THEORETICAL ASPECTS REGARDING SOVEREIGN DEBT AND INDEBTEDNESS

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Abstract:

In the article[38], the author presents, based on the economic literature, characteristics that differentiate sovereign debt from public debt, and points out several definitions of public debt. Also, there are highlighted several features of sovereign debt that represent vulnerabilities for the national economy, and some of the causes of the sovereign debt crisis, after the crisis of sovereign debt is defined. Then, there are presented the consequences of sovereign debt default. The article also talks about sovereign debt restructuring, sovereign risk and its management, as well as about the causes and effects of the growth of the indebtedness of an economy.

***Keywords**: sovereign debt, risk, crisis, effects*

***JEL Classification**: F34, G01, H63*

Introduction

A country runs into debt when she does not have enough domestic revenues to support economic growth, and therefore, she makes expenses at the cost of burdening future generations.

Public debt has increased significantly in most countries of the world as a result of the global crisis that has outburst in 2020 amid the emergence of covid-19, and of the effects of the measures adopted by the authorities in order to fight the virus's spread. In this context, we consider that the subject addressed in the article is topical.

The increase in the indebtedness of an economy occurs for several reasons, among which the most important are:

- financing budget deficits,

- making investments in the economy aimed at supporting economic growth and the removal of regional disparities, for which there are not enough domestic funds from savings,

- supporting the economy in periods of economic and/or financial recession, by the governments, through fiscal incentives.

For "healthy" governments, borrowing costs are usually low because investors prefer to invest in government debt issues, which are considered safer, compared to private sector investments. The explanation lies in the fact that investors assume that income from taxes and

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fees levied by the government from the entire economy gives a better possibility of honouring the debt than in the case of private entities.

But when public debt becomes too high (some suggest debt levels equal to 90-100% of GDP), international investors/creditors are no longer confident in the state's ability to support debt repayment. Therefore, debt yields (the cost of borrowing) rise. So, *an important effect of a high level of indebtedness is the increase in the cost of borrowing* (Reinhart, C., Rogoff, K., (2010)).

Rising yields drive a vicious cycle that makes high debt levels even less sustainable. It incurs also an increase in the borrowing costs for the private sector.

The effects of loans on the borrowing economy depend on how they are used. Thus, an inefficient use of loans does not sustain economic growth, but, on the contrary, it generates distortions in the sphere of macroeconomic activity, it retains the contracting of loans, causing the decrease of that country's access to (external) financing, the flight of capital and the reduction of available private savings.

Theoretical considerations on indebtedness and sovereign debt

When public spending increases, governments have two choices: either go into debt or to raise taxes. Unlike raising taxes, the contracting of public debt produces its effects (negative, generated by its repayment) over time and it does not significantly influence the sentiment of the population at present, which is important for the rulers.

Aguiar and Amador (2011) show that governments of countries with high economic growth experience increases in net public assets held abroad (foreign reserves minus sovereign debt), and countries with non-performing economies accumulate public debt. Also, the studies of these economists highlight the fact that economic growth is accompanied by an increase in net private foreign liabilities.

The terms of sovereign debt and public debt are often used interchangeably.

The definition of public debt is different from one country to another, so the calculation methodology must be taken into account when making international comparisons. Thus, the public debt may include only the liabilities of the central public administration or also those of the local public administration.

The International Monetary Fund (IMF) defines *debt* as the totality of financial claims that require the payment of interest and principal by the debtor to his creditor on a due date. *The debt financing profile* represents the characteristics of a country's debt, namely the currency composition, the maturity of the debt and the basis (structure, size and residence of creditors).

Public debt represents the loans obtained by the government from third parties, and it can *be external public debt* (from legal and natural persons, companies and banks abroad) and *internal public debt* (from creditors in that country) through the purchase of bonds issued by the government in order to cover the needs of the respective economy.

According to the IMF, *public debt* represents the total financial liabilities borne by all government bodies of a country. The government bodies are directly involved in the process of drawing a strategy for public debt management.

The National Bank of Romania (BNR) defines *public debt* as the stock of total consolidated gross debt of the public administration at the end of the period, showed at the nominal value of the following categories of government liabilities (defined in SEC 2010): cash and deposits, securities, others than shares, excluding derivative financial products, as well as loans. Public debt also includes the government’s liabilities to its own treasury, for the amounts temporarily granted in order to cover the budget deficit.

Public debt consists of *direct public debt* (obligations contracted by the government) and *debt with public guarantee* (debt contracted by public debtors who are not part of the central administration structure and/or private debtors, and its repayment is guaranteed by a public body). The debt contracted or guaranteed by the government retains Romania's creditworthiness.

