TOWARDS NEW MEANINGS OF SOVEREIGN DEBT

Deceanu Liviu [1], Ciobanu Gheorghe [1]
[1]*Department of Economics, Faculty of Economics and Business Administration, "Babeş-Bolyai" University, Cluj-Napoca, Romania*
liviu.deceanu@econ.ubbcluj.ro
gheorghe.ciobanu@econ.ubbcluj.ro

Abstract: *In recent years, due in part to the sovereign debt crisis, the public (and scientific) interest towards indebtedness increased significantly. Regardless of the level at which we analyze it – micro or macro – it is clear from the outset that this is often unavoidable, for various reasons, and that the indebtedness state is often one of normality (necessary to cover current needs or to ensure growth targets). Of course, when the debtor is the state itself, things seem, at least apparently, more simple. States have borrowed since their beginnings, and continue to do so today. Nothing more natural ...*
For a long time, being a creditor of a state, especially of a developed country, meant, above all, a very safe situation – not being exposed to any risk. Recent years have shown, however, that such an approach is flawed, and that sovereign risk is omnipresent in the contemporary globalized world. For about seven years, the word „crisis" seems to have become one that is commonly used in the economic analysis. Undoubtedly, in this period there was not only a „common" financial crisis that occured, but a series of crises: finance – economic crisis – sovereign debt issues. In mid-2008, the global financial system crisis (especially in Western countries) asked for a sustained intervention from the state. It came sooner or later, with more or less pro-cyclical effects. Among the taken measures, we can evoke a massive support to banks and economic activity in general, in the context of the drastic reduction in global demand. Recovery policies required their toll, however, and in this case we can talk about a significant increase in budget deficits. If the evolution of private borrowing has taken the path of stagnation, public debt, already growing, became more and more significant. In this context, we intend to highlight some new facets of sovereign risk, and to provide some remarks about how this risk should be viewed and approached.

Keywords: sovereign debt; sovereign risk; public debt; over-indebtedness threshold; public deficit; economic growth.

JEL classification: F34; F5; G1.

1. Indebtedness – some new aspects

Regardless of the level at which we analyze indebtedness – micro or macro – it is clear from the outset that this is often unavoidable, for various reasons, and that the indebtedness state is often one of normality (necessary to cover current needs or to ensure growth targets). Of course, when the debtor is the state itself, things seem, at least apparently, more simple. States have borrowed since their beginnings, and continue to do so today. Nothing more natural ...
For a long time, being a creditor of a state, especially of a developed country, meant, above all, a very safe situation – not being exposed to any risk. Recent years have shown, however, that such an approach is flawed, and that sovereign risk is omnipresent in the contemporary globalized world.
For about seven years, the word „crisis" seems to have become one that is commonly used in the economic analysis. Undoubtedly, in this period there was not only a „common"

financial crisis that occured, but a series of crises: finance – economic crisis – sovereign debt issues.

In mid-2008, the global financial system crisis (especially in Western countries) asked for a sustained intervention from the state. It came sooner or later, with more or less pro-cyclical effects. Among the taken measures, we can evoke a massive support to banks and economic activity in general, in the context of the drastic reduction in global demand. Recovery policies required their toll, however, and in this case we can talk about a significant increase in budget deficits. If the evolution of private borrowing has taken the path of stagnation, public debt, already growing, became more and more significant. From this point of view, we can say that the 2008 moment primed the sovereign debt crisis, hastened it, but certainly the issue was much older. Moreover, sovereign risk has always been present in the economy, and it is considered as being one of the oldest parts of country risk (an interesting example is the loss suffered by the bankers of Florence, which have financed England in the reign of Edward III – in the context of the war with France, which exceeded 100 years).

The global financial and economic crisis has forced governments to take action, to adopt economic policies that would stimulate growth recovery. Also, states have even resorted to taking some risks from the private sphere (we can evoke, in this context, the transfer of risk from the banking sector towards national states). Public finances have suffered in this context, and question marks about the sustainability of public debt became more numerous.

How investors began to see the state as a debtor has changed dramatically in recent years. To this mutation contributed significantly the attitude – sometimes pro-cyclical – of rating agencies, which operated several degradation of sovereign ratings, with an important effect: the explosion of interest rates required by investors.

