

The Political Economy of Europe's Debt Crisis

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*Ma aspetta; questa mia ferita col tempo maturerà, e si avvererà
in me quel detto di Cicerone: "Il tempo ferisce, il tempo guarisce".*
Francesco Petrarca, *Familiari* (1975: II, 9).

Abstract

This article analyzes the eurozone's current crisis and discusses its most important interpretations: the one that places the responsibility on the authorities and citizens of the countries in crisis because they supposedly spent more than their economy's means provided and the one that places it on the authorities of the entire European Union because they knowingly maintained a defective institutional arrangement for the process of coordinating monetary and fiscal policy. The article presents theoretical and empirical arguments rejecting the hypothesis that austerity stabilizes public debt and proposes a coordination process based on the effective application of a European Fiscal Agency as an alternative that could get better results by favoring the adoption of coordinated, expansive fiscal policies.

Key words: monetary policy, coordination, fiscal policy, sovereign debt, debt crisis, monetary union.

JEL Classification: E52, E61, E62, H63.

INTRODUCTION

The implementation of reasonable solutions to the European Economic Monetary Union's (EMU) debt crisis has faced formidable difficulties. EMU policy is subordinated to irrational fears, to the point of creating in Germany "a view that

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the German taxpayer is likely to become the victim of a money machine that rewards the profligacy of Southern European countries” (De Grauwe and Ji, 2012: 1). The wrath of voters toward anything “European” limits the decisions authorities can make (Wyplosz, 2013). The communications media “have become powerful political forces that make it difficult for governments to find rational solutions to the Euro crisis” (De Grauwe and Ji, 2012: 13). Germany’s September 2013 elections, which gave the governing Christian Democratic Union/Christian Social Union 41.5% of the vote—a “super result,” German Chancellor Angela Merkel *dixit*—confirm this vision of the origin and solution to the European crisis.

Just like in the time of J.M. Keynes, financial speculation has recently played a dominant role. This makes it important to identify the appropriate institutional context for guaranteeing stability, development, and equity in the world economy. The need to design an institutional organization appropriate to the end goals of the economy and society was a central theme for Keynes.¹ In his opinion, economic policy models and actions depend on the institutional context.

In what follows, we propose a political-institutional interpretation of the EMU debt crisis. Conflicting national interests that promote punitive measures instead of cooperative solutions are identified as the main cause of the problem. This interpretation confirms the musings of authors like Wyplosz and De Grauwe about the difficulties in carrying out more reasonable solutions.²

The article is structured as follows: in the next section, we maintain that, at its origins, the EMU was intended to defend the economies that make it up as well as their citizens from growing international financial instability and that that experience was successful until the end of 2009. We also explain the EMU’s institutional organization and the fact that before the 2007 crisis, flaws had already been identified that obstructed economic growth. Then, we present EMU monetary policy in the first two years of the international financial crisis, arguing that it guaranteed stability for the European economy. The following three sections examine the debt crisis, showing that the institutional organization’s flaws have favored speculation with capital, making it possible for the media to

¹ See “Can Lloyd George Do It?” (1929) where Keynes, describing the institutional relations between the Bank of England and the English banking system, puts forward the possibility of fostering growth through a gold standard.

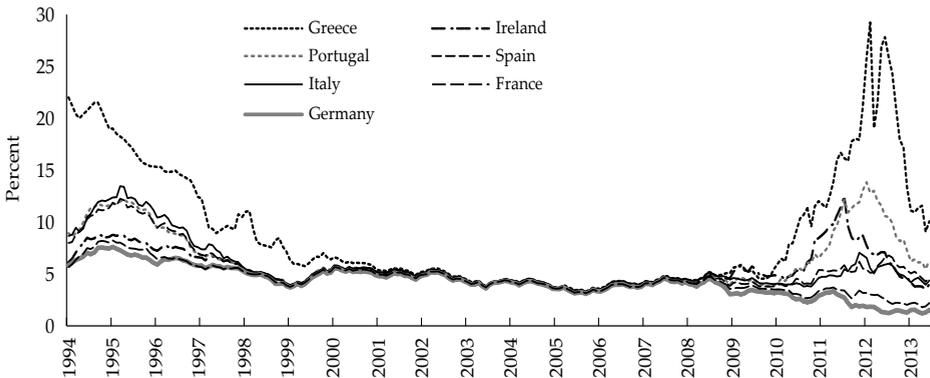
² Palma (2009) and Panico, Pinto, and Puchet (2012) suggest that these difficulties are linked to the recent changes in income distribution.

block the application of reasonable solutions to the problem of “moral hazard” regarding the behavior of national governments. Later, we discuss theoretically an alternative solution to the crisis inspired in the analysis of Domar (1944) and Pasinetti (1997) and examine the history of the effect of austerity policy on the experiences of debt crises in Latin America and Europe. Lastly, we present our conclusions and policy recommendations.

EMU INSTITUTIONAL ORGANIZATION: PROBLEMS AND IMPERFECTIONS

The EMU is a geographical area with a high level of trade integration, which, after prolonged gestation, began in effect in January 1999 when the euro became the real currency and legally replaced the member countries' national currencies. Until late 2009, the EMU experience was positive. Monetary integration and the protection of institutions created a convergence of interest rates (see Graph 1).

GRAPH 1
Interest rates in the secondary market of nearly 10-year debt obligations issued by selected European states, January 1994-December 2012
(annual percentage values, monthly figures)



Source: developed by the authors using European Central Bank (ECB) data.

The lower interest rate differentials allowed Ireland, Spain, and Greece to benefit from the entry of capital. These flows had a positive effect on growth rates in the eurozone economies (see Table 1). Germany, for example, took advantage of the favorable credit conditions to finance its productive restructuring beginning

in 2000 (Mántey, 2013: 303 and 311-5). This improved its net exports, which went from equilibrium in 2000 to a surplus of about 8% of gross domestic product (GDP) in 2008.

TABLE 1
Gross Domestic Product, 1999-2007
(real growth rates)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	1999-2007
Ireland	11.1	10.7	5.3	5.6	3.9	4.4	5.9	5.4	5.4	6.4
Greece	3.4	4.5	4.2	3.4	5.9	4.4	2.3	5.5	3.5	4.1
Spain	4.7	5.0	3.7	2.7	3.1	3.3	3.6	4.1	3.5	3.7
Eurozone	2.9	3.8	2.0	0.9	0.7	2.2	1.7	3.2	3.0	2.3

Source: developed by the authors using data from *Annual Macro-economic Database* of the European Commission (AMECO).

