

Data in the spotlight: International Time Series Data

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What we will cover today

Introduction

International macrodata

Demo

Documentation and tips

Questions



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

Longitudinal

Major UK surveys following individuals over time

International

Multi-nation aggregate databanks and survey data

Census

Census data 1971 – 2011 + 2021/22

Business

Microdata and administrative data

Qualitative

Range of multimedia qualitative data sources

Repository for researcher generated datasets



Welcome to the UK Data Service

Trusted access and training to use the UK's largest collection of economic, social and population data for research and teaching

[Search](#)

Key services



International macrodata: data about countries

- Time series data aggregated to country/region
- International governmental organisations
- Wide range of socio-economic topics
- Availability



Data providers

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



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



Accessing the international macrodata

- World Bank IMF, OECD, UNESCO data are freely open to all
- Data delivered over the web via Data Explorer
- Fully searchable
- Download formats include *.xls, *.csv
- Developer API for machine to machine



Catalogue record

Home > Data catalogue > Studies > Study

World Bank World Development Indicators, 1960-2020

Details

Documentation

Resources

Access data

Details

Title:	World Bank World Development Indicators, 1960-2020
Alternative title:	WDI
Study number (SN):	4814
Access:	These data are open
Persistent identifier (DOI):	10.5257/wb/wdi/2020Q4
Principal investigator(s):	World Bank Group

Sponsors and contributors

Citation and copyright

The citation for this study is:

World Bank Group. (2021). *World Bank World Development Indicators, 1960-2020*. [data collection]. 27th Edition. UK Data Service. SN: 4814, DOI: [10.5257/wb/wdi/2020Q4](https://doi.org/10.5257/wb/wdi/2020Q4)

Data Explorer and SIS-CC

THE MEMBERS

of the Statistical Information System Collaboration Community
(SIS-CC)



PARTNERS

of the Statistical Information System Collaboration Community
(SIS-CC)



<https://internationaldata.ukdataservice.ac.uk>

DotStat Suite



.Stat Data Explorer

Allows for searching, visualising and sharing of data through a fully open source front-end set of components that can be adapted to specific needs and context.



.Stat Core

An SDMX backbone for easily interfacing through standard protocols, providing a set of services to manage data and metadata flows, configuration, and security.



.Stat Data Lifecycle Manager

A set of back office modules that combines all data and metadata management activities into one simple easy to use interface covering the GSBPM steps: Design, Collect, Process, and Disseminate.

[Pacific Data Hub](#)

[Statistiques | INS](#)

[.Stat Data Explorer \(BETA\)](#)



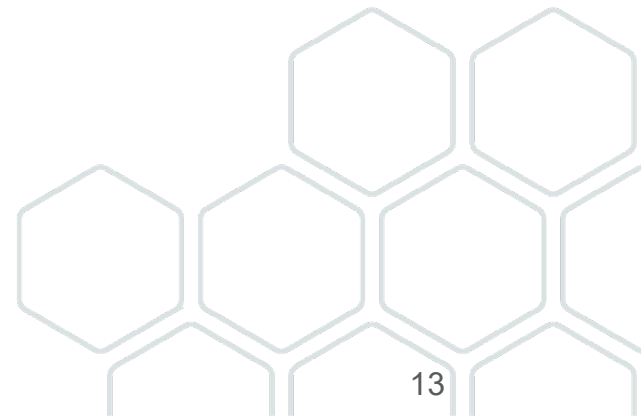
SDMX ?

Statistical Data and Metadata eXchange

https://open.data.internationaldata.ukdataservice.ac.uk/rest/data/OECD,DSD_EO@DF_EO,1.1/.GDPV_ANNPCT.A?startPeriod=2015&endPeriod=2021&dimensionAtObservation=AllDimensions

[UK Data Service Data Explorer • Economic Outlook 115](#)

[Tools | SDMX – Statistical Data and Metadata eXchange](#)



International macrodata

World Development Indicators (2022Q1 Edition)

Your current selection (1,139,423 data points) is above the defined limit (3,000) resulting in an incomplete table.
All selected data points can still be downloaded in tabular text (CSV).

