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Rethinking wage policy in the face of the Euro crisis. Implications of the wage-led demand regime

Engelbert Stockhammer[a]* and Özlem Onaran[b]

[a]*Kingston University, Penrhyn Road, Kingston upon Thames, Surrey KT1 2EE, UK;*
[b]*University of Westminster, Department of Economics and Quantitative Methods, London, NW1 5LS, UK*

Ten years after its introduction, the Euro is in an existential crisis. The crisis is the outcome of economic policies that have aimed at labour market flexibility and financial integration. This paper argues, firstly, that the aggregate demand regime in the Euro area is wage led. While an increase in wages (other things equal) does have a negative effect on investment and on net exports, it does have a positive effect on consumption. As the Euro area is a relatively closed economy, the consumption effect overpowers the investment effect and the export effect. Secondly, we argue that in the Euro area two growth models have emerged: a credit-led and an export-led model. These have given rise to the imbalances that are at the heart of the Euro crisis. Wage flexibility has proven insufficient to prevent these imbalances. Thirdly, we advocate a system of coordinated wage bargaining that aims at wages rising in line with productivity growth and a substantially upward-revised inflation target. If the project of European economic integration is to survive, it needs a drastic change in direction. An important building block of this redirection is a rethinking of the role of wage policy.

Keywords: Euro crisis; European integration; wage policy; Keynesian economics

JEL Classifications: E12, E20, E24, E42, E61

1. Introduction

The Euro system is in crisis. Greece, Ireland and Portugal face prohibitively high interest rates on private debt markets and have received large loans from the EFSF (European Financial Stability Facility). But even before the crisis the performance of the Euro area was disappointing, in particular for workers. Unemployment remained high in many countries and there had been a sharp decline in the wage share since the early 1980s. The EFSF loans came with the conditionality of stringent austerity packages. The conditions consist of various measures to decrease public deficits, but they notably also include a reduction in minimum wages (in the case of Ireland) and a weakening of collective bargaining (in the case of Greece). These measures are part of the dominant liberal theory of wages that regards labour market flexibility as an essential precondition for economic stability and prosperity.

For many years, the reduction of the wage share had been an implicit policy goal of the European Commission (EC). The *Broad Economic Policy Guidelines* included a passage stating that 'real wage developments should be *below* the increase in productivity' (EC 1995, 7; EC 1996, 5; EC 1997, 14; emphasis added). The most recent *Guidelines* recommend 'real wage increases in line with the underlying rate of productivity growth over the medium term,' but are clearly more worried about wage growth rising above trend productivity than falling below (EC 2005, 15). In analysing the effects of the crisis, the EC is praising the virtues of wage flexibility. Box II.1 in EC (2011) presents simulation results based the on the EC's QUEST model that indicate that the effects of the crisis would be short-lived if only labour markets were sufficiently flexible. There is no mention of the fact that the QUEST model, as other Dynamic Stochastic General Equilibrium (DSGE) models, had been unable to predict the crisis or that the crisis is inconsistent with the basic assumptions of DSGE models.

This paper argues that the belief in wage flexibility is mistaken. The EU's economic policy package that has pursued labour market flexibility as well as integration of financial markets has been unable to prevent the build-up of the disequilibria that have erupted in the present crisis. It has delivered three decades of declining wage shares without generating a sustainable growth model for the Euro area. Rather than more of the same medicine, we argue that the Euro area needs a fundamental rethinking of its economic policy. This paper discusses wage policy and advocates a system of European wage bargaining coordination that should aim at wages growing at least with productivity growth and the inflation target in the long term. In the medium term, it would have to ensure that German wages grow substantially faster than those of the Greece, Ireland, Portugal and Spain.

In the 1930s, Keynes argued that wage flexibility would not only be insufficient to generate full employment, it could generate economic instability. At the core of his argument was the insight that wages are source of economic demand. The positive single-firm employment effects of a wage cut don't carry over to the macro economy; a wage cut will typically reduce aggregate demand because of declines in consumption expenditures of workers. Moreover, nominal wage cuts would also lead to price deflation, which increases the real value of debt and, under the present conditions of a debt overhang, may destabilize the economy.

