



Well-being in Germany

January 7, 2008

Its happy regions have much in common

Happiness research is gaining an ever higher profile in the public domain: international organisations, the president of Germany and – increasingly – schools have lent new impetus to the issue of late.

The happy regions in Germany have many things in common. Not only the degree of life satisfaction, but also the degree of trust in fellow citizens, the state of health, unemployment, birth rate and income all score well. This is in line with DB Research's analysis at the country level.

The regions of Donau-Iller, Ostwuerttemberg, Osnabrueck and Hamburg-Umland-Sued score particularly well. These regions top the list in DB Research's ranking of well-being in Germany. No urban agglomerations make it into the top ranks.

The east German regions bring up the rear in this ranking. A low degree of life satisfaction goes hand in hand with a low degree of trust in fellow citizens, poor health, high unemployment, low birth rate and low income.

Changes can be effected on a regional/decentralised basis. The significant regional differences suggest that political and societal conditions (as well as changes in them) are determined in the regions. Transfers – determined at federal level – alone are obviously not enough.

The close correlation between the variables relevant for human well-being suggests taking a comprehensive approach to policy: high birth rates are not very probable if unemployment is high and there is little trust in fellow citizens. Simply providing lots of day-care facilities will not be the solution.

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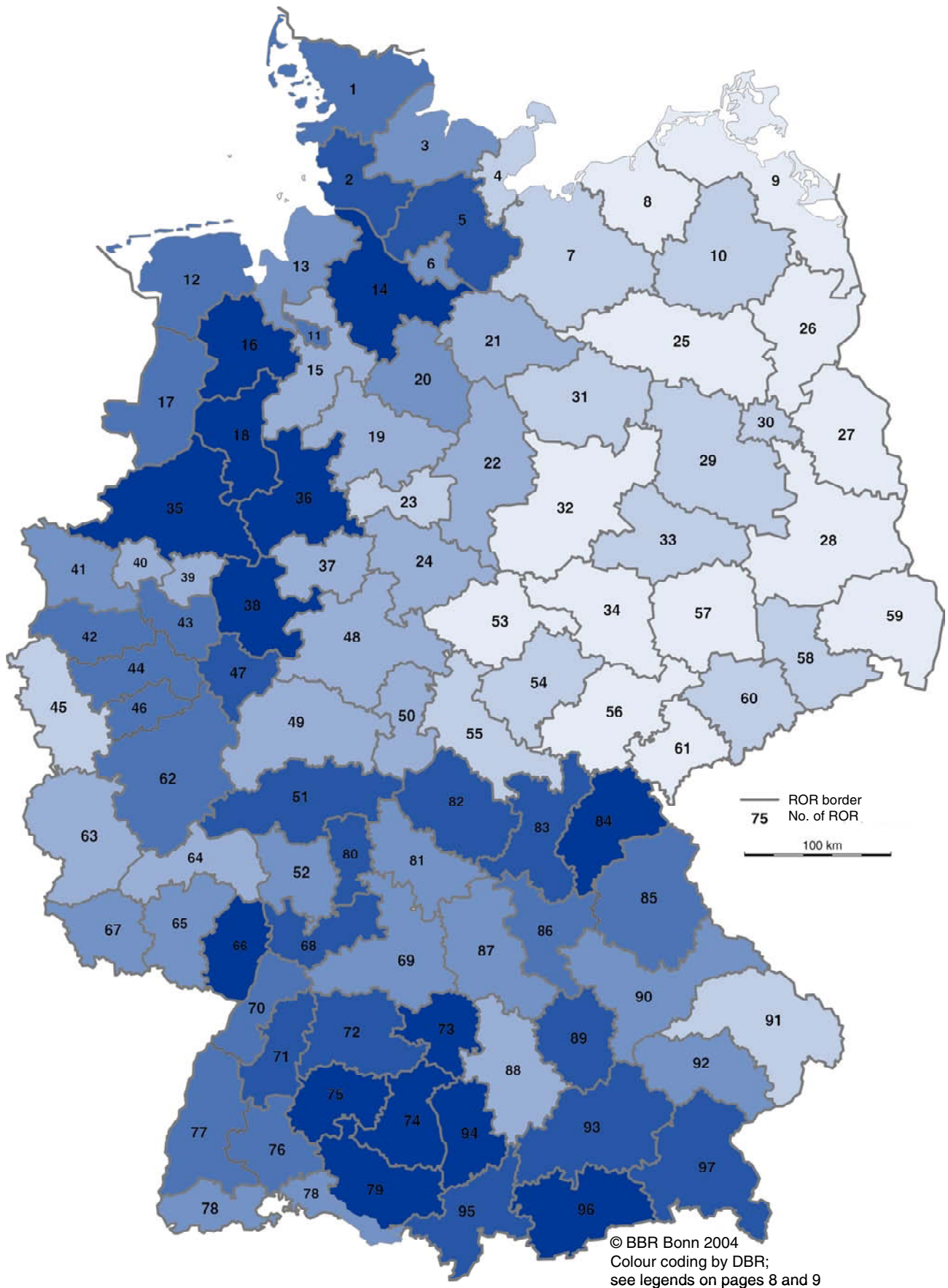
Life satisfaction and birth rate