Year	2015	2016	2017	2018	2019	2020
Location						
Subject: Gender > Health > Health systems > Physicians (per 1,000 people)						
Sub-Saharan Africa (IDA & IBRD)	..	..	0.2093513	..	..	..
Latin America & Caribbean (IDA & IBRD)	..	..	2.8834738	..	..	..
Subject: External health expenditure per capita (current US\$)						
Moldova	13.5719543	6.3248763	11.4636568	7.5121006	9.6961463	..
Pre-demographic dividend	10.1167358	9.6027503	9.4859574	9.5624154	9.7692521	..
Small states	15.00681	14.0328946	15.5358299	16.187112	15.9366779	..
Suriname	1.6364131	4.8600553	1.965199	6.1001718	3.682471	..
Uganda	16.8997691	15.7799622	13.2366662	13.9478131	13.6179732	..
Afghanistan	9.6874517	11.4044416	12.7601988	13.8544959	8.1676067	..
Subject: Domestic general government health expenditure (% of current health expenditure)						
Africa Eastern and	45.5087421	43.7427946	43.930114	46.7330291	47.6487624	..

<https://internationaldata.ukdataservice.ac.uk>



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

Around 1400 indicators per country



World Development Indicators: example

World Development Indicators (2022Q1 Edition)

Subject: Individuals using the Internet (% of population)

	Year	2015	2016	2017	2018	2019	2020
Location							
Malaysia		71.0640678	78.7883099	80.140479	81.2010486	84.187145	89.5550119
Mali		10.33	11.1121865	15.6	23	26	..
Mexico		57.431043	59.540446	63.8522491	65.7726345	70.0699105	71.97
Monaco		93.363302	95.208178	97.0529768	..	..	..
Morocco		57.0799994	58.2712364	61.762212	64.8038652	74.3763145	84.120363
New Zealand		88.2228888	88.4701864	90.8110931	..	..	..
Norway		96.8103257	97.2982037	96.3576013	96.491658	98.0000044	97.0000012

© World Development Indicators (2022Q1 Edition)  UK Data Service



Which country had the largest proportion of women in parliament during 2020?

Go to www.menti.com and use code **86 58 46 3**



Proportion of seats held by women in national parliaments, 2020 (%)

World Development Indicators (2022Q1 Edition)

Subject: Proportion of seats held by women in national parliaments (%) ● **Year:** 2020

Location		
Rwanda		61.25
Sweden		46.991404
Bolivia		46.1538462
Cuba		53.2231405
Iceland		38.0952381

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International Debt Statistics



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



IMF databanks



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

IMF International Financial Statistics



- Standard source for all aspects of international and domestic finance
- Monthly, Quarterly, and Annual data
- Includes over 200 countries
- Reports time series data on exchange rates, international liquidity, money and banking, interest rates, prices, production, national accounts...