The contribution of this paper lies in its exposition and its tying together of some established arguments, which have been made by, among others, Arestis and Sawyer (2004), Bibow (2007), Hein and Truger (2005), Huffschmid (2005), Euro-Memo Group (2010), Flassbeck and Spiecker (2005), Kregel (2007), Onaran (2011a) and Stockhammer (2011b).

The present paper builds on these Keynesian insights and argues, firstly, that the aggregate demand regime in the Euro area is wage led. This is based on the empirical literature emerging from econometric estimations of post-Kaleckian models of distribution-led demand regimes. Secondly, we argue that in the Euro area two growth models have emerged: a credit-led and an export-led model. These have given rise to the imbalances that are at the heart of the Euro crisis. Wage flexibility has proven insufficient to prevent these imbalances. Thirdly, we advocate a system of coordinated wage bargaining that aims at wages rising in line with productivity growth and (a substantially upward-revised) inflation target.

The paper is structured as follows. Section 2 establishes some stylized facts regarding income distribution, unemployment and current account positions in the

Euro area. Section 3 presents results from the post-Kaleckian literature on the nature of the demand regime in Europe. Section 4 presents evidence for the emergence of export-led and of credit-led growth models. Section 5 outlines a proposal for wage bargaining and Section 6 concludes.

2. Stylized facts on distribution, unemployment and current account positions

The most striking two stylized facts in the Euro area have been the secular decline in wage shares along with a disappointing economic performance. As of 2007, the last year before the crisis, the wage share (adjusted[1]) in the Euro area has fallen by 10.5 percentage points since 1981; however there has been no substantial improvement or even a deterioration in economic performance, as can be seen in Figures 1 and 2. Growth rates (of real GDP) remain well below those of the 1960s and 1970s. Contrary to the expectations of mainstream economists, the unemployment rate in the Euro-area has also increased by 1.9 percentage points as of 2007 compared with 1979, despite an almost continuous decline in real unit labour costs.[2] The crisis has led to a further increase of 2.5 percentage points as of 2010. Section 3 below discusses the reasons behind this disappointing economic performance based on empirical findings about the demand regime in the Euro area, i.e. the effects of a pro-capital redistribution of income on aggregate demand.

While the overall economic performance of the Euro area has been disappointing, there has been a marked divergence across its member states. Figure 3 plots the growth of nominal unit labour costs[3] (ULC) since 2000 for Germany, Greece, Ireland, Portugal, Spain and Italy. Using 2000 as the base year is somewhat arbitrary, but it is a useful benchmark as, in 2000, Germany's current account was approximately balanced. In 2010, ULC in Germany were at 105.6 whereas they were at 137 for Greece, 126.5 for Ireland, 126.4 for Portugal, 130.2 for Spain and 133 for Italy. This is equivalent to a 20–30% real devaluation in Germany vis-à-vis the Mediterranean countries.
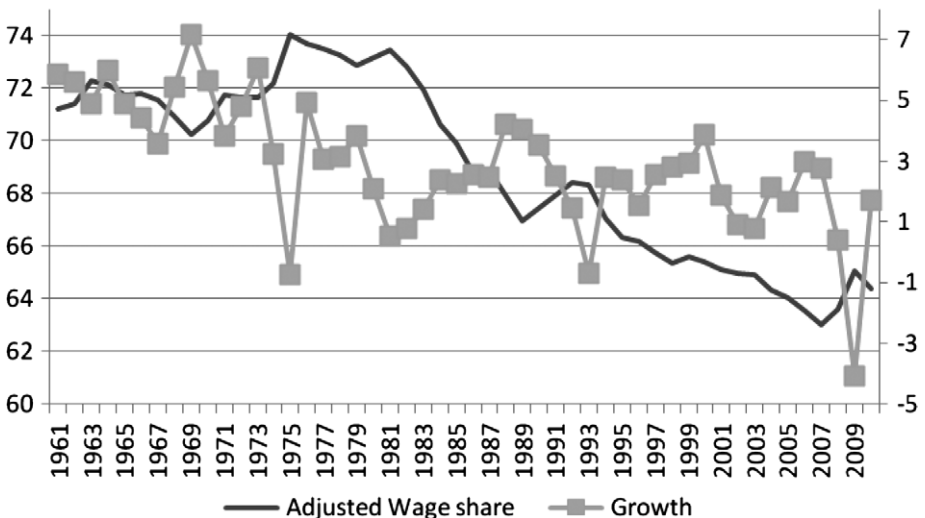

