

CONVERTIBLE BONDS FOR COMPANIES INVESTMENT PROCESS

Oksana A. Karpenko, Peoples Friendship University of Russia
Tatiana K. Blokhina, Peoples Friendship University of Russia

ABSTRACT

The comparison of strategy of companies- issuers of convertible bonds is carried out in the article. As indicators of the strategy the following indicators are taken: Total Asset Turnover (TAT); Return on Assets (ROA); CAPEX/Total Assets; Tobin's Q (Q Ratio); Issue Size/Total Assets; and Issue Size/Tangible Assets. The results show poor financial performance of the companies-issuers. Convertibles are likely to be commonly used in an investment process by the companies in order to improve the financial performance. There is evidence that Russian enterprises use convertible bonds for investment purposes. The companies may exercise new investment options to improve poor financial performance. At the same time, convertible bonds are used by the companies with low investment opportunities for financing investment projects, attraction of cheap funding and also for refinancing of the previous emissions of bonds.

Keywords: Debt Financing, Investment Process, Convertible Bonds.

JEL: G15, G23, G31

INTRODUCTION

Nowadays there is a growth of interest from potential investors and issuers for convertible bonds. This type of securities allows to reduce risks of high volatility in the stock markets, and to get potentially considerable advantages of value growth of the company- issuer. The convertible bond is a bond with a coupon, smaller in comparison with the usual bond, but it grants to the holder the right to convert it into shares or depository receipts. Convertible bonds as well as "classical" bonds can be in listing at the exchange. However, they can circulate among limited investors (Billingsley et al., 1988).

Convertible bonds provide payment of face value at the time of repayment and also there are periodic payments of coupons. The owner of the bond has the right to convert it into common stocks or depository receipts at in advance determined price - the conversion price. Coefficient of converting (conversion rate) -the number of securities which can be received when converting the bond. The coefficient of conversion is defined by division of face value of the bond into the price of conversion of shares.

The conversion price is the price at which the share "is taken" when converting the bond. The convertible bond is considered "in cash" if the market price of shares higher than price of conversion. The convertible bond is considered "out of money" if the market price of shares is less than the price of conversion. This terminology corresponds to terminology of the option "call" for shares so as the convertible bond contains signs of the bond and call option on shares. The coefficient of conversion of shares is established by the issuer at emission of shares and during the circulation of the bond. It may be changed if there are conditions of adjustment in the

handout. The right for correction of coefficient of converting of the bond creates difficulties for the investor as the investor does not know how many shares he can receive on the bond. The most widespread term of issue of bonds - five years, but it can vary from three to five years.

Low price of funding for the companies is the main reason for issue of convertible bonds. Funding of the company by emission of ordinary bonds can be too expensive for issuers with low investment class because it has to offer the company high interest rates for high-risk bonds. Additional emission of common stocks will not increase financial leverage of the company, but it may have an adverse effect on share price, it may drop. Shareholders of the company can face effect of share dilution. Certainly, the stock market will also negatively react to emission of convertible bonds; however the negative effect of falling of share price will be less. For this reason attraction of financial resources by emission of convertible bonds gains the increasing popularity (Billingsley & Smith, 1996).

Now the world market of convertible bonds is generally occupied by the hi-tech companies focused on growth, such as Intel (INTC), Lam Research (LRCX) and Microchip Technologies (MCHP). They emitted large number of convertible bonds in the previous years. Growth of share prices of the companies of the hi-tech sector allows them to take advantage of this financial instrument. The convertible debt can also be more available, than traditional debt financing for many hi-tech firms because they have a limited cost of fixed assets and high volatility of cash flows. The purpose of our research is consideration of problem of use of convertible bonds in corporate investment process (Laurent, 2006; Kisgen, 2007).