In the 1990s when the Treaty of Maastricht started the construction of the EMU, and then after 1999 when the single monetary policy began to operate, the instruments for coordinating fiscal and monetary policy (mainly “soft coordination” instruments like multilateral supervision, assessment by experts, and the alert system) managed to make public deficit/GDP ratios drop. Until the time of the 2005 Stability and Growth Pact, these instruments ensured that the introduction of the single currency would not reduce the fiscal discipline of national governments (Fatás and Mihov, 2003 and 2010; Ioannou and Stracca, 2011; Panico and Purificato, 2013).

The process of coordinating fiscal and monetary policies has been targeted with three criticisms: first, because of its rigidity and the impossibility of generating anti-cyclical policies; secondly, it does not create the conditions for achieving the eurozone’s growth potential; and thirdly, it does not deal with the specificities of the different economies. According to the European Central Bank (ECB, 2008), in the first 10 years of the EMU’s existence, the economy’s real growth rate was stable at 2.2%, even though the ongoing positive trade balance could have made it possible to increase that figure. The lack of coordination among economic policies made it impossible to achieve that result (Panico and Suárez Vázquez, 2008).

In the EMU, monetary policy is operated supranationally by the Eurosystem, that is, the ECB and the national central banks (NCB) of the eurozone countries. The ECB decision-making bodies make the decisions and the NCBs put them into

practice. Fiscal policy, on the other hand, is decided by national governments. This imposes the need for an institutional organization to coordinate fiscal and monetary policies. Monetary policy is organized based on effective coordinating norms that minimize the risk that NCBS implement decisions different from those made at the European level. The same is not the case in the sphere of fiscal policy, in which national governments can come to agreements at a European level, but behave differently inside their countries without suffering any important consequences.

This is why opportunistic forms of behavior can be observed in the EMU on the part of national political authorities. In turn, this has created growing uncertainty and uncooperative behavior among the actors. The introduction of rigid fiscal rules and punitive measures is one line of defense against abuses and reflects a lack of mutual trust inside the European political leadership. In these conditions, the quest for an optimum economic policy for the entire eurozone is a vacuous aspiration.

While the “soft coordination” instruments work, those of “strong coordination,” like the Stability and Growth Pact (SGP), have been a failure. The SGP sets up rigid rules for all national fiscal authorities. The main rules are limiting gross national public debt to 60% of GDP; the prohibition for the current public sector deficit to be over 3% of GDP; and the norm that the “structural” or “medium and long-term” balance of the public sector should approximate zero.

During the 2001 recession, the SGP's rigidity became manifest. Many countries—even France and Germany—did not stay within the rules. In addition, these nations' intentions of not paying the corresponding fines led to the reform of the SGP rules and sanctions in March 2005. The reform, however, did not attack the root problems or put into practice the solutions that had been suggested: formulating transparent rules; increasing flexibility through the rules differentiating between each economy's cyclical conditions and structural problems; focusing on the financial sustainability of the debt; the need to avoid pro-cyclical policies; the introduction of structural reforms; creating incentives for innovation, education, and capital formation; reinforcing sanctions against opportunistic behavior; and promoting cooperative forms of behavior among the actors of the coordination process to encourage the search for better economic policies for the whole of the eurozone.

The 2005 reform of the SGP centered on the content of the pact's rules, introduced flexibility, but making the rules less transparent and relaxing the

sanctions to the point of irrelevancy. Unfortunately, the defects in the new rules manifested themselves before the 2007 crisis. The Greek government, for example, immediately considered them irrelevant and increased its deficit/GDP ratio after 2005. At the same time, to avoid the negative consequences of multilateral European supervision of its electoral consensus, the Greek coalition government used creative accounting in its publication of public accounts and sent false information to the European Commission (see Table 2).

TABLE 2
Net financing needs of the Greek government
Review of false data, 2005-2009
(% of GDP at market prices)

	2005	2006	2007	2008	2009
April 2009	-5.1	-2.8	-3.6	-5.0	-3.7
October 2, 2009	-5.1	-2.9	-3.6	-5.6	...
October 21, 2009	-5.1	-2.9	-3.7	-7.7	-12.7
March 2012	-5.5	-5.7	-6.5	-9.8	-15.6

Note: (-) indicates a positive need.

Source: European Commission [EC] (2010a: 6; 2010b: 19) and AMECO.

MONETARY POLICY AT THE START OF THE FINANCIAL CRISIS

On August 9, 2007, less than two hours after the hike in interbank market interest rates that detonated the beginning of the financial crisis, the ECB carried out a fine-tuning operation on the fixed interest rate, guaranteeing a full allotment for financing monetary financial institutions (MFIS). The ECB reacted to the crisis by acting as the lender of last resort. In 2007, the ECB carried out two operations to finance MFIS with special conditions: one in late September and the other in December (Panico and Purificato, 2010), allowing them to refinance regularly in interbank markets during the first half of 2008. The bankruptcy of Lehman Brothers in September 2008 made things worse, and the ECB had to change the operational procedures for monetary policy. The refinancing operations for MFIS were carried out at a fixed rate and with full allotment. The ECB committed itself to give the MFIS all the liquidity necessary, but at the same time avoided increasing the aggregate M3 (Panico and Purificato, 2010). The strategy was a success; the ECB managed to absorb part of the liquidity given to the MFIS through deposit facilities. That way, the annual M3 growth has stayed under its historic average (see Tables 3 and 4).

TABLE 3
Eurosystem liquidity operations, May 2008-February 2009
 (thousands of Euros)

	May 2008	June 2008	July 2008	August 2008	September 2008
<i>Liquidity provided</i>					
Operations on the open market (total)	469.4	460.7	460.8	465.6	463.5
Major refinancing operations	174.4	172.8	185.4	166.3	163.5
Long-term refinancing operations	295.0	287.9	275.4	299.3	300.0
Other operations	0.0	0.0	0.0	0.0	0.0
Facilities for marginal financing	0.1	0.3	0.1	0.1	0.1
Liquidity provided (total)	469.5	461.0	460.9	465.7	463.6
<i>Absorption of liquidity</i>					
Other operations	0.8	0.5	0.5	0.6	0.7
Facilities for deposit	0.3	0.2	0.4	0.3	0.6
Absorption of liquidity (total)	1.1	0.7	0.9	0.9	1.3
	October 2008	November 2008	December 2008	January 2009	February 2009
<i>Liquidity provided</i>					
Operations on the open market (total)	514.3	758.3	794.5	832.8	776.3
Major refinancing operations	174.1	301.6	337.3	219.2	224.9
Long-term refinancing operations	334.3	452.5	457.2	613.6	551.4
Other operations	5.9	4.2	0.0	0.0	0.0
Facilities for marginal financing	7.5	12.7	2.7	2.9	2.1
Liquidity provided (total)	521.8	771.0	797.2	835.7	778.4
<i>Absorption of liquidity</i>					
Other operations	45.5	2.3	4.9	3.3	6.1
Facilities for deposit	19.9	213.7	200.9	238.5	175.4
Absorption of liquidity (total)	65.4	216.0	205.8	241.8	181.5

Source: ECB.