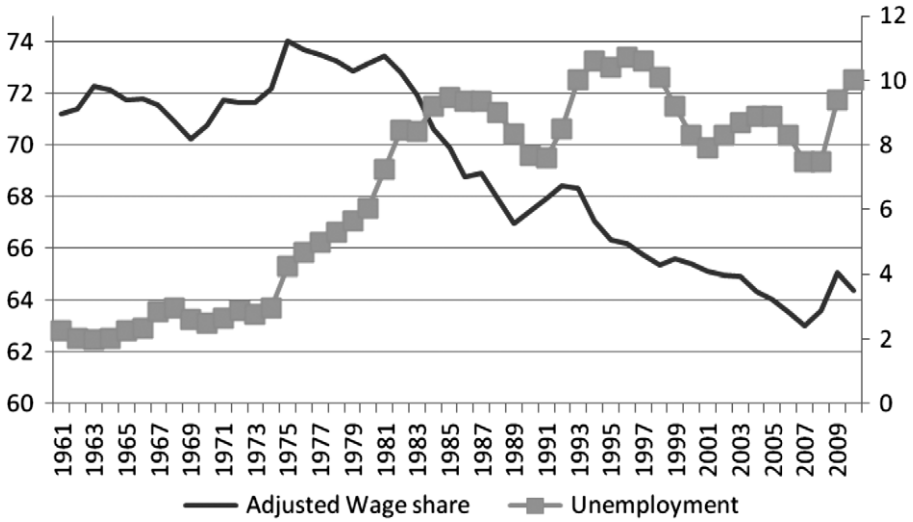Figure 1.   Adjusted wage share and GDP growth.

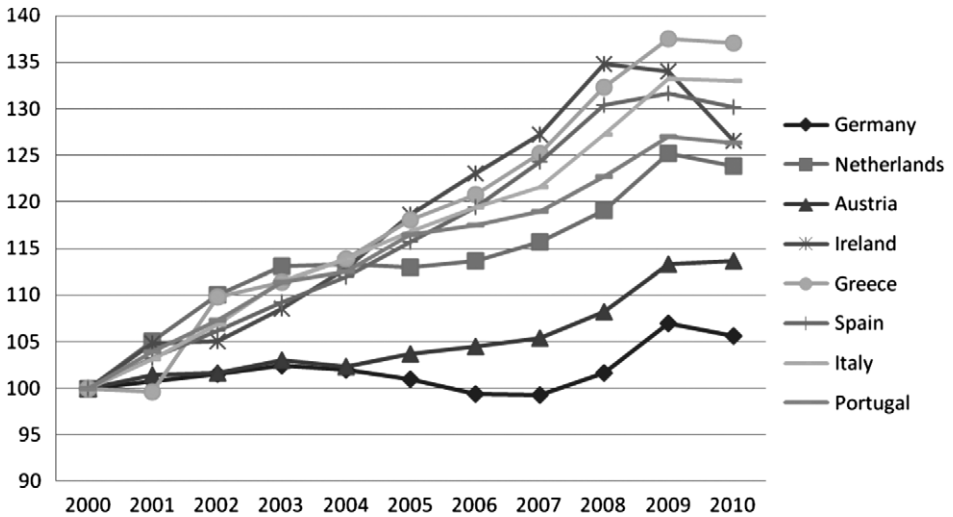Figure 2.   Adjusted wage share and unemployment.

