**STRUCTURE and GOVERNANCE OF THE CORPORATE CONTINGENT CONVERTIBLE BOND: Part 1**

Corporate Contingent Convertible Bonds

In order to comprehend corporate contingent convertible bonds, it would be useful to find an exhaustive definition. A good start could be to break down its name into its constituent parts. According to Liberadzki and Liberadzki, this type of security presents characteristics of both debt and equity, so they can be easily grouped into the broad family of hybrid securities. Moreover, the authors add that they are defined as “corporate” hybrids as opposed to “financial” hybrids, where the former are those issued by corporations and the latter are issued by financial institutions[[1]](#endnote-1). The term “contingent” refers to certain events or contingencies that may happen during the lifetime of the security[[2]](#endnote-2). More specifically, as argued by Marquardt and Wiedman, such events are contractual provisions envisaging the so called “trigger event” which, when triggered, will give bondholders the option to either convert debt into equity or to put bonds back to the issuer[[3]](#endnote-3). According to Oster, there are several types of triggers, of which, with regard to corporate hybrids, the best-known are market triggers and accounting triggers[[4]](#endnote-4).

Ferran highlights that the term “convertible” refers to conversion rights, namely the conversion mechanism which is actioned within the verification of the trigger event embedded in the security[[5]](#endnote-5). The term “bond” identifies the basic features of every security debt, namely the maturity date, the par value and interests[[6]](#endnote-6). Moreover, even though not immediately graspable from the name, there are other characteristics which contribute to shaping and so defining this bond as corporate “hybrid”, such as the identification of the exact ranking in both scenarios, namely the company as a going or gone concern. According to the Liberadzki brothers, these hybrids are considered as subordinated as opposed to senior bonds because they collocate between senior debt and equity[[7]](#endnote-7).

It can be inferred that this security can be defined as a (corporate) hybrid presenting some features of debt and some of equity. Indeed, being ranked in between senior debt and equity, it also can be defined as mezzanine finance. On the one hand, it presents the fundamental features of the conventional (bond) such as the par value, the interest and maturity date; characteristics that contribute to shape it as debt-like security. On the other hand, the contractual provision envisaging the option to convert from debt to equity (convertible), on the occurrence of some events (contingent), gives it some of the basic features of shares, identifying it as an equity-like security. However, despite such a definition, it will be useful to emphasise each characteristic individually, the most important being the trigger event.

In Part I of this paper, it will be critically discussed the positive and negative effects that the contingent convertible bond, embedding the trigger conversion, can bring to the governance of a corporation. First, it will be analysed the structure of CoCo bond by breaking it down into its individual constituents to identify the main differences, first from CoCos issued by banks and then from ordinary convertibles. Such a comparison, due to the paucity of relevant literature, is essential to understand the benefits and drawbacks of using contingent convertible bonds issued by corporations for governance purposes. Finally, it will be argued the corporate governance effects which can derive from the use of the trigger, such as the possible amelioration of the problem of agency cost of debt constituted by three elements, namely the loss of wealth, monitoring and bonding costs, and bankruptcy costs.

Rate of Interest

The corporate contingent convertible bond, as with other kinds of security debt, confers a rate of interest on the holder. Such a rate can be either floating or fixed. In a survey of CoCos from their first issuance until 2007, Marquardt and Wiedman showed that the majority envisaged a fixed rate of interest[[8]](#endnote-8). The same trend has been shown in one of the latest issuances, that of Volkswagen in 2018[[9]](#endnote-9). Another common feature is to envisage a zero rate of interest with a large discount, and thus a return, in the case of redemption[[10]](#endnote-10). Despite that, Ferran highlights one of the peculiarities concerning the interest rate of this hybrid, namely the possibility of deferring a payment that is usually paid annually[[11]](#endnote-11).

From the point of view of the issuer, the peculiarities of CoCos are interesting, especially the possibility of deferring interest payment. This feature gives the issuer the opportunity to stabilize its level of cash-flow. However, from the point of view of the investor, the feature may be inconvenient. Moreover, there are no remedies in this case, even though such interests are cumulative. Clearly, this characteristic makes CoCos more equity-like because the mechanism allows the management to retain dividends.

Maturity

CoCos present either a very long maturity or, in some cases, being perpetual, they can last the entire lifetime of the issuer. According to the Liberadzki brothers, the maturity date identifies the amount in terms of money, the principal, that must be paid back to the investor once it has expired. Historically, such bonds lasted 15, 30, 60 years and in some cases had no expiration date, so were either called perpetuals or they were undated. In that regard, the authors highlights that this gives CoCos an equity-like feel[[12]](#endnote-12). Ferran shows that long maturity is one of the most important features of this security, as it can be very appealing to investors to receive a kind of annuity for life[[13]](#endnote-13). Bratton adds that, as a counterbalance, this hybrid embeds a put option in favour of the bondholder as well as a call option in favour of the issuer[[14]](#endnote-14). As pointed out by Keown et al., the put option and the call option in the case of CoCos are linked to the occurrence of the trigger event[[15]](#endnote-15).

