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## Unjust Divergence in Earnings in Germany?

### Many believe top executives earn too much

Stefan Liebig and Jürgen Schupp

Since a court decided that bonuses paid to the former top management at Mannesmann AG were unjustifiable there has been widespread public discussion over fair pay in Germany. This has been against the background of big increases in the salaries paid to top executives at a time when the economy is sluggish and there is high unemployment.

A special survey by the Socio-Economic Panel (SOEP) conducted by DIW Berlin in conjunction with Infratest Sozialforschung showed that many people feel top executives are too highly paid, and that the differences between their earnings and those of unskilled workers is not justifiable. Many, especially in eastern Germany, also feel that their own pay is unfairly low. Greater transparency would increase the acceptance of differentials that are otherwise seen as unjust.

### Measuring and operationalising unjust earnings divergence

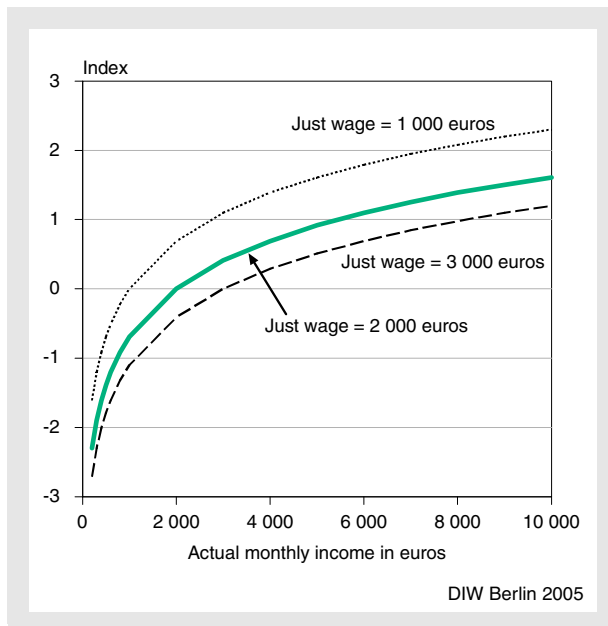
In reality what constitutes a 'just wage' cannot be scientifically determined.<sup>1</sup> However, people's ideas of what is fair, and their assessment of specific situations, can be established using the methods of empirical social research. In summer 2004 a special survey<sup>2</sup> of the Socio-Economic Panel (SOEP),<sup>3</sup> which DIW Berlin has been conducting for years, was carried out, in which about 750 people aged at least 16 were asked both about their general idea of fair-

<sup>1</sup> Theoretical models, like the theory of marginal productivity, can serve as reference standards for the assessment of 'fairness'. But whether models of this kind will be accepted by the general public is an open question. Moreover, the assumptions that have to be made in theoretical models, like the assumption of perfect competition, are not necessarily a reality.

<sup>2</sup> The field work for the pre-test 'Personality and Politics' ([www.diw.de/deutsch/sop/service/fra-gen/fr2006/pretest\\_experiment/pdf](http://www.diw.de/deutsch/sop/service/fra-gen/fr2006/pretest_experiment/pdf)) was carried out by TNS Infratest Sozialforschung; the 772 interviews were held between 15 April and 18 May 2004 with persons aged 16 and more, in private households. The indicators analysed below will also form part of the main SOEP survey in 2005.

Figure 1

## Justice Index on Earnings showing the Relation between a Just Wage and Actual Earnings



Source: DIW Berlin.

ness and how appropriate their own earnings and those of top executives and unskilled workers were.

The question was: 'What do you believe a chief executive and an unskilled worker on the conveyor belt earn net a month on average?' And then: 'What would be just monthly net earnings for a chief executive and for unskilled workers?' For an assessment of their own earnings, respondents were first asked to name their net earnings in the previous month, and then: 'What would be a just net monthly income in your view?' All those questioned were asked to specify the amounts in euros. From the answers to the questions on actual earnings and what would be regarded as fair it was possible to construct a 'Justice Index' (J). It results from the natural logarithm of the ratio of the actual income (A) and the just income (C).<sup>4</sup>

<sup>3</sup> SOEP is a representative longitudinal survey of private households held every year throughout Germany. See Jürgen Schupp and Gert G. Wagner: 'Maintenance of and Innovation in Long-Term Panel Studies, The Case of the German Socio-Economic Panel (GSOEP)', in: *Allgemeines Statistisches Archiv*, vol. 86, 2002, pp. 168-175. For more current information see [www.diw.de/soep](http://www.diw.de/soep).