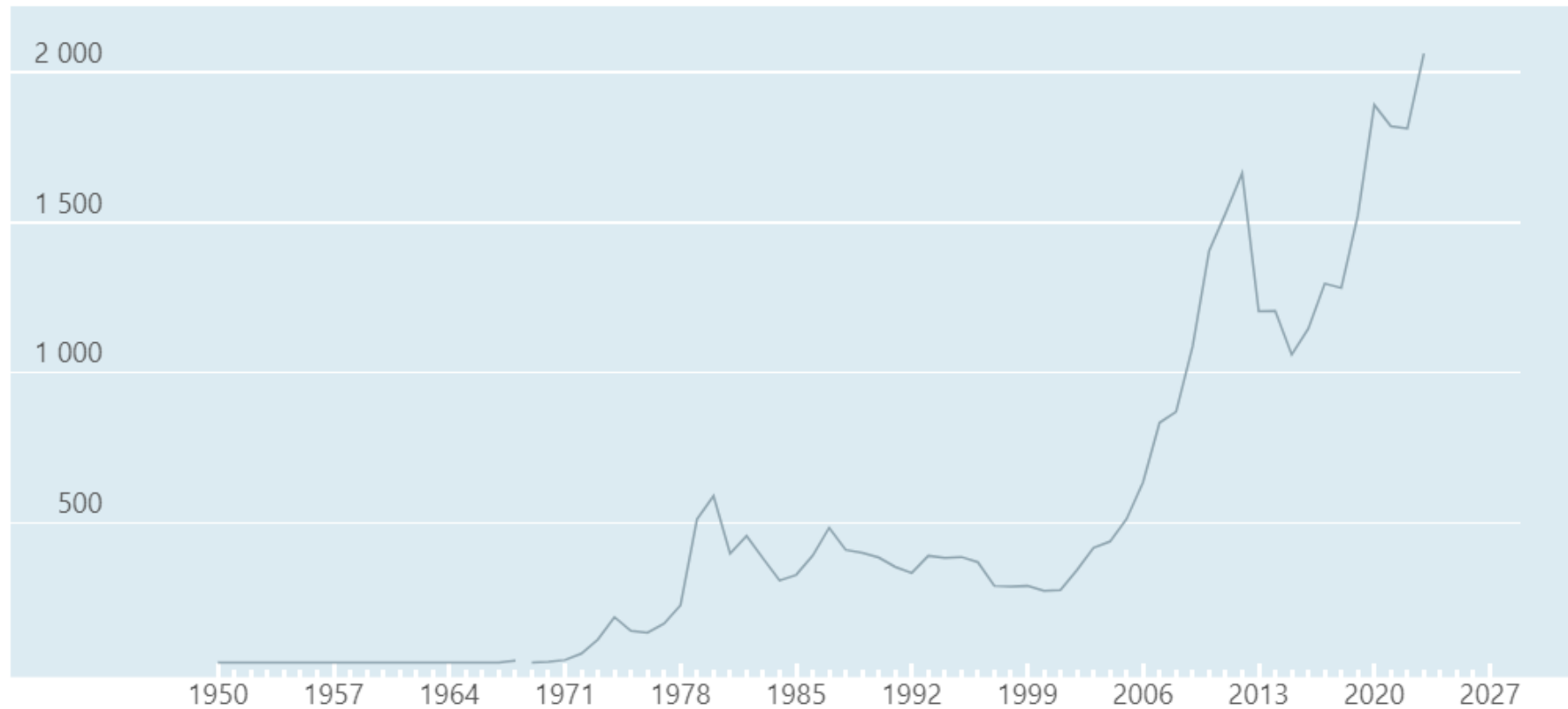


International Financial Statistics: example

International Financial Statistics (IFS)

Frequency: Annual ● **Reference area:** United Kingdom ●

Indicator: Exchange Rates, US Dollars per ounce of gold, End of period, Rate





IMF Direction of Trade

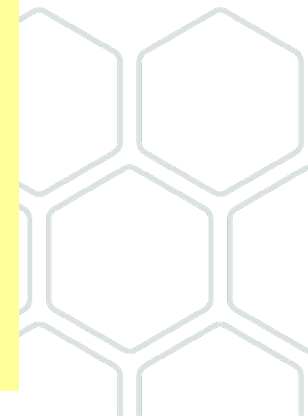
- Exports and imports
- Bilateral data between countries
- Monthly, quarterly and annual data are presented
- 1980 onwards

