is not attributable to a firm effect, rather, we argue that investors view confidential marketing as a signal of insider uncertainty as the firm wants to privately 'test the waters' before committing to a public seasoned offering. We show that investor participation in CMPOs is not puzzling despite the harsh reaction, as abnormal buy-and-hold returns going out to six months post-issue are positive when measured from the discounted offer price.

We speculate that CMPOs are popular among firms because confidentially engaging potential investors ahead of risky capital investments, particularly during times of low profitability, is valuable enough to offset increased direct issuance costs and greater announcement penalties at the time the offer goes public.

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Appendix A. Variable definitions

A.1. SEO type

Marketed: An indicator that equals one for marketed offers. Marketed offers include all non-shelf offers and the subset of shelf offers in which there are at least two full trading days between the announcement date and issue date.

Accelerated: A binary variable that equals one for accelerated offers. Accelerated offers are the subset of shelf offers in which there is no more than one full trading day between the announcement date and issue date, and which are not classified by PlacementTracker as a confidentially marketed offer (CMPO)

CMPO: An indicator that equals one for confidentially marketed public offers. We identify CMPOs using PlacementTracker, although 85% of CMPO observations are covered by SDC.

Table A.1
Announcement reactions by industry

This table presents the issue frequency and the mean and median CAR(-1,+1), defined as the cumulative abnormal return over the three days centered on the announcement date. The table shows the top 15 industries based on issuance frequency from the Fama and French 49 industries. We report statistics separately for each issue type.

	Marketed offers				Accelerated offers				CMPOs	
	2000-2007		2008-2014		2000-2007		2008-2014		2008-2014	
Top 15 industries by number of offers	N	Mean [Median]	N	Mean [Median]	N	Mean [Median]	N	Mean [Median]	N	Mean [Median]
Pharmaceutical Products	170	−2.65 [-2.99]	52	−2.57 [−2.18]	79	−3.28 [−2.99]	211	−3.74 [−3.54]	177	−7.98 [−7.88]
Petroleum and Natural Gas	65	−2.33 [−2.25]	42	−2.92 [−2.54]	58	−1.68 [−1.62]	77	−6.23 [−5.79]	14	−10.43 [−9.68]
Electronic Equipment	120	−2.89 [−2.49]	17	−4.69 [−3.82]	18	−0.41 [−0.12]	26	−3.45 [−4.02]	27	−10.56 [−11.86]
Computer Software	102	−4.11 [−3.76]	49	−2.54 [−3.31]	15	−3.30 [−2.51]	31	−2.66 [−2.13]	11	−9.10 [−9.19]
Business Services	79	−2.99 [−2.82]	17	−4.84 [−5.79]	17	−5.55 [−4.46]	24	−4.79 [−4.56]	22	−5.38 [−6.34]
Medical Equipment	46	−1.37 [−2.69]	14	−5.77 [−2.94]	8	−3.90 [−3.34]	37	−2.95 [−1.93]	30	−5.20 [−5.49]
Communication	31	−0.49 [−0.19]	9	−2.88 [−2.48]	23	−1.75 [−4.37]	6	−0.80 [−2.81]	9	−1.36 [−0.73]
Retail	52	−3.37 [−2.93]	12	−6.14 [−6.23]	3	2.15 [−0.79]	5	−8.99 [−10.48]	4	−2.04 [−4.87]
Machinery	42	−2.63 [−3.14]	6	−2.09 [−5.02]	7	−2.00 [−0.24]	12	−7.36 [−4.35]	7	−3.59 [−8.20]
Transportation	22	−2.50 [−3.03]	13	−6.52 [−4.65]	9	−3.52 [−4.58]	24	−8.06 [−5.76]	3	−11.11 [−9.69]
Electrical Equipment	19	0.99 [0.68]	10	−5.01 [−5.29]	2	−8.46 [−8.45]	16	−8.24 [−10.61]	16	−12.39 [−9.80]
Measuring and Control Equipment	33	−4.88 [−5.02]	4	−2.82 [−3.41]	6	−3.80 [−3.21]	9	−2.73 [−0.98]	6	−8.26 [−8.49]
Healthcare	24	−5.33 [−5.08]	9	−5.61 [−4.78]	5	−3.19 [−0.18]	10	−3.07 [−3.49]	3	−9.39 [−10.21]
Computers	23	−1.59 [−0.58]	8	−6.57 [−6.34]	1	4.77 [4.77]	8	−0.02 [1.04]	7	−12.89 [−14.00]
Steel Works	14	−0.99 [0.59]	6	−5.54 [−6.32]	11	−4.15 [−4.36]	14	−9.30 [−8.47]	1	9.91 [9.90]

A.2. Use of proceeds variables

Capital exp. [0,+1] is defined as $\sum_{t=0}^{1} CAPX_t/Assets_{-1}$, where $t = 0$ is the issue year and CAPX is capital expenditures from Compustat.

Capital exp. [0,+3] is defined as $\sum_{t=0}^{3} CAPX_t/Assets_{-1}$, where t = 0 is the issue year and CAPX is capital expenditures from Compustat.

R&D [0,+1] is defined as $\sum_{t=0}^{1} XRD_t/Assets_{-1}$, where t = 0 is the issue year and XRD is research and development expenses from Compustat.