When contracting public, internal and external loans, the *public debt ceiling* must be observed. It includes all the loans that the government can contract and guarantee during a calendar year. This ceiling is established annually by law, as follows:

- *the internal public debt ceiling* is established according to the approved annual budget deficit and to the provisions of special laws;

- *the external public debt ceiling* is established as the maximum amount of foreign loans that the government can contract and guarantee during a calendar year.

Following the analysis of economic literature, we have found *some characteristics that differentiate sovereign debt from public debt*.

First, *sovereign debt* is the debt of a country's central government. Second, sovereign debt is the *debt issued by the national government in foreign currency* in order to finance the growth and development of the issuing country. This consists of all the loans of a country's government that have been contracted in a foreign currency (Chen, 2019).

Sovereign debt is represented by bonds, treasury bills and securities issued by the government (Pardău, Pascal, 2003).

It is noted that *the term of sovereign debt is narrower compared to that of public debt*, which refers to the liabilities of all government structures and which includes also the debt in national currency.

Starting from the structure, we can state that, *depending on the residence of the creditors*, sovereign debt has two components: *the domestic debt in foreign currency* (loans contracted by the central public administration on the domestic financial market, from natural and/or legal entities, in foreign currencies, unpaid at a given time) and *external debt* (external loans contracted and retained by the government, in its own name from external financial markets). *Depending on the maturity*, sovereign debt can be short-term (it must be paid back in less than a year), and long-term (more than 10 years, in general).

Sovereign loans are contracted when public expenditures exceed revenues, in order to balance the government budget; for making investments in the economy aimed at supporting economic growth, and which are not supported by sufficient domestic funds from savings; in order to carry out the restructuring programs approved by the legally established bodies and authorities; for the supply of stocks of the main strategic products, necessary for the national economy; in order to achieve investment objectives of national interest, for the provision of public goods, for the removal of regional and social discrepancies, for the support of the economy and for the rescue of banks, during recessions and/or economic and financial crises; therefore for the performance of government functions.

In Romania, most of the domestic public loans (part of the sovereign debt) are contracted to finance and refinance the budget deficits incurred since 1992.

The measurement of sovereign debt differs from one country to another, depending on the authority that makes the calculations and on the purpose of this operation. For example, a Standard & Poor's rating for business and investors measures only the debt contracted from commercial creditors, so it does not include borrowing from other governments and from international financial bodies.

Some characteristics of sovereign debt that represent vulnerabilities for the national economy:

- the engagements regarding interests and other expenses related to foreign loans are established by the creditors, the government of the beneficiary country not having the possibility to influence them;

- the payments related to the debt service must be made at the deadlines set by the creditors and not at those convenient for the debtor country;

- non-payment at the established terms of the payments related to the debt service causes penalties and the worsening of future credit conditions;

- the existence of currency risk (a depreciation of the debtor's national currency increases the burden of payments related to the sovereign debt);

- contracting loans from international financial institutions may harm the sovereignty (international financial organizations can ask the government of the beneficiary country to promote certain economic policies);

- the balance of payments is negatively influenced if the amounts obtained from external loans are not used to increase exports or to reduce imports of the debtor country.

The use of sovereign debt loans may not render a financial return. There is, anyway, a real economic and social rate of recovery (yield) of the investment, which represents the society's gain from that loan.

An important feature of sovereign debt is represented by the limited enforcement mechanisms (Aguiar, Amador, 2014), considering that countries are not under a higher legal authority (as in the case of private debtors, for example). If a sovereign debtor does not pay its debt according to the contract, creditors have limited legal methods at their disposal, relying only on international legal instruments and reputational arguments with a negative impact on the degree of risk, on the economic growth, etc. of the indebted country.

Limited commitment prevents risk sharing, especially when the country is heavily indebted. The natural response to the lack of commitment is to save, which, if the country is patient enough, will eventually lead to the best risk-sharing option; otherwise, consumption fluctuates with production forever. Limited risk sharing, volatility of consumption and negative consequences of indebtedness are clear implications resulting from empirical studies (Aguiar, Amador, 2014).

In a manufacturing economy, limited commitment makes production and economic growth to be adversely affected by debt (Aguiar, Amador, 2014).

