

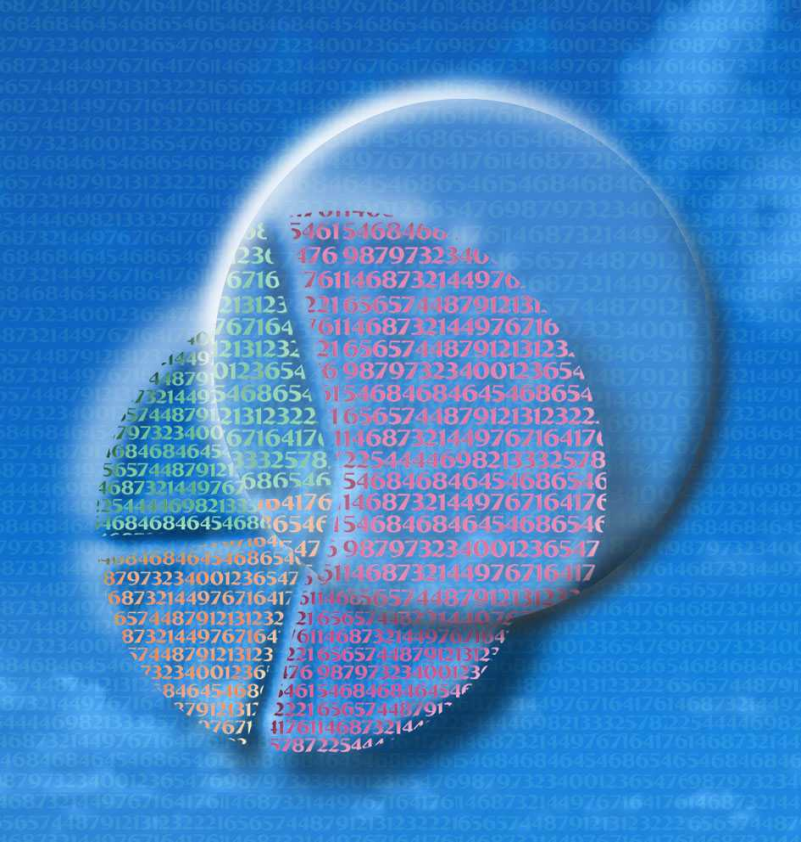
Composite indicators for advocacy

Based on OECD working paper on composite indicators

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KEI Workshop, Maastricht, October 6,7 2005





Outline:

- Composite indicators' controversy
- Hints from the CI handbook
- A short story on CI
- CI for Advocacy
- CI and Lisbon narratives





A search on "Composite Indicators" on **Scholar Google** gives ~992 hits. On **Google** they are 35,000[*].

A recent compilation of existing CI from the UNITED NATIONS DEVELOPMENT PROGRAMME lists 127 such measures. Most of these in the last 4 years.

Several reviews in the last 2 year, see <http://farmweb.jrc.cec.eu.int/CI/>

[*] and growing! Need to refresh the number any time I say this ...





The EC develops or uses several composite indices [*]

- Of Internal Market [?]
- Of Innovation
- Of knowledge based economy
- Of firm readiness to take up e-business (e-readiness)

... Not mentioning the historic ones as GDP, CPI,
... And yet their use within and without the EC is controversial.

[*] (workshop in October 2005 Brussels)



A list of new "structural indicators" to be developed by the EC (Information Note to the College of EFIN October 2005) includes:

1. Price convergence between EU Members States
2. Healthy Life Years
3. Biodiversity
4. Urban population exposure to air pollution by ozone and
5. Urban population exposure to air pollution by particles (PM10)
6. Consumption of toxic chemicals
7. Generation of hazardous waste
8. Recycling rate of selected materials
9. Resource productivity
10. E-business indicator

Can you guess how many of these are composite?



ALL OF THEM. (One is a ratio of composites)

1. Price convergence between EU Members States
2. Healthy Life Years
3. Biodiversity
4. Urban population exposure to air pollution by ozone and
5. Urban population exposure to air pollution by particles (PM10)
6. Consumption of toxic chemicals
7. Generation of hazardous waste
8. Recycling rate of selected materials
9. Resource productivity: *The definition of this indicator has now been established as the ratio of Gross Domestic Product (GDP, at constant prices) over Domestic Material Consumption (DMC).*
10. E-business indicator



<< [...] it is hard to imagine that debate on the use of composite indicators will ever be settled [...] official statisticians may tend to resent composite indicators, whereby a lot of work in data collection and editing is “wasted” or “hidden” behind a single number of dubious significance. On the other hand, the temptation of stakeholders and practitioners to summarise complex and sometime elusive processes (e.g. sustainability, single market policy, etc.) into a single figure to benchmark country performance for policy consumption seems likewise irresistible. >>

Michaela Saisana

Saisana M., Saltelli A., Tarantola S. (2005) Uncertainty and Sensitivity analysis techniques as tools for the quality assessment of composite indicators, Journal of the Royal Statistical Society - A, 168(2), 307-323.

Stefano Tarantola



<<The *aggregators* believe there are two major reasons that there is value in combining indicators in some manner to produce a bottom line. They believe that such a summary statistic can indeed *capture reality* and is meaningful, and that *stressing the bottom line is extremely useful in garnering media interest* and hence the attention of policy makers.

The second school, the *non-aggregators*, believe one should *stop* once an appropriate *set* of indicators has been created and not go the further step of producing a composite index. Their key objection to aggregation is what they see as the *arbitrary* nature of the *weighting* process by which the variables are combined.>>

Andrew Sharpe, 2004, "Literature Review of Frameworks for Macro-indicators", report of the Centre for the Study of Living Standards, Ottawa, CAN.