TABLE 4
Monetary aggregate M3
 (annual growth rate, %)

1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
4.9	5.6	4.9	5.4	7.3	8.1	5.8	7.4	8.4	11.2	9.7	3.3	0.3	1.5	2.9

Source: developed by the authors using ECB data (February 4, 2013).

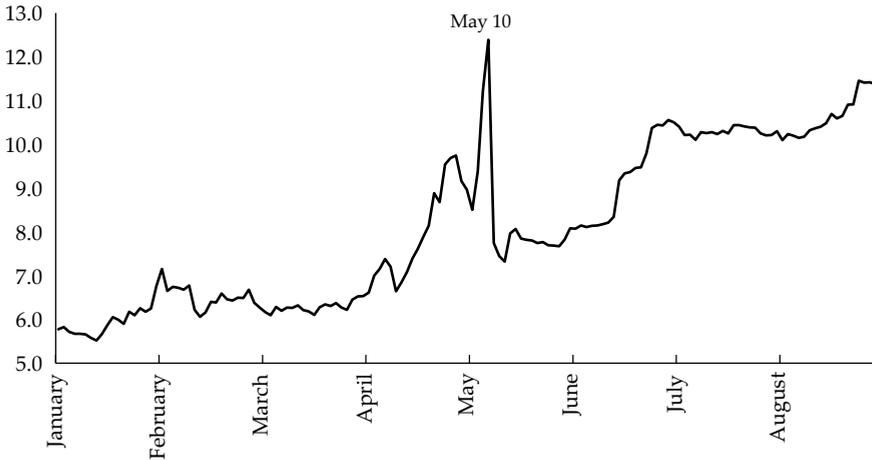
The complex situation created by the failure of Lehman Brothers required the use of fiscal policy to recapitalize the MFIS and stimulate demand, which dropped noticeably in 2009 due to the decline in world trade as a result of the international financial crisis. These operations have increased fiscal deficits in the countries where the MFIS were the most exposed to international financial tensions.

THE SOVEREIGN DEBT CRISIS IN THE EMU

The sovereign debt crisis began in April-May 2010, affecting Greece first and then Ireland, Portugal, Italy, Spain, and Cyprus. It began and deepened as financial operators became convinced that the European institutions, created to defend the economies and citizenry from the negative effects of financial instability, were not fulfilling their function. The first speculative attack began in the last week of March 2010 (see Graph 2). The operators bet on the European authorities not intervening to counter the speculative onslaught until after the May 9 elections in the North Rhine-Westphalia region of Germany. Events confirmed their expectations. Despite their independence, the monetary and fiscal authorities did not intervene before May 9, and the interest rate for 10-year Greek government bonds shot up from 6 to 12%. At the opening of the markets on May 10, the interest rate rose to 12.4%. Throughout the day, it dropped as low as 6.3% and positioned itself at 7.8% at the end of trading.

According to ECB data, the average monthly interest rate went to 15.9% in August 2011 and reached a maximum of 29.2% in February 2012, coinciding with the restructuring of Greece's debt. In this same period and for reasons similar to those that caused the hike in the Greek interest rate, the nominal interest rate on German 10-year government bonds dropped to 1.3% in May 2012, which represented a negative real interest rate. In spring 2010, Greece's total debt reached approximately €300 billion. To convince financial operators that the authorities had the iron will to stabilize interest rates and normalize the monetary policy transmission mechanism, the ECB would have to have purchased part of the Greek debt. The expense for the ECB would have been trivial if the purchase had been made in April 2010 to stop the speculation, compared to the expense needed to compensate for the losses of MFIS and the damage economies and the citizenry have suffered (Panico and Purificato, 2013). Despite

GRAPH 2
***Interest rate on the secondary market for bonds with maturities
of close to 10 years issued by the Greek government,
January 2010-August 2010***
(annual rates, daily market opening values, %)



Source: developed by the authors using Bloomberg data. Available at: <<http://www.bloomberg.com/quote/GGGB10YR:IND>>.

its independence, the ECB waited until May 10 to announce its adoption of the Securities Markets Programme (SMP), the objective of which was to purchase government bonds to restore the functioning of the monetary policy transmission mechanism. This decision was a drastic change in the philosophy of the Eurosystem, since it had previously always denied the possibility of financing national public sectors by increasing the money supply. ECB Decision 2010/5 affirms that the purchase of government bonds on the secondary market does not contradict either the treaties on the functioning of the European Union or the ECB Statute. The SMP allows the central bank to purchase government securities from the MFI and make the payments to the current accounts of those institutions in the Eurosystem. The program stipulates that liquidity issued will be sterilized (see Table 5) to avoid changes in monetary policy orientation and inflationary risks, and that the bonds acquired shall be retained until maturity to avoid capital losses (Panico and Purificato, 2013).

TABLE 5
*Securities Markets Programme: Purchases
 and sterilization of financial assets, 2010-2012*
 (billions of euros)

	January	February	March	April	May	June
<i>2010</i>						
Purchases	0.0	0.0	0.0	0.0	35.5	55.3
Sterilization	0.0	0.0	0.0	0.0	26.5	51.0
<i>2011</i>						
Purchases	76.5	77.5	77.0	76.1	74.9	74.2
Sterilization	76.5	77.0	76.5	71.4	75.0	74.0
<i>2012</i>						
Purchases	219.1	219.3	214.2	214.2	212.1	211.3
Sterilization	219.0	219.5	213.5	214.0	212.0	210.5
	July	August	September	October	November	December
<i>2010</i>						
Purchases	60.2	60.8	63.3	63.3	67.2	74.0
Sterilization	60.5	60.5	61.5	63.5	66.0	60.8
<i>2011</i>						
Purchases	74.0	115.6	160.7	173.5	203.3	211.9
Sterilization	74.0	110.5	156.5	169.5	194.5	211.0
<i>2012</i>						
Purchases	211.3	208.8	209.5	209.3	208.5	208.3
Sterilization	211.5	209.0	209.0	209.5	208.5	197.6

Source: ECB.

Despite these precautions, some members of the ECB Governing Council opposed the SMP. Why did they do that given that there were neither inflationary risks nor the risk of capital losses? One possible response can be found in ECB documents (2011: 71) and in Wyplosz (2010; 2011), where it is argued that the central bank should not act as the lender of last resort for national public sectors if the coordination between fiscal and monetary policies is not reorganized to minimize the moral hazard of opportunistic behavior by national political authorities.

