# Deflation risks in Germany and the EMU: the role of wages and wage bargaining[*]

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## Abstract

Based on a post-Keynesian approach concerning the relationship between wages, prices and employment, this paper begins by studying the extent to which unit labour cost trends have been responsible for disinflation and deflationary tendencies in Germany and the European Monetary Union (EMU). Thereafter, the reasons for the disinflationary development of unit labour costs in recent years, in particular in Germany, are analysed. Finally, the impact of too moderate wage policies on German and European stagnation are discussed and it is concluded that the excessive wage restraint in Germany not only exacerbates stagnation and deflationary tendencies in Germany but might also mean deflationary risks for the other EMU countries.



JEL classification: E31, E50

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## 1. Introduction

In late 2003 the deflationary dangers in Germany could hardly be denied. The GDP deflator for Germany rose by 1.0% in 2003 and the forecast rise for 2004 was 0.8%. Meanwhile, the consumer price index rose by 0.9% in 2003 and was forecast to rise by 1.2% in 2004 (Institute 2003). These figures mean that inflation in Germany has in principle already reached the level considered by the European Central Bank (ECB) to be the minimum safety margin against deflation in its reformulated monetary policy strategy for the whole of the European Monetary Union (EMU) (ECB 2003). A further fall in inflation would therefore significantly increase the danger of deflation and a cumulative deflationary spiral. In its April 2003 Task Force Report, the IMF named Germany alongside Japan, Taiwan and Hong Kong as one of the economies most at risk from deflation worldwide (IMF 2003).[1]

Not least because of Japan's experiences in the 1990s, there is currently a broad consensus among economists that once a deflationary spiral is underway it has very negative consequences for growth and employment and is extremely difficult to stop. The causes of deflationary processes can be found both on the supply side and the demand side (IMF 2003). However, while the price falls resulting from positive supply shocks (such as innovations that boost productivity) are usually associated with an increase in economic activity, deflationary processes caused by negative demand shocks go hand in hand with an overall fall in economic activity. The real

[1] The report defined deflation as a sustained fall in the consumer price index or GDP deflator. The common technical definition of deflation as a fall over the course of two consecutive quarters was not considered to be sufficient (IMF 2003: 6).

problem posed by deflation thus results from a combination of falling demand and output with falling prices. This leads to an expectation of further price cuts, an increase in the value of real debts, falling share prices and stricter lending policies on the part of commercial banks and financial intermediaries, all of which ultimately may cause debtors to become insolvent and go bankrupt. Owing to the risk of cumulative effects, there is also a broad consensus that economic policy should take timely and decisive steps to combat deflation, ideally as soon as the first signs of it emerge. This is particularly important because as the nominal interest rate heads towards zero, less and less can be achieved by monetary policy.[2]

However, there is a clear lack of consensus among economists with regard to which instruments should be used to tackle (incipient) deflation. While (post-)Keynesian authors have always stressed the key role of wages policy as the nominal anchor for combating both inflationary and deflationary tendencies, wages policy as an instrument in mainstream new-Keynesian thinking is either non-existent or at best allocated a highly ambivalent and ultimately contradictory role.

For example, the IMF (2003) study ranks the key indicators of deflation risks as follows: 1. consumer and producer prices, 2. overcapacity and output gaps, 3. share prices and property prices, and 4. credit and money aggregates. Wages or unit labour cost trends are not explicitly mentioned at all. This is hardly surprising, since at times of *sustained* demand-led deflation, rigid nominal wages are considered to be an additional destabilising factor that can lead to an increase in real wages and a fall in

[2] For a contrasting position on the powerlessness of monetary policy to combat deflation, see for example Buiter (2003).

employment and should therefore be avoided, according to the IMF. On the other hand, during *temporary* demand shocks, rigid nominal wages are considered to be a tried and tested means of preventing price cut expectations and their associated deflationary consequences from arising in the first place. However, the point at which a *temporary* shock becomes a *sustained* shock requiring nominal wages to be lowered is by no means clear, nor is it evident how lowering nominal wages can halt and reverse a deflationary process as described above once it is already underway.

Similar inconsistencies with regard to the relationship between nominal wage rigidity, low inflation or deflation and employment are to be found in a number of standard works on the problems of low inflation and deflation. For example, Akerlof/Dickens/Perry (1996) show that because of employees' perceptions of what is fair and morally right, nominal wage rigidities are inevitable, irrespective of what the existing labour market institutions are. In their view, when inflation is low and demand is falling these rigidities act as an obstacle to the necessary downward adjustment of real wages, thereby destabilising the whole economy.[3] At the same time, however, they also view downward nominal wage rigidities as a means of braking cumulative deflationary processes and consequently as something that promotes overall economic stability! Also Bernanke (1995) blames insufficient downward nominal wage flexibility together with debt deflation for the severity of the Great Depression starting in 1929 which was characterised by major deflationary processes without even acknowledging that downward nominal wage rigidity might have stopped deflation. Finally, in an otherwise highly informative study for the

[3] Consequently, monetary policy should aim for a positive inflation rate, albeit a low one, rather than zero inflation.

Board of Governors of the US Federal Reserve System on the ultimate failure of Japan's economic policy measures to prevent deflation in the 1990s, Ahearne et al. (2002) make no mention whatsoever of wage trends or wages policy.

In contrast to these predominantly new-Keynesian analyses, more recent studies of deflation risks in Germany have pointed to the destabilising effect of German wages policy (Flassbeck/Maier-Rigaud 2003, Kromphardt 2003).[4] According to this approach, a policy of excessive wage restraint has led to low increases in unit labour costs and consequently to low inflation. To place wage trends at the core of the analysis of deflation risks is to follow the line of reasoning outlined by Keynes (1936: 257-271) in his *General Theory*, and at present it is only post-Keynesian authors who continue to take this approach to its ultimate conclusion. In contrast to the predominantly new-Keynesian studies alluded to above, Keynes and post-Keynesian theory view rigid nominal wages and stable unit labour costs as the indispensable basis for price stability in a monetary production economy. Consequently, rather than disturbing the market system and threatening to prevent it from functioning optimally, rigid nominal wages resulting from trade union wages policy or statutory minimum wages are in actual fact considered to be a requirement for the functioning of capitalist monetary economies. This is because to remove the wage anchor is to remove the last barrier against cumulative and disruptive deflationary processes. Of course, in the post-Keynesian view the wage anchor also prevents cumulative inflationary processes.

[4] While the Bundesbank (2003) does not believe that Germany is experiencing deflation risks, it nevertheless includes unit labour cost trends in its considerations.

This paper will follow Keynes's or the post-Keynesian line of reasoning in order to demonstrate that wages policy especially in Germany but also in the rest of the EMU is in danger not to fulfil its stabilising role and that wage trends are causing deflationary risks. The second section will summarise the key theoretical links between wages, prices and employment from Keynes's and the post-Keynesian perspective. The third section will present an empirical study of the relationship between unit labour cost trends and inflation in Germany and the EMU, and this will be followed in the fourth section by an analysis of the causes of the observed unit labour cost trends. The final section will discuss the macroeconomic risks arising from the current wages policy in the context of the EMU's monetary and fiscal policies.