Long and consistent time series

Stable data domains

Good geographic and temporal coverage

Up-to-date data



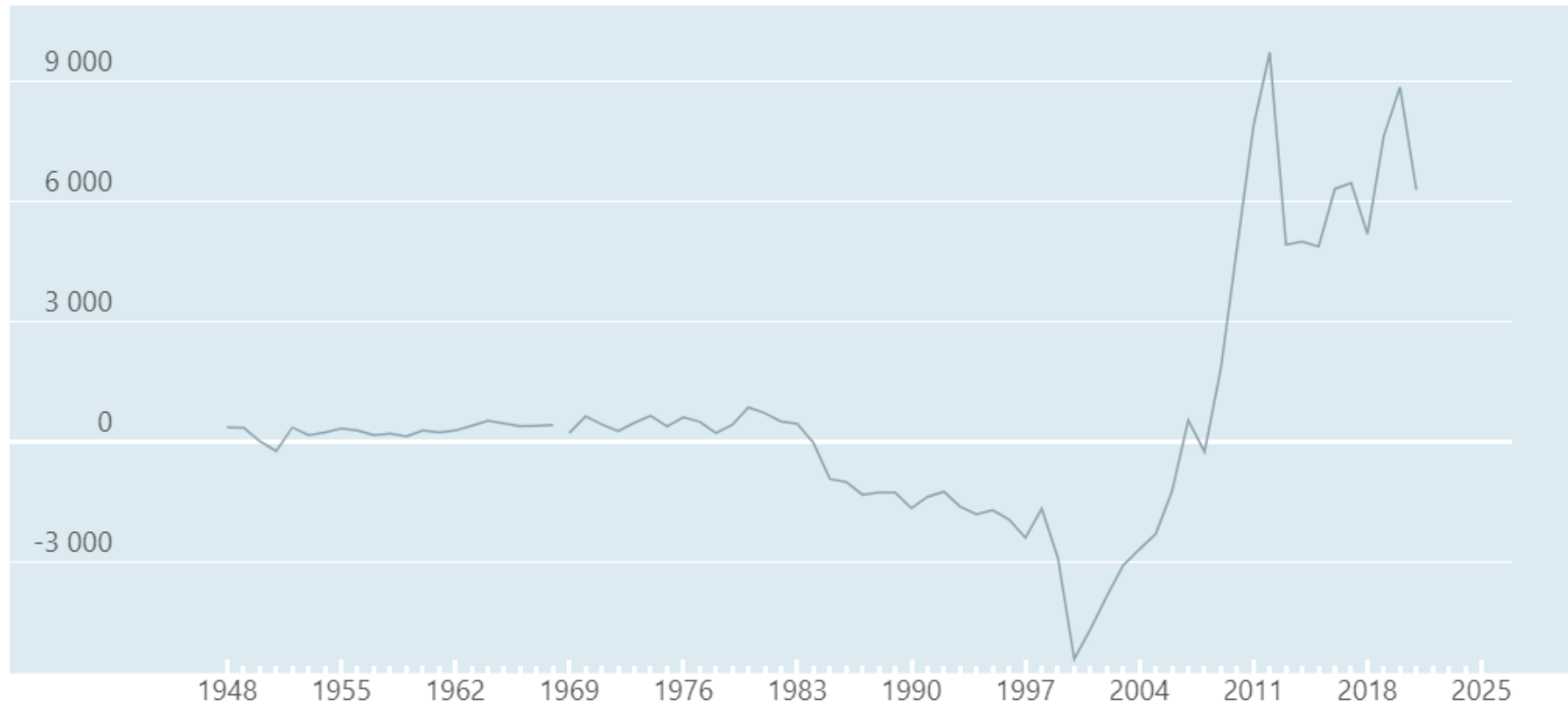
Canada v United Kingdom

Direction of Trade Statistics (DOTS)

Frequency: Annual ● **Reference area:** Canada ● **Indicator:** Goods, Value of Trade Balance, US Dollars ●

Counterpart reference area: United Kingdom

Combined unit of measure: Millions





IMF Government Finance Statistics

- Data on government income
- Expenditure by sector
- All levels of government
- 174 countries worldwide
- Annual time series data, running 1990 onwards.



GFS Example

Government Finance Statistics (GFS), Main Aggregates and Balances

Frequency: Annual • *Reporting institutional sector:* Social security funds • *Classification:* Expenditure

		Date	2020	2021	2022
<i>Combined unit of measure</i>	<i>Reference area</i>				
Percent of GDP, Units	France	i	28.4868532	27.3325282	26.6807531
Percent of GDP, Units	Germany	i	22.1009011	21.5272913	20.7202571
Percent of GDP, Units	Greece	i	25.7529957	23.6053392	21.1522377
Percent of GDP, Units	Kenya	i	0.8395279	0.8305653	..
Percent of GDP, Units	United States	i	12.3701355	10.6891919	9.1948399

© Government Finance Statistics (GFS), Main Aggregates and Balances  UK Data Service

Expenditure on social security as a percentage of GDP over the last 3 reported years.