However, it is important to remember that in recent decades, the norms for coordinating policies have been more effective in avoiding government agents' opportunistic behavior than the norms of financial regulation in avoiding opportunistic behavior by agents of the financial sector. Despite this, the central bank has not ceased to act in a timely manner as the lender of last resort for the

MFIS. The ECB has recognized the importance of this function, as well as the need to minimize the moral hazard that arises out of it without abandoning the MFIS to the buffeting of the market. The case of the public sector is the opposite, where the problems of moral hazard are used as an argument to avoid central bank interventions. Instead of demanding proper functioning in coordinating economic policies, the national public sectors, economies, and the citizenry have been abandoned to the whims of the market, favoring capital speculative, which has led to an increase in interest rates for certain sovereign debts and to problems with the mechanism for transmitting monetary policy.

THE SECOND PHASE OF THE DEBT CRISIS

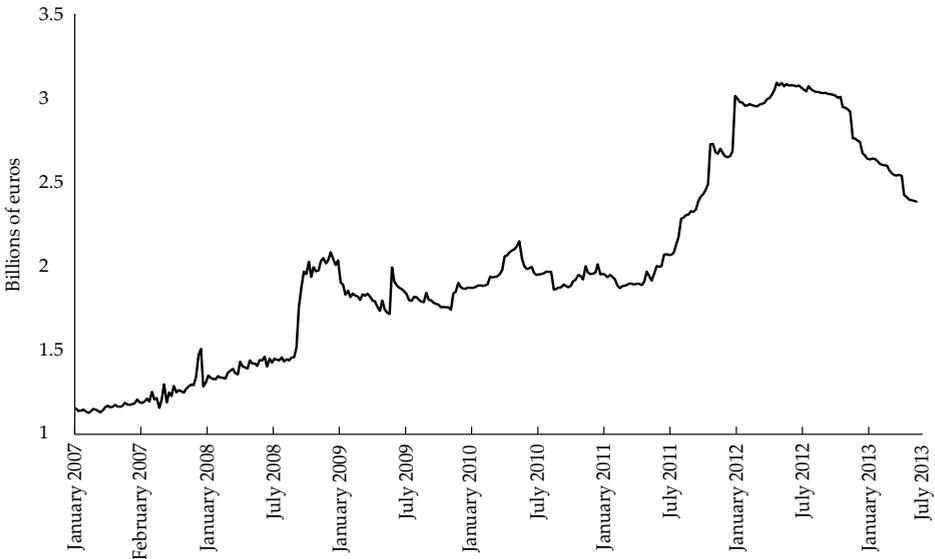
In 2011, on the eve of the elections in France and the Netherlands, some political leaders, among them France's President Nicolas Sarkozy and German Chancellor Angela Merkel, said that the private financial sector should bear the brunt of certain costs of managing the Greek public debt crisis, and proposed a restructuring of that country's sovereign debt. The ECB opposed the proposal arguing that it could have negative consequences for managing the sovereign debt of other countries and the functioning of interbank markets.³ Nevertheless, on July 21, 2011, the European Council of Heads of State or Government passed a resolution in favor of an agreement between the Greek government and private bond-holders. The resolution was a signal for private investors indicating that the risk of holding sovereign debt bonds of some countries had risen. There was a strong hike in bond sales, even of those of Spain and Italy, until then affected marginally by the crisis; their interest rates rose and the interbank credit to their MFIS evaporated. Events confirmed ECB suspicions and opened the second phase of the debt crisis in July 2011.

Several facts characterized this new phase. In the first place, the Eurosystem had to replace interbank market financing of MFIS intervening through the European TARGET payments system (Trans-European Automated Real-Time Gross Settlement Express Transfer), which is the financial infrastructure whereby the liquidity issued by the ECB circulates and that transfers money among the

³ ECB press conference, June 9, 2011. Available in: <<http://www.ecb.int/press/pressconf/2011/html/is110609.en.html>>. ECB press conference, July 7, 2011. Available in: <<http://www.ecb.int/press/pressconf/2011/html/is110707.en.html>>. ECB press conference, August 4, 2011. Available in: <<http://www.ecb.int/press/pressconf/2011/html/is110804.en.html>>. Also see ECB (2012: 59).

NCB of the eurozone. The Eurosystem's provision of liquidity increased, and with it, the assets and liabilities of its consolidated balance sheet increased (See Graph 3).

GRAPH 3
*Consolidated financial balance sheet of the Eurosystem,
 total assets/liabilities, January 2007-December 2012*
 (billions of euros, end of weekly period)



Source: ECB.

In the second place, to deal with the speculative attacks, the ECB renewed bond purchases through the SMP in August 2011, which had ceased in December 2010. On December 8, 2011, the ECB implemented the first extraordinary operation to refinance the MFIS with an unlimited supply of three-year loans at a fixed 1%-a-year interest. The operation provided €489 billion. Another similar operation was carried out on February 29, which provided €530 billion. On March 2, 2012, the European Council of Heads of State or Government approved the Fiscal Compact, which firmed up the November 2011 SGP reform. Both resolutions strengthened the power of the European authorities to sanction countries that do not respect the fiscal rules. The problem is the European authorities' intention to resolve the crisis focusing only on punitive measures, without analyzing the negative effects of austerity policies.

Finally, on September 6, 2012, the ECB Governing Council voted to put an end to the SMP (with the dissenting vote of the president of the Bundesbank) and to continue to purchase government bonds on the secondary market under the new normative framework called Outright Monetary Transactions (OMTs). The OMTs allow the ECB to make unlimited purchases of government bonds from countries that follow European fiscal rules. Their introduction, which, like the SMP, includes the sterilization of the liquidity issued and the purchase of bonds until their maturity, concludes a high-risk phase for the survival of European institutions and of high instability in financial markets. Since July 2012, the increase in the liquidity supply from the Eurosystem has stabilized, and with that, the rise in the Eurosystem's consolidated balances has been slowed, something that Sinn and Wollmershäuser (2011; 2012) call the balance of the TARGET system. The variation in these stocks is at the center of the debate about the causes of and possible solutions to the crisis from the start of the second phase.

**MODUS OPERANDI OF THE TARGET SYSTEM BALANCE:
REAL OR FICTITIOUS RISK?**

The TARGET system balances are debits or credits that the eurozone national central banks (NCBs) have with the ECB. To see how these balances are generated, we will compare how MFI, NCB, and ECB balances change when a deposit in the MFI of country A (MFIA) is transferred to an MFI of country B (MFIB) through inter-bank markets or the TARGET system. The accounting registers the deposits regardless of the transfer's origin, whether it is to pay for a good or for speculation. Table 6a describes the changes in MFIA and MFIB balances when a deposit is transferred from the first to the second through the inter-bank market. In the MFIA balance, the reduction of the deposits is compensated by the loan the institution receives from the MFIB, while the increase in the MFIB's deposits has its counterpart in the increase of the credit that institution provides to the MFIA.

