REFLECTIONS ON THE CONSEQUENCES AND RISKS OF AN ECONOMY'S INDEBTEDNESS

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Abstract

The paper aims to present some risks and consequences of the indebtedness of an economy. The article is based on the results of a research project[1] and it describes the negative effects of a high level of indebtedness of an economy, the elements that influence the risks of an economy's indebtedness, some aspects of debt sustainability, the factors influencing the risk of default of public debt, as well as the negative consequences of non-repayment of sovereign debt. The conclusions of the article show that the effects of loans on the debtor economy depend on how they are used; also, the risks of a country's (sovereign) indebtedness depend primarily on country-specific risks and affect debt sustainability. After highlighting the multiple negative effects of a high level of debt, we emphasize the importance of ensuring debt sustainability.

Keywords: loans, effects, default risk, debt sustainability

JEL Classification: F34; H63

1. Introduction

A country borrows capital when it has not enough domestic income to support the economic growth, and as a result, it makes costs at the expense of burdening future generations.

From a theoretical point of view, *the increase in the indebtedness of an economy occurs due to several causes*, among which we list:

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- support for the economy from governments, through fiscal stimuli, in times of economic and / or financial recession,

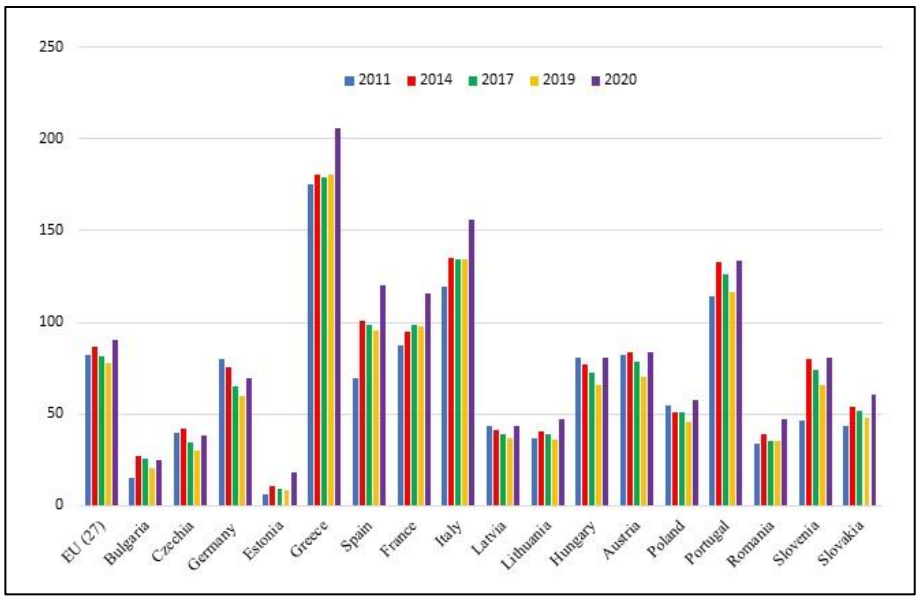
- making investments in the economy aimed at supporting economic growth and eliminating regional disparities, which are not fully supported by domestic funds from savings,

- covering budget deficits.

The public debt has increased significantly in most European Union countries as a result of the global economic and financial crisis of 2008, but also following the measures taken in order to stop the spread of Covid-19, in 2020 (see Figure 1).

Figure 1

The trend of the government consolidated gross debt in EU countries (% of GDP)



Source: Eurostat

In this context, we consider that the theme addressed in the article is topical.

The objective of the paper is to highlight some risks and effects of a high degree of indebtedness. The approach involves a descriptive and analytical analysis of the literature, qualitative evaluations, interpretations and correlations, and the drawing of conclusions.

The article consists of two parts, plus an introduction and conclusions. The first part highlights the consequences (especially the negative ones) of a high level of debt. In the second part of the paper, the risks of a country's indebtedness are reviewed and analysed, and characteristics of debt sustainability (which is affected by the risks of a country's indebtedness) are presented. The risk of debt default is also discussed, highlighting aspects regarding the consequences of debt non-payment, as well as the factors influencing the risk of public debt default.