Which country spent the most on government (not including social security) as a percentage of GDP

Go to www.menti.com and use code **6532 4232**





World Economic Outlook

- World Economic Outlook report
- Data on national accounts, inflation, unemployment rates, balance of payments, fiscal indicators, and commodity prices
- Projections for most indicators run up to 2026



UK Gross & Net Debt Forecast

World Economic Outlook (WEO)

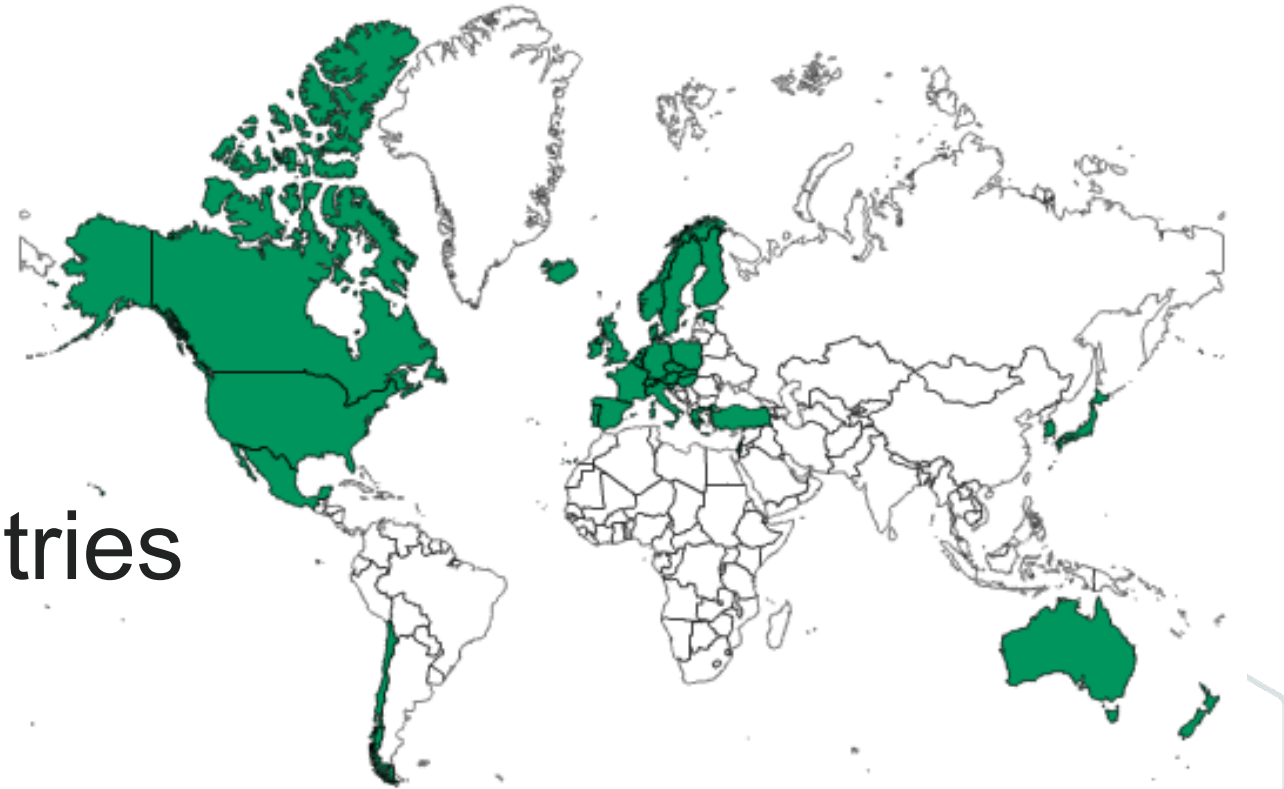
Reference area: United Kingdom • Frequency: Annual • Last actual date: 2022

	Time	2025	2026	2027	2028
Unit					
Concept: General government gross debt					
National currency	i	3079.345	3239.909	3356.45	3476.135
Concept: General government gross debt					
Percent of GDP		i 107.274	i 108.473	i 108.198	i 108.229
Concept: General government net debt					
National currency	i	2790.94	2889.579	2992.429	3098.646
Concept: General government net debt					
Percent of GDP		i 97.227	i 96.744	i 96.463	i 96.476



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
- Education and Training
- 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