TABLE 6a
Transfer of deposits through inter-bank markets

<i>MFIA Asset</i>	<i>MFIA Liability</i>	<i>MFIB Asset</i>	<i>MFIB Liability</i>
	- Δ customer deposits	+ Δ credits to MFIA	+ Δ customer deposits
	+ Δ debits <i>vis-à-vis</i> MFIB		

Source: developed by the authors.

Table 6b describes the changes in MFIA and MFIB balances when the transfer goes through the TARGET system. In MFIA’s balance, the reduction of the deposits by its clients is compensated in its accounting by a variation in its deposits in the national central bank (NCBA). On the other hand, the increase in customer deposits in the MFIB creates an increase in its deposits in the NCB of its country (NCBB), thus balancing out assets and liabilities.

TABLE 6b
Transfer of deposits through the TARGET system

<i>MFIA Assets</i>	<i>MFIA Liabilities</i>	<i>MFIB Assets</i>	<i>MFIB Liabilities</i>
- Δ deposits in the NCBA	- Δ customer deposits	+ Δ deposits in the NCBB	+ Δ customer deposits

Source: developed by the authors.

Table 6c describes the changes in the NCBA, NCBB, and ECB balances when a deposit is transferred from country A to country B through the TARGET system. The MFIA deposits are added to NCBA’s liabilities. At the same time, the NCBB’s liabilities are reduced by the MFIB deposits, and to compensate, a credit is logged to the ECB. Thus, in ECB assets and liabilities, a credit is registered to the NCBA and a debit to the NCBB.

TABLE 6c
Transfer of deposits through the TARGET system

<i>NCBA Assets</i>	<i>NCBA Liabilities</i>	<i>ECB Assets</i>	<i>ECB Liabilities</i>	<i>NCBB Assets</i>	<i>NCBB Liabilities</i>
	- Δ MFIA deposits	+ Δ credits to the NCBA	+ Δ debits <i>vis-à-vis</i> the NCBB	+ Δ credits <i>vis-à-vis</i> the ECB	+ Δ deposits to the MFIB
	+ Δ ddebits <i>vis-à-vis</i> the ECB				

Source: developed by the authors.

The ECB credit included in the NCBA assets and the credit to the ECB inscribed in NCBB assets are the balances of the TARGET system. In the second phase of the debt crisis, the increase in these accounts has been the center of the debate that has focused on their origins and the consequences they could have for taxpayers. Sinn and Wollmershäuser (2011; 2012) think that the origin of the increases in TARGET system balances is the opportunistic behavior of national political authorities that has generated unsustainable deficits in the balance of

payments' current account. This has been reflected in a drastic reduction of inter-bank market loans to the MFIS of these economies.

According to Sinn and Wollmershäuser, the debt crisis is a crisis of the balance of payments similar to those that happened during the Bretton Woods era. Therefore, the increase in TARGET system balances is explained in the same way as the balance of payment balances in a fixed-exchange-rate regime, but with the following difference: in an economic system with no currency union, the current account deficits in the balance of payments would have been paid using official reserves; when the reserves ran out, a devaluation would have been imposed on the debtor countries, which would imply the reduction of domestic prices of goods and of the local factors of production in foreign currency. On the contrary, in the EMU, the increase in the TARGET system balances has meant that the debtor countries do not have to deal with the discipline of market mechanisms, which would have imposed a reduction in goods prices and in production factors. Thus, according to Sinn and Wollmershäuser, the Eurosystem interventions offer the citizens of these countries benefits, paid by the taxpayers of the ECB creditor countries, who take on additional risks due to the credits their NCB give the ECB.

Sinn and Wollmershäuser's conclusions have been critiqued from different standpoints based on empirical and econometric studies of the relationship between the variation in the TARGET system's balances and the deficit in the balance of payments current account of the debtor countries (De Grauwe and Ji, 2012; Cecioni and Ferrero, 2012; Wyplosz, 2012). According to these studies, the imbalances in the TARGET system balances have a greater causal relationship with the variations in capital movements than with balance of payment current account variations. These results make it possible to interpret the increases in the TARGET system balances as the product of a crisis of confidence in European institutions' capability to guarantee the survival of the eurozone and not as the result of a crisis in the balance of payments current account. In addition, an analysis of each country's TARGET balances shows that in several cases, these variations do not have the same sign as net exports (Astarita and Purificato, 2013).

In the case of Italy, for example, the accumulated TARGET balances were positive until July 2011, and they became negative after the European Union Heads of State or Governments' official statement about the restructuring of the Greek debt. This analysis also suggests that the imbalances in the TARGET

balances have been the result of erroneous decisions by European political authorities, decisions that have increasingly convinced financial market operators that they did not have the capacity to adopt the measures needed to overcome the crisis and guarantee the survival of the EMU.

De Grauwe and Ji (2012) also argued that the increases in TARGET balances do not imply any additional risk for taxpayers of creditor countries. The increase in credits to the ECB in the NCBB balance (see Table 6c) replace the increase of credit from the MFIB to the MFIA in the case of financial transfer through inter-bank markets (see Table 6a). It is not reasonable to say that the probability that the national governments of creditor countries should intervene to support the losses of the NCBB if the eurozone broke apart is greater than the probability that they should intervene in the case of the failure of the MFIA.

In his letter to ECB President Mario Draghi published in *Frankfurter Allgemeine*, and in the interview published September 26, 2012 in the *Neue Zürcher Zeitung*, Bundesbank President Jens Weidmann adopted the position of Sinn and Wollmershäuser about the causes of the increase in the TARGET system balances. By supporting analytically unfounded positions, the Bundesbank president has achieved two things. First, he has violated the principles that have inspired the organization of the Eurosystem according to which the decisions of the ECB leading bodies must be based on the interests of the eurozone and not those of any specific country. Secondly, Weidmann has contributed to disseminating the fears and interpretations that favor speculative capital movements, making the implementation of optimal solutions for resolving the debt crisis more complicated.

Without a doubt, the solution of a debt crisis of economies that make up a currency union like the eurozone is complex. The introduction of OMT norms that allow for the unlimited purchase of government securities is a step forward in the process of building a more effective institutional organization in the eurozone. However, it is not enough. The official anti-crisis policy underway has been based on the hypothesis that stipulates that austerity is expansive (Alesina and Perotti, 1995; 1997). Given the recent slim results of fiscal austerity, the emphasis is now shifting toward structural reforms, which only emulates the “road to Damascus” travelled by Latin America since the 1982 debt crisis. The expansive austerity hypothesis rests on the supposition that a causal relationship exists between the debt and economic growth—not the inverse—, from which is inferred the existence of a debt/GDP ratio threshold, above which economies

experience stagnation, recession, and crisis. Thus, Reinhart and Rogoff (2010: 577) maintain that “high debt/GDP levels (90 percent and above) are associated with notably lower growth outcomes.”