But we do not want to argue here that the current sovereign debt crisis originated in the financial and economic crisis from 2008. Increasing public debt has made its presence felt since 4-5 decades, so the issue is not new at all.

The increase in public debt for various countries before the 2008 episode, during the second half of the twentieth century, is linked to several specific developments. Among these, we mention here:

- the continuous development of the public sector;
- the increasing costs of social policies;
- the maintenance of a high state involvement in the economy – a trend which seems to be however partly well inspired, etc..

Several experts noted that such developments and trends had no effect for quite a while (Banque de France, 2012: 5), due to the still low share of the deficit / debt ratio (and not only). In other words, the indicators have deteriorated gradually, almost imperceptibly at first view.

On the other hand, it is possible to highlight another very important issue, in the context of the historical analysis of public debt. In the past, inflationary episodes could act as a counterweight to the increase in the size of the debt, and real interest rates close to 0 or even negative limited its development. But, the last two decades have brought a more rigorous control of inflation, and in the context of an increasingly fragile economic growth, imbalances emerged (*When it is well anticipated, inflation is reflected in nominal interest rates and lose its role of erosion of the the real value of public debt* - Banque de France, 2012: 5).

An important element in this picture is the fact that, in general, state budget revenues did not increased significantly; meanwhile, real interest rates were located mostly above the economic growth rates. A series of decisions and philosophies dating from the 1950s, as the elements of social protection, began to be difficult to follow in the last two decades, while the growth rates of gross domestic product dropped dramatically. In the years before

the global financial and economic crisis, countries such as Finland, Canada (*a special role was played by the reform of 1993, which resulted in the removal of a significant number of inefficient expenditures – The Fiscal Spending Control Act (1992)*) or Spain (*an important role was played by the strong economic growth, above the EU average, and the implemented reforms; the global financial and economic crisis, however, have deeply affected that indicator, which in 2012 approached 90% in Spain*), managed to reduce the public debt to GDP, but many other countries continued to register high values of this indicator, over 60%.
The clear conclusion that can be drawn is that the vast majority of states had, on the eve of the global financial crisis, already high debt levels. This situation was underestimated by authorities, governors using often the recourse to credit; in the same time, the commitments made (eg the Stability and Growth Pact EU) had only limited effects.
In 2007, when the crisis was triggered, developed countries were already facing high public debt; the Euro area average was somewhere around 70% of GDP, while Japan exceeded 170% and the USA, 60%. It is therefore an old issue of a structural nature, that the crisis has brought to the attention of the public and professionals.

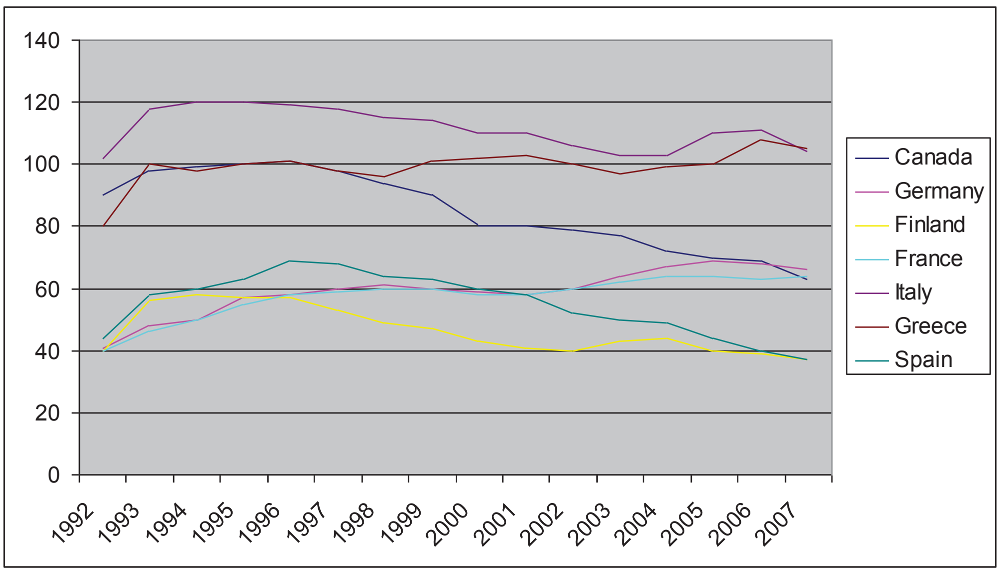

Figure 1: The evolution of public debt before the financial and economic crisis (percentage of GDP)
Source: own work, using IMF, *World Economic Outlook*, 2012.

