# Key data: Data about countries

Celia Russell Richard Wiseman

November 2017





### Welcome

### Some introductions...



Richard Wiseman
UK Data Service
Jisc



**Celia Russell**UK Data Service
Jisc



# What we will cover today

- introduction
- international macrodata
- documentation and tips
- demo
- questions
  - can be typed in, but we will wait until the end to answer them







### What is the UK Data Service?

- a comprehensive resource funded by the ESRC
- a single point of access to a wide range of secondary social science data
- support, training and guidance





### What data do we hold?

### Surveys

Large-scale government funded UK and cross-national surveys

#### Census

Census data 1971 – 2011

### Longitudinal

Major UK surveys following individuals over time

### Business

Microdata and administrative data

#### International

Multi-nation aggregate databanks and survey data

### Qualitative

Range of multimedia qualitative data sources

















Site search Accessibility FAQ Help Contact New users Sitemap



Register / Login

### Explore the UK's largest collection of social, economic and population data resources

Search data 💌



#### About the UK Data Service



#### Guides and resources

Dataset guides

Topic guides

Methods and software guides

Guides to exploring online

See more >



See our growing range of training

#### See data from all over the world

Browse our data map

#### Data types

Census data

nternational macrodata

Longitudinal studies

Qualitative/mixed methods





Our

Find o

#### Latest data

IMF Balance of Payments

ukdataservice.ac.uk

# International macrodata: data about countries

- time series data aggregated to country/region
- international governmental organisations (IMF, OECD, IEA, World Bank)
- wide range of socio-economic topics
- available to staff and students from UK institutions of higher and further education (World Bank, IMF and OECD data are open access),
- access granted to parliamentary statisticians





# Data providers

- International Monetary Fund (IMF)
- Organisation for Economic Co-operation and Development (OECD)
- World Bank
- United Nations
- International Energy Agency (IEA)



### International data themes

#### Databanks cover:

- economic performance and development
- trade, industry and markets
- employment
- demography, migration and health
- governance
- human development
- social expenditure
- education
- science and technology
- land use and the environment
- energy





### International macrodata

	→ı Variables	Total population of the metropolitan area (persons)										
	→ı Time	2009	2010	2011	2012	2013	2014					
	→ Time	<b>▲</b> ▼	<b>▲</b> ▼	<b>▲</b> ▼	<b>▲</b> ▼	<b>▲</b> ▼	<b>▲</b> ▼					
→ı Metropolitan areas												
■ Australia		21 691 653	22 031 750	22 340 024	22 728 254	23 125 868	23 490 736					
Australia	Adelaide	1 237 354	1 253 097	1 264 091	1 278 600	1 291 377	1 304 631					
	Brisbane	2 068 479	2 108 348	2 147 436	2 193 316	2 236 044	2 274 560					
	Gold Coast-Tweed Heads	509 133	519 630	528 766	540 527	551 123	560 266					
	Melbourne	4 031 787	4 105 857	4 169 366	4 252 458	4 344 673	4 440 328					
	Perth	1 739 342	1 781 132	1 833 567	1 904 858	1 972 849	2 021 203					
	Sydney	4 492 380	4 555 516	4 608 949	4 676 118	4 756 398	4 840 628					
■ Austria		8 335 003	8 351 643	8 375 164	8 408 121	8 451 860	8 506 889					
Austria	Graz	602 465	608 420	614 454	620 587	626 826	633 168					
	Linz	604 006	606 514	609 054	611 622	614 214	616 829					
	Vienna	2 656 523	2 683 251	2 710 331	2 737 753	2 765 519	2 793 631					
■ Belgium		10 753 080	10 839 905	10 951 266	11 035 948	11 099 554	11 203 992					
Belgium	Antwerp	1 046 834	1 053 725	1 060 675	1 067 688	1 074 765	1 081 904					
	Brussels	2 460 663	2 485 480	2 510 626	2 536 106	2 561 930	2 588 102					
	Ghent	572 560	576 408	580 281	584 187	588 127	592 100					
	Liege	723 142	726 431	729 740	733 071	736 425	739 798					
■ Canada		33 628 571	34 005 274	34 342 780	34 752 128	35 154 279	35 540 419					
Canada	Calgary	1 237 622	1 271 737	1 306 924	1 342 733	1 379 633	1 417 661					
Data autorated	on 30 Nov 2016 12:24 HTC (GMT) from HKDS Stat											

Data extracted on 30 Nov 2016 12:24 UTC (GMT) from UKDS.St

Login | Contact Us | Site Map | Guide



# Accessing the international macrodata

- World Bank IMF, OECD, UNESCO data are open to all
- other data restricted to UK FE and HE (UNIDO, IEA)
- access via Federated access (Shibboleth) authentication
- data delivered over the web via UKDS.stat
- download formats include \*.xls, \*.csv





# Catalogue record

UK Data Service Discover



Discover

Variable and question bank

QualiBank

You are not logged in | Login to Discover | Site Search FAQ Help Contact

Get data Use data Manage data Deposit data News and Events

About us

Discover > Catalogue

#### Catalogue

UK Data Service data catalogue record for:

#### OECD Main Economic Indicators Databank, 1960-2014

Related Studies | Publications

Access online | LOI XML

SHARE <

#### TITLE DETAILS

SN: 4744

Title: OECD Main Economic Indicators Databank, 1960-2014

Alternative title: OECD MEI

Persistent identifier: 10.5257/oecd/mei/2013-04

Depositor: Organisation for Economic Co-operation and Development

Principal investigator(s): Organisation for Economic Co-operation and Development

#### SUBJECT CATEGORIES

Economic conditions and indicators - Economics

ABSTRACT

Abstract copyright UK Data Service and data collection copyright owner.

The Organisation for Economic Co-operation and Development (OECD) produces annual, quarterly and monthly data for around 3,800 main economic indicators (MEI). The variables cover national accounts, industrial production, employment, prices, business trends and trade for the member countries of the OECD and 6 non-member countries. The dataset also includes the OECD's leading indicators (key variables that signal changes in the business cycle).