Figure 3.   Unit labour costs in the Euro area.

Unsurprisingly this has resulted in substantial current account disequilibria. Germany had a current account surplus of 7.9% of GDP in 2007, just before the crisis, whereas Greece, Ireland, Portugal, Spain and Italy had deficits of 14.5%, 5.3%, 9.4%, 10% and 2.4% respectively.

3.   The nature of the demand regime in Europe

The stylized facts in Section 2 indicate that wage moderation, as reflected by falling unit labour costs, has failed to improve growth and employment. Mainstream economics focuses only on the role of wages as a cost item; however, wages have a

dual role as a source of demand as well. Wage moderation will, other things being equal, improve competitiveness and therefore ultimately net exports; it may also have a positive effect on investment due to increased profitability. However, it will certainly suppress domestic consumption, since the marginal propensity to consume out of wages is higher than that out of profits. Thus, in order to assess the effects of wage moderation it is necessary to address the effects on all three components of private demand.

This analysis is inspired by the work of Keynes and Kalecki, which has been formally modelled by Rowthorn (1981), Dutt (1984), Taylor (1985), Blecker (1989), and extended by Bhaduri and Marglin (1990). These Post-Kaleckian macro models allow for wage-led as well as for profit-led demand regimes according to the relative size of the consumption differential, the sensitivity of investment to profits and the sensitivity of net exports to unit labour costs. The question of whether the positive effect of wages on consumption or the negative effect on investment is larger, becomes an empirical one. In an open economy, additional negative effects will operate through net exports.

In a general formulation of these models, consumption (C), investment (I) and net exports (NX) can be written as a function of income (Y), the profit share (π), and some other control variables (z) such as interest rates or exchange rates, which are assumed to be exogenous. Consumption is expected to decrease when the profit share rises, since the Kaleckian assumption is that the marginal propensity to save is higher for capital incomes than for wage income. For a given level of income, investment is expected to increase when the profit share rises because of higher expected future profitability as well as the availability of internal funds. Exports and imports depend on relative prices, which in turn are functions of unit labour costs for given exogenously determined import prices. Unit labour costs are real unit labour costs multiplied by the price deflator, and thereby are closely related to the wage share (which is [1–the profit share]). Government expenditures (G) are considered a function of output (because of automatic stabilizers) and exogenous variables. Thus, aggregate demand is:

$$Y = C(Y, \pi) + I(Y, \pi, z_I) + NX(Y, \pi, z_{NX}) + G(Y, z_G) \tag{1}$$

Differentiating Y with respect to π and collecting terms gives

$$\frac{dY^*}{d\pi} = \frac{\left(\frac{\partial C}{\partial \pi} + \frac{\partial I}{\partial \pi} + \frac{\partial NX}{\partial \pi}\right)}{1 - \left(\frac{\partial C}{\partial Y} + \frac{\partial I}{\partial Y} + \frac{\partial NX}{\partial Y} + \frac{\partial G}{\partial Y}\right)} \tag{2}$$

The term $1/\left(1 - \left(\frac{\partial C}{\partial Y} + \frac{\partial I}{\partial Y} + \frac{\partial NX}{\partial Y} + \frac{\partial G}{\partial Y}\right)\right)$ in equation (2) is a standard multiplier and is expected to be positive for stability. The sign of the effect of π on Y will therefore depend on the sign of the numerator, which is the sum of the partial derivatives of the components of aggregate demand with respect to the profit share. This sum is the change in private demand in response to a change in income distribution at a certain level of income. It is expected that $\partial C/\partial \pi < 0$, $\partial I/\partial \pi > 0$, and $\partial NX/\partial \pi > 0$. If the differentials in marginal propensity to consume between wages and profits are relatively large, but the responsiveness of investment to profitability and exports and imports to relative price changes are low, then the total effect of the increase in the profit share on aggregate demand would be negative ($\partial Y^*/\partial \pi < 0$), and the demand regime is called *wage-led*. If the effect is positive ($\partial Y^*/\partial \pi > 0$), it is called *profit-led*.