Certainly, it is difficult to establish clearly whether the pre-2008 situation can be characterized by "high debt", or "over-indebtedness". It is clear that, in mid-2008, countries have been put in an extremely delicate situation. Limitation of private debt, the collapse of demand are just some elements that favored the continuous degradation of budget balances (*With an already high level of indebtedness, modest long-term growth prospects and social budgets affected by aging population, many countries are unable to maintain a significant budget deficit without seriously jeopardize the solvency* – Brender, Pisani, Gagna, 2013: 3).
The collapse of the appetite for indebtedness in the case of private agents was proportional to the propension towards it, before the crisis; in the EU, for example, it was significant in Ireland and least evident in Germany.
Lending was quasi-stopped, private savings exploded and the deflationary effects became imminent.

To give up indebtedness in such a context would have been a big problem, in the context of the of economic activity stimulation. So, the governments borrowed generally even more, starting from an already concerning level of indebtedness, especially in developed countries. In this context, it has become increasingly necessary to discuss about debt sustainability and the need to rebalance public finances.
However, not all states shared the same vision. European Union returned relatively quickly to a balanced budget target, while the United States have put into focus the need of economic growth. Japan also had a similar approach, and continues to have a huge public debt. However, as private savings partially absorb this excess debt, and the Japanese economy remains an extremely strong one, the asian state continues to benefit from loans with relatively low interest rates.
For Europeans, the situation is delicate, primarily due to the atypical architecture of the European Union – we are not dealing with a state or a federation, the Member States are sovereign and independent, but nevertheless important competences are transfered from national to the supranational level. So, the problem of one member state (in this case, Greece) seriously put in discussion the idea of solidarity (especially financial) between EU member states. In the same time, spillover effects have made their presence felt, and the sovereign debt crisis was a European one, above all. It is worth mentioning here the PIIGS episode. It has been rumored repeatedly the idea of a Euro currency crisis; however we believe that it is not a currency crisis, but one generated by the behavior of national governments. The European currency has proven – during its existence – its viability, being also well received by the markets, stable, etc..
After 2008, the support of global demand required extensive budgetary measures, in most countries of the world, as we outlined above. Even so, the recession could not be avoided, the level of activity of 2007 being achieved only in 2012.
These measures, however, significantly affected the budget deficits; we can talk here about side effects of the economic recovery plans, increased public spending (of social nature, for example), significant fiscal revenue decrease, gross domestic product decrease, etc..
Undoubtedly, the economic recovery measures taken had significant effects, and succeeded in part to eliminate at least some short-term negative effects of the crisis. In the medium and long term, however, the consequences are hard to predict. Some analysts talk about contradictory effects, for example in the households case (Banque de France, 2012: 12). If during a crisis households face a heaviness lending, and therefore are unable to modulate consumption over time, they will tend to consume the additional revenue brought by the budgetary recovery, thereby enhancing its efficiency; in the same time, if it is expected a future tax increase in order to finance deficits, households will save a substantial part of the additional revenue generated by budgetary recovery, reducing the magnitude of the expected effects.
Recent years have brought a multitude of state interventions, in addition to the recovery policies mentioned above. Of these, its is relevant, in the context of the deficits and sovereign debt, the banking assistance (state guarantees, direct capital infusions, etc..).
All these developments have marked significant indicators changes, that are summarized in the table below.
For OECD countries, the public debt problem turns out to be an extremely serious one; during the last three years, its corresponding indicator has evolved unfavorably.
For some countries, this phenomenon will be extremely difficult to manage, both politically and socially, as decisions about the reallocation of national income are required, a subject already delicate due to the crisis.

