

Strategic financial management part III: Debt maturity and priority and corporate liquidity

Fangjian Fu¹ | Clifford W. Smith²

¹Singapore Management University, Singapore, Singapore

²University of Rochester, Rochester, NY, USA

Correspondence

Fangjian Fu, Singapore Management University, Singapore, Singapore.
Email: fjf@smu.edu.sg

This is the third in our series of *JACF* articles that explores the corporate motives for and consequences of seasoned equity offerings (SEOs) by U.S. public companies over the past 50 years. Like its two predecessors, this article begins by examining each of the three standard theories (or “models”) of corporate capital structure and financing policy that continue to receive serious consideration in academic discussions: (1) the *Tradeoff Model*; (2) the *Pecking Order Model*, and (3) the *Market Timing Model*. As we also began by noting in our two previous articles, each of these three models has implications that do not fit comfortably with the findings of our analysis of over 8500 SEOs by U.S. companies between 1970 and 2019.

THE TRADEOFF MODEL

As first formulated by Alexander Robichek and Stewart Myers in 1965,¹ their *Tradeoff Model* aims to identify a company’s value-maximizing or “target” leverage by weighing the tax advantages of more debt against the larger expected costs associated with financial distress. Over a decade later, in his influential 1977 article titled “Determinants of Corporate Borrowing,” Stew himself reinforced and extended this Tradeoff Model by developing his concept of the corporate *underinvestment problem*, and how it can reduce the value of highly leveraged companies with promising investment opportunities. Stew’s basic insight was that such companies have what amount to valuable “growth options”—options to invest that management teams are less likely to “exercise” by funding them when faced with the pressures of debt service. The crux of the problem is the difficulty of overly leveraged companies in raising outside (particularly equity) capital, even for promising projects, when a substantial portion of that capital would go to

shoring up the value of its debt. In such cases, stockholders would walk away from these projects rather than sharing such a large fraction of the gains with its creditors. And as Stew saw it, an optimal financing strategy would be designed to ensure the company’s ability to exploit profitable opportunities by effectively controlling such shareholder-creditor conflicts.

At the same time that Stew was focusing on the corporate underinvestment problem, Michael Jensen and William Meckling were exploring potential *control* benefits of debt financing in addressing an *overinvestment problem*—one often faced by “value” companies generating lots of cash flow but with limited profitable opportunities for reinvesting the cash. In his widely cited 1986 article titled “The Agency Costs of Free Cash Flow,”² Mike showed how the high leverage used in the wave of hostile takeovers and LBOs of the 1980s worked to increase the long-run efficiency and value of companies in mature industries simply by forcing them to return excess capital to their investors. He defined *free cash flow* as operating cash that could not be profitably reinvested within the company’s core business—products or services where they had a clear comparative advantage. And Mike’s basic insight was that the widespread substitution of debt for equity throughout mature sectors of the U.S. economy provided an effective solution to what had become a major corporate free cash flow, or overinvestment, problem.

What we are left with, then, is an expanded version of the Tradeoff Theory in which a company’s investment opportunities tend to become the most important determinant of its capital structure. For growth companies with lots of promising projects, concerns about underinvestment problems generally limit the use of debt. But for value companies that generate far more cash than the firm can reinvest profitably, debt financing and leverage targets are expected to be considerably higher. In examining capital structures both across companies and over time, the research suggests

This paper draws on material originally published in Barclay, Fu, and Smith (2021). Michael was killed in an airplane accident before this project was completed and bears no responsibility for any errors.

¹ Robichek, Alexander A., and Stewart Myers. 1965. *Optimal Financing Decisions*. Prentice-Hall.

² Jensen, Michael C., and William H. Meckling. 1976. “Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure.” *Journal of Financial Economics* 3(4): 305–60.

that this tradeoff has significant power in explaining companies' average leverage ratios.

The challengers

Unlike the Tradeoff Model, both the *Pecking Order* and *Market Timing Models* effectively assume that companies do not have target leverage ratios. In his *Pecking Order* story, Stew argued that management's main concern is to minimize the "information costs" associated with raising outside capital by using internal funds whenever possible; and when outside funding is necessary, relying on debt financing until debt capacity is exhausted.³ Public equity finance, by far the most expensive source, is viewed as a last resort to be avoided if at all possible.

But as already noted, the fact that there were some 8500 SEOs by non-financial U.S. companies over the past 50 years, including 1500 by U.S. public utilities, suggests the limitations of such a theory. And raising further questions about this theory's applicability to growth companies—which comprise 80 percent of our industrial sample—our own analysis shows that these SEO issuers had substantial unused debt capacity when they chose to raise equity rather than debt.

And that brings us to the *Market Timing Theory* in which Malcolm Baker and Jeffrey Wurgler⁴ view SEOs—and indeed all corporate financing transactions—as little more than opportunistic attempts to benefit existing shareholders through the sale of overpriced shares (or other securities) to unsuspecting investors. These transactions are thus assumed to be motivated primarily if not entirely by market *mispricing*, with little consideration of whether the company has profitable uses for the additional capital. But working against the grain of this argument, our earlier study finds large increases in corporate investment that begin within the same quarter as the SEOs, investment increases that we suggest provide the main impetus and rationale for such transactions.

