WHY DO FIRMS *REALLY* ISSUE CONVERTIBLE BONDS: EVIDENCE FROM THE FIELD

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Abstract

We conduct interviews with financial managers in Australia, Canada, and the United Kingdom to study the question why companies issue convertible bonds. For the majority of the firms, convertible bonds are chosen because of the lower cost of capital compared to straight debt, and the debt to equity "pecking order" of financing; or, in cases where debt capacity is unavailable, convertible bonds are preferred to equity because of managers' perceived equity undervaluation. Our results suggest that managers time the issuance of convertible bonds based on the demand of the investors and the misvaluation of the firms' debt and equity. The evidence lends considerable support to the theory of management-investor differences in opinion about firm's risk, but yields very little support to either the textbook practitioner's view that convertibles are a form of cheap debt or cheap equity, or the other academic theories examined in the interviews including risk shifting, sequential financing, or backdoor equity.

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1. Introduction

Exchange-listed companies have a wide range of possibilities when they seek to attract new sources of financing. Companies can use equity in the form of internally generated funds or issue new shares of common stock. Alternatively, they can use debt in the form of bank loans or bond issues. The use of hybrid securities represents yet another possibility. The most well-known hybrid securities are convertible bonds which, at the option of the holder, can be exchanged in shares of common stock of the issuing company. A large number of companies have used convertible bonds in the past. But, what motivates companies to issue convertibles? The well-known textbook of Hillier, Ross, Westerfield, Jaffe, and Jordan (2010) states that (p. 674): "*probably there is no other area of corporate finance where real-world practitioners get as confused as they do on the reasons for issuing convertible debt.*"[1] This paper aims to provide fresh insights into the motivations for firms to issue convertible bonds, by conducting in-depth interviews with corporate managers from Australia, Canada, and the United Kingdom.

According to the textbook of Hillier et al. (2010), practitioners generally argue that convertible bonds offer the possibility to issue equity at a higher price than the currently prevailing stock price and/or to attract debt at a low interest rate. These motives will be referred to in the remainder of this paper as the "practitioner" motives. The first claim is refuted by academics who argue that the conversion price cannot be compared to the current stock price. Academics also reject the second argument by arguing that the lower coupon interest on convertible bonds is caused by the fact that the holder gets the option to buy stock in the future. Since an option is a right and not an obligation, this option has a value, which is reflected in the lower coupon rates of convertibles.

The academic finance literature provides several theories on why companies issue convertible debt. Brennan and Schwartz (1988) argue that convertibles are useful when managers and outsiders disagree about the value of the firm. Green (1984) develops a theory in which convertibles are used in order to avoid the risk shifting problem. Mayers (1998) argues that convertibles are particularly useful for companies that have a need for sequential financing, and Stein (1992) argues that convertibles are used as backdoor

[1] This quote is from the European edition of the textbook. Exactly the same quote can also be found in other editions of this textbook.

equity by firms for which raising common equity would be too expensive. In this study, we directly ask financial managers the reasons for issuing convertible bonds, and in the process verify the validity of both the practitioner view and the four afore-mentioned specific convertible bond theories. In addition, we look at various other stakeholders of the company including investment banks and (potential) investors such as hedge funds.

Most existing studies on convertible bond issuance use quantitative, large sample analyses (see, for example, Davidson, Glascock, and Schwarz, 1995; Lewis, Rogalski, and Seward, 1999, 2001, 2003; Dutordoir and Van de Gucht, 2009). In addition, a limited number of papers use a survey approach to study motivations of convertible bond issuers (Pilcher, 1955; Brigham, 1966; Billingsley and Smith, 1996; Graham and Harvey, 2001; Bancel and Mittoo, 2004; Brounen, De Jong, and Koedijk, 2006). *A priori* it would be expected that these two approaches are highly complementary. The large sample studies provide interesting results on, for example, how the capital markets react to convertible bond announcements. Survey studies, on the other hand, should provide insights in what managers really think. However, their findings seem to contradict each other. Whereas most of the large sample analyses seem to support the earlier mentioned academic theories, most the questionnaire studies come up with support for the practitioner motives.

The main contribution of our paper is that the interview approach allows us to gain new insights on the question why companies issue convertibles that are not picked up with either large sample analyses or questionnaires. The main advantages of the interview approach compared to the survey method are threefold. The first and foremost advantage is that we first let the managers tell us the reasons for issuing convertible bonds, rather than restrict them to a specific set of theories and let them verify these theories, as is done in a survey study. This is the best way to find out the real reasons for issuing convertibles (such as, as the results turn out, the pecking order, market timing, and debt covenants considerations) which we actually do not know *a priori*. Second, interviews enable a direct interaction between researcher and interviewee. This interaction leads to more flexibility in the research design than when using survey analyses. In some cases, we find that the interviewee identifies reasons for convertible bond issuance not covered in our questions. For example, a number of participants

mention the fact that convertible bonds can be issued very quickly as an important factor guiding their security choice decision. This motivation was not mentioned in our questions, and would thus not have been picked up by a more structured analysis. Third, the interview approach enables a richer, more in-depth approach of the main research question. Instead of forcing managers to give schematic answers, they can give more subtle responses. For example, several respondents believe convertible bonds can be viewed as delayed equity, which may seem consistent with the Stein (1992) theory. However, the interview approach allows us to look at this theory from multiple angles – whether the same managers are equally happy if conversion does not occur; the importance and reasons for callability; whether the managers are reluctant to issue equity because of the adverse selection problem of equity issuance. Taken together, the evidence offers only weak support to the original backdoor equity theory, and managers do not actually have a clear preference between the "sweetened debt" and "delayed equity" motivations. Such answers are impossible to obtain via more structured approaches such as survey analyses.

Our paper also contributes to the recent literature on the impact of investors of the firm on security choice decisions. As argued by Baker (2009), corporate finance studies have traditionally focused on the corporate supply side, thereby implicitly considering the investor side as a black box with perfectly elastic and competitive demand. However, a number of recent articles show that corporate finance actions can also be influenced through investor demand channels (e.g., Faulkender and Peterson, 2006; Leary, 2009; Lemmon and Roberts, 2010). In the context of convertible bond offerings, the investor side is particularly interesting and relevant, since it has undergone two substantial changes over the past decade. Around the beginning of the 21st century, the convertible investor population shifted from long-only investors towards convertible bond arbitrageurs (mainly hedge funds), who buy convertibles and short the underlying stock. During the recent global financial crisis, in turn, the fraction of convertible bond arbitrageurs among convertible bond investors sharply declined and long-only investors came back into play. A number of recent studies have analyzed the impact of convertible arbitrageurs on convertible bond issuance volumes (Choi, Getmansky, Henderson, and Tookes, 2010; De Jong, Duca, and Dutordoir, 2010), convertible bond design (Brown,

Grundy, Lewis, and Verwijmeren, 2010; De Jong, Dutordoir, and Verwijmeren, 2010), and convertible bond announcement returns (Duca, Dutordoir, Veld, and Verwijmeren, 2010). One problem associated with these quantitative studies is that they cannot directly measure the actions of convertible bond arbitrage funds, since these funds do not have to provide publicly available information on their investment activities. Moreover, from an econometric viewpoint it is not easy to disentangle the impact of supply-related factors from demand-related factors. Our study contributes to this recent strand of literature by explicitly asking convertible bond issuers about the influence of convertible bond arbitrageurs on their security choice decisions.