R&D [0,+3] is defined as $\sum_{t=0}^{3} XRD_t/Assets_{-1}$, where t = 0 is the issue year and XRD is research and development expenses from Compustat.

Acquisitions [0,+1] is defined as $\sum_{t=0}^{1} AQC_t/Assets_{-1}$, where t = 0 is the issue year and AQC is aqcuisitions from Compustat.

Acquisitions [0,+3] is defined as $\sum_{t=0}^{3} AQC_t/Assets_{-1}$, where t = 0 is the issue year and AQC is aqcuisitions from Compustat.

Reduction in long-term debt [0,+1] is defined as $\sum_{t=0}^{1} DLTR_t/Assets_{-1}$, where t = 0 is the issue year and DLTR is long-term debt reduction from Compustat.

Reduction in long-term debt [0,+3] is defined as $\sum_{t=0}^{3} DLTR_t/Assets_{-1}$, where t = 0 is the issue year and DLTR is long-term debt reduction from Compustat.

A.3. SEO announcement reaction

CAR(−1,+1): Three-day cumulative abnormal return centered on the announcement date, where market model parameters are estimated using daily returns and the value-weighted CRSP market index over the one year period ending 45 days prior to the announcement date. The reported tests also include alternative definitions that employ different risk-adjustments based on the Fama and French (2015) five-factor model with parameters estimated over the same period as the market model, and the equal-weighted return of a portfolio of stocks from the same market capitalization and book-to-market quintiles as the firm.

The reported CAR tests also include alternative windows specified as below:

CAR (−1 announce, +1 issue): An alternative CAR window that starts one day prior to the SEO announcement date and ends one day after the issue date.

CAR (−1 announce, +5 issue): An alternative CAR window that starts one day prior to the SEO announcement date and ends five trading days after the issue date.

CAR (−1 announce, +30 issue): An alternative CAR window that starts one day prior to the SEO announcement date and ends 30 trading days after the issue date.

CAR (+2 issue, +30 issue): An alternative CAR window that starts two days after the issue date and ends 30 trading days after the issue date.

A.4. Other variables

BHAR60: The buy-and-hold stock return minus buy-and-hold value-weighted market return over the 60 trading days ending two days prior to the SEO announcement.

Bond rating: The coded S&P long-term bond rating, where higher values represent better ratings, taken at the end of the quarter prior to the SEO announcement.

Cash: Cash and short-term equivalents divided by book value of assets, measured at the end of the quarter prior to the SEO announcement.

Crisis: A binary variable that equals one for SEOs during 2008 and 2009.

Dilution: The percentage return from the closing stock price on the day prior to the offer announcement to the offer price, multiplied by negative one.

Discounting: The offer price discount in relation to the prevailing secondary market price, defined as the return from the closing price on the last trading day before issuance to the offer price, multiplied by negative one.

Gross spread: Underwriters' compensation as a percent of the offer proceeds.

Inst. ownership: The fraction of shares outstanding that are held by institutional investors, measured at the end of the quarter prior to the SEO announcement.

Leverage: The sum of short- and long-term debt divided by book value of total assets, measured at the end of the quarter prior to the SEO announcement.

Low price: A binary variable indicating a closing price on the day prior to the offer announcement below $5.

Mktcap: The stock price multiplied by shares outstanding on the day prior to the offer announcement.

MTB: Market-to-book ratio, defined as total assets minus book value of equity plus market capitalization divided by book value of assets, measured at the end of the quarter prior to the SEO announcement.

No bond rating: A binary variable taking the value of one if the firm has no long-term bonds rated, taken at the end of the quarter prior to the SEO announcement.

No burn: A binary variable indicating that the firm's operating cash flow (OANCF) minus dividends (DVC) minus capital expenditures (CAPX) is greater than zero.

Offer price: the SEO issue price.

Operating CF: Following Denis and McKeon (2018), Operating CF equals the Compustat variable, OANCF, or if this variable is missing, it equals NI + DPC + TXDC + ESUBC + SPPIV + FOPO + FSRCO + WCAPC + APALCH + INVCH + RECCHI.

Percent primary: The percentage of shares issued that are sold by the firm as opposed to selling shareholders.

Proceeds: The amount specified on the launch date, or if not available, the amount raised in the offering, reported in millions.

Relative offer size: The number of shares offered divided by the number of common shares outstanding one day prior to the announcement.

Residual volatility: The standard deviation of the residuals obtained from regressing daily excess returns on the value-weighted market return over the 250 trading days ending two days prior to the announcement.

Runway: The firm's cash and short term equivalents (CHE) divided by the monthly burn if burn is positive, or else, zero; where burn is defined as negative one times the quantity of operating cash flows (OANCF) minus dividends (DVC) minus capital expenditures (CAPX), divided by 12.

Turnover: The average daily volume divided by shares outstanding in the 250 trading days ending two days prior to the SEO announcement.

VWR60: The buy-and-hold value-weighted market returns over the 60 trading days ending two days prior to the SEO announcement.

All continuous variables are winsorized at the 1st and 99th percentiles to mitigate the influence of outliers, except institutional ownership, which is winsorized at the 90% level, following Gao and Ritter (2010).

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