Life satisfaction in 2003 (0=low to 10=high), birth rate in 2001/02/03,
97 mean values in RORs



Sources: SOEP, BBR, DBR calculations

Map of well-being in Germany



Growing focus on well-being

OECD and EU advocate broadly based measures of well-being

Analysis of life satisfaction using broadly based measures of well-being is steadily increasing in importance, and is now also a priority of international organisations. At the end of June, participants in the OECD's Second World Forum adopted the Istanbul Declaration, calling for a broadly based analysis of societal well-being and its evolution over time.¹ And in mid-November the EU hosted a conference in Brussels entitled "Beyond GDP".² This area of research is attracting more attention in Germany, too. For example, Germany's president Horst Köhler entitled his Berlin Address "The pursuit of happiness changes the world" and a school in Heidelberg has started to offer a "Happiness" course.

Happy societies have much in common

Deutsche Bank Research has already flagged up this trend in two studies.³ "The happy variety of capitalism" showed that countries with a high level of human happiness are characterised by an array of commonalities. All happy societies typically have a high degree of trust in fellow citizens, a low amount of corruption, low unemployment, a high level of education, high income, a high employment rate of older people, a small shadow economy, extensive economic freedom, low employment protection and a high birth rate. The countries may have many more characteristics in common, but it is difficult to capture these in statistics.⁴

Array of commonalities within a country

Commonalities also at the regional level

There are, however, substantial cultural differences between countries, which suggest that a factor outside the model might be responsible for the commonalities observed between the different varieties of capitalism. This raises the question of whether the correlations can also be observed within a country, where cultural differences are presumably less pronounced.

Indeed, similar correlations can be found for Germany's 97 *Raumordnungsregionen (RORs)*, the geographic regions officially defined by the Federal Office for Building and Regional Planning (BBR); however, categorising them in groups is – not surprisingly – not as easy as at the country level. Analysis is also hampered by the fact that an ROR may group together towns and districts that have entirely dissimilar characteristics.

Data available on life satisfaction, trust in fellow citizens, health, unemployment rate, birth rate and income

Not all of the data available at the country level is also available for Germany's RORs: factors such as corruption, years of education, employment rate of older people, shadow economy, economic freedom and employment protection cannot be used. So along with life satisfaction this leaves trust in fellow citizens (these first two readings are the result of surveys), the unemployment rate, the birth rate and income. In addition, data is available from a survey on health – which Germans consider the most important aspect of life.⁵

¹ www.oecd.org/oecdworldforum/Istanbul

² www.beyond-gdp.eu

³ Bergheim, Stefan (2006). Measures of well-being: There is more to it than GDP. DB Research. Deutsche Bank Research. Current Issues. September 8, 2006. And Bergheim, Stefan (2007). The happy variety of capitalism. Current Issues. April 25, 2007. Frankfurt am Main.

⁴ Robert Putnam would probably also expect to find a large number of newspaper readers, high membership of football leagues and high voter turnout; see "Bowling Alone", chapter 21.

