

Working Paper PEIF-5

The Uneasy Triangle

by

Lloyd Ulman* and Knut Gerlach**

November 1, 2002

Abstract

“...It is impossible for any community to have very full employment and completely free collective bargaining and stable prices. Either one of the three will be completely sacrificed, or else all three will have to be modified.

“...In the last resort the answer will be given not by economists or by administrators but by the public opinion. At each corner of the triangle, the limiting factor is what public opinion will stand, and the degree of comprehension that public opinion will show for an economic policy that tries to preserve balance between competing objectives.”

The Economist, August-October, 1952: 376, 435

Can Germany in the 1990s provide a contemporary example of the “uneasy triangle” posited by The Economist in the early 1950s? As the millennium approached, Germany’s inflation rate was very low; its unemployment rate unacceptably high; and its system of collective bargaining arguably the strongest to be found in any major industrial country. Public opinion appears to have played a more limiting role in the first of these corners of Germany’s triangles than in the other two.

**Professor of Economics and Industrial Relations, Emeritus, University of California, Berkeley. **Professor of Labor Economics, Institute of Quantitative Economic Research, Faculty of Economics, University of Hannover.*

An Essay on Collective Bargaining and Unemployment in Germany

Lloyd Ulman* and Knut Gerlach**

The Uneasy Triangle

...It is impossible for any community to have very full employment and completely free collective bargaining and stable prices. Either one of the three will be completely sacrificed, or else all three will have to be modified.

...In the last resort the answer will be given not by economists or by administrators but by the public opinion. At each corner of the triangle, the limiting factor is what public opinion will stand, and the degree of comprehension that public opinion will show for an economic policy that tries to preserve balance between competing objectives.

(The Economist, August-October, 1952: 376, 435)

I. The Triangle in Germany

Can Germany in the 1990s provide a contemporary example of the “uneasy triangle” posited by The Economist in the early 1950s? As the millennium approached, Germany’s inflation rate was very low; its unemployment rate unacceptably high; and its system of collective bargaining arguably the strongest to be found in any major industrial country. Public opinion appears to have played a more limiting role in the first of these corners of Germany’s triangles than in the other two.

* Professor of Economics and Industrial Relations, Emeritus, University of California, Berkeley

** Professor of Labor Economics, Institute of Quantitative Economic Research, Faculty of Economics, University of Hannover. We thank Olaf Huebler and Wolfgang Meyer for very helpful comments. Michael Enriquez and Paola Giuliano provide us with exceptional research assistance.

The German people's fear of inflation has been broadly based and deep-seated; it is rooted in the tragedy of their interwar past; and in the postwar period it has found institutional expression in the establishment of a highly autonomous central bank and the policies of "non-accommodation" to wage-setting under collective bargaining and price-setting which it consistently followed.

Prewar memories also lent strength to postwar support of full employment as a prime objective of economic policy. But after the oil price shocks and the spurt in inflation that occurred in the 1970s—and notwithstanding the concomitant jump in unemployment—political support for the employment objective in Germany (as elsewhere) was weakened relative to support for the price objective, which remained very strong. However, the growth and persistence of unemployment became a source of concern in the Eighties (Fig. 1) and ultimately became the leading political issue in the national election of 1998 when the long governing coalition of Christian Democrats and Liberal Democrats were voted out of office and replaced by a Social Democrat-Green coalition.

Free collective bargaining, the third corner of the triangle, won support in the aftermath of the Nazi era as a counterweight to the power of the state as well as to large-scale industry in the operation of Germany's "social market economy." In the latter, the activist role played by the government in socializing risks and providing economic security to wage earners as well as other individuals in a capitalist economy has been balanced by the constitutionally guaranteed autonomy of trade unions and employer associations in the determination of wages under collective bargaining. The latter institution was supposed to function as an instrument of social justice by establishing parity of bargaining power between workers and employers. It was also supposed to help reduce income differentials and tensions between the two classes and avert industrial unrest (Koch 1992).

These public expectations have not been disappointed. The level of industrial conflict in Germany has been outstandingly low. But this was not the outcome of a one-sided nonadversarial relationship between large scale and powerful employers and weak and decentralized unions which has arguably been the case in Japan, a country in which the level of industrial conflict has been even lower than in Germany. On the contrary, while overall strike activity has been very low in Germany, industrial relations in that country have been characterized by “a pattern of major disputes every few years” (Jacobi, Keller and Müller-Jentsch 1992: 253). This bespeaks an adversarial relationship between strong unions and strong employers (who nevertheless respect one another’s legitimacy) rather than a one-sided relationship reflecting dominance by either party.

II. The Institutional Endowment and the Consequences for Bargaining

Bargaining strength on both sides has been fostered by a system of regional bargaining at industry or sectoral level and of supporting legislation and regulations. Under its aegis, an industrial or multi-sectoral union (notably IG Metall) may initiate a bargaining round in a region in which a currently profitable or dynamic sector is located and then proceed to extend the terms of that agreement through bargaining with other regional and sectoral employer associations in its national jurisdiction. In addition, the agreements reached in the multi-industrial metal-working sector have strongly and frequently influenced those reached by unions and their corresponding employer associations in other sectors of the economy (Meyer 1995). The size of the metal workers’ federation, IG Metall, has helped to account for the fact that, although Germany has ranked no higher than fifth among the nineteen OECD countries on a scale attempting to measure the degree of “centralization” of collective bargaining, it has tied Austria

and Japan for first place on the economically more meaningful “coordination” scale (OECD July 1997, Table 3.3: 71; also Soskice 1990).

At the same time, employer associations in Germany have possessed greater powers of resistance to their “social partners” than those in other major industrialized economies (Reder and Ulman 1993: 26). They have the authority to order member firms to resist strikes or to lock out nonstriking employees, to contribute to funds used to subsidize struck or locked-out firms, to refrain from hiring employees of the latter, from soliciting their customers, or even from switching to competing suppliers in order to protect their market shares during shutdowns (FSU 1983). The lockout has not been resorted to in recent years.

However, to the extent that association wage policy conforms to the firms with average or below average willingness to resist union demands, it can result in settlements that threaten the viability of “marginal firms” with above-average cost levels and/or below-average profitability. Such firms might then have a strong incentive to quit the association and employ labor at substandard rates of pay. Nevertheless, would-be dropouts from association bargaining (and potential nonunion entrants as well) can be confronted with some formidable barriers to exit (or nonunion entry). In the first place, collective agreements are legally binding on signatory firms until their expiration, whether or not a signatory firm leaves the association beforehand. Although the typical duration of a wage contract is only one year, contracts governing working time, wage scales, and vacations normally are concluded for multiyear periods during which a firm would continue to be bound after it had left the association. In the second place, if an exiting firm violates the terms of the sectoral agreement by offering substandard terms of employment, it would forfeit protection against strikes during the contract period by the signatory union. In fact, attempts to leave employer associations have led to strikes that prodded

the errant firms into rejoining the fold (Turner 1993; FSU 1983; Lehmann: 2002). Third, the vesting of discretionary authority in the ministers of labor at both the federal and state levels to extend the terms of a collective agreement constitute another incentive for firms to either join or remain (as voting members) in their relevant employers' associations, even when, as in most cases, this power is not actually invoked (contract extension has been invoked primarily in construction and low-wage sectors such as textiles, clothing and certain service trades, where small-scale operation and low costs of entry and exit would make it difficult to enforce the sanctions at the disposal of the associations and the union).

Finally, marginal firms in well-organized sectors would have found it difficult to undercut negotiated wage levels in the Eighties and the greater part of the Nineties for another reason. Due to the generous system of unemployment compensation in Germany (an integral component of the social market economy) even small high-cost firms in the West would have had difficulty finding workers willing to accept substandard wages. Under that system an unemployed worker might receive as much as two-thirds of his or her wage prior to layoff for as long as thirty-two months (depending on age and duration of previous employment), followed after a means test, by a spell of unemployment assistance of up to 57 per cent of the wage for an indefinite period. Nor need a worker accept the offer of a job paying less than 80 per cent of his or her prior wage during the first two months of unemployment or less than 70 per cent during the next three months; after 7 months, however, a job could be turned down only if it paid less than either the unemployment benefit or the unemployment assistance that the worker was currently receiving. However, the unemployment insurance system has been a two-edged blade as far as most firms in employer associations were concerned. While it has tended to protect

them from competitive erosion of their industrywide wage levels, it has also tended to increase the ability of the unions to raise those levels.

Given the availability of all these institutional defense mechanisms and, above all, given the continuing public and official acceptance of the social market economy in which they are rooted, it is not surprising that the coverage of collective bargaining in Germany has consistently exceeded the density of union organization, even as the latter has markedly declined (this has also been the case in France and other countries in continental Europe, where corporatist values have remained strongly held, but not in the U.K. and the U.S.). Thus in 1980, 36 per cent of the labor force were members of unions, while about 90 per cent were covered by collective agreements. By 1994, membership density had declined to 29 per cent, but coverage stood at 92 per cent (OECD July 1997, Table 3.3: 71). Thus German unions could maintain their span of control within their respective market areas in the face of declining relative membership.

But while German employers have been well equipped to engage in adversarial bargaining through their employer associations, their potential bargaining power has been limited in two respects. In the first place, the practice and threat of breaking a strike by luring strikebreakers as permanent replacements, which proved to be a potent weapon in the U.S., have been absent in Germany.

In the second place, the bargaining power of an employers' association is limited by the heterogeneity of its membership when its bargaining policy is influenced disproportionately by its largest and most profitable firms and when, in addition, the superior ability of the latter to resist union demands is dominated by their greater willingness and ability to accede. Under such conditions—which have frequently occurred in the export trades, where associations cannot protect their members from loss of international market share in the event of strikes—firms could

pay above-scale wages through side deals with their respective works councils (OECD 1991-92: 66), but that might undermine the bargaining position of their associations and ultimately result in general wage increases that are regarded as excessive or inflationary. This could occur even when the work councils in firms covered by collective bargaining could offset their wage premia with increased labor productivity (Huebler/Jirjahn 2001).

On the other hand, employer bargaining power could be augmented by an exceptionally strong and austere central bank whenever, in its opinion, the “currency’s stability” was threatened by actual or anticipated labor costs. Employer bargaining power can therefore be regarded as a function of the stance of economic stabilization policy as well as of the institutional endowments of the two “social partners.” However, the impact (at least in the short term) of a more restrictive monetary policy on output and employment can differ from the effect produced by an increase in employer bargaining power or a reduction in union power, as is suggested in the following brief section.