The very long or perpetual maturity date that is a feature of CoCo bonds makes this security appealing to both issuer and investor. For the former, there is a contractual obligation to pay the principal at maturity, but it is understood that this date will never happen with perpetuals. For the latter, investing in CoCos means receiving a perpetual return in terms of annual interest for the rest of one’s life. However, the other side of the coin is the possibility that management will defer payment of the coupon, in this case meaning that all that glitters is not gold. The closer to perpetuity the security gets, the more equity-like it will be.

Ranking

Being collocated in the capital structure of the company between equity and debt such that they are called mezzanine finance, CoCos are considered as subordinated debt. Despite that, there needs to be some clarification of the hybrid nature of CoCos, because the situation cannot be considered in either purely black & white terms, but grey. Indeed, using the expression of the credit rating agency S&P, the Liberadzki brothers maintain that this hybrid is located in a ‘continuum’ between equity and debt, ranking immediately after senior debt, but before equity[[16]](#endnote-16). The term ‘continuum’ is something like the revolver of a gun. In fact, it can be said that when bonds are outstanding, they present a predetermined ranking. According to Wood, bondholders are considered pari-passu creditors because in a liquidation scenario they will take either a very small percentage of or no collateral. In this sense they are unsecured to recover the entire amount of the credit due[[17]](#endnote-17). Nevertheless, in case of conversion from debt to equity the ranking drops by one position. In fact, Wood highlights that equity-holders are considered subordinate to super-priority, priority and pari-passu creditors[[18]](#endnote-18).

Aside from the above considerations, a security is ranked according to the hypothetical liquidation scenario. In the case of liquidation CoCo holders can rank either as equity creditors in case of the exercise of conversion, almost at the bottom of the pyramid of priorities, or as subordinated debt in case they will exercise neither put option or conversion option, so ranking as pari-passu creditors. That is why they are considered as subordinated and unsecured creditors, as highlighted by the Liberadzki brothers. Clearly, investors willing to invest in corporate CoCos should be conscious of that when deciding to buy them. This is because they will end up out of money in a liquidation proceeding, losing their investment. From the point of view of the issuer there are no significant considerations to make with regard to ranking.

Conversion Mechanism

CoCos embed a mechanism of conversion envisaging a right in favour of the bondholder to convert bonds into a predetermined number of shares once the trigger is hit. According to Ferran, such a right is an option, allowing the bondholders to decide whether to activate the mechanism[[19]](#endnote-19). The core feature of CoCos is that the right to convert can be exercised only once the trigger event embedded in the security happens[[20]](#endnote-20). Szymanoska et al. add that there could be a hypothesis in which the same right to convert is granted to the issuer[[21]](#endnote-21). According to Buergi, CoCos usually envisage a call option to the issuer[[22]](#endnote-22). The conversion of debt into shares intervenes according to a conversion price determined when the bond is issued. Such a conversion price is usually fixed at a generous premium linked to the price of new shares when issued after the exercise of the conversion[[23]](#endnote-23). In that regard, Woronoff and Rosen highlight that the activation of the conversion mechanism, by issuing new shares, will cause dilution of the economic value of the existing shares. However, they suggest that this dilutive effect can be avoided by providing anti-dilution clauses[[24]](#endnote-24).

The conversion mechanism is one of the core features of CoCo bonds. It allows the bondholder, once the trigger event has occurred, to convert bonds into a pre-fixed number of shares. This is convenient for both issuer and investor: the former can raise funds cheaply, allowing them some respite since the conversion right cannot be exercised until the trigger event is hit. Moreover, even in the worst case conversion scenario, it has a deleveraging effect because the amount of the debt will be written-off from the right hand column of the balance sheet. From the perspective of the investor, this conversion mechanism can be very appealing. Once the trigger event has occurred, the investor can opt for conversion, thus acquiring a stake in the company. For example, assuming a trigger event is fixed to the acquisition of a new business and is financed by the issuance of CoCos, the conversion will allow the bondholder to become a shareholder in a valuable company.

The other side of the coin, however, is the dilutive effect of exercising the conversion right. This can of course be reduced by the provision of anti-dilution clauses, although such clauses are complex and expensive, due to the army of lawyers required.

The Trigger

The core feature of CoCo bonds is the trigger; once it has occurred the bondholder can exercise the right either to convert bonds into a predetermined number of shares, or to put bonds back to the issuer. According to Allen, it consists of a contractual provision envisaging an event, a contingency, which is pre-fixed by the issuer and agreed by the investor at the time of purchase[[25]](#endnote-25). Marquardt and Wiedman confirm that the right to convert debt to equity can be exercised only once such a trigger is hit[[26]](#endnote-26). Keown et al. maintain that the trigger event will give the bondholder not only the power to convert their bonds into shares, but also to put back to the issuer bonds in exchange for money[[27]](#endnote-27). Sundaresan and Wang point out that the option to convert gives the bondholder the choice to opt for the best conversion strategy, so finding the best moment in terms of financial return[[28]](#endnote-28). From studies led by Maes et al., there are three kinds of trigger, namely regulatory, accounting and market triggers[[29]](#endnote-29). Buergi envisages in the structure of a CoCo not just a single trigger, but a combination of them[[30]](#endnote-30).

