

Macroeconomic Data Sources

An Extended Reference Guide for Empirical Research & Economic Analysis

22

Data Sources

4

Thematic Sections

Free to Access

Most Databases

CONTENTS

Part 1 — Core & Institutional Databases

Part 2 — Historical & Long-Run Datasets

Part 3 — European & Regional Sources

Part 4 — Specialised & Aggregator Platforms

Part 1 — Core & Institutional Databases

Major multilateral and national databases covering the broad macroeconomic landscape

World Development Indicators (WDI)

World Bank

Annual 200+ Economies Free / API

OVERVIEW

The World Development Indicators is the World Bank’s premier annual compilation of comparable development data, drawing from officially recognised international and national sources. It is one of the most widely referenced datasets in empirical development economics and cross-country policy research. The database covers more than 1,400 indicators across more than 200 economies and spans multiple decades, with some series extending back to the 1960s. It is organised around six thematic areas — world view, people, environment, economy, states and markets, and global links — making it a comprehensive first port of call for researchers studying development, poverty, inequality, and structural transformation.

DATABASE PROFILE

FREQUENCY	Annual	COUNTRY COVERAGE	200+ economies
INDICATORS	1,400+	LONGEST SERIES	From 1960s
DATA FORMAT	CSV, Excel, API	LICENCE	Free, open access

KEY DATA AND FEATURES

- GDP (current USD, PPP, constant prices), GNI per capita, and national accounts aggregates
- Poverty headcount ratios, Gini coefficients, and shared prosperity indicators at \$1.90 and \$3.20/day lines
- Health: life expectancy, infant mortality, maternal mortality, immunisation rates
- Education: school enrolment rates, literacy, PISA scores, pupil-teacher ratios
- Trade openness, FDI flows, tariff rates, and external debt data
- CO₂ emissions, renewable energy shares, access to clean water and sanitation
- Financial inclusion: account ownership, mobile money usage, credit access
- Programmatic access via World Bank Data API; R package (WDI) and Python wrappers available

TYPICAL USE CASES
 Cross-country growth regressions, development economics papers, poverty and inequality studies, Millennium and Sustainable Development Goal tracking.

• <https://databank.worldbank.org/source/world-development-indicators>

FRED — Federal Reserve Economic Data

Federal Reserve Bank of St. Louis

Daily–Annual **840,000+ Series** **Free / API**

OVERVIEW

FRED is one of the most widely used macroeconomic databases in the world, maintained by the Federal Reserve Bank of St. Louis. It hosts over 840,000 time series sourced from more than 119 providers including the Federal Reserve Board, Bureau of Labor Statistics, Bureau of Economic Analysis, U.S. Census Bureau, IMF, OECD, and World Bank. What distinguishes FRED is not just its breadth — covering everything from daily treasury yields to annual GDP — but its exceptional tooling: researchers can apply transformations (log, percent change, year-over-year), overlay recession shading, and embed charts. The companion database ALFRED (Archival FRED) stores vintage data snapshots, enabling real-time analysis that mirrors the information set available to policymakers at any past point in time.

DATABASE PROFILE

FREQUENCY	Daily, Weekly, Monthly, Quarterly, Annual	SERIES COUNT	840,000+
PROVIDERS	119 sources	US COVERAGE	Comprehensive
API	Free REST API	VINTAGE DATA	ALFRED archive

KEY DATA AND FEATURES

- GDP, GNP, personal income, PCE deflator, and all BEA national accounts aggregates
- CPI, PPI, PCE price index, and breakeven inflation rates from TIPS spreads
- Federal funds rate, Treasury yield curve, LIBOR, SOFR, and mortgage rates
- Unemployment rate, nonfarm payrolls, labour force participation, jobless claims
- Monetary aggregates M1, M2, and monetary base; bank reserves and Fed balance sheet
- Industrial production indices, capacity utilisation, housing starts and permits
- International series: exchange rates, foreign country GDP, OECD MEI data
- ALFRED provides real-time vintage data for studying data revisions and nowcasting
- R package (`fredr`), Python package (`fredapi`), and Excel add-in for direct import

TYPICAL USE CASES

US macroeconomic research, monetary policy analysis, nowcasting, forecasting, real-time econometrics, time-series modelling.

• <https://fred.stlouisfed.org/>

International Financial Statistics (IFS)

International Monetary Fund (IMF)

Monthly/Quarterly/Annual

190+ Countries

Free

OVERVIEW

The International Financial Statistics is the IMF's flagship statistical publication and one of the most authoritative international databases of macroeconomic and financial data. Published continuously since 1948, it covers virtually every aspect of international and domestic finance for 190+ IMF member countries. IFS is the standard source for exchange rates cited in academic research, and its monetary statistics underpin countless studies of inflation, credit cycles, and financial development. Data are available at monthly, quarterly, and annual frequencies, with historical series extending back several decades for most countries.