Covid bounce back

Economic Outlook 115

Measure: Gross domestic product, volume, growth



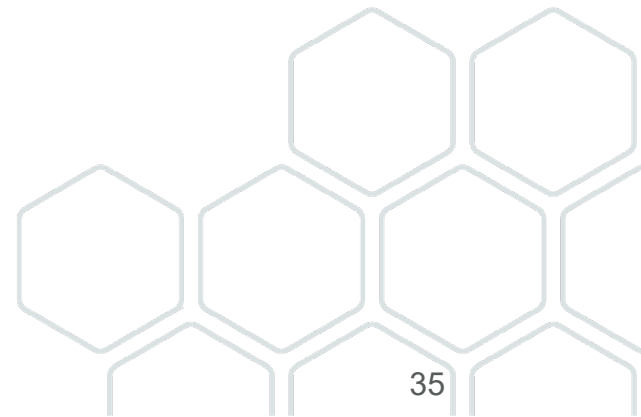
Follow along demo

- [Go to https://internationaldata.ukdataservice.ac.uk](https://internationaldata.ukdataservice.ac.uk)
- How have UK Exports to its key EU partners fared in the last 10 years
- IMF Direction of Trade Statistics
- Goods, Value of Exports, Free on board
- Denmark, France, Germany, Ireland, Italy, Portugal, Spain

Everything else

- Searching
- Citing
- Metadata
- Terms of Use

- Downloads
- Layout
- API
- SDMX

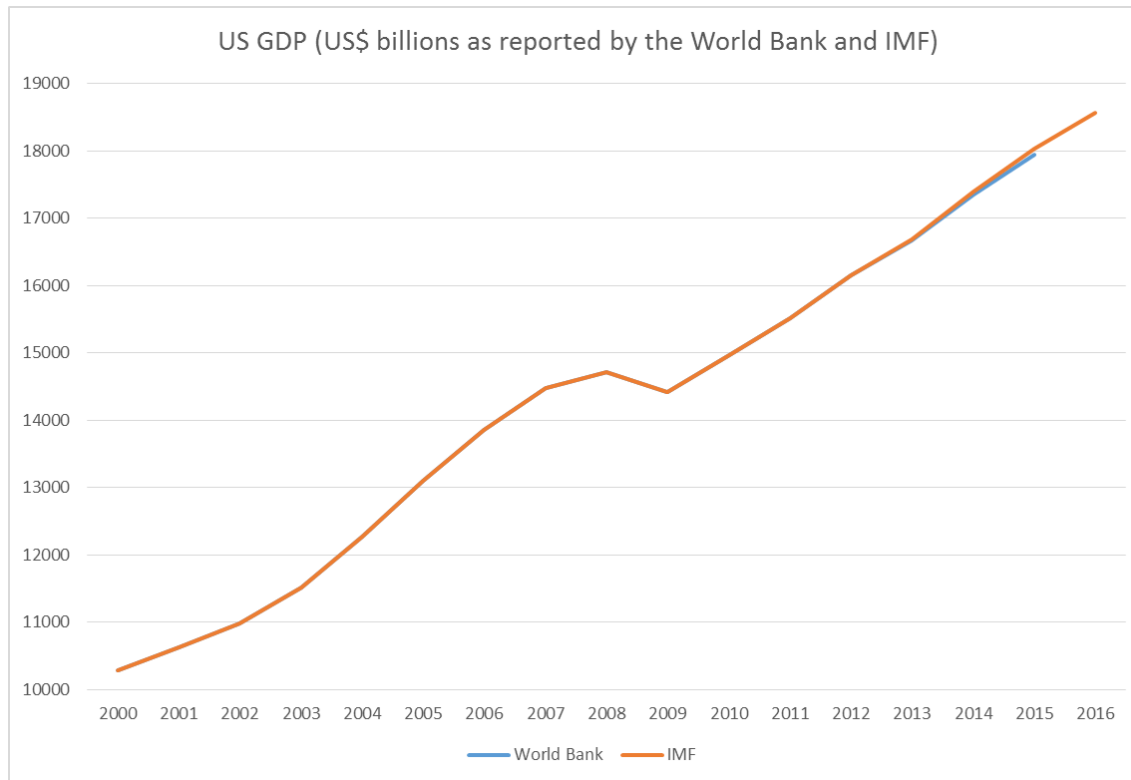


The Future

- Get all the datasets into Data Explorer
- Get more data – International Labour Organization
- An energy alternative to the IEA or do a deal
- Better charts
- Better use of sharing to social media
- Mapping
- Saved/Shared queries

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



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

What the UK Data Service 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: ukdataservice.ac.uk





Thank you.

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