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RISK MANAGEMENT IN FINANCING PUBLIC AUTHORITIES THROUGH BONDS

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Abstract

Lack of resources often invoked by local authorities can be solved by using tools provided by the Capital Market. In this regard, the issuance of municipal bonds may create the necessary funds in order to finance local social objectives of great importance. The paper proposes to analyze risks and benefits of financing public authorities through bonds, both from their perspective and that of investors.

Introduction

When public authorities' access to loans becomes difficult, when the conditions of a bank loan are enslaving or simply when access is limited to the financial situation of the applicants, there is a solution - bonds. The capital market offers this product to public authorities who wish to finance current activities or investments, as the lenders are not banks but the capital market investors, who may be individuals, companies, insurance companies, etc.

Municipal bonds are securities issued by the local authority, which gives the holder the status of creditor [5]. Their holder has the right to charge the municipality interest on the sum credited, and also recovering the amounts invested at maturity. The success of this procedure is safe in developed countries since the municipality shows the objective that will be achieved and its implications in the life of the inhabitants, after which, by issuing municipal bonds, it will raise money for the community. Currently we pay many local taxes, but their destination is not known. In the case of bond issue, the citizens know that their money will be spent on a bridge, a stadium, an electronic heating plant, etc. The transparency of the operation greatly increases its success. The earning for the citizens is twofold: on the one hand, money invested in safe securities issued by the municipality, and secondly, they directly benefit of the objectives achieved from their money, locally. It should be noted that, in current conditions, public decisions have an obvious political character and it is required to assume them [2].

Risk management from the perspective of creditors and public authorities

Through the involvement of capital markets in financing public authorities, objectives can be achieved in a shorter time but the risks increase in proportion. When we say risks we refer both to the securities issuers and the investors.

In a nascent capital market as the one in Romania, the risks manifest themselves more accentuated by the fact that there is always an uncertainty of achieving the expected effects on the financing of economic agents. These risks denote that either the financing process is slowing down; either is blocked, but also the possibility to obtain losses with an undercapitalized effect on the activity of economic agents.

The presence of these risks makes the financing of public authorities to be dependent on a number of items that do not relate directly to their work. Risks must be quantified, and thus reducing their effect represents a major concern of management.

It is necessary to take into account two major risk categories:

- general risks, category comprising certain political and economic events that affect the financing process objectively;

- specific risks related to the business of issuers - failure to achieve objectives, mismanagement, etc.

After the outbreak of the global crisis, the overall risks were felt more stressed through the privatization policy, monetary and financial reforms, domestic and international political events, with implications on the overall economy capitalization.

Country risk, as the overall risk, was manifested in the capital procurement action from international investments, due to the particular political and economic conditions in the Romanian economy during the transition period and that eventually led to the country's ability to pay loans and to meet its international commitments. The risk of political sovereignty was also shown during this period, i.e. the possibility risk of political change with another government that no longer guarantees repatriation of capital and profits. Country risk is manifested more and more in these conditions of economic crisis, thus feeling the need to quantify a more complex rating [1].

Given the natural evolution of the domestic currency against foreign currencies, the foreign exchange risk was manifested, in the transition period and in the present time, and by the cancellation of profits and by obtaining losses, led to decapitalization.

Another risk, which occurred in this period, was that of double taxation [8] which is normally resolved by the recognition of taxation agreements between the importing country and the country exporting capital. The incomes derived from any natural or legal person or from activities performed in Romania or from operations performed by Romanian legal persons or other entities authorized to operate in Romania and the Romanian legal persons authorized to carry on their own income-producing activities are subject to taxation, whether the amounts are collected in Romania or abroad.

Developments of banking interests, in the transition period, determined that all investors who wanted to place their money in a financial way to treat the risk of interest rate as a reference risk. Increased bank interest from those of fixed-income securities (bonds and preferred stock) makes their price to drop. To protect themselves from this situation some securities have income clauses depending on the rate increase at day or clauses that give investors the opportunity to withdraw from the investment. For example common stock shows the advantage that the calculation of dividends takes into account both the rate increase and the inflation.