The OECD defines each variable separately for each country. Nevertheless, the data are considered sufficiently similar to enable comparisons between countries, especially for relative values and rates of change.

These data were first proved by the UK Data Service in a muary 2003. The UK Data Service web site includes further information on its OECD MEI holdings, including a <u>dataset user quide</u> and of tails of <u>latest database updates</u>.

Citation: The bibliographic citation to Lease 1s: Organisation for Economic Cooperation and Development (\(\frac{\gamma\community\commu\

Alternative DOIs: 10.1787/mei-data-en (to access via OECD.Stat subscription).

#### Main Topics:

The tonics listed helow correspond to the first OECD subject level:

### UKDS.Stat: stats.ukdataservice.ac.uk

UK Data Service UKDS. Stat | Help - Get in Touch





Data by P

Search Data All Datasets

■ World Ba

■ Internation
■ United N

■ Human R

#### **UKDS.Stat Guides**

A collection of guides for the UKDS.Stat International Macrodata Platform

#### **UKDS.Stat Platform Guides**

PDF GUIDES



UKDS.Stat user guide (PDF)



Guide to finding IMF International Financial Statistics (IFS) data (PDF)

UKDS.Stat API guide - SDMX-JSON (PDF)

UKDS.Stat API guide - SDMX-ML (PDF)

#### VIDEO GUIDES

Accessing, exploring and visualising data in UKDS.Stat +

How to select multiple subjects in UKDS.Stat +

How to hide empty rows and columns with UKDS.Stat +

How to save and share queries within UKDS.Stat +

How to change the layout in UKDS.Stat +

How to create maps with UKDS.Stat +

How to create bar charts with UKDS.Stat +

How to reorder data within UKDS.Stat +

#### **UKDS.Stat Data Guides**

#### WORLD BANK DATA

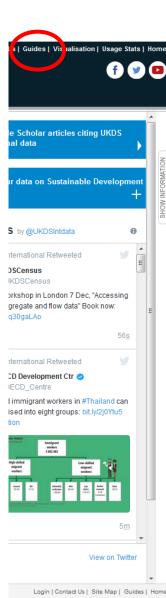
World Bank Africa Development Statistics
World Bank International Debt Statistics
World Bank World Development Indicators

#### INTERNATIONAL MONETARY FUND DATA

IMF Balance of Payments Statistics
IMF Direction of Trade Statistics
IMF Government Finance Statistics
IMF International Financial Statistics
IMF World Economic Outlook

#### OECD DATA

OECD Banking Statistics
OECD Economic Outlook
OECD Education Statistics
OECD Environment Statistics





Did you know ... how to change the layout in UKDS.Stat? http://youtu.be/\_ZnS0aGBQ3s

□ Customise ▼ □ Export ▼ □ Export ▼ □ My Queries ▼

Page: 1 - /2

	→ı Series	NGDPD - Gross domestic product, current prices													
	→ı Time	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
		Δ₹	<b>▲</b> ▼												
→ Location															
Afghanistan	i	6.167	6.925	8.556	10.297	12.066	15.325	17.89	20.296	20.17	20.444	19.204	17.275	17.449	18.468
Albania	i	8.158	9.001	10.698	12.901	12.093	11.938	12.896	12.323	12.789	13.296	11.543	12.269	12.978	13.851
Algeria	i	103.198	117.027	134.977	171.001	137.054	161.207	199.394	209.005	209.703	213.518	172.278	165.974	173.856	179.588
Angola	i	28.234	41.789	60.449	84.178	75.492	82.471	104.116	115.342	124.912	126.775	102.979	81.497	86.287	91.608
Antigua and Barbuda	i	0.997	1.135	1.289	1.347	1.206	1.136	1.13	1.205	1.185	1.248	1.287	1.332	1.389	1.461
Argentina	i	221.411	263.044	329.764	406.001	378.502	462.839	559.846	607.719	622.055	544.734	585.623	437.856	447.827	473.129
Armenia	i	4.9	6.384	9.206	11.662	8.648	9.26	10.142	10.619	11.121	11.644	10.571	10.774	11.152	11.712
Australia	i	733.963	780.824	946.377	1 036.05	982.382	1 245.98	1 502.59	1 558.68	1 501.09	1 441.95	1 223.89	1 200.78	1 262.34	1 330.25
Austria	i	315.187	334.603	386.995	429.638	398.602	390.939	429.431	407.599	428.833	437.582	374.124	384.799	399.615	411.779
Azerbaijan	i	13.245	21.027	33.09	46.378	44.289	52.913	64.819	68.7	73.537	75.254	54.048	35.141	36.195	37.281
Bahrain	i	15.965	18.501	21.725	25.705	22.933	25.708	29.038	30.75	32.893	33.843	30.411	30.079	31.959	33.549
Bangladesh	i	70.921	75.77	85.604	97.062	108.896	122.039	131.079	141.705	161.297	183.824	205.715	226.257	246.73	269.491
Barbados	i	3.897	4.303	4.546	4.595	4.602	4.447	4.359	4.332	4.371	4.353	4.412	4.498	4.655	4.859
Belarus	i	30.21	36.962	45.276	60.752	49.209	55.221	59.735	63.615	73.098	76.139	54.609	45.887	49.252	52.494
Relaium		200 020	440 472	472 475	E24 004	A0E 704	404 AE	E27 404	400 055	E24 E6E	E22 204	AEA 607	46E 240	470.670	402 756





### World Bank Databases

- Collects data on all aspects of human development worldwide
- Annual data, designed for international comparability
- Open access
- Host 4 databases:
  - World Development Indicators
  - International Debt Statistics
  - Africa Development Indicators
  - Subnational Population Database