## 2. Wages, prices and employment

The post-Keynesian approach to analysing prices and employment that underpins this paper differs fundamentally from mainstream thinking. In the neoclassical, neoclassical synthesis, monetarist and new classical models, Say's Law and the classical dichotomy between the real and the monetary sphere apply in the long term (and also in the short term in new classical models) (Snowdon/Vane/Wynarczyk 1994). Nominal wage settlements in the labour market affect real wages and hence determine employment and output levels. Price levels are determined by the money supply, which is controlled by the central bank, and inflation and deflation are purely monetary phenomena attributable to the central bank's monetary policy.

The new-Keynesian models (Snowdon/Vane/Wynarcyk 1994), and in particular the 'new consensus models' (Arestis/Sawyer 2003, Clarida/Gali/Gertler 1999, Meyer 2001), do abandon the assumption that the central bank can control the money supply. More realistically, it is assumed that for a credit money economy the action parameter of monetary policy is the money interest rate.[5] Monetary policies may have a short term real effect on output and employment. In the long term, however, unemployment is determined by the NAIRU (Non Accelerating Inflation Rate of Unemployment) which itself depends on structural factors of the labour market, wage bargaining and social security system. As such, the NAIRU describes the unemployment rate at which, in imperfect labour and commodity markets, the distribution claims by employees and employers do not result in any increase or decrease in the inflation rate. When unemployment falls below the NAIRU, inflation always rises, and when unemployment climbs above the NAIRU the result is disinflation and deflation. By resorting to the interest-rate tool, monetary policy is always able to stop both cumulative inflationary and deflationary processes and to bring about a stable inflation rate, according to this view.

The post-Keynesian approach presented in this paper has for several decades already been arguing the case for the endogeneity of money in a modern credit money economy as recently 'discovered' by the new-Keynesian consensus models (Kaldor

[5] At the simplest level, the 'new consensus models' are based on three equations: an aggregate demand function derived from optimisation calculations of consumers and businesses, which describes the output gap as an inverse function of the real interest rate, a Phillips curve in which the inflation rate has a positive correlation with the output gap, and a central bank reaction function, which relates the nominal interest rate set by the central bank to the equilibrium real interest rate, the output gap and the deviation of inflation from the inflation target (Taylor rule).

1970, 1982, 1985, Lavoie 1984, 1992: 149-216, 1996, Moore 1988, 1989): The central bank's control instrument in a credit money economy is the key interest rate, and the money supply arises endogenously through commercial banks supplying creditworthy credit demand at a given rate of interest and the central bank accommodating the required cash. In such a model, the price level and hence inflation or deflation cannot be determined by the quantity of money supply. In an imperfect commodity market scenario, the price level is instead the result of mark-up pricing on unit costs.

Post-Keynesian research has put forward various theories with regard to the underlying unit costs (full costs or variable costs) and the factors determining the mark-up (competition, internal finance requirements, interest rate).[6] One simple version of this approach, which draws on the work of Kalecki (1954: 11-27), suggests that businesses in the industrial sector of a closed economy set their prices by charging a mark-up on unit labour costs, which are taken to be constant until full capacity output (Hein 2004: 178-187). The size of the mark-up is determined on the one hand by the level of price competition on the commodity markets and on the other by the extent to which the trade unions are able to achieve significant nominal wage increases when profit levels are high. If the size of the mark-up is fixed, then it is unit labour costs that determine price levels.

[6] See, among others, Eichner (1976), Wood (1975), Harcourt/Kenyon (1976), Sylos-Labini (1969, 1979). For surveys of post-Keynesian price theories see: Lavoie (1992: 129-148, 2001) and Lee (1998, 2003).

Cumulative inflationary processes come about if the trade unions attempt to increase employees' share of the national product by negotiating nominal wage increases that exceed the neutral scope for distribution given by the sum of productivity growth and inflation, and when businesses are able to pass these increased unit costs on to consumers by raising prices. However, upward pressure on inflation also arises when businesses attempt to increase their mark-ups[7] or when the bargaining parties fail to foresee a fall in productivity growth.

Disinflation or deflation arise if wages policy is either unwilling or unable to make full use of the growth in productivity plus inflation. Nominal wage growth will now be affected by the employment or unemployment rate, in particular, and also by the degree of wage bargaining co-ordination with a higher degree of coordination being conducive to stable unit labour costs in the face of upward but also downward movements in employment.[8] In post-Keynesian models, the employment rate depends in both the short and long term on effective demand for goods, which is governed mainly by private investment, the level of which is in turn determined by the ratio of the expected profit rate to the monetary interest rate. In contrast to the new-Keynesian 'new consensus models', the post-Keynesian approach sees no reason to assume that the unemployment rate determined by the commodity market will adjust to the

[7] One cause of this can be a monetary policy decision to raise interest rates. This leaves businesses facing higher interest costs, which they attempt to pass on by increasing their mark-ups (Hein 2004a).

[8] See Hein (2002, 2004a) for an attempt to integrate wage bargaining institutions into a post-Keynesian model of wages, employment and inflation. This attempt relies on the work of institutional political economists deriving the beneficial effects of effective wage bargaining coordination on macroeconomic performance, in particular in interaction with independent central banks (Soskice 1990, Hall/Franzese 1998, Franzese 2001, 2001a, Kittel/Traxler 2001, Hein 2002a).

NAIRU (Sawyer 2001, 2002). On the contrary, the post-Keynesian model implies that at best the NAIRU constitutes a short-term employment barrier enforced by monetary policy. But if unemployment exceeds the NAIRU, there is no guarantee that expansive monetary policies are sufficient to stimulate the economy when profit expectations are low and firms are hit by debt-deflation.[9]

According to Keynes (1936: 262-271), price levels can be expected to drop, albeit not necessarily to the same extent owing to specific price rigidities in the commodity market, if sustained high unemployment results in falling nominal wages or unit labour costs.[10] If reductions in unit labour costs are not fully passed on to consumers in the shape of price cuts, the result is also a redistribution at the expense of wage earners and a concomitant fall in this group's consumption demand. However, if domestic prices fall in an open economy, the balance of trade improves assuming the Marshall-Lerner-condition to be fulfilled. But this short run improvement is likely to be counteracted by a nominal appreciation of the domestic currency or by nominal wage moderation and hence real devaluation abroad, so that the overall effect of falling unit labour costs on foreign demand is quite uncertain in the medium run.

In order to assess the effects of disinflation or deflation on investment, the development of interest rates, debt and profit expectations have to be taken into account. Here, the effect of falling wages and prices on the interest rate postulated by Keynes (1936: 263) as a result of falling transactions demand for money can only

[9] Post-Keynesians have also argued that in the long term the NAIRU adjusts endogenously to the actual unemployment rate through different channels (Hein 2002, 2004).