Empirically, the effect of profit share on GDP via the international trade channel depends not just on the elasticity of exports and imports to prices but also the degree of openness of the economy, i.e. on the share of exports and imports in GDP. Thus, in relatively small open economies net exports may play a major role in determining the overall outcome; the effect becomes much lower in relatively closed large economies. This has two interesting policy implications: first, even when individual countries in an economic area like the Euro area may be profit-led or weakly wage-led (in cases where positive and negative effects are almost offsetting each other) due to high trade effects, the situation for the Euro area as a whole is different. Its degree of openness is much smaller than the average of the openness of its member states, because most of the trade of the member states is within the Euro area. In the Euro area, extra-EU exports and imports (of goods) account for only 11.6% and 12.9% of GDP respectively (in 2007 at current prices). Thus, wage moderation in the EU as a whole is likely to have only moderate effects on foreign trade but substantial effects on domestic demand. The domestic sector in this case is defined with respect to consumption and investment only. If consumption reacts more sensitively to an increase in the wage share than does investment, domestic demand will be wage-led. The total effects will only be moderately lower than domestic effects, with relatively low effects via net exports in a large economy.

Secondly, if wages were to change simultaneously in all countries, the net export position of each country would change little because extra-Euro area trade is comparatively small. Thus, when all Euro area countries pursue 'beggar thy neighbour' policies, the international competitiveness effects will be minor, and the domestic effects will dominate the outcome.

Table 1 reports the effects of a 1%-point increase in the profit share on the components of aggregate demand based on Onaran and Galanis (2011) estimations for the period of 1960–2007, which update the results of Stockhammer, Onaran, and Ederer (2009) and uses the adjusted wage share instead of unadjusted wage share. Consumption decreases by 0.44 percentage points of GDP, reflecting the differences in marginal propensity to consume out of wages and profits. Investment increases by 0.3 percentage points of GDP. Thus, domestic private demand contracts by 0.16 percentage points of GDP. Exports are price elastic, and the indirect effect of an increase in the profit share on export demand (via its effects on ULC and export prices) is an increase of 0.06 percentage points of GDP. There is no significant effect on imports. Adding the net export effects on domestic demand reveals that total private demand is still strongly wage-led, and a 1 percentage point increase in the profit share leads to a 0.08 percentage point decrease in aggregate demand.

Table 1.   The effects of a 1 percentage point increase in the profit share on private demand in the Euro (12) area, 1960–2007.

Consumption	−0.44	
Private Investment	0.30	
Total domestic demand (Consumption + Private Investment)		*−0.16*
Exports	0.06	
Imports	0.00	
Net Exports (Exports-Imports)		*0.06*
Aggregate demand (Consumption + Private Investment + Net exports)	−0.08	

Source: Onaran and Galanis (2011).

The results summarized above are consistent with the findings for individual countries of the Euro area, which mostly conclude that domestic demand is wage-led.[4] Regarding the aggregate private demand, the addition of the foreign demand does not reverse the results in most of the countries.[5] It is usually small open economies, such as the Netherlands and Austria, which have profit-led aggregate demand regimes.[6]

Overall the results clearly point at one policy implication: if countries, which have strong trade relations with each other are considered as an aggregate economic area, such as the Euro area, the private demand regime is wage-led. Similarly, the world economy at large should be wage-led, given that the foreign trade effects do not exist. To reformulate this finding from a negative viewpoint: a simultaneous wage cut in highly integrated countries leaves them with only negative domestic demand effects.

