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by  
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# **Does Germany have the 'world's highest wage costs'?**

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## Does Germany have the ‘world’s highest wage costs’?

According to some world-wide circulating statistics, Germany appears to lead the league of high-wage countries by a rather substantial margin. These figures have been regularly cited in various competitiveness reports and in the business press, in particular in Germany. The main reason for the popularity of these data is the ‘nation-states-compete’ doctrine that enjoys so much influence in the business community. It is no surprise that the figures on Germany’s extremely high wage level have been widely interpreted as an indication of a severe ‘competitiveness problem’. In the economic policy debate, these figures have also served as a key piece of evidence that excessive wages are at the heart of Germany’s unemployment problem.

This reasoning has intruded into academic discourse as well, quite considerably. For example, Hans-Werner Sinn has recently claimed:

“Since their rapid rise during the 1970s and 1980s, German wage costs are the world’s highest. They are the cause for the mass unemployment, and they are the core of Germany’s locational problem. Only if wages are priced to the market, capital comes by itself and does not have to be attracted by tax gifts.”<sup>1</sup>

Similarly, the Scientific Advisory Board to the German Ministry of Economic Affairs, a group of the most respected academic economists, has argued in an expertise on ‘long-term unemployment’:

“Sustained unemployment is above all a concomitant of increasing competition in a rapidly-integrating world economy. [...] Today, Germany has the highest wage costs, on average a low return on capital, and paralysing regulations which also apply to the labour market. The tax burden is far higher than for Germany’s most important competitors on the world market. The social expenditure rate is very high and still increasing. Consequently, the propensity to invest at home is declining while the propensity to invest abroad is increasing.”<sup>2</sup>

If West Germany had the world’s highest wage level, it would have to have either the world’s highest productivity level, or abnormally low profitability. The evidence shows that West Germany belongs to a larger group of high-productivity countries (Maddison, 1995, Lindlar, 1997), while an abnormally low level of profitability is not easy to comprehend with the fact that until 1992, West Germany’s share of private sector fixed investment and R&D in GDP has been larger than that of France, Italy, the U.K. and the U.S. (Lindlar 1995). This suggests that the international data on wage level may be wrong. These data are mainly supplied by the United States Bureau of Labor Statistics (BLS). The BLS has established a tradition of collecting comparative statistics for labour costs and productivity in manufacturing. In Germany, these statistics have been most effectively disseminated by the Institut der Deutschen Wirtschaft (IW), the think tank of the German employers’ associations. The IW also appears to have built up its own data base. Overall, we think those data are accurate.

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1 Sinn (1997), pp. 690-1, translation by the authors.

2 Wissenschaftlicher Beirat (1996), pp. 30-1, translation by the authors.

However, what appears to have largely escaped attention is the fact that those data refer to manufacturing production workers. Presently, data on an hourly basis are only available for this group. However, the wage level of manufacturing production workers may not be representative for the overall economy. In Germany, manufacturing production workers make up less than 20 per cent of the entire work force, and this figure is likely to be lower in countries with more employment in the service sector. In West Germany, the typical manufacturing production worker is skilled and engaged in the production of specialised, high-quality goods while, for example, in the U.S. and in the U.K., typical manufacturing production workers are less-skilled and engaged instead in mass production. The still-fragmentary international evidence on skill level by sectors suggests that in 1989, 26 per cent of the overall workforce in German manufacturing were less-skilled compared to 67 per cent in U.S. manufacturing and 57 per cent in U.K. manufacturing.<sup>3</sup> Therefore, it does not come as a surprise that German firms pay higher wages to their production workers than those in the U.S. and the U.K.

To get a more accurate picture of wage level in international comparison, we have constructed a new set of data on hourly wages in total manufacturing, in the business sector and in the economy as a whole. Table 1 compares our result for leading OECD economies with the BLS statistics. In order to assess the impact of exchange rate misalignments, hourly wages in the business sector are calculated on the basis of the current exchange rates and of purchasing power parities

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3 Ark and Pilat (1993), p. 30, O'Mahony and Wagner (1996), p. 162; the data for the U.S. refer to 1987.

(PPP). If measured in PPP, wages provide information for the pre-tax purchasing power of workers in different countries. The PPP are calculated for total domestic demand including non-tradables. They therefore do not provide accurate information for the wage level at the equilibrium exchange rate. For example, during the 1980s and early 1990s, Germany's overall PPP was on average 10 per cent below the exchange rate.

Our estimate reveals that the western part of Germany belongs to a larger group of OECD economies that have a high level of hourly labour compensation. This group includes Switzerland, Belgium, Norway and the United States, closely followed by France, Sweden, Japan, Denmark, Austria and the Netherlands. Switzerland leads this group of high wage countries by a rather substantial margin.