[10] See also Kalecki (1969: 55-59).

come about if the money supply is largely exogenously determined and does not adjust endogenously to the demand for money through credit creation or destruction and therefore constitutes net wealth.[11] However, this is not the case in modern credit money economies where money is largely created by creditor-debtor relationships and every asset therefore has a corresponding liability. In this scenario, falling wages and prices can only affect interest rates in the event of a discretionary key interest rate cut by the central bank. Even in such cases, however, the potentially expansive effect on investment (and consumption) is counteracted by the fact that in a credit money economy where prices are falling, there is a redistribution of wealth from debtors to creditors with the associated risk of over-indebtedness. This debt deflation effect that was accorded central importance by Fisher (1933) and as well by Keynes (1936: 264) serves to dampen investment (and consumption) if the realistic assumption is made that creditors are less inclined to spend than are debtors. Furthermore, it is more difficult to obtain credit to finance spending in a debt deflation scenario, since banks' and financial intermediaries' lending policy is determined by the creditworthiness of firms (and households) applying for loans, and their indebtedness is an important indicator of how creditworthy they are.[12] Taking these considerations into account, the

[11] The same is true of the positive effect of falling prices on real wealth and consumer demand proposed by neoclassical theory: in order for the Pigou effect to come about, it is necessary for the monetary wealth of the economy as a whole to be exogenously determined net wealth.

[12] This has already been made clear by Kalecki (1937, 1954: 91-95) in his ‚principle of increasing risk' according to which the firm's access to external capital on capital markets is largely determined by its entrepreneurial capital. Investment is therefore limited by finance which is in turn is inversely affected by the degree of indebtedness. A similar view was taken by Robinson (1962: 86) and Steindl (1952: 107-138). Recent empirical work has shown that business investment is strongly influenced by internal

new-Keynesian view of a symmetrically effective monetary policy which is always capable of adjusting actual unemployment to the NAIRU seems to be overly optimistic and the neglect of the stabilising role of nominal wage rigidities seems to be unwarranted.

If one realistically assumes the characteristics of a modern credit money economy as described in the post-Keynesian approach to hold, it can thus be said that in times of recession, rigid nominal wages are the anchor to prevent deflationary processes, even if the monetary policy response also favours growth and employment. Consequently, any study of deflationary tendencies should pay particular attention to wages policy and unit labour cost trends. This does not mean, however, that monetary and fiscal policy are completely off the hook. On the one hand, they should be used preventively to ensure that cumulative downturns and the associated danger of the removal of the wage anchor never come about in the first place. Moreover, decisive use of monetary and fiscal policy should be made to combat downturns that are already underway, thereby helping wages policy to fulfil its role as a nominal stabiliser.

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funds which determine the access to external borrowing on imperfect capital markets (see Fazzari/Hubbard/Peterson 1988, Hubbard 1998, Schiantarelli 1996).

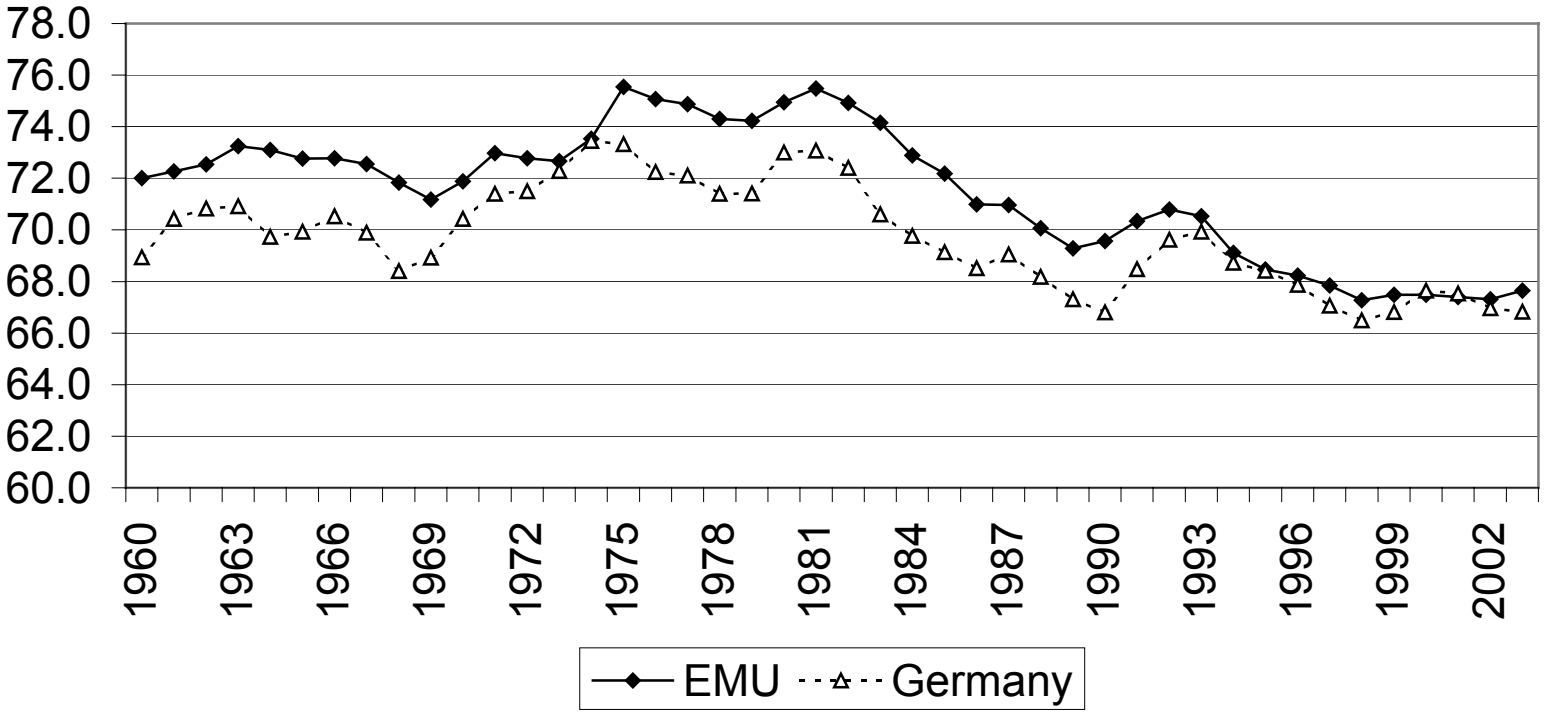
**Figure 1: Unit labour costs growth and inflation rate (private consumption) in Germany, 1961-2003 (in %)**
Source: OECD (2003)

**Figure 2: Unit labour costs growth and inflation rate (private consumption) in EMU, 1961-2003 (in %)**

Source: OECD (2003)

**Figure 3: Labour income shares in Germany and the EMU, 1960-2003, (in % of GDP at curren factor costs)**

Source: European Commission (2004)



## 3. Inflation and unit labour costs growth

The previous section described how post-Keynesian models work on the assumption that in imperfect commodity markets, prices come about principally as a result of a mark-up being added to unit variable costs with unit labour costs being a major part of these costs. If we accept this as true, then the inflation rate ought to be mainly determined by unit labour cost growth. Of course, starting from a theory of conflict inflation, we do not expect that unit labour cost growth is the only determinant of inflation, because in this view inflation in a real world economy will also be affected by distribution claims of the state through variations in the net tax rate, of foreign producers through changing import prices or exchange rates, and of domestic firms through variations in the mark-up.[13] However, in this section it will be briefly demonstrated that a close - but incomplete - relation between unit labour costs growth and inflation is in fact backed up by the empirical data between 1961 and 2003 for Germany and for the member countries of the EMU. Following on from this, the consequences for functional income distribution will be assessed as well and differences between Germany and the EMU countries in the 1990s when the process towards EMU was completed are highlighted.

