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# CURRENT ACCOUNT IMBALANCES, THE EUROZONE CRISIS AND A PROPOSAL FOR A "EUROPEAN WAGE STANDARD"

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The crisis in the European Monetary Union cannot be attributed simply to the growth of government deficits in its member countries. Current account imbalances between Eurozone members and the resulting accumulation of external private and public credit and debt appear to be further causes of instability. The gap between unit labour costs seems to be one of the determinants of trade imbalances. Germany in particular, despite its systematic current account surplus, has adopted a policy of relative wage deflation in recent years that has increased this gap. The adoption of a "European wage standard" may prompt countries with surpluses to generate higher growth in nominal wages, prices and wage shares, thus helping to restore the balance in trade and safeguard European unity.

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#### 1. Current account imbalances and the crisis of European unity

The crisis of the Eurozone that began in 2010 has been interpreted and tackled on the basis of the belief that the sustainability of the European Monetary Union (EMU) is threatened by excessively high levels of public debt and deficit. This view has prevailed in the thinking of EU institutions and led nearly all of the member countries to adopt measures aimed at slashing their state deficits drastically. Not everyone is, however, convinced by this interpretation of the crisis and the action it prompts. Numerous observers have put forward the alternative view that the crisis affecting the EMU cannot derive simply from a problem of sustainability of public finances but is associated rather with a problem of external indebtedness, both public and private. On this view, the crisis is rgarded as stemming from an permanent imbalance within the Eurozone that leads to growing current account surpluses above all for Germany and systematic current account deficits for the "peripheral" countries of the EMU. This alternative interpretation arouses no particular surprise among economists of the critical schools of thought. Since the birth of the EMU it has been presented in many studies and from a variety of angles (Graziani 2002). Recently too, numerous economists of this persuasion have put forward interpretations of the Eurozone crisis in which the trade imbalances between the member countries are assessed in different ways but never disregarded (Arestis and Sawyer 2011; Bellofiore and Halevi 2011; Parguez 2011; Cesaratto and Stirati 2011).

Observation of the figures establishes beyond doubt that current account imbalances between the Eurozone countries have reached unprecedented levels during the last decade and have not narrowed in the slightest since the great recession of 2008-09. Italy's current account deficit as a ratio of GDP was 3.5% in 2010 as against 4.5% for Spain, 9.7% for Portugal and 12.3% for Greece, whereas Germany had a current account surplus of 5.8%. Moreover, no substantial move towards restoring balance is expected for the end of 2011 (Eurostat AMECO estimates). But what is the empirical evidence demonstrating a relationship between trade imbalances and the instability of the Eurozone? Before the outbreak of the European crisis, numerous studies had already pointed out the importance of foreign debt as an indicator of a country's potential insolvency (Manasse and Roubini 2005) and others had highlighted the existence of a link between current account and spreads. In the case of Italy, for example, the spread between national government bonds and German Bunds has generally proved more sensitive to the current account deficit than the government deficit (Brancaccio 2008). More recently, among the studies specifically devoted to the European crisis, Barrios et al. (2009) have found that the current account has a significant influence on risk premia and the IMF (2010) that it is as important a predictor of credit default swap spreads as the fiscal deficit. The German economist Daniel Gros (2011) has also put forward a debated contribution drawing attention to the correlation between the current accounts of 17 EMU member countries in the period 2007-09 and the spreads with respect to the interest rates on German Bunds as calculated in February 2011. The statistical link is expressed by a relation that is not linear but quadratic, on the basis of the idea that the country risk incorporated into the spreads can increase more than proportionally to a rise in the trade deficit.

#### PLEASE INSERT GROS'S TABLE HERE

Gros's empirical result has the apparent merit of immediacy with respect to the evidence available in the literature but proves to be based on a rudimentary and in various respects arbitrary regression. First, the decision to stagger the data for the current account and for the spread in time is quite understandable given the need to avoid problems of causality in the analysis, as the spreads themselves figure among the determinants of current account balances. It is, however, not clear why the current account averages of the period 2007-09 should be related to the spreads of 2011 rather than 2010. Second, it is not clear why use is made of monthly spread. Even though the prices of public bonds present no major difficulties of seasonal trends, the choice of yearly averages would have been in any case preferable. Third, confining the analysis to a single three-year period imposes marked limitations on the general validity of the result, and the period of reference should be extended to cover the entire span of the Monetary Union at least. Then there is the decision to use a quadratic relation, which raises various problems as regards indices of determination and diagnostics. What would happen if the test were based on a linear relation? Furthermore, assessment of the importance of a possible correlation between current account and spreads would be greatly assisted by comparison with an analogous analysis of correlation between government budget and spreads. Finally, it should be ascertained whether spreads are correlated not only with the annual balances of trade and government budget but also with foreign and public debt.