Looking ahead, unpredictable events and imbalances at national and global level can hinder sustainable macroeconomic recovery, threatening a country's financial stability.

2. About the consequences of high indebtedness of an economy

For "healthy" governments, borrowing costs are usually low, as investors prefer to invest in government debt which is considered safer compared to private sector investments. The explanation lies in the fact that investors assume that government tax revenues from the entire economy give them a better chance of paying back their debt up against private entities.

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

The increase in yields leads to a vicious circle that makes high levels of debt to be even less sustainable. There takes place also an increase in borrowing costs for the private sector.

High debt has multiple negative consequences, including: the eviction of private investments, the country's vulnerability to "sudden stop" of capital inflows, the loss of policy flexibility, "debt-overhang" and debt restructuring. In this context, *we emphasize the importance of ensuring debt sustainability.*

The main consequence of high debt is the *high vulnerability to sudden stops in obtaining financing*. If the sentiment of private investors changes, either as a result of a change in global risk appetite

or of an adverse shock in that country, capital inflows can stop quickly. There may be even capital outflows from residents or non-residents.

Highly indebted countries are more vulnerable to capital restrictions from international financial organizations.

The effects of sudden stops can be devastating. In the case of public debt, sudden stops can put the government in a position to implement drastic spending cuts. Currency crisis, banking crisis, recession, and even default can also occur. In addition, interest rates may increase significantly due to the rise in the country's risk premium, amid the high level of debt. This can lead to private investment eviction, but also to reducing the flexibility to combat countercyclical policy, as the government can no longer increase spending during the recession (the economic cycle minimum), when debt is already high.

Debt overhang can occur due to the limited ability of the government to commit and represents the situation where the tax burden expected to finance the debt is so high that it is an obstacle / constraint to current investment and consumption, causing the slowdown in economic activity, as investors reduce their investment on the background of expectations that taxes will increase. Decreased investments lead to lower economic growth and reduced government revenues. As a result, there will be insufficient funding for primary expenditures and the risk of default will increase.

Debt overhang is also an obstacle to risk-sharing due to the existence of a high debt stock. Sachs (1989) and Krugman (1988) analyse debt overhang for sovereign debt. If the debt is assumed to be exogenous, the total or partial reduction of the debt (debt relief) leads to an increase in investments.

A vicious circle can be noticed in the case of debt overhang. Thus, if there are concerns about debt sustainability, even the capacity of the state to finance itself is called into question. Under these conditions, investors will become increasingly disinterested in investing in that country, due to higher taxes, leading to diminishing economic growth. And worries about economic growth raise concerns about the deficit, due to the scissor effect. In the case of low economic growth, more pro-cyclical spending is needed. Increasing deficits leads to a rise in the risk premium, and the boost in interest rates directly contributes to the increase in the deficit, which amplifies the concerns about sustainability.

Research shows (e.g., Reinhart and Rogoff) that many countries pay their debt, and overcome the situation of debt overhang, but in a very long time.

Aguiar and Amador (2011) offer another explanation for the difference between the rate of reduction of net foreign liabilities from one country to another, namely the political factor. So, their studies show that countries have different growth rates depending on the distortions of economic policies, thus a more politically distorted economy is growing at a slower pace. This theory explains the situations of some countries which have long periods of stagnation in which debt is high and economic growth is low, while other countries have high levels of economic growth, being net exporters of capital. We can say that economic growth leads to a decrease in net public external liabilities. The model of Aguiar and Amador (2011) suggests that distortions of economic policies do not prevent an economy from eventually reaching high levels of national income, but it suggests that the process will be longer.

Renegotiation / restructuring is another effect of a high degree of indebtedness. Although this measure leads to reducing debt service, restructuring can have important consequences, including political and economic penalties.

One important side effect of debt restructuring is the contagion with other economic sectors, especially when banks hold a large share of public debt. Another important side effect is the contagion from one country to another.