Figures 1 and 2 show the percentage increase in unit labour costs and the inflation rate in Germany and the EMU countries for the period between 1961 and 2003. There is

[13] Changes in the mark-up may either be caused by changes in the intensity of price competition in the goods market or changing power relations between capital and labour in the labour market, on the one hand. Or changes in the mark-up may be due to changing overhead costs, i.e. variations in salaries or in capital costs, on the other hand.

clearly a relatively close correlation between the two values, in particular for the EMU countries but also for Germany. Although the unit labour cost growth curve seems to show more pronounced fluctuations than the fairly smooth inflation curve, both curves nevertheless exhibit a rising trend until the mid 1970s and a downward trend since then resp. since the early 1980s. The fluctuations of unit labour cost growth are around the inflation rate. The deviations of unit labour cost growth from inflation are more pronounced in the upwards direction until the mid 1970s and more pronounced in the downward direction since the early 1980s.

Sylos-Labini (1979) has presented a rationale for this partial adjustment in an oligopolistic pricing framework for a specific industry characterised by uniform output prices: Unit labour costs are not only affected by variations in nominal wages which are uniform for all firms within an industry but also by productivity which is different between firms, the price setting firm being the one with the highest rate of productivity growth. When nominal wage increases are completely shifted to prices by the price setting firm, the other firms and therefore the industry as a whole cannot completely shift due to inferior productivity growth. In a dynamic context of increasing unit labour cost growth, the average growth rate of unit labour costs will therefore exceed inflation. On the other hand, when nominal wages fall, the price setting firm will only have to decrease prices according to the lower productivity growth of its competitors. In a dynamic context of falling unit labour costs growth this implies, that average unit labour costs growth will now be lower than inflation. We

therefore get a partial adjustment of prices to changes in unit labour costs for the industry as a whole based on an asymmetric adjustment of the price setting firm.[14]

In the case of Germany and the countries of the EMU, this partial adjustment also seems to be valid for the economy as a whole and has had an impact on functional income distribution which is shown in Figure 3. In the period of high and accelerating unit labour cost growth - under the conditions of high employment - from the early 1960s until the recession in the mid 1970s, partial adjustment of inflation meant a rising tendency of the labour income share,[15] in Germany as well as in the other EMU countries. Profit margins declined and so did the profit share. Since the early 1980s when under the conditions of high and rising unemployment unit labour cost growth started to decline considerably, partial adjustment of inflation has meant a tendency of the labour income share to fall, in Germany and also in the EMU. Profit margins have increased and the profit share has recovered.

The close but imperfect correlation between the unit labour costs growth rate and the inflation rate suggested by purely graphical analysis can be confirmed statistically using regression analyses. If the inflation rate is regressed on the unit labour cost growth rate, it can be seen that unit labour costs growth exerts a statistically significant positive influence on inflation both in Germany and the EMU. This influence is greater in the case of the EMU than for Germany alone, since while in

[14] On the relation between unemployment, wages and functional income distribution in the European Union see more explicitly Hein/Schulten (2004).

[15] The labour income share is calculated as compensation per employee as percentage of GDP at factor costs per person employed.

Germany a 1 percentage point increase in unit labour costs growth leads to a 0.39 percentage point rise in inflation, it leads to a 0.82 percentage point rise in inflation in the EMU. The coefficient of determination ($r^2$) for Germany stands at 45%, while it is as high as 85% for the EMU. If the previous year's unit labour cost growth rate is used as an independent variable (this is a theoretically valid approach owing to delays in the cost-based price adjustment by businesses), the impact of unit labour cost growth on inflation is confirmed. For Germany a 1 percentage point increase in unit labour costs growth leads on average to a 0.44 percentage point rise in inflation in the following year. For the EMU the figure becomes 0.79 percentage points. The extent to which increases in unit labour costs explain increases in inflation is significantly higher for Germany if the previous year's figure is taken into account, since this gives an $r^2$ coefficient of determination of 58%. For the EMU the figure becomes only slightly worse and amounts to 78%.

The differences in adjustment of inflation to unit labour cost growth between Germany and the EMU countries as a whole may be due to the different degrees of openness to foreign competition (Sylos-Labini 1979). Firstly, the more open an economy is, the higher will be the proportion of imported raw materials and unfinished goods costs in unit variable costs so that changes in unit labour costs have a smaller impact on inflation than in closed economies with a smaller share of imported raw materials and unfinished goods. Secondly, the more open an economy to foreign competition, the more difficult it is for domestic producers to shift domestic cost increases to prices without loosing international market shares. In the case of rising domestic unit labour costs, foreign competition therefore acts as a brake upon prices. Since the EMU economies as a whole are less open than the German economy

it comes with no surprise that we find a closer relation between unit labour costs growth and inflation in the former than in the latter.

The statistically close correlation described between unit labour cost growth and inflation clearly does not yet establish that it is increases in unit labour costs that cause inflation to rise. It would in principle be possible to imagine that the correlation could be the other way round, i.e. that unit labour cost growth is driven by inflation. Indeed, the regression analysis for Germany and the EMU does show a significant degree of inverse correlation, although it is also true that the $r^2$ value is substantially lower. However, it is our belief that this inverse correlation can be ruled out for two reasons. Firstly, it would cause theoretical problems in the framework of the post-Keynesian approach pursued in this paper, since if money is endogenous the model would no longer have an explanation for price levels. Secondly, the results of a Granger causality test[16], even if we accept all the limitations of such tests, offer much stronger support for the assertion that unit labour cost growth does in fact influence inflation and not vice versa.[17] It can thus be claimed both theoretically and on the basis of empirical data that in both Germany and Europe, an overall downward trend in unit labour cost growth since the mid 1970s led to a similar downward trend in inflation.

[16] See Gujarati (1995: 620-624).

[17] In our Granger-test, for a lag of 1, the growth rate of unit labour costs for Germany had a significance level of 1% and the significance level for the EMU was still 25%, making it Granger-causal for inflation. In contrast, the inflation rate was not Granger-causal for the unit labour cost growth rate in either Germany or the EMU.

If we take a closer look at the development since the early 1990s, the final phase of European monetary integration, it can be noted that, after a brief period of more rapid growth at the beginning of this decade, since 1995 unit labour costs in Germany have risen by consistently less than in the EMU, with their annual growth remaining on average some 1.5 percentage points below the EMU average (see Figure 4). A similarly clear difference is evident in Germany's inflation rate, which has remained consistently below that of the EMU by an average of 0.6 percentage point per year (see Figure 5). In absolute terms, the average inflation rate in Germany over the whole period in question was approximately 2%, but this figure includes the unusually high rates of 4% experienced during the boom following reunification, and the average figure since 1995 has been just 1.4%. In contrast to this, the average EMU inflation rate for the whole of the period being examined was 2.8%, reaching a high of almost 6% at the beginning of the 1990s, but falling to an average of just 2.1% since 1995. As will be argued below, the differences in unit labour cost growth and inflation between Germany and the EMU as a whole cause major macroeconomic problems and deflationary risks under the present conditions of slow growth and low inflation in the currency union.