Unclassified

STD/DOC(2005)3

Organisation de Coopération et de Développement Economiques
Organisation for Economic Co-operation and Development

09-Aug-2005

English - Or. English

STATISTICS DIRECTORATE

HANDBOOK ON CONSTRUCTING COMPOSITE INDICATORS: METHODOLOGY AND USER GUIDE

OECD Statistics Working Paper

**by Michela Nardo, Michaela Saisana, Andrea Saltelli and Stefano Tarantola (EC/JRC)
Anders Hoffman and Enrico Giovannini (OECD)**

See (<http://www.oecd.org/publications/>)

STD/DOC(2005)3
Unclassified

Joint Res



On the handbook on CI the pros are.

CI:

- Can summarise complex or multi-dimensional issues in view of supporting decision-makers *.

Yet perhaps individual variables are more important for policy

Easier to interpret than trying to find a trend in many separate indicators**.

For the layperson?

- Facilitate the task of ranking countries on complex issues in a benchmarking exercise **.



On the handbook on CI (<http://www.oecd.org/publications/>), the pros are.

CI:

- Can assess progress of countries over time on complex issues *.
- CI are not famous for this!
- Reduce the size of a set of indicators or include more information within the existing size limit *.
- Place issues of country performance and progress at the centre of the policy arena ***. Advocacy
- Facilitate communication with general public (i.e. citizens, media, etc.) and promote accountability ***. Advocacy



... while CI's cons are:

- May send misleading policy messages if they are poorly constructed or misinterpreted *.

"Poorly" should be qualified

- May invite simplistic policy conclusions **.

The Polish Plumber was not a CI

- May be misused, e.g., to support a desired policy, if the construction process is not transparent and lacks sound statistical or conceptual principles***. Advocacy





... and (cons):

- The selection of indicators and weights could be the target of political challenge ***.

When a CI exacerbates disagreement rather than focusing minds

- May disguise serious failings in some dimensions and increase the difficulty of identifying proper remedial action *.

Hardly for policymakers - CI more for awareness than for action

- May lead to inappropriate policies if dimensions of performance that are difficult to measure are ignored *.

As above. Hardly the fault of a CI, as we do not know what we do not know



... but two more 'pros' not in the handbook:

- Constructing/underpinning narratives for lay or literate audiences ***.

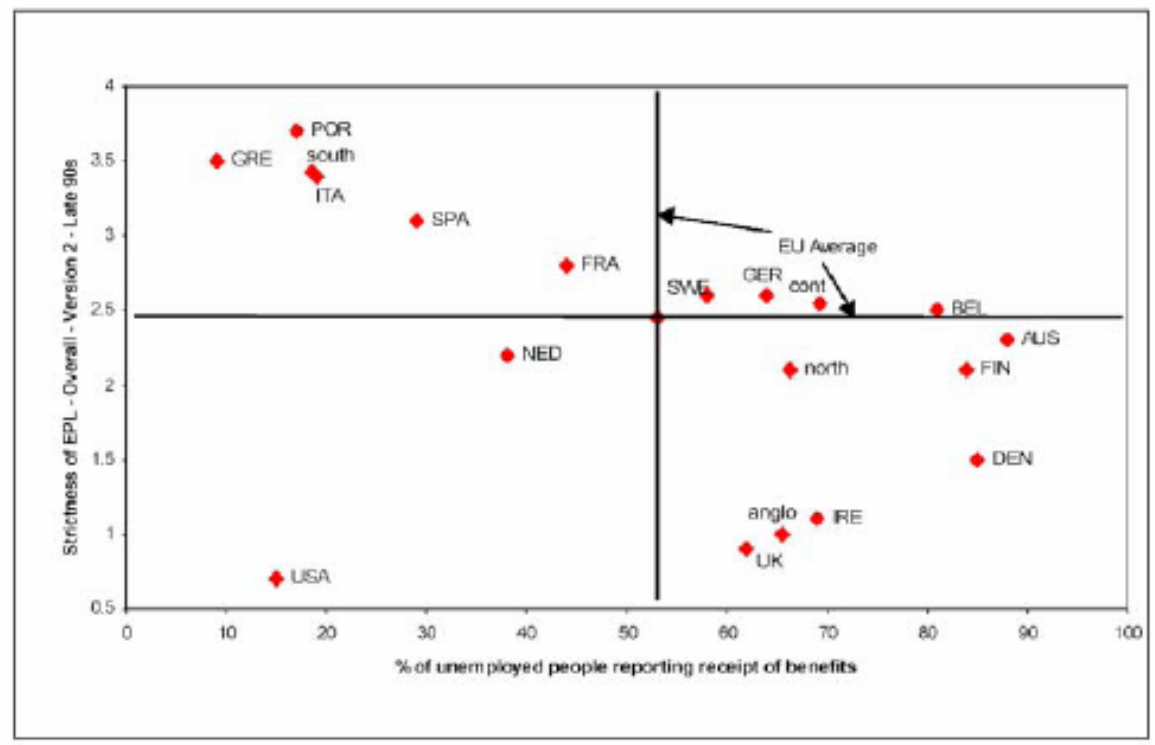
More in this talk



... and:

- Comparing effectively complex dimensions with one another ***. Andre' Sapir's latest work (*Globalisation and the Reform of European Social Models, 2005*)

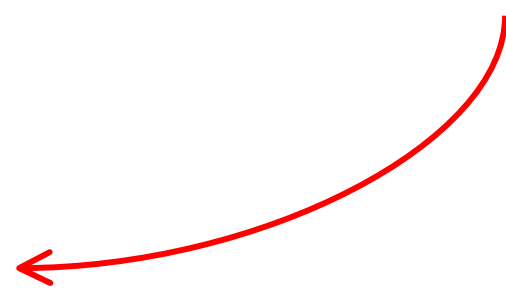
Figure 2
The Employment Protection Legislation/Unemployment Benefits Trade-off



Source: Boeri (2002)

Table 1
The Four European Models: A Typology

		EFFICIENCY	
		<i>Low</i>	<i>High</i>
EQUITY	<i>High</i>	Continental	Nordic
	<i>Low</i>	Mediterranean	Anglo-Saxon





A crucial criticism of CI is the 'con'
[CI] May be misused, e.g., to support a desired policy, if the construction process is not transparent and lacks sound statistical or conceptual principles. Advocacy

In a criticism to Cavanaugh et al.'s "Alternatives to Economic Globalisation", Martin Wolf notes (Why Globalisation Works, 2004):

<<Perhaps to disguise the failure of such closed communities, measurements of successful performance would no longer be based on "traditional economic growth figures like GDP and GNP, but rather on more subjective social and environmental characteristics" >>

How about psychological characteristics?