In the model developed by Aguiar, Amador (2014) it is admitted that there are other equilibria that are not on the Pareto frontier. The multitude of equilibria gives rise to the possibility of self-sustaining debt crises, where economic agents "shift" to a sub-Pareto equilibrium. The first equilibrium condition states that the government makes the default decision in order to maximize the utility. This decision is taken after contracting new debts. The second condition states that the government chooses optimally a new debt. When issuing new bonds, the government does not think that it will not pay back the contracted debt, but the default decision will be taken optimally ex post. The third condition states that investors reach the profitability threshold on any bond issue. The fact that the third condition holds for all new emissions implies that the equilibrium satisfies a perfection requirement; that is, even if the government has chosen a sub-optimal level of debt, investors reach the break-even point (Aguiar, Amador, 2014).

Cole and Kehoe (2000) show that the government responds to the vulnerability brought about by self-sustaining debt crises by reducing debt.

Broner and Ventura (2011) show that the impossibility to enforce international obligations can be associated with the inability to enforce national contracts, if the residence of the contracting parties cannot be ascertained. Also, public debt can be held by national residents causing a potential redistribution of wealth with harmful effects among economic agents in case of a deviation (Broner et al., 2010). This can be severe if domestic banks hold government bonds as assets and they face constraints in granting loans (Gennaioli et al., 2010).

In practice, the standard sovereign debt contract is usually unconditional (non-contingent). That is, the contract specifies a predetermined sequence of payments, in a certain currency, payments that are made at certain moments in time, and which do not depend on the debtor state. And the maturity structure, the renegotiation, the rescheduling fall under non-conditioning (non-contingency). In addition to limited constraint, the lack of contingency may reflect asymmetric information. To the extent that the government can influence the behaviour of macroeconomic aggregates, the government contingent payment contracts may be prone to moral hazard. Even though the government cannot affect economic outcome, the true situation of the economy may not be verifiable by creditors.

A sovereign debt crisis is generally defined as the inability of a country to pay its public debt as a result of financial and economic problems (financial crisis). This usually happens when a country reaches high (critical) levels of sovereign debt and it experiences low economic growth.

Large and sophisticated financial markets are just as prone to crises as smaller, less advanced markets. There are no real differences in duration or severity between the crises in these two types of markets (e.g., between less developed economies (Indonesia, Philippines, Argentina, Colombia) and developed economies (USA, UK, Japan)) (Reinhart & Rogoff, 2009).

There are *some warning signs for the outburst of financial crises*, which have appeared in the 5 crises of developed economies in the 20th century (Spain, 1977, Norway, 1987, Sweden and Finland, 1991 and Japan, 1992): large capital inflows, many financial innovations, significant price increases in the housing market and financial liberalization. Although an economy may meet the "conditions" for a financial crisis, there may be many years before *the circumstances cause a crisis of confidence that actually triggers the financial crisis* (Reinhart & Rogoff, 2009).

Some of the causes of the sovereign debt crisis are, but they are not limited to:

- Currency crisis. The national currency either loses its ability to be convertible or it depreciates significantly and it becomes difficult (too expensive) to convert the national currency into the currency in which the debt is issued, sovereign debt thus experiencing a significant increase (Reinhart & Rogoff, 2009).

- Change in the economic climate. If the country's economy is based on exports, especially goods, a significant reduction in foreign demand can lead to a GDP contraction and make repayment expensive. If a country issues short-term sovereign debt, it is more vulnerable to fluctuations in market sentiment.

- Internal politics. The risk of default is often associated with an unstable government structure. A new party taking power may be reluctant to meet its obligations on the debt accumulated by the previous government.

- Financial contagion. For example, a slowdown in the activity of financial centres impacts on the emerging economies that rely on exports.

- The limited mechanisms of creditor's coercion on the debtor located outside the borders of his country.

Other causes of sovereign debt crises have been: the financial crisis of 2007-2008, the recession of 2008-2012, the housing market crisis and the housing bubbles in several countries. The fiscal policies of peripheral countries of the European Union on government spending and revenue have also concurred.

Minimizing the risks of producing a sovereign debt crisis requires contracting advantageous loans (e.g., real fixed interest rates as low as possible, the maturity of the loan as long as possible so that the repayment effort is low, the amounts to be returned should be known exactly and planned in a balanced way without peaks that make their return difficult).

Thus, the smaller the share of short-term public debt service in the total public debt service and the more diversified the investor base (in terms of types of investors and their geographical distribution), the debt is less risky, it is sustainable, with a lower probability of entering into a liquidity crisis. In addition, the currency composition of the amounts borrowed must correspond to the sources of foreign exchange from exports.

Default will occur when a country's debt payment obligations exceed its ability to pay. In other words, non-payment of the debt refers to the impossibility of paying the due instalment on the date stipulated in the contract, or the renegotiation of the debt, a process which, in practice, is long and costly and affects negatively both creditors (who record losses) and international markets, but also the insolvent country's economy, with negative effects on other investments in the economy.

