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The Effects of a Euro Exit on Growth, Employment, and Wages*

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Riccardo Realfonzo[†] and Angelantonio Viscione[‡]
University of Sannio

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[†] realfonzo@unisannio.it; professor at the University of Sannio, Department of Law, Business Management, and Quantitative Methods (DEMM)

[‡] viscione88@gmail.com; Ph.D. student at the University of Sannio, DEMM.

Abstract

A technical analysis shows that the doomsayers who support the euro at all costs and those who naively theorize that a single currency is the root of all evil are both wrong. A euro exit could be a way of getting back to growth, but at the same time it would entail serious risks, especially for wage earners. The most important lesson we can learn from the experience of the past is that the outcome, in terms of growth, distribution, and employment, depends on how a country remains in the euro; or, in the case of a euro exit, on the quality of the economic policies that are put in place once the country regains control of monetary and fiscal matters, rather than on abandoning the old exchange system as such. It all depends on how a country stays in the eurozone, or on how it leaves if need be.

Keywords: Currency Crisis; Devaluation; Employment; Euro Exit; Eurozone; Growth;

Income

JEL Classifications: F16, F31, F33, G01

1 WITH AUSTERITY THE EURO WON'T LAST

It is since 2007 that the eurozone has shown no growth and the *processes of divergence* between central countries and peripheral countries have become more and more widespread. If the economic policies of *austerity* imposed by the treaties stay in place, it is only a matter of time before another eurozone crisis occurs. Meanwhile, the continued participation of the peripheral countries in the euro, in the framework of restrictive policies, produces dramatic social and economic effects, as the Greek experience shows. The Italian case is also telling: we are witnessing a slow decline, with a shrinking economy, widespread unemployment, increasingly unequal income distribution, and the downsizing of the welfare state. There is no doubt—*changing the direction of European policies would certainly be the best option*. But it is a solution that is politically more and more improbable, since Germany and its satellite states continue to reject any movement in this direction. We therefore have to ask ourselves what the consequences of an exit from the euro might be.

Naturally, it is not easy to foresee the scenarios following a crisis of the euro. This is also because a great deal would depend on the fact that the euro exit would possibly involve more than one country and the economic and political clout of these countries would have great relevance. Also, things would be very different depending on whether or not the exits were coordinated and whether or not they led to one or more exchange agreements. Needless to say, in the meanwhile we are groping in the dark about the whole issue.

We can, however, take a few steps forward, as long as we avoid the *pitfalls* associated with the opposing ideological extremes. We need to avoid falling into the pessimistic irrationalism of the supporters of the euro at all costs as well as the naive idea that the euro is the root of all evil, which sees an exit from the eurozone as the remedy for all ills. Staying firmly within the field of scientific approaches, some economists are working on complex *forecasting models*. But such modeling has, in the past, often proved to have limits, due to the "heroic" hypotheses underlying these models. After all, economic theory provides no univocal answers. In fact, the foundations of economic theory teach us that a country leaving the euro and returning to its original currency, with an initial one-to-one exchange rate, will immediately encounter a loss of value for the re-instituted currency, which will then become cheaper than the other currencies. This should favor the country's exports and restrict its imports, improving *the commercial balance*, driving growth and promoting

¹ For more, see Realfonzo and Viscione 2014.

² This is also the prediction in "The Economists' Warning," published in 2013 by the *Financial Times* (Brancaccio and Realfonzo 2013).

employment. However, to what degree growth is actually increased by devaluations and the abandoning of exchange agreements is a question of endless dispute. Devaluation *increases* the cost of imported goods and this tends to push up domestic price levels (and therefore the price of exports), reducing the competitive advantage.³ To complicate matters, there are also the redistributive effects of devaluation, which are also hotly debated. The rise in the general domestic price level that tends to follow devaluation for instance tends to reduce the purchasing power of money wages. The reduction of real wages can generate (in the presence of mechanisms adjusting wages to prices or trade union reactions) pressure to drive up money wages and this could accentuate the inflation, further eroding the anticipated competitive advantage resulting from devaluation. Furthermore, a fall in the wage share of GDP can cause a drop in the internal demand for consumer goods and this would tend to reduce growth,⁴ not to mention the potential effects on the cost of the public debt and on the bankruptcy risk for those with high levels of foreign debt, the cost of which obviously balloons with devaluation.

