

# ***21st Annual Conference on Alternative Economic Policy in Europe***

Addressing Europe's Multiple Crises

An agenda for economic transformation, solidarity and democracy

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## ***The European Crises and a Need for a Euro Reconfiguration***

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### **ABSTRACT**

Low economic and productivity growth, and high unemployment rates in Portugal and in euro zone demands new economic policies passing by public or public supported investment. However, in a framework of austerity, public investment is limited to the funding obtained on financial markets, which is highly contradictory. Even the quantitative easing of the ECB, that has ensured low interest rates, has had no direct effect on growth, as it is not directed to real economy and is limited by austerity.

The euro configuration is associated with the idea of money as debt. Post Keynesian theories inspired by "functional finance" suggests an alternative monetary policy through monetary creation to finance public deficit, as money is considered determinant to the functioning of the economy, fundamental to economic growth and full employment. Interestingly this debate has many similarities with what happened in Germany in the 30s between proponents of austerity and advocates of economic expansion through monetary creation, with Bruning policies.

This work is organized in two parts. In the first we discuss the concept of money and monetary creation and in the second we study the monetization effects of the Portuguese public debt. Holbecq and Derudder, Jean Gadrey among others, show, for the French case, that monetization would have created less money than in the current situation, where it is created by the banking system.

The public deficit monetization will only be possible with a change in the euro institutional framework. However, as the problems in euro zone are explained by its institutional framework, we believe that its resolution is not possible without changing the referred framework. This text aims to contribute to this debate.

**Keywords:** European crisis, Euro zone, Portugal, change in euro configuration; monetary creation

## 1. INTRODUCTION

The problems of Europe and of euro zone, in particular, are well known, high levels of private and public debt, unsustainable in some cases, negative credit ratings for public debt, very high interest rates of public debt and financial markets almost closed to the fragile economies. The result was the implementation of economic adjustment programmes to reduce government expenditure and to increase income, which are strongly recessive.

If we add to this, low growth rates and high levels of unemployment, particularly youth unemployment, the outlook worsens.

Those facts have exposed the weaknesses of the European construction model and the configuration of the euro, which are the result of political choices that limit the definition of public policies addressed to fight the problems of the European Union. In other words, the European Union is, by its very configuration, limited in policies for solving the crisis. Even the European policies that have already been adopted, namely quantitative easing, which have conducted to lower interest rates and greater access to financial markets, have had little effect on economic growth, because they are limited by the austerity that continues to prevail in the euro zone.

Wray (2015) says that “a narrowly defined quantitative easing program will have as little effect in the euro zone as it had in Japan (for 20 years) and the US more recently, nothing. Fundamentally, quantitative easing is all about taking earning assets out of the banking system and substituting lower interest earning assets. Why would that help anything? It won't.”

Palley (2015) sums up the situation in the US, but the same applies to Europe: “It shows how US policymakers acted to stabilize and save the economy, but failed to change the underlying neoliberal economic policy model. And, in consequence, the 1990s expansion proved unsustainable and so will the current modest expansion”.

New economic policies are needed that have to go through public investment or investment supported by the public system. However these public policies, will only have their multiplier effects on the economy if the institutional framework is changed.

One of the signs of strangulation of the economies was the rise in interest rates on public debt in some countries to very high levels. Today the interest rates of public debt are very low, negative in some cases, but the risk of being higher will always exist, and that can be triggered by new imbalances in the public accounts. If that happens, the

situation will get even worse, because the economies are more fragile and incapable of effective responses. And this, because the fundamental, which is the institutional change of the euro zone, is unresolved.

We follow Derudder and Holbecq (2013) who defend that a solution exists for but it has to be found according to an Einstein principle: the solution for a problem must be found outside the model that has created it.

In the euro framework, it is present the idea of money as debt, which is reflected in the impossibility of monetary creation to finance the public deficit. Post Keynesian theories inspired by "functional finance" suggest an alternative monetary policy through monetary creation to finance public deficit, as money is considered determinant to the functioning of the economy, fundamental to economic growth and full employment.

We think that this should be also a possibility for the euro zone. But the public deficit monetization will only be possible with a change in euro institutional framework. However, as the problems in euro zone are explained by its institutional framework, we believe that its resolution is not possible without changing the referred framework.

## **2. CURRENCY NATURE AND MONETARY CREATION**

After 2008 the economic activity in the European Union in general and in Portugal worsened, which was visible in lower growth rates and higher unemployment rates. The budgetary situation and public debt problems became visible, and because of that this crisis started to be known, wrongly in our opinion, as sovereign debt crisis. But, as Mota et al. (2012) defend, "the fragility of the budgetary circumstances [of the Portuguese case in particular], reflects mainly the weakness of its productive structure" and they argue that the "present crisis in Portugal must be discussed within the economic and institutional framework of the EU, but also consider the effects of the global economy model on the Portuguese economy, i.e., the blockages in the so-called real economy, that underlie the present crisis".

The argument used is that excessive debt and the budgetary situation are the consequences of the adopted economic model and not the causes of the economic crisis. Similarly, Goetzman (2012) states that the crisis is the result of a monetary problem and not a debt problem. From the moment that economic activity began to decline, the income generated by productive activities is no longer sufficient for debt repayment, a problem

that was aggravated by high interest rates of public debt, rates that were unaffordable given the low growth rates.

The adopted solution was the implementation of austerity policies aimed to reduce the public deficit that would lead to reduction of public debt, as taught by "sound finance".

Austerity policies focus mainly on the expenditure cut, arguing that this contributes to the decline in confidence of economic agents and the increase in interest rates, thus reducing investment.

The advocates of this idea found its arguments on the model of Ricardian equivalence, which according to Stiglitz (2010: 71) is a "sheer nonsense," and the crowding-out effects associated with expansionary fiscal policies or, conversely, the effects of crowding-in of fiscal consolidation policies. The first effects to occur, require that the amount of bonds to be involved are sufficiently high to influence market conditions, which usually does not happen, and even less in small countries, such as Portugal. This lecture depreciates also the positive multiplier effects of an expansionary fiscal policy on economic activity.