## World Development Indicators

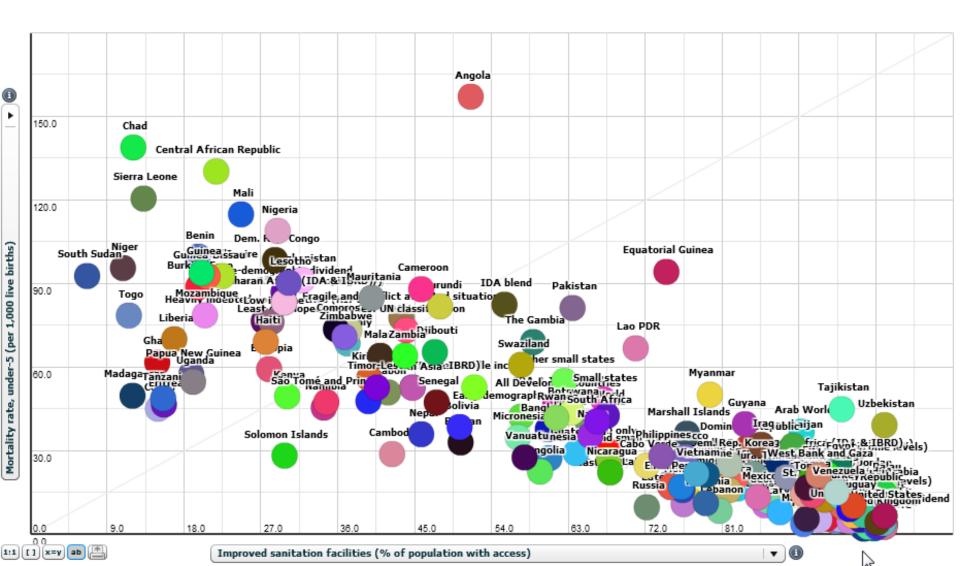
- Covers over 200 countries
- Annual data starting 1960
- Widely cited
- Our most popular database

The World Development Indicators provides a broad picture of poverty trends and social welfare, the use of environmental resources, the performance of the public sector, infrastructure, rural and urban development, health and education.

Around 1,400 indicators for each country



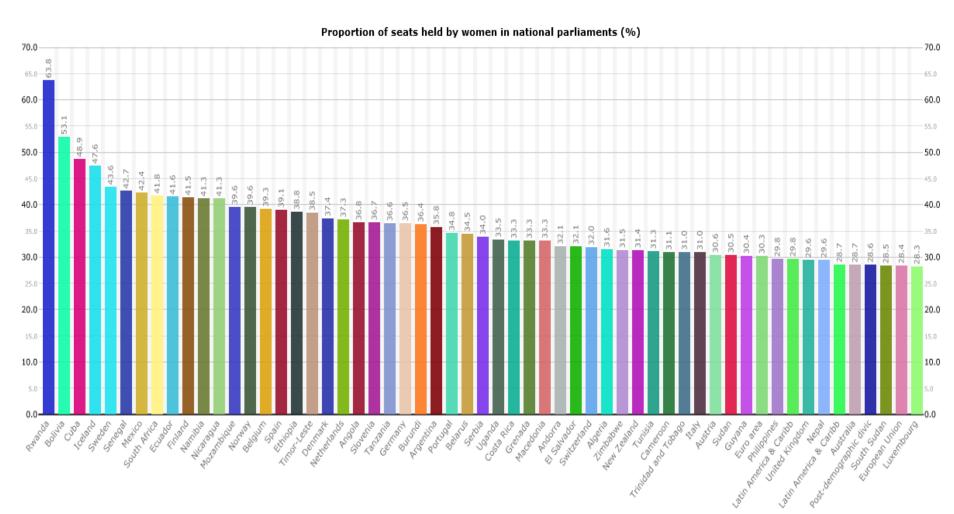
# World Development Indicators: example



Which country had the largest proportion of women in parliament during 2016?



# Proportion of seats held by women in national parliaments, 2015 (%)





### International Debt Statistics

- Financial flows
- Contains the Bank's projections for debt repayments etc for next five years
- Annual data starting 1970s
- Replaces Government Development Finance





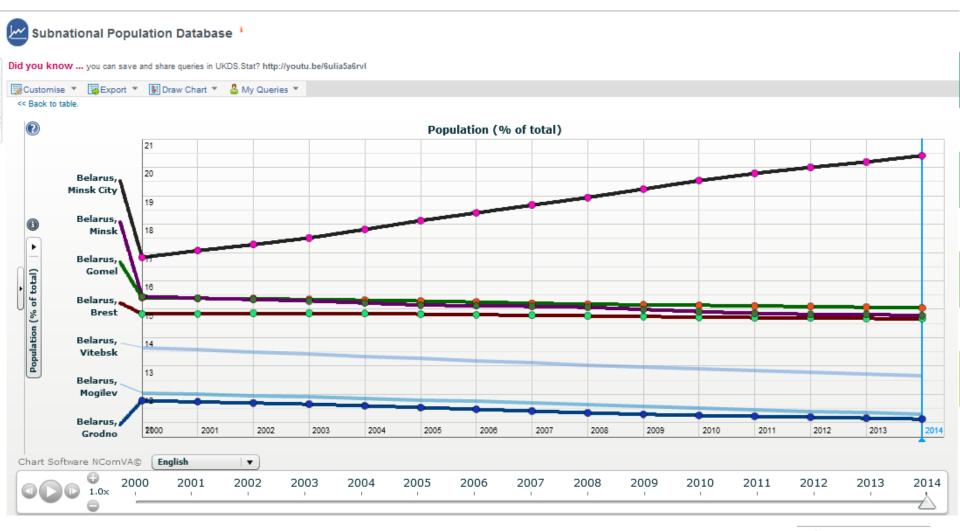
# Subnational Population Database

- first administrative level provinces, states, or regions below the national level
- data are available from 2000 to 2016
- total population and share of population
- allows researchers, students and practitioners to investigate population and intra-country migration trends





### Belarus subnational data





### IMF databanks

- International Financial Statistics
- Government Finance Statistics
- Balance of Payments Statistics
- Direction of Trade
- World Economic Outlook

The five major databanks produced by the IMF contain data on national accounts, trade, the balance of payments and government spending for over 200 countries. Collectively, they provide a global picture of economic development and international trade over the last 50 years.

