

World development indicators



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Raw dataset

Indicators

Country name	Country code	Indicator name	Indicator code	Year	Value
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Country

Country code	Short name	Table name	Long name	Alpha 2 code
Currency unit	Special notes	Region	Indice group	etc...

Country notes

Country code	Series code	Description
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Series

Series code	Topic	Indicator name	Short definition	Long definition
Unit of measure	Periodicity	Base period	Other notes	etc...

Series notes

Series code	Year	Description
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Raw dataset

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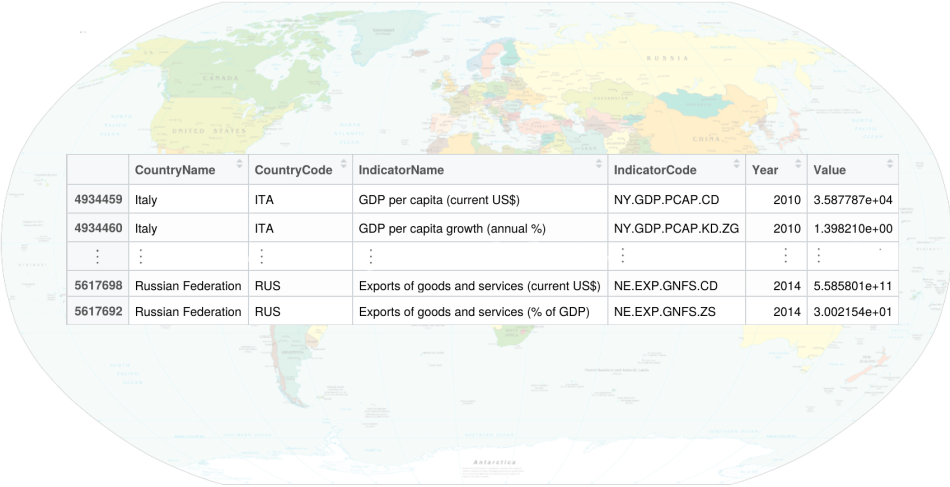
Series

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Series notes

Series code	Year	Description
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examples of indicators



	CountryName	CountryCode	IndicatorName	IndicatorCode	Year	Value
4934459	Italy	ITA	GDP per capita (current US\$)	NY.GDP.PCAP.CD	2010	3.587787e+04
4934460	Italy	ITA	GDP per capita growth (annual %)	NY.GDP.PCAP.KD.ZG	2010	1.398210e+00
⋮	⋮	⋮	⋮	⋮	⋮	⋮
5617698	Russian Federation	RUS	Exports of goods and services (current US\$)	NE.EXP.GNFS.CD	2014	5.585801e+11
5617692	Russian Federation	RUS	Exports of goods and services (% of GDP)	NE.EXP.GNFS.ZS	2014	3.002154e+01

	Countrycode	Seriescode	Description
1	ABW	EG.EGY.PRIM.PP.KD	Sources: Estimated based on UN Energy Statistics (2014...
2	ABW	EG.ELC.RNEW.ZS	Sources: UN Energy Statistics (2014)
3	ABW	EG.FEC.RNEW.ZS	Sources: UN Energy Statistics (2014)