Additionally, with very low interest rates, even negative in some cases, the crowding-in effects are not expected as in Portugal and in many countries, the private sector (families and firms) are in a deleveraging process, the bank system continues to have strong restrictions on credit access from ECB, restrictions that they transfer to the firms credit, to which we must add the uncertainty surrounding the European and world economies. It is this inertia precisely that has been observed with the expansionary monetary policies in the United States, the United Kingdom and Japan and even in the euro area, if one takes into account the low level of interest rates.

On the other hand, the austerity policies don't solve the fundamental problems of the economies. Portugal, for example, with the implementation of fiscal consolidation policies is dangerously near the economic collapse<sup>1</sup>, which can be further enhanced by the same path that most of the Member States of the euro zone are taking. In addition, the quantitative easing of the ECB is not having the desired effects on the economic growth and therefore the reduction of public deficit-to-GDP and debt-to-GDP ratios will hardly be obtained. And these are the indicators that are used in financial markets to define the credit rating of public debt.

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<sup>1</sup> This opinion was formulated by João Ferreira do Amaral, a leading Portuguese economist, in 2011, which he still maintains.

One can understand the preoccupation with high public deficit-to-GDP and debt-to-GDP ratios if the economy is on a situation of full employment. However, in a situation like the current in the euro area and Portugal in particular that does not seem to be reasonable.

Opposite to the "sound finance", the "functional finance"<sup>2</sup> inspires the neo-Keynesian policies establishing a new direction for monetary policy, directed towards growth and employment. These objectives will be achieved through relatively low interest rates and the possibility of direct financing of the public deficit through monetary creation, presently not allowed due to underlying ideological framework for the institutional architecture of the euro.

In Europe, the demands for greater austerity do not decrease. One argument is that one has to pay first to win later. This is why Trichet (2010) said "Just like consumers and countries, governments cannot live beyond their means forever".

The view of Trichet is based on a generalization. Each family has a budget constraint and a family with debts and expenses greater than its income, will have necessarily to reduce its expenditure to pay their debts. Generalizing, this is extended to the State. But to this analogy is associated the Fallacy of composition – what might be true for an individual is probably not true for society as a whole. In fact, as Wray (2012) remarks, when we go from the individual level, where spending is limited by income, to the aggregated level, the causation is reversed, that is, spending creates income.

This position can be explained within the endogenous money creation theory, or the "loans first" model. The endogenous money creation theory argues that money is fundamental and is created according to the needs of the real economy, to accommodate the circulation and transactions of goods and services. Within the endogenous money theory we can find two distinguished positions according to the monetary creation. The monetary circuit theory, which describes how production takes place from the perspective of money and debt and the modern money theory, which focuses on the role of central bank money.

According to the monetary circuit theory, if money is created and is used to remunerate more labour, the increase of money in circulation will be compensated by an increase of the production of goods and services. However, as the production does not include profits, and as the value of goods can be expressed by wages plus rents plus

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<sup>2</sup> See Lerner (1943) and one of the most active followers, Wray (2012).

profits, then it is certain that the currency issued is less than the value of the produced goods and services. The money created is equal to the total amount of wages distributed, but the obtained production value is equal to wages, plus rents and profits, and is therefore greater than the wages distributed. And if firms in Europe are not willing to hire people to create this full employment, member states can hire them directly, as the market, due to the austerity policies, is completely dysfunctional.

At the macroeconomic level, the increase in government expenditure, if necessary with deficit, generates the income to the economy that will return to the state as taxes.

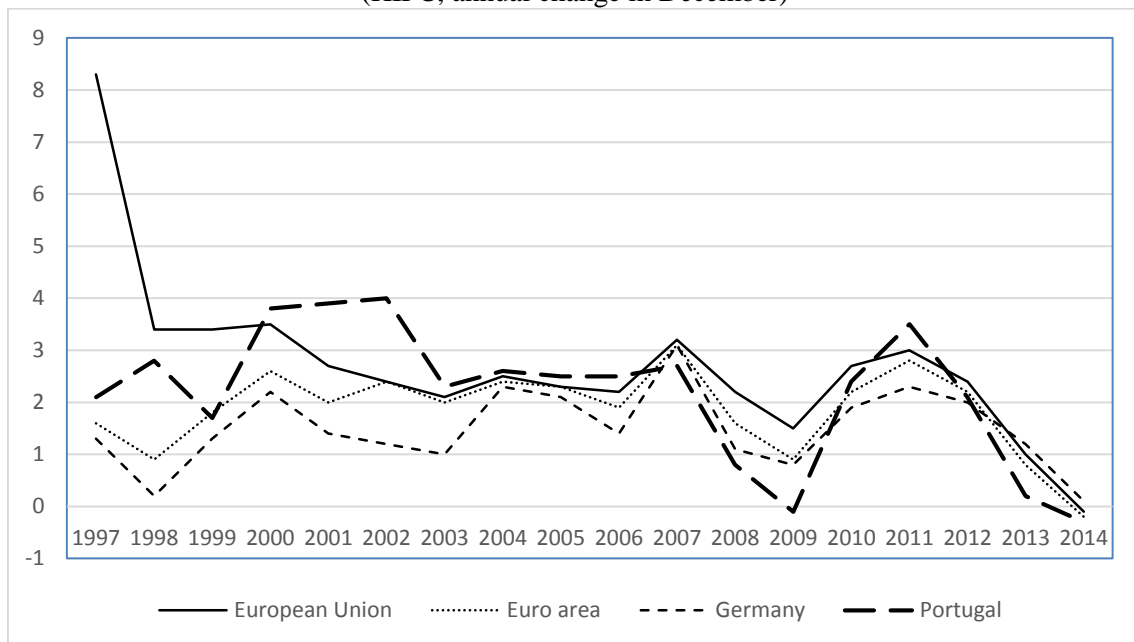
The modern money theory analyses the monetary creation and its effects on the economy differently. Government does not need income to spend, as it can pay its expenses with monetary creation. And it is with the money created that taxpayers can pay taxes. The currency will only be available through the public expenses.

We must add that in the current context of austerity policies, savings of most families have fallen considerably and therefore the effective demand increase will hardly come from this source.

Historical facts have also refuted this analogy repeatedly, as Stiglitz (2010) notes with two examples. When Herbert Hoover reduced public spending in the US, he helped to transform the 'crash' of the 1929 stock market in the Great Depression. When the International Monetary Fund tried the same formula in East Asia in 1997, the slowdown was transformed in recession and then in depression.