«Composite indicators are much like mathematical or computational models. As such, their construction owes more to the craftsmanship of the modeller than to universally accepted scientific rules for encoding. As for models, the justification for a composite indicator lays in its fitness to the intended purpose and the acceptance of peers (Rosen, 1991) » [*].

[*] Handbook



The economist A. K. Sen, Nobel prize winner in 1998, was initially opposed to composite indicators but was eventually seduced by their ability to put into practice his concept of 'Capabilities' ('the range of things that a person could do and be in her life') in the UN Human development index [*].

[*] Sen A. 1989 Development as Capabilities Expansion, *Journal of Development Planning*, **19**, 41-58



According KEI, the “lack of consensus”[*] is a defining property of composite indicators, which goes hand in hand with CI’ suitability to advocacy.

[*] KEI project, University of Leuven, 2005. See also Saltelli et al., Composite Indicators - The Controversy and the Way Forward, OECD World Forum on Key Indicators, Palermo, 2004, <http://www.oecd.org/dataoecd/40/50/33841312.doc>



To what extent a good technical preparation for a CI can make it more robust (to uncertainties in data, weights,...) resilient (remain relevant over time), defensible (in dialogue with stakeholders...)

Snippets from the handbook as well as from Nardo et al., 2005.





From the handbook (see also Nardo et al., 2005, KEI deliverable).

Step 1. Developing a theoretical framework

What is badly defined is likely to be badly measured ...

Excerpt: For example, the **Growth Competitiveness Index (GCI)** developed by the World Economic Forum is founded on the idea "that the process of economic growth can be analysed within three important broad categories: the **macroeconomic environment, the quality of public institutions, and technology.**"





From the handbook (see also Nardo et al., 2005, KEI deliverable).

Step 1. Developing a theoretical framework

After Step 1. the constructor should have...

- A clear understanding and definition of the multidimensional phenomenon to be measured.
- A nested structure of the various sub-groups of the phenomenon.
- A list of selection criteria for the underlying variables, e.g., input, output, process.
- Clear documentation of the above.



Step 2. Selecting variables

A composite indicator is above all the sum of its parts...

Excerpt: The **strengths and weaknesses** of composite indicators largely derive from the **quality of the underlying variables**. [...] While the choice of indicators must be guided by the theoretical framework for the composite, the data selection process can be quite subjective as there may be **no single definitive set of indicators**.



Step 2. Selecting variables

After Step 2. the constructor should have...

- Checked the quality of the available indicators.
- Discussed the strengths and weaknesses of each selected indicator.
- Made scale adjustments, if necessary.
- Created a summary table on data characteristics, e.g., availability (across country, time), source, type (hard, soft or input, output, process).



Step 3. Multivariate analysis

Analysing the underlying structure of the data is still an art

...

Excerpt: [Check as not to be] 'indicator rich but information poor'. [...] Table 1. Strength and weaknesses of multivariate analysis.

After Step 3, the constructor should have...

- Checked the underlying structure of the data along various dimensions, i.e., sub-indicators, countries.
- Applied the suitable multivariate methodology, e.g., PCA, FA, cluster analysis.
- Identified sub-groups of indicators or groups of countries that are statistically "similar".
- ...



Step 4. Imputation of missing data.

The idea of imputation could be both seductive and dangerous ...

Step 5. Normalisation of data

Avoid adding up apples and oranges ...

Step 6. Weighting and aggregation

The relative importance of the indicators is a source of contention ...



Step 7. Robustness and sensitivity

Sensitivity analysis can be used to assess the robustness of composite indicators ... → presentation of Michaela

Step 8. Links to other variables

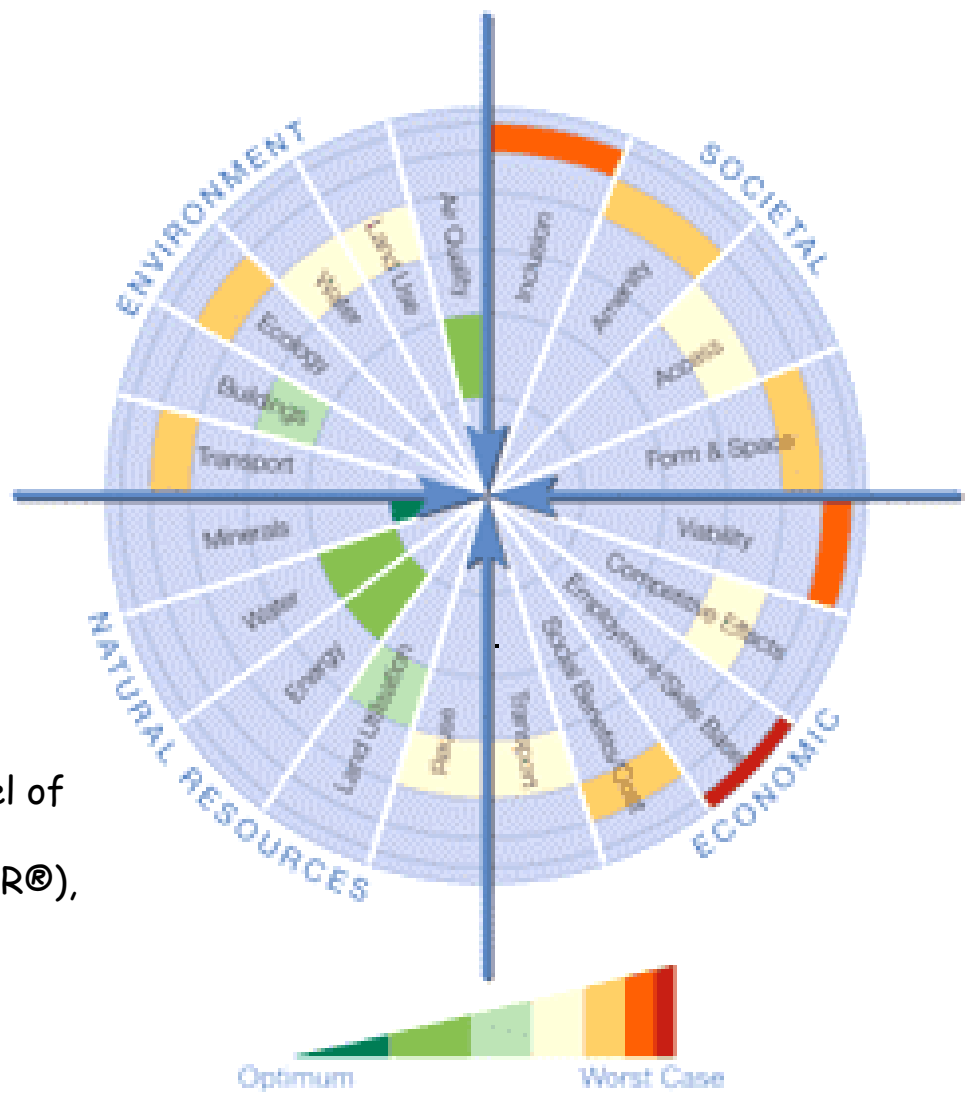
Composite indicators can be linked to other variables and measures ...