Moreover, because the Market Timing and Pecking Order explanations assume that companies do not set leverage targets—or if they have them, are not much guided by them—companies would have little reason to rebalance their capital structures following their SEOs. Keep in mind that, for the typical growth industrial firm in our sample, this SEO has the effect of making the company even more *underleveraged* than it was before. And as we noted in our earlier papers, our findings contradict the Pecking Order story (while being potentially consistent with the Tradeoff Model) by providing a clear indication that, during the 5-year period *following* their SEOs, these companies issue substantial amounts of *debt*. Such debt, which increases in rough proportion to the SEO proceeds, works to rebalance their capital structures.

What's more, each of the Tradeoff, Pecking Order, and Market Timing Models effectively assumes that CFOs are short-sighted or "myopic" in the sense that their main goal is minimizing the costs of each individual financing transaction, with little if any consideration of the issues that are likely to follow in the years ahead. The findings of our SEO studies tell a quite different story—one in which thoughtful, reasonably far-sighted CFOs take account of the company's investment opportunities and financing requirements *over an extended planning horizon*. They aim to minimize the costs associated with not just their current financing, but the entire sequence of offerings they expect to make over the next several years, while ensuring the firm has enough equity capital across a broad range of potential outcomes and circumstances. And unlike the "myopic" optimizers assumed in traditional theories, such CFOs often choose SEOs even when their firms are underleveraged by normal market standards.

INCORPORATING OTHER CAPITAL DESIGN CHOICES

But one reality rarely discussed within these theories of capital structure is the extensive array and sheer variety of funding alternatives—of debt, equity, or combinations thereof—available to managers of U.S. public companies. Instead of issuing securities in public markets, they can arrange private placements of equity with PE firms and institutional investors, or get private credit from banks, insurance companies, or pension funds. And instead of "plain vanilla" unsecured fixed-rate long-term debt, they can choose to issue debt that is secured or subordinated, short-term or floating-rate, and callable rather than call-protected. Companies can also issue "hybrid" securities that combine features of equity as well debt, such as convertible bonds, income bonds, preferred stock, and convertible preferred. Moreover, many of these securities include covenants that restrict leverage, dividend payments, and asset dispositions, as well as requiring that the issuers maintain minimal coverage and liquidity ratios. Assets can be leased rather than purchased—and assets currently owned can be sold and then leased back. And since many of these possibilities are not mutually exclusive, companies routinely craft packages that combine these various alternatives. In short, the number of possible combinations of these different markets, securities, and contractual provisions is enormous.

The bottom line: Corporate securities—and corporate debt in particular—come in a variety of different "flavors." After deciding to borrow, a CFO still must decide whether to access public or private debt markets, the maturity and priority of the fixed claims, as well as which if any covenants to include within the issue. And both simplifying this decision-making—but complicating our analysis of it—these decisions are not independent. For example, a CFO that considered accessing a private bank loan is effectively making a choice of maturity as well since corporate bank loans tend to be short-term. Bank debt also tends to include more covenants, specified with more binding constraints, than would be typical of corporate bonds sold in public debt markets. But such bank loans also come with a side benefit that in certain circumstances could prove valuable—in the event the borrower experiences financial difficulties and one of these restrictions

³ *The Pecking Order Theory was first suggested by Gordon Donaldson in "Corporate Debt Capacity: A Study of Corporate Debt Policy and the Determination of Corporate Debt Capacity," Boston, Division of Research, Harvard Graduate School of Business Administration, 1961; and modified by Myers, Stewart C., and Nicholas S. Majluf. 1984. *Journal of Financial Economics* 13: 187–221.

⁴ Baker, Malcolm and Jeffrey Wurgler. 2002. "Market Timing and Capital Structure." *Journal of Finance* 57: 1–32.

becomes binding, it is much easier to renegotiate terms with a bank than a creditors' committee in a public debt issue.⁵

Most of the rest of our paper is devoted to examining particular aspects of financing policy that show up in association with SEOs. We begin by analyzing the maturity and priority of corporate debt before and in the wake of SEOs, and then turn our focus to the use of convertible securities. We then examine the sources of liquidity in these SEO issuers. Last we provide a summary of our analysis.

SEOS AND IMPORTANT ASPECTS OF FINANCIAL POLICY

As we reported in our two earlier *JACF* articles, the typical SEO appears to be motivated by the development of valuable new growth options. In anticipation of such investments, SEO issuers raise capital as well as reduce their (market) leverage, both during the run-up to and even more afterward as a consequence of their offerings. Following the SEOs, we find substantial increases in investment spending that begin in the quarter of the SEO and persist over at least the next 5 years. As a consequence of such corporate investment, these intangible growth options are exercised and thereby transformed into tangible assets. Our analysis also suggests that this transformation process does not simply come to an abrupt end, but that the cash flow generated by such transformation—along with the additional borrowing following the SEO—helps fund the ongoing exercise of additional growth options.