The modern money theory is criticized for defending monetary creation to finance the public deficit which could lead to inflation. However, the proponents of the theory argue that monetary creation has limits and they are defined, namely, by the risk of inflation. There should be a control on the monetary creation, especially in the context of the gold standard type that characterizes the euro zone, so that the value of the currency remains stable, not only against other currencies, but also when considering the purchasing power of the euro in each of the euro zone countries. But, as can be seen in the graph 1, if there is a risk that will be the risk of deflation.

Graph 1. Annual inflation rate.  
(HIPC, annual change in December)



Source: Eurostat.

The monetary creation is therefore fundamental to allow economic activity to grow, but it should be issued at levels that guarantee economic stabilization. If the monetary creation is used to remunerate labour, the increase of paper money in circulation will be offset by higher production of goods and services that will be consumed by the families with the income that they have received.

These limits of monetary creation were already well-known by the opponents of the austerity policies in the 1930s in Germany, as shown by Tooze (2012: 64-65). According to him:

"For the advocates of work creation, this orthodox argument [equivalent to Trichet'] was based on a misunderstanding. If the economy was fully employed - with every worker and every factory at full stretch – new credit creation will lead to inflation. In that case it would indeed be true that additional government spending would be financed by 'involuntary saving'. But if labour and machinery were lying idle, the game need not to be zero-sum. After all, with millions of workers desperate for work and with factories starved of orders, there was little reason to expect prices to rise. Under conditions of mass employment, government spending financed by new credit would result in greater real demand, greater production and employment rather than inflation. The art of economic policy was to provide the correct dose of credit financed stimulation, sufficient to restore full employment, but not an excessive amount that would push the economy beyond the limit of full employment and unleash an inflationary free-for-all. (...)

The initial experiment in credit-financed work creation was launched not by Hitler's government, but by General Schleicher in December 1932<sup>3</sup>. The first step was to arrange for companies that were carrying out government projects to be paid, not directly in cash, but in the form of interest-bearing IOUs (work creation bills) in the name of the state agency commissioning the work. To persuade contractors to accept this unusual form of payment, the work creation bills were guaranteed by a cluster of state-affiliated banks. The most important of these were the Deutsche Gesellschaft für öffentliche Arbeiten and the Deutsche Bau- und Bodenbank, which has been established in 1930 with a view to financing Bruening's abortive plan for a work creation programme to counter the onset of the Depression. Against a discount, a contractor could cash the work creation bills with any of the banks in the consortium. The banks were provided with the necessary cash, by themselves discounting the bills with the Reichsbank. The Reichsbank thus ended up holding the work creation bills, in exchange for new cash. To make acceptable to the reichsbank the RFM [Reich Finance Minister] promised to redeem the bills according to a fixed timetable. Once recovery had been achieved, the RFM would raise the necessary funds through the additional flow of tax revenue generated by economic revival, or by floating long-term government loans, once the financial markets recovered and savings were buoyant.

Tooze (2012: 61) states also that:

Both the gigantic and comprehensive' work creation package that Hitler had promised on his first night in office and the handsome promises made to the military would have to wait until the votes were counted. In any case, there was little need for immediate action. From his predecessor General Schleicher Hitler inherited a fully fledged, credit-financed work creation programme budgeted at a total of 6000 million Reichsmarks. None of this money had been spent by the time Hitler took office. The initial rearmament and the initial work creation measures of Hitler's government therefore consisted of spending Schleicher's money.

It is therefore assumed, as we saw even historically, that there are limits to monetary creation but we also concluded that it should be used as an instrument of a policy mix. It should be guaranteed that the budget deficit is the necessary one to ensure jobs for all who want to work in dignity. Every European should have a socially useful employment and at a wage also socially appropriate.

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<sup>3</sup> General Schleicher was the 14th Chancellor of the Weimar Republic between 3rd December 1932 and 28th January 1933.



In this sense, Wray (2012: 110) reaffirms that governments don't have a budget constraint, being this argument the basis to the construction of the modern money theory to which is added the idea that a sovereign country with its own currency can never become insolvent since it may pay all the expenses with money that it creates.

We have seen that the Trichet affirmation has something paradoxical at the state level, but the same is true in the context of firms or families.

In what concerns firms, if they can only spend what they have then there are no firms and therefore no capitalists. There are no firms, because their income are profits and firms can only have profits after the products are produced and sold, a process that requires the remuneration of labour. It is therefore necessary to spend before having an income, that is, to spend what firms don't have. The affirmation is therefore valid only in an economic process that summarizes the relationship M-C-M, to use Marx. But this is not capitalism.

And in the capitalist system what are usually investments? They are a purchasing power released on society to produce the goods that materialize the investment on order. But prior to purchasing power, they are an open credit by banks to firms that became indebted. This means that the debt injected into the real economy is productive and generates income, with which will remunerate the production factors and pay debts. A productive debt, if oriented to the real economy, will be a source of growth.

Families are limited by their budget constraint and can only spend what they have, their income. Families spend, the state spends and industry spends. Consider that the amount produced is 1000. Families receive in wages 800, the state buys 100 with anticipated issued currency that it will receive from taxes. The industry therefore sells  $800 + 100$ , with 100 for stocks. Stocks will grow which has even explained a part of the current growth process, producers decrease production, profits are reduced, until the products completely disappeared, so will the Trichet's world. The economy is not reduced even to the condition of simple reproduction and this with the state anticipating and spending amounts that it doesn't have.

A 500 euro note is simply a debt from the society that is circulating freely. With it, anyone can be paid at any point in the space where it is recognized as note. The debt is paid, exchanging the note for products by the same amount. Conclusion: a capitalist society is based on debt.

This also shows that, contrary to the view of the neoliberals, in the capitalist system the Say's Law it is never verified, as to sell is necessary first to spend.

This is indeed a major contradiction of the capitalist system: in each moment of time the production value is always greater than the demand that it immediately generates, which means that the Say's Law does not hold. Equality between production and demand value then assumes income anticipation, the overtrading. The reduction of income anticipation in each period of time can be compensated with the use of previous savings, private debt or through the state (due to an expansionary fiscal policy).