Step 9. Back to the details

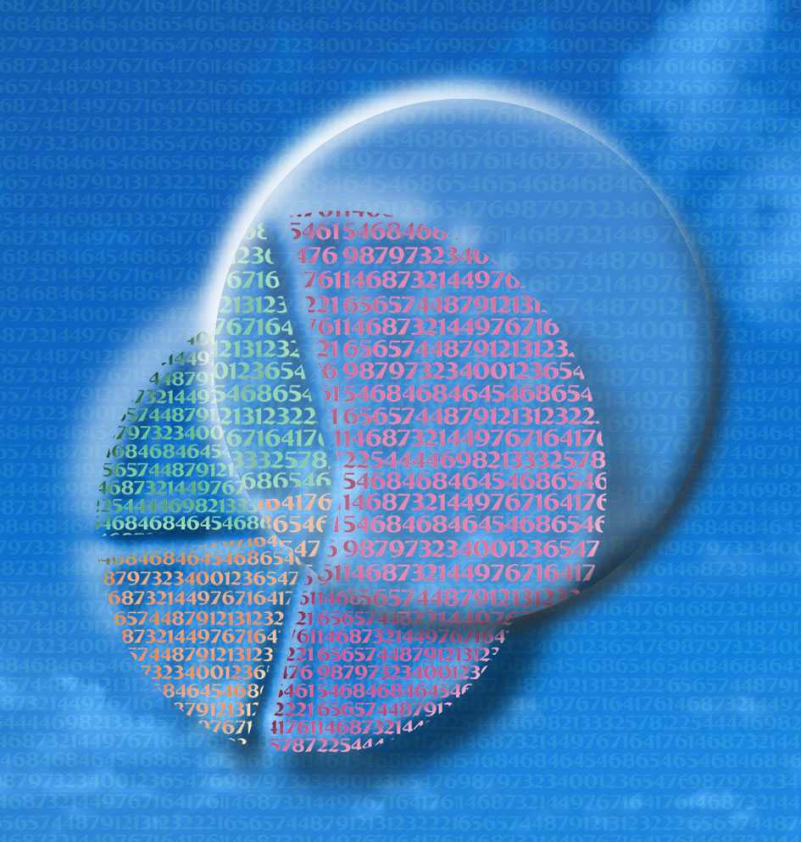
De-constructing composite indicators can help extend the analysis ...

Step 10. Presentation and dissemination

A well-designed graph can speak louder than words ...



The four-quadrant model of the Sustainable Project Appraisal Routine (SPeAR®), see EUR report 2005.



• A short story on CI





Report from the Commission to the Spring European Council 2004, Annex 1

Relative Performance

Relative performance of the 15 Member States according to the structural indicators on the shortlist

Levels		at	be	de	dk	es	fi	fr	gr	ie	it	lu	nl	pt	se	uk	eu15	us
GDP per capita in PPS (EU 15 = 100)	2003	111,9	107,6	102,2	114,5	85,5	102,3	101,4	68,3	121,8	102,3	138,5	110,4	67	101,8	105,1	100	138,7
Labour productivity (EU 15 = 100)	2003	97,9	114	97,9	99,4	91,2	101,6	109,1	86	116,9	114,7	165,8	95,5	85	94,9	94,7	100	120,1
Employment rate (%)	2002	69,3	69,9	65,3	75,9	58,4	68,1	63	56,7	65,3	55,5	63,7	74,4	68,2	73,6	71,7	64,3	74,6
Employment rate of older workers (%)	2002	30	26,7	38,4	57,8	39,7	47,8	34,8	39,7	48,1	28,9	28,3	42,3	50,9	68	53,5	40,1	:
Educational attainment (20-24) (%)	2002	85	81,1	73,3	63,9	64,9	86,2	81,7	81,3	83,9	69,1	69,8	73,3	43,7	86,7	91	75,6	:
Research and development expenditure (% of GDP)	2002	1,9	2,2	2,5	2,4	1,0	3,5	2,2	0,7	1,2	1,1	1,7	1,9	0,8	4,3	1,8	2,0	2,8
Business investment (% GDP)	2002	20,9	18,3	16,9	17,8	21,8	16	16,3	20,1	17,7	17,8	17,9	17,4	21,6	13,8	15	17,2	:
Relative price levels (EU 15 = 100) ¹	2001	98	98	102	126	82	117	99	81	113	92	99	99	74	122	115	100	111
At-risk-of-poverty rate (%)	2000	12,0	13,0	11,0	11,0	18,0	11,0	16,0	20,0	20,0	18,0	12,0	10,0	21,0	11,0	19,0	15,0	:
Long-term unemployment (%)	2002	0,8	3,6	4	0,8	3,9	2,3	2,7	5,1	1,3	5,3	0,8	0,7	1,8	1	1,1	3	0,3
Dispersion of regional employment rates	2002	2,4	8	5,9	:	9,2	7,8	6,2	4,2	:	16,6	:	2,2	3,9	4,6	6,6	12,6	:
Greenhouse gases emissions (index base year=100) ²	2000	103	106	81	99	135	96	98	124	124	104	95	103	130	98	87	96	111
Energy intensity of the economy	2001	146	228	169	125	228	263	189	261	188	188	190	201	238	229	227	195	330
Volume of transport	2001	128	70	105	86	118	85	112	90	126	102	129	95	137	67	111	106	95