Open access



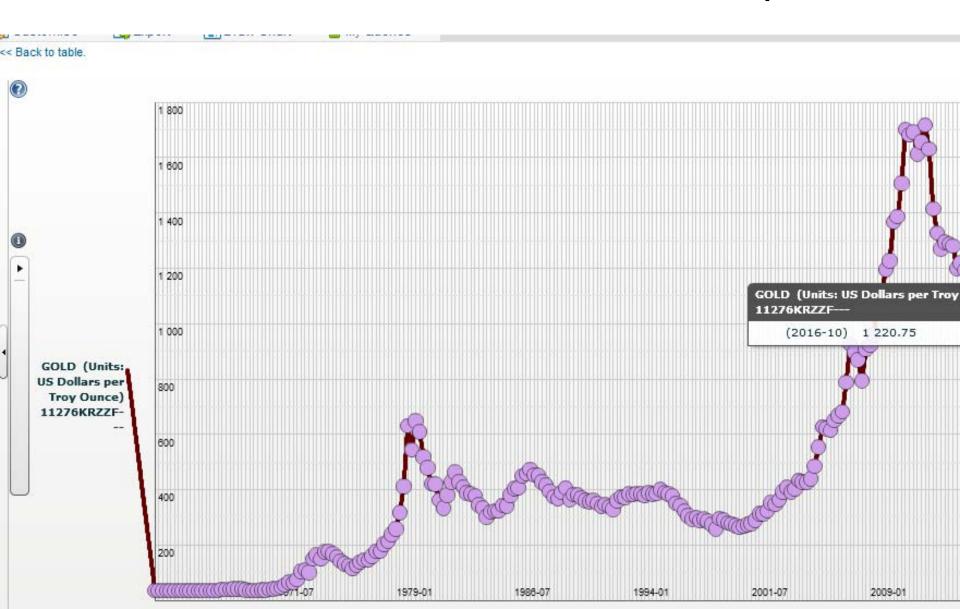


# IMF International Financial Statistics

- standard source for all aspects of international and domestic finance
- Monthly, Quarterly, and Annual data
- published and updated monthly since 1948
- includes over 200 countries
- reports time series data on exchange rates, international liquidity, money and banking, interest rates, prices, production, national accounts...
- 3 sections:
  - country tables
  - world tables
  - commodity prices



## International Financial Statistics: example



### IMF Direction of Trade

- Contains data on the value of exports and imports between each country and all its trading partners
- Around 250 countries and regional groups from the 1980's onwards
- Monthly, quarterly and annual data are presented
- Data runs from 1980 to the present

Long and consistent time series

Stable data domains

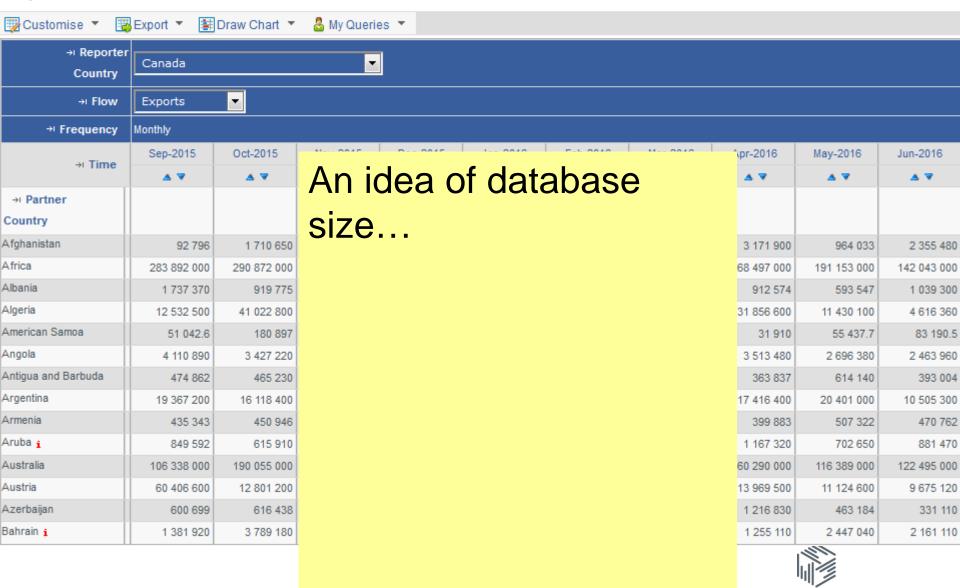
Good geographic and temporal coverage

Up-to-date data



# Inside the database — IMF Direction of Trade

Did you know ... how to change the layout in UKDS.Stat? http://youtu.be/\_ZnS0aGBQ3s



# IMF Balance of Payments Statistics



- balance of payment components and international investment positions of countries worldwide
- 204 countries and country groups worldwide
- 1970s to the present
- Quarterly and annual data



# IMF Government Finance Statistics

- Data on government income (such as tax and bonds)
- Expenditure by sector (defence, education, health, etc)
- All levels of government (national, state, local)
- 174 countries worldwide
- Annual time series data, running 1990 onwards.
- Temporarily frozen at Nov 2014 edition as countries move to new reporting framework and updated questionnaire (the Government Finance Statistics Manual 2014)