**Figure 4: Unit labour costs growth in Germany and the EMU, 1991 - 2003 ( in %)**
Source: OECD (2003)

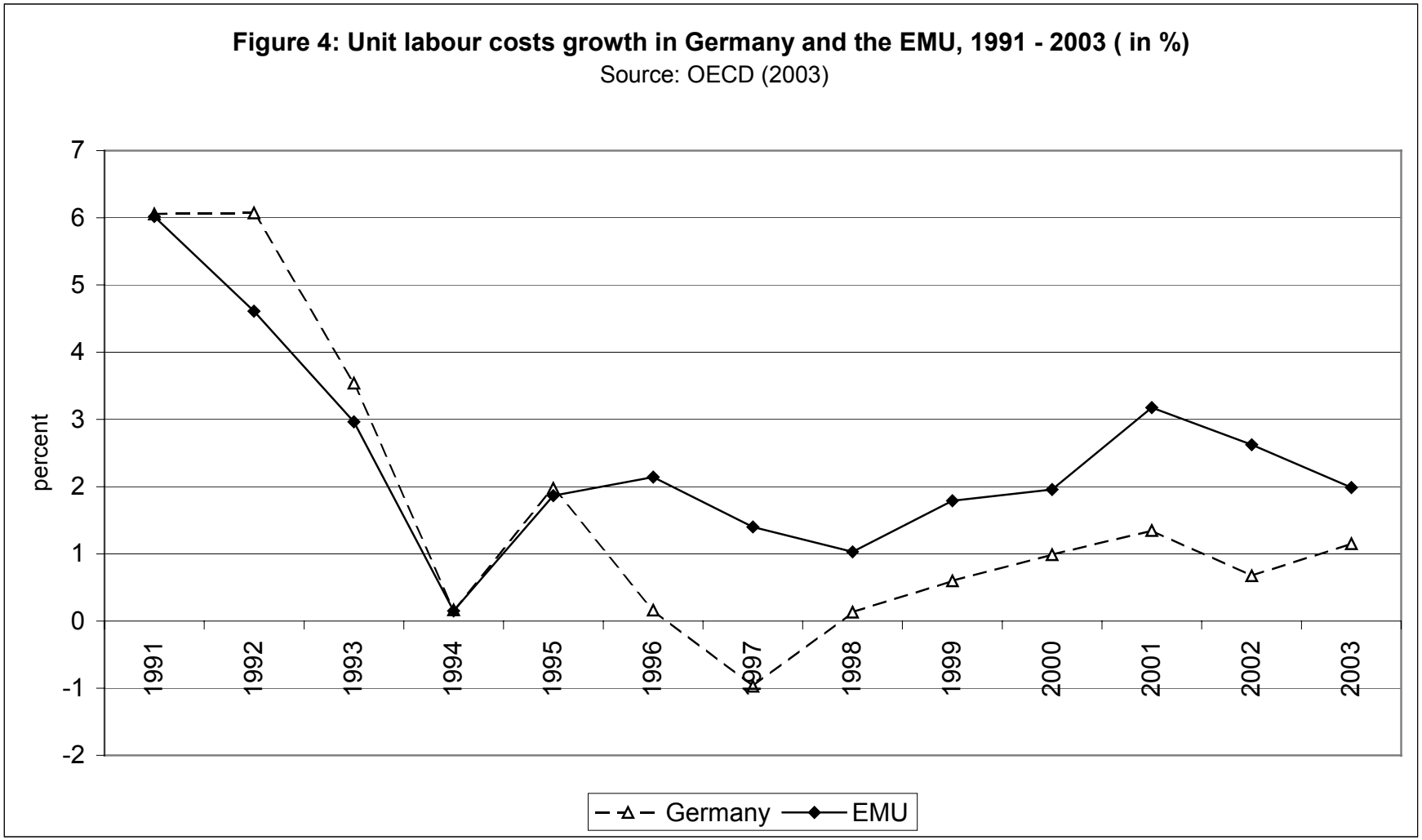


**Figure 5: Inflation rate (private consumption) in Germany and the EMU, 1991-2003 (in %)**

Source: OECD (2003)