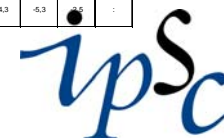
1. Analysis takes into account relation between GDP per capita and relative price levels. 2. Analysis based on distance to Kyoto targets.

Relative Improvement in Performance (av. since 1999)

Relative improvement in the performance of the 15 Member States according to the structural indicators on the shortlist

Evolution		at	be	de	dk	es	fi	fr	gr	ie	it	lu	nl	pt	se	uk	eu15	us
GDP per capita	Average annual real growth rate 1999-2003 (%)	1,4	1,1	0,9	1,5	2,1	2,3	1,3	3,9	4,8	1,2	2,1	0,3	0,6	1,9	2,3	1,4	1,2
Labour productivity	Average annual real growth rate 1999-2003 (%)	1,2	0,8	1,0	1,9	0,5	1,5	0,5	3,8	3,6	0,1	-0,8	0,4	0,6	1,1	1,8	0,9	1,8
Employment rate	Average annual percentage point change 1999-2002	0,2	0,2	0,2	0,0	1,6	0,5	0,7	0,5	0,7	0,9	0,7	1,0	0,3	0,6	0,2	0,6	-0,3
Employment rate of older workers	Average annual percentage point change 1999-2002	0,0	0,7	0,2	1,1	1,5	2,8	2,0	0,2	1,5	0,4	0,6	2,1	0,0	1,4	1,3	1,0	:
Educational attainment (20-24)	Average annual percentage point change 1999-2002	0,1	1,6	-0,4	-0,1	0,0	-0,2	0,6	0,6	0,5	0,9	-0,5	0,3	1,2	0,1	-0,2	0,3	:
Research and development expenditure	Average annual percentage point change 1999-2002	0,03	0,11	0,03	-0,15	0,04	0,09	0,01	:	-0,02	0,03	:	-0,08	0,05	0,31	0,00	0,02	0,05
Business investment	Average annual percentage point change 1999-2002	-0,30	-0,27	-0,90	-0,10	0,33	-0,27	0,03	0,30	-1,00	0,40	-0,50	-0,70	-0,50	-0,07	-0,33	-0,23	:
Relative price levels ¹	Average annual percentage point change 1999-2001	-1,5	-1,8	-1,1	1,9	-0,3	-1,7	-0,1	-0,3	4,9	2,8	0,7	1,0	0,4	-1,7	1,7	0	:
At-risk-of-poverty rate	Average annual percentage point change 1999-2000	0,0	0,0	0,0	0,0	-1,0	0,0	1,0	-1,0	1,0	0,0	-1,0	-1,0	0,0	2,0	0,0	0	:
Long-term unemployment	Average annual percentage point change 1999-2002	0,0	-0,4	-0,1	-0,1	-0,6	-0,2	-0,6	-0,5	-0,4	-0,5	0,0	-0,2	0,1	-0,3	-0,2	-0,3	0
Dispersion of regional employment rates	Average annual percentage point change 1999-2002	0,0	0,0	0,1	:	-0,5	0,1	-0,3	-0,3	:	-0,2	:	0,0	0,1	-0,1	-0,2	-0,5	:
Greenhouse gases emissions	Average annual percentage point change 1999-2000	0,0	0,0	0,0	-6,0	6,0	-3,0	-1,0	6,0	2,0	1,0	0,0	-1,0	-1,0	-2,0	0,0	0,0	2,0
Energy intensity of the economy	Average annual percentage point change 1999-2001	1,4	-7,9	-0,4	-3,6	0,4	-6,3	-1,3	-0,4	-10,0	-2,9	-0,7	-0,4	-4,7	-4,5	-4,0	-1,8	-4,1
Volume of transport	Average annual percentage point change 1999-2001	-4,2	-11,0	-1,0	-3,7	7,1	-2,8	-2,9	-14,0	1,8	1,5	-10,8	-4,2	-16,2	-4,3	-5,3	-2,5	:

1. Analysis takes into account relation between real growth rate of GDP per capita and changes in relative price levels.





Relative Performance

Relative performance of the 15 Member States according to the structural indicators on the shortlist