	CountryName	CountryCode	IndicatorName	IndicatorCode	Year	Value
4	ABW	SM.PC				
5	ABW	SM.PC	Bulgaria	BGR	Portfolio equity, net inflows (BoP, current US\$)	BX.PEF.TOTL.CD.WD 2013 -1.910000e+07
6	ABW	SP.DYN	Bulgaria	BGR	Portfolio investment, bonds (PPG + PNG) (NFL, current ...)	DT.NFL.BOND.CD 2013 6.344960e+08
7	ABW	SP.DYN	Bulgaria	BGR	Portfolio investment, net (BoP, current US\$)	BN.KLT.PTXL.CD 2013 1.543552e+08
8	ABW	SP.DYN	Bulgaria	BGR	Poverty headcount ratio at national poverty lines (% of po...	SI.POV.NAHC 2013 2.180000e+01
9	ABW	SP.DYN	Bulgaria	BGR	Power outages in firms in a typical month (number)	IC.ELC.OUTG 2013 1.200000e+00
10	ABW	SP.DYN	Bulgaria	BGR	PPG, bilateral (AMT, current US\$)	DT.AMT.BLAT.CD 2013 6.899600e+07
11	ABW	SP.DYN	Bulgaria	BGR	PPG, bilateral (DIS, current US\$)	DT.DIS.BLAT.CD 2013 9.600000e+04
12	ABW	SP.DYN	Bulgaria	BGR	PPG, bilateral (DOD, current US\$)	DT.DOD.BLAT.CD 2013 4.888450e+08
13	ABW	SP.DYN	Bulgaria	BGR	PPG, bilateral (INT, current US\$)	DT.INT.BLAT.CD 2013 1.514000e+07
14	ABW	SP.DYN	Bulgaria	BGR	PPG, bilateral (NTR, current US\$)	DT.NTR.BLAT.CD 2013 -8.404000e+07
			Bulgaria	BGR	PPG, bilateral (TDS, current US\$)	DT.TDS.BLAT.CD 2013 8.413600e+07
			Bulgaria	BGR	PPG, bilateral concessional (AMT, current US\$)	DT.AMT.BLTC.CD 2013 6.631000e+07
			Bulgaria	BGR	PPG, bilateral concessional (DIS, current US\$)	DT.DIS.BLTC.CD 2013 9.600000e+04
			Bulgaria	BGR	PPG, bilateral concessional (DOD, current US\$)	DT.DOD.BLTC.CD 2013 4.736750e+08
			Bulgaria	BGR	PPG, bilateral concessional (INT, current US\$)	DT.INT.BLTC.CD 2013 1.410900e+07
			Bulgaria	BGR	PPG, bilateral concessional (NFL, current US\$)	DT.NFL.BLTC.CD 2013 -6.621400e+07
			Bulgaria	BGR	PPG, bilateral concessional (NTR, current US\$)	DT.NTR.BLTC.CD 2013 -8.032300e+07
			Bulgaria	BGR	PPG, bilateral concessional (TDS, current US\$)	DT.TDS.BLTC.CD 2013 8.041900e+07
15	ABW	SP.POP.TOTL	Data sources : United Nations World Population Prospects			
16	ADO	SM.POP.TOTL	Estimates are derived from data on foreign population. Fo...			
17	ADO	SP.DYN.CBRT.IN	Data sources : Eurostat			
18	ADO	SP.DYN.CDRT.IN	Data sources : Eurostat			
19	ADO	SP.DYN.TFRT.IN	Data sources : Eurostat			

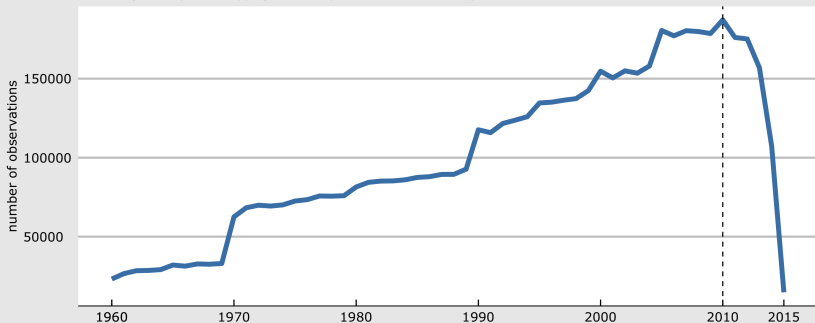


Looking at *Indicators* as a 3D matrix lead to some problems

- ▶ YEARS -> not homogeneous
- ▶ COUNTRIES -> small ones
- ▶ INDICATORS -> too many to choose easily

Number of observations for each year

Increasing in the years, dropping in the very last due to the difficulty to find recent data

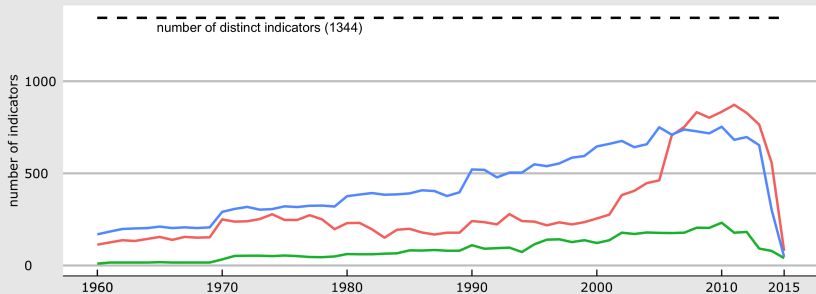


For each year, an indicator is counted multiple times if present for multiple countries