<sup>4</sup> The equation in the Justice Index is  $J = \ln(A/C)$ , see Guillermina Jasso: 'On the Justice of Earnings, A New Specification of the Justice Evaluation Function', in: *American Journal of Sociology*, vol. 83, 1978, pp. 1398-1419.

The more the Justice Index deviates from 0 the greater is the degree of felt injustice in regard to earnings. Using the logarithm enables fair earnings to be indicated by 0, and big deviations to be 'shortened' upwards. A Justice Index that deviates from 0 can therefore include positive and negative values. If the values are positive the actual amount earned will be greater than what is regarded as just – so a person is currently receiving *more* than he ought to receive. Negative values, on the other hand, show a situation in which the actual amount earned is less than what is regarded as fair, so a person sees himself as unjustly underrewarded.

So the Justice Index used here enables the direction and degree of injustice perceived in earnings to be reflected. Figure 1 shows the curve of the Index for three exemplary cases of earnings regarded as just, and their dependence on actual earnings (x axis, C = 1000, 2000 and 3000 euros). With an actual monthly income of 2000 euros the Index would show 0 if the amount regarded as just was the same, but if the income regarded as just was 1000 euros lower than the actual earnings the Index would show 0.7. In cases where the income regarded as just is 1000 euros higher it will show around -0.4.

## Assessing injustice in incomes in Germany

In summer 2004 a majority of persons in employment in Germany thought their wages or salaries were just. Around 54% of persons currently in employment who were questioned in the survey thought the income they were currently receiving was what they would regard as just.

Only around 23% of those questioned thought top executives' salaries were justified, and only 29% thought that unskilled workers received a just wage. So in both cases most of those questioned saw injustice here. Unskilled workers earn less than they should, in the general view, and executives earn more than they should. So in general the tendency is to believe it would be just for salaries at the top end to be lowered and wages at the lower end to be increased (cf. table 1).

Politically, it is particularly significant that people feel a much greater sense of injustice in regard to executives' earnings than their own or the wages of the unskilled. The gap between their actual and their just income is much smaller compared with the gap between executives' actual and just earnings. The degree of perceived injustice reached an index value of 0.65 for executives' earnings, while it was 0.25 for unskilled workers' earnings (absolute amount) and only 0.19 for their own earnings (absolute amount).

Table 1

## Perception of Justice in Earnings

(%)

	Underrewarded ( $A^1 < C^2$ )			Just ( $A=C$ )			Overrewarded ( $A>C$ )		
	Total	West	East	Total	West	East	Total	West	East
Own income from employment	44	39	59	54	58	41	2	3	–
Executives' pay	2	2	2	23	23	23	76	76	75
Unskilled workers' pay	70	68	76	29	31	23	2	2	2

1 Current income. — 2 Just income.

Source: SOEP Study 'Persönlichkeit und Politik', 2004.

There was no difference in the assessment of executives' pay between those on high and those on low incomes (cf. table 2), nor in the assessment of unskilled workers' pay.<sup>5</sup> Evidently there is broad consensus right through the income groups that executives earn too much. By contrast, the belief that their own earnings are justified rises as incomes rise.

But what differences are there between the old and new Federal states? Fifteen years after the fall of the Wall are big differences still evident in people's view of how just their earnings are? No differences are apparent

in the view of executives' pay. In both parts of Germany around 75% of respondents believed that executives' earnings are unjustifiably high. A difference is apparent in the assessment of unskilled workers' earnings, but it is not so marked that one could speak of a separate pattern of evaluation in east and west.

However, there are clear regional differences in the assessment of people's own earnings. Whereas in the west nearly 58% of those currently in employment saw their own income as just, in east Germany only 41% did so. The big discrepancy between collectively agreed and actual earnings could have played a part here. While collectively agreed rates are the same in many branches in east and west, the wages actually paid in east Germany are 20% below those in west Germany.<sup>6</sup>

Table 2

## Perceived Degree of Justice in Earnings in Germany For All Questioned and by Class of Income from Employment

	Justice in		
	Own income <sup>1</sup>	Executives' pay	Unskilled workers' pay
Justice Index <sup>2</sup> for all questioned			
Total	–0.19	0.65	–0.25
West	–0.13	0.65	–0.24
East	–0.38	0.66	–0.32
Justice Index by class of income from employment (income quintiles)			
1st (Lowest) quintile	–0.30	0.63	–0.29
2nd Quintile	–0.27	0.72	–0.26
3rd Quintile	–0.18	0.64	–0.19
4th Quintile	–0.11	0.62	–0.22
5th (Top) quintile	–0.07	0.73	–0.21

1 Only persons in employment. — 2 Justice Index J calculated according to the equation  $J = \ln(A/C)$ , with A as current income and C as just income.