III. Encapsulating the legacy

Fig. 2 is intended to show how interaction between the central bank, the unions, and the employer associations may jointly determine changes in aggregate demand, money wages, and employment. It includes a set of incremental demand (ID, ID’) isocurves intersected by a group of collective bargaining isocurves (CB, CB’). Successively higher ID isocurves represent successively greater percentage increases in the money supply and (consequently) aggregate demand. Furthermore if, as suggested above, the relative negotiating strength of the employers in collective bargaining varies, cet. par., inversely with growth in aggregate demand, the lower the ID isocurve, the greater the bargaining power of the employers and the lower the bargaining

power of the unions. On the other hand, the set of CB isocurves depict the relative bargaining power of unions and employers as a function of their respective institutional endowments or structural characteristics or alternatively (as we shall note later) each CB line may reflect a different degree of militancy or moderation with which the unions in a given bargaining system are led to bargain. Thus, the higher the level of CB, the greater the bargaining power of the unions at a given level of ID; i.e. in the short run the bargaining power of the unions is measured by the magnitude of the wage increase that they can extract from an increment to aggregate demand. For example, point (a) on ID depicts a situation in which the bargaining power of the employer side is relatively strong, it results (we assume) in a wage increase $\Delta W_a / W_a$ that the central bank regards as warranted (e.g. consistent with stability in unit labor costs), and it permits an increase in aggregate demand (ID) to yield an increase in employment $\Delta N_a / N_a$ that minimizes the level of unemployment attainable with price stability (under such circumstances, Germany's triangle could have rested easy).

In contrast, point (b) on CB' and ID depicts a situation in which the unions are relatively stronger so that the new increase in wages $\Delta W_b / W_b$ exceeds the noninflationary rate $\Delta W_a / W_a$ the central bank refuses to “validate” or “accommodate” $\Delta W_b / W_b$ by raising the rate of increase in the money supply above ID, and the rate of increase in employment is reduced to $\Delta N_b / N_b$ at ID. Neither the price stability condition nor the full employment condition is satisfied in such a “stagflationary” situation, and the triangle becomes uneasy.

However, if the Bank reacts to the prospect of what it regards as an excessive wage increase ($\Delta W_b / W_b$) by reducing ID to ID' , it could stiffen employer backbones and secure a collective bargaining settlement at $\Delta W_a / W_a$ (point c) instead of $\Delta W_b / W_b$. But the cost of an

austere monetary policy is reflected in a reduced increment to employment $\Delta N_c / N_c$, implying under these conditions a higher level of unemployment (e.g., see Tyrväinen 1994: 56) (this is where monetary policy is seen to be an inferior substitute for institutionally endowed bargaining power on the employer side). Therefore a union should have a strong incentive to moderate its wage demands (by moving from CB' to CB) and settle for $\Delta W_a / W_a$ on ID of its own volition in the first place. As Soskice and Iversen (1999) have shown, the union's own wage bargains must cover a sufficiently large sector of the economy to affect the overall levels of prices and (consequently) employment; this, however, happens to be a condition that leaders of IG Metall, the big multisectoral union, have long believed to be satisfied in their own case.

IV. Unemployment: the case against unions

Germany's system of autonomous collective bargaining, with its unions entrenched by custom and law, has been criticized for contributing to levels of unemployment that exceeded levels prevailing in Japan in the mid-1970s and ultimately in the U.S. in the mid-90s (Fig. 1). Yet that collective bargaining system was in place when unemployment had been in the neighborhood of 1 percent (well below even Japanese rates) in the second half of the Sixties and early Seventies; and in the Nineties the steep climb of unemployment to levels exceeding 10 percent was unaccompanied by any institutional strengthening of the unions. But the unions were held accountable for collective bargaining settlements that effectively set or left wages above market-clearing levels in the aftermath of developments that entailed either (a) a decline or (b) an increase in the demand for labor. Thus under collective bargaining nominal wages were held to be insufficiently responsive to adverse changes in demand and employment but excessively responsive to increases in labor demand.

Whether originating in a decline in the rate of growth of (external) product demand or productivity or in a rise in nonwage costs, a reduction in the growth of the demand for labor entails a reduction of the warranted (or acceptable) rate of increase in nominal wages (e.g. below $\Delta W_a / W_a$ in Fig. 2) and requires a corresponding reduction in the actual negotiated increase ($\Delta W_d / W_d$) in order to avert a rise in overall unit costs and prices (this could mean that the negotiated rate of increase would have to fall below the rate of increase in productivity, although a negative increase in money wages could be ruled out as infeasible). Furthermore, the charge that unionism and collective bargaining contributed to unemployment implies not only that negotiated wage increases exceeded warranted rates in the face of reductions in labor demand but also that the central bank declined to accommodate the former by increasing the money supply at a sufficiently rapid rate.

The most dramatic example of a shock to nonwage costs was provided by the oil price increase in the 1970s which were followed by lower growth and higher unemployment rates (which in Germany reached and exceeded Japanese levels for the first time). These increases in the price of an important imported input not only reduced employer demand for labor; they also tended to push up the prices of consumer goods and hence to generate union demands for greater increases in money wages to offset any reduction in real wages caused by the increase in the cost of living. But government policy makers (traumatized by double-digit wage increases in wages and prices and a rash of wildcat strikes at the end of the Sixties) and the Bundesbank (newly empowered by the termination of Bretton Woods and the regime of fixed exchange rates) came out firmly for wage restraint in order to avoid a profit squeeze and a consequent decline in investment and employment. So when (in 1974) the employers (who had drawn their own lesson from the worker unrest) granted wage increases in excess of the official projections of inflation,

they were denied the soft option of passing them along in higher prices by the nonaccommodative stance of the central bank (FSU 1983: 267-68; Giersch et al. 1983:159, 186-7).

Downward pressure on the demand for labor originating in the explosions of imported input prices was associated with pressure generated by a fall in trend productivity growth. In the manufacturing sector growth in output per hour declined through the Eighties before partially reversing course. Increases in nominal wages followed a similar pattern, but they continued to exceed productivity increments by considerable margins. Hence unit labor costs in manufacturing also increased throughout; and they increased more sharply after the first oil price shocks than they had done in the Sixties.

Intensified competition in international markets also imparted downward pressure on the demand for labor in Germany. It resulted in part from the entry and/or rapid growth of countries in East Asia (led by Japan), Eastern Europe and South America, with initial endowments of low-paid yet relatively well-educated and productive labor—a status that Germany itself had enjoyed in the early postwar period. The entry of such low-cost competition had an adverse impact on the competitiveness of the more “mature” and established economies in the trading area. In Germany’s case however, it was deemed especially desirable to offset such adverse impacts through nominal wage restraint because of (a) that economy’s greater exposure to foreign trade (OECD Jobs Study, Part I, 1994: 7), (b) its reliance on increased exports as a relatively noninflationary engine of cyclical recovery, and (c) the comparatively (as well as historically) low growth in productivity (except in comparison with the U.S.) in the export sector.

Between the 1970s and the late 1990s, however, generally lower growth in productivity was joined by more rapid growth in nominal pay in dollar terms resulting in more rapidly rising unit labor costs (Carlin and Soskice 1997: 59; BLS 1999) (in the short period 1980-85, following

the second rise in oil prices, relative unit labor costs declined; but this is attributed to the depreciation of the dollar) (Van Ark 1995: 66,67). Faster growth of costs resulted in higher relative levels: unit labor costs, which had been 60 percent of the U.S. level in 1970, reached over 140 percent in 1990, and relative hourly labor costs rose from 47 percent to over 120 percent. Fig. 3 (which is based on U.S. BLS data) shows both hourly and unit labor costs rising U.S. levels in the 1980's and the 1990's and finally exceeding American, French and Japanese levels.

The contrast with cost experience in France and Japan, respectively, may be associated with Germany's loss of (initially low) shares in the East Asian and Latin American markets between 1973 and 1992, offset by a gain in market share in Europe. Its loss in world market share was small and no greater than that experienced by the U.S. (in contrast, Japan and the newly industrialized countries of Asia experienced great growth in their shares in all regions) (OECD 1994: 78-82). On the other hand, as rising relative unit labor costs in manufacturing raised the real exchange rate, Germany's shares of export markets were reduced in volume terms. (OECD 1995: 32-33).

In addition, high and rising levels of relative unit labor costs have been regarded as contributing to relatively lower shares of profits and investment in manufacturing (Carlin and Soskice 1997: 59-60), including greatly below-average inflows and, in the mid-80s and early 90s, above-average outflows of foreign direct investment. It has been maintained that the latter process tends to increase the bargaining power of employers and indeed that employer threats to locate more capacity abroad might reduce union militancy. On the other hand, to the extent that the actual occurrence of direct investment abroad reduces the proportion of a firm's costs that is subject to the domestic bargaining process, the willingness of employers to incur the cost of a

shutdown of domestic capacity and risk of loss of share in their international markets—is reduced. The latter set of considerations appears to have prevailed among large-scale firms in the engineering sector and to have contributed to some settlements in the second half of the Nineties (notably in 1995 and 1999) that were regarded as unexpectedly high in view of currently low profitability and sharply higher and rising unemployment.

Increases in nonwage labor costs—notably resulting from growth in the magnitude of social insurance benefits—have constituted a source of pressure on the demand for labor in addition to those provided by jumps in cost of imported inputs (oil), reduction in productivity growth, and intensification of international competition. Increases in employer contributions to social insurances, however, have differed from the other events in two respects. In the first place, they were accompanied by equal increases in employee contributions, thereby providing the unions with the same apparent reason to push for offsetting wage increases that the employer had to push for reductions. And second, most increases in such payroll taxes on employers were bundled with higher employee benefits, which would also tend to increase union pushfulness in collective bargaining: by increasing the degree of economic security enjoyed by union members in the event of layoff, increases in the level of unemployment compensation relative to their wages on the job (e.g. net replacement rates for the unemployed reached 70-80 percent by 1995 (OECD 1996: 84-5)) could make it more worthwhile for their unions to push for bigger wage increases, even if the latter increase the risk of layoff and unemployment. And since old age pensions are indexed to wages, higher wages would be translated into bigger pensions, thence into further increases in social security contributions, etc. Thus interaction between the systems of social insurance and wage bargaining (twin pillars of the social market economy) could generate a sequence of increases in wages and benefits that, together with independently

generated increases in both variables, could contribute to the economy's high levels of hourly and unit labor costs.

Based on the foregoing, it might be reasonable to expect that German employers would not have been able to restrain real wages sufficiently to prevent total labor costs from increasing in response to increases in their social security contributions and, conversely, that the unions would be able to raise money wages in an effort to offset increases in their members' own contributions. This expectation is borne out by econometric analyses which found evidence of a strong positive relationship between growth of wages and increases in rates of social security contributions. According to a comparative study reported in the OECD Jobs Study (Part II 1994: 246-7), the elasticities of real labor costs with respect to both employers' contributions and employees' contributions (together with income taxes) were unitary--the highest among the ten countries surveyed; in contrast to both of the elasticities in the U.S., which were equal to zero and the lowest recorded in the group. Similarly, an analysis of Germany's "unemployment crisis of the 1990s" by Lindlar and Scheremet (1998) finds the elasticity of the "tax wedge" (which includes other taxes as well as social security contributions) to be positive and "substantial" and to have combined with an increase of 17 per cent in the tax wedge in contributing to the major increase in unemployment that followed the unification of Germany. This result is corroborated by Nickell and Layard (1999) who find that overall labor tax rates have an impact on labor costs in the long run and thus increase unemployment. In contrast and interestingly Schnabel (1997) finds that tax and social security contribution wedge does not exert an impact on the increase of contractual wages in West Germany.