The trigger embedded in a CoCo bond can be considered the most important feature of the security. Once it is triggered, it will grant the bondholder the right either to convert bonds into shares or to put back bonds to the issuer. In such a sense, the trigger gives the security an insurance-like note, making it more appealing to investors because in the worst case-scenario their investment could be returned. From the perspective of the issuer, a trigger event, as will be explained later, can be seen as a regulatory mechanism that, like a pacemaker, achieves stability not only in the form of positive governance, but it also works as a form of financing in merger & acquisition operations promoted by the company.

Leaving aside the regulatory trigger that applies only to so called financial “hybrids”, namely CoCos issued by banks, the accounting and the market triggers are used for corporate CoCos. Despite this division into groups, one of the characteristics of the trigger is its contractual origin. This means that there could be infinite types of triggers according to the creativity of the financial lawyers. For example, triggers may be caused by the positive occurrence of a peculiar event or triggers represented by the completion of some specific purpose such as the building of infrastructure. However, it is better to start with a deeper explanation of the ordinary triggers.

The Market Price Trigger

Market price triggers are based on market values. This means that once that a value falls below a predetermined level, the trigger is hit and either conversion or put back can be exercised. Buergi highlights that the market value on which the trigger market can rely is the stock market of the issuer. According to the author, this trigger is the most uncertain due to market fluctuation which sometimes does not reflect the exact situation of the economy. He states that, for example, even a small amount of trades can modify the trend of a market price[[31]](#endnote-31). Simpson Prescott points out that the market price trigger is subject to price volatility which can lead to undesired triggering and so to conversion[[32]](#endnote-32).

By contrast, Sundaresan and Wang state that fixing the trigger to a market price will guarantee adequate and timely information to shareholders. However, they highlight that the market price trigger could be subject to manipulation; in fact issuer and investors could force the conversion[[33]](#endnote-33). Mc Donald argues that price manipulation could intervene, so hitting the trigger, but the philosophical question arises whether such manipulation can really bring an advantage to the manipulator, it being very difficult to do. Nevertheless, the author suggests using a double trigger in order to avoid or at least reduce the risks; for example, using the market price coupled with the index price[[34]](#endnote-34).

Clearly, giving a CoCo bond a market price trigger could lead to consequences. The market is subject to fluctuations that could hit the trigger, so inducing bondholders either to convert or to put back their bonds. In such a hypothetical scenario this could lead to a crisis in the company when there was none before. Price manipulation by the issuer or the investors is admissible, but it is very unlikely to be verified because of the inconvenience involved. Nonetheless, a trigger based on the stock market price could bring some interesting benefits. For example, it is well-known that a director’s duty is to promote the interests of the company and so of the shareholders. In this sense, a market price trigger aligns them to the interests of bondholders. Benefits flow to investors too because they are able to better monitor the performance of their investment from the value of shares.

McDonald’s suggestion of embedding a double trigger into a CoCo is a good idea, particularly to avoid the risk of undesired market fluctuations which could hit the trigger level. Despite such a proposal, it would be remarkable if the freedom of contracts to provide an infinite number of solutions for trigger events were able to erase every problem by providing the perfect CoCo bond.

The Rating Trigger

The rating trigger is included in the group of market price triggers. According to Bhanot and Mello, this trigger allows the bondholder either to convert or to put back bonds to the issuer when a firm’s credit has been downgraded below a predetermined level. The authors highlight that since the issuance of Tyco International Ltd., the first corporate CoCo, this kind of trigger[[35]](#endnote-35) has been embedded in several bonds. Reggiani points out that the rating trigger has been used in almost every issuance of CoCos since Tyco. However, the author argues that if on the one hand, the rating trigger can reduce the agency cost of debt, on the other there is a problem associated with the sudden downgrade operated by rating agencies. In fact, once the trigger is pulled by the rating agency, conferring the right to bondholders to put back bonds in exchange for money, there can be a lack of liquidity for the company, and it enters a state of crisis. For example, the downgrading of Enron’s debt was one of the major causes of its collapse; it was a sudden downgrading by the rating agency[[36]](#endnote-36). Bhanot and Mello highlight the Enron case as one of the causes or the rating trigger’s loss of appeal[[37]](#endnote-37).

Clearly, from the perspective of investors, it can be convenient for the rating trigger to be embedded in CoCos because they can easily monitor the bonds’ performance daily. Moreover, they can opt either to convert or put back bonds to the issuer. From the point of view of the issuer, issuing CoCos with a rating trigger can bring some benefits with regard to reducing the agency cost of debt, but using a rating trigger can be very risky. This is because any downgrading automatically intervenes, meaning that in less than 24 hours a sound company can end up in serious financial difficulty. For this reason the automatic way in which this trigger works should be regulated, for example by envisaging a way to moderate it.