DEBT MATURITY

In the case of virtually all varieties of debt, the probability of default at origination is quite low. But as the maturity of debt obligations is extended, the likelihood of financial difficulty and default, and hence the expected costs of financial distress, get progressively larger over time. And so, as their maturity increases, the values of these debt obligations become more sensitive to the market's estimate of the corporate issuers' total asset or franchise values (the values of their equity plus debt).

Accordingly, one way to reduce this sensitivity and limit the expected cost of financial trouble is to shorten the debt maturity. In the event of such trouble, reworking short-term debt, which is generally held by banks, is likely to be far easier and less costly than reorganizing long-term public bonds.⁶ By relying primarily on short-term debt, management effectively ensures that fewer major investment decisions are distorted or disrupted by the need to renegotiate the terms of an outstanding debt issue. For these reasons, growth companies, with much of their value reflecting

their intangible growth opportunities, tend to avoid long-term debt.

And potential lenders, as you might expect, help condition and reinforce this behavior in at least two ways: (1) by charging higher interest rates for longer-term debt; and (2) by attaching restrictive covenants to long-term debt that would alert them to emerging financial trouble, enabling them to intervene in a timely way to protect their positions. Both of these measures work to discourage growth companies from lengthening debt maturities.

In the case of regulated utilities, by contrast, the costs of employing long-term debt are lower for two basic reasons: The tangibility of their assets combined with regulatory oversight implies that both underinvestment problems and the likelihood and expected costs of financial difficulties are more manageable. After all, if a utility experiences financial problems, the regulators can increase the rates customers are charged and thus help attract private capital.

But what does this analysis lead us to expect about the management of corporate debt maturity in the context of SEOs? Because SEOs appear to be primarily motivated by the development of valuable new growth opportunities, SEO issuers should reduce their use of long-term debt *before* their offerings.

But after their SEOs, things are less clear-cut. As we reported in our earlier paper, these companies issue new debt both to finance their ongoing investment spending (producing the observed increases in leverage) as well as to refinance their maturing debt. But as also just noted, there are two potentially important expected effects of SEOs on the corporate debt maturity structure. First, the exercise of their growth options facilitated by their SEOs has the effect of transforming them into more tangible assets that increase the firm's debt capacity (and these assets frequently generate cash that can be used to service higher levels of debt). This transformation reduces the financial distress costs associated with longer-term debt and so should increase its use. At the same time, however, the on-going high rate of investment spending (also reported in our prior paper) suggests that the typical SEO issuer continues developing and exploiting new growth opportunities—which in turn is consistent with maintaining a shorter debt maturity structure. And since it is not clear which of these effects will dominate, making post-SEO debt maturity choices is an empirical question that can be decided only by examining the data.

What we found, as reported in Table 1—and shown graphically in the right panel in Figure 1—our sample of value SEO issuers made far greater use of long-term debt than our growth issuers (as a proxy for long-term debt, we use debt with at least a 3-year maturity). What's more, as can be seen in the left panel of the figure, our utility SEO issuers used substantially more long-term debt than either group of industrial issuers (these differences are statistically significant both before and after their SEOs). During the 3 years that preceded their offerings, the debt maturity for industrial SEO issuers fell modestly, but then increased from the SEO year to the end of our 5-year tracking period. This observed increase reflects both their issuing of new long-term debt as well as paying down their corporate credit line balances.

This finding, as suggested above, can be interpreted as reflecting the impact on debt maturity of the progressive transformation

⁵ Smith, Clifford W. 1993. "A Perspective on Accounting-Based Debt Covenant Violations." *Accounting Review* 68: 289–303.

⁶ The Trust Indenture Act of 1939 prohibits granting any authority to the bond issue's trustee to renegotiate contractual provisions in the contract; to amend provisions within a public bond issue requires a unanimous vote of the bondholders. Because of the "hold up" problem, such unanimity is essentially impossible. Thus, to resolve an event of default in a public debt issue, the firm must file under Chapter 11 of the Bankruptcy Code and reorganize its outstanding claims under the supervision of the Bankruptcy Court Judge—a less flexible and more time-consuming process than renegotiation with a private lender.