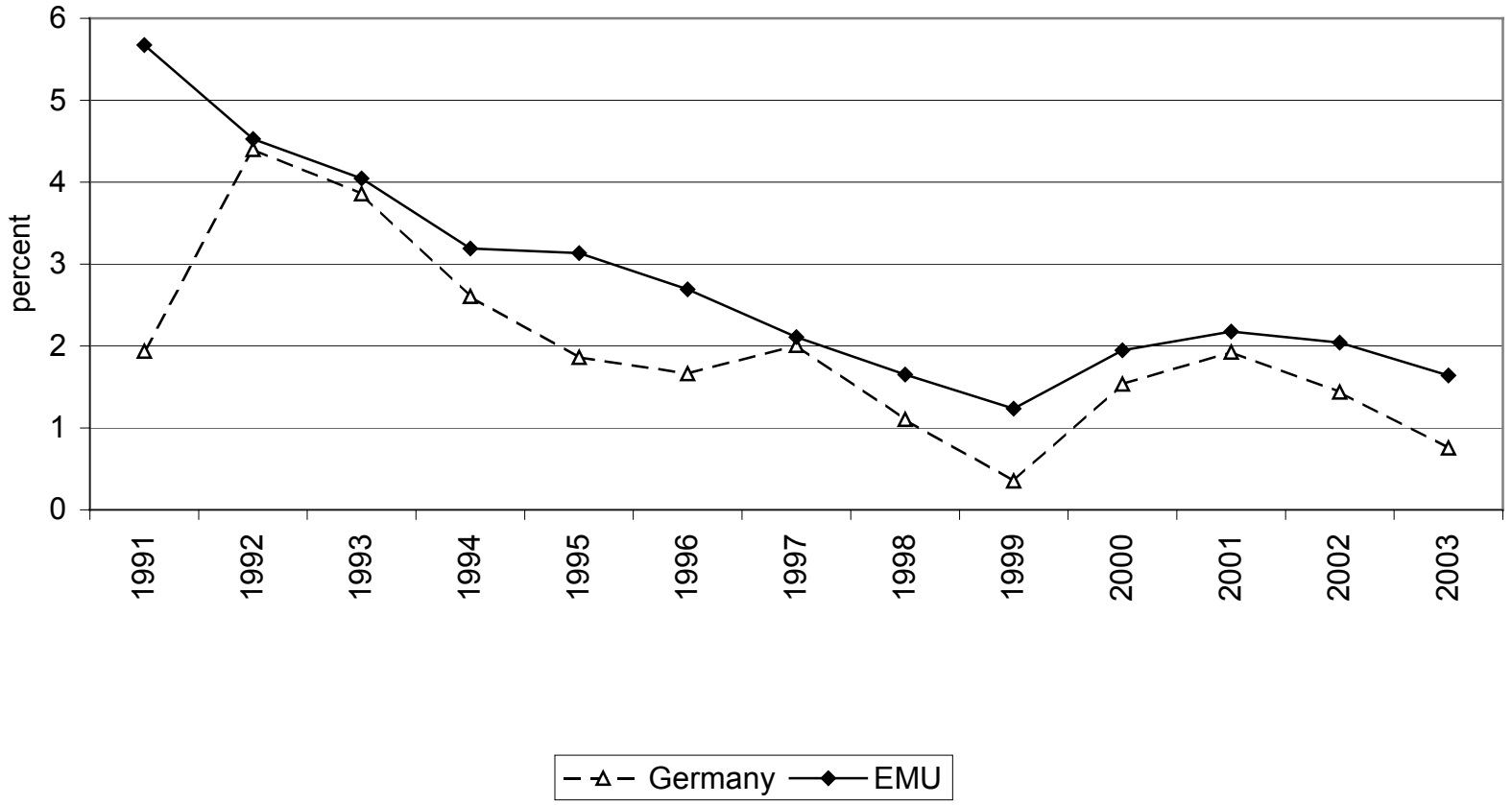
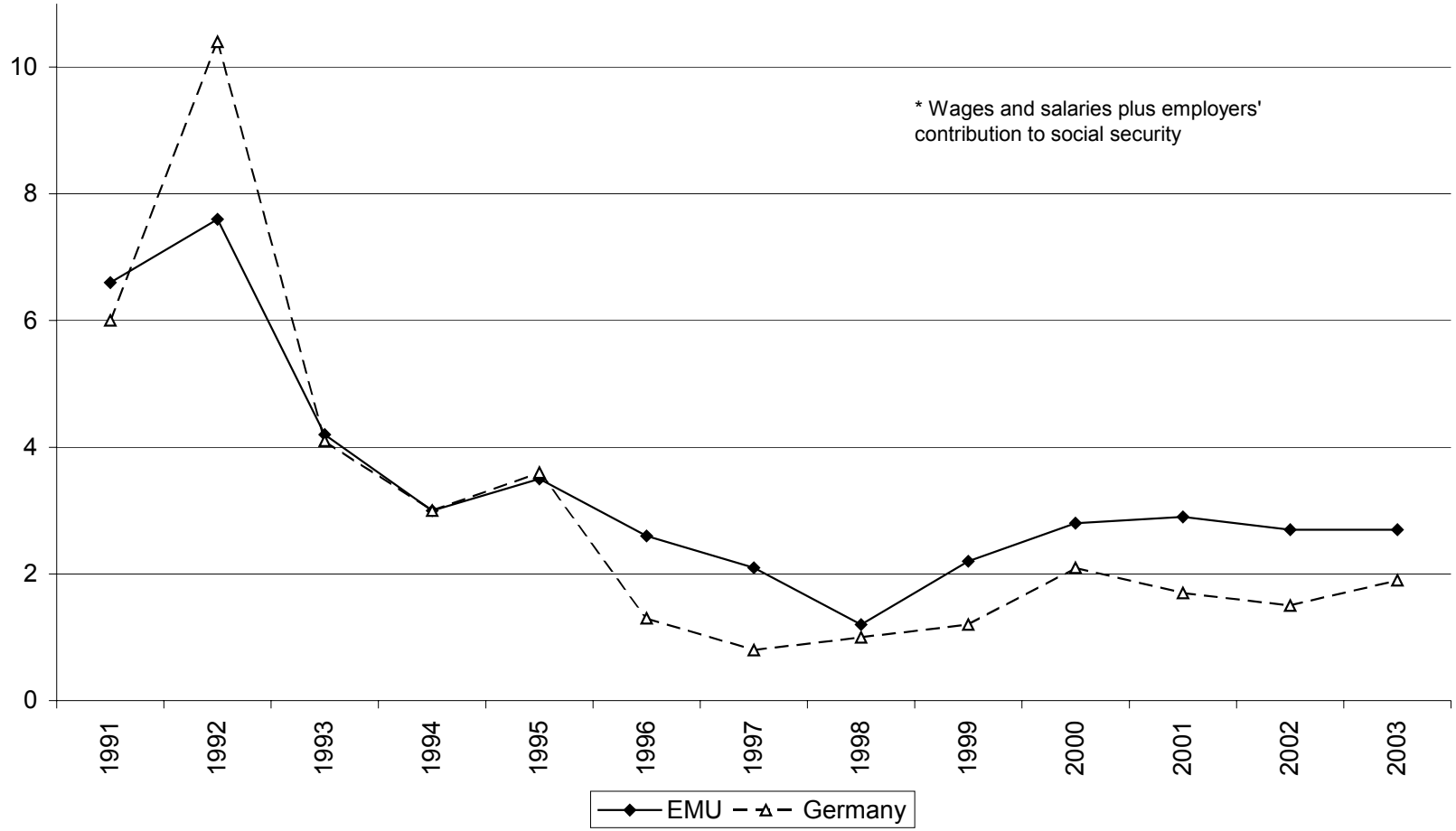


**Figure 6: Remuneration of employees* in Germany and the EMU 1991-2003 (annuacl increase in %)**
Source: European Commission (2003)



## 4. Wage trends and collective bargaining

The downward trend in the annual unit labour cost growth rate observed in the EMU during the 1990s could theoretically be explained either by particularly stringent wage restraint or by increasing productivity growth. However, since the average annual productivity growth rate in the EMU during the 1990s stood at 1.5% compared with 1.7% during the 1980s (European Commission 2003: 52), it can be seen that this figure has changed very little, and consequently it is to wages policy that we should look for an explanation of this trend.

There has in fact been a clear downward trend in labour costs growth. While during the 1980s the nominal remuneration per employee[18] in the EMU rose by an annual average of 6.9%, the figure during the 1990s was only 3.6% (European Commission 2003: 88). During the course of the 1990s, the employee remuneration growth rate fell almost continuously and it was only at the end of the decade that a slight upward trend emerged once more (see Figure 6).

This downward trend in the employee remuneration growth rate indicates that in many European countries, against a background of sustained mass unemployment, the collective bargaining power of trade unions was substantially weakened. The most visible indicators of this were falling trade union membership and a significantly lower number of strikes and industrial disputes (Boeri et al. 2001, Schulten 2004). In addition, the 1990s saw the emergence in many European countries of new corporatist

[18] The remuneration per employee figure includes gross earnings and salaries as well as non-wage labour costs, i.e. employer social security contributions.

competitive structures which, as a result of national social pacts and "alliances for jobs" led to the trade unions becoming firmly tied into the political agenda and committed to a competitive wages policy (Fajertag/Pochet 2000).

Since the mid-1990s, the annual nominal collectively agreed hourly wage increases in the EMU have remained constantly below 3% (see Table 1). Interestingly, in most years actual hourly earnings rose more rapidly than collectively agreed wages, resulting in a positive wage drift for the EMU as a whole. In general, the scope for distribution derived from the sum of productivity gains and inflation was clearly not fully exploited by the growth of employee remuneration in the EMU during the second half of the 1990s, and this resulted in disinflationary tendencies. In contrast, labour cost trends in the EMU at the start of the 21st century are typical for a cyclical downturn, since, owing to the sharp fall in productivity growth, they are increasing at a rate that is slightly higher than the scope for distribution.[19]

[19] Since the ECB data for collectively agreed and actual wage increase is calculated on an *hourly* basis but the data for labour productivity is calculated on the basis *per employee*, it is unfortunately not possible to discuss to what extend the scope for distribution was exploited by collectively agreed wage increases.