LITERATURE REVIEW

Stein (1992) claimed that the choice of sources of funding depended on field of activity of the company. He divided the companies into three types: good, medium and bad. The good and bad companies as a rule do not use convertible bonds. The good companies can attract financing by direct loan. Poor firms will also not emit convertible bonds so as it leads to essential deterioration in financial position. The medium companies emit convertible bonds and get additional benefits from similar funding; they have possibility to change structure of the capital due to financial position and the strategy of the company by change of coefficient of converting. The similar situation allows medium-sized companies to get additional profit and at the same time to increase financial stability and solvency.

Mayers (1998) assumed that convertible bonds were used in corporate investment process. Convertible bonds with the call option allowed the company to increase investment opportunities and at the same time to solve problem of overinvestment. In case the investment project was not been undertaken in whole or in part, and the firm had excessive liquidity, then it could make redemption of convertible bonds. In situation of lack of liquidity the company could raise addition money in the financial market with the minimum costs.

Chang et al. (2004) were also engaged in similar research. The Asian markets were subject of their probe. Bancel & Mittoo (2004) conducted research of the motives and the reasons which caused emission of convertible bonds. They made a poll and the analysis among corporate finance directors from the United States of America and Europe. Kaźmierczak (2017) carried out the analysis of these 1705 convertible bonds emitted by the companies of services sector from the United States of America (1138); Europe (270); and Asia (297) from 2004 for 2014. Its main objective is to study the role of the convertible bonds which are subject to repayment in corporate investment process.

Chemmanur & Simonyan (2010) presented the first empirical analysis of firms' rationale

for issuing putable convertible bonds in the literature. They distinguished between three possible rationales for the issuance of putable convertibles: 1) the risk-shifting hypothesis, 2) the asymmetric information hypothesis, and 3) the tax savings hypothesis.

Ekkayokkaya et al. (2012) developed a theoretical model to explain why some issues of convertible bonds included a call feature whereas others did not and then test the predictions of the model empirically. The reasoning in the model was that good firms did not need a call feature and therefore issue straight debt or non-callable convertibles.

According to Myers's hypothesis the issue of the convertible bonds is the subject to repayment. It supports investment process of the company; it is possible to assume that the hybrid debt can be used by firms with rather low return on assets (ROA) and low coefficient of turnover of assets. For this reason the companies issued bonds with the embedded option have lower investment opportunities.

METHODOLOGY

In the Russian Federation during the period from 2009 to 2019 there were several large emissions of convertible bonds (Table 1). For our analysis we have excluded the emissions in the period of turbulence in the financial markets from the analysis (Alliance Oil and Evraz issued convertible bonds in 2009, Petropavlovsk and TMK - in 2010).

Company	Date of issue	Size	Repayment period	Coupon	Converting conditions	Conversion award
Lukoil	November 2010	1500 million USD	4, 5 years	2.63%	Right for early conversion at issuer: 140% through 3 years	40%
Yandex	December 2013	690 million USD	5	1.10%	Bonds can be converted into money, shares of Yandex of class "A" or into combination of money and shares (to the discretion of Yandex). The initial volume of emission was \$600 million, in January, 2014, the additional one was \$90 million	38%
Severstal	February, 2017	250 million USD	5	0	Conversion is possible after March 9, 2020 if the cost of the GDR will exceed 130% of the increased par value of Bonds during the certain period.	35%
Polyus Gold	January 2018	250 million USD	3	1%	The initial price of conversion is established of \$50,0427 for the GDR that represents award of 30% to the reference price of \$38,4944	30%
Petropavlovsk	June 2019	125 million USD	5	8.25%	Conversion at repayment. Bonds are emitted with refinancing of issue of eurobonds with a total amount of \$100 million with repayment in 2020 of ISIN XS1201840326 (Petropavlovsk-2020-euro).	22.50%

Source: According to the data of the companies.

The purpose of our research is assessment of investment opportunities and competitive positions of the companies issuers of the convertible bonds by a number of indicators: asset turnover, return of assets (ROA), Tobin's Q Ratio coefficient, ratio of the amount of emission to total assets (issue size/total assets), ratio of the amount of emission to material assets and tangible assets (issue size/tangible assets), issue of capital investments to total assets (CapEx/total assets).