Future needs are necessary to be fed and for that it is necessary that consumers spent what they don't have in the present but can have in the future. It is this that Stiglitz (2010) refers. When Wolf (2010) say that expansionary fiscal policies, financed if necessary with debt, will generate the effective demand that will be in the future compensated with new production, and that demand is the one that Trichet pretends to eliminate.

This surplus of the value of production over expenditure, if realized as monetary achievement, corresponds to the anticipation of future income organized by the state. It is then overtrading, pure and simple.<sup>4</sup>

Europe will then have as much paper money as we want it to have. It is true that private banks create the money they want from loans granted<sup>5</sup> but in the present it is not being created because credit is not being granted to the economy, so dysfunctional it is. And the credit is not being directed to the economy because banks put many restrictions, but also because the banks themselves see their funding requirements very restricted by the ECB, as is the case of the Greek commercial banks.

Austerity originates therefore a reversal of the economic circuit, not allowing it to finish. The monetary creation, either with money creation either with loans first, always happens first, being the wealth created afterwards. After the creation of wealth, the income required to pay taxes exists, and at that moment the money created is destroyed. It is necessary to create first the mechanisms to anticipate wealth, the production mechanisms, that will generate the needed income and the overtrading, which will be used respectively to pay taxes or to absorb the surplus of production, thus ending the productive circuit.

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<sup>4</sup> In what concerns overtrading, see the almost forgotten book by Arghiri Emmanuel (1974): *Le Profit et les Crises*.

<sup>5</sup> Bagehot (1873: 132) refers the following in what concerns the monetary creation by private banks: "the best way to diffuse banking in a community is to allow the banker to issue banknotes of small amount that can supersede the metal currency. This amounts to a subsidy to each banker to enable him to keep open a bank till depositors choose to come to it".

The reversal of the direction of the economic circuit requires the population to use savings, which, in the context of the current crisis, of the current levels of unemployment, precarious employment and of the reduction of the social state, fell sharply.

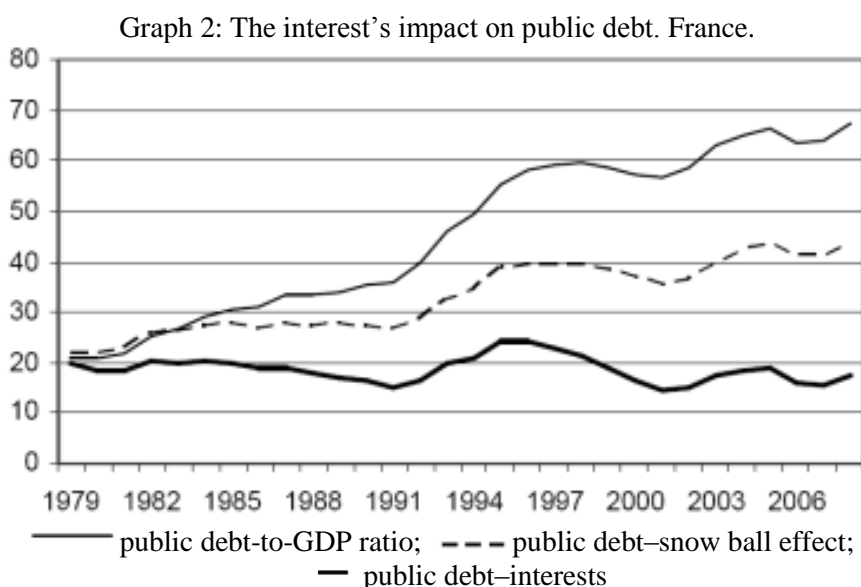
The issue of paper money in the amount necessary to compensate the government deficit is therefore another possibility to increase the economic activity, being issued at levels that allow the economic stabilization. If there is an issue of paper money, and if it is used to remunerate labour, the increase of paper money in circulation will be offset by an increased production of goods and services and the respective acquisition by families who start to have income from their work.

### 3. DEBT WEIGHT

On Holbecq and Derudder (2011) the debate on monetary creation and debt in the case of France is central, but it reached other countries, such as Italy, through Laurent Pinsole. Analysing the evolution of public debt, they conclude that after 30 years of financing in financial markets, the increase in public debt is a result of the interests paid for debt and this the present problem, which means that it is necessary to end the privatization of money creation. In fact, two problems are due to the privatization process.

Firstly, the states on issuing debt are dependent from the financial markets. On the other hand, the financing will be strongly limited in times of macroeconomic imbalances, such as the present one of high unemployment.

Graph 2 is from the study of Pucci and Tinel (2011) studied the relationship between public debt and taxes, having made similar calculations for France.

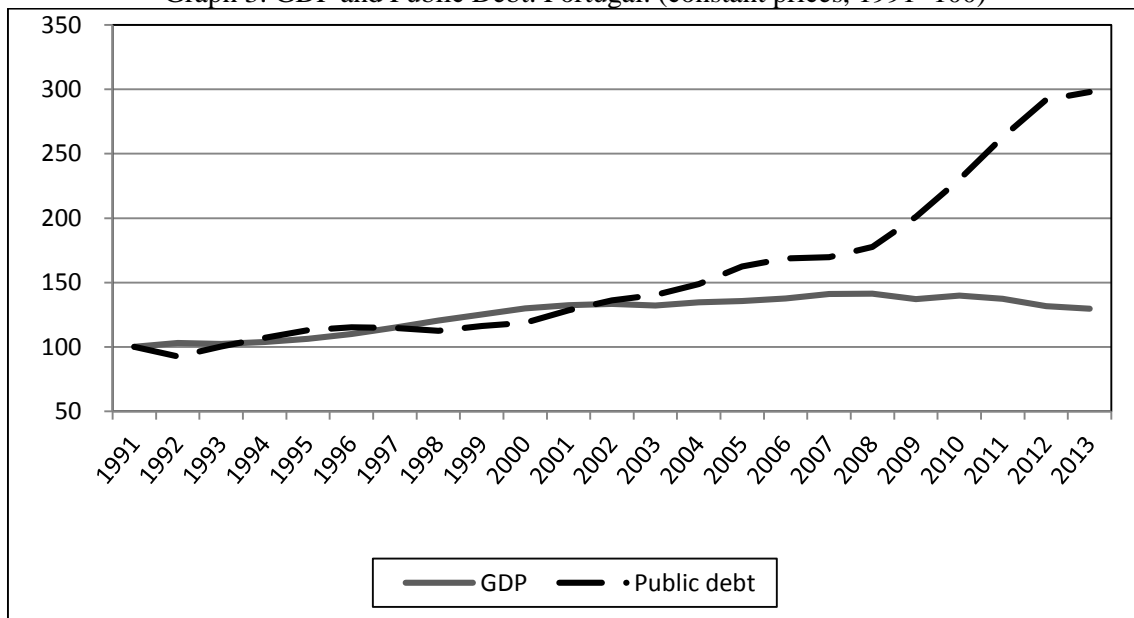


Source: Pucci e Tinel (2011).