The case against collective bargaining moves on with the allegation that Germany's bargaining system has been predisposed to compressed and rigid interfirm (and intrasectoral),

intersectoral regional, and occupational wage structures, which have presumably tended to retard the mobility of labor in response to changes in market conditions and thus to contribute to persistently high rate of unemployment. Thus Buettner and Fitzenberger (1998) found that in the lower part of the interfirm wage distribution, where contractual wages are binding, the latter do restrict the flexibility of wages with respect to unemployment in the region. Firms at the higher end of the distribution, however, usually pay wages in excess of the contractual minimum and therefore can adjust more flexibly to regional labor market conditions. And these firms usually with superior “ability to pay”, often exert great influence on the bargaining policies of their sectoral employer associations and in determining the contractual minimum that is binding on the less profitable firms. (This point is explored further in the Postscript below).

OECD studies (1985: 39; 1989a: 44) covering the period from the mid-Sixties to the mid-Eighties found the dispersion of intersectoral labor costs as well as of interindustry wage differentials to be clearly smaller in Germany than in the other large European countries and much smaller than in the U.S. and Japan. Another OECD study (1994: 75-78) reveals that although productivity in market services increased more than three times as rapidly in Germany than in the U.S. in the Eighties, investment in services increased less rapidly, as did employment (relative to total employment). And the share of services in total employment remained much smaller in Germany (38 per cent) than in the U.S. (52 per cent) at the end of the decade. The OECD linked the failure of investment and employment in services to grow more rapidly in Germany on “intersectoral profitability differentials which are still too low due to marked intersectoral wage rigidity,” although this factor is regarded as less important than “regulations and other barriers to entry” (Ibid: 92). All this, of course, accords with the familiar contrast

between Germany and the U.S.—greater equality in pay but higher unemployment versus lower unemployment but greater pay inequality (“low wage or no wage”).

Interregional coordination of bargaining within industrial sectors, together with extensive coverage and low worker mobility, helped to prevent the geographic wage structure of West Germany from widening in the Eighties and early Nineties despite an increase in the dispersion of regional unemployment rates (OECD 1994: 94). When political unification of the country in 1990 confronted the unions in the former Federal Republic with a wage differential of 70 per cent between the western and eastern parts of a suddenly expanded national labor market (OECD 1991: 51), they reacted much as American national unions had sought to the expansion of market areas and the emergence of union-nonunion wage differentials in the nineteenth century (Reder and Ulman, 1993: 16-19), but with greater dispatch and effectiveness. Workers and firms in the East were promptly incorporated into the former West German unions and employer associations; and the wage differentials were narrowed in successive annual stages. Unionists in both regions were motivated by considerations of equity; and unions in the West were also impelled by fear of migration from the East. Meanwhile, differentials in productivity persisted, and employment fell sharply in the East (OECD 1992: 22-23, German Institute for Economic Research (DIW) et al., Progress Report on the Economic Situation in Eastern Germany, Economic Bulletin 7, 2002).

Finally a study by Gerlach and Stephan (2002) found wage differentials between skilled and unskilled workers to be lower in firms covered by collective agreements than in uncovered firms. This finding is in accord with the institutional hypothesis that industrial (and occupationally inclusive unions generally) tend to compress wage structure in firms and sectors in which a major portion of their membership consists of semiskilled and unskilled employees. In

Germany this tendency has been reinforced by traditional egalitarian ethic subscribed to by policymakers (as well as low-paid rank and file) in some key unions (including I.G. Metall).

In contrast, the wider skill differential prevailing in the uncovered firm could reflect the influence on wage-setting exerted by their work councils, which are frequently dominated by supervisors and technical members (Müller-Jentsch 1995) and which have been found to widen the skill premium (Huebler and Meyer 2001).

However, it has been more difficult to establish a causal relationship between union-impacted wage differentials and the unemployment differentials that have prevailed between unskilled and semiskilled workers, on the one hand, and more highly qualified employer, on the other. For one thing, the wage differentials themselves actually increased slightly between the mid-Seventies and the mid-Nineties. Still, the low wage group participated in the general increase that occurred, and this might have contributed to the persistence of the differences in unemployment.

In addition, those unemployment differentials were not great by comparative standards. According to Nickell and Bell (1996) and Pischke (1998), the differences in unemployment rate between low and high education groups were barely greater in Germany than in the U.S. This has led some to claim that the greater breadth of education and training imported to virtually all groups in the German workforce has enabled them (and their employers) to react more flexibly to changes in demand. To the extent that this has been the case, the role played by unions and the bargaining system as determinant of unemployment is diminished. Macroeconomic evidence on this point will be considered in Section V below.

V. Unemployment in wider perspective: the unions and the central banks

Although wages may not have been flexible enough to prevent unemployment from increasing and persisting at high levels despite the downward pressures on labor demand that the economy experienced in the past three decades, higher levels of unemployment have tended to reduce the rate of increase in both money and real wages. According to an OECD study by Tyrvaenen, however, the responsiveness of real wages to changes in unemployment has been more sluggish in Germany (where the lag was estimated at four years) than in any other OECD country. Moreover, Germany's long lags in the responsiveness of real wages to increased unemployment have tended to be followed by sluggish recoveries in employment in response to increased labor costs (OECD Jobs Study Part II 1994: 1-4).

On the other hand, the analysis by Lindlar and Scheremet (1998: 26) of changes in money wages in the Eighties and Nineties finds "a pure Phillips curve relationship with relatively low nominal rigidities"; and this prompted the conclusion that "the widespread assessment of powerful unions in West Germany that fail to moderate their wage claims in the face of disinflation and high unemployment is not supported by econometric evidence".

Low nominal wage rigidity also "suggests that wage settlements react fairly quickly to a declining rate of unemployment (1990-92) as well as to an increasing rate of unemployment (1993-94, 1996-97)" (Lindlar and Scheremet 1998). Such symmetrical behavior would be consistent with so-called "insider-outsider" theory which assumes that unions seek to maximize the (conventionally defined) welfare of only their employed members: they permit wages to be downwardly flexible in order to protect their members' jobs during recession, and they impart upward flexibility to wages in order to advance their incomes during periods of expansion. But if the collective agreements fully reflected the wishes of the currently employed membership,

they would help to touch off what was once dubbed “premature inflation” early in the expansion, in the absence of significant shortages of labor and while unemployment remains at unsatisfactorily high levels. And this could induce a nonaccommodative central bank to adopt a more restrictive monetary policy, which would choke off the recovery in output and employment.

Of course, if unions could demonstrate sufficient strength to offer wage resistance in the face of declining demand, they would have been able, a fortiori, to contribute to premature inflation during expansions. Moreover, observers of industrial relations generally believe that unions may also be motivated by considerations other than rationally calculated self-interest. They can be as short-sighted as investors, especially in response to rank-and-file pressure; and they can be more risk prone than management and inclined to accept higher probabilities of job loss in wage negotiations, especially when motivated by the desire to redress some perceived inequity in the status quo. Considerations of equity and fairness are likely to be assigned greater weight in determining wage policy (a) in those unions, like IG Metall, with strong elements of the political left among their leadership and (b) at times when the expectations of the membership are disappointed by the performance of wages, employment, or income distribution and expectations were indeed likely to have been disappointed by falling growth rates of real wages in manufacturing throughout the Seventies and the first half of the Eighties and after the second half of the Eighties. Furthermore, the growth of real product wages in manufacturing has been lower than productivity growth since the early Seventies; and the two rates diverged sharply in the Nineties (Fig. 4). This pattern prompted an aggressive union attempt to increase the share of wages in the national unions following a boom in profits in the Sixties and an outbreak of wildcat strikes (Giersch et al. 1993: 156-157; Jacobi, Keller, and Müller-Jentsch in Ferner and

Hyman 1992: 221). In 1992, the unions aimed at protecting real wages; and in 1998, they sought wage increases to make up for prior gains in productivity (OECD 1998: 37).

Although Giersch (1993: 157) reported that the wage share did increase in line with union projections in 1970-75, collective bargaining is hardly an efficient instrument for income redistribution. Employers are left free, cet. par., to respond to any increases in unit labor costs resulting from a negotiated increase in nominal pay by raising prices; and the central bank could refuse to accommodate—or it could even forestall—such price increases, with a resulting reduction in output and employment. Note in Fig. 4 the strong tendency for nominal pay growth to exceed productivity growth until the mid-Nineties while growth in real product pay fell below productivity growth after the beginning of the Nineties.

Thus, while losing the game of distributional equity, the unions received the blame for premature inflation, slower growth, and higher unemployment. Rudiger Dornbusch, writing “In Praise of Hard Money” (Financial Times 1998) claimed that

...The Buba (Bundesbank, a.u.) sets its money growth, while the welfare state and the unions determine the split. It always comes out as too much inflation and too little growth. One of the lessons of Buba must be that it takes two to foster credibility and performance...a tough central bank and a competitive economy.

But a dissenting view held that Buba was overly tough and that, in consequence, it must share the blame with unions and the welfare state for the deficiencies in the economy’s macroeconomic performance. Unlike the U.S. Federal Reserve Board, which was mandated to set policies conducive to high levels of growth and employment as well as price stability, the Bundesbank concentrated rather single-mindedly on minimizing inflation (Solow 2000). Nor (unlike the Bank of England) did it adopt a policy of symmetric targeting, which implies correcting for deviations below as well as above the price norm.

The objective of maintaining or increasing international competitiveness in Germany's large export sector also tended to bias monetary policy toward restraint. It entailed minimization of domestic cost levels in order to secure a favorable real exchange rate while keeping the D mark strong. But the task became more difficult with the entry and growth of low-cost competitors in international markets; and although, as Giersch *et al.* (1992: 254) noted, the Bundesbank succeeded in keeping Germany's inflation rate below the average of other industrialized countries, it could not prevent its relative labor costs from climbing to high levels (Fig. 3). Nevertheless, the only two periods since the beginning of the Eighties in which unemployment declined substantially were preceded or accompanied by a surge of growth in the U.S. economy (the Reagan boom in the early Eighties and the record expansion in the following decade), which testifies to the continuing importance of export demand in driving the German economy. But a price was paid for cost minimization and export surplus in terms of overall demand deficiency, as suggested by a shortfall of GDP below its potential level in all but four years in the Eighties and Nineties (see Fig. 5), which in turn contributed to the persistence of unemployment at comparatively high levels.

Deficient demand could thus be regarded as the outcome of interaction between the Bank and the bargaining parties. "Hard money" (as noted also) has been defended as a necessary counterweight to union strength and pushfulness. On the other hand, to the extent that the failure of wages to catch up or keep up with the cost of living or profits prior to an expansion of activity has tended to goad the unions into counterproductive militancy, the latter could be regarded as a consequence of hard money. As highly artificial example of interaction can be sketched out in Fig. 2, assuming now that the CB and CB' rays represent varying degrees of bargaining intensity rather than different endowments of potential bargaining power (FSU 1983: 25-29). A round trip

between points (c) and (b) can represent a sequence in which an export-led recovery is characterized by a shift from ID' up to ID that allows unions to bargain with enough intensity (along CB') to raise nominal wage growth above the neighborhood of growth in productivity (from $\Delta W_a/W_a$ to $\Delta W_b/W_b$), which in turn induces the Bank to tighten up so that incremental demand is reduced (from ID back to ID' and, sooner or later, wage settlements follow suit (from $\Delta W_b/W_b$ to $\Delta W_a/W_a$).