As at least some of the aspects of the relationship between current account and spreads suggested by Gros thus require further examination, a new test has been carried out on the Euro12 countries in the light of the above points.<sup>2</sup> The following yearly historical series were extracted from the Eurostat AMECO database: net lending or borrowing relative to general government as a ratio of GDP; balance on current transactions with the rest of the world as a ratio of GDP; spreads between nominal long-term interest rates on the bonds of the different countries with respect to German bonds. Linear regression analysis was then used to compare the average data for current account and government deficit during a three-year period with the averages of the spreads in the year immediately after it starting from 1999, the year the euro came into being. The results are as follows:

#### PLEASE INSERT TABLE 1 HERE

The test pinpoints a watershed in 2007–08, i.e. at the beginning of the world-wide economic crisis. The correlation between current account and spreads is in fact weak during the first years of the euro's existence and strong in the period of crisis. It further emerges that the relationship between government deficit and spreads remains negligible until the outbreak of the recession in 2008. Moreover, in all of the periods considered, the relationship between current account and spreads presents a higher

 $<sup>^2</sup>$  Gros's analysis was based on all the 17 members of the Eurozone at the time when his work was published. His regression is, however, limited to the period 2007–09. The test presented here instead covers the broader period from 1999 to 2010. For this reason, it has been necessary to eliminate Slovenia, Malta, Cyprus, Slovakia and Estonia due to the lack of data in the Eurostat AMECO database. Problems regarding the availability of homogeneous data also emerged for Greece, but only for the period 1999–2000.

coefficient of determination and lower p value with respect to the link between government deficit and spreads.<sup>3</sup> The correlation identified by Gros thus proves far less general and his use of non-linear relations is called into question.<sup>4</sup> At the same time, however, the prevailing interpretation, which focuses solely on the role of the public deficit, is also clearly challenged. The government deficit appears in fact to be less important than the current account as a determinant of spreads.<sup>5</sup>

Finally, it is possible to add a test of linear regression on the stocks of public and foreign debt, both public and private, of the Euro12 countries to the analysis of yearly balances. The Eurostat AMECO database is again the source of data on public debt and the international investment position (IIP) calculated by the IMF is used for foreign debt. In the only two periods in which the test is significant, the foreign debt appears more relevant than the public debt as a determinant of spreads.

## PLEASE INSERT TABLE 2 HERE

The exercise performed seems to bear out two views that have already emerged in literature (see for example Manasse and Roubini 2005). First, a relationship between government deficits and current account imbalances on the one hand and spreads on the other appears to emerge clearly only in phases of crisis characterised by stagnation or depression of GDP. Second, among the possible determinants of spreads, foreign debt and deficit seem to be more relevant than public debt and deficit. A typical explanation offered for these results is that the spread incorporates a risk of collapse of the Eurozone and hence of exchange rates. The current account deficit can be seen as an indicator of insufficient competitiveness of the national productive system. Above all in a situation of prolonged stagnation or depression, the country in question can opt for the abandonment of the single currency and exchangerate devaluation in order to attempt to regain some margin of competitiveness and detect new sources of demand abroad. Creditors will then be prompted to demand higher rates of interest in order to cover themselves against the risk of the devaluation of the national currency being accompanied by default and hence a fall also in the value of the bonds in their possession. Foreign indebtedness is therefore associated once again with greater risk. And it is important to emphasise that the debt in question may be accumulated not only by the public sector but also by the firms and banks constituting the private sector of the country in question.

 $<sup>^3</sup>$  Similar results are obtained from linear regression tests carried out on the connection between the foreign and public balances of a single year and the spreads of the first month of the following one. Again with reference to the period 1999–2010, with the sole exception of 2005, coefficients of determination higher than 0.5 and characterised by a p value lower than 0.05 are only registered as from 2008.

<sup>&</sup>lt;sup>4</sup> Regressions based on non-linear equations generally make the interpretation of inferential tests less certain. Moreover, in the specific case examined here, the non-linear relations do not generate appreciable improvements of the coefficient of determination. (For the period 2008–10, with respect to an  $R^2$  of 0.72 in the case of the linear relation, the coefficient is 0.79 with the quadratic relation and 0.81 with the cubic.) Above all, non-linear relations display trends for some periods that can hardly be justified at the theoretical level. For example, an increase in public or foreign deficit can be accompanied by an increase in the spreads that is less than proportional and tends asymptotically to cancel itself out. In other words, the second derivative of the function of spreads with respect to the balance proves negative. This result appears to make no economic sense.

sense. <sup>5</sup> It should be recalled that with the sole exception of the period 1999–2001, the correlation between current account and government deficits expressed as a ratio of GDP appears weak. The coefficient of determination of the linear regression between the two variables is always below 0.5 and the p value is between 0.02 and 0.08. This appears to confirm the fact that the foreign deficit can be influenced by several factors and certainly not by the government deficit alone, which raises doubts about the hypothesis of "twin" deficits also in empirical terms.