DATABASE PROFILE

FREQUENCY	Monthly, Quarterly, Annual	COUNTRIES	190+ IMF members
HISTORY	Decades of data	EXCHANGE RATES	All major types
FORMAT	CSV, SDMX	ACCESS	Free portal

KEY DATA AND FEATURES

- Exchange rates: market rates, official rates, SDR valuations, and effective exchange rate indices
- International liquidity: foreign exchange reserves, gold holdings, IMF reserve position
- Central bank balance sheets, monetary aggregates (M0–M3), and domestic credit
- Interest rates: deposit rates, lending rates, treasury bill rates, and policy rates
- Consumer price indices, producer price indices, and commodity price deflators
- GDP in national currency and USD, quarterly national accounts for many countries
- Balance of payments: current account, capital account, financial account components
- Government finance: revenues, expenditures, fiscal balance, and debt-to-GDP ratios

TYPICAL USE CASES

Exchange rate research, monetary economics, balance of payments studies, cross-country inflation analysis, IMF programme evaluation.

- <https://data.imf.org/?sk=4c514d48-b6ba-49ed-8ab9-52b0c1a0179b>

World Economic Outlook (WEO) Database

International Monetary Fund (IMF)

Biannual

Projections to +2 yrs

Free / SDMX

OVERVIEW

The World Economic Outlook database is released biannually — in April and October — alongside the IMF's flagship analytical publication of the same name. It provides a consistent, internationally comparable panel of macroeconomic data and near-term forecasts for all IMF member countries, produced by IMF country desks. Because it blends actual data with two-year projections and occasionally medium-term scenarios, it is particularly useful for researchers studying forecast accuracy, policy credibility, and cyclical convergence. The WEO is one of the few freely available sources combining both outturn data and official multilateral forecasts in a single, consistently formatted download.

DATABASE PROFILE

RELEASES	April & October	COUNTRIES	190+ members
SPAN	1980–present + projections	VARIABLES	~45 core indicators
FORMAT	CSV, SDMX	ACCESS	Free

KEY DATA AND FEATURES

- Real GDP growth, nominal GDP in USD and PPP, GDP per capita
- CPI inflation, current account balance (% of GDP), fiscal balance (% of GDP)
- Government gross debt (% GDP) and net debt
- Unemployment rate, output gap estimates, and commodity prices
- Two-year-ahead forecasts for all major indicators — useful for forecast evaluation studies
- Medium-term projections; country group aggregates (G7, Emerging Markets, etc.)
- Now available in SDMX format for machine-readable bulk downloads

TYPICAL USE CASES

Forecast accuracy studies, fiscal space analysis, cross-country business cycle research, tracking IMF programme projections.

- <https://www.imf.org/en/Publications/WEO/weo-database/2025/April>

OECD Data Portal

Organisation for Economic Co-operation and Development

Monthly–Annual

38+ OECD Countries

Free / API

OVERVIEW

The OECD Data Portal is the primary statistical gateway to the OECD’s extensive library of harmonised statistics for its 38 member countries and a growing number of partner economies. Its particular strength lies in institutional and structural indicators — government finance, labour market regulation, product market regulation, education spending — that are hard to find in comparable form elsewhere. The OECD Economic Outlook and Main Economic Indicators (MEI) databases provide high-frequency data comparable across members, while specialised databases such as PISA, Health at a Glance, and the Tax Database serve as the authoritative sources in their respective domains.

DATABASE PROFILE

FREQUENCY	Monthly to Annual	COUNTRIES	38 OECD + partners
DATABASES	100+ thematic	NATIONAL ACCOUNTS	ESA / SNA 2010
API	OECD.Stat REST API	ACCESS	Free, open data

KEY DATA AND FEATURES

- Quarterly national accounts by expenditure and income; GDP flash estimates
- Main Economic Indicators (MEI): industrial production, business confidence, composite leading indicators
- Labour force statistics: unemployment by age and gender, hours worked, unit labour costs
- Tax revenue statistics: total tax-to-GDP, breakdown by tax type across all members
- Trade in value-added (TiVA) and inter-country input-output (ICIO) tables
- PISA international student assessment scores; Education at a Glance indicators
- Product Market Regulation (PMR) and Employment Protection Legislation (EPL) indices
- Government debt and deficit data aligned with EU/OECD fiscal frameworks
- OECD.Stat API (SDMX-JSON/XML) supports bulk downloads and programmatic access

TYPICAL USE CASES

Policy evaluation, comparative labour economics, fiscal analysis, regulatory economics, education economics.

- <https://data.oecd.org/>

BIS Statistics

Bank for International Settlements

Monthly/Quarterly

50+ Countries

Bulk CSV Download

OVERVIEW

The BIS maintains some of the most comprehensive and methodologically rigorous international financial statistics available anywhere. Its data span cross-border banking, property prices, credit aggregates, debt securities, derivatives, and payment systems. A critically important practical feature distinguishes BIS from many other databases: **data for all reporting countries can be downloaded simultaneously into a single structured CSV file**, organised by dataset and frequency. This eliminates the country-by-country extraction that plagues other portals and makes constructing panel datasets far more efficient. The BIS credit-to-GDP gap has become the Basel III standard early-warning indicator for banking crises, and BIS effective exchange rate indices are the benchmark for competitiveness analysis in open-economy macroeconomics.