⁵ See Eurobarometer 66 and Bergheim, Stefan (2006). Live long and prosper! DB Research. Current Issues. March 20, 2006. Frankfurt am Main.

All in all, three survey findings and three “hard” numbers may be combined. The data come from the German Socio-Economic Panel Study (SOEP) or the INKAR database of the Federal Office for Building and Regional Planning; they are presented in further detail in the appendix starting on page 10.

There is also a weak correlation between life satisfaction and longevity as well as between life satisfaction and the share of foreigners in the population. Religiosity shows a correlation with life satisfaction only in a comparison of east and west Germany, but not among the west German regions. Of course, there are many other aspects that are also important for human well-being. However, there are no readings available for them at the ROR level.

The regions of well-being: Donau-Iller, Ostwuerttemberg, Osnabrueck and Hamburg-Umland-Sued

Ranking of well-being in Germany

The variables relevant for well-being correlate very strongly with one another, as illustrated in figures 1 to 5. Life is likely to be particularly pleasant in the regions which score well on all six aspects. An overview of the RORs can be found in the DB Research ranking detailed in the map on page 2 and in the table on pages 8 and 9. The methods used are explained in the appendix on page 10. The 14 RORs with the best overall ranking are depicted on the map, in the figures 1 through 5 and in the table on pages 8 and 9 in dark blue, with the shading of blue becoming lighter after every group of 14.

Top ranks for Donau-Iller, Ostwuerttemberg, Osnabrueck and Hamburg-Umland-Sued

Topping the list are the two neighbouring regions called Donau-Iller which include the city of Ulm and its environs in the federal states of Baden-Wuerttemberg und Bavaria. They are followed by Ostwuerttemberg in 3rd place, Osnabrueck and Hamburg-Umland-Sued. In these regions, all six variables are above the average. Of course, no single ROR ranks first in all six categories – each one has its strengths and weaknesses. The inhabitants of the Donau-Iller region of Bavaria consider themselves particularly healthy, while Osnabrueck has a particularly high degree of life satisfaction and the south of Hamburg a particularly high birth rate.

In and around Ulm

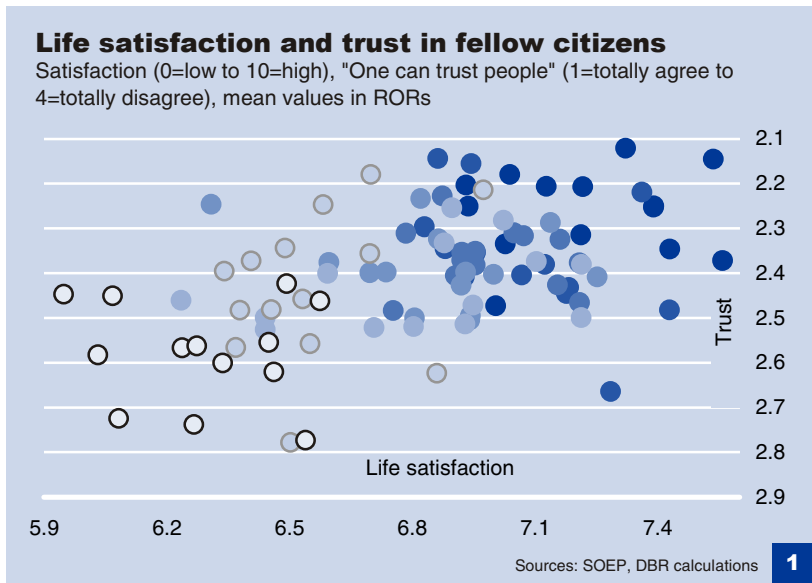
Leading by a nose in the overall analysis is Region 74, i.e. Donau-Iller in Baden-Wuerttemberg with its over 500,000 inhabitants in the city of Ulm and the surrounding districts of Biberach and Alb-Donau. The degree of life satisfaction there is not extremely high, but the degree of trust in fellow citizens and the health scores are excellent. The vast majority of people have a job and the birth rate, at 1.5 for 2001 to 2003, was far above the German average. The share of foreigners is above average, and net immigration clearly positive.