Table 1: Government debt evolution (percentage of GDP)

	2008	2010	2012	2013
Spain	40	66	83	86
Greece	105	129	170	156
Portugal	67	84	109	124
Italy	104	117	122	127
Ireland	26	64	104	118
UK	44	67	84	89
France	64	80	86	91
Germany	66	77	80	81
Belgium	85	96	98	100
Japan	166	194	211	219
US	64	87	99	101
Canada	66	71	85	84
Switzerland	41	37	35	36

Source: BNP Paribas, 2013.

2. Sovereign risk in the developed economies ?

Sovereign risk is not a new concept, but its systematic analysis started relatively late, in the late '70s of the last century.

Since the early '80s, John Calverley devotes a large part of its country risk research issues. The author proposes several definitions guided by the agent referred (Calverley, 1990); from this perspective, for a banking institution primarily concerned with repayment issues of its credits abroad, he retains a more restrictive definition of country risk, focused on sovereign risk and transfer risk. Sovereign risk is a particular risk targeting bank loans contracted or guaranteed by the State (sovereign loan). Risk implies that at some point, that government becomes unable to meet its obligations, or it no longer wants to do it. An important aspect is related to an additional risk in this context, the impossibility of obtaining repair by using the justice channel, because the borrower access to the invocation of legal immunity.

In 1986, shortly after the sovereign debt crisis in Latin America, Shelagh A. Heffernan aims to provide a clear image of sovereign risk, in the famous book Sovereign Risk Analysis (Heffernan, 1986). For the author, the analysis of sovereign risk means primarily to identify those cases where states can not fulfill their commitments on foreign debt (Heffernan, 1986: 4). From the beginning, she distinguishes between sovereign and private external debt, noting that sovereign risk concerns the first of these, and aims to estimate the probability of default.

John Calverley splits in country risk into two: sovereign risk and transfer risk, and he mentions a much broader concept, generalized country risk. Sovereign risk is considered *the risk that the government at some stage will be either unable or unwilling to meet its obligations* (Calverley, 1990: 3), while transfer risk represents *the possibility that even though the project is generating a cash flow in local currency which is sufficient to meet*

obligations, the government does not have the foreign exchange available to make the foreign currency remittance for servicing the debt. Calverley stresses that sovereign risk concerns loans granted by banks to a foreign government or a foreign trader, but in the second case, the loan is accompanied by a government guarantee.
Sovereign risk has been analyzed more extensively during the 1990s of the last century, but there was no mention of its existence for the developed economies.
At present, however, the public debt crisis, and especially the recent situation in the eurozone, have questioned the status of "assets with risk 0" of the sovereign debt of developed countries. This development significantly changes the global landscape of sovereign risk.
In this context, a number of observations can be made:

- the final resolution of the financial crisis delays to occur, as shown in the latest BIS studies (Bank for International Settlements);
- the global bond market continues to progress, from about 70 trillion USD seven years ago to more than 100 trillion USD in 2013.

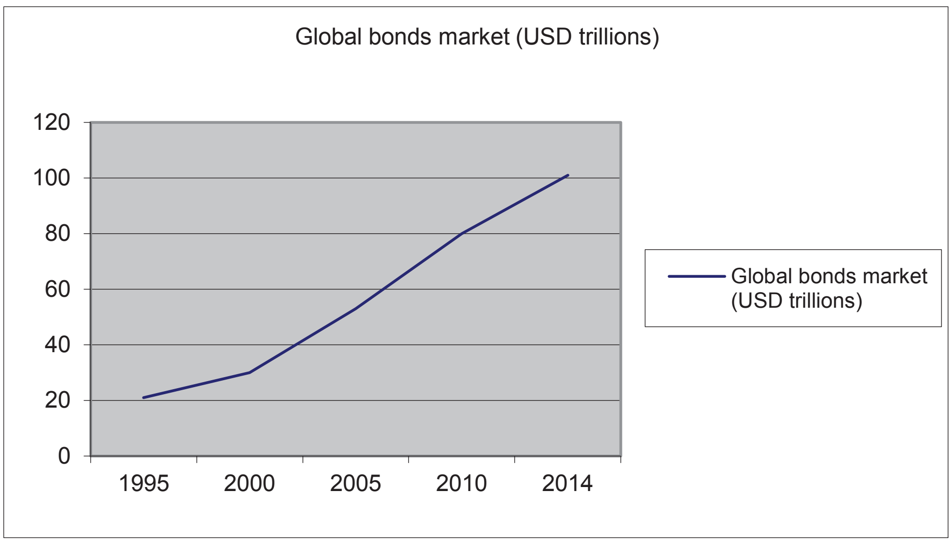

Figure 2: The evolution of global bonds market
Source: own work, using BIS data, 2014.

