An accounting view of the dual nature of convertible bond as a financial instrument

Petko ZAHARIEV[1]

[1] University of Economics, Varna, Bulgaria
petko_zahariev@ue-varna.bg

Abstract. The article aims to present two different historically developed points of view in the accounting treatment of convertible bonds in the issuer's accounting - as a uniform financial liability (a typical debt instrument) and as a hybrid and non-uniform financial instrument containing two components - a financial liability and an element of equity. In the course of the research, the ever-increasing role of convertible bonds as a financial instrument in corporate practice, both worldwide and in Bulgaria, is emphasized, as well as some main characteristics that distinguish them from the standard debt financial instrument. The study is limited only to the accounting of corporations as debt issuers, as well as to the statutory regulations of only the two main accounting bodies-FASB and IASB. A methodology for evaluating the two components is also presented, as well as some aspects of accounting depending on the decision to exercise or not the right to convert. The study utilizes aim methods such as research and analysis of publications from the scientific community, as well as the relevant accounting regulations developed by the FASB and the IASB. In conclusion, in a historically presented discussion, the author accepts the generally accepted FASB Accounting Standards Codification and International Accounting Standards understanding of the hybrid nature of this specific financial instrument, consisting simultaneously of two different elements requiring separate measurement, reporting, and disclosure. The article has a necessary practical-applied usefulness, considering the increased interest both in the world and in Bulgaria in this specific way of corporate financing.

Keywords: convertible bond, financial liability, equity component, USGAAP, International Accounting Standards
Received: 21.05.2024
Revised: 31.05.2024
Accepted: 14.06.2024
Published: 28.06.2024

1. Introduction

Over the past few years, in the corporate practice of developed countries, there has been an increased interest in the issuance of convertible bonds as a way of cheaper corporate financing and a number of other comparable advantages of this special financial instrument.

Boosted by a combination of a stronger-than-expected US economy and the prospect that monetary conditions will improve in the second half of the year, US companies with investment-grade ratings have raised more than a whopping $265 billion convertible debt as of March 2024 (Monteiro, T. 2024).

According to other sources-„Financial Times" (Clarfelt, H., Megaw, N., 2024) a growing number of US corporations are once again turning to the issuance of convertible debt in their quest to lower corporate debt levels and maintain them for the foreseeable future. The increased activity of US companies in issuing convertible bonds is confirmed by the data of a rise in 2023 of 77%, which largely restores this market to the average values before the Covid-19 pandemic and after its stagnation in 2022. All expectations are that increased interest in this specific financial instrument will continue into 2024 as it shifts away from smaller and emerging technology companies and towards significantly larger and established names in US corporate practice. Underlying this assumption is the expectation that the Federal Reserve will hold its interest rates higher and for a longer period of time than the investment community and financial analysts had predicted a year earlier.

According to Reuters (Howcroft, E. 2024), increased appetite for corporate debt issuance is also seen in Europe, especially among companies financed by venture capital, which in the post-Covid 19 years received unreasonably high market valuations. Due to the decrease in the volume of so-called risk financing, the issuance of convertible bonds proved to be a suitable way to finance these companies, and this led to a sharp increase in the issuance volumes of convertible debt, from 1.7 billion dollars in 2022 to 2.5 billion dollars in 2023.

Apart from the indicated world trend, in the last 10 years in Bulgaria, there have been cautious attempts by some Bulgarian companies to finance their activities through the issue of convertible debt - "Sofia Commerce Pawn Shops" AD (2013), "Central Cooperative Bank" AD (2013), "Industrial Holding Bulgaria" AD (2013), "Monbat" AD (2017), "Sugar Factories" AD (2022), "Doverie United Holding" AD (2023), "Texim Bank" AD (2023), and „Opportunity Bulgaria Investment" AD (2024).

The renewed interest in the hybrid financial instrument-convertible bond provokes the need to study it as a specific accounting object from the point of view of the issuing companies, including its characteristics, and the presence of different historically formed approaches for its current reporting and disclosure in the financial statements.