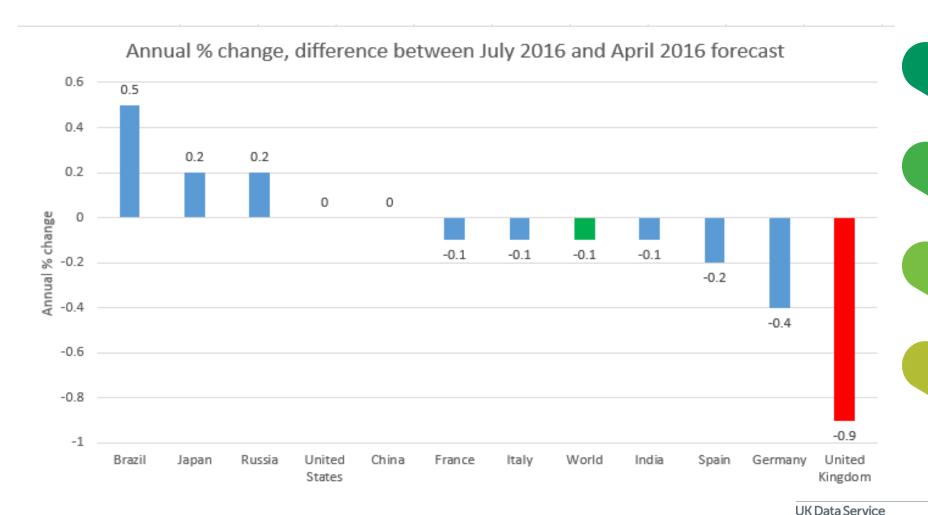
### World Economic Outlook



- Each year the IMF produce the World Economic Outlook report, which presents the IMF staff's analysis and projections of economic developments at the global level
- The WEO database contains the data that underpins that report
- data on national accounts, inflation, unemployment rates, balance of payments, fiscal indicators, and commodity prices
- Projections for most indicators run up to 2022



# IMF revision of GDP growth forecasts for 2017



Data source: IMF World Economic Outlook, April 2016, updated 19 July

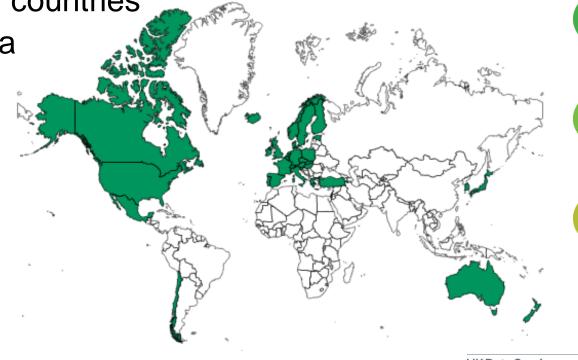


# Organisation for Economic Cooperation and Development (OECD) Data

- Open data
- Comparable data

Limited number of countries

Wide range of data







### **OECD** data

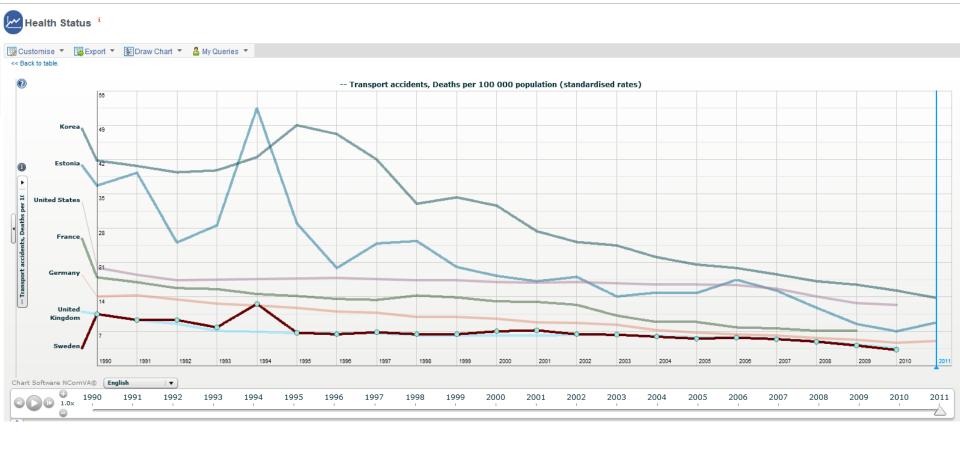
- Banking Statistics
- Economic Outlook: Statistics and Projections
- Education at a Glance
- Employment and Labour Market
   Statistics
- Environment Statistics
- Health Statistics
- Institutional Investors Statistics
- Insurance Statistics
- International Development Statistics
- International Direct Investment Statistics
- International Trade in Services
- International Migration Statistics
- Main Economic Indicators
- Main Science and Technology

#### **Indicators**

- Measuring Globalisation
- Monthly Statistics of International Trade
- National Accounts
- Patent Statistics
- Pensions Statistics
- Product Market Regulation
- Productivity Statistics
- Regional Statistics
- Social and Welfare Statistics
- STructural Analysis
- Tax Statistics
- Telecommunications and Internet Statistics



### **OECD Health Statistics**



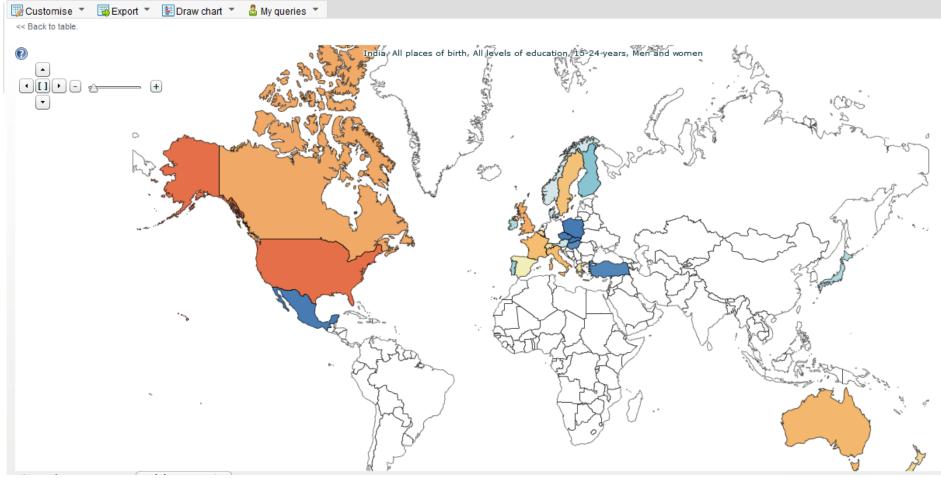
Organisation for Economic Cooperation and Development (2014): OECD Health Statistics (Data downloaded: 2014-06). UK Data Service.