Number of indicators for some significant countries

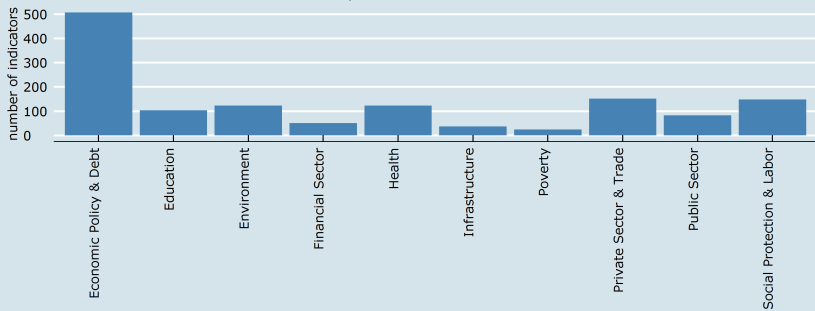
USA are normal, San Marino is small, Afghanistan is problematic

Country — Afghanistan — San Marino — USA



Number of indicators for each supertopic

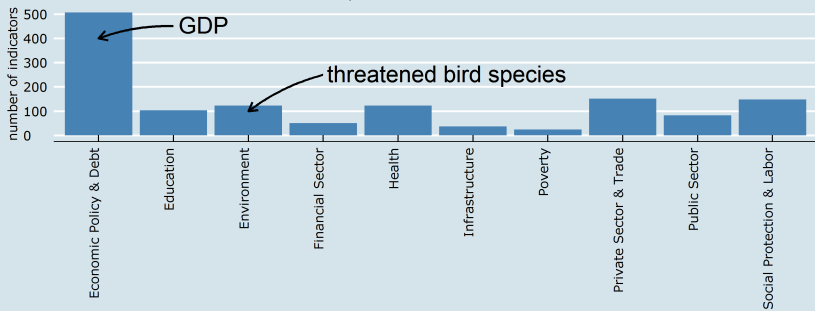
Prevalence of economic indicators: our field of analysis



The supertopic is not present in the raw dataset but comes naturally from the topic.
(e.g. topic = Infrastructure: Transportation, supertopic = Infrastructure)

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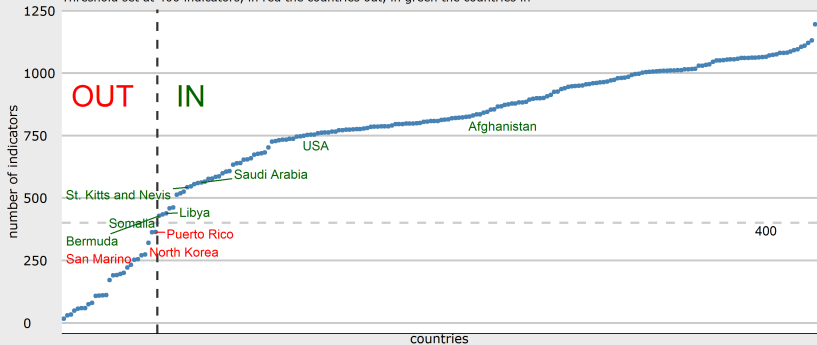


An intermediate goal:
extract a full matrix with meaningful indicators to perform PCA

Fix the best year:
2010

Which countries have too few indicators?

Threshold set at 400 indicators, in red the countries out, in green the countries in



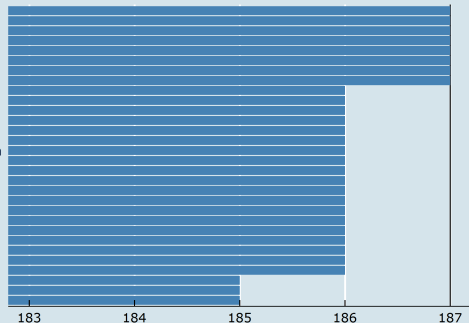
The threshold was set in order not to exclude the first significant country: Libya

The fullest indicators

Look at the indicators manually and select the most significant

indicators

- Surface area
- Population, total
- Population growth
- Population density
- Land area
- Access to electricity, urban
- Access to electricity, rural
- Access to electricity
- Urban population growth
- Urban population
- Theoretical duration of secondary education
- Theoretical duration of primary education
- Rural population
- Official entrance age to primary education
- Official entrance age to lower secondary education
- Mobile cellular subscriptions
- Livestock production index
- International migrant stock, total
- International migrant stock
- Incidence of tuberculosis
- Food production index
- Fixed telephone subscriptions
- Death rate, crude
- Crop production index
- CO2 emissions from solid fuel consumption
- CO2 emissions from gaseous fuel consumption
- Birth rate, crude
- CO2 emissions from liquid fuel consumption
- Arable land
- Agricultural land