The main consequence of defaulting on sovereign debt is the deterioration of the country's credibility. Creditors may refuse to lend that country more capital or they might charge a higher interest rate. Regaining the reputation of a risk-free debtor requires fiscal consolidation and structural reforms.

Bulow and Rogoff (1989) argue that sovereign debt can be renegotiated ex post under the threat of legal sanctions.

Sovereign debt restructuring means the reorganization of a country's debt portfolio and/or of its terms, in agreement with its creditors.

The objective of debt restructuring should be to preserve the value of creditors' assets while supporting the insolvent country to regain economic viability.

When the government decides not to return the foreign debt or to expropriate the foreign investments made at the national level, it is called deviation. This situation implies a limited commitment of the government, who can change its policy at any time. Autarky[39] represents the penalty for deviation in the public debt literature (the classic reference is Eaton and Gersovitz (1982)). This penalty is often understood as representing the loss of a country's reputation on the international financial markets due to a deviation.

The value of autarky defines the upper limit of an economy's liabilities (equal to the debt due).

In the event of a deviation, creditors can resort to legal coercion mechanisms on the international financial markets. Thus, unpaid creditors can sue to take possession of the debtor's exports or international liabilities.

Bulow and Rogoff (1989) argue that complete financial autarky may be unrealistic as a punishment without a legal constraint to prevent saving.

Several studies show that a country will not exit autarky until it makes a payment on the account of the sovereign debt held. This model predicts a phase of punishment followed by a partial payment of the contracted sovereign debt.

Before buying a government's sovereign debt, investors analyse the risk of the investment. The debt of some countries, such as the United States, is generally considered risk-free, while the debt of emerging or developing countries carries more risk. Investors consider the country's political-economic stability, how the government intends to repay the debt, and the possibility

[39] Autarky refers to the situation when an economy cannot trade financial assets at all.

that the country will default. The risk analysis of sovereign debt is similar to that carried out for corporate debt, but in the case of sovereign debt investors can be much more exposed.

Traditionally, *sovereign risk* is the risk that governments of less developed countries will default on their foreign currency debts to banks or to governments of developed countries. The risk of expropriation and nationalization of private assets can also be included.

Sovereign risk ratings are based on an assessment of both a country's ability and willingness to pay back her debt. These ratings consider criteria that include key economic and socio-political attributes of sovereign economies. Sovereign debt ratings and performance depend heavily on the political and economic conditions of the debtor country. Due to the economic and political risks associated with sovereign debt, the indebted country is often rated below safe AAA and AA status, and may be considered below investment grade.

Sovereign risk management implies maintaining a debt portfolio that limits sovereign exposure to a variety of financial risks, including refinancing risk and exposure to contingent liabilities. Debt managers should clearly set out the strategies adopted to limit these risks and communicate them to the public.

Developing countries may be at a disadvantage when it comes to borrowing capital, as they must pay higher interest rates and issue debt in strong foreign currencies to make up for the additional risk assumed by the investor. Although, most countries do not experience repayment problems, problems can arise when the domestic currency depreciates significantly relative to the foreign currency in which the sovereign debt is contracted, causing the debt burden to increase to a level that the government cannot cope with, or when (inexperienced) governments overvalue projects that are to be financed by debt, overestimates the revenues that will be generated by economic growth, or/and build their debt so that payments can be made only in the best economic conditions.

Conclusions

The issue of sovereign debt has been and continues to be both important and delicate, due to the need to preserve, on the one hand, the ability to benefit from international funds when domestic capital is insufficient to carry on the economic activity, as well as to maintain the international creditworthiness and credibility, by meeting payment engagements on time. In order to achieve this goal, the (externally) indebted country must have a healthy financial structure, materialized in the existence of strong financial institutions, able to minimize the risk of financial crises and to achieve the effective conscription of domestic savings, in order to avoid the increase in taxes or in foreign savings borrowed from abroad. The argument against the excessive increase of taxes is suggestively presented by the graph of the economist Arthur Laffer, according to whom high taxation discourages economic activities.

The analysis conducted shows that the risk of non-payment can appear at different levels of the public debt, sometimes even very low. The optimal level of indebtedness depends on the characteristics of each country, sometimes even on unpredictable conditions, although there are certain thresholds of indebtedness established at the international level. It is not the level of debt to GDP ratio that is in itself so important as the problems that debt cause in the national economy. In the stressed conditions of the international markets, the "safe" level of public debt is lower today than it was in the 2000s.

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