But while wage- and price-setting by unions and other monopoly elements in the economy could constrain monetary policy, even a central bank that refused to accommodate those pressures retained considerable discretion in setting monetary growth. It could follow a course of adaptive expectations by supporting cyclical growth and waiting until inflation had begun to increase before tightening monetary policy. This is the course plotted in Fig. 2, except that monetary accommodation would not be confined to externally stimulated growth but would be extended to expansions of domestic origin as well. It involves “fine-tuning” by a central bank that would be prompt to react to increases in cost inflation and guide the economy from (b) down to (c), but, because the Bank could do so effectively, it could also start it off on another round trip, and so on. This pattern, which is the intended outcome of policies designed to facilitate expansion of output and employment as well as to prevent spiraling inflation, has generally been followed by the Fed.

An alternative approach was followed by the Bundesbank and some of its contemporaries on the Continent and also by their successor, the European Central Bank. It reflects the influence of rational (rather than adaptive) expectations theory, which implies that since output and employment are normally at or near equilibrium levels or else moving inexorably to those levels, attempts to increase them by monetary policy could result only in accelerating money wages and

prices. Repeated round trips and fine tuning are not possible: union insiders and price-setters will not wait for an anticipated increase in the rate of money growth to yield more output and employment before gobbling it all up in higher wages and prices. Nor will the central bank wait for them to do so and then reverse course; instead it will refrain from expansion until it no longer fears that an inflationary round of wage settlements will occur. Therefore, as James Tobin (1985) wrote five years after the second oil crisis:

Prime ministers and central bankers wait and watch for their economies to adjust, recover and prosper. They have been waiting and watching for half a decade already, and their constituents have been remarkably patient. Yet every month of high unemployment sharpens the challenge to the new orthodoxy.

What they primarily waited and watched for were recoveries led by exports to the United States, whose Federal Reserve Board had abandoned the monetary targeting followed by most of the other major banks after 1982. The Fed's more expansionist policies enabled the U.S. economy to act as the "locomotive" in the international economy and thus as a prop to both the "new orthodoxy" and the patience of the citizenry in Europe. In Germany that patience did not snap until the elections of 1998, but monetarist orthodoxy survived both that event and the transfer of authority to the new European Central Bank the following year. The ECB raised interest rates on one occasion when increases in money wages in Germany were actually smaller than growth in manufacturing productivity, despite protests from the German commercial banks that there were no foreseeable prospects of a wage-price spiral (Financial Times 10/3/2000, A19: 21). The following year the ECB's president expressed reluctance to reduce interest rates in the course of a U.S.-led slowdown in growth in which the unemployment rate in Germany had reversed course and begun to rise while the wage settlements had remained extremely moderate. Nevertheless, as the President put it, "Looking back the wage developments seen so far have

been satisfactory, while (sic), when looking to the future, there is ongoing concern” (Financial Times July 10, 2001: 14).

VI. Another try at Concerted Action

Policies featuring direct wage restraint and tripartite concerted action were revived in the late Nineties (after a hiatus of three decades), when public patience with high levels of unemployment and union patience with declining growth of real wages and falling labor shares were running out, while the central bankers’ patience with hard money seemed inexhaustible. The revival of this type of policy was also associated with the establishment of the European Monetary Union and the Stability and Growth Pact under which participating national governments relinquished the policy to regulate their respective economies through fiscal and exchange rate policies. At the same time control over monetary policy was located in the European Central Bank whose jurisdiction placed it well beyond the reach of any one of the member nations. As a result, wage policy—unreliable as experience in the 1970s and abroad had proved it to be—remained about the only game in town for German governments in the late Nineties. If effective, however, it could enable the government, acting in concert with the “social partner”, to exert influence over two of the policy areas from which it has been excluded; i.e., exchange rates and the money supply.

With respect to the first of these policy areas: when (in 1997) the Kohl government and the Bundesbank jointly called for an extension of a de facto freeze on real wages in the interest of the unemployed, they reminded the bargaining parties that the approaching regime of fixed exchange rates would tie employment more directly to changes in pay. (Financial Times February 13 1997:1, 112; and October 21 1997: 2). Had its call been heeded instead of rejected,

the government, via the medium of wage restraint, presumably could have been influential in securing a depreciation of the real exchange rate (or in retarding appreciation).

Policy for wage restraint could also enable the government to influence the monetary policy of the central bank (however autonomous and risk-averse it might be) to the extent that they can moderate union wage policy and to the extent that the latter influences the bank's monetary policies. Thus wage moderation can be depicted in Fig. 2 as a downward shift of the collective bargaining isocurve from CB' to CB (and hence the equivalent of a reduction in union bargaining power). This makes the Bank's expectation of the reaction of nominal wages (and prices) to a more expansionist monetary policy more optimistic and induces it to raise incremental demand from ID' to ID , as a result of which wage increases would now remain at a noninflationary level ($\Delta W_a / W_a$ instead of increasing to $\Delta W_b / W_b$). Thus thanks to the ability of a policy of direct and voluntary wage restraint to increase the equilibrium rate of employment, the economy can make a one-way trip from point (c) to (a). The latter is theoretically superior to the round-trip model that was adopted by the Fed in the U.S., where collective bargaining fragmented and organization declined too precipitously for wage restraint to be included as a viable policy option after the ultimate failure of the "guideposts" published by the Kennedy and Johnson administrations in the Sixties. And the one-way trip from (c) to (a) is a fortiori superior to waiting at (c) until something turns up, an approach to life favored by Mr. Micawber and the central bankers of Germany and (later) the European Union.

Moreover, to the extent that price movements in sectors covered by collective bargaining are in fact determined by a constant mark-up over unit costs, a policy under which increases in labor costs are constrained to increases in productivity would permit real wages to rise as rapidly as productivity. And since such a policy would be distributionally neutral, and would thus

counter any tendency of labor's share to decline, it should mitigate the sense of injustice under which at least some strategically situated union negotiators in Germany had been laboring. And finally, by conferring quasi-official status on the unions as corporatist partners in policy-making, direct wage restraint could shore up centralized bargaining institutions against the centrifugal influence of the forces of globalization and deregulation.

Nevertheless, wage restraint, while hopefully reducing the risk of increasing inflation to which the central bank is exposed, can make existence riskier for the unions. To begin with, there is the risk that the Bank might not always respond to moderate wage settlements with pro-growth monetary policies (the ECB might fail to respond out of concern over developments in other member countries that have characteristically experienced higher rates of inflation; or because fiscal authorities threatened to exceed their EMU limits on deficit and indebtedness as economic expansion gave way to slowdown; or out of an expressed fear that the German unions would break out of a recent pattern of noninflationary settlements).

Unions are also confronted by the risk that, in the absence of a companion policy of price restraint, large-scale firms would seek to recoup profit margins by raising prices early in an expansion, to the detriment of real wages and labor's share (however, as high-cost competitors in international markets, their ability to do would be limited).

Furthermore, while employed union members presumably would be required under the policy to accept smaller pay increases (at least in money terms) than they could otherwise obtain, in the interest of increasing employment, both job security and membership density would continue to be eroded by an increasing employer recourse to fixed term contracts of employment and temporary labor to meet increased demand for labor during expansions in activity (including those expansions that wage restraint might have helped to prolong or even originate) (see Fig. 6).

And finally, the problem of declining membership could be exacerbated by wage restraint, which should constitute in itself a disincentive to nonunion workers to join unions or to members to remain in them.

Hence the danger emerges that unions would be more averse to incurring such risks and costs of compliance than to the risk of higher unemployment that presumably would result from excessive wage increases. And thus, according to one school of thought (e.g. A. Pizzorno 1978), various governments in Europe would engage in a process of “political exchange” with unions in order to provide them with some form of extra-bargaining compensation for their wage moderation. Compensation could include such financial incentives as tax cuts or increases in the amount of variety of social welfare benefits or extra pay increases in exchange for abandonment of restrictive work practices. It could also include various forms of “institutional protection” (FSU 1983: 681-685) to buttress the central bargaining institutions which have been regarded as essential (at least in Europe) to the effective implementation of wage policies. In 1997, the Bundesbank joined the conservative Kohl government—as it had joined the “Grand Alliance” in 1967 in a request to the unions that they revive the tradition of tripartite cooperation and agree to extend a de facto real wage freeze in the interest of the (now restive) unemployed. But the union side complained that real wages had not been keeping up with productivity and that distributional inequity would be maintained under the proposal. Nor did the government and the Bank offer to reciprocate by increasing aggregate demand as costs were being restrained: the leader of the left wing of the Social Democratic Party said that he could support wage moderation to accompany sensible budget, tax, and monetary policies, but that “...the budget and tax policy of the Kohl government has been anything but sensible” (Financial Times 10/6/97: 2).

The new left of center government under Schroeder was subject to the same constraints on fiscal policy as its predecessor and, if anything, to a more inflexible monetary authority. Indeed, the European Central Bank appeared almost to condition relaxation of monetary policy not only on wage restraint (both actual and prospective) but also on progress in the reduction or elimination of structural barriers to labor mobility and productivity growth (Financial Times August 21, 2001: 13). In essence, the Bank would not help to reduce unemployment to its equilibrium rate until the government and the social partners took steps to reduce the equilibrium rate itself: reduction of cyclical unemployment waited on the prospective reduction of structural unemployment.

Nevertheless, the Schroeder government did enlist the unions and the business community in an Alliance for Jobs and Training, which aimed at reducing both types of unemployment. Emphasis was laid on increasing employment in the private sector (where it had long stagnated) and especially employment of young people and older workers. Profitability and domestic investment were to be increased (and job-losing direct investment abroad discouraged) in part by reductions in corporate taxes on retained profits but also through reduction in the high levels of relative unit labor costs in German industry (Fig. 3). Under an “employment-oriented collective bargaining policy”, not only would wage settlements be capped by productivity growth, but potential productivity itself would be increased by allowing firms to deploy their work forces with greater flexibility and encouraging them to provide more training places. And nonwage labor costs would be cut by reductions in social insurance contributions by the firm (Facts About Germany 1999: 250-252, 256-268).

Alliance policy evidently reflected acceptance of two long-standing Keynesian beliefs. The first is that expansionist demand management and supply-side policies to eliminate

structural obstacle to competition and labor mobility are complementary to one another, so that structural reform is most feasible when new job openings are being created by monetary and/or fiscal policy and can be filled by qualified labor (Modigliani et. al. 1998: 327-361). The second belief is that expansionist demand management is predicated on wage restraint by economically powerful unions in countries in which the latter exist.

Problems can arise, however, when wage restraint is conditioned by the union on furthering the economic security of apprehensive union members even when to do so would mean blocking or delaying deregulation or structural reform of labor markets. In their efforts to protect and restore the institutions of the social market economy the unions had engaged in political bargaining with their traditional political partners, the Social Democrats who, under Schroeder, were seeking for a New Middle way between those institutions and various deregulatory measures that had been instituted by the Kohl government. Thus the unions initially opposed the government's proposals to institute private employee-funded supplements to the existing jointly funded pension systems, although they ultimately agreed to a modified version (Financial Times 7/8/00: 2; 9/19/00: 14; 5/12-13/01: 6). In addition, unions successfully opposed renewal of the Employment Promotion Act that had allowed employers considerable latitude in hiring workers on short-term contracts (not exceeding two years duration), despite strong employer protests that traditional contracts of indefinite duration were a deterrent to hiring and hence to the expansion of employment in response to increasing demand (Financial Times 8/16/00: 2; and 6/26/01: 13). Instead, a law was passed making it easier for employees to demand part-time work.