4.   Export-led and credit-led growth in Europe

European Monetary and Economic Unification has not only resulted in disappointing overall performance, but it also led to increasing divergence within the Euro area member states. While there was has been a convergence in inflation rates, in the sense that inflation rates came down in all countries, the countries that had low inflation prior to the Euro also had lower inflation rates afterwards. This has led to the increasing divergence of unit labour costs (Figure 3) and resulted in sizable current account disequilibria across the Euro area. These disequilibria are mostly due to imbalances within the Euro area. Roughly speaking, two thirds of the external trade of Euro member states is within the Euro area (according to the OECD's STAN Bilateral Trade Data).

Current account deficits have to correspond to capital inflows. This means that the Mediterranean countries have experienced massive capital inflows for more than a decade. Indeed, the European Commission has encouraged the integration of capital markets within the Euro area and thereby also encouraged capital flows. Consequently, external assets have been built up in the trade surplus countries, most of all Germany, and external liabilities have been accumulated in the trade deficit countries. The sectors that have accumulated debt have differed by country. In Greece it was mostly the government sector that accumulated debt, in Ireland, Portugal, and Spain it was rather the private sector, and in particular the household sector (Lapavitsas et al. 2010a, 2010b).

At the risk of oversimplifying actual developments, one can characterize the dynamics as one where two growth regimes have emerged (Stockhammer 2011b): in the first group of countries, growth has been driven by increasing debt; this usually came with asset and/or property price bubbles. Typically, these countries had current account deficits and capital inflows. In a second group of countries, net exports have provided the main driving force for demand. The extreme case of this is Germany, where since 2000 around three quarters of GDP growth has been driven by net exports (not counting indirect effects via induced-export investment).

The differences between countries with predominantly export-led and credit-led growth models are clearly reflected in data. Germany and Austria had substantial current account surplus, whereas Greece, Ireland, Portugal and Spain have substantial deficits. Private household debt, on the other hand increased much faster in the Mediterranean countries than in the Euro core, as can be seen in Table 2. From

Table 2.   Increase household debt (in percentage of GDP), 2000–2008.

Germany	−11.34	Ireland	62.72
Netherlands	32.83	Greece	35.46
Austria	7.91	Spain	33.84
		Italy	18.32
		Portugal	27.38

Source: Eurostat: Financial Flows and Stocks by Sector; Ireland starts 2001 instead of 2000.

2000 to 2008, household debt increased by 61.7, 21.3, and 32.5 percentage points in Ireland, Portugal and Spain, respectively, but it shrank in Germany by 11.3 percentage points and it grew by 7.2 percentage points in Austria.

5.   Rebalancing and wage coordination

Any viable economic policy strategy for the Euro area will need to rebalance the current account positions. How much rebalancing is required? ULCs have increased by 25–30% faster in Greece, Ireland and Portugal than in Germany, since 2000. To return to the relative ULC positions of 2000 would require an inflation rate in Germany that is 2–3 percentage points higher than in the Greece, Ireland and Portugal for a full decade. There are two ways to achieve this adjustment within a currency union (or, of course, some combination of the two): First, Greece, Ireland and Portugal could (try to) lower their inflation rates well below German ones. As Germany has had, for practical purposes, flat ULC in the last decade, this would imply nominal wage deflation in these countries for a full decade. This could be called the 'deflationary rebalancing' strategy and could only be achieved by a period of sustained high unemployment in the deficit countries. It would effectively require a Japanese-style lost decade of deflation and stagnation for the peripheral European countries. It would also make reducing debt (be it private or public) more difficult as the real value of debt would increase in this scenario. The economic costs of such a strategy would be enormous. Instead of economic growth and a convergence of living standards (as EC 1990 had envisioned), the Euro area would become a club where the poorest members are condemned to stagnation and to further falling behind. The political implications of such a scenario are impossible to predict, but it does not require excessive fantasy to conclude that EU membership under these conditions will be questioned.