The conclusion that they reach is the same. It was observed a snowball effect on the public debt that have increased due the effects of the increase of the paid interests.

Being this problem observed in France, the same applies for Portugal. In graph 3 we have the evolution of the Portuguese public debt<sup>6</sup> and GDP, both at constant prices.<sup>7</sup> We can see that between 1991 and 2001, growth was similar, being observed a clear divergence after 2002. GDP remains stable (in 2013 the GDP is at the same level as in 2000) but the debt continues to grow and more strongly from 2008. We have to remark that it is also when GDP starts to fall, albeit slowly in 2008 that public debt begins to rise strongly.

Graph 3. GDP and Public Debt. Portugal. (constant prices, 1991=100)



Source: Banco de Portugal; INE; own calculations.

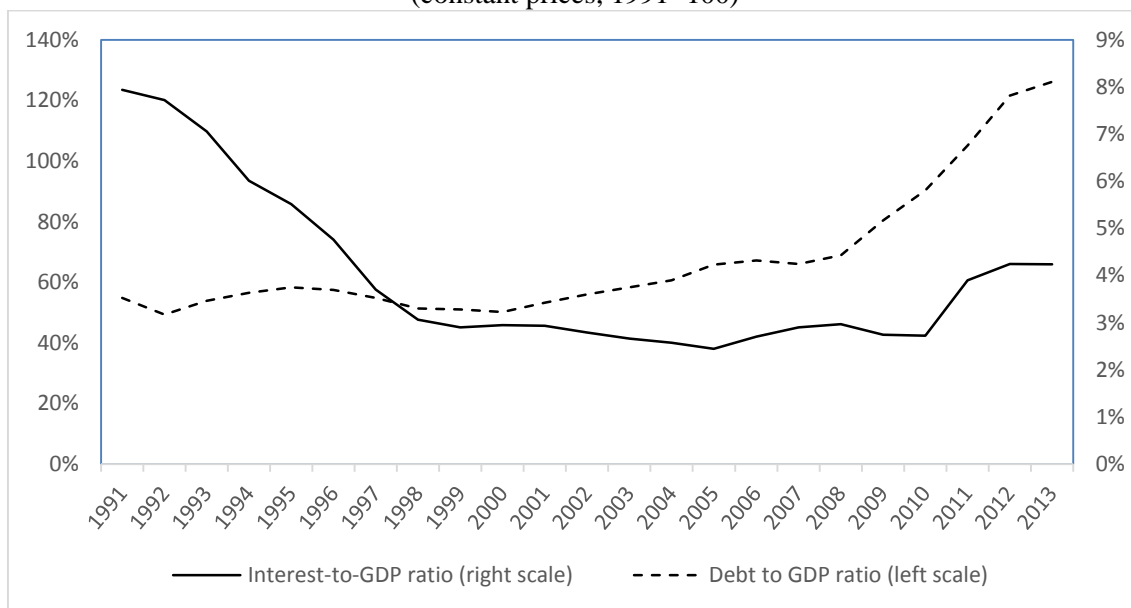
In graph 4, we can see that the ratio public debt-to-GDP remained at a relatively stable level between 1991 and 2000, and started to grow at a low rate afterwards. After 2008, the growth of public debt was rapid, rising from 72% of GDP to 129% in 2013 which was followed by a similar evolution of debt interest-to-GDP ratio. It is also clear, in the last two years, that there is a slight stability in the debt interests but a rise in the debt, which means that there are other effects in the debt other than those interests.

<sup>6</sup> The concept used is the Maastricht government debt.

<sup>7</sup> We have used the GDP price deflator do calculate both series at constant prices.

What would have been the evolution of the debt if, with everything else constant, public deficits have been financed by money creation? We are going to consider, as Holbecq and Derudder (2011) that the monetary creation is equal to 100% of the interest of the public debt paid<sup>8</sup>.

Graph 4. Public debt to GDP and public debt service-to GDP ratios. Portugal.  
(constant prices, 1991=100)

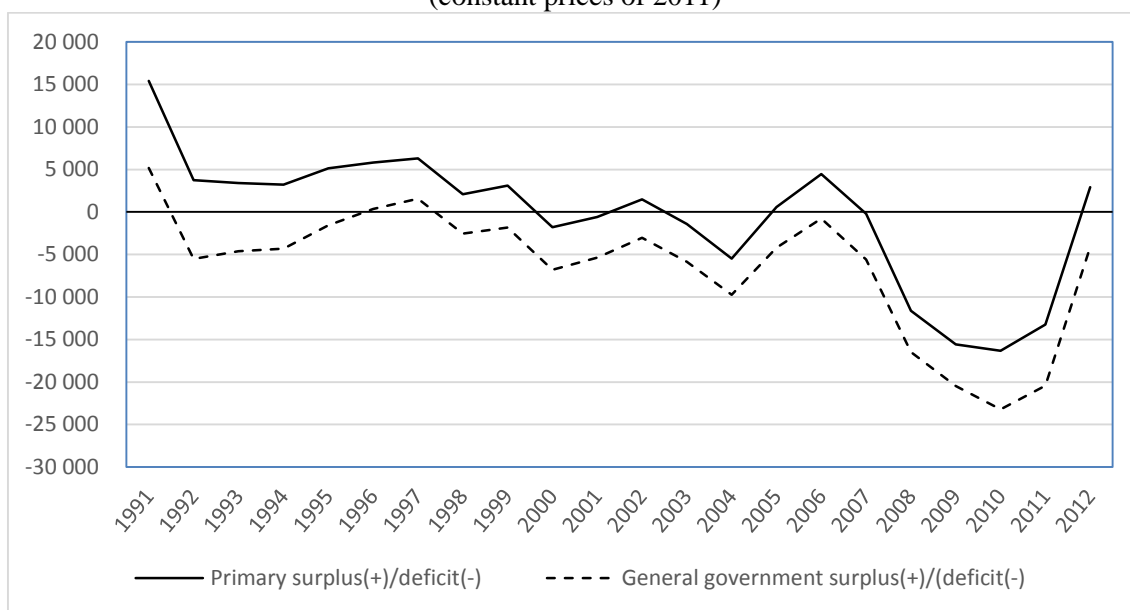


Source: Banco de Portugal; INE; own calculations.