Going beyond theoretical disputes, and in view of the intrinsic weakness of forecasting models, this paper examines the historical information available to us. Although the exit from a monetary union such the eurozone would be unprecedented, some important pointers can be found in the currency crises of the past that more closely resemble the present case.

For this purpose, we will examine the currency crises that in recent history have entailed large devaluations of the exchange rate and that were accompanied by the

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³ To quantify these effects, use is made in the literature of the *coefficient of exchange rate pass through*, which indicates the percentage change in the price level expressed in local currency for the goods imported due to a one-percent change in the exchange rate (Goldberg and Knetter 1997). Scientific research on this topic suggests that the effects of devaluation are heterogeneous. The tests carried out by Barhoumi (2006) on 24 developing countries from 1980 to 2003, for instance, lead the author to reject the idea of a homogeneous *pass through* over the long term. As far as advanced countries are concerned, some studies record a sharp decline in the *transmission coefficient* for goods imported to the USA, from over 0.5 in the 1980s to about 0.2 in the 1990s (Marazzi et al. 2005) and similar conclusions are reached in other research on the price of imports net of raw materials in Japan (Otani et al. 2005). Other studies, like those of Campa and Goldberg (2006), challenge these arguments and maintain that in the OCSE countries, the pass through is tending to increase

arguments and maintain that in the OCSE countries, the *pass through* is tending to increase.

⁴ An income distribution to the detriment of wage earners can have a negative impact on economic growth, since workers have a higher propensity to consume than those who receive profits and rents, and therefore the demand for consumer goods can only fall. That is why various papers of Keynesian inspiration give a central role to the redistributive effects of devaluations and show that they can determine lengthy contractions in production (Alexander 1952; Diaz Alejandro 1963; Krugman and Taylor 1978). The literature on this, however, is very heterogeneous. In general, among the more recent studies warning about the possible restrictive effects of devaluations, there are, for instance, those conducted on some advanced countries by Hein and Vogel (2008) and the econometric model tested on advanced and developing countries by Lian et al. (2014). Suffice it to think of Eichengreen and Sachs (1985) who, studying the devaluations of the 1930s, reject the common argument that they had a marginal role, if any, in stimulating economic growth at that time. On the contrary, they argue that if policies of that kind had been more courageously adopted, recovery from the Great Depression would have been faster. More recently, Rodrick (2008) and Di Nino et al. (2014) reach similar conclusions and argue that devaluations generally foster expansion in the economy.

abandoning of previous agreements or exchange systems.⁵ This allows us to take into account both the phenomenon of devaluation and the political-institutional changes that follow when exchanges regimes are abandoned.⁶ Concentrating on currency crises after 1980, there are 28 cases of large devaluations—over 25% against the dollar⁷—which involved abandoning the previous exchange systems.⁸ Of these, 7 cases involved countries with high per capita income: Australia (1985), Finland (1993), Iceland (1985), Italy (1993), South Korea (1998), Spain (1983), and Sweden 1993); and 21 cases involved countries of low per capita income: Argentina (2002), Belarus (1999), Brazil (1999), Chile (1982), Costa Rica (1981 and 1991), Egypt (2003), Guatemala (1990), Honduras (1990), Indonesia (1998), Kazakhstan (1999), Mexico (1995), Paraguay (1989), Peru (1988), Poland (1990), Romania (1990), South Africa (1984), Suriname (1994), Turkey (1999), and Uruguay (1982 and 2002).

In light of the descriptive statistics given below, let us see what can be learned from the past experience of major currency crises followed by large devaluations and the related abandonment of the previous exchange systems. Our focus is on the real impacts of currency crises. For this reason, we do not dwell on the description of financial and money market turbulence, and—after analyzing the inflationary impacts—we concentrate on the overall effects in terms of commercial balance, growth, employment, and real wages.

2 INFLATION PROGRESSIVELY ERODES THE ADVANTAGE OF DEVALUATIONS

The first thing to examine is the extent to which currency crises tend to trigger inflationary processes and how far the latter can annul the positive effects of devaluation. To continue the analysis, we will look at the fall against the dollar in our 28 cases and then the *differential* between inflation in the USA and in each of these countries.