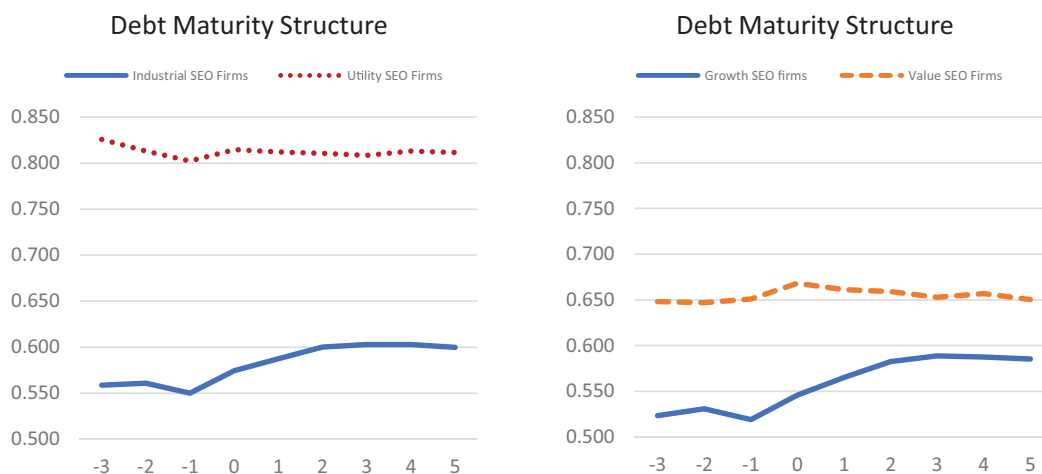


FIGURE 1 Debt maturity structure of SEO firms. The panels depict the average debt maturity for SEO firms from 3 years prior to the SEO to 5 years following the SEO. We proxy debt maturity as debt that matures beyond 3 years as a fraction of total debt. The left panel depicts debt maturity of industrial and utility SEO firms and the right panel depicts debt maturity of growth and value industrial SEO firms.

TABLE 1 Debt maturity of SEO firms

Fiscal year relative to the SEO	Industrial SEO firms	Value industrial SEO firms	Growth industrial SEO firms	Utility SEO firms
-3	0.559	0.648	0.523	0.826
-2	0.561	0.647	0.531	0.813
-1	0.550	0.651	0.519	0.802
0	0.575	0.668	0.546	0.815
+1	0.587	0.661	0.565	0.812
+2	0.600	0.659	0.582	0.811
+3	0.603	0.653	0.589	0.809
+4	0.603	0.657	0.587	0.813
+5	0.600	0.650	0.585	0.812

The table presents the average debt maturity of SEO firms from 3 years before to 5 years after their SEOs. As a proxy for debt maturity, we use the ratio of debt maturing in more than 3 years to total debt—Long-term debt plus debt in current liabilities.

of the firm’s growth options into tangible assets that follows the SEOs.⁷ This pattern is also consistent with Stew’s hypothesis that links the firm’s investment opportunities with the maturity structure of its debt.

SEOS AND THE PRIORITY OF CORPORATE LIABILITIES

In court-supervised reorganizations that take place under Chapter 11, there can be major disagreements among corporate creditors. But it is important to recognize that both the likelihood of and

expected costs arising from such conflicts can be limited by the design of corporate debt. For example, for growth companies with lots of intangible assets, in addition to lowering target leverage, concentrating fixed claims in higher priority classes—secured debt and capital leases, which specify claims on the firm’s assets in more detail—is especially useful in limiting creditor conflicts in the event of financial difficulties. If such companies were to file under Chapter 11, the likelihood of a rapid, low-cost reorganization is much higher.

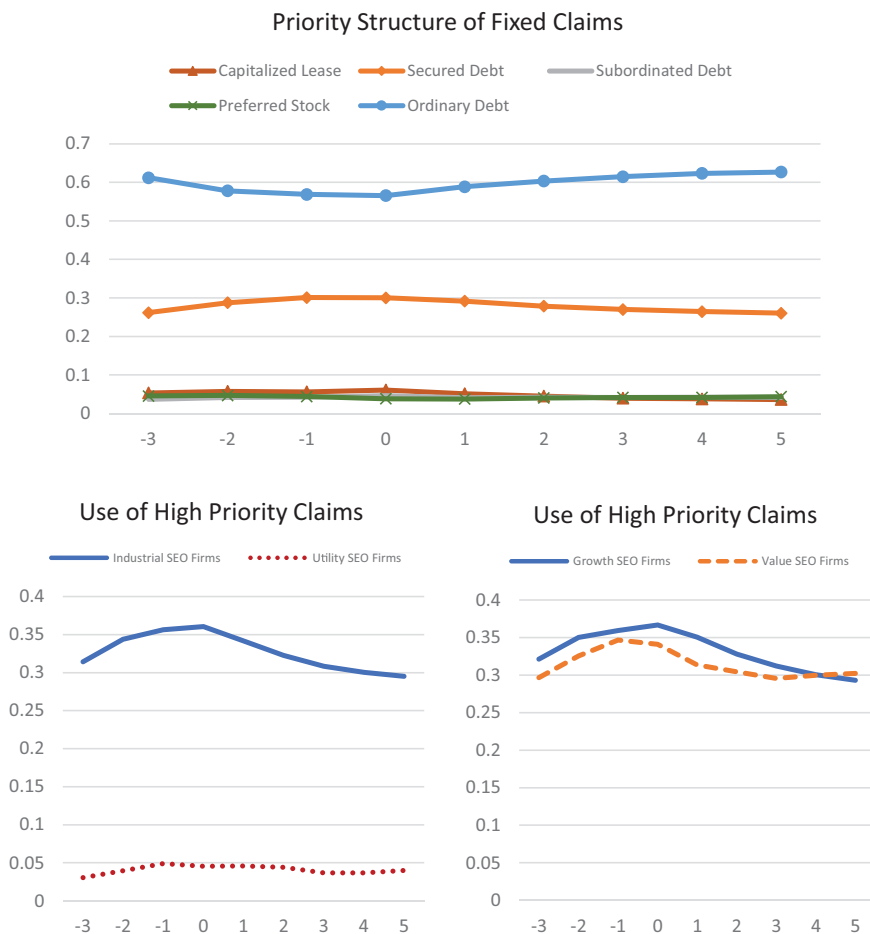
But now let us consider the case of value companies or regulated utilities, where much if not most of their value reflects their tangible assets. In such cases, disagreements among lenders are easier and less costly to resolve—and we accordingly expect to find less use of capital leases or forms of high-priority debt.