- as it is pointed out by more and more analysts (Rechea, 2014; Longueville et Faure, 2010), states are choosing the borrowing way in order to get rid of debt, and developed ones seem to do it first; overall debt ratio in the global GDP is approaching 150% today, and, although there is not a major change in the cost of funding, this situation is likely to change in the near future;
- not just the state of indebtedness of developed countries is worrying, but also the prospects of reaching a level of growth that can facilitate repayment;
- the decoupling consumption-production is increasing, especially in developed countries, although this fragility can be observed in the case of emerging markets that have not favored production, too.

As companies, states issue bonds when they need funds. They shall bear interest rates that reflect the risk perceived by investors. From this point of view, the main impact of the debt crisis on the states was the increased funding cost, translated by raising interest rates on government securities.

Basically, since the onset of the Greek crisis, at the end of 2009, euro area sovereign bonds have acquired different behaviors, investor perception ranging from state to state, as certified by the figure below:

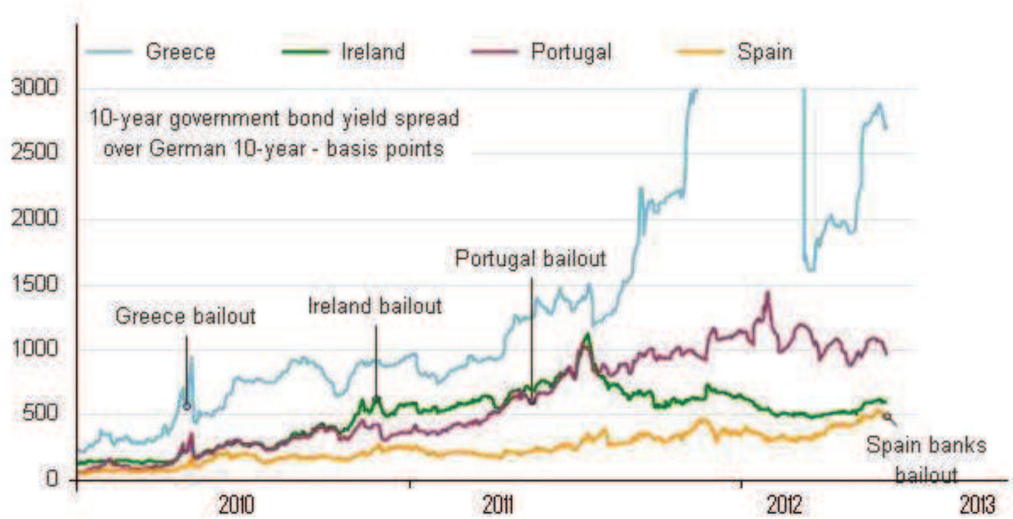

Figure 3: Euro zone government bonds (spreads)
Source: Thomson Reuters / Scott Barber, 2013 (http://www.acting-man.com/?p=17513).

An interesting development was recorded by CDS (Credit Default Swap) – contracts that are essentially an insurance mechanism against default, debt repudiation or forced debt restructuring. They have appeared over two decades ago, in the context of developing states sovereign debt, and subsequently were also used for private debtors.
In recent years, the CDS use in the case of developed countries, represents further evidence that sovereign risk is not at all foreign to them.
The CDS premia have evolved surprisingly in the case of developed countries after 2008, as follows:

- in a first phase, due to the rapid upward evolution of public debt, but also due to the massive support of the banking sector by governments, risk premia in the CDS market have increased significantly:

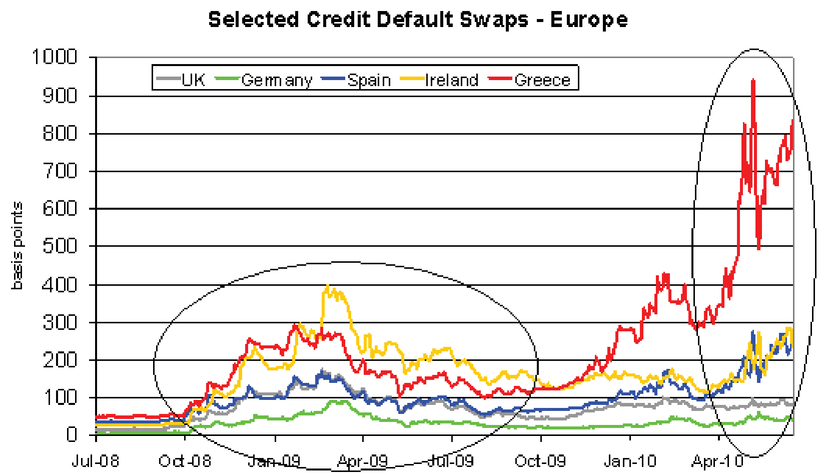

Figure 4: Sovereign CDS evolution (pre-2010)
Source: Bloomberg, 2011.

- the risk transfer from private entities towards national states generated a significant increase in premiums; a time of maximum value was reached in early 2009;
- after a slight decrease, the onset of the Greek crisis, by the end of 2009, resulted in a new burst of CDS risk premia, reaching 1,000 basis points if the case of the Greek state;
- after 2010, CDS risk premia continue to evolve separately, depending on the perceived probability of default:

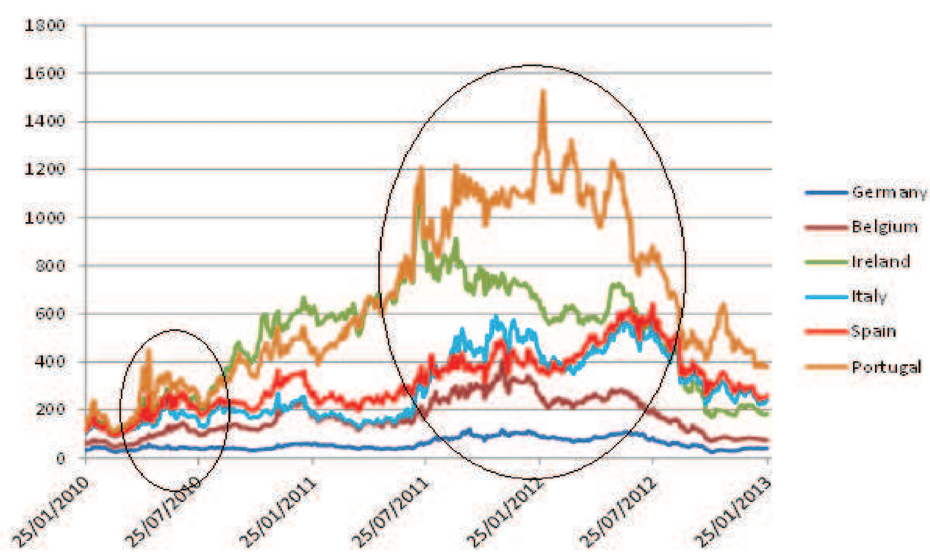

Figure 5: Sovereign CDS evolution (2010-2013)
Source: Bloomberg, 2014.