The most contentious piece of legislation enacted by the Schroeder government was aimed at reversing a decline in coverage of the works councils by increasing their size and

extending to smaller firms the obligation to pay for an employee to work full-time for their works councils. It also required the adoption of simplified procedures for conducting employee elections (Addison et al. 2002). Since works councilors have frequently served as de facto union organizers in the firm, the unions could hope that the new legislation would arrest the continuing decline in union membership and indeed would extend unionism to small firms, especially in the fast-growing service sectors in which density had always been relatively low. Finally, since decision-making in such vital managerial areas as (among others) hiring, dismissals, and temporary changes in working hours (including overtime) are subject to codetermination with the firm's works councils, the new legislation was also obviously intended to strengthen and extend employment security in the firm.

The unions also pursued their twin objectives of employment security and growth in firms through collective bargaining that was conducted under the auspices of the Alliance for Jobs and sometimes with the active intervention of Chancellor Schroeder. In the two-year agreement of 2000, IG Metall secured job guarantees for apprentices and some concessions on early retirement for part-time workers (a consolation prize for a failed union campaign for early retirement at 60 without loss of benefits) (Financial Times 1/10/2000: 2; 1/11/2000: 16; 3/29/2000: 2). In the following year, Opel, the auto manufacturer, agreed not to close any of its plants or lay off any workers in Europe, in a reversal of its prior plans to reduce capacity in Europe by 15 percent (Wall Street Journal 8/21/01: A12). A week later, Volkswagen agreed to hire and train up to 5,000 new employees in its Wolfsburg and Hannover plants, rather than locate the project in question abroad (Financial Times 6/27/01: 3; and 8/29/01: 1). The unions were less successful, however, in inducing employers to reduce overtime from record levels;

they accused them of reneging on prior commitments to do so that had been made under the aegis of the Alliance for Jobs (Financial Times 7/22/01: 2; 8/8/01: 2).

But the unions did bargain with restraint in the area of wages (although not without some well-publicized intervention by the Social Democratic Chancellor). And moderate wage settlements, especially the two-year contracts signed in 2000, were credited with sustaining business confidence during a vigorous export-led upswing in the course of which unemployment fell from 11.7 per cent in 1997 to 9.2 per cent in mid-2001—more than in any previous postwar recovery (Financial Times 5/19/2000: 2; 7/26/2000: 12). To this extent, Alliance policy seems to have helped prevent premature inflation and driven down cyclical unemployment until a sharp decline in U.S. growth occurred in 2001. Alliance policy, however, was not very successful in reducing structural unemployment through the elimination of institutional barriers in the labor markets, partly because various compensatory measures required to induce wage moderation by the unions tended to protect and strengthen those barriers. The Alliance afforded the unions an opportunity to engage the government and the employers in a form of security bargaining, wherein the former forfeited achievable wage gains in exchange for the maintenance or restoration of employment security. To the employers, however, the process was akin to productivity bargaining in reverse when, instead of paying higher wages for greater productivity, they had to compensate the unions for wage moderation by accepting the loss of some degree of control over their production functions.

The Volkswagen agreement with IG Metall, however, provided for substantial gains in managerial discretion and productivity in return for a major increase in employment in Germany (rather than Portugal). The company, having earlier complied with a union demand for a 4-day, 28.8 hour week in a campaign to reduce unemployment by reducing hours of work, now gained

freedom to vary weekly working hours between 28.8 and 42.5 for the new employees, who would be paid a flat monthly salary (without premia for Saturday and night work). Presumably, the gains in productivity thus achieved would offset an hourly wage differential of 65 marks sufficiently to make production in Germany profitable. This did tend to reduce structural unemployment in accordance with Alliance policy. The unions hailed the agreement as demonstrating that there was scope for more jobs in the (more strongly unionized) manufacturing sector after all. Prior to the Chancellor's arm-twisting, they had strongly opposed it on the grounds that it would undermine their industrywide agreements governing hours of work. But they might have concluded that it would be preferable to sacrifice some of the content of those agreements than to resist and add to the strains to which the centralized bargaining institutions were already being subjected.

VII. Bargaining Structures and Wage Structures

In principle, increasing the bargaining power of employers by structural change in the system of wage determination is an alternative to self-restraint by the unions in the exercise of their bargaining power. From the viewpoint of many employers and economists, however, Germany's system of collective bargaining has been characterized not only by insufficient employer bargaining power but by inappropriate wage structures as well. This could confront would-be reformers of the collective bargaining system with a tradeoff. Increased centralization could increase employer bargaining power by reducing the opportunity for multisectoral trade unions to strike individual firms or sectors serially in a system of pattern bargaining—and it might also improve the prospects for effective wage restraint—but it could entail more compressed intersectoral and intrasectoral wage structures, that could result in loss of

employment of unskilled workers and possibly shortage of skilled labor as well. Greater decentralization of bargaining structures, on the other hand, could yield looser bargaining patterns and wider sectoral differentials, but it could increase the ability of multisectoral unions to divide and conquer. The choice essentially is between more or less divide-and-conquer and less or more one-size-fits-all. Employers have tended to favor more decentralization in the interest of increasing managerial discretion in the deployment and motivation of the work force, but they also want sufficient centralization to maintain their collective bargaining power. Unions have favored sufficient centralization to implement their egalitarian proclivities, but they have required enough decentralization to enable them to maximize their bargaining power through pattern-setting and following. Both sides have favored sufficiently centralized structures to protect sectoral wage and price levels from spiraling deflation.

The German system of quasi-centralized and coordinated bargaining has proved thus far to be a remarkably durable compromise between these two positions. It is sufficiently decentralized to favor the union side, but it has also been found acceptable by the employer associations and most of their member firms. The latter value it both for the protection it affords in taking wages (hence prices) out of (domestic) competition and out of “fear of getting something worse” in the form of more decentralized wage-setting. But credit for the bargaining system’s continued acceptance among employers and its durability has also been assigned to the works councils for functioning as escape hatches that have allowed individual firms some leeway (or “flexibility”) in responding to centrally negotiated wages, hours, and other condition of employment. The most famous example of this occurred in 1984 when the “umbrella agreements” in the engineering sector that reduced the standard work week to 35 hours also included “opening clauses” which authorized individual firms and works councils to negotiate

supplemental agreements that allowed economically heterogeneous employers great flexibility in implementing the new standard. The purpose was to minimize underutilization of capacity and overtime. These local agreements, according to Müller-Jentsch and Sperling (1995: 10-11) had the effect of loosening a “rigid corset of collective agreements” of which the employers complained ever since the unions began to insist on negotiating umbrella or general framework agreements that have come to cover a wide variety of nonwage (but productivity-determining) conditions.

In the area of wages, local negotiations with work councils appear to have been associated with either exceeding or undercutting sectoral norms. In the former case, payment of wages in excess of the sectoral minimum (the “wage gap” or “drift”) by firms with above-average profitability and productivity presumably has served as an incentive to improve the morale and efficiency of their employees. Rent-sharing, however, may also represent the outcome of unofficial productivity bargaining with works councils, which are denied the right to strike but are in a position to withhold worker productivity (to which they have also contributed).

While works councils in more profitable firms may have played a mildly adversarial role in the determination of wage drift, works councils in firms on or below the margin of profitability have sometimes continued to be sensitive to the interests of the firm, even turning Nelson’s eye when their struggling bosses undercut sectoral wage levels and/or left the employers’ associations (Streeck 1984: 296-297). The unions, on the other hand, have effectively cooperated with the associations in defending the organizational integrity of the latter by striking or threatening to strike against defectors, as mentioned earlier. They also were united with the associations in rejecting a recommendation by the Council of Economic Advisers at the

end of the Eighties that opening clauses be included in wage agreements and that works councils be formally entitled to negotiate supplemental wage agreements.

In the subsequent decade, however, two developments threatened to leave employers - who sought both wider wage differentials and increased bargaining **power – worse** off in both departments. The first was the shock administered to the bargaining system following the unification that occurred in 1990, the second consisted in increased international competitiveness, which reduced the pricing power of firms in exposed sectors.

Unification entailed attempts by employer associations in the West to recruit the low-productivity firms in the East and by unions in the West to organize the low-wage employees of those firms. In 1991 IG Metall secured bargaining unification in the engineering industry on the basis of an agreement that wages in the eastern branch would be raised to equality with wages in the West by the end of a three-year period; it did so, it claimed, in order to avert an upsurge of worker radicalism in the East (and possibly also to avert a flood of migration to the West). But subsequently the employers, confronted with a more economically heterogeneous membership and with the need to halt an upsurge of defections from its ranks as well as to recruit new members in the East, broke the contract (in 1994) and demanded an opening clause which would allow the negotiation of substandard wages at plant level. After a strike they succeeded in securing a “hardship clause” under which contractual changes could be made, but only after approval by bipartisan “commissions”.

This sequence essentially repeated a pattern which had been set a decade earlier: sectoral settlements (a reduced work week or wage increases) that raised unit labor costs (and especially relative unit costs as well) but that allowed exceptions to be made in the case of marginal or submarginal firms in which productivity or profitability fell below the industry average. The

basic elements in this pattern also characterized the post-unification period, when the unions, empowered by the debilitating influence of foreign direct investment on the employer associations' willingness to resist union demands, negotiated greater increases in wages and unit costs that were balanced by a proliferation of opening clauses. The latter, as Tüselmann and Heise (2000) point out, have no longer been confined to firms on the edge of bankruptcy. But in most cases agreements between enterprise management and works councils do require approval by the sectoral unions and employer associations involved; and they pledge the employer not to lay off workers and/or to increase the firm's competitiveness and productivity and ultimate ability to pay the sectoral minimum.

Thus opening clauses have enabled employers to enjoy wider interfirm pay differentials while retaining the protection of sector-wide minima (Franz 1995, Fitzenberger and Franz 1999). Centrally controlled flexibility allows unions to mimic discriminating monopolists and in principle permits greater employment at existing average wage levels. It should reduce the incentive for employers to leave their associations (or remain nonmembers) and the incentive for workers to leave unions. And it should stave off the threat of "radical decentralization", of which there are two variants in Germany. The first consists in bargaining exclusively at plant level between employers and worker councils – a regime which employers fear as well as unionists because it could leave works councils free to bite into the rent of supramarginal firms and reduce their profitability as Gerlach and Meyer (1995) have established. The second variety of radical decentralization consists in the absence of collective bargaining by the firm - either formally with a trade union or informally with a work council.