Nevertheless, the relationship between the debt/GDP ratio and economic growth can be analyzed from a different—inverse—perspective than that of the expansive austerity hypothesis, and therefore can serve as the premise for determining spaces for fiscal policy in an economic context of interest rates close to zero and quasi-liquidity trap in which monetary policy has shown not to be effective.

IS AUSTERITY STABILIZING OR DESTABILIZING?

To have an overall view of the European crisis, it is necessary to analyze other elements, among them the implementation of fiscal policy and the relationship among austerity policies, public debt, and the economy's growth rate. To that end, we identify in equations [1] and [2] the value of sovereign debt in relation to the size of the economy and the sources of financing of the primary fiscal deficit:

$$d = D/Y \quad [1]$$

$$(G - T) = (\dot{D}_d + e\dot{D}_f) + \dot{H} - i_G(D_d + eD_f) \quad [2]$$

where D is the nominal value of public debt; Y is the level of GDP at current prices;⁴ G is current public spending after interest payments; T is tax revenues that depend on a tax rate τ and on the level of product Y ; D_d and D_f stand for the debt denominated in national currency and foreign currency, respectively (the stock of the total debt measured in national currency is $D = D_d + eD_f$); H is the monetary base issued to finance the fiscal deficit; i_G is the interest rate on the total debt; and e is the exchange rate (units of national currency per unit of foreign currency). The amounts are expressed in national currency; a dot over a variable indicates variation per unit of time of the variable in question.

While H is part of a country's public debt, we will suppose that $\dot{H} = 0$ because the current evolution of the national financial system and the independence of

⁴ From here on, we will suppose that prices remain constant.

the central banks make it impossible for many countries to finance the fiscal deficit by issuing H . For example, the impact of an increase in the interest rate can be offset by a speed-up in the rate of indebtedness (a greater growth in $\dot{D}_d + e\dot{D}_f$); if this route is not available (*cf.* Palma, 2012), the only way to deal with an increase in the interest rate is by lowering spending G or increasing taxes T . Therefore, the answer to the debt problem provided by accounting is austerity policy. Nevertheless, austerity can have destabilizing effects and can induce an explosive trajectory of the d ratio due to the recession caused by deflation, the adjustment of private sector and government financial balances, and the instability of interest rates. To analyze the consequences of austerity policies on the d ratio, we applied logarithms in equation [1] and derived respect to time, and obtained:

$$\frac{\dot{d}}{d} = \frac{\dot{D}}{D} - \frac{\dot{Y}}{Y} \quad [3]$$

where \dot{d} is the variation of the public-debt/GDP ratio, \dot{D} is the variation of the nominal public debt, and $\dot{Y}/Y = g$ is the nominal growth rate of the economy. Austerity policies' objective is to reduce \dot{d} to a negative value. Solving for \dot{D} in equation [2] and incorporating the result of equation [3], we obtain the sources of the variation of ratio d :

$$\dot{d} = \vartheta + i_G(\zeta_d + e\zeta_f) - g \quad [4]$$

where ϑ is the fiscal deficit *vis-à-vis* the GDP, and ζ_d and ζ_f are the participation of the national and foreign debts, respectively, in the total debt.

Domar (1944) and Pasinetti (1997) analyzed the conditions of stability of ratio d . Domar's model is based on an expression similar to equation [4], supposes that $\dot{d} = 0$, and solves for the tax levels needed to be able to make the payments on the national public debt. Pasinetti, in turn, keeps taxes fixed and puts the emphasis on the ratio between the interest on the debt i_G and the growth rate of the economy, $\dot{Y}/Y = g$.⁵ Domar and Pasinetti come to conclusions that

⁵ Based on equation [4], it is possible to obtain what we will call the Domar-Pasinetti equation for a closed economy. If the country has no debt in foreign currency, $D_f = 0$; therefore:

are pertinent for Europe today.⁶ For example, Domar (1944) concludes, “If the burden is to be light [...], there must be a rapidly rising income. The problem of the debt burden is a problem of an expanding national income” (pp. 816-7). Domar shifts the analysis from the level of ϑ or ζ_d to the economy's growth rate. Pasinetti (1997: 167) also maintains, “This vulnerability is commonly attributed to the high size reached by the debt. It is, in fact, due to the high level reached by interest rates.”

In contrast with Domar and Pasinetti, our analysis of the effects of austerity takes into consideration the determinants of the growth rate of a small, open economy with foreign-currency-denominated debt:⁷

$$g = g \left(\begin{array}{cccc} G-T, & r, & q, & g^* \\ + & - & + / - & + \end{array} \right) \quad [5]$$

where r is the real interest rate; q , the real exchange rate, defined as the nominal exchange rate over the relationship between national and international prices; and g^* , the growth rate of world output. In equation [5], the sign under each variable indicates the sign of the first derivative. It is expected that an increase of r would lower the growth rate because of its negative effect on consumption

$$\frac{\dot{d}}{d} = \frac{G-T}{D} + i_G - g; \text{ and if } \frac{\dot{d}}{d} = 0, \text{ then: } \frac{G-T}{D} = i_G - g$$

This equation shows the phenomenon of the “social debt burden” *à la* Domar, analyzing the relationship between economic stagnation and the necessary increase in taxes to be able to pay the debt, maintaining a constant rate of interest. If the fiscal deficit is zero, Pasinetti's analysis (1997) can be summarized as follows: the optimistic scenario is that, if $i_G < g$, d decreases; the neutral scenario is that, if $i_G = g$, d remains constant; and the somber scenario is that, if $i_G > g$, d tends to behave explosively.

⁶ For example, based on Domar's analysis (1944), it can be shown that if the nominal equilibrium growth rate is between 4% and 4.5%, as pointed out in official ECB documents, the structural (or long-term) deficit that stabilizes the public debt/GDP ratio at 60% is not zero (as the SGP, the new Framework for Economic Governance introduced in November 2011, and the Fiscal Compact introduced in March 2012 stipulate), but between 2.4% and 2.7%. Nevertheless, Alesina, Blanchard, and Canzoneri have proposed reforming only the SGP rules and sanctions, without taking into account the fact that SGP norms on structural deficits were not—and continue not to be—consistent with the inflation and growth targets set by European authorities (see Panico and Suárez Vázquez, 2008; Panico and Purificato, 2013).