#### 2. The causes of intra-European imbalances: the role of the countries with surpluses

What are the causes of trade imbalances inside the Eurozone? Why does Germany continue to accumulate surpluses while Greece, Portugal, Spain and Italy as well as France to a lesser degree tend systematically towards deficits in their current accounts? Until the outbreak of the recession in 2008 at least, these imbalances were examined by mainstream economists in the light of a model of intertemporal partial equilibrium with complete future markets representing a small open economy (Bergin and Sheffrin 2000). Models of this type made it possible to conjure up a somewhat optimistic vision of the prospects for the EMU, as exemplified by an influential work by Blanchard and Giavazzi (2002). The authors maintain that the increase in trade imbalances accompanying the creation of the single currency should be regarded not as a cause for anxiety but as a virtuous phenomenon attributable to the greater degree of financial integration between the EMU countries. The theoretical basis for this view is the typical neoclassical assumption that spontaneous mechanisms of convergence exist between higher-income and lower-income economies. According to the neoclassical theory of growth, the countries characterised by a lower level of production per capita will in fact be those in which is capital is scarcer and hence better remunerated. These countries will therefore attract and accumulate capital, experience quicker growth of labour productivity and competitiveness, enjoy higher growth of the income, and hence be in a better position to obtain and repay loans. On the basis of this vision, Blanchard and Giavazzi claim that the increase in the trade deficits of the European countries characterized by low per capita income is no cause for concern and that no corrective action is called for. In their view, the phenomenon reflects the strong potential for growth of the countries with trade deficits and the resulting possibility for them to take full advantage of the channels of foreign debt created by the higher degree of European financial integration.

This optimistic vision of the Eurozone's internal imbalances has, however, given rise to various misgivings, not least due to its evident clash with the empirical evidence. Suffice it to note that the model of intertemporal equilibrium is based on the idea that a high foreign deficit must be accompanied by high future growth of labour productivity and hence also of income and the ability to repay debts. The figures have shown instead that the countries characterised by a marked tendency towards deficit in their foreign accounts present very modest growth of productivity and an increase in costs that is much higher than the other members of the Eurozone (Brancaccio 2008). The problem of at least partial modification of the approach to the EMU's internal imbalances has thus arisen inside the mainstream itself, giving rise to the suggestion that the markets are not capable of perfectly foreseeing future trends in the productivity, unit costs and incomes of countries with trade deficits, which may give rise to excessive foreign debt that cannot be repaid. From the theoretical standpoint, this interpretation seems to reflect abandonment of the intertemporal analysis with complete markets and a return to the old models of temporary equilibrium (see Petri 2004 for the differences between the two). In any case, its advocates have reached the conclusion that the markets may have made a mistake in forecasting and that the current count imbalance may prove unsustainable. The upshot in terms of economic policy, in their view, is that the countries with trade deficits must endeavour to eliminate them both on the supply side, by reducing the unit costs of labour so as to increase competitiveness, and on the demand side, by a cut in deficit spending, the overall aim being to increase net exports and reduce foreign debt. This new and more problematic mainstream reading of the European situation has won the support of Roubini (Roubini et al. 2007) among others and Blanchard (2006, 2007) also

appears to have been convinced in the end. At the same time, there are also implicit connections at the political level, as the interpretation offers analytical support for the most recent trends in European policy, which recognize the dangers caused by excessive imbalances in current accounts and call upon the countries with foreign deficits to shoulder the burden of remedying the situation, above all by means of austerity measures and steps to increase the flexibility of the labour market (European Council 2011).

Unlike its predecessor, this new mainstream interpretation does not overlook the implications of the Eurozone's internal imbalances and therefore appears more in line with the empirical evidence regarding the link between current account imbalances and spreads. Like its predecessor, however, the vision has a limitation in that it underestimates the problems arising from a shortage of effective demand for the EMU as a whole. Among other things, this has led to a one-sided economic policy that places the entire burden of restoring the balance of trade exclusively on the countries with current account deficits and does not involve the countries characterised by foreign surpluses in the slightest. There are, however, numerous works in the critical literature that identify the deflationary policies of the countries with trade surpluses as the primary source of the intra-European imbalances. In particular, Germany is explicitly accused of a neo-mercantilist approach aimed at the systematic accumulation of trade surpluses also through control over wages and domestic demand (Cesaratto 2011). This interpretation has indeed won a great deal of support in recent times. In an analysis expressly devoted to the current accounts of the Eurozone's member countries, the European Commission itself has identified major elements of imbalance in the policy of relative wage deflation and restricted internal demand characterising some countries with trade surpluses, above all Germany (European Commission 2009, 2010). On this view, Germany and the other countries with surpluses should therefore also be called upon to help restore the balance in current accounts. Any attempt to place the burden of intra-European adjustment solely on the countries with trade deficits will generate further decreases in effective demand and is ultimately bound to fail.

## 3. The possible paths of adjustment: effective demand and unit costs of labour

Any contribution from Germany towards restoring the intra-European balance could obviously be made either on the supply side, by relaxing the policy of wage moderation, or on the demand side, through fiscal expansion or acceptance of a federal policy of transfers inside the EMU. But which of the two would be more effective? One thesis in this connection is that internal demand has a greater impact on net exports than the dynamics of unit costs (European Commission 2010). On this reading, if Germany rejects the idea of an economic policy of expansion and in more general terms the constitution of an authentic federal policy for the EU, the imbalances between the member countries are highly unlikely to be remedied. This thesis appears correct. At the same time, however, there is good reason to believe that expansionary policies would have to be backed up by action on costs. The unit costs of labour in the member countries of the Eurozone have in fact diverged strongly ever since the creation of the single currency. The case of Germany is once again emblematic. The nominal unit cost of labour registered an increase of 22.6% for the Euro17 countries between 2000 and 2010 as against only 4.3% for Germany. While this is explained to a large degree by the relative increase in German productivity, the policy of wage moderation in Germany also contributed significantly to widening the gap. Nominal salaries rose in the Euro17 countries by 27. 2% over the same period but by no more than 11.5% in Germany (Eurostat AMECO data). After countless alarms about the perils of Chinese dumping, it may prove somewhat surprising to discover that major driving force of wage deflation is to be found inside Europe and indeed in the leading country of the EU.