RESULTS AND DISCUSSION

The comparative analysis was made for Russian companies which emitted convertible bonds in the last decade. Coefficients were calculated according to the annual financial statements of the year preceding year of issuance of the bonds.

The turnover of assets illustrates the funds available for the organization and how effectively they are used. It is possible to determine the level of efficiency and effectiveness of use of assets, property and obligations of the enterprise. If the coefficient of asset turnover is less or is equal to 1, the value of turnover will be low, and the investments will not be covered by the revenue. The higher is the value of this coefficient, the quicker is the turnover of assets and, respectively, the firm gains more on 1 ruble of investments in assets. According to data of the Table 2 asset turnover indicator at all companies is less than unit. It is an evidence of weak investment opportunities of all companies - issuers of convertible bonds. The median and average value also is 0.6167 and 0.5471 (Table 2).

	Total asset turnover	ROA	Tobin's Q Ratio	Issue size/total assets	Issue size/Tangible assets	CapEx/ total assets
Lukoil (st. 2009)	0.7991	8.60%	2.2361	0.0515	0.0665	0.0969
Yandex (st.2013)	0.6470	20.67%	0.1729	0.2330	0.9012	0.0889
Severstal (st. 2015)	0.5865	8.44%	4.1774	0.0697	0.0697	0.0474
Severstal (st. 2016)	0.6561	18.85%	2.4397	0.0317	0.0446	0.0283
Polyus Gold (st.2017)	0.4438	20.19%	2.5880	0.0382	0.0541	0.0969
Petropavlovsk (st.2018)	0.1502	3.24%	3.7472	0.0764	0.1139	0.0822
Average value	0.5471	13.33%	2.5602	0.0834	0.2083	0.0734
Median	0.6167	13.73%	2.5138	0.0606	0.0681	0.0855
Art. deviation	0.2259	0.0747	1.4032	0.0753	0.3403	0.0288

Source: Calculated by the author according to financial statements.

The indicator of ROA estimates efficiency of use of assets of company. If the company generates less income for \$1 of assets, the less effectively business disposes of resources. The high volume of assets means that the company reinvests large sums in updating of the equipment to continue to get profit.

According to data of Table 2 the greatest profitability of assets the Yandex and Polyus Gold companies have, the smallest Petropavlovsk and Lukoil. The Tobin Q ratio reflects investment opportunities of a firm; the equilibrium value is equal 1. If q ratio is more than 1, investments are favorable, if q ration is less than 1 investment are not favorable. Tobin suggested using this rather simple Q ratio from the point of view of simplicity of obtaining information for assessment of the financial market. The median and average value of coefficient of Tobin in Table 2 is more than 1 therefore most the companies are investment attractive. The smallest

coefficient of Tobin has Yandex Company; the greatest belongs to the Severstal Company in 2015. Indicators of issue size/total assets and issue size/tangible assets tell us about the size of emission of convertible bonds and about their relation to total and material assets of the company. The more is the coefficient, the bigger is the volume of resources is attracted by the company. The greatest value of indicators issue size/total assets and issue size/tangible assets belong to the Yandex Company, the smallest to Lukoil and Severstal. Yandex has the big need for attraction of external financing for implementation of projects and realization of investment opportunities because it is impossible to use alternative ways of funding. The companies of branch sectors of economy, despite low indicators of profitability of assets have sufficient investment attractiveness and can attract financing in other ways. The hi-tech company Yandex invests in purchase of fixed assets quite a lot. There is a high coefficient of CapEx/total assets which is equal 0.0889 that is bigger than average value on all companies which is equal to 0.0734. The Severstal Company has at the same time the lowest indicator of CapEx/total assets, in 2015 it is 0.0474. The company has the conservative strategy of financing of acquisition of fixed assets.