2. Literature review and implementation

Convertible bonds are financial instruments that allow their holders to either hold the security until maturity, when they will receive back its nominal value, or to exercise the early (before maturity) conversion option, receiving equity instruments in exchange for debt (shares or rights to acquire shares). The possibility of choice gives reason convertible debt is considered a "hybrid" financial instrument (Epstein, Barry J. et al. 2002).

The financial management team's decision to repay the bond loan by exercising the conversion privilege - established as a clause in the bond indenture (deed of trust) most often rests on considerations related to an assessment of the features of the hybrid type of securities-convertible bonds[1] (APB Opinion № 14 *Accounting for Convertible Debt and Debt Issued with Stock Purchase Warrants*, 1969):

a) The interest rate on the convertible bonds is lower than the one the issuer has set for the non-convertible bonds. The reduced interest rate is a result of the value of the conversion option. In other words, the issuer of a convertible instrument "buys down" the interest rate by selling the investor the conversion option embedded in the debt or equity host instrument (6.1A Chapter overview of convertible debt accounting—before adoption of ASU 2020-06, PWC);

b) As a rule, the initially established price in the bond contract at which the exchange will be carried out is higher than the market price of the shares at the time of the operation;

c) Often, the issuer adds to the conversion clause in addition to the speech an option (right, opportunity) to buy back its ordinary shares, which it will provide in exchange for bonds;

d) The buyer of such bonds usually pays a premium over the conversion price;

e) As a financial reporting object, convertible bonds have a smaller dilutive effect on the indicator "Earnings per share" compared to ordinary shares.

When convertible bonds are issued, the bond indenture (deed of trust) must specify the conversion factor relative to the ordinary shares for which a bond can be exchanged. If one bond is exchanged for 10 ordinary shares with a nominal value of BGN 1 each, the conversion ratio will be 1:10 but may be systematically reduced until maturity, when the unexercised conversion privilege will be canceled.

The price at which the conversion will take place is calculated as a ratio between the nominal value of the convertible bonds and the number of ordinary shares received, which can also be derived from the conversion ratio.

This price is too fixed firmly in the bond indenture (deed of trust), but in practice, it differs from the other three convertible bond valuations known to financial and accounting theory:

a) *The investment value* is the valuation of the convertible bond if the latter did not contain a convertible bond but possessed all the other features of a debt instrument of the same degree of risk and quality. Mathematically calculated, it is equal to the present value of the periodic interest payments, plus the present value of the principal of the bond;

b) *The conversion value* of the bond can generally be determined by multiplying the number of common shares received as a result of the exchange and the market price of one common share at the time of the transaction. If a bond with a nominal value of BGN 10 is exchanged for 2 shares with a nominal value of BGN 5

[1] Below in the text convertible bonds and convertible debt will be used as synonyms, as are related terms „ordinary shares" and "common stock".

each, but with a market price of BGN 5,50, the conversion price of the bond will be BGN 11 (2 x BGN 5,50). The difference between the conversion price of the bond and its actual market price will be the conversion premium that the investor will pay for the received conversion right;

c) The relationship between the above-mentioned valuations of pure convertible bonds is evident in *the market price* of the convertible bond, which may be different from both the conversion price and the bond's investment value. The market price of the convertible bond, however, cannot be lower than its investment value, since the former is equal to the investment value, plus the value of the conversion right. The market value cannot be lower than the conversion price, because, in a fair exchange, the convertible bond cannot be worth less than the common stock for which it is exchanged.

From these purely financial aspects of the conversion and valuation of convertible bonds, an accounting-oriented dispute arises: *whether convertible debt securities should be treated by the issuer only as debt or whether part of the proceeds received from the bond issue should be recognized as an element of equity.*

The first point of view is expressed in the view that debt and conversion privilege are inescapably linked in the issue price of the bond and should not be valued separately because the bondholder cannot sell one part while keeping only the second. A similar understanding was adopted in some of the early sources of USGAAP (e.g., APB Opinion No. 14 *Accounting for Convertible Debt and Debt Issued with Stock Purchase Warrants*, 1969), which, ignoring the thesis of the hybrid nature of convertible bonds, does not recognize the division of their substance into a debt and equity component and treats convertible bonds only as a debt instrument. From the position of the Bulgarian accounting regulations, we consider that the approach is currently also adopted by Bulgarian National Accounting Standard No. 1 *Presentation of the Financial Statements* (item 16.13) through the requirement for separate presentation of the convertible bonds in row position "*Bond loans"* of section "*Liabilities"*, i.e., as a typical and rather homogeneous liability, without even hinting at the disclosure of the capital component within equity.