The main findings of our analysis are the following. The most common reason for issuing convertible bonds is a combination of two factors: first, firms generally prefer debt to equity financing when debt capacity is available (and equity is perceived to be undervalued), and second, when straight debt is prohibitively costly (as when the market overweighs the risk of the firm), managers choose convertible bonds to reduce financing cost. This motivation accounts for seven out of the 13 firms in our sample. In another three cases where debt capacity is unavailable, convertible bonds are chosen over equity for different reasons. In the first case, equity is perceived to be undervalued; in the second case, equity is perceived to be dilutive; in the third case, equity is not preferred by the investors. Finally, for the remaining three firms, convertible bonds are issued instead of straight debt mainly because of the less stringent covenants with the convertible. Overall, some generic considerations for security issuance, including the pecking order (i.e., debt is preferred to equity), perceived market misvaluation (the undervaluation of the firm's debt and equity), and the flexibility associated with the convertible debt (less restrictive covenants), are the key motivations for companies to issue convertible bonds.

In contrast, many of the views in the current literature about why firms issue convertibles are not supported. First of all, the interviews clearly show that managers do not follow the practitioner's motives suggested by the textbooks. All managers are very well aware of the pitfalls of convertible bonds: they realize that the low coupon comes at a price and they also realize that conversion is not in their own hands. There is also very little support for most of the academic theories considered. There is no support at all for the risk shifting theory of Green (1984), and the sequential financing theory of Mayers

(1998) only receives very limited support. Although several respondents mention "delayed equity" as a motive for issuing convertibles, other aspects of the managers' answers suggest that managers are practically indifferent between the "sweetened debt" or delayed equity roles of the convertible, the reason for the call provision is often not to increase the equity share of the capital structure, and adverse selection effects of equity issuance are never cited as a reason for not issuing equity. Therefore, the Stein (1992) theory receives at best weak support. The management-investor difference in opinion theory of Brennan and Schwartz (1988), on the other hand, resonates with the managers fairly well. In fact, five out of six managers agree with this theory's implication that when investors overrate the risk of the firm, issuing convertible can reduce the cost of financing compared to issuing straight debt because of the increased value of the conversion option.

In addition, managers also time the market and when funds are not pressing and they have flexibility with timing, they issue convertible debt when there appears to be a "window of opportunity" in terms of the increased stock price of the firm or the temperature of the overall convertibles market. Managers check closely the demand of investors, most often via the investment banks. One of the managers puts the role of investor demand this way: "*Well, I read through the questions, it was as if the people who are asking for the money have all the choices (..). It is the market. If I want to sell oranges, I have to sell oranges that I know the people want to buy*".

The role of arbitrageurs is special in convertible bond issuance, even though their relative importance as compared to the "long-only" investors has declined since the start of the recent global financial crisis. Managers have mixed feelings about hedge funds. On one hand, they are often concerned about the arbitrage activities (i.e., buying the convertibles and shorting the stock) pushing down the stock price before the issuance or before the maturity of the convertible bonds, and sometimes monitor the hedge fund effects on stock trading via investment banks. When the convertible bonds are over-subscribed, managers may strategically allocate a limited proportion of the offer to hedge funds and a majority of the offer to the rest of the investors. On the other hand, they like the fact that the presence of hedge funds enhances liquidity and enables expedited issuance of the convertibles.

The remainder of this paper is structured as follows. Section 2 provides the theoretical background on the potential motivations for firms to issue convertibles. Section 3 presents the methodological basis for our study and Section 4 describes the selection of the interviewees and the way that we conducted the interviews. An overview of the most important results is presented in Section 5. The paper concludes in Section 6.

2. Literature review

Academic theories explaining convertible debt issuance are generally based on agency costs and asymmetric information models. Brennan and Schwartz (1988) develop a theory in which the managers of the firm and outside investors disagree on the risk of the firm. Managers consider the firm to be of medium risk and the market considers the firm to be of high risk. Issuing straight debt in such a situation would result in the firm paying an excessively high coupon interest rate. This would not be the case with issuing convertibles, since a higher risk translates into a higher value of the conversion option. Brennan and Kraus (1987) develop a model that is based on the same principle: managers and outside investors disagree on the risk of the assets in place. Here the solution is also found by issuing convertibles, similar to the model of Kim (1990).

Green (1984) focuses on the risk of the firm's future projects instead of on the risk of the assets in place. After issuing straight debt, shareholders have an incentive to increase the riskiness of the firm. The reason is that they capture the entire upside potential of a risky strategy, whereas they bear only part of the risk thanks to their limited liability. Convertible bonds offer a means to align the incentives of bondholders with shareholders.

Stein (1992) argues that convertible bonds can be used as "backdoor equity financing". He models convertible debt as a suitable financing instrument for firms that have to issue and equity-type security because of prohibitively high financial distress costs, but that want to avoid some of the adverse selection costs that would be associated with common equity financing. Since convertibles have a smaller equity component than shares, convertible issuance is less likely to be perceived as a signal of firm overvaluation, thus inducing smaller adverse selection costs. Stein (1992) provides a crucial role for the call provision in convertible debt. By calling their outstanding

convertibles, issuers can force the bondholders to convert their bonds into shares in the near future, and thus obtain delayed equity financing. This argument is not the same as the practitioner's argument that convertibles can be used to issue equity at a higher price than the current stock price. The practitioner's argument is based on a misconception from the management side. Stein's model is based on rational managers, who act in a situation where the firm is misvalued due to asymmetric information.

Mayers (1998) argues that convertibles can overcome the free cash flow problem described by Jensen (1986) by providing funds at the start of the project and by attaching an investment option for future financing. Similar in spirit are the models of Isagawa (2000), Cornelli and Yosha (2003), and Wang (2010).

A number of quantitative studies have tested the validity of the above rationales (see e.g. Davidson, Glascock, and Schwarz, 1990; Lewis, Rogalski, and Seward, 1998, 2001, 2003; Loncarski, Ter Horst, and Veld, 1998; Dutordoir and Van de Gucht, 2009). Overall, these studies suggest that, thanks to the flexibility in the convertible debt design, convertibles can be used both as an alternative to debt and as backdoor-equity, albeit not by the same firm types.

Besides the quantitative analyses, there are also a limited number of studies that examine the validity of the traditional motives for the issuance of convertibles and the academic motives. Early U.S. based survey results of Pilcher (1955) and Brigham (1966) are mainly consistent with the traditional motives. Graham and Harvey (2001) survey 392 U.S. CFOs about the factors driving their capital structure decisions. They find that the majority of the participants view convertible bonds as an inexpensive way to issue delayed common stock. This finding can either imply a support for the traditional (and academically wrong) argument for issuing convertibles or for the theory of Stein (1992). Graham and Harvey (2001) find only moderate support for the rationale of Brennan and Schwartz (1988) and no support for the theory of Green (1984).[2] Brounen, De Jong, and Koedijk (2006) replicate the Graham and Harvey (2001) survey analysis among 313 CFOs of U.K., French, and German companies, and obtain very similar findings. Bancel and Mittoo (2004) conduct a survey among 29 CFOs of companies domiciled in eight

[2] Graham and Harvey (2001) do not test the theory of Mayers (1998).

different European countries. They obtain moderate support for the rationales of Brennan and Schwartz (1988) and Mayers (1998) and no evidence for the asset substitution hypothesis of Green (1984). They find strong support for the backdoor-equity hypothesis but, like with the Graham and Harvey (2001) study, it is not clear whether this is support for the traditional argument or for the theory of Stein (1992).