According to the most recent empirical literature, differences in costs of these proportions have anything but negligible effects on current account imbalances. The tests show that variations of 1% in the real exchange rate can generate variations of the opposite sign in the current account of no less than 0.2% (Arghyrou and Chortareas 2008) and can therefore prove unsustainable in the long run (Dullien and Fritsche 2009). Among other things, these estimates are confined to examining the divergence in labour costs solely in terms of its effects on prices and hence the respective levels of competitiveness of the Eurozone countries, thus disregarding the possibility that changes in monetary unit costs may also have an effect on profit margins and hence the distribution of income. For example, if the monetary labour cost per unit produced falls in Germany, German firms may decide to reduce their prices but may also choose to leave them unchanged in order to increase their margins. Now, any increase in the profit margin alters the distribution of income with a drop in the wage share and a rise in the profit share. As a result, since the propensity to consume is generally much higher in the case of wages than profits,<sup>6</sup> the shift in distribution towards the latter will lead in Germany to a decrease in demand and imports, and hence to a further increase in the German trade surplus. In addition to the customary effect on prices and competitiveness, we therefore have another unbalancing effect that operates through the distribution of income and demand for goods. While this effect cannot be regarded as exceptional, according to the most recent empirical analyses, it does not appear negligible either. In the case of Germany, for example, an increase of 1% in the wage share is associated with an increase in consumption as a ratio of GDP ranging from 0,39% in 1970 to 0,44% in 2005, and a drop in net exports as a ratio of GDP ranging from 0,13% in 1970 to 0,27% in 2005 (Stockhammer, Hein, Grafl 2007). For the Eurozone as a whole, an increase of 1% in the profit share is associated with a 0.37% drop in consumption, a 0.11% increase in net exports and a 0.19% decrease in total private demand, all expressed as ratios of GDP (Stockhammer et al. 2009). The divergence between the unit costs of labour therefore appears important also because it can affect the current account from both the supply and demand side.

## 4. For a "European wage standard"

We have therefore seen that any proposal the reform the European Monetary Union should assign countries with surpluses a crucial role in redressing the balance of current accounts. These countries would be required either to shoulder the burden of implementing expansionary fiscal policies or helping to finance a federal policy of transfers. Moreover, we have also seen that if it is to be fully effective, a reform of the Monetary Union would also have to involve measures to reduce the divergence in unit costs of labour fuelled by the wage moderation policies of the countries with surpluses. Let us now examine one of these possible measures, which we shall call the *European wage standard*.

The hypothesis of a *European wage standard* originates in the broad sector of studies devoted to wage bargaining inside the EMU. In this connection, the mainstream literature focuses above all on

<sup>&</sup>lt;sup>6</sup> Among the large amount of evidence in this sense, Hein and Vogel (2008) have estimated the elasticity of consumption to wages and the elasticity of consumption to profits for six OECD countries and found that the former proves far greater than the latter in each case. Our own extension of this test to another 15 countries fully confirms this finding (Brancaccio, Stirati, Suppa 2010).

the identification of institutions capable of ensuring that every member country has the wage flexibility needed in order to offset the effects of a centralised monetary policy. This means that any asymmetric shocks would be absorbed through the flexibility of wages in each member country (Obstfeld 1998; Calmfors 1998, 2001; Calmfors et al. 2001). It should be noted that the mainstream studies are usually based on the idea that employment and real wages converge in the long term on a "natural" equilibrium that cannot be influenced by the dynamics of nominal wages or by economic policies. These analyses therefore tend to rule out problems of effective demand for the EMU in the long run and do not address the depressive and unbalancing effects of policies of relative wage deflation in countries with surpluses. Being based on a critical theoretical approach that denies the existence of a "natural" equilibrium, the European wage standard is instead designed to address the problems overlooked by the mainstream literature. The hypothesis of a *standard* is based in this sense on three key rules: 1) First, all the EMU countries would be required to guarantee that the growth of nominal wages with respect to the growth of labour productivity is such as to generate a convergence of wage shares towards an objective level of the wage share that acts as an "attractor" for all the member countries, which must therefore be no lower than the level existing in each of them. The objective is to halt what is now a 30-year fall in the wage share in Europe, eliminate the resulting tendency towards recession,<sup>7</sup> and foster a tendency towards alignment of the wage shares in the EMU in the long term. 2) Second, above the minimal level of growth, the standard would link the growth of nominal wages with respect to labour productivity to the balance of trade so as to foster a return to equilibrium between countries with trade surpluses and those with deficits. In particular, the countries characterised by systematic current account surpluses would be required to accelerate the growth of nominal wages with respect to labour productivity. The countries in current account deficits would be required to keep nominal wage growth with respect to productivity below that of countries in surplus. This increase can contribute to the absorption of trade surpluses in two ways. First of all, on the assumption that a rise in the nominal wage is accompanied by a rise in inflation, the country in question will tend to lose competitiveness. Furthermore, if the growth in nominal wages determines growth in the wage share, the average propensity to consume, aggregate demand and imports will all increase. Either the effect on prices or the effect on the wage share will obviously tend to predominate depending on the speed of renegotiation and the degree of wage indexation. 3) The final element regards powers of compulsion. Countries where nominal wages diverge from the dynamics imposed by the *standard* would be subject to sanctions similar to those envisaged in the European treaties for countries with "excessive" levels of public deficit.8