Levels		at	be	de	dk	es	fi	fr	gr	ie	it	lu	nl	pt	se	uk	eu15	us
GDP per capita in PPS (EU 15 = 100)	2003	111,9	107,6	102,2	114,5	85,5	102,3	101,4	68,3	121,8	102,3	138,5	110,4	67	101,8	105,1	100	138,7
Labour productivity (EU 15 = 100)	2003	97,9	114	97,9	99,4	91,2	101,6	109,1	86	116,9	114,7	185,8	95,5	65	94,9	94,7	100	120,1
Employment rate (%)	2002	69,3	59,9	65,3	75,9	58,4	68,1	63	56,7	65,3	55,5	63,7	74,4	68,2	73,6	71,7	64,3	74,6
Employment rate of older workers (%)	2002	30	26,7	38,4	57,8	39,7	47,8	34,8	39,7	48,1	28,9	28,3	42,3	50,9	68	53,5	40,1	:
Educational attainment (20-24) (%)	2002	85	81,1	73,3	63,9	64,9	86,2	81,7	81,3	83,9	69,1	69,8	73,3	43,7	86,7	91	75,6	:
Research and development expenditure (% of GDP)	2002	1,9	2,2	2,5	2,4	1,0	3,5	2,2	0,7	1,2	1,1	1,7	1,9	0,8	4,3	1,8	2,0	2,8
Business investment (% GDP)	2002	20,9	18,3	16,9	17,8	21,8	16	16,3	20,1	17,7	17,8	17,9	17,4	21,6	13,8	15	17,2	:
Relative price levels (EU 15 =100) ¹	2001	98	98	102	126	82	117	99	81	113	92	99	99	74	122	115	100	111
At-risk-of-poverty rate (%)	2000	12,0	13,0	11,0	11,0	18,0	11,0	16,0	20,0	20,0	18,0	12,0	10,0	21,0	11,0	19,0	15,0	:
Long-term unemployment (%)	2002	0,8	3,6	4	0,9	3,9	2,3	2,7	5,1	1,3	5,3	0,8	0,7	1,8	1	1,1	3	0,3
Dispersion of regional employment rates	2002	2,4	8	5,9	:	9,2	7,8	6,2	4,2	:	16,6	:	2,2	3,9	4,6	6,6	12,6	:
Greenhouse gases emissions (Index base year=100) ²	2000	103	106	81	99	135	96	98	124	124	104	55	103	130	98	87	96	111
Energy intensity of the economy	2001	146	228	169	125	228	263	189	261	168	188	190	201	238	229	227	195	330
Volume of transport	2001	128	70	105	86	118	85	112	90	126	102	129	95	137	87	111	106	95

1. Analysis takes into account relation between GDP per capita and relative price levels. 2. Analysis based on distance to Kyoto targets.



Assessing policies: Green – Country policy on a good path; Yellow – Country policy on a bad path (expert judgment)

Levels	y	AT	BE
Labour productivity (EU 15=100)	2003	97.9	114
Employment rate (%)	2003	69.3	59.9
Employment rate of older workers (%)	2003	30	26.7

The decision whether or not to shade a cell was not made mechanically, but based on an assessment of the relative positions of all Member States and, for certain indicators, taking into account relations with other structural indicators.

Relative performance of the 15 Member States according to the structural indicators on the shortlist

Levels		at	be	de	dk	es	fi	fr	gr	ie	it	lu	nl	pt	se	uk	eu15	us
GDP per capita in PPS (EU 15 = 100)	2003	111,9	107,6	102,2	114,5	85,5	102,3	101,4	68,3	121,8	102,3	138,5	110,4	67	101,8	105,1	100	138,7
Labour productivity (EU 15 = 100)	2003	97,9	114	97,9	99,4	91,2	101,6	109,1	86	116,9	114,7	185,8	95,5	65	94,9	94,7	100	120,1
Employment rate (%)	2002	69,3	59,9	65,3	75,9	58,4	68,1	63	56,7	65,3	55,5	63,7	74,4	68,2	73,6	71,7	64,3	74,6
Employment rate of older workers (%)	2002	30	26,7	38,4	57,8	39,7	47,8	34,8	39,7	48,1	28,9	28,3	42,3	50,9	68	53,5	40,1	:
Educational attainment (20-24) (%)	2002	85	81,1	73,3	63,9	64,9	86,2	81,7	81,3	83,9	69,1	69,8	73,3	43,7	86,7	91	75,6	:
Research and development expenditure (% of GDP)	2002	1,9	2,2	2,5	2,4	1,0	3,5	2,2	0,7	1,2	1,1	1,7	1,9	0,8	4,3	1,8	2,0	2,8
Business investment (% GDP)	2002	20,9	18,3	16,9	17,8	21,8	16	16,3	20,1	17,7	17,8	17,9	17,4	21,6	13,8	15	17,2	:
Relative price levels (EU 15 = 100) ¹	2001	98	98	102	126	82	117	99	81	113	92	99	99	74	122	115	100	111
At-risk-of-poverty rate (%)	2000	12,0	13,0	11,0	11,0	18,0	11,0	16,0	20,0	20,0	18,0	12,0	10,0	21,0	11,0	19,0	15,0	:
Long-term unemployment (%)	2002	0,8	3,6	4	0,9	3,9	2,3	2,7	5,1	1,3	5,3	0,8	0,7	1,8	1	1,1	3	0,3
Dispersion of regional employment rates	2002	2,4	8	5,9	:	9,2	7,8	6,2	4,2	:	16,6	:	2,2	3,9	4,6	6,6	12,6	:
Greenhouse gases emissions (Index base year=100) ²	2000	103	106	81	99	135	96	98	124	124	104	55	103	130	98	87	96	111
Energy intensity of the economy	2001	146	228	169	125	228	263	189	261	168	188	190	201	238	229	227	195	330
Volume of transport	2001	128	70	105	86	118	85	112	90	126	102	129	95	137	87	111	106	95

1. Analysis takes into account relation between GDP per capita and relative price levels. 2. Analysis based on distance to Kyoto targets.



Enter the FT analysts ...