3. Methodological basis for our study

This paper is based on a series of interviews with managers of companies that have issued convertible bonds. The use of interviews is common in most business disciplines, such as Accounting, Management, and Marketing.[3] However, in Finance interviews are much less popular. This is remarkable, since one of the few interview papers, the dividend study by Lintner (1956), still forms one of the cornerstones of the literature on dividend policy. Lintner (1956) interviewed 28 managers of carefully selected companies on their dividend policy. Based on the outcome of these interviews he constructed his model on dividend policy in which companies base their dividends on a long-run target payout ratio. This model has well stood the test of time. Another path-breaking interview study is the book of Donaldson (1961). He studies the debt-equity choice using a number of techniques, including interviews with managers of 25 Chief Financial Officers (CFOs). His research was the basis for the pecking order theory (see Myers, 1984; Myers and Majluf, 1984). Cools (1993) carries out a field study in which he interviews 50 CFOs of large Dutch companies about the capital structure of their companies. Dong, Robinson, and Veld (2009) interview professional investors about the question why they want dividends. Veld (1994) also uses interviews in his study on why companies issue warrant-bond loans. However, in his study they are only used on the side. The main focus of that study is the use of questionnaires. Recently, a similar approach has successfully been used by others in top finance journals (see Graham and Harvey, 2001; Brav, Graham, Harvey, and Michaely, 2005). These studies also use questionnaires and do interviews on the side. The interpretation of interviews in their studies is mostly included in footnotes.

[3] See, e.g., Gummesson (2005) for an overview of qualitative research in marketing. An example of a study in accounting that uses interviews is Gibbins, Richardson, and Waterhouse (1990).

The methodological basis for the current project is provided by Glaser and Strauss (1967) and is called grounded theory. Grounded theory is a qualitative method that embodies the commonsense basis for most social science research. Bettner, Robinson, and McGoun (1994) explain how qualitative research such as grounded theory can provide valuable contributions to finance research. The earlier mentioned paper by Lintner (1956) is an example of grounded theory.

4. Selection of interviewees and interview procedure

4.1. Selection of interviewees

Our study focuses on convertible bond issuers domiciled in Australia, Canada, and the United Kingdom (U.K.). We select these three countries for the following reasons. First, the countries are relatively homogeneous in terms of capital market characteristics. As outlined in La Porta, Lopez-de-Silanes, Shleifer, and Vishny (1997), they all have a common-law system with equal shareholder protection rights (Antidirector Rights Index value of 4). However, the level of creditor protection differs between Australia and Canada (which both have a Creditor Protection Index value of 1) and the U.K. (Creditor Protection Value of 4). Second, previous studies on convertible bond issuance in the U.K. (Abhyankar and Dunning, 1999, Wolfe, Daliakopoulos, and Gwilym, 1998), Canada (Loncarski, Ter Horst, and Veld, 2008, 2009), and Australia (Magennis, Watts, and Wright, 1998; Suchard and Singh, 2006) document that all three countries have well-established, reasonably sized convertible bond markets, which provides us with a sufficiently large pool of firms to contact for interviews. A third motivation is practical in nature: all three countries are English-speaking, which substantially reduces potential misinterpretation of interview answers due to language barriers. Moreover, all three countries are easily accessible by one or more of the authors of this study.

The original intention of this paper was to do 15 interviews with managers of companies that issued convertibles in three different countries: Australia, Canada, and the U.K. The idea was to have the interviews equally divided over these three countries. We started the selection of the companies by downloading a list of all convertible bonds issued by companies in the aforementioned three countries between January 1, 2005 and

April 30, 2010 from the Thomson One Banker New Issues Database. We focus on relatively recent offerings since for those offerings it is more likely that the persons responsible for the security choice are still employed in the company and also still have a good recollection of the decision-making at the time of the issue. Since we had a preference for face-to-face interviews, we had some limitations for all three countries in order to keep travel costs manageable. Therefore we limited ourselves to Australian companies that were all from the area in and around Melbourne, Canadian companies in the Greater Toronto area, and U.K. companies based in London or in the Midlands. In total we approached 43 companies that fit the above mentioned conditions (10 in the U.K., 14 in Australia, and 19 in Canada). All these companies were sent letters on official university letterhead paper. The letters were generally addressed to the CFO, but in a few cases we could not find the CFO, and we addressed the letter to the CEO, the Chair, or a financial spokesperson that we identified from the website of the company. These letters were followed up by a combination of telephone calls and e-mails. In total 13 companies participated in an interview (five in the U.K., three in Australia, and five in Canada). That is a response rate of 30.2%. The response rate was highest in the U.K. (50%), followed by Canada (26.3%), and Australia (21.4%). The reasons for companies not to participate were very divers: in some cases the person(s) responsible for the decision had left, in other cases the managers did not want to spend time on this project, and in a few cases the reason for not participating was not explained. In several cases we never received an actual rejection, but we gave up after several telephone calls and e-mails were either not answered, or we were promised several times that the company would get in touch which never materialized.

4.2. Interview procedure

We follow a semi-structured interview approach. We first compiled a list with interview questions based on convertible bond issuance motivations suggested by the literature. The list has been revised and edited multiple times until all three authors of the paper agreed on its clarity and relevance. The length of questions is such that we should be able to complete each interview within one hour. The reason for this time limit is that we did not

want to take up more time from the companies than necessary (in order to limit the no-response bias) and also to avoid loss of concentration.

The interviews were conducted on-site by one of the three co-authors of this study between December 2009 and July 2010. The first interview was carried out by two co-authors (one was present in the face-to-face meeting and the other participated by phone). While we directed most of the letters to the CFO, some of the companies referred us to another knowledgeable party involved in the transaction. In 10 out of 13 interviews, we interviewed the company CFO, in two cases we interviewed the company Treasurer, and in two cases we interviewed the company's Vice President. In one out of the 10 interviews with CFOs involved, the CFO was accompanied by the Senior Director of Corporate Finance and Investor Relations.

The interviews took between slightly less than half an hour and slightly more than an hour, depending on the length of the answers and the availability of the interviewee. We gave most interviewees the chance to look into the questions beforehand (by sending the questions by e-mail), and most of them used this option. Interviewees were guaranteed anonymity.

Shortly after conducting the interviews, the interview tapes were transcribed by a professional native English speaking transcriber. We used two transcribers for all interviews. Subsequently, the interview transcripts were thoroughly checked by the person that conducted the interview for any remaining errors or omissions.

5. Results

We summarize the main findings from the interviews in Table 1, and discuss the salient results in this section.

5.1. Why do firms issue convertible bonds?

We first asked the managers why they issued convertible bonds. Even though support for the specific theories on why companies issue convertibles is limited, there seems to be much more support for two general capital structure theories: the pecking order theory and the market timing theory.

5.1.1. The pecking order theory

A theme that emerges from all responses is that, whenever debt capacity is available (10 out of 13 firms), the convertible issuers all follow the pecking order of financing: firms prefer debt to (external) equity financing. For example, one of the executives states: "*shareholders would have not ordinarily been expecting you to finance an acquisition with equity when you have a perfectly acceptable under-stressed balance sheet*". Similarly, another executive (from the same country) made clear that "*I think for us the first priority was always likely to be issuance in the corporate bond market in terms of plain vanilla debt*". In another case, an executive from a different country explained that "*we didn't use equity because we felt a lot of available leverage on our balance sheet*". The general preference for debt over equity is consistent with the finding of a recent study by Lemmon and Zender (2010) who show that when firms have debt capacity, they tend to follow this pecking order for external financing. In the remaining three firms, debt is not a viable option, and the pecking order is not applicable to these firms.

5.1.2. The reasons for choosing convertible debt

When we pool the responses together, we can classify the reasons for the firms to issue convertibles in three categories.