**Table 1: Wage trends and extent to which the scope for distribution is exploited in the EMU**

| | Indicators of wage trends[1] | | | | Scope for distribution = inflation + productivity growth[1] | | | Extent to which scope for distribution is exploited by employee remuneration[5] |
|---|---|---|---|---|---|---|---|---|
| | Collectively agreed wages per employee hour | Actual earnings per employee hour | Wage drift[2] | Employee remuneration per employee | Prices[3] | Labour productivity per employee | Scope for distribution[4] | |
| 1996 | 2.7 | 3.0 | +0.3 | 2.3 | 2.2 | 1.1 | 3.3 | -1.0 |
| 1997 | 2.3 | 2.6 | +0.3 | 1.9 | 1.6 | 1.5 | 3.1 | -1.2 |
| 1998 | 2.1 | 1.9 | -0.2 | 1.2 | 1.1 | 1.1 | 2.2 | -1.0 |
| 1999 | 2.3 | 2.5 | +0.2 | 2.0 | 1.1 | 1.0 | 2.1 | -0.1 |
| 2000 | 2.2 | 3.3 | +1.1 | 2.7 | 2.1 | 1.3 | 3.4 | -0.7 |
| 2001 | 2.6 | 3.5 | +0.9 | 2.8 | 2.3 | 0.2 | 2.5 | +0.3 |
| 2002 | 2.7 | 3.3 | +0.6 | 2.5 | 2.3 | 0.3 | 2.6 | -0.1 |
| 2003 | 2.4 | 2.8 | +0.4 | 2.4 | 2.1 | 0.2 | 2.3 | +0.1 |

1 = increase to previous year in percent; 2 = difference between growth rate of actual earnings and growth rate of collectively agreed wages in percentage points; 3 = Harmonised consumer price index (HCPI), 4 = Inflation rate + productivity growth rate; 5 = difference between growth rate of employee remuneration and growth rate of labour productivity plus inflation rate in percentage points.
Source: ECB, own calculations

It should be pointed out, however, that wage trends in the individual EMU countries were by no means uniform during the 1990s, and in fact reflected the occasionally major differences in economic growth and employment trends between countries. Wage increases were distinctly higher than the EMU average principally in some of the smaller EMU countries that achieved especially dynamic economic growth, such as Ireland, the Netherlands and recently also Spain. This contributed to higher than average inflation as a result of these countries exceeding the national scopes for distribution, in some cases by a considerable margin (Schulten 2002).

The situation was somewhat different in the larger EMU countries, i.e. in France, Italy and Germany. While overall wage increases in Italy were slightly higher than the EMU average and slightly lower than the EMU average in France, in Germany they have remained consistently below the EMU average since 1996 (see Figure 6).

Germany has thus been pursuing the most moderate wages policy in the EMU for some eight years, and given that it is the largest economy in the EMU, this has exerted a downward pressure on EMU average wage increases.

The particularly low wage increases in Germany can firstly be attributed to a lessening of the trade unions' bargaining power. While at the start of the 1990s the trade unions were still able to achieve exceptionally high collectively agreed wage settlements on the back of the boom following German reunification, since 1996 at the latest their collective bargaining policy has been plunged into a major crisis and they have been forced to accept collectively agreed wage increases of under 3% and on occasion even under 2% (see Table 2).[20]

**Table 2: Wage trends and extent to which the scope for distribution is exploited in Germany**

| | Indicators of wage trends[1] | | | | Scope for distribution = inflation + productivity growth[1] | | | Extent to which scope for distribution is exploited[2] | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Collectively agreed wages[3] | Actual earnings[3] | Wage drift[4] | Employee remuneration[3] | Prices[5] | Labour productivity[3] | Scope for distribution[6] | by collectively agreed wages | by actual earnings | by employee remuneration |
| 1992 | 12.0 | 9.1 | -2.9 | 9.2 | 5.1 | 2.7 | 7.8 | +4.2 | +1.3 | +1.4 |
| 1993 | 7.5 | 6.1 | -1.4 | 5.8 | 4.4 | 1.6 | 6.0 | +1.5 | +0.1 | -0.2 |
| 1994 | 3.4 | 2.1 | -1.3 | 3.1 | 2.7 | 2.6 | 5.3 | -1.9 | -3.2 | -2.2 |
| 1995 | 4.9 | 4.5 | -0.4 | 4.9 | 1.7 | 2.5 | 4.2 | +0.7 | +0.3 | +0.7 |
| 1996 | 2.6 | 3.0 | +0.4 | 2.8 | 1.5 | 2.3 | 3.8 | -1.2 | -0.8 | -1.0 |
| 1997 | 1.5 | 1.0 | -0.5 | 1.6 | 1.9 | 2.0 | 3.9 | -2.4 | -2.9 | -2.3 |
| 1998 | 1.9 | 1.4 | -0.5 | 1.5 | 0.9 | 1.3 | 2.2 | -0.3 | -0.8 | -0.7 |
| 1999 | 2.9 | 2.3 | -0.6 | 2.0 | 0.6 | 1.5 | 2.1 | +0.8 | +0.2 | -0.1 |
| 2000 | 2.0 | 2.8 | +0.8 | 3.3 | 1.4 | 2.2 | 3.6 | -1.6 | -0.8 | -0.3 |
| 2001 | 2.0 | 2.7 | +0.7 | 2.5 | 2.0 | 1.4 | 3.4 | -1.4 | -0.7 | -0.9 |
| 2002 | 2.7 | 2.1 | -0.6 | 2.2 | 1.4 | 1.3 | 2.7 | 0.0 | -0.6 | -0.5 |
| 2003 | 2.0 | 1.2 | -0.8 | 1.5 | 1.1 | 0.8 | 1.9 | +0.1 | -0.1 | -0.4 |

1 = increase to previous year in percent, 2 = percentage points, 3 = per employee hour; 4 = difference between growth rate of actual earnings and growth rate of collectively agreed wages in percentage points; 5 = Federal Statistical Office consumer price index, 6 = inflation rate + productivity growth rate.
Source: Bundesbank, Federal Statistical Office, own calculations

[20] See also Flassbeck/Maier-Rigaud (2003).

The crisis of trade unions' collective bargaining policy is shown even more clearly by actual earnings trends than it is by collectively agreed wage trends. In contrast to most other EMU countries, wage trends in Germany in the 1990s were mainly characterised by a negative wage drift, with actual earnings growing even more slowly than collectively agreed wages. This means that the trade unions were unable to ensure that the wage increases they had negotiated were actually implemented in all companies.

In addition to the trade unions' loss of political power, the negative wage drift in Germany is also a consequence of fundamental changes in the structure and operation of the German collective bargaining system.[21] One clear sign of this is the decline in the number of companies and employees covered by collective agreements that has been observed since the mid-1990s (Schnabel 2003). According to the IAB (Institut für Arbeitsmarkt- und Berufsforschung) figures for 2001, only 48% of all companies in western Germany and 71% of all employees were bound by collective agreements, while in eastern Germany the figures were as low as 28% of companies and 56% of employees (Bispinck 2003: 395). The negative wage drift seems to suggest that wage increases in companies not bound by collective agreements were significantly lower.

[21] When calculating the even higher overall figure for the negative wage drift per employee, changes in actual working time (e.g. overtime or short-time working) are of particular importance. However, these factors are not taken into account in the figure for wage drift per employee hour used here, in order to enable us to concentrate purely on the structural aspects of collective bargaining policy. For more on the current debate concerning developments in the German collective bargaining system, see e.g. Bispinck (2003), Bispinck/Schulten (2003), Schnabel (2003) and the contributions in Wagner/Schild (2003).