In short, the first cornerstone of the *European wage standard* regards social redistribution and the second the balancing of trade surpluses and deficits. At the same time, however, both are designed in overall terms to stop relative wage deflation and stimulate European demand and income. More specifically, the first pillar of the *standard* sets a wage share higher that those currently existing, which should act as a long-term "attractor" for the wage shares of all the member countries. The second is designed to act on inflation and/or wage shares, which should help in turn to restore the balance of current accounts. Use will be made here of a simple model in order to display the theoretical links

<sup>&</sup>lt;sup>7</sup> The wage share fell by 12.7% in Italy, 11.2% in Spain and 9.7% in France between 1980 and 2007 as against 6.5% in Germany between 1991 and 2007 (AMECO database). Given the recessionary impact of a decrease of only 1% in the wage share (Stockhammer et al. 2009), the cumulative depressive effect appears anything but negligible. For a theoretical analysis of the macroeconomic effects of a decrease in the wage share, see also Lopez and Assous (2010).

<sup>&</sup>lt;sup>8</sup> The reference is to the well-known article 104 of the Treaty of the European Union and the associated protocol on excessive public deficits.

between these variables clearly.<sup>9</sup> Let *P* be the price level of goods, *W* the nominal wage,  $\pi$  labour productivity, and  $\mu$  the mark-up on the cost of labour. The price equation is  $P = (1 + \mu)W/\pi$ . Let  $q_I = 1/(1 + \mu)$  define the wage share that firms are willing to grant. The price equation can therefore be rewritten as  $P = W/\pi q_I$ . Let  $P^e$  be the level of prices expected by workers and  $q_S$  the wage share set by the *European wage standard*, with  $q_S \ge q_I$ . The adoption of the European wage standard means that  $W = \pi q_S P^e$ . The model can admit any assumption about expectations. Only for the sake of simplicity we assume here perfect forecasting, so that  $P^e = P$ . We also assume that the convergence of prices and wages towards the desired wage shares takes place through adjustments of a graduality indicated by the parameters  $\alpha$  and  $\beta$ . We therefore have:

$$P_t - P_{t-1} = \alpha \left( \frac{W_t}{\pi q_I} - P_{t-1} \right)$$
$$W_t - W_{t-1} = \beta (\pi q_S P_t - W_{t-1})$$

where  $0 < \alpha \le 1$  e  $0 < \beta < 1$ . Now let  $q_{t-1} = (W_{t-1}/P_{t-1})/\pi_{t-1}$  define the effective wage share of the previous period,  $\dot{P} = (P_t - P_{t-1})/P_{t-1}$  the rate of inflation,  $\dot{W} = (W_t - W_{t-1})/W_{t-1}$  the rate of variation of the nominal wage and  $\dot{\pi} = (\pi_t - \pi_{t-1})/\pi_{t-1}$  the rate of variation of labour productivity. After various steps of development and substitution, we now have:

$$\dot{P} = \frac{\alpha \left[ \frac{(1-\beta)}{(1+\dot{\pi})} \frac{q_{t-1}}{q_l} + \beta \frac{q_s}{q_l} - 1 \right]}{1 - \alpha \beta \frac{q_s}{q_l}}$$
$$\dot{W} = \frac{\beta \left[ (1-\alpha)(1+\dot{\pi}) \frac{q_s}{q_{t-1}} + \alpha \frac{q_s}{q_l} - 1 \right]}{1 - \alpha \beta \frac{q_s}{q_l}}$$

It should be noted that the growth of nominal wages compatible with the wage share required by the *standard* also depends on the growth of labour productivity. Among other things, this means that countries can follow the prescriptions of the *wage standard* by acting both on wages and productivity. However, only for the sake of simplicity we assume now that  $\dot{\pi} = 0$ . In this abstract case, if the wage share set by the *wage standard* already coincides in the previous period with the share that the first are willing to grant, then  $q_S = q_I = q_{t-1}$  and therefore  $\dot{P} = \dot{W} = 0$ . If there is instead conflict between the wage share set by the *standard* and the demands of entrepreneurs, then the greater the difference between  $q_S$  and  $q_I$ , the higher the growth of nominal wages and prices. Moreover, we know that the