The first category is most common and includes seven firms (involving eight convertible issues, because one firm had two separate convertible bond issues). In these cases the firm could consider debt, and normally would prefer debt to equity financing – the pecking order preference. However, at the time of financing, straight debt became prohibitively costly or the debt capacity was close to full, and convertibles were less costly than straight debt. Also, equity was not preferred to convertibles, either because equity was viewed as more costly than convertibles. The latter reasoning could be based on the belief of management that the stock was underpriced (three companies) or that new equity would lead to dilution (three companies), or simply because of the lower priority of equity according to the pecking order (one company).

The second category includes three firms and is similar to the first in that the firm would have preferred debt to equity financing, but straight debt (either bank debt or corporate bond loans) was not accessible to the firm, which left the firm with the choice

of equity or convertible debt. Again, convertible bonds were preferred to equity, either because equity was viewed as more costly than convertibles owing to the belief of management that the stock was underpriced (one company) or the level of dilution of an equity issue (one company), or because of the flexible nature of convertible debt which gives its holders the *option* to convert to equity rather than straight equity (also one company).

Finally, three firms choose convertible bonds because of the less restrictive covenants associated with convertibles compared to straight debt. For all three firms in this category, there was still debt capacity in the firm and debt was preferred to equity to follow the pecking order. One firm could have used a subordinated bank facility which was free of restrictive covenants, but the cost analysis gave an advantage to the convertible bond after a run-up in the firm's stock price. For the other two firms, which were both in Canada, convertibles had the added advantage over equity of being able to repay in stock rather than cash at the issuer's choice – a Canadian practice.

5.1.2. Market timing – the impact of stock valuation on security choices

The interviews show that the valuation level of the firm's own stock is also an important ingredient for the choice of convertibles. This result means that market timing plays a role.

When asked whether the stock price level of their company affected the decision to issue convertible bonds, almost all respondents agreed that the stock price level was important for their decision. Six firms believed that their shares were underpriced. Another three companies believed that issuing equity would be too dilutive to the shareholders. In an efficient market, if a company issues equity to fund a positive NPV project, the new shares should bring along value and there should be no dilution to the shareholders. Therefore, the fact that the executives believe equity issuance would be dilutive suggests that their shares were underpriced. Taken together, nine out of 13 firms perceived their stocks as being underpriced. Although our sample of executives is from firms that have issued convertibles, the statistics compare similarly to Graham's (1999) finding that two-thirds of the executives feel that their common equity is undervalued and only 3% think their stock is overvalued.

Consequently, an underpriced firm would prefer to issue convertibles to equity because they should expect their share price to increase. As one executive puts it: "*Yes, you know if you don't like issuing your shares at at a low price then at least do a convert. If you're unhappy with your share price the last thing you want to do is to issue equity unless you really have to. It's a desperation measure*".

Four respondents viewed their stock's recent rally as a window of opportunity to issue convertible bonds at lower cost. Another five believed that a high stock price or conversion premium was helpful for issuing convertibles.

Taken together, all but four executives believed their stock was underpriced at the time of the issue, and every respondent in our interviews believed that stock valuation levels affected the convertible bond issuance decision. Even if we relax the assumption that a concern about dilution implies equity undervaluation, all but one executive believed that stock valuation was important for convertible bond issuance. This result compares with the finding of Graham and Harvey (2001) that 66.9% of executives in their survey considered under- or overvaluation as an important factor for issuing common equity.

Another aspect with market timing is that all but three issuers indicated that they looked for the "window of opportunities" and issued convertibles when they felt the market was hot for the convertible debt instrument. The three issuers that did not seek such windows of opportunities were all clearly in financial distress and needed the funds right away. Therefore, whenever firms had the financial flexibility about when to issue, they all timed the issuance when the convertible bond market was hot.

To summarize, three features determine the choice of convertible bonds over straight debt or equity for our sample firms. First, there was a clear preference of debt to equity financing, if the firm still possessed debt capacity. Second, convertible debt was preferred to straight debt, either because of the lower perceived cost or because of the less restrictive covenants of the convertibles. Third, when straight debt was not accessible to the firm, the managers preferred convertible bonds to equity because of the lower cost of convertibles or because of the flexibility of convertibles (less restrictive covenants) compared to equity. It follows that convertible bonds were the preferred financing method.

5.2. Traditional motives

We asked whether managers still believe the traditional motives that are mentioned e.g. in the textbook of Hillier et al. (2010). We find that most respondents mention that they are happy paying a lower interest rate on convertible bonds than they would otherwise have had to pay on straight debt. Most managers are also happy with the idea of selling equity in the future at a higher price than the current stock price. However, these results do not really mean that the managers believe that convertible bonds are a cheap source of capital or a sale of equity at a higher price. They all seem to be aware of the fact that the coupon is lower because of the conversion privilege and most of them realize that ultimate conversion is not in their own hands. As one of the managers states: "*Our reason for issuing was, because it was an attractive source of finance. Actually, it gave us a coupon of 4%, whereas if we had done a straight bond of similar maturity, the coupon would have been near 10%, so it does significantly lower our cash cost of interest. Obviously, there is an equity element in there, which is attractive to investors and that is why you get the cheap coupon, of course*". The managers are also very well aware of the fact that the decision to convert or not lies with the holder of the convertible bonds and not with themselves. One of the respondents argues: "*I assume that it won't convert, because that is the cautious thing to do*".[4]

Some managers use some of the traditional arguments, but at other points in the interview they clearly show that this argument is not the driving force and they are aware of the trade-off between a lower coupon and more advantageous conversion privileges. For example, one manager argues about the case where the convertible gets converted: "*So, everyone is happy in that case, it's equity and if it's not, it doesn't convert, then it's been very cheap debt (..) you're sort of in a win-win situation*". However, earlier in the interview he shows that he is aware of the pitfalls in the convertible bond market: "*I've always looked at, as the CFO, that the convertible market is one of those markets that it's a dangerous market to go into if the market is cold. It opens up and when there is a window open, you can get very attractive terms and you can pay very low interest*

[4] There is one exception, where a manager states: "*We view it as safer debt, subordinated debt, that we can always repay in stock*".

coupons." The overall conclusion about the traditional motives is that they do not seem to explain the reason that these companies decided to issue convertibles.

5.3. Convertible bond theories

During the interviews we mentioned the four main academic theories on why companies issue convertible bonds: the risk shifting theory of Green (1984), the argument of Brennan and Schwartz (1988) that convertibles are suitable when there is a disagreement between the company and the market on the riskiness of the firm, the sequential financing theory of Mayers (1998) and the backdoor equity financing theory of Stein (1992). We then asked the managers whether they felt whether any of these theories applied to their own motive to issue convertibles.

Five out of the six respondents consulted with the Brennan and Schwartz (1988) theory felt that the theory's argument applied to them. Responses that we received included: "*This risk of the company to an extent was reflected in the market wanting 11% from us, because they thought (..) we're not convinced that they can re-finance. There is all sorts of things going on, lots of chatter*". Another manager believed that excess risk assessment of the investors can lead to high volatility of the stock, which in turn makes convertibles more preferable: "*For sure, if you think there is going to be volatility in the future and you think that future projects are going to increase the risk profile; investors will probably stay away from your stock because they don't want to lose value. … For sure, if there is uncertainty I think convertible debentures are a bit of an easier sell than equity for sure*." In fact, the fundamental assumptions of Brennan and Schwartz (1988) are remarkably similar to market timing on the debt side: the theory assumes that investors underprice the firm's debt (i.e., overestimate the yield of its bond), and overestimate the firm's risk and stock volatility, leading to the high valuation of the conversion option, which makes the convertible bond preferable to straight debt. Furthermore, if we combine the theory of Brenan and Schwartz (1988) with the pecking order (or undervaluation of the firm's stock), we can also explain why the convertible is preferred to straight equity, thereby explaining 10 of the 13 convertible issuers in our sample (the first two categories mentioned in Section 5.1.2).