Furthermore, even within the German collective bargaining system there are numerous signs to suggest that the binding nature of collective agreements is being eroded, making negotiated collective wage increases harder to implement in practice and consequently favouring a negative wage drift. There is now a significant number of companies that are formally bound by collective agreements but which in practice do not comply with them. According to the results of the 2002 WSI Works Council Survey, which probably only covers part of the problem, 10% of companies occasionally failed to comply with the terms of current collective agreements, and a further 5% did so frequently. In the majority of these cases, the non-compliance involved failure to pay the collectively agreed wages (Bispinck/Schulten 2003: 159).

In addition to the above, 'hardship' and 'opening-clauses' were introduced into virtually all of the major sectoral collective agreements in the 1990s, allowing companies to deviate from the terms contained in collective agreements under certain circumstances.[22] Opening-clauses are now used by more than a third of all companies, although it is true that in the majority of cases these relate to the divergence of working time organisation from the collective agreement, and the use of opening-clauses with regard to remuneration is for the time being still not very widespread (Bispinck/Schulten: 160).[23]

[22] For a more detailed analysis and description of the main hardship and opening-clauses, see Bispinck/WSI Tarifarchiv (2003).

[23] For more on the debate surrounding 'Company Alliances for Jobs', see the contributions in Seifert (2002).

One final significant cause of the negative wage drift is the reduction of payments that are above the collectively agreed rate. A large number of companies in Germany continue to pay wages that are higher than those established in their collective agreement. The results of the IAB company panel show that although the number of companies paying more than the collectively agreed rate did decline in the 1990s, it still stood at 48% in 2000 (Schnabel 2003: 95). The wage spread, i.e. the absolute difference between collectively agreed wages and actual wages was on average found to be approximately 11% (Schnabel 2003: 95). Nevertheless, during the course of the 1990s, several companies began to use 'company alliances for jobs' to 'compensate for' the wage increases negotiated in collective agreements by cutting back on payments above the collectively agreed rate. This led to the emergence of a new form of concession bargaining in which employees agree to give up established benefits in exchange for limited job security, thereby contributing to a substantial reduction in labour costs.

Since the mid-1990s, the collectively agreed wage settlements achieved in practice by Germany's trade unions have no longer been sufficient in most years to fully exploit the scope for distribution (see Table 2). The negative wage drift also indicates that the significance of trade union collective bargaining policy has waned considerably, with the result that actual wage increases have fallen still further behind the sum of inflation and productivity increases. Even if overall employee remuneration in the 1990s rose by slightly more than actual wages did, there can be little question that on the whole wages policy developments in Germany had clear disinflationary repercussions and must as such take a large part of the responsibility for the low inflation rate in the largest economy in the EMU.

## 5. Conclusion

Despite the sluggish growth currently being experienced in the EMU, wages policy and trends have not yet caused acute deflationary risks. However, there is no guarantee that this will continue to be the case if the restrictive macroeconomic policy mix of the past continues to be pursued.[24] One of the main causes of the sluggish economic growth is the "anti-growth-bias" in the ECB's monetary policy with its inflation target of "below, but close to 2%" (ECB 2003: 89) which is far too low for a heterogeneous currency area with markedly different growth and inflation rates - not to mention the fact that it is asymmetrical in nature and is exclusively geared towards ensuring that the inflation target is not exceeded. The growth-unfriendly effect of this monetary policy is magnified by the Stability and Growth Pact that forces the European fiscal policy to be pro-cyclical and to target budgetary consolidation via spending cuts, something that is ultimately to the detriment of public investment. If the economic stagnation resulting from these monetary and fiscal policies persists, it is quite possible that the associated high unemployment could increase the pressure on wages policy, leading in turn to an increase in wages policy-driven deflationary risks.

The danger of deflation is already considerably higher in Germany than in the EMU as a whole, since the stagnation caused by monetary and fiscal policy is aggravated by Germany's excessive wage restraint.[25] The unit labour cost growth rate has for some time now been significantly lower than the EMU average, and this is to a large extent

[24] See Hein (2003) and Hein/Truger (2004, 2005) for a detailed analysis of the EMU's restrictive policy mix.

[25] For a more detailed analysis of the causes of stagnation in Germany see Hein/Truger (2005a).

responsible for an inflation rate that is also much lower than average. Consequently, even a monetary policy that might be suitable for the EMU as a whole is too restrictive for a country where growth is as low as in Germany. Furthermore, the fact that nominal interest rates are the same across the EMU and inflation in Germany is below average means that German consumers and investors are faced with real interest rates that are higher than the EMU average. On top of this, excessive wage restraint has led to a falling labour income share, which has in turn further weakened domestic demand.

The combination of a pronounced trend towards stagnation and significant deflation risks - not yet actual deflation - in the largest EMU country together with the ECB's overly ambitious inflation target for the EMU as a whole represents a major challenge for wages policy in Germany and in the rest of Europe.[26] If Germany is to achieve an economic recovery with the aid of wages policy, both the unit labour cost growth rate and inflation will need to rise. However, if such a rise leads to an EMU inflation rate that is higher than the ECB's inflation target owing to the fact that other EMU countries have inflation rates that exceed the ECB target by a considerable margin, then restrictive monetary policy intervention is always going to be on the cards. What this means is that if the ECB is not prepared to raise its inflation target substantially in order to allow the slowly growing larger economies more room to achieve a recovery, then it will be necessary to reduce inflation in the other EMU countries. It is therefore important for the bargaining parties and in particular the trade unions to intensify their efforts towards European-level effective coordination of wages policy. The aim of this

[26] On the interaction of the ECB's monetary policy with wage bargaining in Europe see Hein (2002).

process should be for each country to increase wages on the basis of its long-term domestic productivity growth figures plus the ECB's target inflation rate.[27]

If it proves impossible either to convince the ECB to raise its inflation target or to coordinate wages policy in the EMU countries as described above, then in the medium to long run Germany's stagnation and deflation risks are likely to spread increasingly to the other EMU countries. Excessive wage restraint in Germany will not only fuel national economic stagnation but will also put pressure on wages policy in the other EMU countries in the medium term. The fact that inflation in Germany is lower than the EMU average means that price competitiveness of German producers in the European market is constantly increasing. It is true that in recent years, growing export surpluses have prevented Germany from sliding into a deep recession. However, it also means rising import surpluses for the other EMU countries, something that cannot be sustained for any length of time owing to the negative effects on income and employment. Since the EMU countries can no longer resort to a currency devaluation, it is inevitable that sooner or later there will be a wages policy response, as witnessed in the Netherlands, where the recent wage bargaining round ended with zero wage increase (Schulten/Mühlhaupt 2003). However, if wages policy starts to be widely used to improve price competitiveness, then further redistribution at the expense of labour, rising effective demand problems and the threat of deflation will spread accordingly. If this happens, then even a more growth-friendly monetary policy by the ECB might be ineffective and in the next downturn the deflationary risks may become actual deflation.

[27] For more detailed information on the current status and future prospects of the various trade union coordination initiatives, see Schulten (2003, 2004) and Traxler/Mermet (2003).

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