Now, in the historical experience that we are considering there was an average fall against the dollar of 558%, which means that the currency crises led to a depreciation of the currency involved in the crisis of five and a half times compared to the dollar (Table 1). But

⁵ This is the approach suggested by Brancaccio and Garbellini (2015).

⁶ Naturally, for the main eurozone countries, what has happened in the past in high-income countries is particularly significant. However, the experience of low-income countries cannot be overlooked, considering that these countries saw considerable political-institutional changes in the aftermath of the currency crises, and this could also happen to the European countries themselves if one or more exits from the euro trigger a chain reaction all over the eurozone.

⁷ This is the threshold generally used as reference point in the literature (see Frankel and Rose 1995).

⁸Reference to the IMF classification of exchange rate regimes (http://www.imf.org/external/np/mfd/er/2006/eng/0706.htm).

the focus should be mainly on what happened in the high-income countries, which are clearly more relevant to our case, also because of the significant difference from the dynamics of low income countries. In fact, the currency depreciation in the high-income countries was around 32%. For instance, in 1993 the Italian lira fell by 27.69% against the dollar.⁹

But what counts more is the difference in reactiveness of inflation, which is described in the literature using the *exchange rate pass-through coefficient*. In fact, as past experience confirms, devaluations often give rise to significant inflationary processes. Suffice to say that in the currency crisis year, the inflation differential recorded is overall about 58% compared to the USA (see Table 1), and within just two years the inflation differential is around 450%, thus wiping out 80% of the competitive benefit derived from devaluation. However, in this case, too, there is a significant difference between the experience of high-income countries and those with low income. In fact, in high-income countries, the inflation differential is 6% in the first year and does not reach 16% after three years. This therefore confirms that devaluations tend to trigger significant inflationary processes, which, however, are milder in high-income countries, where within two years of the crisis, inflation erodes the devaluation effect by nearly 50%. ¹⁰

But rigid rules cannot be set. By looking in fact at specific high-income countries, it can be seen that the cases are heterogeneous. In some countries, in fact, despite a fall of over 25% against the dollar, there is no significant difference in inflation compared to the USA (e.g., Finland, Korea, and Sweden); in other cases, the inflationary spurt is limited (like Italy in 1993 where, after three years, the cumulative inflation was only 5.7%); yet in others, it is quite marked (e.g., Australia, Spain, and, above all, little Iceland, the only high-income country in which after three years the inflation differential was higher than the devaluation).¹¹

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⁹ In contrast, low-income countries lost over 700% in value; this figure drops to around 150% if we exclude Suriname's maxi-devaluation in 1994. In view of the presence of some "anomalous" figures, an alternative procedure is to analyze the median, which gives the central value in the distribution either in growing or diminishing order. In our case, the median devaluation of the whole sample is 54.47. This becomes 30.56 for high-income countries and 60.62 for low-income countries.

¹⁰ The analysis of the median relative to the inflation differential in the first year for the whole sample shows a figure of 11.96, confirming the marked difference between the two blocks of countries (the median of high-income countries is just 1.51). This is confirmed after three years (when the median inflation differential of all the countries with the USA is 47.02, while for high-income countries, it is 5.76). The conclusions about the *pass-through* of the whole sample are therefore substantially in line with those emerging from the analysis of the averages. Therefore in Table 1 and the following tables, averages will be used, since the various dispersion indexes confirm the main findings of this study.

¹¹ It is interesting to see that in high-income countries, five years after the currency crisis, the inflation differential on average erodes 78% of the devaluation.

Table 1 Devaluations and Inflation Differentials in the 28 Cases of Currency Crisis (1980–2013)

Country and year of crisis	% fall against \$		Inflation differential compared to USA			
		Crisis	Crisis year &	Crisis year & 2		
		year	following year	following years		
All countries	558.51	57.56	237.84	447.45		
High-income countries	31.91	6.14	10.92	15.65		
Australia (1985)	25.66	1.42	6.06	10.76		
Finland (1993)	27.52	-0.46	-0.95	1.49		
Iceland (1985)	30.96	28.89	51.46	68.85		
Italy (1993)	27.69	1.51	2.92	5.76		
Republic of Korea (1998)	47.32	3.87	1.40	0.08		
Spain (1983)	30.56	7.94	15.25	20.65		
Sweden (1993)	33.65	-0.17	0.33	1.96		
Low-income countries	734.04	75.56	317.27	598.58		

Source: Our elaboration on World Bank data.