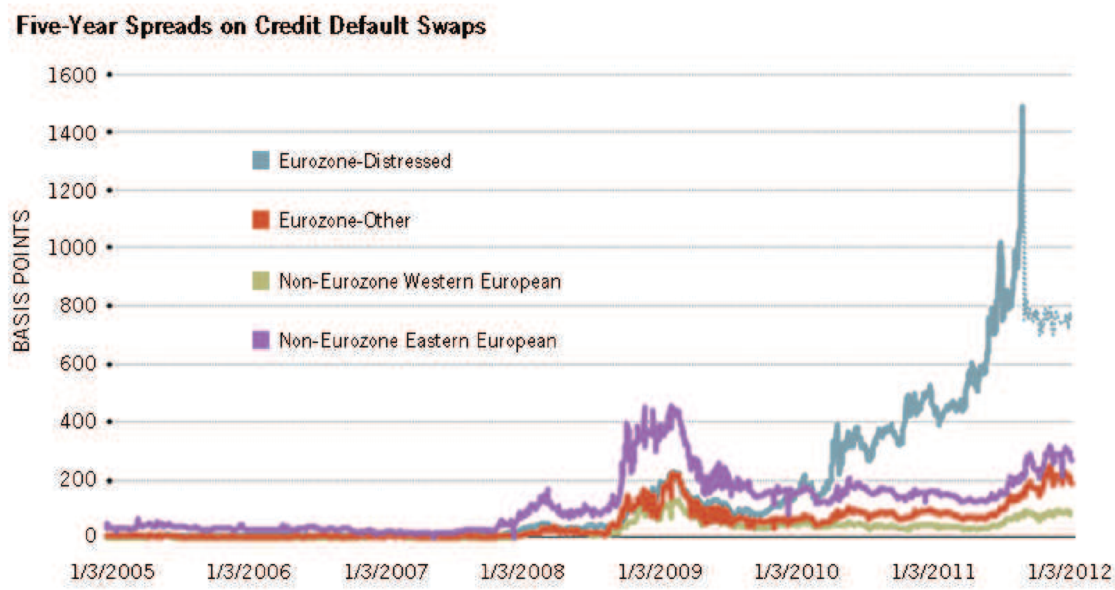

Figure 5: 5-year spreads on sovereign CDS
Source: Bloomberg / Noeth, Bryan, Sengupta, Rajdeep, *A Look at Credit Default Swaps and Their Impact on the European Debt Crisis*, The Regional Economist, april 2012 (https://www.stlouisfed.org/publications/re/articles/?id=2231).

Of course, relevant conclusions are still difficult to draw, because until 2008 sovereign CDS market was almost absent in the case of developed countries. We also believe that the levels achieved in recent years do not accurately reflect the default risk, exacerbating it in a context in which sovereign countries actually only rarely fall into such a state.
Sovereign risk measure is also given by rating agencies (three are well-known, *Standard & Poor's*, *Moody's* and *Fitch Ratings*); they are present in the market for quite a while, evaluating also sovereign debtors. Undoubtedly, rating has many advantages, one of which is in our opinion the *synthesis capacity*.
After 2010, the rating agencies have downgraded countries ratings constantly, developed states being no exception:

- November 10, 2011: Standard & Poor's changes France sovereign rating;
- January 13, 2012: downgrade for nine eurozone countries by S & P, etc..

So here is a new argument which entitles us to conclude that sovereign risk is present in developed countries. However, we must stress that rating agencies activity is at least controversial, and they present a whole series of shortcomings: lack of transparency concerning the methods and techniques used, subjectivity, a big share of political factor in ratings, frequent errors, procyclical effects of evaluations, lack of decision justification.

3. Perspectives and remarks

Public debt is, undoubtedly, „old as the world". To what extent indebtedness is beneficial or not, should be analyzed in-depth, which we intend to achieve in another paper.
One thing is however clear: sovereign debt has a completely different regime compared with private debt. An indebted state can not be compared to an indebted economic agent; we can do it only for the pleasure of a discussion. In this context, some remarks can be made:

- sovereign debt always existed throughout human history, but no state went "bankrupt" in the general sense of the term (a state is sovereign, so its assets can not be taken over by lenders);

- many times, states have repudiated their debt (even England did so, centuries ago, partially), or the debt has been restructured;
- a state "life" is not limited, so that it can continue to borrow in order to pay previous debts;
- if the economic growth rate exceeds the indebtedness growth rate, debt can even be increased without exacerbating the implications of this evolution;
- in contrast to firms and households, the state can more easily predict its future income (we refer here specifically to taxes, which may be even increased, by the policy makers); However, the predictions have some limits;
- in addition to other economic actors, the state can issue currency; for countries with sovereign debt expressed in their own currency (those not affected by the "original sin"), there is the privilege to pay with money printed by the state itself; Of course, the risk of (hyper)inflation is very strong in this context.