The second way to achieve this rebalancing is for German ULC to rise substantially. If Greece, Ireland and Portugal were to maintain moderate growth rates that result in moderate inflation of, say 2% per annum, this would require inflation in Germany of 4–5%. We can call this *inflationary rebalancing*. This strategy would be consistent with growth, but it would come with a higher overall level of inflation. This would be inconsistent with the present inflation target of the ECB. Depending on exchange rate movements, it would probably have only small negative effects on overall EU exports, but it may be politically contentious. Higher inflation may be unpopular in Germany. However, the main alternative seems to be permanent fiscal transfers from Germany to the Greece, Ireland and Portugal, which would be even more unpopular.

In the medium term, rebalancing thus requires substantially higher wage growth in Germany if it is to come without a decade of stagnation in the periphery of Europe. It will also require a higher inflation target for the Euro area. In the longer

term, the macroeconomic role of wages has to be taken into account in the design of economic policy and economic institutions in Europe. To be consistent with a stable distribution income and with balanced internal current account positions, wages would have to grow in line with productivity growth (in the country) and with inflation.

A simple wage rule that approximates this aim is

$$w_j = x_j + p^T + a(ULC_{EU} - ULC_j)$$

where w, x, p^T, and ULC denote nominal wage growth, labour productivity growth, the inflation target, and unit labour costs respectively, and subscripts EU and j refer to the EU and to country j. The inflation target would have to be set such as to avoid deflation in all countries. Note that there is no role for unemployment in this wage equation. In this sense, the wage rule is inconsistent with wage flexibility in the standard sense. Rather it recognises the macroeconomic role of wages.

This wage equation is not to be understood as a technocratic rule (like the Taylor rule), but as a policy goal. The question is how a set of institutions can be built that allows wages to become a policy instrument. European wage policy thus faces a double challenge. On the one hand it has to solve the prisoners' dilemma situation, where individual countries pursue beggar thy neighbour policies by encouraging wage moderation. On the other hand, it has to ensure that relative wages respond to trade imbalances. This requires strengthening collective bargaining systems, while at the same time building wage bargaining into a broader set of macroeconomic consideration.

We suggest a system of coordinated national collective bargaining where social partners are also part of tripartite commissions that decide on fiscal and monetary policy. This would require institution building at the national as well as the European level and would effectively try to replicate labour relations systems of the Germanic or Nordic type at the national level, and institution building at the European level. As unions would have to give up part of their ability to influence wages, they would have to be compensated by getting a greater say in other policy areas, that is, in fiscal policy and, ultimately, in monetary policy. Simply put, the above wage equation will not be attractive to unions unless they get a say in the determination of the inflation target and unless the European Commission is committed to full employment rather than labour market flexibility (see Hein et al. 2004 for an interesting discussion of macroeconomic policy coordination).

Three points of clarifications are in place. First, our approach would thus require a very different overall economic policy regime in the EU than the present one. Indeed, any deviation in the role of wage policy will require a rethinking of the entire economic policy mix in the EU because wage flexibility is such a crucial part of the current policy regime: as exchange rates are frozen internally, monetary policy is centralized and the room for manoeuvre for fiscal policy is narrowly circumscribed, wages are the only variable that can adjust in the face of asymmetric shocks (Stockhammer 2011a).

Second, our suggestion requires institution building at the national and even more so at the European level. Wage bargaining institutions are, at present, almost exclusively national, sectoral or firm level (Visser 2004). Experience of transnational wage bargaining coordination is limited (Schulten 2004). However, at least in our view, given that if Europe wants to maintain its monetary union, a deepening of integration has to take place.

Third, the wage equation, by design, guarantees a stable wage share. It has nothing to say about the level at which the wage share should be stabilized. This is up to the political process. In particular, the wage equation is consistent with government policies to increase the wage, e.g. by introducing or increasing minimum wages.

Fourth, we consider European wage coordination and inflationary rebalancing a necessary condition for the survival of the Euro. It is not clear whether it would be sufficient. This is not the place to evaluate the merits of debt restructuring. Instead, we merely note that given the debt levels of Greece, Portugal and Ireland, it is has been argued that debt restructuring is unavoidable. As is most apparent in the case of Ireland it is also questionable whether socializing private debt is socially desirable (Eichengreen 2010).