In sum, our analysis suggests that growth companies in general should not only use less debt, but what debt they employ should be concentrated within higher priority classes. Utilities, by contrast, should use lots of debt, with less use of higher-priority fixed claims. We would also expect to find greater use of high-priority debt by growth SEO issuers *before* undertaking their SEOs and when anticipating exercise of their growth options. But *after* the SEO, there are again two potential effects and outcomes: As these growth options are exercised and firm value reflects that of more tangible assets, there is less reason to concentrate fixed claims within higher priority classes. At the same time, to the extent the high level of investment by the typical SEO issuer reflects ongoing development and exercise of new growth options, there still can be a compelling case for continuing the use of higher-priority debt. Either of these effects could dominate.

As shown in the upper panel of Figure 2, we found that over the 8 years surrounding their SEOs, industrial issuers increased their use of secured debt before their SEOs, but reduced it afterwards. They also reduced their use of ordinary debt before their SEOs, and increase it afterwards. And we found that SEO issuers’ use of capital leases, subordinated debt, and preferred stock, modest to begin with, changed very little over this 8-year window.

⁷ Comparing maturity structures focusing on longer-horizon effects confirms significantly different effects on debt maturity between both growth and value SEO firms as well as between industrial and utility SEO firms. Specifically, we employ a statistical procedure examining differences in differences (or a “dif-in-dif” procedure). It is a quasi-experimental approach that compares changes in outcomes over time between two groups. In our case, it allows us to examine variation attributable to differences in investment opportunities and regulatory status.

FIGURE 2 The priority structure of SEO firms fixed claims. The upper panel depicts the ratio of fixed claims of different priorities—capital leases, secured debt, ordinary debt, subordinated debt, and preferred stock—to total fixed claims from 3 years before to 5 years after SEOs. (This data is reported only annually.) The two lower panels depict the ratio of high priority claims—capital leases and secured debt—to total fixed claims. The lower left panel depicts use by industrial and utility SEO firms; the lower right panel depicts growth and value industrial SEO firms.



As shown in the lower left panel of the figure, we found that utility SEO issuers made little use of high-priority fixed claims either before or after their SEOs. This finding confirmed our expectation that the combination of utilities’ concentration of value in tangible assets as well as their regulatory oversight work to limit the kinds of inter-creditor conflicts that tend to motivate the use of secured debt or capital leases.

As summarized in the lower right panel, we found that both our growth and value SEO issuers increased their use of higher priority fixed claims before their SEOs, and reduced it afterwards. This suggests that post-SEO priority decisions were driven more by the exercise of corporate growth options than by their ongoing high rates of investment spending

SEOS AND THE USE OF CONVERTIBLE SECURITIES

As we have argued, the financing strategy and policies of companies with potentially valuable growth opportunities should be—and generally are—designed to assure their investors that management has both the resources required and the incentives to exercise these growth options appropriately. In a 1998 article,⁸

our late colleague David Mayers suggested that one way to accomplish this would be to include conversion options within the firm’s capital structure.

Dave’s basic idea was that, if the perceived value of the firm’s growth opportunities increased, its stock price would rise, the conversion option built into convertible debt (or preferred) would become “in the money,” and the call provision (included within virtually all convertible security issues) would give management the ability to force conversion. Forced conversion of convertible debt (or preferred) in turn has two major benefits: it effectively reduces leverage, thereby providing better control of the underinvestment problem; and it preserves capital by reducing transactions costs associated with what otherwise might have required a new equity offering.

Dave’s analysis accordingly implied that an increase in the value of their growth options would accompany the corporate issuance of convertibles. This incentive to employ convertibles should be most pronounced among growth firms, but rarely observed among utilities.

However, once the SEOs have been issued, the implications of Dave’s explanation for convertibles are less clear. Changes in convertible use should reflect at least three things: First, outstanding convertibles either become in the money, are called, and converted into equity, or simply mature. In either case, convertibles within the firm’s capital structure would be reduced. Second, as the firm’s growth options are exercised and transformed into tangible assets, the benefits of convertibles in providing a form of staged financing

⁸ Mayers, David. 1998. “Why Firms Issue Convertible Bonds: The Matching of Financial and Real Investment Options.” *Journal of Financial Economics* 47: 83–102.