Source: SOEP Study 'Persönlichkeit und Politik', 2004

<sup>5</sup> Nor were there any significant differences between persons in employment and those not (pensioners or unemployed), men or women, young or old people (not cited in table 2).

### Stable patterns of the perception of injustice in earnings

The questions on the perception of injustice in earnings used in the special SOEP survey were also used in an international survey project covering 13 countries, the International Social Justice Project – ISJP in 1991 and 1996. They were also used in 2000 in a population survey that only covered Germany.<sup>7</sup> In each of these three surveys people in Germany who are entitled to vote in national elections were questioned in a representative random sample, thus enabling the development to be traced over a period of 14 years. The data for 1991 and 1996 also enables comparison with ideas on justice in

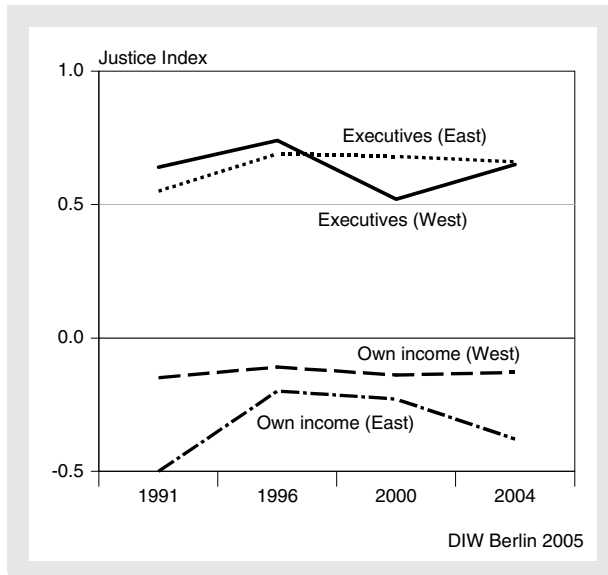
<sup>6</sup> Cf. Bernd Görzig, Martin Gornig and Axel Werwatz: 'East Germany: A Structural Low Wage Region?' In: *DIW Economic Bulletin*, vol. 41, no. 12, December 2004.

<sup>7</sup> The German working group of the International Social Justice Project (ISJP) has been headed since 1991 by Bernd Wegener at the Social Science Institute, Humboldt University, Berlin ([www.isjp.de](http://www.isjp.de)). See James R. Kluegel, David S. Mason and Bernd Wegener (ed.): 'Social Justice and Political Change', Berlin./New York, 1995.

Figure 2

## Perceived Justice in Earnings: Own Income and Executives' Pay in East and West Germany

Average values



Sources for 1991, 1996 and 2000: International Social Justice Project; for 2004: SOEP Study 'Persönlichkeit und Politik', 2004.

earnings in other countries. Nevertheless, it must be remembered that the context of the questions in the international survey projects was very different from that of the SOEP special survey; moreover, the random samples are not big enough to enable significant changes over time to be identified. Altogether, a comparison of the SOEP data from 2004 with that from earlier ISJP surveys shows a high degree of stability. The extent to which West Germans see their earnings as just has practically not changed at all in the last 14 years (cf. figure 2).

The way executives' pay is regarded as unjust has also remained largely stable through the four periods surveyed, although too much should not be read out of the curve through the four measuring points as the random sample on which it is based was small. The curve changes only gradually, remaining on the level established for 1991. Evidently the general public have regarded executives' earnings as unjustifiably high for a long time and not only since the 'Mannesmann affair' and the ensuing debates in the media.<sup>8</sup>

<sup>8</sup> Nevertheless, pay to management board members has literally shot up in some companies traded on the stock market in the last ten years compared with the average earnings of their workforce, cf. Hans-Hagen Härtel: 'Fundamentaler Wandel der Maßstäbe', in: *Wirtschaftsdienst*, vol. 84, no. 6, 2004, pp. 347-350.