The other debt-related argument, the theory of Green (1984), did not receive support from any of the seven respondents who we checked this theory with. Some companies did not see debt as an alternative, and those that did consider debt, did not find the argument valid. The latter group included a respondent who argued that their arguments were more pragmatic. Another respondent was not convinced that shareholders prefer higher risk. This result confirms results from earlier questionnaire studies that find that there is very little support amongst practitioners for the theory of Green (1984).

The sequential financing theory of Mayers (1998) was similarly not confirmed by the respondents. Out of eight executives consulted with this question, only one provided a reasonable account for why this theory might be relevant to the issuing firm: "*Yes I think that makes sense because if you don't convert you effectively give yourself more leverage for a longer period of time. If you've got an investment opportunity you're willing to sacrifice the equity dilution because you're going to have some other projects that are going to yield more earnings which will offset that dilution*."

The backdoor equity theory of Stein (1992) appears only supported by at best three out of 13 issuers. The three cases provide a rather loose support for the theory because strictly speaking, under this theory the issuer is reluctant to issue equity because of the adverse selection problem of equity issuance (Myers and Majluf, 1984). In reality these respondents did not want to issue straight equity because of stock underpricing. None of the respondents believed that the adverse selection problem of equity issuance is a reason for delaying equity issuance. For example, one of the respondents made an interesting remark when he argued against the adverse selection problem in issuing equity: "*I think rather than play guessing games, I just think I would rather crystallize the cash on an equity deal if I thought my stock was overvalued. Because, if the stock trades and then it comes down to where it should be, I really haven't taken advantage of that inflated stock price*". In addition, in one of the three cases, the executive could not recall whether the convertible was callable, while callability is very important under Stein's (1992) theory. Although several executives concurred with one prediction of the theory – that firms use convertibles as a delayed equity technique, the executives would feel

equally happy with not converting into equity, in which case the convertibles serve as a cheap debt. Also, the Stein (1992) theory was not supported when the callability feature was viewed as a means to refinance at a lower cost instead of specifically getting equity on to the capital structure.

5.4. The demand side of the market

Most of the academic literature on motives for companies to issue convertible bonds studies the topic from the supply side of the market. Apart from the recent papers on convertible arbitrage, there is little attention for the demand side of the market. However, as already shown in the previous two sub-sections, the interviews show that the demand side of the market is very important for the company decision to issue convertibles. After we discussed the theoretical motives with one manager he remarked: "*Well, I read through the questions, it was as if the people who are asking for the money have all the choices (..). It is the market. If I want to sell oranges, I have to sell oranges that I know the people want to buy*". Also other respondents strongly emphasize the demand side of the market: "*We thought the market opened up to this convertible debt type of instrument on very favorable terms and we decided to take advantage of it and seize the opportunity*" and *"The demand was there on the convert side*".

Strongly related to this discussion is the fact that most of the companies in our study indicate that the advice of the investment bank played an important role in the decision to issue convertible bonds. Ten out of 13 companies call the role of the investment bank important. Only one company does not find the role of the investment bank to be important. Some of the respondents argued that investment banks have an incentive to "push" convertibles, because they are easy for them to arrange: "*Well, I think any CFO is continually being chased and annoyed by the banks to issue convertibles, because convertibles are very easy for the banks to do. It is a relatively standard process. Compared to raising straight equity or straight debt it is quite good fees for not much effort*". The reason that convertibles are "an easy deal" for investment banks is that they are largely placed with hedge funds. Hedge funds have the ability to decide on a convertible bond issue in a time period of an hour. As one respondent commented: "*Don't forget that it is a community that can make a decision in a heartbeat. So, that was*

one of the reasons why you could announce one of these deals at 9 am and price it at 10.30 am, because the hedge funds don't have to see management and do a credit committee, and decide how much they want to buy, which is sort of a process you go through in a regular bond road show, which might take 2 or 3 days". The same respondent also mentions the related advantage that a convertible bond deal does not take much of the management's time. This situation is different with a straight bond issue, which takes much more time and, hence, requires a lot of indirect costs compared to a convertible bond issue.

Most of the companies (11 out of 13) indicate that hedge funds were involved as buyers of their convertibles. However, only two companies thought that the hedge funds would take up more than 50% of their issue. The latter result is remarkable, since the majority of the convertibles were placed before the financial crisis. Previous academic studies and the financial press often mention that in this period some 70-80% of all convertibles were placed with hedge funds.[5] This result means that either the companies that we interviewed allocated less convertibles to hedge funds than the average company or that the companies do not realize how large the influence of hedge funds for their particular issue was. Interestingly, two companies mentioned that if they have the discretion in allocating the convertible issues (i.e., when the issue is over-subscribed), they would impose a limit of about 25% to the hedge funds, and allocate the rest of issues to long-only investors.

We also asked the managers about their experiences with hedge funds. Most companies were very happy with the speed of issuance (see the earlier quote). Besides that, almost all respondents mention the liquidity provision of hedge funds as an advantage. On the other hand, virtually all companies considered the potential short selling of their stock by the hedge funds as a disadvantage of the participation of hedge funds in the issues. However, most respondents were *"not overly concerned*". Some companies accepted it as a fact of live: "*You are always worried about that* (the role of hedge funds)*, but you can do nothing about that. The whales swim in the sea and you have to swim in the sea too*" or "*That was definitely something we thought about and were aware of, but we talked through that phenomenon with our bankers and we thought*

[5] See, for example, Brown, Grundy, Lewis, and Verwijmeren (2010).

that it was going to be a short term blip only and we concluded that we weren't going to let that stop us from doing the transaction, so it wasn't really a big issue for us". Other companies had the investment bank checking for the potential impact of the short selling: "*I think we were very nervous about it, we were cautious and we did take a lot of advice on the impact of it*". Another company mentioned about the conclusion of the investment bank: "*their view was there wasn't a lot of shareholders who were prepared to borrow or lend stock*".

5.5. Convertible bonds and warrant-bond loans as alternatives

Finance textbooks generally present convertible bonds and warrant-bond loans as alternatives. However, in practice the market for warrant-bond loans seems to have become moribund. This phenomenon is remarkable, because from a theoretical point of view there are advantages to warrant-bonds over convertible bonds for both issuers and investors. Issuers can fix a different amount of nominal debt and potential equity in case of a warrant-bond loans. Buyers of warrant-bonds have the option to separately trade the bonds and the warrants.

The remarkable result from the interviews was that only one company did consider warrant-bonds as an alternative. The other 12 companies all argued that warrant-bonds were not a valid alternative. Virtually all these companies argued that the market would not be interested in buying warrant-bond loans. Representative answers to the question "Did you consider the combination of warrants and bonds as an alternative for a convertible bond issue?" were: "*People start to wonder why you are doing it. Why don't you just do a straight convertible like most people do?"* and "*No. I think that the convertible bond was a better understood instrument. It was easier to sell, to be honest*". Many of the answers to this question also hinted at the important role of the banks as sellers of the instruments, for example: "*The banks don't tend to market it too much*" and "*No, I think that it was a matter of that wasn't what the banks were selling".* These answers emphasize the importance of the buy-side of the market and also of the banks as intermediaries in this market. Also, the only company that considered warrant-bond loans considered them because they received an offer from an investment bank in another country to place an issue of warrant-bond loans with them. In the end they declined that

offer, because they conditions of the convertible bonds were better than the warrant-bond loan offer.