3 IMPROVED COMMERCIAL BALANCE

It is therefore to be expected that the first positive effect of abandoning the euro would concern the improvement of the commercial balance, linked to *export growth and the tendency to import less*.

To get a clearer idea, we will go back to our historical cases and make a comparison between the average of the commercial balance (exports minus imports) against GDP in the two and three years prior to and following the currency crisis. In actual fact, as shown in Table 2, the low-income countries did not benefit greatly from the devaluations, considering that the commercial balances change very little on average. The situation is quite different in high-income countries, where currency crises evidently do not have the disastrous effects (also on institutional and political aspects) experienced in low-income countries. In fact, in high-income countries the commercial balance improves considerably, on average by more than three points of GDP, with reference to the two-year and three-year periods. With only one exception (Australia 1985), the commercial balance improves immediately after the devaluations.

¹² A similar conclusion is reached by considering the average net export as percentage of GDP in the five years prior to the currency crisis and the five years after the crisis. And this shows that in high-income countries the positive effects of devaluation tend to persist in the medium period.

Table 2 Commercial Balance—Average Net Exports as Percentage of GDP in the Two and Three Years Prior to and Following the Crisis (1980–2013)

Country and year of	% fall against	Average Net Exports as % of GDP				
crisis	\$	2 years prior	2 years post	3 years prior	3 years post	
All countries	558.51	-0.04	0.99	0.20	0.85	
High-income countries	31.91	-0.33	3.07	-0.69	3.02	
Australia (1985)	25.66	-1.77	-2.37	-1.87	-1.81	
Finland (1993)	27.52	-0.05	5.12	-0.55	5.90	
Iceland (1985)	30.96	1.05	1.97	-0.83	0.98	
Italy (1993)	27.69	0.14	3.21	0.17	3.36	
Republic of Korea	47.32	-1.65	9.31	-1.28	7.16	
(1998)						
Spain (1983)	30.56	-1.88	0.55	-2.00	0.92	
Sweden (1993)	33.65	1.88	3.71	1.53	4.60	
Low-income countries	734.04	0.06	0.26	0.51	0.09	

Source: Our elaboration of Ameco data – European Commission and World Bank data.

4 EXPORTS DRIVE GROWTH, BUT NOT ALWAYS

The improvements in the commercial balance that would follow a euro exit should have a positive impact on growth. This at least is what the historical analysis tends to show, once we compare the average growth rate recorded in the two and three years prior to the crisis with that of the two and three post-crisis years.

Actually, in the set of 28 cases considered as a whole, the results were not positive. However, by separating the high-income countries from the low-income ones, we can yet again find very different outcomes (Table 3). In fact, unlike what happens in low-income countries, the high-income countries show an appreciable increase in their average growth rate, passing from 1.2% in the two years prior to the devaluation to 2.2% in the two post-devaluation years. An even more marked acceleration of growth is found in the three-year period prior to and after devaluation, when growth passes on average from 1.4% to 3.2%. Overall, therefore, high-income countries, driven by the commercial balance (which did not improve in their low-income counterparts), significantly increased their rhythms of growth.

But on this point, past experience cautions *prudence in assessments*. In fact, it should be pointed out that not all the high-income countries recorded increased growth rates. Among these was Italy, despite the fact that after devaluation its commercial balance rose by more than three percentage points of GDP.

Table 3 GDP Growth Rate—Average Figures in the Two and Three Years Prior to and Following the Crisis (1980–2013)

Country and year of	% fall against	Average growth rate of GDP				
crisis	\$	2 years prior	2 years post	3 years prior	3 years post	
All countries	558.51	2.43	0.08	2.72	1.27	
High-income countries	31.91	1.20	2.22	1.45	3.21	
Australia (1985)	25.66	4.94	3.19	2.55	3.99	
Finland (1993)	27.52	-4.62	1.60	-2.85	2.47	
Iceland (1985)	30.96	0.99	4.78	1.38	6.04	
Italy (1993)	27.69	1.19	0.65	1.48	1.40	
Republic of Korea	47.32	6.48	2.51	7.29	4.60	
(1998)						
Spain (1983)	30.56	0.56	1.78	0.80	1.96	
Sweden (1993)	33.65	-1.15	1.01	-0.52	2.02	
Low-income countries	734.04	2.86	-0.67	3.17	0.59	

Source: Ameco—European Commission, World Bank

5 EMPLOYMENT OFTEN DOES NOT GROW

While these signs are, in some respects, positive for competitiveness, commercial balance, and growth, the effects on employment are not very comforting.