⁷ Capraro and Perrotini (2013) develop a Kaldorian model to show the short- and long-term consequences of austerity policies. In addition, their model defines the growth rate required or guaranteed to keep the d ratio constant.

and investment; equally, an increase in the world growth rate stimulates growth in the local economy due to the improvement in the trade balance. The effect of the real exchange rate is undefined: it could be positive due to its effect on net exports, but it could also be negative if real wages drop and the service on the debt in foreign currency rises. The effect of fiscal policy on g is expected to be positive if there is unused productive capacity, rationing of credit, and supposing that the GDP growth rate is endogenous *vis-à-vis* demand. Substituting equation [5] in equation [4], we get:

$$\dot{d} = \vartheta + i_G(\zeta_d + e\zeta_f) - g \begin{pmatrix} G - T, & r, & q/qw, & g^* \\ + & - & +/ - & + \end{pmatrix} \quad [6]$$

Equation [6] allows us to evaluate the effects of an austerity policy on the d ratio. The key point is defining the effects of a reduction of G on GDP.⁸ There are two approaches to this. The *stabilizing austerity* approach maintains that the effect is positive: when public spending drops, GDP rises and d diminishes (Alesina and Perotti, 1995; Alesina and Ardagna, 1998). One of the transmission mechanisms underlined in this view is that lower public spending implies fewer taxes in the future and, therefore, an increase in household wealth that is an incentive for consumption thanks to the effect known as the Ricardian equivalence (Barro, 1974). This effect accelerates the economy's growth rate. Therefore, the d ratio decreases in two ways: first, because of an increase in g , and second, due to an increase in T and a lower fiscal deficit ϑ (Perotti, 2011). The second approach is the *destabilizing austerity* approach, which postulates that in periods characterized by large margins of unused productive capacity, the fiscal policy multiplier is positive and greater than one; this implies that a reduction in public spending brings with it a strong drop in effective demand, and therefore, a drop in the growth rate g . Therefore, the negative effect on d , which implies a lower fiscal deficit, does not compensate for the effect that this shock has on the economy's growth rate. Thus, the d ratio grows and the effects of the adjustment are destabilizing (Arestis, 2011; Blanchard and Leigh, 2012; Zezza, 2012). The higher the value of the fiscal multiplier—in our case,

⁸ Capraro and Perrotini (2013) analyze the effects of the variations in the exchange and interest rates on economic growth and the d ratio.

a value higher than the first derivative in equation [5]—, the higher will be the growth of d produced by austerity.

EXPERIENCES OF DEBT CRISIS AND AUSTERITY IN LATIN AMERICA AND EUROPE

The foreign debt crisis in Latin America in the 1980s offers us an experience that, in historical perspective, makes it possible to appraise the probable macro-economic effect of the austerity policies being implemented to deal with the current European crisis.

In late 1982, a series of external shocks hit the economies of Latin America, forcing them to declare unilateral moratoria on their sovereign debts. The countries most affected were Argentina, Brazil, and Mexico. The foreign debt problems originated in the years of the monetarist experiment, which increased the international interest rates to which national interest rates were indexed. Other contributing factors to the financial debacle were a sharp fall in the terms of trade and worldwide liquidity problems that made access to sources of international financing complicated (Díaz-Alejandro, 1984). Despite the external shocks, the international credit agencies, mainly the International Monetary Fund (IMF), the creditor countries,⁹ and the governments of the debtor countries came to the consensus that the main source of Latin America's problems were fiscal deficits, and that it was therefore necessary to implement austerity policies.

When the crisis broke out, Argentina, Brazil, and Mexico had d ratios that did not imply an explosive risk for their public finances (Díaz-Alejandro, 1984). Table 7 shows that these three economies adjusted their public sectors to generate enough flows of funds to pay the debt. This effort was mainly made by decreasing public investment. The effect of the fiscal adjustment on GDP in these countries was underestimated. The IMF maintained that it was non-existent, since the economy's growth rate was independent of public spending (Moreno-Brid, 1993). Curiously, in the current crisis of the eurozone countries, the IMF, the ECB, and the European Community have also maintained that fiscal austerity does not affect economic growth, despite the fact that Spain, Greece, Ireland,

⁹ For example, Díaz-Alejandro (1984: 383) wrote, "The OECD countries appeared to take the position that austere adjustment was its own reward or that fear of retaliation should be enough to maintain the punctual observance of contracts made obsolete by changes in the international economy."

and Portugal went through severe recessions and suffered dramatic increases in unemployment rates from 2010 to 2013. Table 7 shows that the growth rate in Argentina, Brazil, and Mexico was negative immediately after the crisis and remained far from the historic levels prevailing between 1950 and 1980 (Capraro and Perrotini, 2013). As a result, we can infer that the fiscal multiplier was higher than one and, therefore, adjustment was destabilizing.¹⁰ So, in spring 2010, funding to countries that requested support from supranational bodies was conditioned to fulfilling austere targets in public spending and fiscal deficits, among other variables. In addition, the European Commission created incentives for and required in its reports the need to adjust public sector spending to spur growth (EC 2012a; 2012b; 2012c).

Table 7 shows that the countries that entered into a Financial Assistance Program, like Greece and Portugal, had to make Draconian adjustments in their public accounts, which had recessive effects. These countries have decreased the total and primary fiscal deficits, but, just like in the Latin American case, one of the spending items that shrank the most was public investment. This will have a negative impact on potential output in the long run.

Spain is a different case—it had a fiscal surplus before the crisis: it did not enter into any Financial Assistance Program and had to adjust its fiscal policy to respect the norms of the new Stability and Growth Pact (SGP). Due to the bailouts for its financial sector and tax revenues persistently lower than those projected, starting in 2009, its public finances began to run a deficit. Despite a primary deficit of 7% of GDP, the Spanish government has severely adjusted its public investment: it dropped 50% in 2011-2012 compared to the average of the 2001-2008 period.

Spain, Greece, and Portugal present significant similarities: they applied austerity policies with the aim of decreasing the debt/GDP ratio. The result has not been satisfactory: in all three cases the d ratio increased sharply in 2012 compared to the average of the years 2001-2008. In Greece, it rose from 104% to 162%; in Portugal, from 64% at the beginning of the period to 121% in 2012; and finally, in Spain, it was 45% and increased to 88% (EC 2010a; 2010b; 2012a; 2012b; 2012c).

¹⁰ The other pillar of the adjustment programs was currency devaluation. However, more than expanding net exports, this policy unleashed important inflationary problems, especially in Argentina and Brazil (Ros, 1993).