Visible divide between east and west Germany

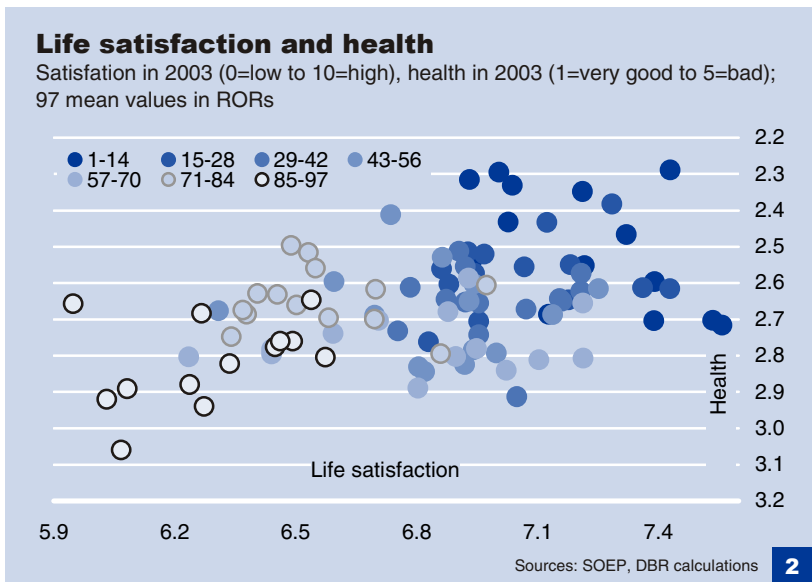
West Germany scores higher on well-being

The map of Germany on page 2 shows a clear divide between the western and eastern parts of the country. The regions marked in dark blue that top the ranking are all located in the western and southern parts of west Germany. Regions such as 50 Osthessen and 73 Hildesheim are halfway down the list. The many east German regions at the low end of this ranking show yet again that there is no such thing as uniform living conditions in Germany even under a broad definition of the term. The relevant determinants of well-being are all very weak in the east.

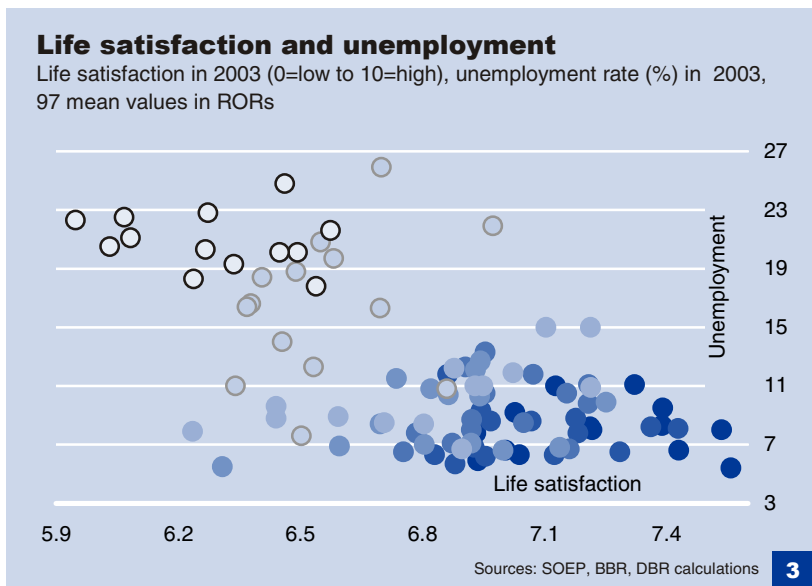
Trust and life satisfaction go hand in hand



Happy and healthy people



Unhappy unemployed



Urban agglomerations with high incomes, but weaker along other dimensions***Medium-density regions score better than urban agglomerations***

A cluster analysis of all 97 RORs reveals further information about commonalities and differences between the regions of Germany. For example, it is possible to differentiate between regions of medium population density and urban agglomerations. In the medium-density regions (38 Arnsberg and 97 Suedostoberbayern are prototypes for regions in this cluster), all 6 variables show very high scores, but particularly the assessment of personal health. The population density in this cluster, at 210 inhabitants per square kilometre, is lower than the west German average of 264.