Taking the set of 28 past cases as a whole, it can be seen that after the currency crisis, the unemployment rate decreased gradually, falling on average by one percentage point within three years after the outbreak of the currency crisis (Table 4). However, the drop in joblessness on average involves only low-income countries. In fact, in high-income countries the unemployment rate is perfectly stationary. In the experience of some countries, like Italy, the unemployment rate even grew significantly. It is therefore clear that in the past in high-income countries after currency crises, growth was guaranteed by a *more intense use of labor and industrial capital*. Nevertheless, in this respect, too, there are significant differences among the high-income countries, suggesting that the different labor market situations (institutional and normative) and the different economic policies in place had a major influence on the employment impacts.

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¹³ The analysis of the median in this case shows that in the span of three years the unemployment rate would fall slightly, by 0.3%. The difference from the analysis of the averages is however utterly minimal, considering that in the following year, that is, in the fourth year after the currency crisis, the unemployment rate was higher than in the crisis year.

Table 4 Joblessness after the Currency Crisis—Unemployment Rate in the Years Following the Crisis (1980–2013)

Country and year of crisis	% fall against \$	Unemployment rate				
		Crisis	First year post-crisis	Second year post-crisis		
		year				
All countries	558.51	9.74	9.38	8.91		
High-income countries	31.91	9.46	9.83	9.46		
Australia (1985)	25.66	8.26	8.08	8.11		
Finland (1993)	27.52	16.30	16.60	15.40		
Iceland (1985)	30.96	1.60	1.10	0.80		
Italy (1993)	27.69	9.70	10.60	11.20		
Republic of Korea (1998)	47.32	6.95	6.34	4.14		
Spain (1983)	30.56	14.30	16.70	17.80		
Sweden (1993)	33.65	9.10	9.40	8.80		
Low-income countries	734.04	9.86	9.19	8.67		

Source: Ameco—European Commission, World Bank, Eclac CepalStat.

6 THE DANGER OF WAGE DEFLATION

To understand what might hinder an employment upswing immediately after an exit from the euro, even though the commercial balance is tending to improve, we need to examine what might happen on the wage front.

Here lies the *major concern* that emerges from this analysis. In fact, past experience shows without a shadow of doubt that the devaluation following a currency crisis can have particularly serious effects on wages. To verify these conclusions, let us consider both *real wages* (that is, the purchasing power of workers' average money wages) and the *wage share*, which shows the percentage of the GDP that goes to those receiving wages for labor. As Table 5 shows, in the first three years after devaluation in the 28 cases considered, on average there is a drastic drop in real wages and in the wage share, which seems to be mainly due to inflationary processes that generate a redistribution from wages to profits and rent.

Naturally, once again it is useful to separate the high-income countries from the others. Now, the effect is serious even if we consider only the high-income countries where—with the exception of Iceland (where there was a sharp rise in real wages)—it is seen that real wages, after three years, are still lower than the level recorded in the year of the currency crisis. Especially in high-income countries, the wage share falls by 7.8% in just three years, with a sudden massive redistribution effect at the expense of workers. It is easy to deduct that the drop in wages contributed to keeping the internal demand for consumer

goods low, to the detriment of the more traditional sectors, and this acted as a significant brake on renewed employment growth.

In this regard it might be useful to recall the Italian case. As we know, after the 1993 currency crisis, restrictive wage policies were put in place. This evidently limited the inflationary tendency and therefore allowed exports to continue to grow, but after three years caused a more-than-4% drop in wages and a collapse of the wage share of nearly 9%. This explains the decline in domestic demand and our country's failure to grow in those years, as well as the rise in joblessness. In other words, in light of the data on the growth of the commercial balance and the fall in real wages, it is clear that in Italy the increase in foreign demand was substantially compensated by the stagnation of domestic demand with no effect on growth. These were the overall outcomes of the wage restriction policies of the time.