Thus far, then, the parties have found a pragmatic substitute for structural reform in constrained structural flexibility. But obviously there are limits to the effectiveness of such

flexibility and to the stability of the system it is designed to “flexibilize.” If the common employment objective is not reached, more ad hoc decentralization would seem to be called for; but the frequency of exceptions cannot be allowed to increase to the point where the ability of the central authority to defend the sectoral minimum is undermined by competition from exempt firms. That eventuality has not been realized. In fact a prior restraint consists in the requirement (noted above) that an applicant firm demonstrate the potential to increase efficiency sufficiently to enable it to pay the union wage without reducing its work force. Failure to meet that requirement could presumably render ineligible for (temporary) exemptions a significant portion of those firms that could qualify on the basis of current inability to pay the standard rate. On the other hand, firms have left-or remained outside- the associations, even if some were profitable. Leavers have included small firms, that were dissatisfied with the disproportionate influence of large firms on association policy-making, and firms that were heavily dependent on export and hence with at best limited ability to raise their selling price in response to wage increase (Gerlach and Meyer 1995). And since all firms face a free rider incentive to quit an association or remain on the outside, few could have done so without the tacit consent or support of their works councils and the bulk of their employees. Such support could minimize deterrent threats of strikes by the sectoral unions or of withdrawal of efficiency in the workplace. In any event, establishment average by collective agreements in the private sector declined from 52.7 percent in 1995 to 44.1 per cent in 2000 and average of employees felt from 75 percent to 64.2 (Lehmann 2002: 131-138).

The essentials of the foregoing discussion may be summarized with reference to Fig. 7, which relates the levels of negotiated nominal wages and of average revenue productivity (ARP)

to the number of firms within a sector employers' association, via the curve ee . ee connects the points of maximum average revenue productivity of each of the firms. Assuming that w is equal to ARP, a decline in the relative bargaining power of the employers is represented by a rise in the negotiated wage rate to w' , with a reduction in the membership of the association by FF' firms and a reduction in the quasirent of all the remaining member firms by $wLMw'$. If, however, an opening clause in the collective agreement permits each of the otherwise excluded firms to pay a wage no higher than its own ARP (on ee), association membership could be restored to F . The original level of employment can be maintained when the interfirm wage structure is sufficiently widened. However, in intermediate cases, in which the widening of the wage structure is more limited, the number of firms covered by collective bargaining is reduced below F .

VIII. Postscript: Wage Policy and Structural Reform

If the negotiated minimum wage were to increase less than productivity, the dilemma sketched out above would be reduced in magnitude: some firms that formerly had to seek exemptions from the union rate would no longer do so; some firms that had sought but failed to qualify could now do so; and fewer would be forced out of business or into nonunion operation at substandard wages.

Thus substantial restraint in product wages could serve as a substitute at the margin for structural reform—in this instance of widening wage structure—since each, operating independently of the other tends to reduce unit costs and thus raise the equilibrium employment. Similarly, union bargaining restraint could scale back the amount by which employer taxes and contributions—and the associated social welfare benefits—would have to be cut in order to achieve a target level of sustainable employment.

The Schroeder government did not have this type of tradeoff in mind when it appealed to for support of an Alliance for Jobs that included employment-oriented collective bargaining together with statutory reduction of social insurance contributions to reduce nonwage costs as components of a comprehensive policy to reduce unemployment. The unions opposed some of the pension and other labor market reforms through legislative channels and succeeded in weakening them (as well as in securing repeal of the Kohl-era changes referred to above), but they did negotiate restrained wage settlements in 1998, for which they could feel compensated by a reduction of unemployment of 2 ½ percentage points between 1997 and 2000, and they were credited with permitting an export-led expansion to proceed. But after that expansion was brought to a halt by the downturn of the U.S. economy in 2001 and the unemployment rate, while still at a high level, began to reverse itself while real wages actually declined, the mood of the unionists turned from moderation to militancy and an apparent determination to make up for lost ground. In the spring of 2002, the country's most serious outbreak of strikes (led by the metal workers' and construction workers' unions) in a decade resulted in wage increases in the range of 3 to over 4 percent, which were judged to exceed the growth in overall productivity (although in the neighborhood of productivity growth of exporters in manufacturing sectors), and the retiring and incoming presidents of the DGB (the central German Federation of Trade Unions) denounced tripartite wage policy as "enforced arbitration" (Frankfurter Allgemeine 05/29/02: 1)—a negation of "tarif autonomie."

IG Metall and other unions, on the other hand, overcame their initial reluctance and praised the VW agreement, which provided for the creation of 5,000 new jobs for the unemployed (jobs which would have otherwise been exported to the firm's subsidiary in Portugal). The works council of the VW company had been greatly in favor of the project from

the outset. Through bilateral bargaining over both wages and employment together, as well as hours and work practices, both sides were reportedly left better off (as under efficient-contract bargaining). Lower wages on the additional jobs and higher productivity made possible by increased managerial flexibility in deploying the new work force reduced prospective marginal costs sufficiently for management to forgo the low wage levels currently prevailing in Portugal. From the viewpoint of the union, the gain from this type of deal was three-fold: (a) increased employment—and union membership—was generated directly by the bargaining process and by the employer to whom the wage concessions were made; (b) the lower wages were confined to recently unemployed employees to whom they came as an increase in income; and (c) the duration of the two-tier wage system was to be limited, thanks to the negotiated increases in productivity referred to above. At this writing both the success of the Wolfsburg experiment and the extent of its replicability remain to be determined. However, it does possess incentives to union cooperation that are obviously missing in macroeconomic wage policies. On the other hand it bears a strong family resemblance to the ad hoc widening of wage structures that have been made possible by the existence of opening clauses in conventional collective agreements. And it may prove symptomatic of increased willingness on the part of union leadership to accommodate the forces making for greater decentralization in wage determination and greater flexibility in the management of labor resources.

Selected References

Addison, John et al., "The Long Awaited Reform of the German Works Constitution Act", Universitaet Lueneburg, Fachbereich Wirtschafts- und Sozialwissenschaften, Arbeitsbericht Nr. 254, January 2002.

Berthold, Norbert, "Abbau von inflexiblen Arbeitsmaerkten", Perspektiven der Wirtschaftspolitik 1, 2000, 229-250.

Buettner, Thiess and Bernd Fitzenberger, "Central Wage Bargaining and Local Wage Flexibility: Evidence from the Entire Wage Distribution", 1998, ZEW Discussion Paper No. 98-39.

Buttler, Friedrich, Wolfgang Franz, Ronald Schettkat and David Soskice (Eds.), "Institutional Frameworks and Labor Market Performance – Comparative Views on the U.S. and German Economies", 1995, London and New York, Routledge.

Carlin, Wendy and David Soskice, "Shocks to the System: The German Political Economy Under Stress". National Institute Economic Review, January 1997: 57-76.

Dornbusch, Rudiger, "In Praise of Hard Money". Financial Times, June 18, 1998: 2.

The Economist. Various issues.

Facts About Germany. 1999, Federal Government Press and Information Office.

Financial Times. Various issues.

Fitzenberger, Bernd and Wolfgang Franz, "Industry-Level Wage Bargaining: A Partial Rehabilitation – The German Experience, Scottish Journal of Political Economy, Vol. 46(4), 1999, 31-57.

Frankfurter Allgemeine. Various issues.

Flanagan, Robert J., David W. Soskice and Lloyd Ulman (FSU), Unionism, Economic Stabilization, and Incomes Policies: European Experience. 1983, Brookings.

Franz, Wolfgang, "Die Lohnfindung in Deutschland in einer internationalen Perspektive: Ist das deutsche System der Lohnfindung ein Auslaufmodell?", Beihefte der Konjunkturpolitik, Zeitschrift fuer angewandte Wirtschaftsforschung, Vol. 43, 31-57.

Gerlach, Knut and Wolfgang Meyer, "Tarifverhandlungssystem, Lohnhöhe und Beschäftigung", Mitteilungen aus der Arbeitsmarkt- und Berufsforschung 1995, 28, 3, 383-390

Gerlach, Knut and Gesine Stephan, "Collective Contracts, Distribution of Wages and Sorting: Evidence from German Matched Employed-Employee Data", Universität Hannover, February 2002.

German Institute for Economic Research (DIW) et al., "Progress Report on the Economic Situation in Eastern Germany, 2002, Economic Bulletin 7.

Giersch, Herbert; Karl-Heinz Paqué and Holger Schmieding, The Fading Miracle. 1992, Cambridge.

Huebler, Olaf and Uwe Jirjahn, "Works Councils and Collective Bargaining in Germany: The Impact on Productivity and Wages", IZA DP No.322, July 2001.

Huebler, Olaf and Wolfgang Meyer, "Industrial Relations and the Wage Differential within Firms", *Schmollers Jahrbuch: Journal of Applied Social Science Studies*, 121, 2001, 282-312.

Jacobi, Otto, Berndt Keller and Walther Müller-Jentsch, "Germany: Codetermining the Future" in Fermer, Anthony and Richard Hyman, Eds. Industrial Relations in the New Europe. 1992, Blackwell

Koch, Karl, "Regulatory Reform and German Industrial Relations" in K. Dyson (eds.). The Politics of German Regulation. 1992, Aldershot: Dartmouth Publishing Company: 235-254

Lehmann, Karen, "Stabilität und Veränderung der Flächentarifbindung von Arbeitgebern", Eine Theoretische und Empirische Analyse. 2002, LIT Verlag, Muenster-Hamburg-London

Lindbeck, A. and D.J. Snower. The Insider-Outsider Theory of Employment and Unemployment. 1998, Cambridge, Mass.: MIT

Lindlar, Ludger and Wolfgang Scheremet, "Germany's Slump, Explaining the Unemployment Crisis of the 1990s" DIW Discussion Paper No. 169. June 1998, Berlin: 1-56.

Meyer, Wolfgang, "Bestimmungsfaktoren der Tariflohnbewegung – Eine empirische mikroökonomische Untersuchung fuer die Bundesrepublik". 1990, Campus Verlag, Frankfurt/New York

Modigliani, Franco and Jean-Paul Fitoussi, Beniamino Moro, Dennis Snower, Robert Solow, Alfred Steinherr, and Paolo Sylos Labini, "An Economist's Manifesto on Unemployment in the European Union". Banca Nazionale Del Lavoro Quarterly Review. v. LI, No. 206, September 1998: 327-361.

Moeller, Joachim, "Die Entwicklung der qualifikatorischen Lohn- und Beschäftigungsstruktur in Deutschland", *Jahrbuecher fuer Nationaloekonomie und Statistik*, Band 219, Heft 1 +2, Juli 1999, 8-31.

Müller-Jentsch, Walther, “Germany: From Collective Voice to Co-management”, in Rogers, Joel and Streeck Wolfgang (eds.), Work Councils. Consultation, Representation, and Cooperation in Industrial Relations, 1995, The University of Chicago Press, 53-78

Müller-Jentsch, Walther and Hans Joachin Sperling, “Towards a Flexible Triple System? Continuity and Structural Changes in German Industrial Relations”, in Hoffmann, R., Jacoby, O., Keller, B., and Weiss, M. (eds.), German Industrial Relation Under the Impact of Structural Change, Unification and European Integration. 1995, Hans Böckler Stiftung, 9-29

Nickell, Stephen, “Unemployment and Labor Market Rigidities: Europe versus North America”, *Journal of Economic Perspectives* 11, 1997, 55-74.

Nickell, Stephen and Brian Bell, “Changes in the Distribution of Wages and Unemployment in OECD Countries”, *American Economic Review*, PP, Vol. 86, No. 2, 1996, 302-308.