Benjamin and Wright (2008) show that debt restructuring is a long process, lasting on average 8 years. Also, according to the results of the studies of these economists, the longer the negotiations take, the greater the losses associated with restructuring. The restructuring process seems to depend on the evolution of production. Thus, the periods of recession lead to longer restructuring, and the achievement of new agreements usually occurs when domestic output improves.

Given that debt renegotiation is carried out under the threat of default, creditors are likely to accept milder conditions than in the original contract. The studies of Sturzenegger and Zettelmeyer (2008), Benjamin and Wright (2009), Cruces and Trebesch (2011) show that renegotiated debt is about 30% -40% lower than the initial one. Another result of these studies refers to the fact that investors' losses vary considerably from case to case in individual default episodes.

In recent years, sovereign debt comes mostly from the sale of bonds to the detriment of bank loans (including in Romania). As a result, more creditors are involved in the renegotiation process, which requires a certain level of coordination between them. The difficulty involved in coordination may lead to increased renegotiation costs and may extend the debt restructuring period.

Pitchford and Wright (2012) show that there is an incentive to refuse to reach an agreement in the debt renegotiation process, because the last to agree on a settlement has much greater bargaining power due to its veto on the agreement. Pitchford and Wright (2012) argue that this incentive to resist in debt renegotiations can create delays in debt restructuring. A solution suggested to counteract such delays is collective action clauses in which restructuring can be accepted and implemented by a part of the bondholders (usually a majority). Pitchford and Wright (2012) show that somewhat paradoxically, this can serve to increase the delay, because negotiation is expensive also with only a part of the bondholders needed to reach an agreement, existing an incentive to get free ride on negotiation costs.

Bolton and Jeanne (2007) and Bolton and Jeanne (2009) show that a difficult debt restructuring can cause the borrower to pay his instalments. Studies by these researchers also suggest that there is an individual incentive for one or a group of creditors to make their bonds relatively difficult to restructure; this is particularly relevant in a dynamic environment, as the government is tempted to weaken the power of existing bondholders by issuing new bonds that are more difficult to restructure. As a result, some bonds may become *de facto* superior to other issues, as bonds that are more difficult to restructure are more likely to be repaid.

Bondholders will accept a loss of capital on their bonds if government decisions subsequent to the issuance of the bonds held by them increase the likelihood of default. Bondholders are supposed to have no mechanism to punish dilutions.

Given that a capital loss for bondholders is an implicit transfer to the government, there is an incentive for the government to issue new bonds in order to “dilute” / reduce the value of existing bonds. This idea was highlighted by Bulow and Rogoff (1991) in reverse; namely, Bulow and Rogoff argued that it is sub-optimal for a government to rebuy its own debt in secondary markets. A buyback generates a

capital gain for bondholders, which is an implicit transfer from the government to bondholders.

We can conclude that the effects of loans on the borrowing economy depend on how they are used. Thus, an inefficient use of loans (with lower yields compared to the cost of borrowing) does not produce economic growth, but, on the contrary, generates distortions in the sphere of macroeconomic activity, perpetuates borrowing, causing the diminishment of the country's access to (external) financing, capital flight and the reduction of available private savings. To avoid this situation, the (external) indebted country must have a sound financial structure, materialized in the existence of strong financial institutions, able to minimize the risk of financial crises and to achieve effective mobilization of domestic savings, in order to avoid tax increases or funds attracted from abroad. The argument against excessive tax increases is presented suggestively by the economist Arthur Laffer's chart, according to which a high taxation discourages economic activities.

3. About the risks of an economy’s indebtedness

The risks of a country's (sovereign) indebtedness depend, first and foremost, on the risks specific to each country. The fiscal risks posed by the private sector imbalances and by the contagion between countries must also be analysed. The economic and fiscal behaviour in response to shocks must also be taken into account.

In addition, the risks of a country's (sovereign) indebtedness depend on the markets’ perception of the debtor state, but also on the structure of the debt in terms of maturity, which is measured by the debt payment profile and by the share of short-term debt in the total debt. Also, there are important the currency structure of the debt, the degree of diversification of the investors’ base, as well as the availability of liquid assets and the creditors' base, especially the share of non-resident creditors.