Liquidity risk of securities frequently manifested itself in recent years because less active securities or those whose issuers have registered unsatisfactory results, have faced a greater resistance on sale, which has increased the difference between the price for demand and the price for supply.

Issuer risks occurred, as in some cases, the securities issued have not been sold quickly or completely. As a result, issuers could not take possession of the necessary resources to achieve business objectives, which has a negative reflection on the economic and financial results. For the prevention of such situations it is required that the issue to be done through various banks and specialized institutions.

Credit risk is manifested in the situation where the investors as creditors of the issuer (by purchasing bonds) do not get back the amount invested in the form of principal and interest payments. While the risk of interest payment is a short-term liquidity problem, the risk of failure to pay the principal is a long-term policy approached in the process of financing. Attracting sources through bonds is extremely risky for issuers in some Western countries because their legislation provides that when the loan is not paid the issuer company is declared bankrupt without any other formality. To avoid such a situation, the issuer sets aside money reserves in order to pay these loans.

From this credit risk arise the bankruptcy or insolvency risks. There are situations when not paying interests and credits does not involve bankruptcy (in the case of bonds

issued for legal reorganization). It is beneficial the development of independent agencies that provide debt securities quotations, which are used by the issuer to attract investors. However, the risk rating does not guarantee anyone a safe investment of their money and quotations cannot be used as legal evidence.

In recent years, the inflation risk has been felt more than ever, which manifested by increased prices for goods and services. In the case of fixed-income investments, inflation gradually erodes the profits of investors until cancelling. Inflation on the securities' market creates doubt from investors with extremely serious consequences on the functioning of capital markets.

Investment policies of investors in bonds issued by public authorities, relating to the process of optimizing the risk-return relationship, impose certain restrictions on their financial capital [3]:

1) Obtaining a minimum profitability in the form of interest.

Quantifying the profitability achieved by investing in a security must start from a reference market return, usually the average bank interest. Thus, portfolio management will be made so that profitability will be obtained to be above the benchmark return.

For bonds, the interest rate paid by issuers must be greater than the average interest rate on the market. This is a mandatory rule to attract potential investors, who would otherwise make savings at leading banks, safely.

2) Investing the capital available in several types of bonds from several issuers and in several economic sectors.

This will help mitigate the risks that are related to the creditworthiness of issuers, rating securities on the market, the closing of industries and their impact on foreign economies in the context of European integration.

3) Keeping a certain portion of capital available in liquid form or in an investment that provides rapid processing of the product in cash availability.

For structuring a portfolio, banking and stock exchange institutions provide the necessary information only after analyzing the characteristics of securities that compose each client portfolio. However the measurement of a portfolio performance management is very difficult due to the capitalization criteria underlying this kind of investment. In order to evaluate the efficient management, it is necessary to pursue these issues especially:

a) Knowledge of the period for which the performance management is evaluated;
b) Knowing the base of comparison for the results obtained (a stock index, a discount rate, etc.);
c) Management evaluation will take into account the items of management involved, separately from the items that they could not quantify;
d) Declaring from the beginning the objectives of portfolio management: conservation of capital, its growth, reducing liquidity risk, etc.

Without claiming that we have exemplified all possible risks, and mitigation measures, capital markets have been, are and shall be governed by one fundamental principle: the size of profit is directly proportional to the size of risk.

"Portfolio management is a difficult art or science. It requires a good knowledge of the conduct of courses and factors that influence it. However, recommendations for effective management are risky because of the unpredictable stock market activity. This does not mean that it is impossible to achieve a performance portfolio management, above average, but that its estimate is quite difficult and very expensive" [6].