Nickell, Stephen and Richard Layard, “Labor Market Institutions and Economic Performance”, in: Orley C. Ashenfelter and David Card (Eds.), *Handbook of Labor Economics*, Vol. 3C, 1999, Amsterdam, Elsevier, 3029-3084.

OECD, Employment Outlook, July 1997

OECD, Economic Surveys: Germany. Various issues.

OECD, Jobs Study, Parts I and II. 1994.

Pischke, Joern-Steffen, “Ausbildung und Lohnstruktur: Deutschland und die USA in den 80er Jahren”, in: Bernhard Gahlen, Helmut Hesse and Hans Juergen Ramser (Eds.), *Verteilungsprobleme der Gegenwart*, 1998, Tuebingen, Mohr Siebeck, 95-117.

Pizzorno, A., “Political Exchange and Collective Identity in Industrial Conflict,” in Crouch, C. and Pizzorno, A. The Resurgence of Class Conflict in Western Europe since 1968. 1978, Macmillan

Reder, Melvin and Lloyd Ulman, “Unionism and Unification,” in Ulman, Lloyd, Barry Eichengreen and Willian T. Dickens (eds.) Labor and an Integrated Europe. 1983, Brookings.

Schnabel, Claus, “Tariflohnbildung und Effektivlohnfindung”, 1997, Frankfurt, Peter Lang.

Siebert, Horst, “Labor Market Rigidities: At the Root of Unemployment in Europe”, *Journal of Economic Perspectives* 11, 1997, 37-54.

Siebert, Horst, “Ein Ansatz fuer mehr Dynamik und mehr Beschaeftigung”, *Perspektiven der Wirtschaftspolitik* 1, 2000, 221-227.

Solow, Robert M., “Unemployment in the United States and in Europe”, *Ifo-Studien* 46, 2000, 1-12.

Silvia, Stephen,(should that be Stephen, Silvia ?) “German Unification and Emerging Divisions within German Employers Associations”, Comparative Politics, January 1997

Soskice, David, “Wage Determination: The Changing Role of Institutions in Advanced Industrialized Countries.” Oxford Review of Economic Policy 1990. v.6, no.4 (Winter): 36-61.

Soskice, David and Torben Iversen, “The Nonneutrality of Monetary Policy with Large Price or Wage Setters” Quarterly Journal of Economics, February 2000: 267-283.

Streeck, Wolfgang, “Neo-Corporatist Industrial Relations and the Economic Crisis in West Germany”, in Goldthorpe, J. (eds.) Order and Conflict in Contemporary Capitalism. 1984, Clarendon Press, Oxford

Thelen, Kathleen, “Why German Employers Cannot Bring Themselves to Dismantle The German Model” in Iversen, T., Pontunson, J. and D. Soskice (eds.) Unions, Employers and Central Banks: Macroeconomic Coordination and Institutional Change in Social Market Economies. 2000, New York, Cambridge University Press.

Tobin, James, “Monetarism: An Ebbing Tide?” The Economist, April 27, 1985.

Turner, Lowell, Defending High Road: Labor and Politics in Unified Germany. 1998, Ithaca, N.Y.: Cornell University Press.

Tüselmann, H. and Heise, A., “The German Model Of Industrial Relations At The Crossroads: Past, Present and Future”, Industrial Relations Journal, 31:3, 2000.

Tyrväinen, T. “Real Wage Resistance and Unemployment: Multivariate Analysis of Cointegrating Relations in 10 OECD Economies” The OECD Jobs Study: Working Paper Series, 1994.

Van Ark, Bart, “Productivity and Competitiveness in Manufacturing: A Comparison of Europe, Japan, and the United States,” in Karen Wagner and Bart Van Ark, International Productivity Differences: Measurement and Explanations. 1996, Amterdam, Elsevier.

Wall Street Journal. Various issues.