Thus, the lower is the share of short-term public debt service in the total public debt service and the more diversified is the investors’ base, the less risky is the debt. A smaller share of short-term public debt means a lower likelihood of entering a liquidity crisis and less interest costs on the budget. The diversification of the investment base refers both to the types of investors and to their geographical

distribution, and it shows the long-term confidence in the economic development of the respective country.

In the case of external debt, we consider the most important risk to be the foreign exchange risk, which consists in the depreciation of the national currency against the foreign currencies in which the debt is contracted, with effects in the direction of increasing the debt burden.

The risks of a country's indebtedness affect the debt sustainability.

From a pragmatic point of view, *debt is sustainable* when projected debt-to-GDP ratios are stable or declining, reaching a sufficiently low level in order to avoid defaulting on debt. In practice, the increase in debt should not exceed GDP growth, while the ability to repay must also be ensured. (IMF)

From the point of view of the economic policy, *debt is sustainable* when the government of a country does not get into the situation to fail to pay its debt, or it does not resort to renegotiating or restructuring its debt and / or it does not make major adjustments to its policy (IMF).

Long-term debt sustainability depends both on the debt stock and its associated service, but also on the growth rate of new loans, the evolution of the fiscal situation and the ability to repay the debt. Thus, debt is unsustainable if the borrowing country accumulates debt at a faster rate than the increase in its ability to pay its debt service, especially in the long run.

From a qualitative point of view, debt sustainability depends on the effects / consequences of debt in the economy: yield, destinations (economic activities - consumption or production -, sectors of activity, development regions), contribution to economic development by financing objectives / projects of national and / or regional interest, to eliminating regional and social discrepancies.

We can say that debt sustainability refers, first of all, to the payment of debt service, and it can be defined as the absence of the risk of default. The non-payment of the debt refers to the impossibility of paying the instalment at the due date from the contract, with effects in the sense of renegotiating the debt, a process that, in practice, is long and expensive, as shown above.

Reinhart and Rogoff (2009) show that defaults occur several times over time in an economy, and that debt repayment problems affect several countries simultaneously. The same economists argue that debt defaults often coincide with major financial crises. They are

interconnected because there are pressures due to bank failures simultaneously with the deterioration of the public fiscal situation.

Tomz and Wright (2007) show that default of sovereign debt occurs mainly during periods when domestic output is small, but there are many exceptions. Thus, the recession is neither necessary nor sufficient for a country to be unable to pay its outstanding rates on sovereign debt.

According to incomplete market models, non-payment is punished less severely when it occurs in countries with a lower level of output (Arellano, 2008).

Other studies show that, in general, observed defaults are not severely punished (for example, sovereign foreign assets are protected, and economies regain access to financial markets), which means a high frequency of sovereign debt defaults.

- ***The factors influencing the risk of default of public debt***:

- the level of public expenditure on goods and services,

- the level of tax revenues, the potential evolution of budget revenues, the availability of additional sources of budget revenues, the potential trend of the collecting rate of budget revenues,

- the level of the interest rate paid on the debt,

- the existence of liquid financial assets,

- the presence of contingent liabilities, particularly in the financial-banking system,

- the share of debt in foreign currency. The higher the foreign currency debt, the greater the risk of default in the event of the depreciation of the national currency,

- the evolution of the exchange rate of the national currency. The depreciation of the national currency increases the risk of default,

- the share of non-resident creditors in the total number of creditors. The higher their share, the greater the risk that they will quickly sell their government bonds in the event of a crisis, and thus the risk of default,

- debt dynamics. If debt increases rapidly, the risk of default increases,

- public debt dynamics compared to GDP dynamics. The faster growth of public debt compared to GDP contributes to increasing the risk of default.