In chart 5, we have the evolution of the public deficit and primary public deficit at constant prices at 2011.

<sup>8</sup> The authors have considered other hypothesis of a monetary creation equal to 100% of the interest paid, hypothesis that we have also used. However, the authors have considered other hypothesis, namely of a monetary creation above the 100% of the interests paid. As the fundamental analysis is not fundamentally changed, we only consider the referred hypothesis.

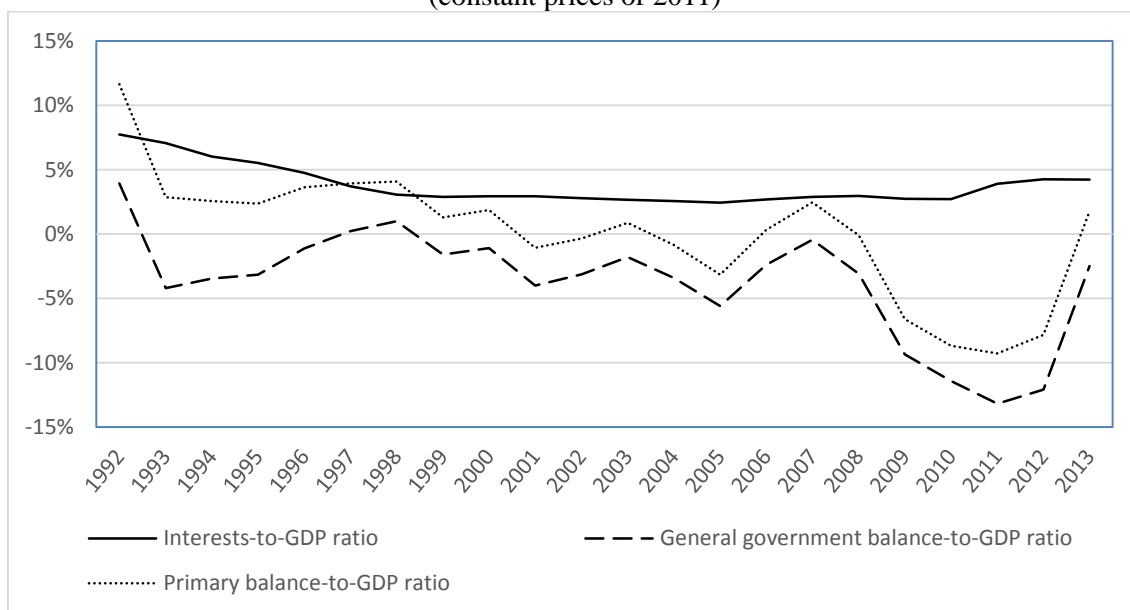
Graph 5. General government deficit/surplus and primary deficit/surplus. Portugal.  
(constant prices of 2011)



Source: Banco de Portugal; INE; own calculations.

We can see that the major imbalances occurred after 2008 and thus by these data it can't be said that Portugal had a problem of excessive public spending. We can see the same evolution, but in terms of percentage of GDP, in graph 6.

Graph 6. General government deficit/surplus and primary deficit/surplus. Portugal.  
(constant prices of 2011)



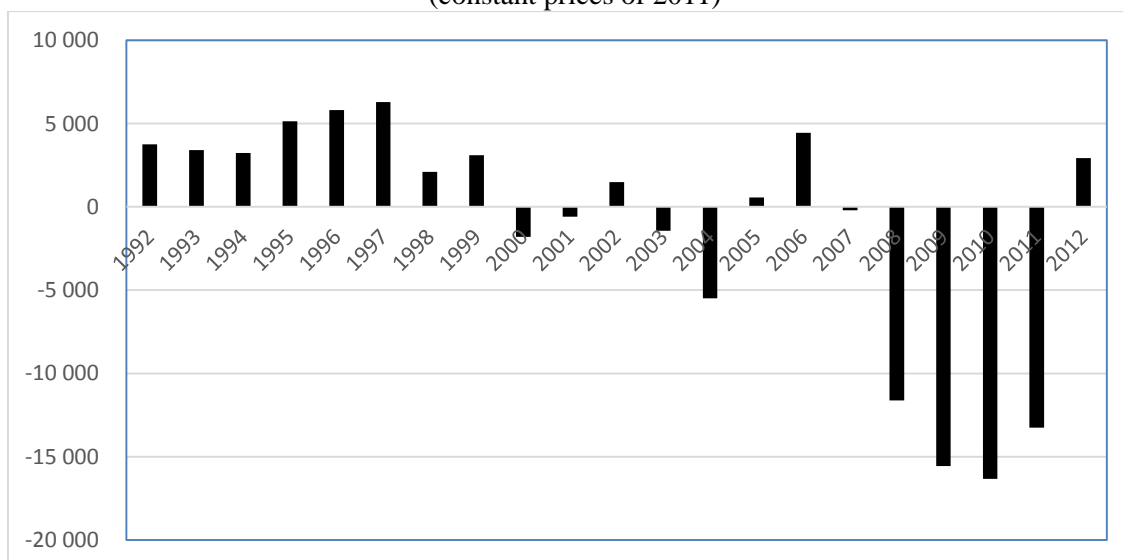
Source: Banco de Portugal; INE; own calculations.

Graph 6 shows that the primary budget balance on average between 1992 and 2013 was almost in equilibrium. The period 2009-2012 was catastrophic, and imbalances have emerged.

In graph 7, we can see the evolution of the primary balance in real terms and in absolute value to isolate the inflation from de budget balance.