<sup>&</sup>lt;sup>9</sup> The model has some apparent similarities with a well-known analysis of inflation made by Modigliani and Padoa-Schioppa (1978). The theoretical foundations of the two models are, however, very different: suffice it to note that unlike the original model of Modigliani and Padoa Schioppa, our equations do not require any necessary relationship between the wage share and the level of production.

effective wage share can be defined as  $q_t = (1+g)q_{t-1} = (1+g)(W_{t-1}/P_{t-1})/\pi_{t-1}$ , where  $(1+g) = (1 + \dot{W})/(1 + \dot{P})(1 + \dot{\pi})$ . Therefore, knowing  $q_{t-1}$ ,  $\dot{\pi}$  and having determined  $\dot{W}$ ,  $\dot{P}$ , we can calculate the effective wage share of the current period. Moreover, it is easy to ascertain that the effective share  $q_t$  will be closer to/further from the share  $q_s$  set by the *standard* and higher/lower than the share  $q_I$  desired by the entrepreneurs in direct proportion to the difference  $(\beta - \alpha)$ .

At this point, let us assume that the *standard* sets the desired wage share for each country as a direct function of the attractor wage share  $q_A$ , which is the same for all the countries, and of the current account *CA*. We therefore have  $q_S = q_S(q_A, CA)$  with  $\delta q_S / \delta CA > 0$  for at least part of the function and with  $q_S$  tending towards  $q_A$  for *CA* tending towards zero. It can also be assumed that the growth of the foreign surplus will make firms better able to tolerate inflationary dynamics and hence readier for conflict over the distribution of income. This means that  $q_I = q_I(CA)$  with  $\delta q_I / \delta CA < 0$  for at least part of the function and the function. On these assumptions, it is clear that the higher the foreign surplus, the tougher the fight will be over distribution and the higher the rate of inflation. Moreover, the greater the extent to which the standard envisages fast mechanisms of renegotiation and possible indexation such as to increase the difference  $(\beta - \alpha)$ , the more the conflict over distribution will cause the effective wage share  $q_t$  to rise towards the share  $q_S$  set by the standard. For the reasons outlined previously, both inflation and the growth of the effective wage share will help to absorb the trade surplus.

It is important to note that the obligation to increase nominal wages is not the only way for the country in question to absorb its trade surplus. What counts in this connection is that the country will be obliged to allow wages to rise until it has managed to absorb its trade surplus. This in itself already constitutes a deterrent against deflationary strategies and a stimulus to help restore the balance in trade through a broader range of expansionary policies. For example, in order to avoid the inflationary dynamics imposed by the *wage standard*, a country with a foreign surplus may be prompted to focus its entire strategy of economic policy on restoring the balance in trade. The *standard* is thus conducive to the adjustment of current accounts also indirectly, by stimulating a broader spectrum of policies.

The effectiveness of the *wage standard* is directly proportional to the extent to which the dynamics of nominal wages in relation to labour productivity is guided by collective bargaining on wages and working conditions. A strengthening of national collective contracts and their coordination at the European level therefore appear to be necessary conditions for the determination of a framework of industrial relations in line with logic of the standard. The result is an endogenous change in the institutions of the labour market moving in the opposite direction from the one called for by the mainstream literature and imposed by the present tenets of economic policy (European Council 2011), which place the entire burden of restoring balance on the countries with trade deficits and hence focus on flexibility of the labour market and weakening the trade unions' bargaining powers.

#### 5. Origins and features of the wage standard

As already noted, the *European wage standard* constitutes in various respects an invitation to reverse the approach to wage bargaining within the EMU usually advocated in the mainstream literature. It should be clarified at the same time, however, that the idea of the *wage standard* is not born out of nothing. It can be regarded as synthesis of the scarce currency clause – originally put forward by Keynes (1980) and then incorporated in a weakened form in the statue of the International Monetary

Fund<sup>10</sup> – and the "labour standard" clauses whose inclusion in international trade agreements has long been advocated by the International Labour Organization (ILO).<sup>11</sup> What is drawn from the former is the crucial Keynesian insight that crisis can only be averted and peace between the nations guaranteed if the burden of redressing the balance of trade is shifted from the shoulders of the debtor countries onto those of the creditor countries through an expansion of demand in the latter rather than a contraction in the former. The element drawn from the labour standard is instead the need to impose sanctions on the countries that fail to provide certain minimal conditions of protection for workers.

The *wage standard* also presents some innovations with respect to the clauses from which it draws inspiration. It differs from the scarce currency clause in that, with a view to safeguarding the European single market, it envisages pecuniary sanctions rather than restrictions on trade for countries failing to meet the set levels. With respect to the ILO labour standard, the *wage standard* does not focus on protection for labour but more specifically on wages. At the same time, unlike the ILO's proposal, the *wage standard* does not confine itself to setting a minimal level of protection in absolute terms but seeks rather to set a minimal growth for nominal wages and wage share in comparative terms with respect to the dynamics of the current account of the country in question. This characteristic has important consequences in that while the logic of the labour standard tends to impose sanctions to the less developed countries above all – and has often been criticised for this very reason – the *wage standard* can penalise the richer countries (especially those that persist in relative wage deflation even though they are in a position of strength characterised by a constant accumulation of trade surpluses).