The Accounting Trigger

The accounting trigger relies on book values, meaning that when a valuation falls below the trigger point, the conversion or put back of bonds can be exercised. Buergi states that book values correspond to accounting ratios[[38]](#endnote-38). For example, an accounting trigger could be linked to liquidity ratios or the insolvency ratio. Petitt and Ferris highlight that the former assesses the short-term risk, whereas the latter assesses the long-term risk[[39]](#endnote-39). It can be inferred that when the liquidity ratio falls below a certain level there is a clear lack of liquidity, meaning that the company may be unable to pay short-term debt. In this case bondholders, to avert financial risk, might decide to convert or to put back bonds. McDonald points out that the accounting trigger can avoid the problem of market manipulation typical of the market price trigger[[40]](#endnote-40). By contrast, Buergi raises the problem of the lapse of time between the moment in which values are reported in financial statements and that in which financial statements are made public, and so known to investors[[41]](#endnote-41). Indeed, according to Davies and Worthington, the financial statements are issued each fiscal year. Usually, they are accompanied by quarterly reports provided by the management according to the Companies Act 2006[[42]](#endnote-42).

The trigger based on accounting ratios presents several positive characteristics. For example, by linking it to either the liquidity ratio or the insolvency ratio, an enterprise may be recapitalized without needing of the ordinary insolvency tools. In fact, by converting bonds into equity, there will be an immediate cancellation of part of the debt corresponding to the amount of CoCo bonds, showing a clear capacity of loss absorption in going concern of the company as pointed out by Liberadzki and Liberadzki[[43]](#endnote-43). Nevertheless, as will be shown below, the problem could be the exercise of the put option because if bonds are put back in exchange for money when there is a lack of liquidity, the financial situation of the enterprise may worsen. The advantage in using such a mechanism is that by using a trigger linked to accounting ratios, an investor can better monitor the trend of the enterprise. Despite that, this kind of trigger has drawbacks. Investors will have to wait until the end of the fiscal year to check the financial statements. They can check the reports that are issued quarterly, but this means waiting a minimum of three months. This can clearly badly affect their strategy of conversion, a problem that does not exist with the trigger market. Moreover, as highlighted by Davies and Worthington, these reports, like accounting reports are easily misstated, as was the case with Enron in the USA[[44]](#endnote-44). This means that this trigger, like the market price trigger, is subject to manipulation.

Contingent Convertible Bonds issued by Banks

History of CoCos issued by Banks

By comparison with CoCos issued by corporations, CoCos issued by banks present a more recent history. They were devised as one of the responses to the financial crisis of 2007-2008 caused by the collapse of the American giant, Lehman Brothers, a crisis which spread globally. According to the Liberadzki brothers, this financial hybrid was issued for the first time in 2009 by Lloyds Bank according to the rules of Basel II. They envisaged a trigger that, once hit, provided coupon deferral[[45]](#endnote-45). In 2010 Rabobank issued a CoCo bond which embedded a trigger envisaging the automatic write-down of bonds when the trigger was hit[[46]](#endnote-46).

Koffer points out that despite these initial efforts, the first CoCos did not show the capacity for loss absorption for which they had been devised, mainly because they were issued under the same Basel II rules that had been inadequate to deal with the crisis[[47]](#endnote-47). In December 2010 the Basel Committee on Banking Supervision adopted new rules regarding the liquidity and capital requirements of banks, Basel III, which were adopted in 2013 by the European Union as the Capital Requirement Directive IV package, including both the Capital Requirement Directive and the Capital Requirement Regulation[[48]](#endnote-48).

The new rules had new requirements for identifying which part of the capital would bear the loss in case of distress. Core Tier 1 and Additional Tier 1 capital was called ‘going concern’, and Tier 2 capital was called ‘gone concern’ [[49]](#endnote-49). According to Allen, the rationale behind Basel III was to avoid the risk of using taxpayers’ money for a bail-out. The securities most suited to the fulfilment of such capital requirements were CoCos[[50]](#endnote-50). Thus, the first CoCos to be issued were absorbed into the new Tier 1 and Tier 2 capital and, since then, issuances of these financial hybrids have boomed all over the world[[51]](#endnote-51).

The Structure of CoCos issued by Banks: the “Automatic” Trigger

CoCos were chosen mainly for their capacity for loss absorption in a ‘going concern’. In fact, as highlighted by Allen, this security allows the recapitalization of a bank’s capital when it is still viable, before it reaches the point of non-viability[[52]](#endnote-52). Leaving apart considerations regarding the capital requirement of banks, it is important to note that the effect of loss absorption can be reached only through a CoCo bond embedding a trigger event, a peculiar one; this is one of the main differences from CoCos issued by non-financial corporations.

Indeed, according to De Spiegeleer and Schoutens, banking CoCos present a host body, a conventional bond presenting classical bond features, such as the maturity date, the par value and the rate of interest[[53]](#endnote-53). The Liberadzki brothers highlight that in comparison with non-financial CoCos, they present the same characteristics in terms of either a long maturity date or no expiration date[[54]](#endnote-54). Koffer points out that being hybrids, they rank in between debt and equity, like corporate CoCos[[55]](#endnote-55). Vallee states that the management of the issuing bank can decide to exercise the power of coupon deferral and similarly to exercise the call option[[56]](#endnote-56). Marquardt and Wiedman state that they embed a trigger event that, once hit, will either convert or write-down existing debt[[57]](#endnote-57). Sundaresan and Wang summarize that, by comparison with CoCos issued by non-financial firms, they present an automatic trigger providing a compulsory conversion to equity or a write-down of outstanding bonds[[58]](#endnote-58).