The responses also reveal several more in-depth insights. One executive suggested that debt holders typically do not like their bonds to be callable but on the other hand not convertible to equity. Perhaps more importantly, three executives believed that the investors of convertibles normally form a unique pool that is distinct from straight debt and equity investors. Therefore, the potential buyers for convertibles are different from the buyers of straight bonds or the buyers of warrants. One implication of this, as pointed out by two executives, is that with the component alternative, the issuer cannot force conversion of the debt into equity and get rid of the debt, because the warrant holders and debt holders are often different. The firm would need to raise new capital, for example through new equity sales, to repay the debt, which would be more costly than the conversion of the convertible bonds. Therefore, the separate debt and warrant approach would introduce more uncertainty to a firm's capital structure.

Another reason provided by one manager is that warrants are viewed by investors as "sweeteners" and when issued in combination with straight debt, send a negative signal to the market that the issue is an unusually difficult one. Still another reason given by one firm is that warrants do not have much value for a firm that pays high dividends on a regular basis because the stock price is quite stable; the true value of convertibles for such a firm is not the value of the conversion option, but rather the less restrictive covenants associated with convertibles compared with straight debt.

5.6. The expected stock price reaction at the convertible bond announcement

We also asked respondents whether the expected stock price reaction at the convertible bond announcement played a role for them. This stock price reaction consists of two components. The first component is a permanent stock price decline related to the signaling content of convertible bonds. Since convertibles encompass an equity component, their announcement may be interpreted by the market as a signal of firm overvaluation (Myers and Majluf, 1984). Consistent with this interpretation, many early event studies on convertible bond announcement effects find a negative stock price reaction in the order of -1.5% on convertible bond announcement dates (see Eckbo,

Masulis, and Norli, 2007 and Abdul Rahim, Goodacre, and Veld, 2010, for reviews of the literature). A second component is a stock price decline due to the short selling transactions of convertible bond arbitrageurs around the convertible bond issuance date (which falls shortly after or together with the announcement date for most recent offerings). As shown by Duca, Dutordoir, Veld, and Verwijmeren (2010), part of this stock price decline reverses shortly after the convertible bond issuance.

Our motivation for asking this question is to assess whether managers are aware of these two components in the stock price reaction to convertible bond offerings, and to verify to what extent the expectation of a negative stock return around the convertible bond announcement has affected their decision.

As mentioned before, most respondents were not very concerned about the expected shorting by hedge funds, since the shorting behaviour would at most only result in a "*short-term blip*" (one respondent referred to the stock price decline as a *"technical sag"*). Of course, there could be a selection bias in these answers, in the sense that firms that refrained from issuing convertibles out of fear for the shorting behaviour of arbitrageurs would obviously not be interviewed.

In general, the interviewees seem to put remarkably little weight on the announcement period stock price returns. Two respondents explicitly state that they "*can't remember*" the stock price reaction, since they focus on the long-term and not on the short-term.

Apart from analysing the responses to this question, we also calculate the actual abnormal stock returns on the announcement dates for the convertibles covered in the interviews. We retrieve the exact announcement dates of the offerings from the Factiva database, and the stock prices and associated market indices from Datastream. Stock prices are available for all companies except one. We calculate abnormal stock returns using a market model for estimating normal returns. We estimate this model over the window raning from trading day -200 to trading day -60 prior to the announcement date. Overall, we find an average (median) abnormal return of -1.40% (-2.71%) on the announcement date, and an average (median) abnormal return of -2.35% (-3.27%) over the extended window (-1,1) around the announcement date. These returns are consistent

with findings reported by other event studies on convertible bonds.[6] There is a large variation in the abnormal stock returns. Two sample firms realize exceptionally high abnormal stock returns (day-0 abnormal returns of 6.94% and 6.43% respectively). The first company states that this result can be attributable to the fact that the market was worried about the ability of the firm to refinance its existing debt. Announcing the convertible eliminated this market worry, resulting in a very favourable stock price reaction. The second interviewee states that its very positive market reaction stems from the fact that the convertible bond announcement was (deliberately) packed together with the announcement of positive company news (a positive trading update). We checked Factiva, and this was indeed the case.[7] A number of sample firms, in turn, realize highly negatively announcement returns. It is remarkable that the CFOs of the two companies realizing the most negative announcement-date abnormal stock returns (-6.28% and -4.45%) declared during the interview that the stock price reaction to their offering was *"pretty positive"* (first interviewee) and *"flat"* (second interviewee).

5.7. The limit of convertible debt financing

Although we did not ask directly this question, five issuers stated or implied that convertible bonds should not exceed a certain proportion of the capital structure. One reason is that the convertible issuer does not have control over whether, when, and at what price the debt will be converted into equity. This is especially true when there is a heavy involvement of convertible arbitrageurs, because they can short sell the firm's stock, while at the same time buying the convertibles. Five executives recognized that hedge funds are often short-term holders of convertibles and can create extra uncertainty and price pressure for the firm. Two firms explained that hedge funds are interested in

[6] These results are somewhat more negative than those reported in previous studies for Canada, the United Kingdom, and Australia. For the United Kingdom, Abhyankar and Dunning (1999) find an average abnormal return of -1.21%, for Canada, Loncarski, ter Horst, and Veld (2008) find an abnormal return of -0.54%, and for Australia, Suchard (2007), Fenech (2008), and Arsiraphongphisit (2008) find an abnormal return of respectively -0.40%, 0.69%, and -0.61%. The reason that our average is lower can either be caused by the very small sample, or by the fact that we look at a very recent period. In a study for the United States, Duca et al. (2010) find decreasing abnormal returns associated with convertible debt announcements. They attribute their result to the effect of hedge funds that short the underlying stocks.

[7] In a study on announcement effects of convertible bond loans and warrant-bond loans in the Netherlands, De Roon and Veld (1998) also find that convertible bond offerings are often packaged together with other good company news. They argue that this observation explains the more positive announcement effects for Dutch hybrid debt compared to other countries.

driving down the stock before the announcement of the convertible issue (by speculating about the issue) and making the firm sell the conversion option cheap to them.

Another suggested reason a firm should be careful about the use of convertibles is that the conversion often takes place at a non-optimal time for the firm, as reflected the following comment: "*It's very often the case that when markets are in a growth phase and certainly for an industry like ours which is very much linked to the economic cycle then your own share price is performing and your own cash generation is performing and you don't necessarily need to convert equity at that point. So, the conversion of the bond can come at the wrong time*."

Finally, one manager explained that convertible debt should not take a big proportion of the capital structure (10% is about right). If that limit is exceeded, the stock will trade like a convertible rather than a regular stock, as he explained: "*If you suddenly have a very positive thing you'll find a lot of people will obviously be buying but you'll have that the response will be damped slightly and vice versa on the negative side you'll find people buying and this is just to offset their trading position against the convertible so you may see more volumes but the volatility will go down slightly if your convertible is too big a part of your corporate capital structure*."

5.8. Other topics

We asked whether accounting and/or taxation played a role in the decision to issue convertible bonds. All respondents argued that there was no fundamental role for either taxes or accounting. At best these factors were considered as side-issues. Five respondents argued that both accounting and taxes did not play any role. Six companies argued that accounting played some role and seven companies argued that taxes played some role

We asked seven companies whether industry peers played a role for them in the decision to issue convertible bonds. None of the seven companies indicated that industry peers played any direct role. However, the managers do use other convertible bond issuers (generally not in the same industry) as one indication of the temperature of the convertible bond market.