DOI: http://dx.doi.org/10.5257/oecd/health/2014-06



# **OECD International Migration Statistics**

Immigrants by sex and age i: Indian immigrants aged 15-24



Organisation for Economic Cooperation and Development (2015): International Migration Statistics (Edition 2011, data download: 2015-10). UK Data Service.

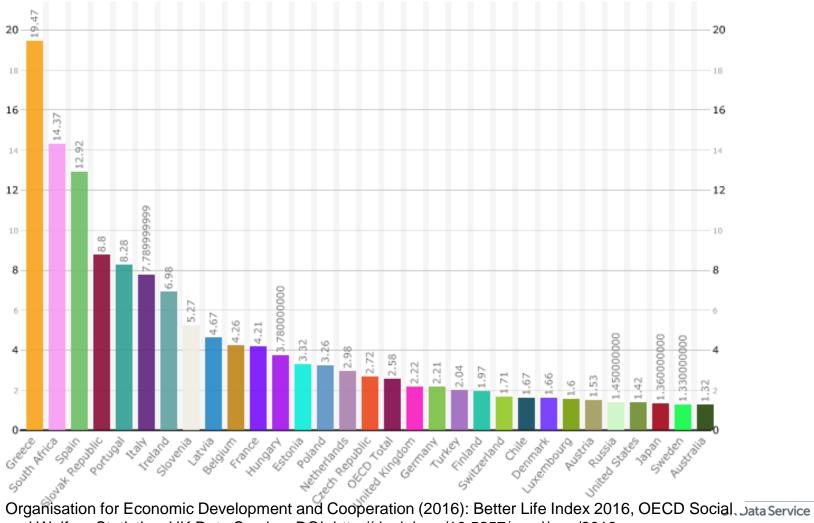
DOI: http://dx.doi.org/10.5257/oecd/ims/2015-10



Which country had the highest long term unemployment rate in 2016?



#### Long-term unemployment rate % (2016)



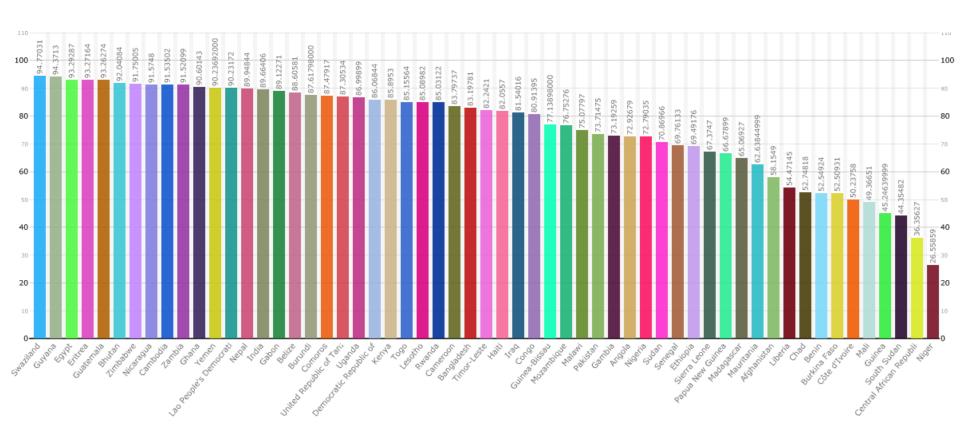
and Welfare Statistics, UK Data Service. DOI: http://dx.doi.org/10.5257/oecd/sws/2016

#### **UNESCO**

- Open data
- Education Statistics (1970 onwards)
  - Out of school, progression, attainment, literacy, student migration, teachers, financial resources and much more
- Innovation Statistics (2005 onwards)
  - R&D activity data
- Culture
  - Cultural employment (2009 onwards)
  - Feature film statistics (1995 onwards)
- Communication and information (1995 onwards)



## Youth literacy rate, population 15-24 years, both sexes (%)



UNESCO (2016): Education Statistics (Edition: June 2016). UK Data Service. DOI: http://dx.doi.org/10.5257/unesco/edulit/2016-06



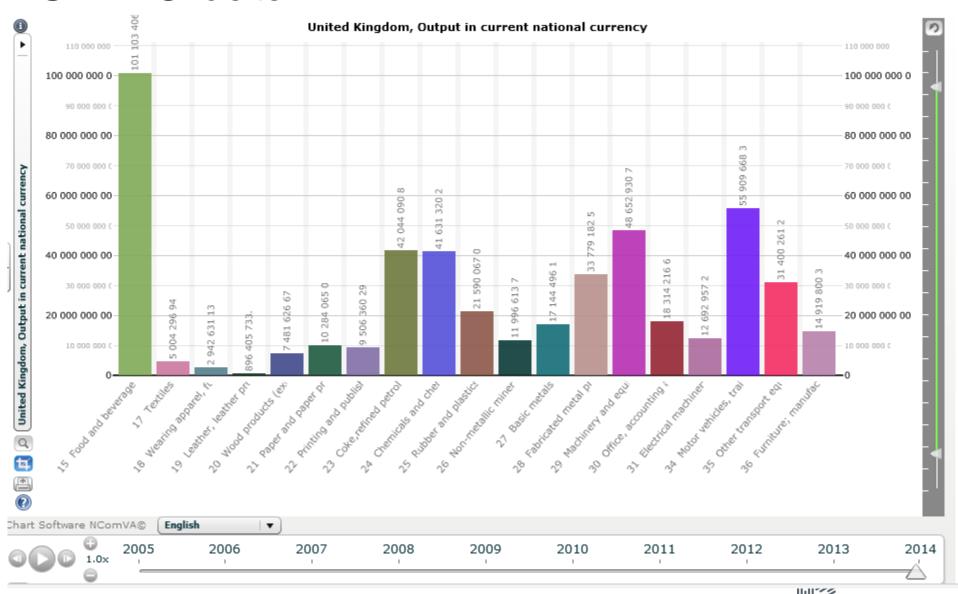
# United Nations Industrial Development Organization (UNIDO)