Finally, there is one further characteristic of the *European wage standard* that should be taken into consideration. As we have seen, its purpose is to determine convergence at the European level as regards wage shares alone. It is not designed to make the real wage levels of the EMU member countries converge. It should be recalled in this connection that in the presence of divergent levels of labour productivity, any convergence of real wages would entail an automatically widening gap between the prevailing profit margins in each of the EMU member countries. This gap would ultimately accelerate the processes of capital centralisation and "mezzogiornification" of the EMU periphery (Krugman 1991; see also Brancaccio and Fontana 2011). The possibility of a convergence of real wages can therefore only be conceived within the framework of a different and far more ambitious regime of European economic and industrial policy aimed primarily at securing an alignment of labour productivity. In the absence of this, the objective of the convergence of wage shares envisaged by the *European wage standard* already appears quite demanding enough. The proposals for a setting a lower threshold for real wages, such as the initiatives for a European minimum wage, are instead a different matter (Schulten et al. 2006; Schulten 2010). There is no reason, however, to consider these proposals incompatible with the logic of the *wage standard*.

<sup>&</sup>lt;sup>10</sup> The phenomenon of "scarce currency" arises when countries build up systematic trade surpluses and have no need to print money in order to make international payments, so that their currency tends to circulate in limited amounts on the international markets. For the present-day relevance of Keynes's proposal, see Costabile (2007). Though greatly watered down in terms of its objectives, effectiveness and compulsory power, the clause was later adopted as no. VIII (now VII) of the Articles of Agreement of the newly-created International Monetary Fund.

<sup>&</sup>lt;sup>11</sup> The ILO seeks primarily to guarantee respect for the fundamental rights and principles of labour: freedom of association and effective recognition of the right of collective bargaining; elimination of any form of forced or obligatory labour; effective abolition of child labour; elimination of discrimination in employment and the professions (International Labour Organization 1998).

# 6. The wage standard and European economic policy

It should be made clear that the *wage standard* cannot be conceived as a "foreign body" to be inserted into an unchanged European institutional palimpsest. Its adoption would in fact have unavoidable consequences on the overall framework of EMU economic policy. In order to bring both into line, it would first be necessary to reform monetary policy by raising the ceiling on inflation, which is currently set at a maximum of two percent in the medium period.<sup>12</sup> Moreover, in order to avoid structural trade imbalances affecting the EMU as a whole, a more general "wage and labour standard" would have to be adopted in relations with non-EU countries.<sup>13</sup> Finally, it should be recalled that intra-European balance cannot be restored solely through action on wages but requires above all the adoption of adequate expansionary economic policies on the part of the countries with surpluses and indeed of the EU as a whole. The *wage standard* should therefore be seen as a small part of a broader approach to economic policy designed to jettison the logic of wage and social dumping and develop an "internal" driving force of European economic and social development.<sup>14</sup>

The *wage standard* ultimately constitutes a mechanism of coordination that implicitly calls the treaties now in force and the present European political and institutional system into question to a by no means negligible extent. So, what reasonable grounds are there for thinking that it could ever be implemented? Without going into the details of a problem that is essentially political, it may be interesting to note that the standard highlights a possible link between the general interest in European unity and the interests of European workers, be they German, Italian or Greek.<sup>15</sup> In point of fact, the standard appears capable at the same time of guaranteeing Europe a new and more balanced form of development and generating potential convergence of objectives among workers from different countries even in case of divergence in their respective labour productivities. This would be something completely new in a European scenario where labour negotiations have seldom gone beyond national borders and there has sometimes been open conflict between the workers of the different European countries. The standard would turn this scenario upside-down in a certain sense. For this reason, it does not appear in any way exaggerated to describe it as an unprecedented concrete and not merely rhetorical example of new internationalism of labour, a characteristic that may also account for the attention it has received in some political circles. The signs of interest do not of course make it reasonable to suppose that we are just a step away from a turning point in EU economic policy. On the

<sup>&</sup>lt;sup>12</sup> It is interesting to note that Guido Carli, formerly governor of the Bank of Italy and Ministry of the Treasury, used the term "monetary labour standard" for the particular political and institutional situation in which monetary policy becomes accommodating and is to some degree subordinated to the objective of fostering the growth of real wages and the wage share (Carli 1997). In line with a theoretical and political tradition that still prevails among the upper echelons of the central banks, Carli took a dim view of this and warned against any loss of control over the supply of money on the part of the central banker.

<sup>&</sup>lt;sup>13</sup> As regards countries outside the European Union, the standard could be defined in terms not only of wage trends with respect to productivity but also of the dynamics of other parameters, including the indicators of labour protection. The sanctions envisaged for such countries with trade surpluses failing to comply could also include restrictions on the freedom of circulation of capital and goods. It should be recalled in this connection that the scarce currency clause envisages a certain degree of protectionism as one of the possible forms of retaliation in the event of non-compliance.

<sup>&</sup>lt;sup>14</sup> See, among others, Arestis, McCauley, Sawyer (2001). See also www.letteradeglieconomisti.it/english.htm.