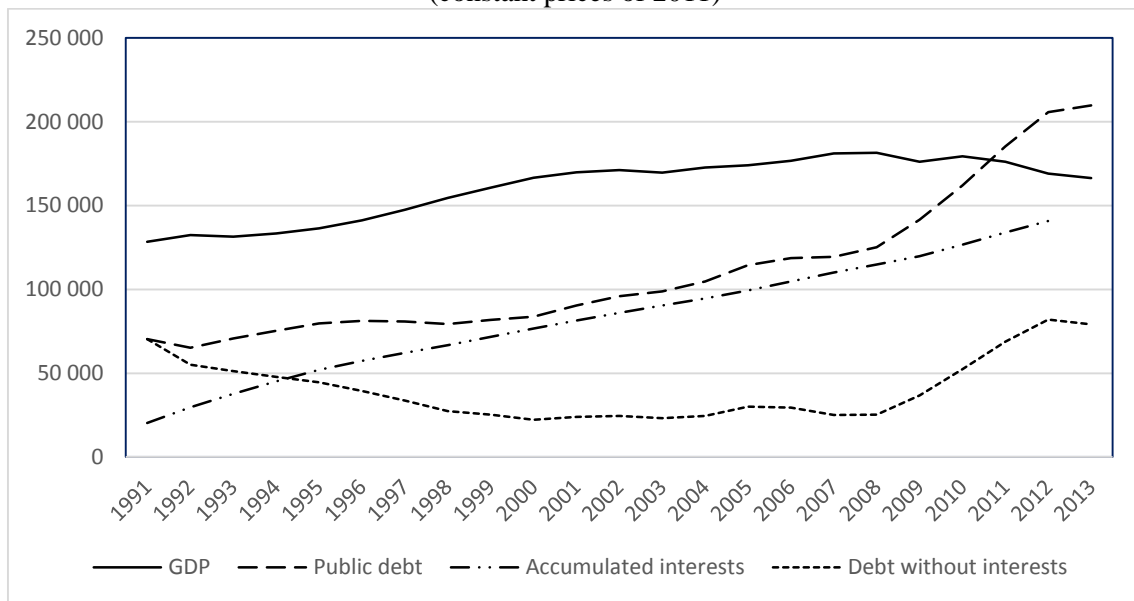
Graph 8 shows the evolution of GDP, debt and interests in real terms. For the debt, we have two indicators: the official public debt and the public debt without interest that is the public debt that Portugal would have had if interests were paid with money creation. This indicator results from the accumulation of initial debt to which is added the primary deficit/surplus of each year as we are assuming that the monetization is equal to 100% of the paid interests.

Graph 7. General government primary deficit/surplus. Portugal.  
(constant prices of 2011)



Source: Banco de Portugal; INE; own calculations.

Graph 8. GDP, public debt and public debt interests. Portugal.  
(constant prices of 2011)



Source: Banco de Portugal; INE; own calculations.

We can see that if there had been monetary creation to pay public debt interests, public debt would have remained largely stable and decreased until 2008, from which is observed a strong growth due to the primary deficits. Until 2008, GDP and debt evolved in the same direction. We can also conclude that if there were monetary creation in the amount of the interest paid, the debt would have been reduced by 2008. Having increased, the explanation is to be found precisely in the interest paid. Under the present framework, without state monetary creation, that right being reserved only to the private banks, the debt was being paid with an increase in money supply in the hands of savers, through the paid interest.

Interests are therefore a cause for the debt increase and for the level that it has reached today. If there had been no interests to be paid, the public debt would represented, at the end of 2013, almost half of the percentage of GDP would be at the level of 1991.

In a moment where the government is forced to save, and to reduce government expenses, the first savings could be then on interest paid, avoiding a snow ball effect that result in the increase of debt even with government primary surplus.

This also illustrates that Portugal did not have a debt problem, being the evolution of interest rates from 2009 what has boosted the debt to unsustainable levels and that the spender state concept does not apply here.

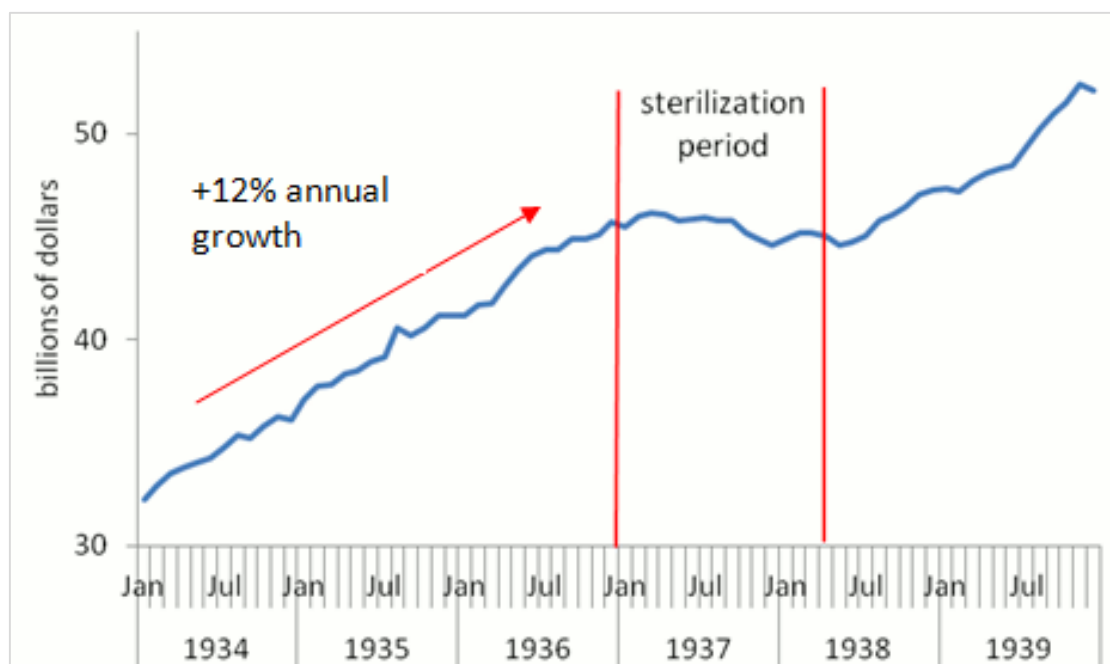


#### 4. LESSONS FROM THE 1937-1938 RECESSION

The present situation in the euro zone, and in Portugal in particular, is similar to what happened in 1937-1938, sometimes called "recession within the depression". This is well explained in Irwin (2011), Beckworth (2008) and Bartlet (2011), and this example is used by the authors to highlight the idea that the FED should not have repeated the same errors of the past, as in 2008, FED, in comparable economic conditions, has applied, wrongly, the same policies.