In general taking into account all calculated coefficients there is a conclusion that the companies which have emitted convertible bonds have low investment potential. The turnover of assets is significantly less than 1. Some of them have average profitability of assets, about 20% (Yandex, Polyus Gold) that tells about high return from their use. At the same time the Yandex Company has low coefficient of Tobin that is why it has low investment attractiveness for shareholders.

The convertible bonds are used by the companies with low investment opportunities for financing of investment projects and attraction of funding. Yandex Company is the best example to show that the company with low indicator of asset turnover, low Q ratio and large issue size/total assets and issue size/tangible assets issues convertible bonds to finance investment opportunities.

CONCLUSIONS

Convertible bonds are one of the main instruments of attraction of funding in the company. Convertible bonds are especially attractive to the fast-growing companies with unstable financial position. In our research the analysis of the Russian companies- issuers of the convertible bonds was carried out. The main objective of this class of assets is in granting the additional capital to the issuer which can be used for the investment purposes and reduce probability of bankruptcy of the company. Moreover, the yield on conditionally convertible bonds is in most cases is higher than profitability of other debt tools. In general, this new tool exerts positive impact as on all financial system as it interferes with crisis emergence, and on financial position of the enterprise issuer.

In spite of the fact that convertible bonds are still insufficiently popular in Russia and the limited number of the companies is engaged in their release, convertible bonds can represent a great value for the Russian market. They will allow issuers to attract the available financing promoting economic growth and also will give opportunity to investors to invest the money in highly profitable derivative financial instruments.

During the analysis of investment opportunities of the company's issuers of convertible bonds the following indicators are used in our research: asset turnover, return on of assets (ROA), Tobin's Q Ratio, issue size/total assets, and issue size/tangible assets, CapEx/total assets. The results show poor financial performance of the companies-issuers. Convertibles are likely to

be commonly used in an investment process by the companies in order to improve the financial performance.

The research results provide evidence that Russian enterprises use convertible bonds for investment purposes. The companies may exercise new investment options to improve poor financial performance. At the same time, convertible bonds are used by the companies with low investment opportunities for financing of investment projects, attraction of cheap funding and also refinancing of the previous releases of the euro bonds as at the company Petropavlovsk.

ACKNOWLEDGMENTS

The publication was prepared with the support of the “*RUDN University program 5-100*”.

REFERENCES

- Bancel, F., & Mittoo, U. R. (2004). Cross-country determinants of capital structure choice: a survey of European firms. *Financial Management*, 103-132.
- Billingsley, R.S., & Smith, D.M. (1996). Why do firms issue convertible debt?. *Financial Management*, 93-99.
- Billingsley, R.S., Lamy, R.E., & Thompson, G.R. (1988). The choice among debt, equity, and convertible bonds. *Journal of Financial Research*, 11(1), 43-55.
- Chang, S. C., Chen, S. S., & Liu, Y. (2004). Why firms use convertibles: A further test of the sequential-financing hypothesis. *Journal of Banking & Finance*, 28(5), 1163-1183.
- Chemmanur, T.J., & Simonyan, K. (2010). What drives the issuance of putable convertibles: risk-shifting, asymmetric information, or taxes?. *Financial Management*, 39(3), 1027-1068.
- Ekkayokkaya, P., Gemmill, G., & Koufopoulos, K. (2012). *Why are some issues of convertibles callable and others not?*.
- Kaźmierczak, D. (2017). Do callable convertibles support the investment process of a company? An analysis of the world market of hybrid debt. *Comparative Economic Research*, 20(2), 5-19.
- Kisgen, D.J. (2007). The influence of credit ratings on corporate capital structure decisions. *Journal of Applied Corporate Finance*, 19(3), 65-73.
- Laurent, S. (2006). *Convertible Debt and Preference Share Financing: An Empirical Study*.
- Stein J.C. (1992). Convertible bonds as backdoor equity financing, *Journal of Financial Economics*, vol. 32(1).