TABLE 7
*Austerity policies, economic growth, and the evolution of the debt/ GDP ratio
 in Latin America and Europe, 1982-1989/2001-2012*
 (units, see notes at bottom of table)

<i>Period</i>	Latin America				
	1980-1981*	1982-1983*	1984-1985*	1986-1987*	1988-1989*
Argentina					
Fiscal Deficit ^{1/}	-7.9	-11.1	-7.0	-5.7	-8.1
Primary Fiscal Deficit ^{1/}	-4.8	-5.3	-3.0	-2.7	-4.6
Public Investment ^{2/}	7.7	6.4	5.7	6.4	6.0
<i>d</i> ^{3/}	40.3	47.9	59.7	49.9	65.9
<i>g</i> ^{4/}	-0.8	-0.5	-2.7	5.4	-5.0
Brazil					
Fiscal Deficit ^{1/}	0.2	-0.8	-1.8	-3.5	-4.2
Primary Fiscal Deficit ^{1/}	1.5	1.9	2.2	-1.0	-0.6
Public Investment ^{2/}	2.5	2.2	2.3	3.2	3.2
<i>d</i> ^{3/}	30.7	40.9	48.1	40.7	31.2
<i>g</i> ^{4/}	2.4	-1.4	6.6	5.8	1.6
Mexico					
Fiscal Deficit ^{1/}	-9.8	-11.9	-7.7	-15.0	-7.4
Primary Fiscal Deficit ^{1/}	-5.5	0.6	4.6	4.1	7.6
Public Investment ^{2/}	9.6	7.4	6.3	5.1	3.3
<i>d</i> ^{3/}	30.4	56.0	53.3	78.0	48.1
<i>g</i> ^{4/}	9.0	-2.4	3.1	-0.9	2.7
<i>Period</i>	Europe				
	2001-2008*	2009	2010	2011	2012
Spain					
Fiscal Deficit ^{1/}	0.0	-11.2	-9.7	-9.4	-10.2
Primary Fiscal Deficit ^{1/}	2.1	-9.4	-7.7	-7.0	-7.2
Public Investment ^{2/}	3.6	4.5	4.0	2.9	1.8
<i>d</i> ^{3/}	45.3	53.9	61.5	69.3	88.4
<i>g</i> ^{4/}	3.3	-3.7	-0.3	0.4	-1.4
Greece					
Fiscal Deficit ^{1/}	-6.3	-15.6	-10.8	-9.5	-6.6
Primary Fiscal Deficit ^{1/}	-1.2	-10.5	-4.9	-2.3	-1.5
Public Investment ^{2/}	3.4	3.1	2.3	1.6	1.9
<i>d</i> ^{3/}	103.8	129.7	148.3	170.6	161.6
<i>g</i> ^{4/}	3.7	-3.1	-4.9	-7.1	-6.4
Portugal					
Fiscal Deficit ^{1/}	-4.3	-10.2	-9.8	-4.4	-5.0
Primary Fiscal Deficit ^{1/}	-1.4	-7.3	-7.0	-0.4	-0.8
Public Investment ^{2/}	3.5	3.0	3.6	2.6	2.0
<i>d</i> ^{3/}	63.6	83.2	93.5	108.0	120.6
<i>g</i> ^{4/}	1.3	-2.9	1.9	-1.6	-3.2

Notes: (*) Average values. 1/ The fiscal deficit is the final result of the public sector, while the primary fiscal deficit is the result without taking into account interest payments on the public debt (both concepts in relation to GDP at current prices). 2/ Gross capital formation by the public sector as a proportion of GDP at current prices. 3/ For the Latin American countries, only the foreign debt was included, while for the European countries, the consolidated debt of the general government was included. 4/ Annual GDP growth rate at constant prices.

Sources: developed by the authors using data from the following sources by country: Argentina: Ministerio de Economía y Producción and Development Indicators of the World Bank; Brazil: Jaloretto (2005) and Development Indicators of the World Bank; Mexico: Banco de México and Development Indicators of the World Bank; Spain, Greece, and Portugal: AMECO.

In the 2009-2012 period, Spain, Portugal, and Greece “grew” at negative rates on annual average: -1.3% , -1.5% , and -5.4% , respectively. The most austere economies are the ones that grew the least. Therefore, they did not beat back the d ratio. Austerity has not been a stabilizing factor.

The Latin American and European experiences do not seem to support the hypothesis that austerity is expansive in nature. Thus, the punitive spirit of the Fiscal Compact’s austerity policies is not contributing to resolving the debt crisis of the eurozone, a signal that the causal relationship between debt and economic growth is the inverse of that posed in the Troika’s diagnostic. Evsey Domar arrived at this conclusion 69 years ago; his analysis was ignored during the Latin American debt crisis in the 1980s, and it is once again being dodged in the current eurozone crisis.

CONCLUSIONS

The arguments presented above lead us to the following conclusions:

1. The responsibility for the sovereign debt crisis in Europe falls *mainly* to the political authorities of *all* the countries of the EMU, given that they designed, practiced, defended, and still defend an erroneous model for coordinating monetary and fiscal policy, in addition to the fact that they have reacted in an untimely, weak, inefficient, and incoherent fashion to the continued accumulation of financial imbalances inside the EMU since the creation of the euro (Pérez-Caldentey and Vernengo, 2012).
2. Contrary to what other authors suggest, the debt crisis exploded in May 2010 when the European authorities did not respond to the speculative onslaught against the Greek public debt in order to not interfere with the North Rhine-Westphalia, Germany, May 9 elections.
3. If May 9, 2010 can be considered the date of the onset of the first phase of the crisis, July 21, 2011, when the European Council officially decided to restructure the Greek debt, can be considered the date of the beginning of the second phase of the crisis. In this case, the relevant decisions for the crisis’s evolution were taken outside the countries that suffered the speculative attacks, and these decisions were linked to that year’s elections in France and the Netherlands.
4. The experience of the eurozone documents the fact that a policy for robust economic growth and employment is more effective for stabilizing

the debt than is austerity, making the labor market flexible, and deflation in the presence of liquidity traps and the growing deleveraging of the private sector.

5. The European institutions, created to protect the citizens of member states against the vicissitudes of financial instability, should not promote punitive actions and irrational fears that lead only to the final debacle of the eurozone and never to the preservation of civilization and the social institutions won after World War II, which are clearly necessary for the development of humanity.
6. The coordination of monetary and fiscal policies for growth and full employment can be guaranteed through institutional reforms that: *a*) institute a European Fiscal Agency to restore the links among the central banks and the treasury ministry of every EMU member nation, guaranteeing the liquidity and solvency of the banking system as well as investment levels and aggregate demand levels consistent with growth and full employment; *b*) permit the implementation of a European industrial policy to improve productive specialization and international competitiveness of each country without having to resolve the crisis using useless wage cuts and structural reforms in the labor markets, as suggested by Atoyán, Manning, and Rahman (2013); and *c*) facilitate a European fiscal union with the representation of all countries.
7. A crucial part of these reforms to the European institutions is the normative re-definition of the role of conventional and contemporary politics and mass media in the process of public elections and collective actions, in such a way that they do not undermine the stability, equality, democracy, and common well-being, putting a stop to solutions inspired in the “assault on reason” (Lukács, 1976) and irrational philosophies.

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