It can be inferred that in comparison, financial CoCos present the same characteristics as non-financial CoCos, apart from the trigger event. In fact, banking CoCos embed an automatic trigger event, meaning that once the contingent event happens there will be a compulsory conversion of bonds to shares and in some cases the write-down of outstanding debt. Such a feature will confine this hybrid to loss absorption in going concerns and the fulfilment of capital requirements, but no more. An ordinary trigger could be used to implement M&A operations and restructuring.

From the perspective of an investor in corporate CoCos, this characteristic would be difficult to accept because in a hypothetical distress scenario, bondholders will finish at best at the bottom of the list of priorities, namely out of money, whereas at worst, they will lose their investment with an eventual write-down. This trigger works with banks because of the capital requirements envisaged by Basel III. By contrast, from the perspective of an investor in banking CoCos, such a feature could be appealable, because their issuance is guaranteed by a regulated legal framework. From the perspective of an issuer of banking CoCos, an automatic trigger could be extremely attractive, due to the preventive restructuring effect, but for an issuer of corporate CoCos an automatic trigger could be very risky. Despite that, the risk could be overcome by using multiple triggers. In fact, an issuer of corporate CoCos could attempt to draft the perfect security whereby the freedom of contract. Instead, an issuer of banking CoCos is tied to the financial framework envisaged by the Basel Committee on Banking Supervision.

The Regulatory Trigger

As highlighted above, in comparison with CoCos issued by firms CoCos issued by banks can envisage the so called ‘regulatory trigger’. Buergi describes this regulatory trigger as providing financial authorities powers to force the conversion or write-down of CoCos. The author adds that usually this trigger is coupled with accounting or market price triggers working the last, as signal for authorities for exercising their power[[59]](#endnote-59). MacDonald denounces the regulatory trigger, saying that giving regulators the power to force conversion brings with it several problems. For example, the authorities could fail to force conversion, perhaps misled by the manipulation of accounting ratios. In the worst scenarios, they could be motivated by impartial political reasons[[60]](#endnote-60).

A regulatory trigger could even be embedded in a corporate CoCo. However, this would mean sacrificing the freedom of contract which rules the business world and in particular corporate CoCos. Indeed, the regulatory trigger was devised to allow authorities to exercise their powers to force conversion. The rationale relies on the maintenance of capital requirements for banks living through a crisis. Adopting the same mechanism for corporate CoCos would signify a heavy intromission of the State into private affairs. Nonetheless, a trigger could be used, in a hypothetical scenario, with a company in administration. In this case, the administrator could work as a regulatory authority, deciding to force conversion by hitting the trigger.

Convertible Bonds

the Structure of Convertible Bonds: The Absence of the Trigger Event

To better understand the idea of corporate CoCos embedding a trigger event it is important to understand the history of their host body, namely convertible bonds. According to Baskin, convertibles were devised during the nineteenth century for raising a large amount of funds for financing new railways. At that time, the problem was high information asymmetry, which made investors suspicious of investing in conventional bonds; suspicion was relieved by imposing a lien on bonds. According to the author, an option to convert bonds into equity (as a lien imposed on bonds) was chosen in favour of bondholders[[61]](#endnote-61).

It can be inferred from the history illustrated above that corporate CoCos and convertible bonds present the same features except for the trigger event. Indeed, from Ferran’s study it can be inferred that convertibles have the classical feature of bonds, namely the par value, maturity date and rate of interest, plus a conversion mechanism[[62]](#endnote-62). Klein specifies that the most distinctive feature of convertible bonds is that the conversion option is linked to the surrender of the interest rate. Any change will give the bondholder the right to convert[[63]](#endnote-63). Bratton identifies the call option in favour of the issuer as a common feature of CoCos[[64]](#endnote-64). Despite this Keown et al., point out as the main difference between convertible bonds and CoCos the right to put bonds back once the trigger is hit[[65]](#endnote-65).

Convertible bonds clearly present characteristics similar to CoCos: a host body formed by the principal with a maturity date and an interest rate. Nonetheless, it is noticeable that a conversion privilege, exercisable by the holder, is linked to any changes in the rate of interest. This linkage is almost the same as the trigger, because the rate drop will allow the holder to convert. Despite the close similarity, there is a difference; the right to put bonds back instead of converting once the trigger is hit. From the point of view of the investor, CoCos can be considered a safer investment due to the two options embedded into them; not only safer, but also more attractive. From the perspective of the issuer, there is the option to retain interests when there is a need to improve cash-flow, apart from the fact that it makes CoCos more appealing to investors, and so more marketable.