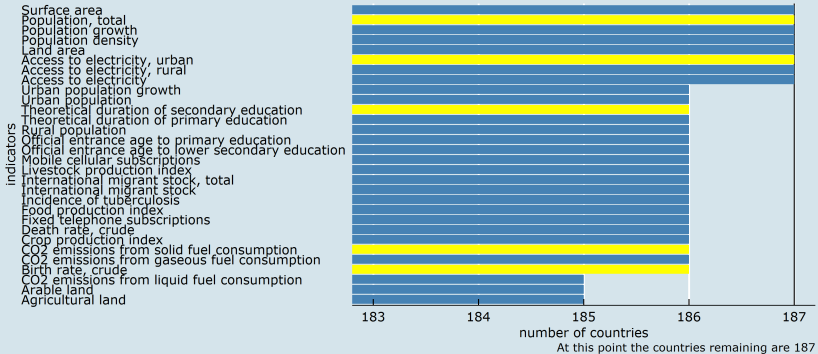


number of countries

At this point the countries remaining are 187

The fullest indicators

Look at the indicators manually and select the most significant



example 1

GDP per capita (current US\$) in 2013

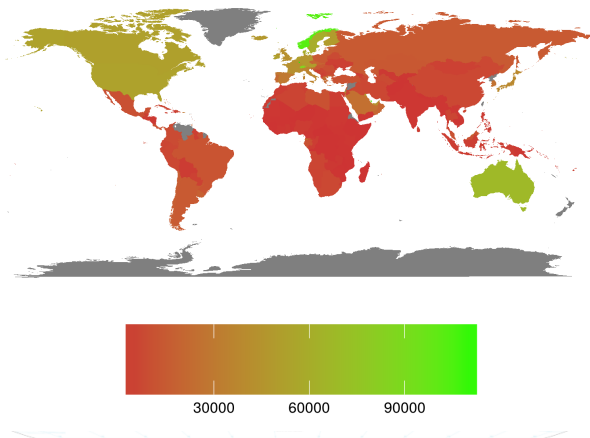


Рис.: GDP per capita, 2013

example 2

Population ages 65 and above (% of total) in 2010

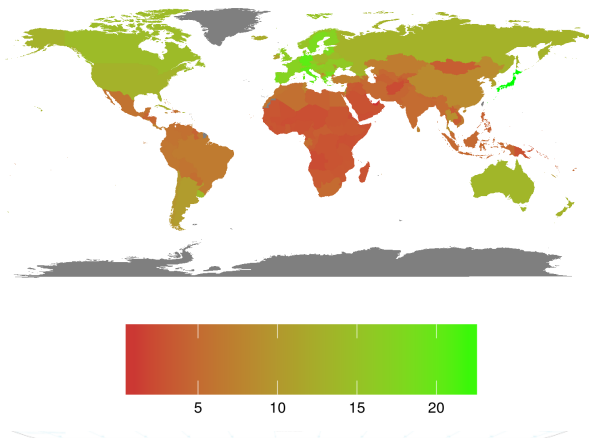


Рис.: population over 65

example 3

Unemployment Rates (2013)

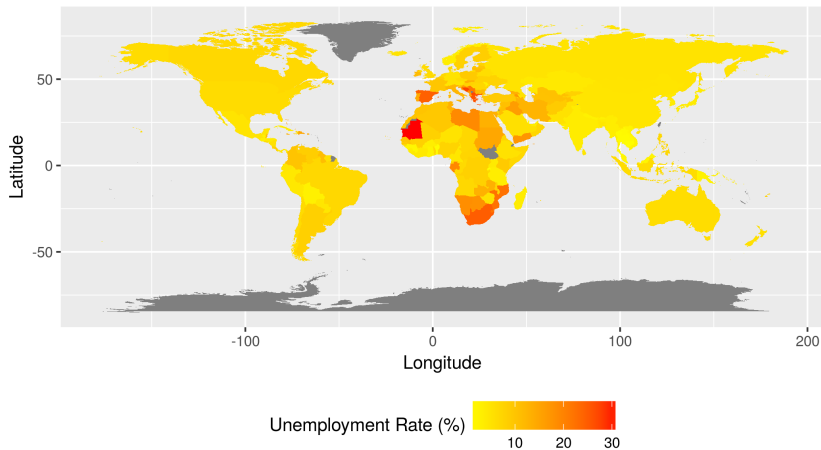


Рис.: world unemployment