6.   Conclusion

Ten years after its introduction, the Euro is in an existential crisis. The crisis is the outcome of economic policies that have aimed at labour market flexibility and financial integration. Even before the crisis, the outcomes of this approach have been disappointing. Growth has been mediocre and unemployment has remained high in many countries, with workers suffering from an income distribution that has shifted decisively in favour of capital. The liberal policy regime has delivered neither a stable distribution, nor growth, nor stability. Rather than real convergence, the outcome has been the emergence of credit-led growth (in the periphery) and of export-led growth (in the core). Neither of the two growth models is viable in the long run.

If the project of European economic integration is to survive, it needs a drastic change in direction. An important building block of this redirection is a rethinking of the role of wage policy. Contrary to the expectation of much of conventional economics, the fall in the wage share has not translated into substantial increases in employment nor in an increase in growth. One reason for this is that aggregate demand in the Euro area is wage led. While an increase in wages (other things equal) has a negative effect on investment and on net exports, it has a positive effect on consumption. As the Euro area is a relatively closed economy the consumption effect is likely to overpower the investment effect and the export effect. However, demand in individual countries, most of which are small open economies, is often profit led. There is thus a prisoners' dilemma situation where individual countries can stimulate demand by wage moderation, but once all countries pursue wage moderation, the overall effect on demand is negative.

A redesigning of the economic policy regime of the Euro area should aim at strengthening collective bargaining institutions at the national level and coordinating them at the European level. Wage bargainers should incorporate balance of payments considerations in the wage negotiations and should, in the form of tri-partite meetings, be involved in fiscal and monetary policy.

Notes

1. Adjusted wage share attributes the average wage rate to the self-employed; thus it is equal to labour compensation per employee × total employment/GDP at factor costs (source: AMECO).
2. Real unit labour costs are calculated as the adjusted labour compensation as a ratio to GDP at market prices (as opposed to GDP at factor costs; the two measures are 99% correlated).
3. Nominal unit labour costs are calculated as the real unit labour cost multiplied by the price deflator.
4. See Onaran and Galanis (2011) for Germany, France, Italy; Stockhammer and Stehrer (2011) for Germany, Finland, France, Luxemburg, Netherlands, Sweden, Ireland; Naastepad and Storm (2007) for Germany, France, Italy, Netherlands, Spain; Hein and Vogel (2008) for Germany, France, Austria, Netherlands; Bowles and Boyer (1995) for Germany and France; Stockhammer, Hein, and Grafl (2011) for Germany; Ederer and Stockhammer (2007) for France; Stockhammer and Ederer (2008) for Austria.
5. Onaran and Galanis (2011) for Germany, France, Italy; Naastepad and Storm (2007) for Germany, France, Italy, Netherlands, Spain; Stockhammer, Hein, and Grafl (2011) for Germany; Hein and Vogel (2008) for Germany and France. Using a structural VAR methodology, Stockhammer and Onaran (2004) find that the total effect of distribution on aggregate demand in France is insignificant. Bowles and Boyer (1995) find profit-led regimes in Germany and France, but their results suffer from econometric problems such as unit root issues; they do not apply difference or error correction models. In addition, outside the Euro area. both the US (Onaran Stockhammer and Grafl 2011; Onaran and Galanis 2011; Hein and Vogel 2008; Bowles and Boyer 1995) and the UK (Onaran and Galanis 2011; Hein and Vogel 2008; Naastepad and Storm 2007; Bowles and Boyer 1995) are found to have wage-led aggregate demand regimes. Naastepad and Storm (2007) is the only study that finds a profit-led demand regime in the US; however, this is due to a perverse domestically profit-led demand regime.
6. See Hein and Vogel (2008) for Austria and Netherlands; Stockhammer and Ederer (2008) for Austria.

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