



More than meets the eye: Convertible bond issuers' concurrent transactions[☆]

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ABSTRACT

We document that, in recent years, over 60% of convertible bond issuers conduct concurrent transactions including share repurchases, call option purchases, warrant sales, seasoned equity offerings, and stock lending program initiations. We investigate the determinants of issuers' choice of concurrent transactions and find that a proxy for capital supply (flows to convertible bond arbitrage hedge funds) is a significant determinant. Option purchases are more likely when capital supply is low and the convertible is dilutive to earnings. SEOs are more likely when firms have valuable growth opportunities and capital supply is low. Convertible issuers establish lending programs when arbitrageurs likely encounter difficulty shorting their stock, suggesting that these firms facilitate short selling in their own stock. These results suggest that, in the convertible bond market, the influence of capital supply extends beyond the issuance decision to the use of concurrent transactions and that these transactions offer important flexibility to issuers. We find that average equity market announcement effects differ when issuers conduct concurrent transactions. Consistent with models of adverse selection, concurrent transactions that reduce the dilutive impact on earnings, thereby making the design more debt-like, are associated with less negative announcement effects. Conversely, concurrent transactions that increase the dilutive impact on earnings, thereby making the design more equity-like, are associated with more negative announcement effects.

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1. Introduction

CONVERTIBLE bonds are hybrid securities, having features of both debt and equity. Similar to straight debt, convertible bonds have a stated maturity date when the issuer redeems the bonds at par value, and typically entitle the holder to periodic coupon payments. Similar to equity, convertible bonds allow the holder to participate in the issuer's stock price appreciation through the conversion option, which entitles the bondholder to convert the bonds to a specified number of shares of the issuer's stock.¹ Although a robust literature exists on the motives for and the effects of convertible bond issuance, many unanswered questions remain regarding what has become an increasingly common practice: convertible bond issuers conducting other transactions

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¹ The bond indenture specifies the conversion ratio, which is the number of shares of stock the bondholders receive per bond should they exercise the option to convert. The issuer may force conversion prior to maturity by calling the bonds, provided the bond indenture contains a call provision.

concurrently.² Using a unique dataset constructed from extensive searches of 8-K filings and news announcements, we document that of 947 convertible bond offerings from 2000 to 2010, 38% of the issuers conducted other transactions concurrently. These concurrent transactions include share repurchases, purchases of call options on the issuer's own stock, sales of warrants, seasoned equity offerings (SEOs), initiations of share lending programs, or combinations of these transactions. The fraction of convertible issuers conducting concurrent transactions increases dramatically over the sample period, from 12% in 2000 to 65% in 2010. Since 2005, approximately 61% of convertible bond issuers have conducted at least one transaction simultaneously with their convertible issuance.

The concurrent transactions alter the net impact of convertible bonds on the issuer's capital structure. Share repurchases and call option purchases require significant portions of the bond proceeds and reduce the convertible bonds' dilutive impact on future earnings should bondholders convert their bonds to equity.³ Other transactions, such as warrant sales and seasoned equity offerings, increase the total issuance proceeds, increase the dilutive impact, and reduce the impact of the convertibles on the issuer's leverage. Our analysis sheds light on the determinants of convertible issuers' use of concurrent transactions.

We hypothesize that the supply of capital in the convertible bond market is an important determinant of concurrent transactions. Recent research finds that the supply of capital influences firms' financing decisions.⁴ In this market, convertible bond arbitrageurs comprise the majority of demand for newly issued securities (Brown et al., 2012; Choi et al., 2010; Mitchell et al., 2007). This important role of convertible bond arbitrageurs allows Choi et al. (2010) to construct a measure of capital supply based on flows to hedge funds conducting convertible bond arbitrage. They find that capital supplied by convertible arbitrageurs plays a critical role in firms' decision to issue convertible bonds. De Jong et al. (2011) find that one concurrent transaction, share repurchases, provides flexibility to convertible issuers desiring to circumvent negative price pressure associated with convertible arbitrageurs' short selling around the offering.