We also asked 12 companies whether the bonds were callable and whether the callability provision was important for them. One company did not know whether their bonds were callable. One company's bonds were non-callable, because they did not feel like paying for the callability provision. From the remaining ten companies, five indicated that this provision was important for them, mostly because of the flexibility that it provides: the call option allows the company to get rid of the debt part of the convertibles, or issue debt at a lower cost, or create debt capacity to issue more debt to finance investment projects such as mergers and acquisitions. For the other companies, the provision was much less important.

It was remarkable that many of the companies we talked to were in some kind of financial distress, which is what led them to convertibles. Three of the companies indicated that debt was not a serious option for them, because banks would not lend money to them and the bond market was closed for them. At the same time equity was not always a viable option, because of the (perceived) undervaluation or dilution of the stock, or because investors preferred a convertible security rather than straight equity. For this reason some of the companies ended up with convertibles. For the remaining 10 companies, four did not have a credit rating, three had a speculative rating, two had a low-investment grade rating from Moody's (Baa) and one had a National Association of Insurance Commission rating of NAIC2, which according to the manager, roughly corresponds to a low-investment grade rating. Two managers directly made the remark that convertibles should not be used for firms with high credit ratings or with no constraints. To the best of our knowledge there is not any theoretical literature on the role of convertible bonds for companies in financial distress. Our findings might trigger such a new string of research.

6. Summary and conclusions

In this paper we use interviews to study why companies issue convertible bonds. The interviews show that the managers in our sample are very well aware of the pitfalls of using convertible bonds. They realize that the lower coupons compared to straight debt are caused by adding the convertibility option. They are also aware of the fact that conversion is not up to them but to investors. There is very little support for the academic

motives for the issuance of convertible bonds, with the exception of the Brennan and Schwartz (1988)'s theory that companies issue convertibles when management and investors have different opinions about the firm's risk. In contrast, there is a strong support for more general security issuance theories such as pecking order and market timing. Another interesting finding is that the decision to issue convertible bonds seems to also be driven by investor demand. Especially the presence of hedge funds that can make very quick decisions is an important driver for the decision to issue convertibles. Also the advice and guidance of investment banks is of importance.

Even though we believe that our sample of 13 companies is representative for companies issuing convertible bonds, we should also acknowledge some limitations of our research. It is likely that managers who have a good knowledge of convertibles and managers for whom the convertible bond offering turned out to be successful are more likely to agree on an one-hour interview on the topic than managers who are less familiar with the instrument and/or managers who have bad experiences with convertibles, possibly because they are ill-advised. This self-selection bias is difficult, or even impossible, to avoid.

As a follow-up project we would be interested in talking to managers who have deliberately chosen *not* to issue convertible bonds. This type of study should give important additional insights to the current study.

We also believe that our research identifies some items that can be included in large-sample (quantitative) studies. In particular, future research on the question of why companies issue convertibles should take account of factors such as the importance of the speed of issuance and the role of investment banks. The finding that the convertible bonds are largely issued by companies in financial distress also deserves some additional (quantitative) research.

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Table 1. Summary of Interview Findings

Question	Response	Number of companies (Fraction of available responses)[a]
Why do firms issue convertible bonds?		
Why was convertible bond used instead of straight debt or equity?	Firm preferred debt to equity financing (the pecking order), but straight debt (including bank loan) was too costly or debt capacity was full. Equity was not preferred either because the firm followed the pecking order or because equity would be more costly than convertible bond (owing to dilution or stock underpricing).	7 (7/13)
	Debt was preferred to equity, but straight debt was not available. Equity issue would be more costly than convertible bond (because of dilution or stock underpricing).	3 (3/13)
	Debt was preferred to equity, and convertible bond has fewer restrictive covenants compared to straight debt (and can be repaid in stock if the firm is in Canada).	3 (3/13)
Was the pecking order followed?	When debt capacity is available: The firm would follow the pecking order of financing and prefer debt to equity for external financing	10 (10/10)
	Debt is not a viable option because the firm has not obtained steady cash flow from operation	3 (3/3)
The importance of market timing to convertible issuance	Respondent believed that stock was underpriced	6
	Issuing stock would be too dilutive compared to issuing convertible bond (which likely also implies stock undervaluation)	3
	High current stock price or the conversion premium was helpful for the convertible bond issuance decision	5
	Recent stock rally was helpful for convertible bond issuance decision	4
	If stock price was lower, would use more straight debt as opposed to convertible bond, or more convertible bond as opposed to equity	2
	Would use equity if stock price had little potential to increase further (a.k.a. when equity is overvalued)	3
	Recent stock price increase was too much for the firm to issue more equity (not enough shareholders wanted to buy new shares)	1
	Issued convertible bond when the convertibles market was hot	10
Was the convertible	More like debt	7 (7/13)

bond more like debt or equity?	More like equity Uncertain/It depends	4 (4/13) 2 (2/13)
Confirmation of convertible bond theories		
Backdoor equity theory (Stein 1992)	Supported Rejected	3 (3/13) 10 (10/13)
Risk shifting between debt and equity holders (Green 1984)	Supported Rejected	0 (0/7) 7 (7/7)
Sequential financing theory (Mayers 1998)	Supported Rejected	1 (1/8) 7 (7/8)
Investors-management Different opinions about firm risk (Brennan and Schwartz 1988)	Supported Rejected	5 (5/6) 1 (1/6)
The demand side of the market		
Role of investment banks	The investment bank played an important role as an intermediary The investment bank was not important for the issuance Investment banks were overpaid for relatively little work	10 (10/11) 1 (1/11) 2
Role of hedge funds / arbitrageurs	Normally have a negative impact on stock price before convertible bond issue Hedge fund involvement in convertible bonds has declined since the recent global financial crisis Provide liquidity / make convertible bonds easy and quick to sell Firm allocated a limited portion of convertible bonds to hedge funds when issue was oversubscribed Hedge fund may have a short-term negative effect on stock price and should not affect corporate financing decision Can have a negative impact on stock price prior to convertible bond maturity Firm may use private placement to prevent from negative effects of hedge fund short selling Not important / can't do anything about them	5 5 3 2 2 1 1 4
Warrant-bond combination as an alternative to convertibles		
Instead of convertible bond, why not	Not what the investment banks pitched or the investors wanted	7

consider straight debt and detachable warrant?	Better keep it simple as convertible bond to make it easy to sell	4
	Convertibles investors are normally a special pool, different from debt and equity investors	4
	Firm cannot force conversion with straight debt plus detachable warrants, because straight debt and warrant buyers may not be the same investors (convertibles can be a good idea for a completely "ungeared" firm)	2
	Straight bonds with call option for the issuer is harder to sell to investors especially when are not convertible	1
	Warrants are viewed as "sweeteners" and may signal an unusually difficult debt issue	1
	For a high dividend-paying firm, warrants are of little value (the true value of a convertible bond is that convertible bond is associated with fewer covenants and can be repaid in stock in Canada)	1
The limit of convertible debt financing		
Any reason why firms should not use too much convertible debt?	convertible debt should only be a small proportion of the capital structure	5
	A significant part of convertible bond investors are short-term hedge funds who create more uncertainty for the firm. Firm should prefer long-only investors for their securities	5
	Firm cannot be sure whether, when, and at what price the convertible bond will be converted into equity (partly because of hedge fund short-selling before the issue or before the maturity of the convertible bond)	3
	Firm may have to sell the conversion option cheap to hedge funds	2
	Conversion often occurs at a non-optimal time for the issuer (conversion happens when firm has good cash flows and does not need to raise new equity)	1
	Firm's stock may trade more like a convertible bond rather than a regular stock if convertible bond is too much of the capital structure	1
Other topics		
Are accounting and taxes a consideration for issuing convertible bonds?	Either accounting or taxes is an important consideration	0 (0/13)
	Accounting played a role	6 (6/13)
	Taxes played a role	7 (7/13)
	Both accounting and taxes did play a role	5 (5/13)
Did industry peers affect convertible bond issuance	Industry peers directly affected issuance decision	0 (0/10)
	Other recent issuers, not necessarily in the same industry, were	10 (10/10)