On the other hand, the accounting community supporting the **opposite point of view** claims that in the substance of this type of securities, there are two different elements, each of which must be recognized in accounting. That part of the issue value applicable to the conversion privilege will be recorded to the credit of account 105 *Premiums, related to capital*, and the difference (nominal value) should be recognized as a debt, which will be reflected in account 153 *Debt instruments*[1].

The accounting treatment of a convertible debt instrument is based on the specific conditions under which the instrument was originally issued, as one of the most important parameters influencing the specific accounting treatment is how and against what the convertible debt is settled (redeemed). Without claiming to be exhaustive, we consider the possible options to be two-entirely in equity instruments (shares or stock options) or in a combination of equity instruments and cash.

Internationally, a significant harmonization of the conflicting views on the essence of convertible bonds can be found. For example, in August 2020, the FASB issued ASU 2020-06 *Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging - Contracts in Entity's Own Equity (Subtopic 815-40).* The new standard is effective for companies that are US SEC filers (except for Smaller Reporting Companies) for fiscal years beginning after December 15, 2021, and interim periods within that year, and two years later for other companies (*New convertible debt accounting guidance*, updated August 2020, PWC).

The ASU 2020-06 simplifies the accounting for certain financial instruments with characteristics of liabilities and equity. The FASB reduced the number of accounting models for convertible debt and convertible preferred stock instruments and made certain disclosure amendments to improve the information provided to users. In addition, the FASB amended the derivative guidance for the "own stock" scope exception and certain aspects of the EPS guidance (6.1A Chapter overview of convertible debt accounting—before adoption of ASU 2020-06, PWC).

In § 221 Para. 1. Section 1 of the German Companies Act (AktG), a convertible bond is defined as a security with which the issuer grants the investor an exchange or purchase option to convert the bond purchased into shares at a predefined point in time. The financial instrument thus embodies a hybrid contract, consisting of a bond and an embedded option contract (long call) (Menk, M., Mies, M. 2016).

IAS 32 *Financial Instruments: Presentation* anchors the understanding of the convertible bond as a complex (composite) financial instrument that contains both a liability and equity element and is a combination of a host contract (an obligation to repay the principal at maturity) and an embedded derivative (equity conversion option).

[1] For the purposes of the research, the numbers and names of accounts from the Sample Chart of Accounts, developed by the Department of accounting of Varna University of economics will be used.

As it is known, IAS 32 *Financial Instruments: presentation*, introduces as a criterion for distinguishing between a financial liability and equity the fact whether the issuer (the reporting entity) has an obligation to pay cash or some other financial asset or not. However, compound financial instruments such as convertible bonds should be divided into equity and liability components, as the equity component is measured as the difference between the fair value of the compound instrument and the fair value of the liability component (*Financial Instruments with Characteristics of Equity, Proposed Amendments to IAS 32, IFRS 7, and IAS 1* Exposure Draft November 2023, IFRS).

The standard does not address the valuation of financial assets, financial liabilities, and equity instruments and does not recommend a specific method for assigning a book value to the liability and equity elements contained in the complex financial instrument, as the question of the valuation of the components is rather in the regulation of IFRS 9 *Financial Instruments*. In practice, the following methods can be used:

a) Assigning a value to the more difficult-to-assess component (as a rule, this is the capital instrument) equal to the remainder after deducting the value that is determined separately for the easier-to-assess component from the value of the instrument as a whole. Under this approach, the issuer of a convertible bond first determines the carrying amount of the financial liability by discounting the stream of future interest and principal payments at the prevailing market rate for a similar liability that does not contain an equity component. The carrying amount of the equity instrument represented by an option to convert the instrument into common stock can then be determined by deducting the carrying amount of the financial liability from the value of the instrument as a whole. It should be noted that this approach remains fundamental after the latest amendments to IAS 32: *International Financial Reporting Standards (IFRSs) as of 1 January 2005 inclusive IASB Explosion Drafts, IFRIC Draft Interpretations, Discussion Papers and other IASB and IASC Foundation materials.*

b) Evaluating the components "liability" and "equity" separately, and to the necessary extent their proportional adjustment, so that the sum of the components is equal to the value of the instrument as a whole.