**THE EFFECT OF THE TRIGGER ON CORPORATE GOVERNANCE**

The Problem of The Agency Cost of Debt

One of the major concerns faced by management when deciding to issue bonds is choosing the optimal capital structure. Ferran, starting from the theorem of Modigliani-Miller, highlights that the perfect capital structure balances tax advantages (obtained by issuing debt security) and the risk of going bankrupt from the excessive use of leverage[[66]](#endnote-66). Barnea et al. point out that agency theory is absolutely instrumental in finding the optimal capital structure, particularly when the issuing debt has complex financial contracts such as CoCos[[67]](#endnote-67). Theorized in 1976 by Jensen and Meckling. They identified a persistent conflict of interest in the relationships between the principal, (shareholders and bondholders) and the agent (the management), which produces the agency costs. Such costs are determined by the fact that the agent should act on behalf of the principal by virtue of a proxy, but both being utility maximisers, the former cannot act in the best interest of the latter[[68]](#endnote-68).

The authors state that the agency cost of debt consists of three elements. The first is the wealth loss that is consequent upon the issuance of debt as an opportunity for investment in the firm. According to Jensen and Meckling, manager-owners will attempt, once they have been issued bonds, to invest in risky projects for higher returns. Therefore, bondholders will anticipate this by asking for a higher rate of interest. In this sense the rate of interest is the first part of the agency cost and it is held by manager-owners[[69]](#endnote-69).

The second element consists of the monitoring and bonding costs held by bondholders. Bondholders will ask for ways to monitor the operations of fund managers. This will be done on the one hand with covenants that will work to restrain for managers and, on the other, with financial statements, the former being a complex financial clause and the latter a document audited by an independent adviser. They will be very costly, and the cost will be sustained by manager-owners. Moreover, the authors highlight that the cost is binding because it falls on the managers who will tend to obtain the lowest cost[[70]](#endnote-70).

The third element consists of bankruptcy and reorganisation. The authors identify bankruptcy as the moment when the corporation does not meet its debts. This means that in a hypothetical bankruptcy proceeding, the value of the firm in gone concern will be less than that of a firm in going concern. Such a difference corresponds to the loss of wealth of the company. Loss of wealth will be one of the major concerns for whoever wants to buy a fixed claim over the company issuing debt, such as bondholders. This cost will be borne by the manager-owners. Any reorganisation that derives from the adjustment of claims will not be without cost, and that cost will be sustained by managers-owners[[71]](#endnote-71).

The Amelioration of the Agency Cost of Debt Using the Trigger

As highlighted above, the problem of the agency cost of debt constitutes an important problem when management decides to issue new debt. Nevertheless, assuming the issue of corporate CoCos that embed a trigger event, the problem can be ameliorated. According to Song and Yang, the agency cost of debt of firms issuing CoCos embedding a trigger can be reduced. This is because on the one hand, they maintain that the mechanism of conversion can reduce bankruptcy costs and, on the other, by comparison with conventional debt, CoCos present a minor rate of interest, so decreasing the agency cost held by the company[[72]](#endnote-72). Indeed, as highlighted above, the first element of the agency cost depends on the rate of interest, which includes several factors. Logically a minor rate of interest corresponds to a minor agency cost for wealth loss.

Kahan and Yermack led a study in which they showed that some covenants that are very expensive to draft and negotiate can be replaced by the prevision of the option to convert in favour of bondholders. The authors argue that the cost held in drafting covenants, sustained by manager-owners, can be reduced, so reducing the agency cost of debt[[73]](#endnote-73). In this case, even though the authors refer to convertible bonds, the effect should be the same with CoCos embedding a trigger, because as illustrated above, convertibles and CoCos are almost the same; both confer the right to convert debt to equity. This means that the trigger could work as a substitute for covenants.

According to Bhanot and Mello, by using a rating trigger it is possible to reduce the first element of the agency cost of debt described above, namely the loss of wealth. This is because managers, in order to avoid downgrading by the rating agencies, will opt for less risky projects rather than those with high risk, meaning that their interests will be aligned with those of bondholders, thus reducing agency costs. The authors point out that the trigger can even reduce bankruptcy costs. That effect intervenes in consequence of the tax-deductibility of CoCos because the reduction increases the value of the firm[[74]](#endnote-74). In a hypothetical bankruptcy scenario, the firm will be worth more, and the difference between the value of the company in going and gone concern will be less. Reduced value will correspond to less agency cost, as explained above regarding the third element of cost highlighted by Jensen and Meckling.

Despite the last considerations, Bhanot and Mello specify that a rating trigger can reduce the agency cost of debt, even though there is no absolute certainty because it all depends on how the CoCo is designed and embedded into the capital structure of the company[[75]](#endnote-75). From this it can be inferred that embedding a trigger into a CoCo bond can ameliorate the problem of agency costs described by Jensen and Meckling in all of the three elements, namely the loss of wealth, monitoring as well as bonding costs and bankruptcy costs. The amelioration derives from the lower rate of interest paid to bondholders. It can also derive from the avoidance of contracting an expensive covenant; in fact, in this sense there could be other positive effects, such as better management, because for managers, a trigger event is something to avoid at any cost. It can derive from increasing the value of the firm and decreasing the bankruptcy cost. Nevertheless, the most important fact to keep in consideration remains the beauty of the freedom of contract embedding the best trigger solution with which a CoCo can be devised.