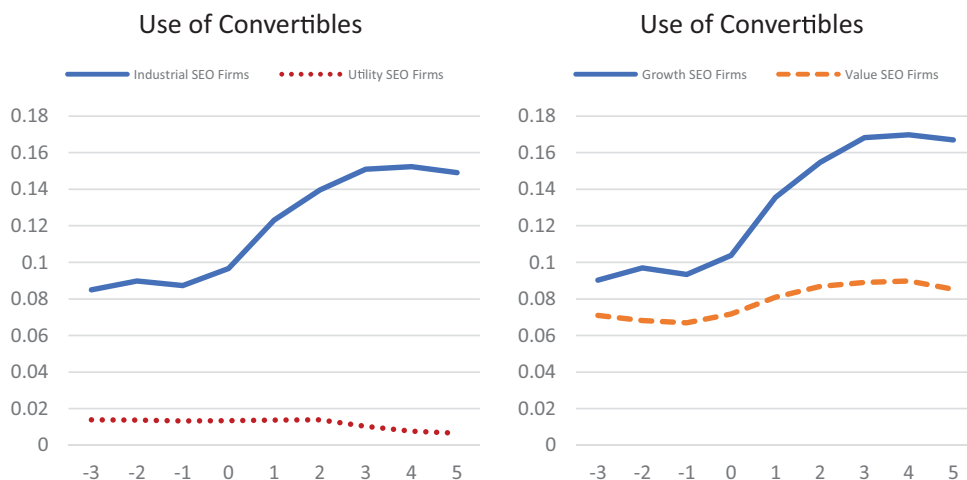


FIGURE 3 Convertible Use by SEO firms. The panels depict the ratio of convertibles—convertible debt plus convertible preferred stock—to total fixed claims from 3 years before to 5 years after their SEOs. The left panel depicts convertible use by industrial and utility SEO firms; the right panel depicts convertible use by growth and value industrial SEO firms

would decline. But third, our typical industrial firm’s on-going high rate of investment spending implies that the firm would have continuing incentives to issue new convertibles to control the exercise and timing of its remaining growth options. Which of these effects dominate is therefore, once again, an empirical question.

As reported in the left panel of Figure 3, when we measured convertible use as the sum of convertible bonds plus convertible preferred stock as a fraction of total fixed claims, we found that convertible use is greater for industrials than for utilities. For industrial SEO issuers, convertibles use increased modestly prior to the SEO, consistent with Dave’s argument that convertibles provide a form of staged financing for companies that expect to develop potentially valuable growth opportunities. As expected, the use of convertibles by regulated utilities is low and little changed around SEOs.

Following their SEOs, as shown in the right panel of Figure 3, convertible use was increased further. This finding suggests that the effect of the on-going higher investment spending in increasing the typical industrial firm’s incentive to employ convertibles more than offsets the combined effects of its convertible calls, maturing convertibles, plus the increase in tangible assets from the exercise of its growth options.

SEOS AND LIQUIDITY

Companies acquire liquidity from the asset side of their balance sheets by holding cash (or marketable securities), and from the liability side in the form of lines of credit from banks or other financial institutions. To the extent industrial value companies and utilities have greater debt capacity than growth companies, we would expect the former to make greater use of lines of credit. At the same time, to the extent underinvestment costs are higher for growth firms, they are expected to limit their use of fixed claims and rely more on cash holdings to satisfy their liquidity demands.⁹

What’s more, private lenders such as banks regularly enter confidentiality (or non-disclosure) agreements with their corporate loan customers. Companies that develop valuable new growth opportunities can negotiate higher credit limits with their bankers by sharing confidential information about the nature of their new growth opportunities as well as their financing plans—including their planned SEOs. Covenants in such expanded lines of credit tend to specify that part of the proceeds from the planned SEOs be used to pay down the companies’ credit-line balances.

Such contracts also frequently make this expansion of the credit line temporary; after the SEOs, the lines generally return to their previous limits. But the fact that this does not always occur also makes perfect sense: As the companies’ growth options are exercised following their SEOs, tangible assets and operating cash flows increase, and their cash holdings might become less important as a source of liquidity. In such circumstances, corporate cash holdings are likely to be replaced by expanded credit facilities. This effect should be most pronounced among growth SEO issuers and least for utility SEO firms.

Consistent with these expectations, as reported in the left panel of Figure 4, we find that the typical industrial SEO firm has greater cash holdings than the typical utility—and that our hypothesis that industrial SEO issuers draw down their cash balances by more than do utilities prior to their SEOs.

As shown in the right panel of the figure, growth SEO issuers hold greater cash balances than value issuers, confirming our expectation that growth firms would obtain more of these liquidity from the asset side of their balance sheets. Moreover, in the quarters preceding their SEOs, growth industrial firms draw down their cash balances by more than value firms, but also use more of their SEO proceeds to restore their cash holdings.