Our analysis contributes to the literature on the influence of capital supply through our finding that the supply of capital by convertible bond arbitrageurs is an important determinant of convertible issuers' call option purchases, SEOs, and share lending programs. Issuers are more likely to purchase call options when the supply of capital is limited and the convertible bonds' dilutive impact on earnings is high. When capital is scarce, capital suppliers have more influence over the terms at which firms raise capital. Our results are consistent with the interpretation that during times of low capital supply, characterized by convertible arbitrage hedge fund outflows, issuers acquiesce to arbitrageurs' preferences for equity-like convertibles (Brown et al., 2012; Henderson, 2006; Loncarski et al., 2009) but purchase call options to adjust for the undesired dilutive impact. Our results extend the literature on the role of capital supply on firms' financing decisions by demonstrating that, in the convertible bond market, capital supply influences convertible bond security design and the use of concurrent transactions. These transactions provide important flexibility to issuers.

Additionally, our results highlight the important role of convertible arbitrageurs as suppliers of capital to firms with valuable investment opportunities. Sample firms conducting concurrent SEOs tend to do so during periods of restricted capital supply, as proxied by outflows from convertible arbitrage hedge funds. These firms have valuable future investment opportunities and do not appear to suffer equity-related financing frictions. Taken together, these patterns suggest that when the supply of capital is limited, convertible issuers resort to equity issuance to raise the balance of proceeds required for valuable investment projects. Additionally, we rule out a plausible alternative interpretation that combined offerings result from equity market rationing.⁵

Recent research highlights the important role of convertible arbitrage-related short selling (Brown et al., 2012; De Jong et al., 2011). We document an additional way in which short selling by arbitrageurs influences firms' corporate financing activities. In cases where arbitrageurs are most likely to encounter difficulty borrowing shares in the securities lending market, issuers facilitate shorting by establishing stock lending programs with the bond underwriter or the underwriter's affiliate. Issuers tend to establish lending programs during periods when the supply of capital available through convertible arbitrage hedge funds is high. Firms establishing lending programs have low institutional ownership and high short interest, which serve as proxies for the supply of and demand for shares in the securities lending market (Asquith et al., 2005; Nagel, 2005). Lending programs provide a reliable supply of shares to convertible bond arbitrageurs, and thereby allow them to circumvent lending market constraints. Whereas De Jong et al. (2011) find that convertible issuers repurchase shares to minimize the negative price impact of shorting through liquidity provision, firms establishing lending programs facilitate short sales, apparently without concern for the price impact of those short sales around the offering date.

In perfectly frictionless capital markets, firms' financing decisions do not impact their valuations (Miller, 1977; Miller and Modigliani, 1958). In practice, however, numerous market frictions are present. One such friction is the informational asymmetry between corporate insiders and outside investors regarding future earnings. Myers and Majluf (1984) predict that equity

² To our knowledge, three contemporary studies consider convertible bond issuers' use of concurrent transactions. The findings of De Jong et al. (2011) are consistent with the interpretation that convertible bond issuers also conducting share repurchases do so to reduce the liquidity impact on their stock price from convertible bond arbitrageurs' hedging transactions. Lewis and Verwijmeren (2011) study debt security design and innovation, finding evidence that issuers use share repurchases and call spread options to inflate reported earnings per share. The survey of corporate managers by Dong et al. (2012) reveals managers' stated intention for conducting call spread transactions is to reduce the convertibles' dilutive impact.

³ Convertible bond issuers purchase call options on their own stock from financial institutions, typically members of the underwriting syndicate. The call options typically have a strike price set equal to the convertibles' conversion price and expiration date that correspond to the bond maturity. The call option purchase entails payment of an up-front premium, averaging 20.2% of the convertible bond proceeds. To offset a portion of the cost, issuers may sell warrants with strike prices greater than the conversion price. The combination of a call option purchase and warrant sale creates a bullish call spread option. For comparison, De Jong et al. (2011) report that issuers conducting share repurchases use on average 41.1% of the bond proceeds repurchasing shares.

⁴ See Faulkender and Petersen (2006), Massa et al. (2008), Leary (2009), Lemmon and Roberts (2010), and Choi et al. (2010), among others.

⁵ Lewis et al. (2001) propose the equity rationing motivation as a partial explanation for convertible bond issues.

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