Part I Conclusion

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1. Kamil Liberadzki and Marcin Liberadzki, ‘Hybrid Securities: Structuring, Pricing and Risk Assessment’, (2016) 87 Springer [↑](#endnote-ref-1)
2. Latham & Watkins, ‘Client Alert- Convertible Bonds in 2006 - Not your Father’s Converts’, (2006) 542, 2 [↑](#endnote-ref-2)
3. Carol A. Marquardt and Christine I. Wiedman, ‘Economic Consequences of Financial Reporting Changes: Diluted EPS and Contingent Convertible Securities’,(2007) 491 Springer [↑](#endnote-ref-3)
4. Philippe Oster, ‘Contingent Convertible Bond Literature Review: Making Everything and Nothing Possible?’, (2019) 14 Springer [↑](#endnote-ref-4)
5. Ellis Ferran and Look Chan Ho, ‘Principle of Corporate Finance Law’, Oxford University Press, (2014)

455 [↑](#endnote-ref-5)
6. Arthur J. Keown, John D. Martin, J. William Petty, ‘Foundations of Finance: The Logic and Practice of Financial Management’, (2014), 202 [↑](#endnote-ref-6)
7. See Liberadzki and Liberadzki (n.1) 172 [↑](#endnote-ref-7)
8. See Marquardt and Wiedman (n.3)495 [↑](#endnote-ref-8)
9. See Liberadzki and Liberadzki (n.1) 176 [↑](#endnote-ref-9)
10. See Marquardt and Wiedman (n.3) [↑](#endnote-ref-10)
11. See Ferran and Chan Ho (n.5) 452 [↑](#endnote-ref-11)
12. See Liberadzki and Liberadzki (n.1) 169 [↑](#endnote-ref-12)
13. Ibid (n.1) 172 [↑](#endnote-ref-13)
14. William W. Bratton, ‘Corporate Finance-Cases and Materials’, (2002)195 Thomson Reuters, Seventh Edition [↑](#endnote-ref-14)
15. See Keown, Martin and Petty, (n.6)202 [↑](#endnote-ref-15)
16. See Liberadzki and Liberadzki (n.1) 174 [↑](#endnote-ref-16)
17. Philippe Wood, ‘Principle of International Insolvency’, (2007)266, Sweet & Maxwell [↑](#endnote-ref-17)
18. Ibid, 267 [↑](#endnote-ref-18)
19. See Ferran and Chan Ho (n.5) 455 [↑](#endnote-ref-19)
20. See Marquardt and Wiedman (n.3)495 [↑](#endnote-ref-20)
21. Marta Szymanoska, Jenke Ter Horst and Chris Veld, ‘Reverse Convertible Bond Analyzed’(2009)899, The Journal of Future Markets [↑](#endnote-ref-21)
22. Markus P.H. Buergi, ‘Pricing Contingent Convertibles: a General Framework For Application in Practice’,(2013) Financial Market Portfolio Management, 57 [↑](#endnote-ref-22)
23. Timo P. Korkeamaki, ’Effects of law on Corporate Financing Practices - International evidence from convertible bond issues’(2005)825, Journal of Corporate Finance [↑](#endnote-ref-23)
24. Michael A. Woronoff and Jonathan A. Rosen, ‘Understanding Anti-Dilution Provisions in Convertible Securities’, (2005) 74 Fordham Law Review 129 [↑](#endnote-ref-24)
25. Hilary Allen, ‘Cocos Can Drive Markets Cuckoo’, Legal Studies Research Paper Series, (2012), 16 [↑](#endnote-ref-25)
26. See Marquardt and Wiedman (n.3)495 [↑](#endnote-ref-26)
27. See Keown, Martin and Petty (n.6) 202 [↑](#endnote-ref-27)
28. Suresh Sundaresan and Zhenyu Wang, ’On The Design of Contingent Capital with a Market Trigger’, (2015)The Journal of Finance, 885 [↑](#endnote-ref-28)
29. Stan Maes and Wim Schoutens,’Contingent Capital: An In Depth Discussion’,(2012) Economic Notes: Review of Banking, Finance and Monetary Economics, 70 [↑](#endnote-ref-29)
30. See Buergi (n.22) 36 [↑](#endnote-ref-30)
31. See Buergi (n.22) 36 [↑](#endnote-ref-31)
32. Edward Simpson Prescott, ’Contingent Capital: The Trigger Problem’, (2012) Federal Reserve Bank of Richmond Economic Quarterly, 35 [↑](#endnote-ref-32)
33. See Sundaresan and Wang (n.28) 889 [↑](#endnote-ref-33)
34. Robert L. McDonald, ‘Contingent Capital with a Dual Price Trigger’, (2013) Journal of Financial Stability, 234 [↑](#endnote-ref-34)
35. Karan Bhanot and Antonio S. Mello,’ Should Corporate Debt Include A Rating Trigger?’, (2006) Journal of Financial Economics,69 [↑](#endnote-ref-35)