The Great Depression of 1929-32 was solved through The National Industrial Recovery Act (NIRA) to stimulate economic recovery and to favour inflation, with a vast plan of investment that was helped with an expansionary monetary policy, through the expansion of money supply at a 12% annual rate until 1936, as shown in graph 9.

Graph 9. US money supply (M2), 1934-39.



Source: Irwin (2011).

In table 1, we can see that, in the period, the decrease on the deficit was followed by a decrease on the GDP growth rate, by an increase on the unemployment rate and a decrease on the inflation rate.

Table 1. Deficits and the economy during the Great Depression. US.

Year	Deficit as a Percentage of G.D.P.	Percentage Change in Real G.D.P	Unemployment Rate	Inflation
1930	+0.8	-8.6	8.9	-2.3
1931	-0.6	-6.5	15.6	-9.0
1932	-4.0	-13.1	22.9	-9.9
1933	-4.5	-1.3	20.9	-5.1
1934	-5.9	+10.9	16.2	+3.1
1935	-4.0	+8.9	14.4	+2.2
1936	-5.5	+13.0	10.0	+1.5
1937	-2.8	+5.1	9.2	+3.6
1938	-0.5	-3.4	12.5	-2.1
1939	-3.8	+8.1	11.3	-1.4
1940	-3.6	+8.8	9.5	+0.7

Source: Bartlet (2011).

Thinking that the recovery had been restored, they started to question fiscal and monetary stimulus. However, growth was far away from being consistent, namely with a high unemployment rate. Even so, in those conditions and to reduce monetary stimulus, the Treasury Department's decided in December 1936 to sterilize all gold inflows. The consequence was the 11% fall in GDP and 32% fall in industrial production, and third-worst US recession in the 20th century (after 1929-32 and 1920-21) and it prolonged the Great Depression.

Why is this important for today? Romer (2009) refers that the 1937-38 crisis illustrates the dangers of a contractionary monetary and fiscal policy when the economy is in a possible deflation scenario. Before that period Gold reserves, due to large inflows of gold, constituted 85% of the monetary base and monetary policy was largely expansionist which was very important for the economic recovery.

The FED board of Governors feared the risks of inflation and therefore have doubled reserve requirements which help to maintain the monetary base at their initial level. The Treasury ended its policy and the economy began to recover in June 1938.

The contractionary monetary policy as resulted in a severe recession within the depression that could be prevented if policymakers had responded in a different way. Therefore to the crisis of 1937-38 have contributed the contractionary monetary policy defined in 1936 and strongly, for similar problems, FED has announced in 2008 the same contractionary policy that the referred authors have questioned. Beckworth (2008) even refers that the contractionary monetary policy of 2008 was defined to restore “confidence to financial markets - what Paul Krugman calls the "Face Slap Theory" - without actually creating any additional spending or inflationary pressures.” Bartlet (2011) refers that was

the main cause in 1937. In fact, according to Bartlet “Mr. Morgenthau [Roosevelt Treasury secretary] said he believed recovery “depended on the willingness of business to increase investments, and this in turn was a function of business confidence,” adding, “In his view only a balanced budget could sustain that confidence.”

Romer (2009) resumes its political position with “As someone who has written somewhat critically of the short-sightedness of policymakers in the late 1930s, I feel new humility. I can see that the pressures they were under were probably enormous. Policymakers today need to learn from their experiences and respond to the same pressures constructively, without derailing the recovery before it has even begun”.

Irwin (2011), considering this example, finishes his article: “The recession of 1937-38 occurred long ago, but it does have policy lessons for today. It suggests that, in a weak recovery, a pre-emptive monetary strike against inflation (which was very low at the time, as it is today) is capable of producing a devastating recession.”

## **5. CONCLUSION**

The euro zone and the euro were built within an institutional framework that limits the definition of the adequate economic policies necessary to solve the current problems: high levels of public and private debt, high unemployment rate, namely young unemployment, low growth rates, among others.

The fiscal and monetary policies adopted so far have had limited effects because they were designed within the economic model that has originated the problems that Europe is facing. Following Palley (2015) reasoning for the US, which is also applied to Portugal, the plans to stabilize and save the economy are failing because the neoliberal economic policy model that was used to design the euro didn't change. And without changing the institutional framework it is not possible to design economic policies to address the current problems in the euro zone.

In the euro framework, the monetary creation by the state is not allowed, being this possibility reserved only for the private banking. However, according either to the monetary circuit theory and the modern money theory that should be a possibility. And with the modern money theory this possibility is strongly defended, being his dimension limited by the risk of inflation. That is, the monetary creation to finance the public deficit should be controlled to avoid the risks of inflation, especially in the context of the gold standard that characterizes the euro zone. But it is an instrument that is fundamental and

should be used to allow economic activity to grow, to guarantee economic stabilization. With the monetary creation, and if it is used to remunerate labour, the increase of the paper money in circulation will be directed to the increase of the production of goods and services that will be consumed with the generated income. But as the income is grown, so will grow taxes that will destroy money previously created. At the end of the process, all will be better. It is therefore necessary to create first the mechanisms to anticipate wealth, the production mechanisms, that will generate the needed income. With this income, taxes can be paid, ending the circuit process.

The monetary creation should then be used in a policy mix to create and ensure jobs. That monetary creation can be accomplished with government deficits.

Some authors have studied the monetary creation effects on the economy, like Holbecq and Derudder and Jean Gadrey, among others. They have shown for the French case that a monetary creation in the same value of the interest of the public debt paid would have created less money than in the current situation.

In this paper we do the same exercise for Portugal, assuming that the monetary creation is equal to the interests paid. And we conclude that the government general public debt has grown due to the interests of the public debt paid.

The public deficit monetization will only be possible with a change in the euro institutional framework. But we need to change the institutional framework of the euro to find and implement solutions for the current problems. This text aims to contribute to this debate.

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