The hybrid nature of the convertible bond requires a **non-traditional treatment of some usual costs** accompanying the financial instrument under consideration, in particular the costs of the issue and the costs of interest payable by the issuer.

Issue costs and interest costs should be split between the two different components of the complex financial instrument. For that part of the costs applicable to the capital component of the convertible bond, the equity approach should be applied, and they should be reflected in a reduction of equity, while the part of the costs corresponding to the financial liability should be recognized in a reduction of the financial result through an adjustment of the interest expense, analogous to the amortization of the discount.

The realization of a gain or loss on conversion cannot always be expressed in a clear form that allows this financial result to be disclosed in the income statement, and, in practice, the accounting treatment of this financial result will vary depending on how it can perform the conversion itself. In this case, we would suggest three main approaches for repaying a bond loan through conversion:

a) Purchase of own shares and their exchange for convertible bonds. The company can carry out these operations as an investor and buy the package of shares necessary for the conversion at the current exchange rate or by exercising its right to buy back a part of its own shares from the shareholders themselves at a price fixed in the company's articles of association (if the ordinary shares are of the "redeemable" type). In both cases, the shares, purchased by the company will be valued at the purchase price actually paid on the date of purchase, based on the number of shares required for the conversion and their nominal value;

b) Use of shares representing part of a treasury package (*Treasury stocks*). Here, when writing off the replaced capital instruments, the starting point should be the reporting value of each share from the package, regardless of the fair price of the remaining similar shares in circulation on the date of the exchange;

c) If the company decides that the option to buy back its own shares through the market is unprofitable (in case its market rate is currently very high), it could organize a new issue of additional shares to distribute to its bondholders. The issuance of new ordinary shares, which, at the specified conversion ratio, will be granted in exchange for the voided bonds, will not lead to an adequate increase in the net stockholders' equity (for example, by increasing the cash proceeds from the issue), but only to an internal dislocation of capital structure - the increase in the share capital will be at the expense of the repaid bond loan. The exchange is based on the issue value of the new shares, which must correspond to the conversion value of the bonds.

The accounting procedures regarding the issue of convertible bonds and their subsequent exchange for ordinary shares are as follows:

1. The first step in determining the present value of the debt is related to the calculation of the applicable discount factor. For this purpose, the tables containing calculated discounting factors for the present value of BGN 1 principal and corresponding interest annuity, discounted with discount rate " Y " for " t " number of periods, can be used;

2. Complying with the requirements of IAS 32 *Financial Instruments: Presentation*, we can determine the book value of the capital component of convertible bonds-the conversion option as the difference between the proceeds of the issue and the present value of the debt;

3. After these operations, the issuer's debt on account 153 *Debt instruments* will be presented at the nominal value of the bonds, the value of the capital component reflected on account 105 *Premiums, related to capital* or on account 115 *Premium reserve* will represent the book value of the option to convert into common shares. It should be noted here that it is appropriate to open two analytical accounts to the chosen one of the above accounts:

- An analytical account with the sample name "*Premiums from the issue of capital instruments*", which will reflect the premiums from the issue of shares, as well as all subsequent operations with them;

- Analytical account with the sample name *"Capital component of convertible bonds - conversion option"*, which will reflect only the operations of origination and write-off of the capital component of the bond, regardless of whether the conversion option is exercised or not. The credit balance of the account will express the book value of the not yet exercised conversion right and may be disclosed together with the credit balance of the above analytical account in one item or in a separate item in the equity section of the balance sheet with the name "Equity component of convertible bonds";

4. The "financial liability" component after its initial recognition must be reported at amortized value, for which the issuer develops an amortization plan;