Using our data sources, we were unable to separately identify bank credit lines from other current liabilities; as a proxy for this magnitude, we use debt in current liabilities. As shown in the left panel of Figure 5, utilities have more debt in the form of current liabilities than do industrials. The utilities’ larger credit lines reflect both the higher fraction of their values represented

⁹ Opler, Tim, Lee Pinkowitz, Rene Stulz, and Rohan Williamson. 1999. “The Determinants and Implications of Corporate Cash Holdings.” *Journal of Financial Economics* 52(1): 3–46.

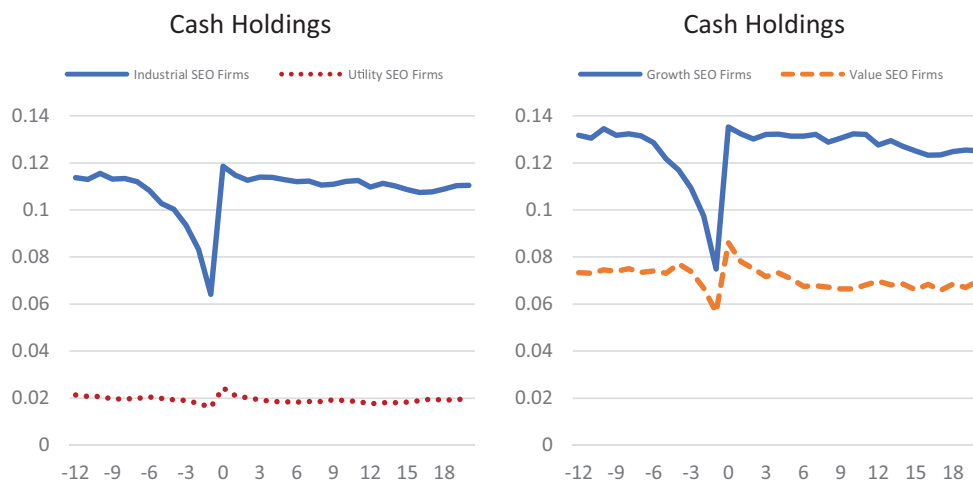


FIGURE 4 Cash holdings by SEO firms. These panels depict SEO firms cash holdings from 3 years before to 5 years after their SEOs. We proxy cash holdings by cash deflated by the contemporaneous enterprise value. The left panel depicts cash holdings by industrial and utility SEO Firms; the right panel depicts cash holdings by growth and value industrial SEO firms.

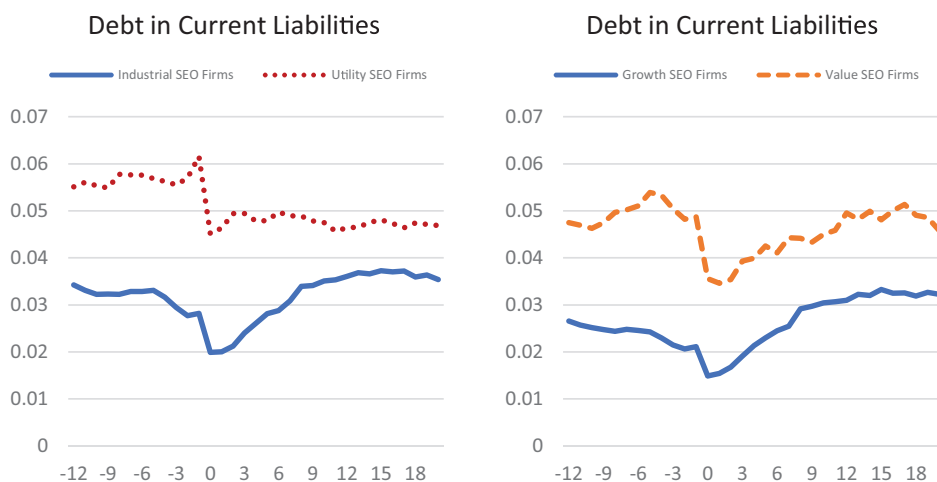


FIGURE 5 Debt in current liabilities of SEO firms. These panels present the average ratio of debt in current liabilities to the contemporaneous enterprise value of the firm— $V(t)$ —from 3 years before to 5 years after firms’ SEOs. The left panel depicts the average ratio of industrial and utility SEO firms; the right panel depicts this ratio for growth and value industrial SEO firms.

by tangible assets as well as the risk reduction associated with their regulatory oversight. And although utility SEO issuers also increase their short-term debt by more than growth issuers prior to their SEOs, companies in both groups appear to use part of their SEO proceeds to pay down their outstanding credit line balances.

Moreover, as can be seen in the right panel of the Figure 5, the typical growth issuer in addition to increasing their tangible assets (as we reported in our earlier paper) they also use part of their proceeds to pay down their credit lines.