However, certain changes have become apparent in recent years in people's assessment of their own earnings. At the start of the reunification process east and west Germans were still relatively far apart in their view of their own incomes, with the east Germans seeing them as very much too low. Shortly after reunification half of those in employment in the west thought their incomes were just, while only 18% in the east shared that view. In the 1996 and 2000 data this difference between the two parts of Germany had lessened, and in the spring of 2004 the percentage of those in east Germany who described their earnings as just had reached 41%. Nevertheless, the degree of injustice felt by those in east Germany who do see themselves as unfairly remunerated is clearly greater. Where respondents saw themselves as receiving too little remuneration the discrepancy between the actual earnings and what they would regard as fair was greater in the east than in the west (cf. table 1).<sup>9</sup> So although the number in the east who feel they are unfairly remunerated is falling, the subjective sense of injustice is growing even greater.

## International comparison of results

To answer the question if the views on whether earnings are fair or not are 'typically German' table 3 shows results from other countries as well. Data on the Netherlands, Hungary, the United States, Japan and Poland are available for 1991, but for 1996 only a comparison with the Netherlands and Hungary is possible. The data show that in 1991 executives' salaries in Germany were perceived as much more unjust than those in other countries – indeed, Germany has the highest perception of injustice. In the Netherlands the view that executives' pay is unjust tended to fall from 1991 to 1996 and on both dates was clearly lower than in Germany, but the development in Hungary showed marked changes. The view that executives' pay is unjustly high grew strongly after 1991, and in 1996 it was actually above the level on the Justice Index in Germany. But clearly in 1991 the belief that executives were unjustly highly paid was strongest in Germany, at least in comparison with these three western countries.

<sup>9</sup> The average difference between the two groups is significantly on the 5% level. More exact analyses show that the average difference among those who say their earnings are unjust is mainly due to blue collar workers in the east. For white collar workers and officials in the east the gap between actual earnings and what they feel would be just is on average no larger than in the west.

Table 3  
Justice Indices<sup>1</sup> for Executives' Pay by International Comparison  
Average values

	1991	1996
West Germany	0.64	0.74
East Germany	0.55	0.69
Netherlands	0.34	0.30
Hungary	0.47	0.84
USA	0.34	–
Japan	0.24	–
Poland	0.14	–

<sup>1</sup> Justice Index J calculated according to the equation  $J=\ln(A/C)$ , with A as current income and C as 'just' income.  
Source: International Social Justice Project.

## The consequences of unfair pay differentials

So what is the significance of establishing that members of the general public feel earnings differentials are

unjust? The data from the SOEP special survey also give indications of an answer to this question (cf. table 4). It is important to remember that it is mainly the sense that their own earnings are unjust that is reflected in the lack of will to political participation and the psychological state of those currently in employment. The greater the sense of injustice over their own earnings the more respondents tended to say that if there were a general election the following week they would probably not vote. There are also indications that the mental state of health of those questioned is related to the intensity of their perception of unjust earnings. It is not possible to make causal conclusions from a single survey, but potential social problems are evident.

Those who admit to a strong sense of injustice in their earnings also say that they 'achieved less than they actually wanted to achieve' in the last four weeks 'owing to mental or emotional problems' (2), 'worked less carefully than usual' and (3) 'were restricted in their social contacts, e.g. with friends, acquaintances or relations'. These correlations also remain stable when checked for certain socio-demographic features that are important for such phenomena – like gender, age, level of education, family status or the level of income. The sense of injustice in regard to earnings is evidently independently linked to the willingness to participate in the

Table 4  
Consequences of Perceived Injustice in Earnings  
Results of logistic regression analysis

	Less work performed in the last four weeks owing to mental or emotional problems	Poorer quality of work performed in the last four weeks owing to mental or emotional problems	Restricted social contacts in the last four weeks owing to poor health or mental problems	Doubt that would vote if there were a general election next week
Control variables				
Region (East Germany = 1)	..	..	..	..
Gender (Male -1)	++	..	..	..
Age	..	+	+	–
Education (Abitur = 1)	..	..	..	–
Income from employment (in euros)	..	..	..	..
Family status: married	–	–	–	..
Degree of injustice (Justice indices)				
Own income	++	+	+	+
Executives' pay	..	..	..	..
Unskilled workers' pay	..	..	..	..
Log Likelihood	–85.44	–89.88	–102.34	–100.05
LR Chi <sup>2</sup>	30.99	17.62	16.18	39.49
Pseudo-R <sup>2</sup>	0.15	0.09	0.07	0.17

.. No significant effects; – slightly negative correlation; + slightly positive correlation; ++ medium positive correlation.  
Source: SOEP Study 'Persönlichkeit und Politik', 2004.



political process and to psychological strain, which in turn can have a harmful effect on performance on the job and social contacts.<sup>10</sup>

In regard to the perception of justice in earnings at the top and lower ends of the social incomes scale, correlations can also be shown between the view of executives' pay and trust in large business enterprises. Those who have little or no trust also admit to a clearly higher sense of injustice in regard to executives' pay.