By contrast, the agglomerations (prototypes being 86 Industrie-region Mittelfranken and 43 Bochum/Hagen) score very well especially on income, whereas other aspects are less positive. In this cluster, the population density averages over 560 inhabitants per square kilometre. The upper echelons of the ranking on page 8 contain regions where population density is only average – the first agglomeration to appear is in 22nd place (Stuttgart).

Both high and low degrees of trust in east German regions

Among the regions at the lower end of the table it is also possible to differentiate two clusters. In some regions all the variables are relatively weak (prototypes being 32 Magdeburg and 53 Nordthuringen), while in another group the degree of trust in fellow citizens is above average (prototypes being 29 Havelland and 60 Chemnitz-Erzgebirge).

Migration flows to regions of well-being***Higher real estate prices do not fully compensate***

Theoretically, migration from less happy regions to happy regions should push up real estate prices in the happy regions and, by pushing down real income, help to reduce the differences in life satisfaction. However, for the regions in our ranking this is not the case. The regions in the upper echelons post net immigration on average (and those in the lower echelons post net emigration), suggesting that the currently used models of internal migration need to be augmented.⁶

But it is possible in many regions with a high ranking of well-being to obtain building land at a relatively low price: from 2001 to 2003 the price of building land in the 10 highest-ranking regions averaged less than EUR 100 per square metre – in the regions ranking 21st to 30th, by contrast, it was over EUR 200.⁷ The price increase between 1995/96 and 2002/03 also fails to follow the pattern suggested by the analysis of well-being. It appears that differences in income play a dominant role.

Comprehensive approach needed***Decentralised initiatives can make a difference***

The table on pages 8 and 9 indicates the respective strengths and weaknesses of all 97 RORs. For a region to be able to advance in the table, a comprehensive approach is necessary: a high birth rate is rather unlikely alongside a high unemployment rate.

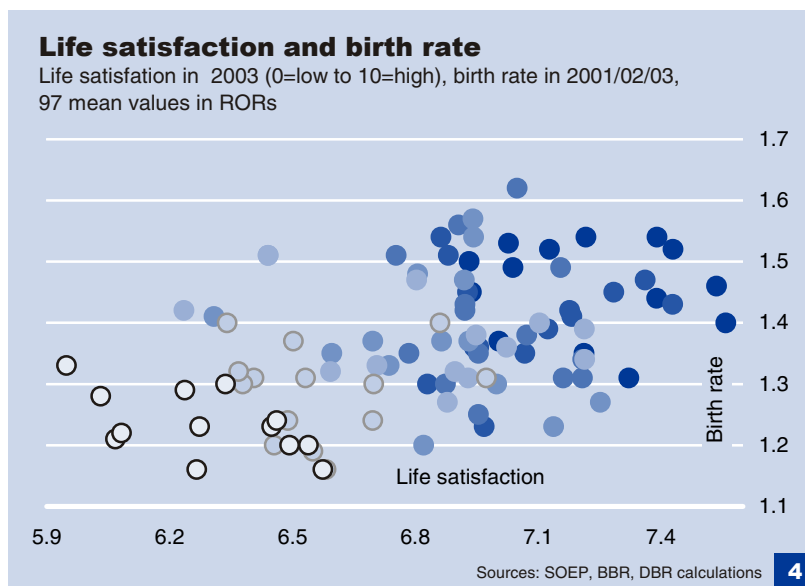
It is also clear that the level of well-being has a regional/decentralised basis and can be fostered there. The big differences across Germany and also within its constituent states suggest that development does not have to originate at the national or state level.

⁶ See Bergheim, Stefan (2003). Migration in Germany: redistribution of a shrinking population. Deutsche Bank Research. Current Issues. May 22, 2003. Frankfurt am Main.