Optimal management in achieving investments financed through municipal bonds

The interest of any company in public investments and not only is extremely high, knowing the fact that an investment is the main development path of any society. In these circumstances the public finance law establishes the legal framework of public investment as part of a unitary system of budgets.

Regarding the presentation of public investment in the budget project, expenses for public investment and other investment expenditures financed from public funds are included in the budget projects, based on public investment programs, which are presented as an annex to the budget of each creditor [4].

Any public investment program should include accurate information so that the principal creditors will present the annual public investment program, on the functional classification and also will transmit financial and non-financial information for each investment objective included in the investment program.

The category of financial information will include:

a) the total project value;

b) the commitment credits;

c) budgetary appropriations;

d) the schedule of financing, on sources and years, correlated with the time schedule;

e) cost-benefit analysis that will be achieved also for ongoing objectives;

f) operating and maintenance costs after the commissioning.

Economic optimum is that option of economic efficiency, from a variety of options analyzed and which obtains maximum effect per unit of effort, or that option of economic efficiency that requires the action of the least resources in order to obtain a unit of effect [9]. If we analyze the options of efficiency as the ratio between effort and effect, then economic optimum is that option efficiency that has the highest value. The same thing happens when we calculate efficiency as the difference between the effects and efforts. Instead, if the options of efficiency are calculated as the ratio between effort and effect, then the economic optimum is achieved from the option with the lower value.

The economic optimum implies the existence of an optimality criterion based on which we make value judgments about the various categories of efficiency, which implies a criterion for maximizing efforts [7]. In these circumstances, any management structure will follow, on the one hand, the maximization of results in terms of volume and a data structure of expenses, and on the other hand, the maximization of the expenses in order to obtain a certain amount of effects.

Making an investment lasts for years. Even if the total amount of invested capital is equal in all investment options, it matters how it is phased in years. Suppose we have three investment options (V1, V2, V3) in which the investment value is the same but is divided differently on years (Table no. 1).

Table no. 1. Timely distribution of investments

Year/option	V1	V2	V3
Year 1	300	100	500
Year 2	100	400	200
Year 3	600	500	300
Volume of investment	1000	1000	1000
Total assets	1700	1600	2200

Analyzing the situation, at a first glance seems that all options are the same. We need to ponder each amount invested with the number of years for which it is fixed,

property, thus obtaining a total asset for each option. In version 1 it is observed that the amount of 300 lei is fixed for three years (year 1, 2 and 3). The amount spent in year 2, of 100 lei is fixed for two years (year 2 and 3). The amount of 600 lei spent in year 3 is fixed for one year (year 3).

Total assets in option 1 are:

1700 lei=300 lei x 3 years + 100 lei x 2 years + 600 lei x 1 year

Total assets in option 2 are:

1600 lei=100 lei x 3 years + 400 lei x 2 years + 500 lei x 1 year

Total assets in option 3 are:

2200 lei=500 lei x 3 years + 200 lei x 2 years + 300 lei x 1 year

It is noted that the total assets is lower in option 2 (1600 lei) making it the most advantageous. The worst option is option 3 where the assets are the highest (2200 lei).

Conclusions

Interest paid for bond financing will be set at an attractive threshold located between bank interest rates on loans and interest paid on deposits for the population. In this way we will pay a lower interest rate than the one charged by the bank people will find bonds attractive because they offer a higher interest than banks on deposits. The decision to issue bonds must be well founded because the failure to pay interest rates and the amount lent on time, automatically involves increasing distrust in the issuing authority.

If the local authorities convince the population of the bond loan efficiency, if they offer transparency about the objectives financed by issuing bonds and if investors are convinced that the objectives financed with their money also have a social side in the economy, the bonds become a handy source of funding and an alternative to bank loans.

If the city's citizens would be asked to answer the question "do you want to invest your savings in the bank with an interest rate of 30% per year, or do you want to lend the municipality a 30% interest rate per year in order to build a thermal power plant for the whole city?", we are convinced that they would accept the second option.

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