In many countries, hourly labour compensation differs substantially between manufacturing and the total economy, and between manufacturing as a whole and manufacturing production workers. For example, hourly labour compensation for manufacturing production workers is only at three quarter cent of the total economy in the U.S. and the U.K. while it is a tenth above the total economy in West Germany (table 2). The wage level is highly sensitive to the conversion factor. If the wage level in domestic currencies is converted by purchasing power parities instead of the exchange rate, the current ranking reverses substantially, with the United States and Belgium clearly in the lead. We note that the relative level of the EMS countries, Germany included, has substantially declined in 1997 due to the partial reversal of the overvaluation of the D-mark in the preceding years.

One may be tempted to interpret our improved estimate as directly supportive to the opposite claim, namely that too high wages are not the cause of Germany's

unemployment problem. We believe, however, that this kind of reasoning would be as questionable as that by Sinn and by the Scientific Advisory Board. Rather, we have great difficulties in understanding why the domestic wage level alone – that is, independent of the production function, the capital stock, the quality of labour supply and other structural characteristics of the domestic economy – should have any explanatory power for the rate of unemployment.<sup>4</sup> If it did, the rate of unemployment would be positively correlated with the overall level of economic development. This is obviously wrong.

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4 For a recent econometric analysis of nominal and real rigidities in macroeconomic wage and price determination in West Germany, see Lindlar and Scheremet (1998).

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**Table 1 Wage level of advanced OECD economies in 1997**  
(Total labour compensation per hour worked, in U.S.-Dollars, converted by the annual average exchange rate unless otherwise stated)

	Total Economy		Private Sector	Manufacturing	
	All workers	All workers, PPP	All workers	All workers	Production workers
Switzerland	28,3	20,7	27,6	–	24,3
Belgium	25,8	24,7	26,2	26,6	23,1
West Germany	25,4	21,9	25,4	30,2	28,1
Norway	25,3	18,4	21,2	24,6	22,8
United States	24,8	24,8	24,2	23,6	18,3
France	23,9	21,4	25,0	24,4	17,5
Sweden	23,4	18,6	23,6	26,3	22,7
Japan	23,2	16,3	21,6	20,4	19,5
Denmark	22,7	17,3	23,0	22,0	22,3
Austria	22,0	19,1	22,4	–	22,2
Netherlands	22,0	20,7	22,1	21,9	20,7
Italy	20,9	21,7	20,3	19,1	17,2
United Kingdom	20,0	18,0	18,9	19,1	15,6
Canada	16,5	18,8	13,0	14,6	16,7

– Not available. Sources: Total labour compensation and number of employees for the total economy, the private sector and manufacturing are from OECD, *National Accounts, Detailed Tables, Volume II, 1983-1995*, updated with indices derived from OECD, *Economic Outlook Database* (November 1997). Annual average hours worked for the total economy are from Angus Maddison, *Monitoring the World Economy 1820-1992* (Paris: OECD, 1995), table J-4, who provides standardised estimates for employment in the total economy; these data were updated with indices of non-standardised data from OECD, *Employment Outlook 1995 and 1997*, table C and G. It was assumed that hours worked do not differ between employed persons and employees and between the total economy and the business sector. Total hours per employee in manufacturing are from Institut der deutschen Wirtschaft, *Internationale Wirtschaftszahlen 1994* (Cologne 1994), updated with indices from the U.S. Department of Labor, Bureau of Labour Statistics (BLS), *International Comparison of Manufacturing Productivity and Unit Labor Cost Trends, 1996* (Washington, D.C.: <http://stats.bls.gov>). For West Germany, all data except those for manufacturing production workers are from the Statistisches Bundesamt, *Volkswirtschaftliche Gesamtrechnungen, Reihe 1.3, 1996*, updated with estimates from the Deutsche Bundesbank and the Deutsches Institut für Wirtschaftsforschung. Exchange rates and purchasing power parities (PPP) were generally taken from the OECD *Economic Outlook Database*; the PPP for 1997 were calculated linking the 1995 values with the GDP deflator of the respective country relative to that of the U.S. Total labor compensation for production workers in manufacturing are from BLS, *International Comparison of Hourly Compensation Costs for Production Workers in Manufacturing, 1996* (see above). Values for 1997 are based on forecasts by the OECD secretariat and are linked to the values of 1996. The average annual hours worked were assumed to be the same as in 1996. Authors' calculation.

Table 2 **Wage level of advanced OECD economies in 1997**  
(Total economy = 100)

	Total Economy		Private Sector	Manufacturing	
	All workers	All workers, PPP	All workers	All workers	Production workers
Switzerland	100	73	98	–	86
Belgium	100	96	102	103	90
West Germany	100	86	100	119	111
Norway	100	73	84	97	90
United States	100	100	98	95	74
France	100	90	105	102	73
Sweden	100	79	101	112	97
Japan	100	70	93	88	84
Denmark	100	76	101	97	98
Austria	100	87	102	–	101
Netherlands	100	94	100	100	94
Italy	100	104	97	91	82
United Kingdom	100	90	95	96	78
Canada	100	114	79	88	101

Sources and explanations, see table 1. – Not available.