- Restricted to UK FE/HE
- UNIDO Industrial Statistics Databases
   Employment, wages and trade world-wide, broken down by manufacturing sector
  - INDSTAT2, less detailed data from 1963 onwards
  - INDSTAT4, more detailed data available 1990 onwards
- UNIDO Industrial Demand Supply Balance Databases
  Imports, exports and apparent consumption by
  manufacturing sector, from 1990 onwards
- Annual data, updated each year

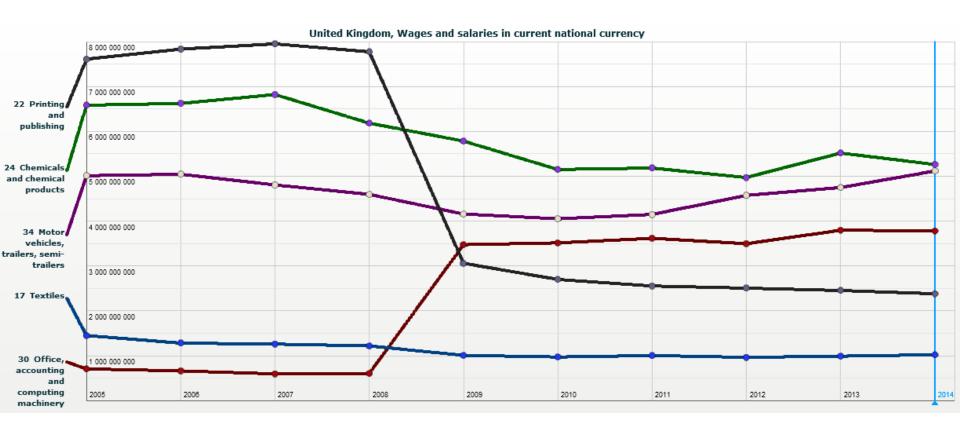




#### **UNIDO** data



#### UK Wages and salaries

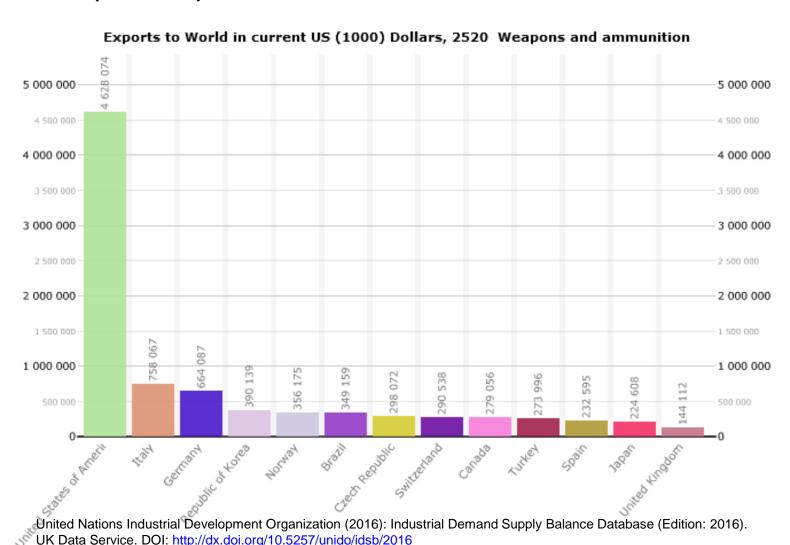




The US had the highest value of weapons and ammunition exports in 2013. But which country came second?



## Weapons and ammunition Exports (current US\$ (1000) in 2013



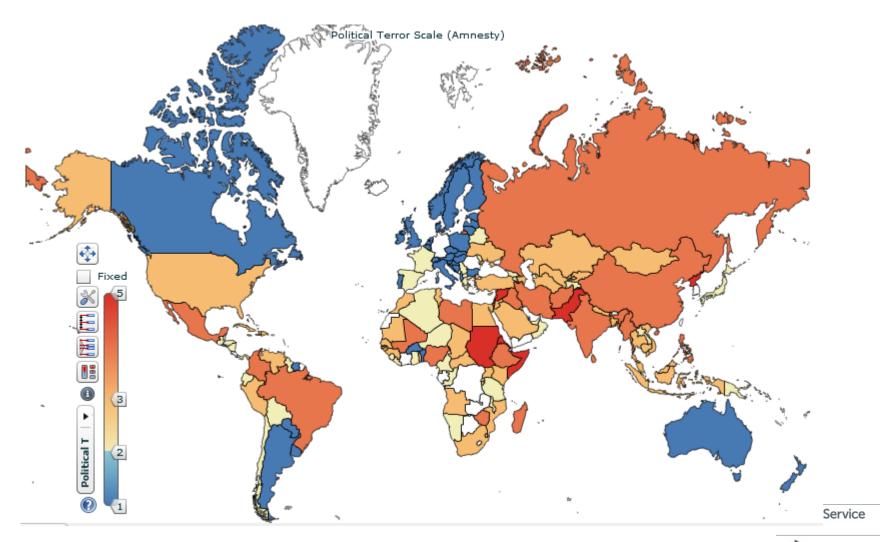
#### Human Rights Atlas

- open data
- 1981 2012
- 240 indicators
- combines data from World Bank, UN, academia, and non-governmental organisation
- ESRC funded project