All this does not mean that indebtedness is not extremely dangerous; on the contrary, the problem of solvency must preoccupy governments more and more, so that debts can be at least controlled, if not reduced.

What interests us when addressing the issue of public debt sustainability is its current level, the relationship between the interest rate (and debt service in general) and growth prospects (growth rate of real GDP), and also the tax revenue level, compared to that of public spending. At the same time, we believe that the sustainability of sovereign debt is a concept that must be viewed dynamically; an element of great importance is the ability of governments to ensure their future debt service. Quantifying this capacity represents a real challenge because future revenues and expenditures of a state can not be predicted accurately. Of course, in comparison with a private agent, a sovereign debtor has some levers that allow more reliable predictions, as we outlined above.

When we intend to identify the "red zone", the level at which borrowing becomes toxic, harmful, we can be extremely creative, setting alert thresholds or introducing indicators, more or less complex (from the classic public debt/GDP ratio or public debt/exports, up to complex variants, targeting concepts such as institutional quality). As highlighted in some recent studies and papers (Reinhart and Rogoff, 2010), the level of debt from which the danger of default becomes imminent is difficult to identify and, on the other hand, impossible to generalize. Most viable is the setting of thresholds above which sovereign debt involves adverse consequences for the economic life; from this point of view, the majority of the papers identify an alert threshold around 95% of the GDP. Over this value, growth becomes almost impossible. An alternative approximation method for the over-indebtedness threshold is to focus on relevant events in economic history – the Mexican episode from the 1980s, for example. This time we must be reserved, too, as sovereign debt often had very different effects in the context of similar indicators for different countries (for instance, indebtedness followed by hyperinflation which ultimately lead to calming the situation). A simple analysis that allows us in turn to draw conclusions about the limits of indebtedness is related to economic common sense. The difference between the revenues of a country and its expenditures (less interest payments) are representing the *primary budget surplus*. If the latter is exceeded by interests, the state is forced to go further into debt, which can eventually lead to the reduction of the number of its creditors, especially in the context in which the interest rate on loans exceeds the rate of evolution of sovereign income. Some authors offer interesting approaches on sustainable debt limit, placing it at the *maximum level of resources that future taxpayers will accept to transfer, year after year, to the state creditors* (Brender, Pisani, Gagna, 2013: 15).

Of course, a rising public debt may be compensated through various elements of economic policy, such as increasing the fiscal pressure (increasing taxes represents an extreme practice, and is rarely used – for electoral reasons, for example), reducing costs (a decision dangerous because it can lead to an economic activity downturn) and better

budgetary discipline, etc.. In some cases, where possible, debt restructuring may be an appropriate solution.
Finally, it is necessary to have good quality financial information; situations such as that of Greece, which provided for a long period of inaccurate and unreliable economic information should be avoided in the future.

References

Banque de France (mai 2012) *La crise de la dette souveraine*, Documents et débats.
Brender, A., Pisani, F., Gagna, E. (2013) *La crise des dettes souveraines*, Pairs : Ed. La Découverte.
Calverley, J. (1990) *Country Risk Analysis (second edition)*, Londra: Butterworths.
Heffernan, Shelagh A. (1986) *Sovereign Risk Analysis*, Londra: Ed. Allen and Unwin.
Longueville, G. And Faure, F. (2011) *Country Risk: Normalisation in most emerging countries, uncertainty in some advanced countries*, in Conjoncture, BNP Paribas.
Noeth, B. and Sengupta, R. (2012) *A Look at Credit Default Swaps and Their Impact on the European Debt Crisis*, The Regional Economist, 2012 (https://www.stlouisfed.org/publications/re/articles/?id=2231).
Rechea, C. (march 2014) „Economia globală este tot mai aproape de « furtuna perfectă » a datoriilor", Bursa newspaper.
Reinhart, C. and Rogoff, K. (2010) „Growth in a time of debt", *American Economic Review*, vol. 100, nr. 2, p. 572-578.
Thomson Reuters / Scott Barber, 2013 (http://www.acting-man.com/?p=17513).
Bank for International Settlements: https://www.bis.org/