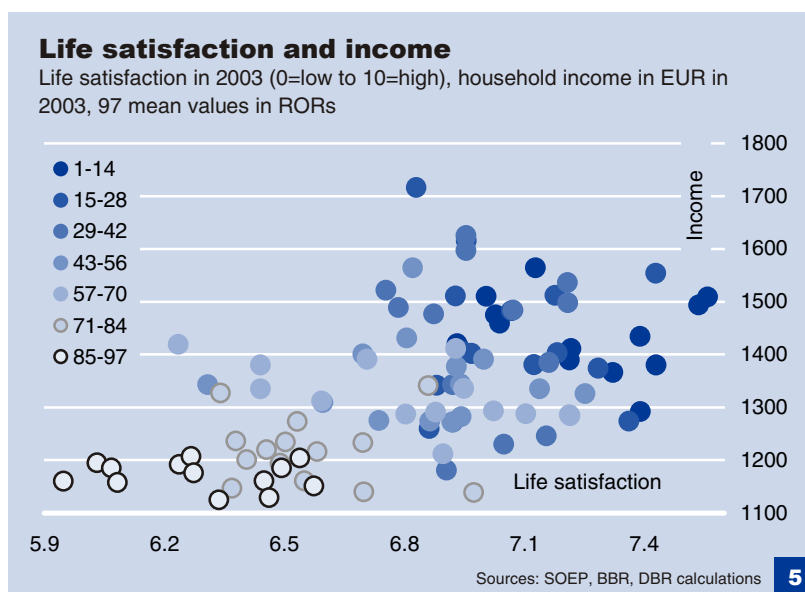
⁷ The price of building land is strongly subject to political influence, which limits the informative value here. House prices are not available at the level of the RORs.

Rather, local initiatives can make a substantial contribution to well-being – as presumably can the maintenance of social structures that have grown over time. Examples could conceivably include close cooperation between job centres and business or between district administrations and sport clubs. Civic engagement in educational and healthcare issues can also play a part, as for example in the district of Biberach. The possibilities are virtually endless and emphasis should be attached to continuing the many existing initiatives. In any event, transfers alone are not the answer.

More children in happy regions



More income in happy regions



A host of unanswered questions

The broadly based analysis of human happiness is a relatively new field of research in which a host of questions remain unanswered. It is seldom clear whether there is a causal link behind every correlation. And the historical and cultural roots of the differences observed between the regions generally go very deep – changes can presumably only come about over a long period. In many (east German) regions there may already be changes in the works which are not yet reflected in the data. The correlations shown here between “hard” and “soft” variables merit further attention, though.

Ranking of well-being in Germany, part 1 (ranks)