Table 5 Real Wages and Wage Share as Percentage of GDP—Cumulative Figures in the Three Years Following the Currency Crisis (1984–2013)

Country and	% fall	% change of real wages			% change of wage share on GDP		
year of crisis	against \$	Crisis year	Crisis year & following year	Crisis year & 2 following years	Crisis year	Crisis year & following year	Crisis year & 2 following years
All countries	558.51	-8.23	-18.94	-18.25	-4.99	-11.73	-12.16
High-income countries	31.91	-0.34	0.98	4.10	-0.67	-3.22	-3.79
Australia (1985)	25.66	-0.87	-2.98	-3.47	-0.65	-1.43	-4.98
Finland (1993)	27.52	-3.42	-0.40	2.83	-6.48	-9.70	-12.25
Iceland (1985)	30.96	5.63	12.21	32.62	7.24	7.10	20.01
Italy (1993)	27.69	-0.78	-2.40	-4.08	-1.80	-5.12	-8.60
Republic of Korea (1998)	47.32	-1.94	-1.66	-1.96	-1.08	-5.33	-6.62
Spain (1983)	30.56	1.42	1.25	2.23	-0.39	-4.85	-7.66
Sweden (1993)	33.65	-2.41	0.82	0.50	-1.55	-3.22	-6.45
Low-income countries	734.04	-10.99	-25.91	-26.07	-6.58	-14.86	-15.25

Source: Our elaboration of World Bank data.

The descriptive statistical analysis therefore shows that the devaluations that follow currency crises with alterations in the exchange regime are normally followed by a contraction of real wages and an even more marked contraction of the wage share. These

conclusions are also confirmed by some linear regressions that we conducted between the size of the devaluation and the percentage changes in real wages and in the wage share.¹⁴

7 TO CONCLUDE: EURO EXIT IS NOT A CURE-ALL

The eurozone crisis could mean the single or multiple exits—autonomous or by agreement—of small and larger countries, and may or may not lead to new exchange agreements.

Naturally, there is no economic theory or historical experience that can throw a definitive light on the possible scenarios that the various combinations of these options would cause.

At the same time, past experience tells us that abandoning the eurozone for a peripheral country could trigger renewed growth. But euro exit is not a cure-all.

It is obvious that abandoning the euro could increase the competitiveness of the country in question, especially in the short-medium period; then little by little, inflation would erode the competitive advantage of the exchange rate. At the same time, improvements in the commercial balance should foster growth, but it would be harder for employment to grow. A lot would depend on the situation of the labor market, the wage policies and more generally the economic policies in place. In cases where wages were somehow protected from inflation, the *domestic demand* might not lose much impetus and this could sustain growth and employment.

In contrast, in cases where wages were not protected, the economy would be powered more by exports, but the home market might suffer considerably, as would employment which relies on *traditional sectors* that fulfil the internal demand. In this case, the increased exports would generate higher profits, with the risk of not seeing any expansion of employment levels. At the same time, a devaluation accompanied by policies of wage support and incisive industrial policies could sustain internal demand and create the conditions for a structural growth of competitiveness.

In short, *unless there is a change toward greater flexibility and redistribution in*European policies with an end to austerity, abandoning the euro could be the solution chosen by some countries in the not-too-distant future, and this could revive the economy. But a

According to regression analysis, the argument that as devaluation increases, both real wages and in the wage share on GDP decline, has a high likelihood of being significant (for instance, by regressing the cumulative

percentage change in real wages over the three years after devaluation, we get an R-squared of 0.57 with far lower p-value of 0.05 (excluding from the analysis both the missing figure for Romania and the anomalous figure for Suriname). Again, by regressing the cumulative percentage change in wage share over the three years, we get an R-squared of 0.59 with p-value of 0.00001 (excluding the missing data for Costa Rica (1991) and Peru, as well as the anomalous figures for Suriname and Poland).

return to monetary sovereignty and the exchange rate is not enough to cancel, as if by magic, the problems caused by the inadequacy of the production system or the low standard of material and immaterial infrastructures. The most important lesson we can learn from the experience of the past is that the outcomes in terms of growth, distribution, and employment depend on how a country remains in the euro and, rather than on abandoning the old exchange system as such, on the quality of the economic policies that are put in place once the country regains control of monetary and fiscal matters.

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