36. Federico Parmeggiani,’Rating Triggers, Market Risk and the Need for More Regulation’, (2013) European Business Organization Law Review, 442 [↑](#endnote-ref-36)
37. Bhanot and Mello (n.35) 69 [↑](#endnote-ref-37)
38. See Buergi (n.22) 36 [↑](#endnote-ref-38)
39. Barbara S. Petitt and Kenneth R. Ferris, ‘Valuation for Mergers and Acquisitions’, (2013) Pearson Education,26 [↑](#endnote-ref-39)
40. See McDonald (n.34) 236 [↑](#endnote-ref-40)
41. See Buergi (n.22) 51 [↑](#endnote-ref-41)
42. Paul L. Davies and Sarah Worthington, ‘Principles of Modern Company Law’, (2016) Sweet and Maxwell, 695 [↑](#endnote-ref-42)
43. See Liberadzki and Liberadzki (n.1) 179 [↑](#endnote-ref-43)
44. See Davies and Worthington (n.42) 721 [↑](#endnote-ref-44)
45. See Liberadzki and Liberadzki (n.1) 9 [↑](#endnote-ref-45)
46. Jan De Spiegeleer and Wim Schoutens,’ Multiple Trigger CoCos: Contingent Debt Without Death Spiral Risk’, (2013) Financial Markets, Institutions & Instruments, 130 [↑](#endnote-ref-46)
47. Timo Koffer, ‘Basel III-Implications for Banks Capital Structure’, (2013) Anchor Academic Publishing,5 [↑](#endnote-ref-47)
48. Justin Greenwood and Christilla Roederer-Rynning, ‘The “Europeanization”of the Basel Process: Financial Harmonization Between Globalization and Parliamentarization’(2015) Regulation and Governance,329 [↑](#endnote-ref-48)
49. See Koffer, (n.47) [↑](#endnote-ref-49)
50. See Allen, (n.25) [↑](#endnote-ref-50)
51. Charles W. Calorimis and Richard J. Herrings, ’How to Design a Contingent Convertible Debt Requirement that Helps Solve Our Too-Big-to-Fail Problem’,(2013)Journal of Applied Corporate Finance,41 [↑](#endnote-ref-51)
52. See Allen, (n.25)20 [↑](#endnote-ref-52)
53. See De Spiegeleer and Schoutens,(n.46) 128 [↑](#endnote-ref-53)
54. See Liberadzki and Liberadzki (n.1) 12 [↑](#endnote-ref-54)
55. See Koffer, (n.47)12 [↑](#endnote-ref-55)
56. Boris Vallee, ’Contingent Capital Trigger Effects: Evidence from Liability Management Exercises’, (2019) Review of Corporate Finance Studies, 238 [↑](#endnote-ref-56)
57. See Marquardt and Wiedman (n.3)496 [↑](#endnote-ref-57)
58. See Sundaresan and Wang (n.28) 893 [↑](#endnote-ref-58)
59. See Buergi (n.22) 36 [↑](#endnote-ref-59)
60. See Mc Donald (n.34)237 [↑](#endnote-ref-60)
61. Jonathan Barron Baskin, ’The Development of Corporate Financial Markets in Britain and the United States, 1600-1914: Overcoming Asymmetric Information’, (1988) The Business History Review,215 [↑](#endnote-ref-61)
62. See Ferran and Chan Ho (n.5) 455 [↑](#endnote-ref-62)
63. William A. Klein, ‘The Convertible Bond: A Peculiar Package’, (1975) University of Pennsylvania Law Review,553 [↑](#endnote-ref-63)
64. William W. Bratton, ‘Corporate Finance-Cases and Materials’, (2002)195 Thomson Reuters, Seventh Edition, 196 [↑](#endnote-ref-64)
65. See Keown, Martin and Petty (n.6)202 [↑](#endnote-ref-65)
66. See Ferran and Chan Ho (n.5) 54 [↑](#endnote-ref-66)
67. Amir Barnea, Robert A. Haugen and Lemma W. Senbet, ’Agency Problems and Financial Contracting’, (1987) Journal of Banking and Finance,173 [↑](#endnote-ref-67)
68. Michael C. Jensen and William H. Meckling, ’Theory of the Firm: Managerial Behaviour, Agency Costs and Ownership Structure’, (1976) Journal of Financial Economics, 5 [↑](#endnote-ref-68)
69. Ibid, 41 [↑](#endnote-ref-69)
70. Ibid, 45 [↑](#endnote-ref-70)
71. Ibid, 48 [↑](#endnote-ref-71)
72. Dandan Song and Zhaojun Yang, ’Contingent Capital, Real Options, and Agency Costs’, (2016) International Review of Finance, 20 [↑](#endnote-ref-72)
73. Marcel Kahan and David Yermack, ’Investment Opportunities and the Design of Debt Securities’, (1998) Journal of Law, Economics, & Organization,139 [↑](#endnote-ref-73)
74. Bhanot and Mello (n.35)72 [↑](#endnote-ref-74)
75. Bhanot and Mello (n.35)79 [↑](#endnote-ref-75)