<sup>&</sup>lt;sup>15</sup> Workers in Germany, where the relative gap between productivity and wages has widened more than anywhere else in Europe over this period, could also be interested in the introduction of a wage standard. This is an important point and one that highlights the questionable nature of the claim made by Alesina and Perotti (2010) that no one in Germany would have any interest in supporting processes of convergence based on the adoption of policies of expansion on the part of countries with trade surpluses.

one hand, the attention to alternative tools of European political coordination appears still limited. On the other, there does not appear as yet to be any focus on the problem of trade imbalances.

Attention should be drawn, however, to the new development at the level of political awareness. The prolonged continuation of the crisis appears in fact to be accompanied by a growing realisation that European unity is threatened, among other things, by centrifugal forces that are widening the trade imbalances to potentially unsustainable levels. Any attempt to counter these forces by means of the customary *laissez-faire* prescriptions could have results opposite to those expected and do potentially irreparable damage.<sup>16</sup> Regardless of the survival of the present Eurozone, an alternative platform of economic policy is the only logical basis upon which the lost sense of unity can be regained.

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<sup>&</sup>lt;sup>16</sup> Just as there is a risk of results contrary to expectations being generated by the introduction of restrictions on the expansion of internal credit, a suggestion recently put forward by Giavazzi and Spaventa (2011) in their examination of two proposals put forward by the European Commission in September 2010. They regard the Commission's attempt to introduce sanctions for trade imbalances as "empty and useless" due to what they consider its excessively general and hence almost inapplicable character. This judgement appears questionable, however. The problem of defining a procedure to correct trade imbalances appears to be political rather than technical. The real limitation of the Commission's document lies instead in the fact that it continues the practice of requiring the debtor countries to shoulder the burden of the adjustment. In any case, the alternative put forward by Giavazzi and Spaventa is the introduction of restrictions on the expansion of the internal credit. While the credit boom has unquestionably had the effect of strongly accentuating the imbalances and instability of the European framework, a policy based solely on restrictions on lending would have recessionary effects of an anything but stabilising nature. The proposal of Giavazzi and Spaventa would therefore have to be accompanied at least by expansionary measures capable of balancing the macroeconomic effect of credit restrictions.

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## GROS'S TABLE:

(y) Soveraign spread (Feb 2011) (x) Current account in % of GDP (average 2007-2009)	$\mathbb{R}^2$
$y = 0.02x^2 - 0.19x + 0.67$	0.73

Source: Gros (2011)

#### Table 1: cross-country OLS regressions

Dependent variable	Spread 2002 1999-2001		Spread 2005 2002-2004		Spread 2008 2005-2007		Spread 2011 [1] 2008-2010	
Period of explanatory variable average								
current account/GDP	-0.011 [0.005]**		-0.028 [0.012]**		-0.014 [0.008]		-0.476 [0.094]***	
government deficit/GDP		-0.019 [0.011]		-0.055 [0.035]		-0.027 [0.024]		-0.579 [0.140]***
constant	0.165 [0.028]***	0.159 [0.031]***	0.008 [0.074]	-0.113 [0.103]	0.434 [0.060]***	0.413 [0.068]***	2.171 [0.617]***	-0.499 [1.061]
No. Observations R^2-adjusted	12 0.28	12 0.15	12 0.28	12 0.12	12 0.16	12 0.025	12 0.69	12 0.59

Source: Eurostat AMECO database. Note: The dependent variable is the average spread on long-term government bond yields, with respect to the yield on the correspondent German bond, in the specified year. The explanatory variables (current account balance and government fiscal balance) are expressed in percent of GDP and averaged over the period indicated the correspondent column. Standard errors are reported in squared brackets. The asterisks \*\*,\*\*\* indicate that the coefficient is significant at 5% and 1% level, respectively. The spread in 2011 refers to the average over the period January-September.

Dependent variable	Spread 2002 1999-2001		Spread 2005 2002-2004		Spread 2008 2005-2007		Spread 2011 [1] 2008-2010	
Period of explanatory variable								
average								
Public debt/GDP	0,002 [0.001]		0,008 [0.002]***		0,002 [0.002]		0,071 [0.032]	
IIP/GDP		-0,001 [0.001]		-0,005 [0.001]***		-0,001 [0.001]		-0,043 [0.012]***
constant	0,063 [0.09]	0,159 [0.037]***	-0,490 [0.145]***	-0,054 [0.05]	0,336 [0.152]	0,429 [0.068]***	-2,348 [2,512]	2,057 [0,797]**
No. Observations R^2-adjusted	10 0.09	10 0.01	12 0.52	12 0.69	12 0.04	12 0.01	12 0.26	12 0.5

#### Table 2: cross-country OLS regressions

Note: The dependent variable is the average spread on long-term government bond yields, with respect to the yield on the correspondent German bond, in the specified year. The explanatory variables (stock of public debt and IIP) are expressed in percent of GDP and averaged over the period indicated. Standard errors are reported in squared brackets. The asterisks \*\*,\*\*\* indicate that the coefficient is significant at 5% and 1% level, respectively. The spread in 2011 refers to the average over the period January-September. For the period 1999-2001 the test was performed on only 10 countries due to lack of data for Belgium and Luxemburg.