No.	ROR	Rank	Satisfaction	Trust	Health	Unemploym.	Birth rate	Income
74	Donau-Iller (Baden-Wuertt.)	1	28	7	4	6	16	21
94	Donau-Iller (Bavaria)	2	3	34	1	11	9	38
73	Ostwuerttemberg	3	43	8	3	23	15	24
18	Osnabrück	4	2	4	63	29	22	15
14	Hamburg-Umland-Sued	5	11	10	19	27	4	27
38	Arnsberg	6	29	31	8	44	8	20
36	Bielefeld	7	22	9	57	58	10	5
75	Neckar-Alb	8	31	70	2	12	42	12
16	Oldenburg	9	5	17	27	46	5	56
66	Rheinpfalz	10	14	26	5	31	52	35
96	Oberland	11	1	40	66	1	34	13
79	Bodensee-Oberschwaben	12	42	18	17	4	23	26
84	Oberfranken-Ost	13	8	2	10	61	66	42
35	Muenster	14	6	19	64	33	26	22
47	Siegen	15	4	72	35	30	28	7
71	Nordschwarzwald	16	46	57	13	16	25	11
82	Main-Rhoen	17	7	12	33	32	20	64
68	Unterer Neckar	18	34	1	15	38	85	31
97	Suedostoberbayern	19	23	46	9	7	38	37
2	Schleswig-H. Sued-West	20	56	3	23	64	6	69
83	Oberfranken-West	21	39	5	24	45	48	29
72	Stuttgart	22	35	37	65	5	47	3
89	Ingolstadt	23	52	33	30	3	11	46
95	Allgaeu	24	9	93	6	9	24	41
93	Muenchen	25	58	23	73	8	70	1
80	Bayerischer Untermain	26	17	61	18	24	33	30
5	Schleswig-Holstein Sued	27	18	62	43	41	31	10
51	Rhein-Main	28	26	54	21	39	53	18
86	Industrieregion Mittelfranken	29	16	44	37	48	64	8
70	Mittlerer Oberrhein	30	54	13	41	20	72	19
46	Bonn	31	62	25	32	25	51	16
76	Schwarzwald-Baar-Heuberg	32	63	74	67	10	12	9
43	Bochum/Hagen	33	25	27	51	65	41	17
77	Suedlicher Oberrhein	34	19	29	45	14	63	36
44	Koeln	35	15	68	25	62	56	14
42	Duesseldorf	36	37	47	69	53	54	4
85	Oberpfalz-Nord	37	47	36	20	40	30	68
62	Mittelrhein-Westerwald	38	48	39	46	28	27	44
12	Ost-Friesland	39	50	55	12	69	3	86
17	Emsland	40	27	24	94	37	1	74
1	Schleswig-Holstein Nord	41	20	59	40	52	17	70
11	Bremen	42	36	35	47	72	80	2
65	Westpfalz	43	55	28	16	51	45	65
92	Landshut	44	89	15	53	2	32	45
81	Wuerzburg	45	21	22	58	17	84	50
13	Bremerhaven	46	40	75	29	71	7	62
20	Suedheide	47	41	79	77	50	2	43
67	Saar	48	10	56	34	49	78	52
69	Franken	49	60	78	88	19	18	23
3	Schleswig-Holstein Mitte	50	64	50	7	63	58	63
41	Duisburg/Essen	51	44	49	44	67	46	40
52	Starkenburger	52	67	51	59	34	44	32
90	Regensburg	53	69	43	28	18	50	54
78	Hochrhein-Bodensee	54	32	53	78	13	71	34
87	Westmittelfranken	55	49	60	87	21	19	67
6	Hamburg	56	59	14	90	55	90	6

Sources: SOEP, BBR, DBR calculations



Ranking of well-being in Germany, part 2 (ranks)

No.	ROR	Rank	Satisfaction	Trust	Health	Unemploy.	Birth rate	Income
19	Hannover	57	45	80	26	57	65	28
63	Trier	58	51	20	81	15	60	77
48	Nordhessen	59	12	45	84	56	55	61
21	Lueneburg	60	30	21	89	66	49	55
40	Emscher-Lippe	61	13	77	48	74	39	60
15	Bremen-Umland	62	83	83	76	42	13	39
22	Braunschweig	63	38	69	75	60	40	48
39	Dortmund	64	24	42	85	75	37	58
64	Rheinhausen-Nahe	65	65	82	62	36	57	33
24	Goettingen	66	53	30	54	68	79	57
37	Paderborn	67	82	76	80	47	14	49
88	Augsburg	68	93	66	82	26	29	25
50	Osthessen	69	61	81	92	35	21	59
49	Mittelhessen	70	70	52	68	43	61	53
4	Schleswig-Holstein Ost	71	75	65	14	70	67	66
45	Aachen	72	87	48	70	59	36	51
23	Hildesheim	73	57	92	79	54	35	47
31	Altmark	74	33	11	31	92	69	95
54	Mittelthueringen	75	78	32	11	82	82	82
29	Havelland-Flaeming	76	68	38	61	76	81	73
10	Mecklenburgische Seenplatte	77	66	6	36	97	75	94
91	Donau-Wald	78	76	97	50	22	43	72
60	Chemnitz-Erzgebirge	79	84	41	38	81	68	80
30	Berlin	80	71	16	60	84	95	76
55	Suedthueringen	81	80	71	39	73	91	75
58	Oberes Elbtal/Osterzgebirge	82	85	73	56	78	73	71
7	Westmecklenburg	83	86	87	52	77	62	93
33	Dessau	84	73	85	22	89	94	89
57	Westsachsen	85	77	58	72	85	93	85
59	Oberlausitz-Niederschlesien	86	97	63	49	93	59	90
56	Ostthueringen	87	74	96	42	79	92	79
32	Magdeburg	88	81	84	74	86	86	88
28	Lausitz-Spreewald	89	72	67	83	91	97	92
61	Suedwestsachsen	90	92	88	91	80	76	83
53	Nordthueringen	91	88	90	86	83	74	97
9	Vorpommern	92	79	91	71	96	83	96
27	Oderland-Spree	93	91	95	55	87	96	78
25	Prignitz-Oberhavel	94	96	89	95	88	77	81
34	Halle/S.	95	90	86	96	95	87	87
26	Uckermark-Barnim	96	95	64	97	94	89	84
8	Mittleres Mecklenb./Rostock	97	94	94	93	90	88	91