decision?	used as part of the information to gauge the temperature of the market	
Was callability of convertible bond useful?	Yes, useful to force conversion and get rid of debt overhang / raise more debt / re-finance at lower cost	6 (6/12)
	Yes, this was a standard feature and was necessary	2 (2/12)
	Yes, useful to signal the potential to convert to a reasonably high price	1 (1/12)
	No, firm would not have the fund to repay debt anyway	2 (2/12)
	No, firm prepared to let convertibles run their course and convert	1 (1/12)
	No, firm has to pay for the call option	1 (1/12)
The credit rating of our sample convertible bond issuers	Investment grade long-term debt (Moody's Baa or below)	3 (3/13)
	Speculative grade long-term debt	3 (3/13)
	Unrated debt	4 (4/13)
	Debt is not a viable option	3 (3/13)

[a] When a fraction is indicated, the number of responses is measured as a proportion of total non-missing responses to a certain question. In cases where the respondents provided additional insights or answers to an unasked question, the fraction is not indicated.

Appendix 1: Accounting and tax treatment of convertibles in Australia, Canada, and the United Kingdom.

Accounting reasons may play a role in the decision to issue convertible bonds. The appropriate accounting treatment of convertible bonds has been a debated topic for a very long time (see, e.g. McInnes, Draper, and Marshall, 1991, and Shah, 1998). There are two opposing points of view (Casson, 1998). The first is that convertible debt should be presented as a single instrument on the balance sheet of the issuer. The second viewpoints holds that is possible to identify separate debt and equity components of convertible debt and that they can be separately presented in the balance sheet. Since 2005 UK listed companies are required to prepare consolidated accounts on the basis of International Financial Reporting Standards (IFRS). IFRS requires "split accounting" for convertibles, whereby the proceeds are allocated between a liability component (at its fair value) and an equity component (the residual amount). In contrast the US GAAP recognizes the entire amount of proceeds for convertible debt as a liability unless it includes a beneficial conversion feature (Fay, Brozovsky, Edmonds, Lobingier, and Hicks, 2008). Scott, Wiedman, and Wier (2008) present an interesting analysis for Canada. From 1996 to 2003 Canadian companies enjoyed some flexibility in their reporting for convertible bonds. The authors find that this flexibility was widely used with some companies treating the offerings exclusively as a liability, and others treating them exclusively as equity.

Appendix 2: template for the interviews

Opening statements

This is a recording on *** date of the interview ***, *** name(s) of the person(s) to be interviewed *** and *** name of the interviewer ***. *** first name of the interviewer *** is the interviewer. *** name of the person to be interviewed *** is the *** job title and affiliation of the person to be interviewed ***. The academic and ethical rules are as follows: *** first name of the person to be interviewed *** can stop at any point, he can change his mind about anything he has said, he can ask me not to quote him, and he will, both he and his employer, not be identified in any way in anything that we publish.

For the record, also, the other authors on this work, even though they are not present, are *** names and affiliations of the co-authors who are not present during the interview ***

Q1. What were the reasons for your company to issue convertible notes in * year of the issue ***?**

Possible follow-up questions:

1a. Among the motivations that you mentioned, what was the most important one?

<We will make sure to have an open discussion on these questions. After this discussion is finished, we can move on to Question 1b and further, so that we separate these two discussions (and don't put words in their mouth in the first part)>

1b. Is the ultimate goal of the issue to have equity in the future?

1c. Alt. 1: Are the convertibles part of a sequential financing strategy, where you start with convertibles, and have plans for future financing (e.g. equity)?

1c. Alt. 2: Does your company have a lot of real investment options? Was your decision to issue convertibles related to these investment options? A **real option** itself, is the right — but not the obligation — to undertake some business decision; typically the option to make, abandon, expand, or shrink a capital investment. For example, the opportunity to

invest in the expansion of a firm's factory, or alternatively to sell the factory, is a real option.

1d. Do you believe that convertibles are suitable to protect bond holders against unfavorable actions (such as making very risky investments) by managers or stockholders?

1e. Alt. 1: Do you believe that convertibles are suitable to attract investors unsure about the riskiness of the company? (This ties in with the Green (1984) argument)

1e. Alt. 2: Did you have the feeling that there was a disagreement between you and the market on the value of future projects of the company? (This ties in with the argument of Brennan and Schwartz (*Journal of Applied Corporate Finance*, 1988) that convertibles are suitable when, because of information asymmetry, the market and the company do not agree on the value of future projects).

1g. Where there any other financing activities around *** time of the issue (month and year *** (e.g., bonds, stock offers, or bank loans)?

<Depending on whether the manager mentions a delayed equity argument, we can try to find out whether he means the irrational argument that companies issue convertibles, because it allows them to sell stock at a higher price than the current stock price (see e.g. the chapter on convertibles and warrants in the Ross, Westerfield, Jaffe textbook) or the rational argument of Stein (1992) that convertibles are a means to issue equity through the back door>

Q2. Was your decision to issue convertibles motivated by recent offerings by industry peers either in * insert country of the interviewee *** or abroad?**

Q3. Did the stock price at the time of the announcement play a role?

<Companies can decide to issue convertibles, because the stock may be underpriced or overpriced. If the stock is underpriced, they may be a good alternative for issuing equity. In that case the conversion option will be more underpriced (because of the leverage

argument), but the package may be more fairly priced. If the stock is overpriced, the conversion option may be more overpriced (again, because of the leverage argument)>

Q4. Did the expected stock price reaction at the convertible bond announcement play a role?

Q5. Did you consider the role of convertible bond arbitrageurs in your decision to issue convertible bonds?

5a. In your opinion, who buys convertible bonds – hedge funds, bond funds, equity funds, pension funds, or individual investors?

5b. Is the liquidity of the convertible bond market a concern for you?

Q6. Did you consider the combination of warrants and bonds as an alternative for a convertible bond issue?

Q7. Did you consider either straight debt or equity as an alternative for a convertible bond issue? Which did you consider? What were the most important reasons to choose for convertible bonds instead of these alternative instruments?

Q8. **In your opinion, is a convertible bond more like a straight bond or more like equity?**

Q9. What was the role of the investment bank in the decision to issue convertible bonds?

Q10. Did accounting reasons play a role in the decision to issue convertible bonds?

Q.11. Are the bonds callable?

If yes:

11a. Why did you add the callability feature?

11b. How important is the callability feature for you?

11c. In your decision to actually call the bonds, would it matter for you what the bond investors would think of that decision (e.g. suppose that you would issue new convertible bonds in the future, would you be worried that investors would remember an early call)?

If no:

Did you have a particular reason not to add a callability feature?

12. I also have some questions on market conditions at the time of the issue.

12a. Did overall stock market valuations and volatility play a role in the convertible bond issuance decision?

12b. Does the credit market play a role?

<One commonly held belief is that convertibles are issued because straight debt is too expensive with too high an interest when credit is hard to obtain, after the subprime crisis>

Q13. Did tax reasons play a role?

13a. Are your bonds classified as equity-like or debt-like? (for tax purposes)

Q14. * Possibly question on specific characteristics of the issue *****

Q15. What other questions should I have asked?