What do these findings on liquidity tell us about the motive for SEOs? Among other things, they should lead us to revisit some other explanations of SEOs that have been offered by finance scholars. For example, in 2010, Harry and Linda DeAngelo and René Stulz calculated that, without the proceeds from their SEOs, most issuers would have run out of cash in the year after the transactions; and based on that calculation,

concluded that a near-term cash requirement is the primary motive for SEOs.¹⁰

CONCLUSIONS

Modern corporate finance theory goes back to Modigliani and Miller’s 1958 path-breaking article, and thus our accumulation of a science-based knowledge of these policy choices has entered its seventh decade. In this research, the theory has raced well ahead of its empirical testing. As a result, reaching consensus about the most important determinants of specific corporate financing choices has been difficult. In attempts to achieve such a consensus, some have argued that SEOs are so infrequent among mature companies

¹⁰ DeAngelo, Harry, Linda DeAngelo, and René M. Stulz. 2010. “Seasoned Equity Offerings, Market Timing, and the Corporate Lifecycle.” *Journal of Financial Economics* 95: 275–295.

that little insight into corporate financial management can be had from examining them more closely. In his Presidential Address to the American Finance Association in 1984, Stew Myers cited Gordon Donaldson's statement (made in 1961) that:

[t]hough few companies would go so far as to rule out a sale of common under any circumstances, the large majority had not had such a sale in the past 20 years and did not anticipate one in the foreseeable future.

We would argue that Donaldson's argument is misleading in the sense that, even if by some standards these transactions were rare, they are unusual precisely *because* they are so expensive. And given the large fixed costs and scale economies associated with public security offerings, when they do occur, these transactions are quite large. As we reported in our earlier paper when industrial companies sell new shares through SEOs, the offering size typically exceeded 20 percent of their shares outstanding.

Moreover, the fact that we observe an average of 194 SEOs per year—representing almost 6 percent of firm-year observations within our overall database of publicly traded companies—and that, for companies with at least 10 years of data, this percentage roughly doubles to nearly 12 percent—suggests that although SEOs may not be “frequent,” they are by no means “rare” events.

Furthermore, we would argue that it is important first to understand these large, albeit somewhat infrequent transactions, before turning to more frequent, less expensive, and generally smaller transactions such as public debt issues or bank loans or lines of credit. Our argument is loosely analogous to the idea that, when packing your car for a trip, it generally makes sense to load the largest items first, and fit the smaller ones in around them.

Our analysis of over 8500 seasoned equity offerings by U.S. companies over the past 50 years has yielded what we view as powerful tests of financial management theories, affording interesting insights into, as well as greater understanding of, some quite basic issues in corporate finance. Our tests examined both time-series and cross-sectional implications for not only corporate leverage decisions, but corporate investment policy, the use of conversion options, corporate debt maturity and priority structures, as well as the management of corporate liquidity and payout policies. (By contrast, most studies to date have provided either cross-sectional or time-series analysis, and of just subsets of these policies.

Our main findings can be summarized as follows:

- Typical growth SEO issuers had lower leverage than the typical value issuers, as well as lower payouts to shareholders, made greater use of convertibles, and had larger concentrations of fixed claims in higher priority classes, larger cash balances, less long-term debt, and more frequent SEOs.
- The typical utility SEO issuer had higher but more stable leverage than the typical industrial issuer, higher dividend yields but fewer share repurchases, less use of convertibles, greater dispersion in their fixed-claim priority structures, more

long-term debt, lower and more stable cash balances, and smaller SEOs.

- In the periods leading up to SEOs by the typical industrial firm, both leverage and total payouts to shareholders—including both dividends and share repurchases—were lower, the use of convertibles increased, the use of high priority claims increased, debt maturities shortened, and cash holdings fell.
- Payout changes were driven primarily by changes in repurchases, dividend changes were modest. Except for convertible use, these changes were reversed after the SEO.
- Announcement period returns were more negative for growth than for value SEO issuers, but less negative for all kinds of issuers, including utilities, that undertook larger post-SEO investment spending programs.
- Investment spending increased materially within the same quarter as the SEO and continued at this higher level over at least the next 5 years; most of this increase was from organic growth, not M&A transactions.
- Incremental investment spending over the following twelve quarters exceeded SEO proceeds for the typical SEO firm. This result is important because standard statistical methods have failed to identify this increase.

Such a summary is useful if only to shed light on the interdependencies and interactions among corporate leverage, investment, and payout decisions, and these other facets of financing policies and stock market reactions to financing transactions. But of even greater importance, our analysis has broader implications for how we think about the motives and objectives of managers.

When viewed overall, our findings suggest that corporate managers attempt to analyze the entire projected stream of future cash flows in deciding on an appropriate financing decision. They thus appear to be sophisticated, long-range planners who consider the complete set of current and future consequences of their different financing alternatives—as opposed to the single-period maximizers described within most academic models.

What's more, the substantial increases in corporate investment spending that typically take place within same quarter as an SEO suggest that these capital-raising transactions are motivated by the funding requirements of large projects. Having an SEO at an early stage of the project offers assurances to the firm's investors both that the firm has productive uses for the capital that it proposes to raise, and that the capital required to exploit this valuable investment opportunity will be available when the opportunity materializes and the timing is right.

How to cite this article: Fu, F. & Smith C.W. (2023). “Strategic financial management part III: debt maturity and priority and corporate liquidity.” *Journal of Applied Corporate Finance*, 1–8.
<https://doi.org/10.1111/jacf.12533>