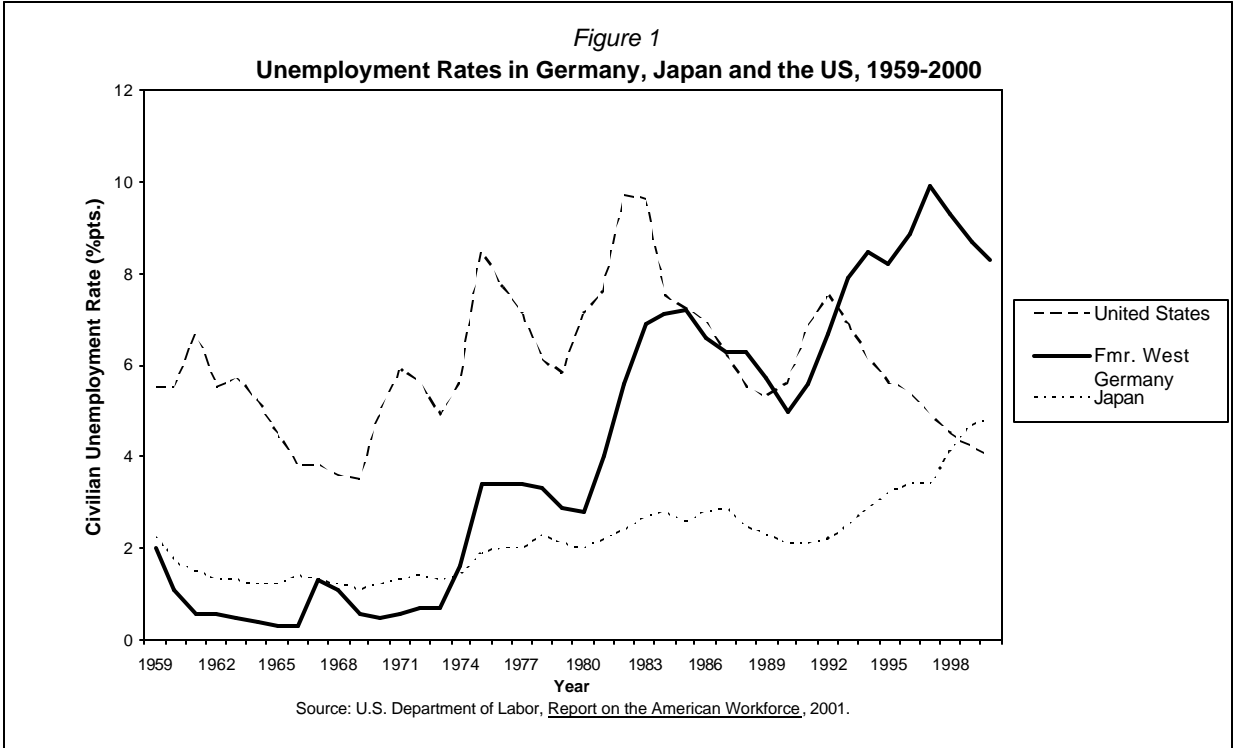


Figure 2

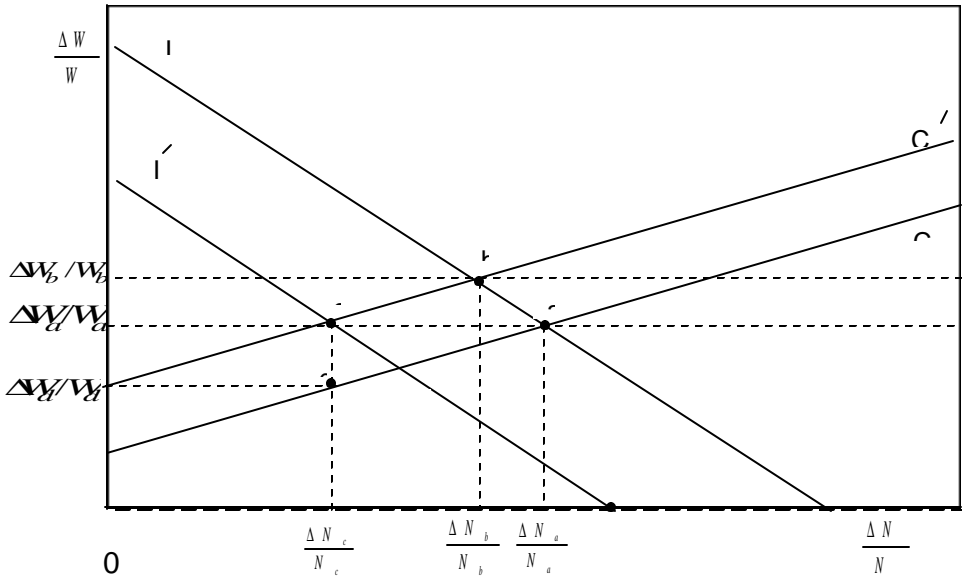
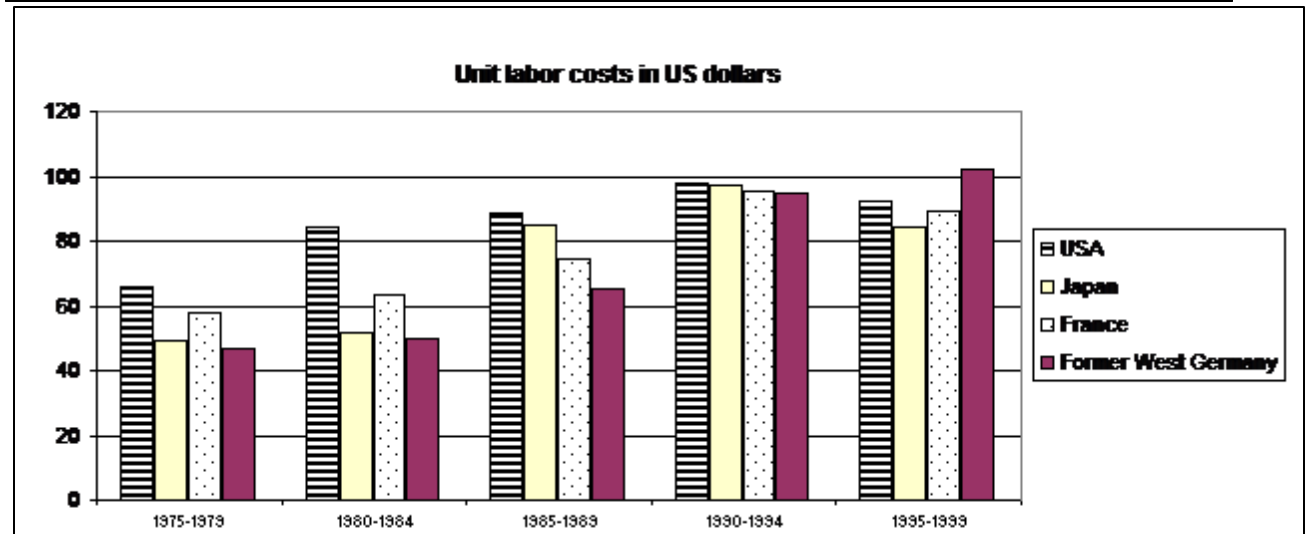
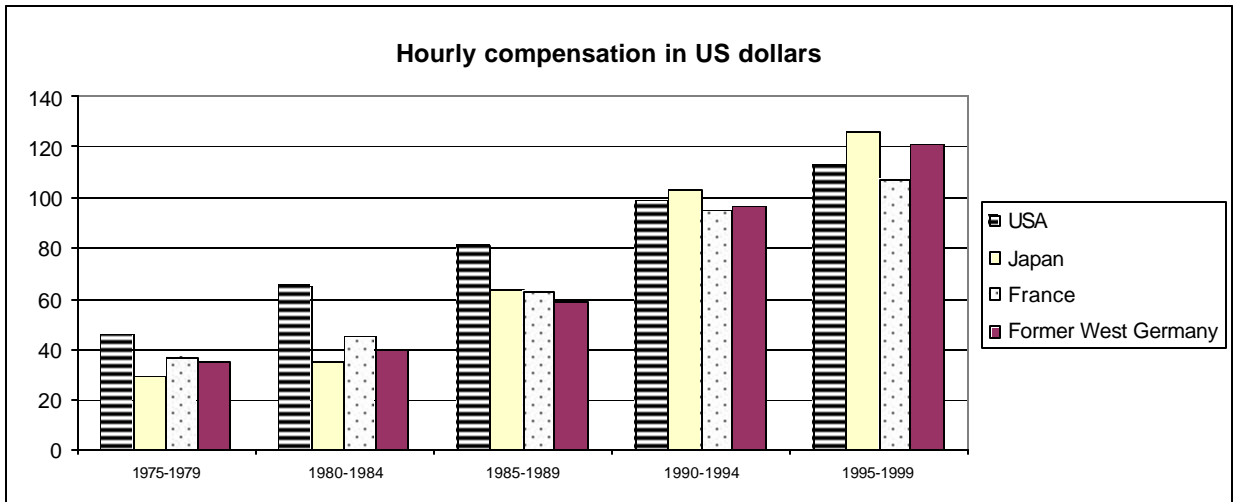
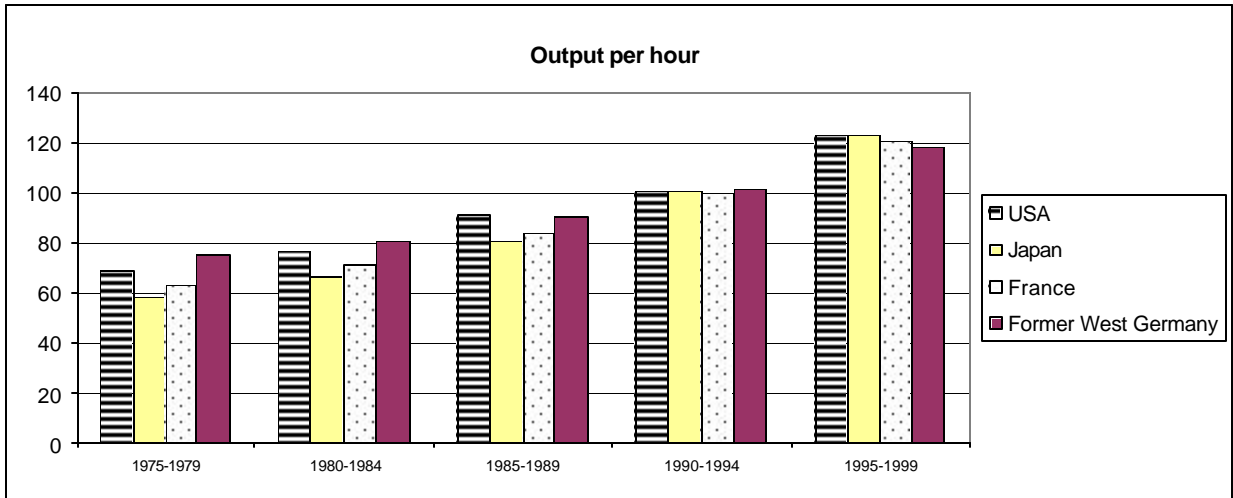
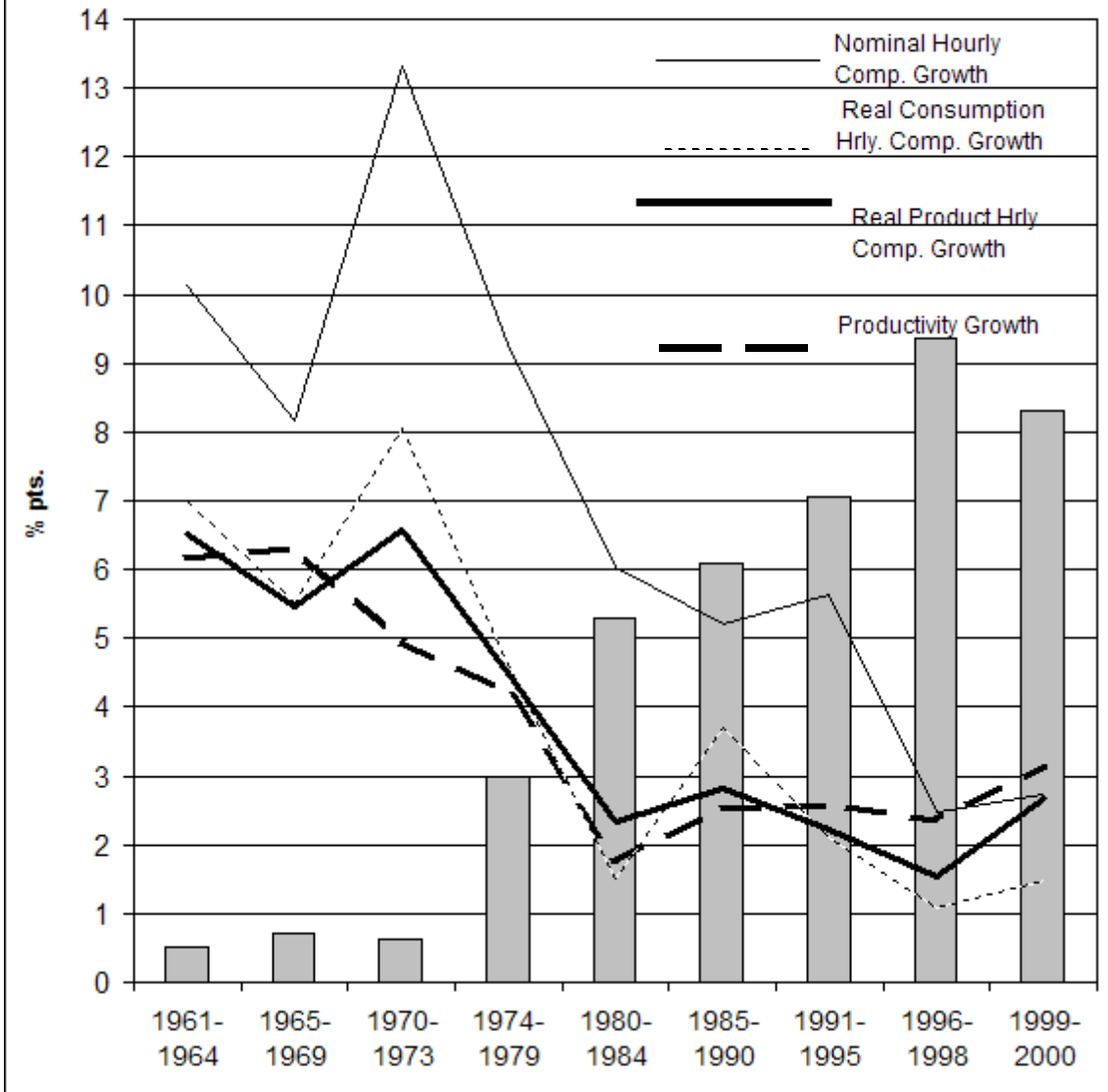


Figure 3
Output per hour, hourly compensation and unit labor costs, 1975-1999



Indexes: 1992=100
 Source: U.S. Dep. of Labor: Bureau of Labor Statistics

Figure 4
Average Annual Growth of Wages and Productivity in Manufacturing and Unemployment Rates*



*Note: Bars represent the average civilian unemployment rate; prior to 1993 data refers to Western Germany

Source: US Dept. of Labor: Bureau of Labor Statistics Data, April 2002. International comparisons of manufacturing productivity and unit labor cost trends, 2000. Report on the American Workforce, 2001 for civilian unemployment rate. OECD, Economic Outlook, June 2001, Dec. 1999, and July 1982 for CPI and GDP deflators.

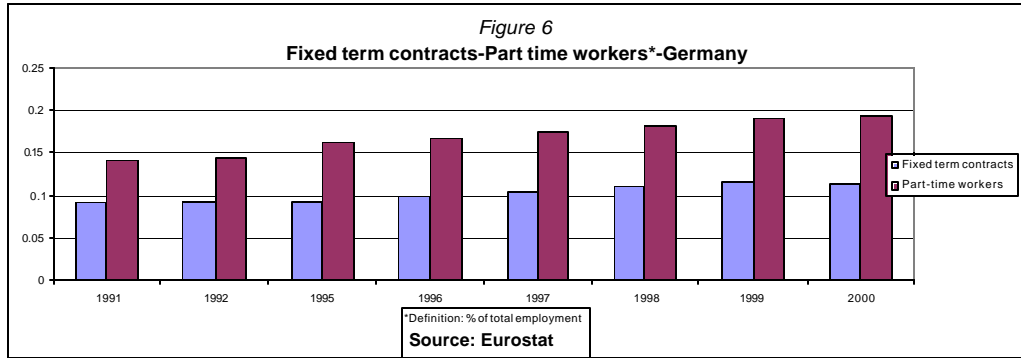
Figure 5
Output gap, 1983-2002



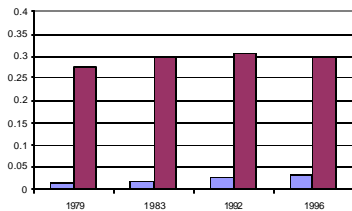
Note: Data for 2000-2002 are estimates or projections

Output gap is defined as the deviation of actual GDP from potential GDP as a percent of potential GDP.

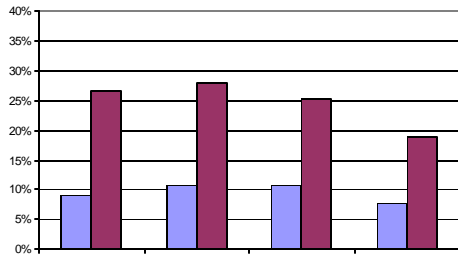
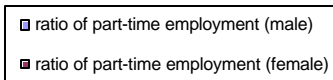
Source: OECD, [Economic Outlook](#), June 2001



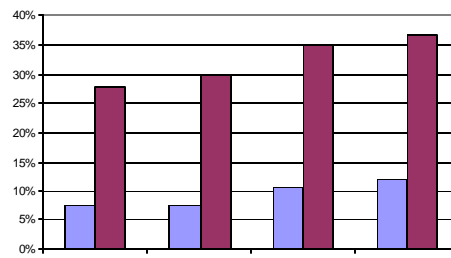
Part-time workers as a proportion of employees



Germany*



United States**



Japan

Definition: Various national definitions of part-time workers

*Prior to 1983 data refers to former F.R. of Germany. After 1992 data refers to All Germany

** Calculation methods differ from 1996 onward

Source: OECD Employment Outlook

Figure 7