Joint Research Centre



Source: Spring Report, European Commission 2004





Categorisation (**star rating[*]**) in three groups

LEADERS

UK, NL SE, DK, AT, LU

MIDDLE OF THE ROAD

DE, FI, IE, BE, FR

LAGGARDS

IT, GR, ES, PT

done by FT and based likely on same synoptic performance and improvement tables in the Spring Report, 2004, Annex 1 (yellow-green boxes)

[*] Like in the UK NHS hospital rating

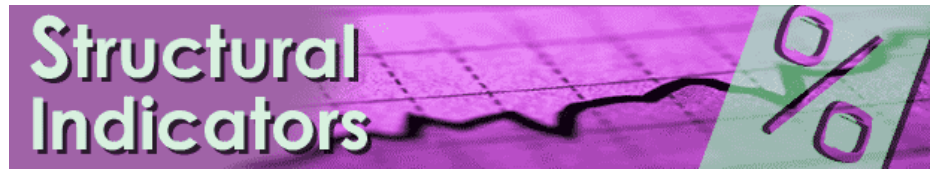
From structural indicators (**EUROSTAT**, short, long lists) to league table (**Financial Times**)

Long list of indicators (> 100)

Short List of 14

Synoptic tables

League tables

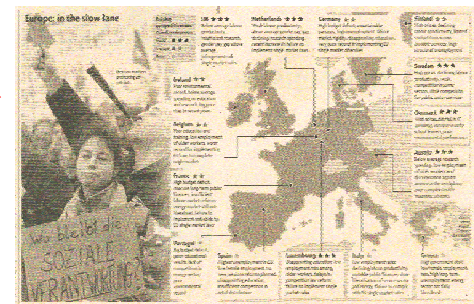


Relative performance of the 15 Member States according to the structural indicators on the shortlist

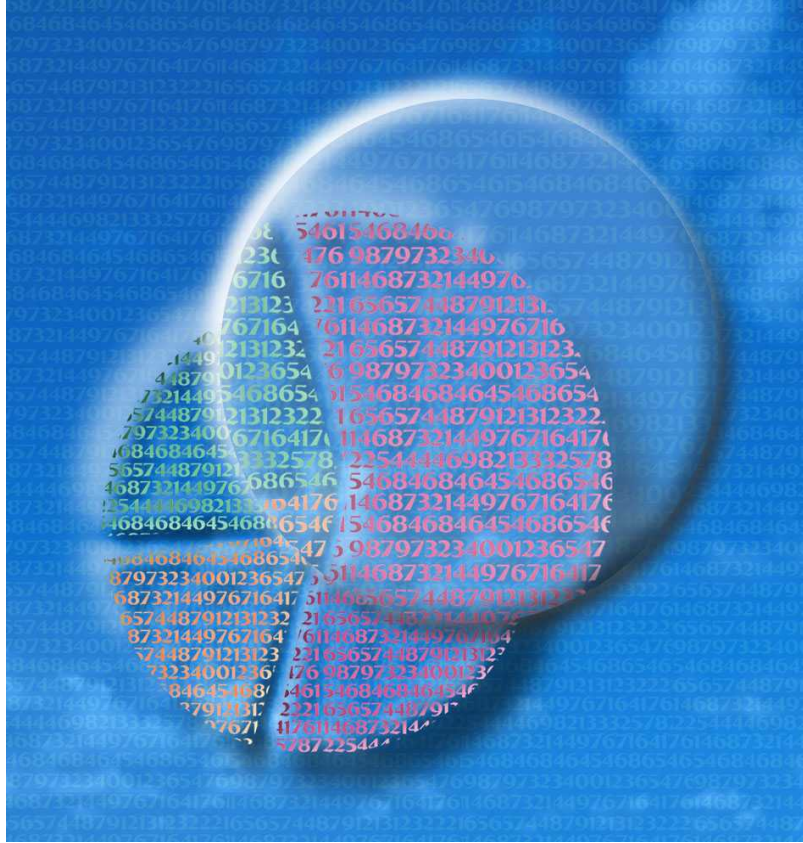
Level	FR	BE	ES	GR	IT	PT	UK	FI	DE	NL	IE	LU	DK	SE
GDP per capita (PPP) (€ 1000)	2000	119	107	102	74	103	103	103	103	103	103	103	103	103
Unemployment (EU-15) (%)	2000	8.3	10.1	10.1	11.2	10.8	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1
Employment rate (%)	2000	80.3	80.3	80.3	80.3	80.3	80.3	80.3	80.3	80.3	80.3	80.3	80.3	80.3
Development rate (index) (%)	2000	100	100	100	100	100	100	100	100	100	100	100	100	100
Education attainment (2000) (%)	2000	85	81.1	75.1	82.7	84.4	81.1	82.7	81.1	84.4	81.1	82.7	81.1	84.4
Research and development expenditure (% of GDP)	2000	1.9	2.2	2.2	2.4	1.9	1.9	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Business investment (% GDP)	2000	19.1	18.2	18.8	17.8	17.4	18.1	18.1	18.1	17.7	17.8	17.8	17.4	17.4
Median price levels (EU-15) index ¹	2000	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual inflation rate (%)	2000	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Long-term unemployment (%)	2000	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
Dependency of population aged 65+	2000	100	100	100	100	100	100	100	100	100	100	100	100	100
Share of population aged 65+ (index) (EU-15) (%) ²	2000	100	100	100	100	100	100	100	100	100	100	100	100	100
Energy intensity of industry	2000	100	100	100	100	100	100	100	100	100	100	100	100	100
Volume of transport	2000	100	100	100	100	100	100	100	100	100	100	100	100	100



- FREE DATA
 - Long-term indicators
 - Structural indicators
 - General economic background
 - Employment
 - Innovation and research
 - Economic reform
 - Social cohesion
 - Environment



Brussels points the finger at lax EU states



CI for Advocacy; CI and Lisbon narratives





Was the commission too shy in its spring 2004 report?
 Composite indicators can be an ingredient to build narratives grounded on measured data.





And as noted by A. K. Sen, composite indicators are a powerful tool for advocacy.

And the hunger of the economically literate press for statistic based narrative is noticeable.

FINANCIAL TIMES

EUROPE | WEDNESDAY DECEMBER 1 2004

OECD says deficits hurt children

Chief economist warns that leading economies are failing to face up to reality ● Inadequate capital accumulation and slower growth seen as consequence

By Chris Giles in London

Leading countries which continue to run persistent budget deficits are "sacrificing" their children, the Organisation for Economic Co-operation and Development warned yesterday.