### Political Terror Scale (Amnesty, 2012)





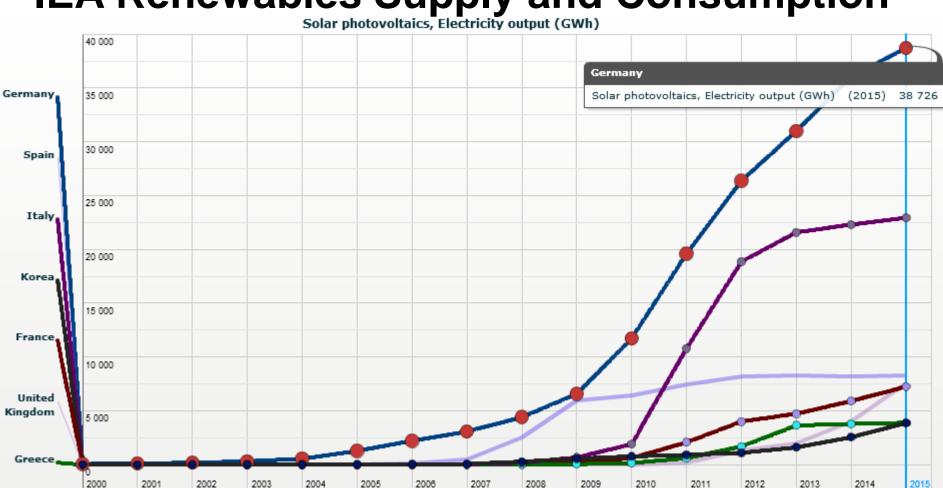
### International Energy Agency

- Restricted to UK FE/HE
- CO<sub>2</sub> Emissions from Fuel Combustion
- Energy Prices and Taxes
- Energy Technology Research and Development Database
- World Energy Statistics and Balances
- Specialist databanks:
  - Electricity information
  - Coal Information
  - Natural Gas Information
  - Oil Information
  - Renewables Information





#### **IEA Renewables Supply and Consumption**



International Energy Agency: Renewables Information : OECD Renewables Supply and Consumption (2017 Preliminary Edition), 1990-2015 (Data downloaded: 28 June 2017). UK Data Service, DOI: http://dx.doi.org/10.5257/iea/ri/2017-04



#### Some tips on using the databanks

Tip 1: choose your data from the same databank or family of databanks

 comparability issues between data from different databanks, even for series with well-established standards

theoretically identical series can have slightly different values in

different databanks

	US GDP (US\$ billions as reported by the World Bank and IMF)
19000	
18000	
17000	
16000	
15000	
L4000	
13000	
12000	
11000	
L0000	2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016
	2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016

Time	World Bank	IMF
2000	10284.8	10284.8
2001	10621.8	10621.8
2002	10977.5	10977.5
2003	11510.7	11510.7
2004	12274.9	12274.9
2005	13093.7	13093.7
2006	13855.9	13855.9
2007	14477.6	14477.6
2008	14718.6	14718.6
2009	14418.7	14418.7
2010	14964.4	14964.4
2011	15517.9	15517.9
2012	16155.3	16155.3
2013	16663.2	16691.5
2014	17348.1	17393.1
2015	17947.0	18036.7
2016		18567

### Tip 2: some of the databanks have better cross country comparability than others.

- OECD databanks are specifically designed for country comparisons
- IMF International Financial Statistics is not.

#### Tip 3: Examine more info and footnotes

World Development Indicators (December 2014)

Customise ▼ Bxport ▼ Brow chart ▼ And My queries ▼											
→ Subject	Gross intake	ratio in first grad	le of primary edu	cation, female (%	of relevant age	group)			▼ i		
→ı Time	2003 	2004 ▲▼	2005	2006 ▲▼	2007	2008	2009 ▲ ▼	2010 ▲▼	2014		
→ Location											
Afgnanistan	143.80228		86.01333		73.16143		83.8826	91.17004	96.26532		
Albania i	93.8336										
Algeria i	94.86725	96.3032	94.91865	93.78017	97.56141	102.66329	103.49781	112.37794	110.10127		
All Developing	110.0799484253	110.5738601685	111.2811737061	112.1305770874	114.0525131226	115.3629379272	112.446647644	113.6741409302	113.0870437622		
Countries i											
American											
Samoai											
Andorra i											
Angola i						i 146.83711	144.99312	i 144.82924	143.01736		
Antigua and					101.31062	97.8975	<b>i</b> 93.28947		92.54328		
Barbuda i											
Arab World i	91.5697097778	92.9570617676	94.8448028564	<b>i</b> 95.7619400024	97.5129928589	<b>i</b> 98.6844711304	<b>i</b> 98.4914474487	99.3586273193	99.8152923584		
Argentina <b>i</b>	110.65418	109.56736	109.12878	111.2247	111.04491	111.9544	114.636	114.58618	115.12126		
Armenia i	94.74919	95.57744	103.16127	107.40804		97.70087	99.55503				
Aruba <sub>1</sub>	100.26954	97.83784	104.25824	107.173	104.29185	104.92754	105.27859	100.59084			

#### What we provide

- Data free at point of use
- Single portal and search across a wide range of international databanks from several intergovernmental organisations
- Consistent and comprehensive documentation
- Training, user support, knowledgeable helpdesk
- Web: <u>ukdataservice.ac.uk</u>





#### Demo

https://stats.ukdataservice.ac.uk/



#### Coming soon

- UK Census workshop 7 December London
- Data skills modules



#### Questions

ukdataservice.ac.uk/help/

#### Follow us at:

- <u>UKDATASERVICE@JISCMAIL.AC.UK</u>
- twitter.com/UKDSIntdata
- twitter.com/UKDataService
- www.facebook.com/UKDataService