Sources: SOEP, BBR, DBR calculations

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Technical appendix

1. Data definitions

Life satisfaction: Defined by response to last question in a survey conducted by the Socio-Economic Panel (SOEP) of the Berlin-based Deutsches Institut für Wirtschaftsforschung (DIW) in 2003: “How satisfied are you with your life, all things considered?” on a scale of 0 (completely dissatisfied) to 10 (completely satisfied). The data at the *Raumordnungsregion* level (ROR: region of Germany as defined by the Federal Office for Building and Regional Planning, BBR) were aggregated by DB Research. Given the sometimes very small size of the random samples, not all of the values for the regions are statistically sound.

Trust: Response to the question “What is your opinion on the following (...) statement(s)? ‘On the whole one can trust people’” on a scale of 1 (totally agree) to 4 (totally disagree). Source: SOEP.

Health: Response in 2003 to the question “How would you describe your current health?” on a scale of 1 (very good) to 5 (bad). Source: SOEP.

Unemployment rate: Unemployed as a percentage of the total labour force in 2003. Source: *Indikatoren und Karten zur Raumentwicklung 2005* (INKAR 2005) of the Federal Office for Building and Regional Planning (BBR).

Birth rate: Fertility rate as the consolidated birth rate for the years 2001-03. Source: INKAR 2005.

Income: Disposable income per household including transfers in 2003. Source: INKAR 2005.

The correlations between these data are in some cases very high, as can be seen in Table 8.

Correlations between the 6 variables

	Trust	Health	Unemploym.	Birth rate	Income
Satisfaction	-0.5	-0.4	-0.6	0.4	0.5
Trust	1	0.3	0.3	-0.2	-0.3
Health		1	0.3	-0.2	-0.2
Unemployment			1	-0.6	-0.7
Birth rate				1	0.3
Income					1

For trust and health, low values mean strong trust and good health

Source: Deutsche Bank Research

8

2. Calculation of ranking

To consolidate the six variables into an overall ranking they were first standardised: the mean value was subtracted from each variable across all 97 RORs and then divided by the standard deviation across the RORs. The results have a mean value of zero and the identical standard deviation of one. Then, for each region, the values for the six variables were added. The ranking in the table on pages 8 and 9 was set according to this sum.⁸

⁸ See “Handbook on constructing composite indicators: methodology and user guide” (OECD Statistics Working Paper 2005-3) on the advantages and disadvantages of different weighting procedures.

The overall ranking changes little if individual variables out of the six are disregarded. If the unemployment rate is taken out of the data set, the regions change their ranking by only 3.3 places on average. The biggest change comes when the overall state of health is left out. The rank then changes by 5.3 places on average. Of course, individual regions change in some cases to a considerably greater degree. If income is left out, for instance, Munich slips from 25th place down to 50th.

All in all, the ranking thus seems fairly robust. However, regions directly adjacent to each other in the table should not be compared with one another in their overall ranking.

3. Comparisons over time are not always possible

As in the study “The happy variety of capitalism” it would also make sense to analyse the changes at the ROR level over time. However, not all of the data used are also available for the mid-1990s. Moreover, the ongoing convergence between east and west Germany makes comparisons more difficult: in the east German regions the birth rate rose considerably over the past 10 years – from a very low basis – and incomes jumped. In west Germany, developments in the Osnabrueck region over the past 10 years were particularly positive for life satisfaction: in contrast with the nationwide trend, the unemployment rate fell; income growth was above average; and the birth rate rose. Much like at the country level: changes are possible!

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