OECD member countries' "policy objectives are fine", with commitments to halve the US deficit and reduce persistent budget deficits in Europe, but "we are worried because we cannot forecast any reduction in structural deficits".

The consequence of inaction in leading economies. The organisation cut its forecasts for economic growth in 2005, mainly as a result of an oil price-induced "pervasive sense of uncertainty" which had reduced consumer confidence in OECD countries even though world economic growth in 2004

robust growth across leading economies, the OECD called for higher interest rates, particularly in the US. It said the Federal Reserve should raise short-term interest rates by a quarter of a percentage point every quarter for the next

plans for reducing budget deficits. The OECD concluded that, though it might be hoped that "prudent private agents would react to public profligacy by stepping up their own saving efforts", the general rule was that "pr-

our parents and grandparents, but we should do the same for the next generation," Mr Cottis said. He said OECD countries' plans to improve budget deficits did not give him any comfort because the projected fiscal tightening in the

aded for €3.7bn
s assets sell-off
emps Redoute, the
conglomerate, is to
electrical equipment
a €3.7bn deal,
two-year
asset sales.
Page 14

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sition Socialist
day on whether to
constitutional



Wim Kok warns in its now famous report:

'An ambitious and broad [Lisbon] reform agenda needs a clear narrative'

Barroso's 'Growth and jobs' go in the direction of a possible narrative for a simplified Lisbon ... yet the production of anti-Lisbon narratives seem to have been more intense:

- The stability pact 'strangles' the EU economies,
- EU regulations are a systemic hindrance to business,
- Services directive fosters 'social dumping' ...



That a consistent segment of the EU elites rejects these narratives hasn't helped defuse them, as the results from constitutional referendums have shown.

And, as a counter proof, where are there today narratives in favour of the EU constitutions?





Narratives in the EU

Could EU leaders make more effective use of statistical information to build effective narratives to promote structural reform and growth in the EU?

"[...] it is a pity that attempts to use even comparatively bland measures - such as the "naming and shaming" of laggards - have been dropped. In other areas, such as the implementation of single-market legislation or state-aid controls, "scoreboards" have played a useful role in bringing peer pressure to bear on national decision-makers."
Mario Monti, FT, March 21, 2005.

Mario Monti



Narratives in the EU

Could statistical information help to build sound narratives:

- To the effect that excessive deficits are passed on to future generation (the OECD example)
- To the fact that simultaneously limiting labour and capital mobility within EU 25 implies capital migrating elsewhere (service directive)
- To the impact of globalisation and ageing on the EU as a whole (e.g. wage level in the EU depending from wage level elsewhere)
- To the impact of systemic rigidities or distributional coalitions (in Olson's sense) on growth?



Narratives in the EU (continued)

- “The stricter the employment protection legislation of a model, the lower its employment rate”, and
- “The lower the level of secondary education attainment, the higher the risk of poverty. By contrast, the extent of redistributive policy only plays a secondary role”

Andre' Sapir, 2005, *Globalisation and the Reform of European Social Models*



- **Caveat:** These are just examples, on which an abundant statistical and economic literature already exists, clearly not a manifesto for political advocacy.



And yet Patrick A. Messerlin in 'A European Economic Agenda After the NO Votes', (35th Wincott Lecture, October 3, 2005) calls for «Vibrant Culture of Evaluation [...] relying on the best and most systematic cost-benefit analysis of concrete cases. [...]

«Overcoming fears [...] cannot be done by a general argument about the benefits from regulatory competition. Such arguments convince only the already convinced [...] For instance, the question of whether large farmers who have been subsidized by the poorest consumers and by tax-payers during the last four decades have a "right" to be compensated deserves a thorough debate.»



Messerlin calls for extensive use of <<regulatory impact assessments>>, draws attention on the alliance between anti-global NGO's and <<a myriad of much more discrete lobbies primarily concerned with hanging on to the rents they derive from regulated markets >> and makes the point that effective analysis and communication should target these.



A counter example (in the sense of not being data driven[*]): the ambitious new meta-narrative of a redefined human mission to underpin the European Dream invoked by Jeremy Rifkin (2004).

In this work the author defines **EU style of inclusiveness and tolerance** against the American Dream of individual self-achievements and materialistic consumption.

[*] Data driven? Economically defensible?

Jeremy Rifkin





..and back to KEI, what narratives could be underpinned by KEI work

- As to the dynamic relations between KE indices and growth
- As to the interplay between these and education, active citizenship, human capital, ...

Would this entail increasing the economic and statistic literacy of EU constituencies?



Amartya Sen remarks that:

- [...] the ability to exercise freedom may, to a considerable extent, be directly dependent on the education we have received, and thus the development of the educational sector may have foundational connections with the capability-based approach.



At the same time activists advocacy may lead to the so-called 'Rhetoric Selection' of statistical information whereby "feelings and facts are merged in reach for the audience's empathy and wallets" (Rosling et al., 2005).

In other words, there is no guarantee that a Narrative would not precede the data. On the contrary, isn't this always the case? The separability versus non-separability of feelings and facts is one of the distinctive features of normal versus post-normal Science (Funtowicz and Ravetz, 1990).

Hans Rosling, Professor of
International Health,
Karolinska Institute, Sweden



We are not arguing that that the best (in the 'fitness' sense) narratives are those based on measurements. The ghost of the Polish plumber was apparently an apt protagonist in the French Non campaign (no cost benefit analysis or CI needed).

Yet a narrative could have been built on available data to negotiate with voters on the impact of globalisation and the role of EU enlargement in it.





More to the point, the (missing) discourse on enlargement could not have been developed without data, and a debate on those.

Whether this would have saved the Constitution is of course another story altogether.

At times negotiation is clogged by too much conflicting scientific information (Sarewitz, 2004). This is surely not what happened on the Lisbon agenda in Europe.