- maturity of the debt. In the case of short-term debt, problems may arise for debt refinancing, but also for quick disinvestment in the

event of a shock, and thus the risk of default increases directly proportional to the share of short-term debt in total debt,

- the degree of openness and transparency of the government regarding the management of public debt. The availability of information on a country's public debt influences market expectations, and thus the behaviour of economic agents,

- market expectations (the behaviour of economic agents) indirectly influence the level of public debt by increasing the real interest rate,

- political stability and the ability of politicians to make the decisions needed to achieve fiscal consolidation, the degree of predictability of a country's economic policy contributes to reducing the risk of default,

- the country's financial reputation and creditworthiness (past episodes of debt default, high levels of inflation, banking crises, the stability of the national currency),

- the level of development and liquidity of the national financial market,

- the situation on the international financial market, changes in global liquidity, in investors' sentiment, their reaction to shocks,

-the external demand for the country's sovereign debt and other financial instruments and the international role of the national currency. This factor shows the readiness of financial markets to finance high levels of public debt of that economy.

- ***Consequences of sovereign debt default***

The effects of sovereign debt default include the worsening of the country's rating and of the international political prestige. Cole and Kehoe (1998) show that the loss of reputation in the debt market is reflected in other economic spheres, namely trade, output, investments. Thus, episodes of sovereign debt default have led to a significant reduction in trade (according to the studies of Rose (2005) and Martinez and Sandleris (2011)) and to a worsening of the current account / capital flight (Mendoza and Yue, 2012). Empirical studies show that high levels of sovereign debt have led to lower investment levels, especially in countries with modest macroeconomic performance.

Domestically, the negative effects generated by debt default consist in the poor performance of government functions (including the provision of public goods); significant tax increases, and even the

implementation of expropriation measures, which violate the right to property and economic freedom; high inflation; depreciation of the national currency; banking crises; loss of private savings; burdening certain segments of society; undermining public confidence in the government; domestic political destabilization.

In order to avoid the negative effects of non-payment of due debts, debt must be sustainable, so that the funds borrowed ensure a sustainable, sinuous, without constraints, shock-free and without tensions economic development.

Volatility is one of the factors that often generates debt default. Aguiar and Gopinath (2007) argue that in emerging markets, the significant shocks to the trend of economic growth rates increases the probability of default in the equilibrium. This explains the interdependence between the volatility of economic growth and the frequency of sovereign debt default in an economy.

Political uncertainty, as a source of volatility, is one of the factors influencing the risk of sovereign debt default (Cuadra and Sapriza, 2008 and Hatchondo et al., 2009).

The existence of a portfolio of bonds with different maturities contributes to reducing the risk of default and allows for a better enforcement mechanism.

The studies of Broner et al. (2013) and Arellano and Ramanarayanan (2012) show that in the case of a temporary increase in the probability of default during a crisis, the reversal of the yield curve is noticed on the data, reflecting the change in the risk premium from creditors, rather than causes for debtors hedging.

4. Conclusions

We can conclude that the effects of loans on the debtor economy depend on how they are used. Thus, an inefficient use of loans (with lower yields compared to the cost of borrowing) does not contribute to economic growth, but, on the contrary, generates distortions in the macroeconomic activity, perpetuates borrowing, causing the reduction of the country's access to (external) finance, capital flight and the reduction of available private savings. In order to avoid this situation, the (external) indebted country must have a sound financial structure, materialized in the existence of strong financial institutions, able to minimize the risk of financial crises and to achieve

effective mobilization of domestic savings, in order to avoid the increase of taxes or of funds attracted from abroad.

The risks generated by a country's (sovereign) indebtedness depend primarily on the country-specific risks and affect debt sustainability.

Following the analysis of the multiple effects of a high level of debt, we *emphasize the importance of ensuring debt sustainability.* Debt sustainability means avoiding the negative effects of defaulting the due debts, so that borrowed funds ensure sustainable, sinuous, without constraints, shock-free and tensions-free economic development. It is found that the risk of default can materialize at different levels of public debt, sometimes even very low.

There is no universally valid rule for determining a "secure" level of public debt. Each country needs to set its maximum level of public debt based on its own and other countries' macroeconomic and financial experience but taking into account its own characteristics. Given that the risk of non-payment depends on many factors and sometimes on unforeseeable circumstances (shocks, etc.), the maximum level of indebtedness must be set at a low level, while maintaining a sufficient margin of safety.

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