5. If all investors exercise their conversion right, the issuer should write off the book (amortized) value of the debt at the maturity date, compiling accounting articles to reflect the accrued interest for the relevant interest periods and the systematic amortization of the discount/premium at the expense of the accounting interest expense, to write off the last unamortized part of the discount/premium, which remained unrecognized due to the early repayment of the debt before maturity, and to write off the nominal value of the debt;

6. The conversion of bondholders into shareholders of the company, in turn, requires two more accounting procedures:

- If the ordinary shares distributed to the bondholders are registered, it is necessary, after their entry in the book of shareholders, that the issuer reflect the change of information on the account 101 *Fixed capital* analytical accounts for the new shareholders;

- After the option to convert the bonds into shares has already been exercised and the conversion feature of the bonds should be written off, it is appropriate to carry out a corresponding transformation on the kept analytical accounts to account 105 *Premiums, related to capital*, resp. account 115 *Premium reserve.*

In the event that, by the maturity date, the bondholders do not exercise their right to convert, the debt of the issuer (principal and regular interest payments) will be serviced normally, for which the standard accounting items related to the usual repayment of the bond loan should be drawn up. After the expiry of the conversion period, the conversion option is canceled due to its non-exercise, and with this option, it is necessary to draw up an accounting article to change the nature of the information on the relevant analytical accounts. This is explained by the fact that by not taking advantage of their right to convert, the bondholders in practice give up capital that they "donate" to the company through the conversion privilege carried by their bonds, unexercised until the maturity of the bonds. For this reason, for example, in the USA, the conversion right canceled at maturity is called "*Donated capital"*, but it can also be disclosed through other balance sheet items: *Additional paid-in capital*, *Capital surplus*, etc. (Epstein, Barry J. et al. 2002).

Unlike International Accounting Standards, US GAAP considers situations where, after the issuance of the convertible bonds, individual conditions of the conversion may be changed (modified). The use of "sweeteners" aims to stimulate bondholders to decide on the faster exercise of their conversion right, which in turn is related to reducing interest costs or optimizing the "debt/equity" ratio in the accounting of the issuer.

Modification of the terms of the conversion may include an increase in the exchange ratio (which in turn results in a reduction of the originally determined conversion price), additional issuance of warrants, options, and other equity derivatives, or the payment of cash or cash equivalents in addition to the conversion price.

The main accounting issue that can be defined here is what impact on the issuer's financial result the improvement of the conversion conditions has and when this impact should be reflected in the financial statements of the debtor. We believe that the debtor should recognize a financial result when the equity instruments granted in exchange for debt have a fair value at the time of the exchange other than the conversion price determined under the original conversion terms of the issue. In the event that the fair price of the shares provided in exchange is lower than the balance sheet (amortized according to IAS) value of the debt, a profit (income) should be recognized, and in the opposite case, a corresponding loss (expense).

3. Conclusion

The renewed interest in the hybrid financial instrument-convertible bond provokes the need to study it as a specific accounting object from the point of view of the issuing companies, including its characteristics, and the presence of different historically formed approaches for its current reporting and disclosure in the financial statements. The financial management team's decision to repay the bond loan by exercising the conversion privilege established as a clause in the bond indenture (deed of trust) most often rests on considerations related to an assessment of the features of the hybrid type of securities-convertible bonds. The accounting treatment of a convertible debt instrument is based on the specific conditions under which the instrument was originally issued and how the instrument is settled upon conversion. The hybrid nature of the convertible bond requires a non-traditional treatment of some usual costs accompanying the financial instrument under consideration, in particular the costs of the issue and the costs of interest payable by the issuer.

In response to the question*: of whether convertible debt securities should be treated by the issuer only as debt, or whether part of the proceeds received from the bond issue should be recognized as an element of equity* and regardless of the presence of two historically arising and opposing points of view, in the last more than 50 years, a significant harmonization of the understanding of the financial instrument under consideration has been found in the regulations of the leading accounting bodies FASB and IASB, accepting its hybridity and duality, requiring separate valuation, reporting, and disclosure.

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