## Conclusion

There is a broad public debate to the problems of the just distribution of incomes for many years, and not only since the public debate over executives' pay. This shows that social justice cannot simply be reduced to the question of equality of opportunity. When the question of justice in our society arises it is clearly not only important how access to socially desirable positions is given but also what advantages these positions finally bring. If social justice is limited solely to the aspect of equality of opportunity there is a risk of infringing the sense of justice in broad sections of the population, which includes the levels of justice in response to need and performance.<sup>11</sup> However, this is a central problem, and it is particularly crucial for political decision-makers in Germany at present. There is a risk that structural reform measures cannot be realised if they are counter to the traditional sense of justice in the greater majority of voters.<sup>12</sup>

Where the present debate on executives' pay is concerned empirical studies show that this is of less importance to people than their sense of injustice in regard to

their own earnings. This applies both in regard to their personal well-being and their individual political behaviour. But the sense of injustice in regard to executives' pay can be important for people's attitudes to the economic system. This applies, for example, to the loss of trust in large business enterprises.<sup>13</sup> It is not possible to conclude from the statistical results how that trust can be regained. There is much to suggest that it is necessary to provide more information and transparency in this sector, for empirical research into justice has shown that a high degree of transparency, comprehensive information and easily recognisable decision processes can increase acceptance of distribution ratios that are otherwise regarded as unjust.<sup>14</sup> The present discussion over the publication of individual executive's earnings – if necessary enforced by law – should therefore improve attitudes to the economic system generally.<sup>15</sup>

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<sup>10</sup> This confirms some earlier studies in political participation research, e.g. Holger Lengfeld, Alfredo Märker and Stefan Liebig: 'Politisches Engagement, Protest und die Bedeutung sozialer Ungerechtigkeit', in: Stefan Liebig and Holger Lengfeld (ed.): 'Interdisziplinäre Soziale Gerechtigkeitsforschung', Frankfurt a.M., 2002, pp. 243-264. The same applies to results from research in medical sociology, cf. e.g. Johannes Siegrist: 'Distributive Gerechtigkeit und Gesundheit, Eine medizinsoziologische Perspektive', in: *Ethik in der Medizin*, vol. 13, 2001, pp. 33-44.

<sup>11</sup> Numerous studies in experimental economics have also shown that justice in distribution is an important component of human activity. Cf. Ernst Fehr and Klaus M. Schmidt: 'Theories of Fairness and Reciprocity – Evidence and Economic Applications', in: Matthias Dewatripont, Lars Hansen and Stephen Turnovsky (ed.): *Advances in Economics and Econometrics, Eighth World Congress of the Econometric Society*, vol. 1, Cambridge 2003, pp. 208-257, and Ernst Fehr and Urs Fischbacher: 'The Nature of Human Altruism', in: *Nature*, vol. 425, 2003, pp. 785-791.

<sup>12</sup> There is conflict of aims particularly between the levels of justice in regard to performance and need, cf. Irene Becker and Richard Hauser: 'Soziale Gerechtigkeit – eine Standortbestimmung', Berlin 2004.

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<sup>13</sup> Only about one fifth of the population has confidence in big business enterprises, cf. Jürgen Schupp and Gert G. Wagner: 'Vertrauen in Deutschland: Grosses Misstrauen gegenüber Institutionen,' in: *Wochenbericht des DIW Berlin*, no. 21/2004.

<sup>14</sup> See, for example Roderick M. Kramer and Tom R. Tyler (ed.): *Trust in Organizations: Frontiers of Theory and Research*, New York 1996; E. Allan Lind and Tom R. Tyler: 'The Social Psychology of Procedural Justice', New York, 1988.

<sup>15</sup> See also the decisions on developing the German Corporate Governance Code and the intention to introduce legislation. Brigitte Zypries: 'Transparenz bei der Managervergütung – ist die Akzeptanz des Corporate-Governance-Kodex in Gefahr?' In: *ifo-Schnelldienst*, vol. 57, no. 19, 2004, pp. 3-4.