DATABASE PROFILE

FREQUENCY	Monthly, Quarterly	COUNTRIES	60+ reporting jurisdictions
BANKING DATA	LBS and CBS	EER COVERAGE	60+ economies
PROPERTY PRICES	60+ countries	ACCESS	Free bulk CSV

MAJOR BIS DATASETS AT A GLANCE

<p>Locational Banking Stats (LBS)</p> <p>Cross-border claims/liabilities by currency, sector, counterparty. Key for capital flow tracking.</p>	<p>Consolidated Banking Stats (CBS)</p> <p>Banking system exposures by counterparty country. Used in contagion and systemic risk analysis.</p>
<p>Credit-to-GDP Gap</p> <p>Basel III early warning indicator for banking crises (Borio & Lowe 2002) Published quarterly for 60+ countries.</p>	<p>EER Indices</p> <p>Real & nominal effective exchange rates. Narrow (27 partners) and broad (60+) baskets available.</p>
<p>Residential Property Prices</p> <p>Nominal & real house prices for 60+ economies. One of the longest comparable cross-country panels.</p>	<p>Debt Securities</p> <p>Domestic & international issuance by sector and currency of denomination.</p>

KEY DATA AND FEATURES

- Locational Banking Statistics (LBS): cross-border claims and liabilities by currency, sector, and counterparty
- Consolidated Banking Statistics (CBS): banking system exposures by counterparty country — essential for contagion analysis
- Credit-to-GDP gap: Basel III countercyclical capital buffer guide; Borio & Lowe (2002) early warning indicator
- Total credit to non-financial sector: households, non-financial corporations, government
- Residential property price indices: nominal and real, 60+ countries, one of the longest cross-country panels
- Debt securities statistics: domestic and international issuance by sector and currency
- Triennial central bank survey: global FX turnover and OTC derivatives outstanding
- Effective exchange rate (EER) indices: narrow (27 partners) and broad (60+ partners), real and nominal
- Global liquidity indicators: foreign currency credit to non-bank borrowers outside the issuing

country

- Payment and settlement statistics: transaction volumes and values by instrument and country

TYPICAL USE CASES

Financial stability research, banking crisis prediction, competitiveness analysis, credit cycle studies, global liquidity analysis.

- <https://www.bis.org/statistics/index.htm>

Business Cycle Indicators

The Conference Board

Monthly

Leading / Lagging / Coincident

Subscription

OVERVIEW

The Conference Board maintains the world's most widely cited composite business cycle indicators, published monthly for the United States and a range of major economies. The system consists of three composite indices: the Leading Economic Index (LEI), designed to anticipate cyclical turning points 6 to 12 months in advance; the Coincident Economic Index (CEI), which tracks current economic conditions; and the Lagging Economic Index, which confirms turning points in retrospect. The methodology, detailed in the Business Cycle Indicators Handbook, combines multiple economic series — labour markets, financial conditions, credit, consumer sentiment, and manufacturing orders — into diffusion indices that smooth idiosyncratic noise and reveal the underlying cyclical impulse.

DATABASE PROFILE

FREQUENCY	Monthly	COUNTRIES	US + major economies
COMPONENTS	10 leading, 4 coincident, 7 lagging	HISTORY	Decades of data
LEADING HORIZON	6–12 months ahead	ACCESS	Subscription required

KEY DATA AND FEATURES

- LEI: average weekly hours, jobless claims, new orders, building permits, stock prices, credit, consumer expectations, yield spread
- CEI: employees on payrolls, personal income, industrial production, manufacturing/trade sales
- Lagging Index: unemployment duration, unit labour costs, C&I loans, CPI services, prime rate, consumer credit
- Diffusion indices showing breadth of increases/decreases across components
- Cyclical peak and trough dating aligned with NBER business cycle chronology

- International LEI for Eurozone, Germany, UK, France, Australia, China, Japan, South Korea, Mexico, Spain
- The Business Cycle Indicators Handbook details construction methodology and historical context

TYPICAL USE CASES

Business cycle dating, recession forecasting, investment strategy timing, monetary and fiscal policy analysis.

- <https://conference-board.org/data>

IMF Direction of Trade Statistics (DOTS)

International Monetary Fund (IMF)

Monthly/Quarterly/Annual

Bilateral Trade

Free

OVERVIEW

The Direction of Trade Statistics provides the value of merchandise trade between each IMF member country and all of its trading partners, with monthly data available from the 1990s onward and annual data from 1947 for most countries. DOTS is the standard source for bilateral trade data in gravity model estimation, trade diversion studies, and analyses of the effects of sanctions or regional trade agreements. The IMF harmonises data across reporting countries and incorporates mirror statistics (the partner's reported trade) to fill gaps, improving coverage significantly for countries with weak statistical capacity.

DATABASE PROFILE

FREQUENCY	Monthly, Quarterly, Annual	COVERAGE	190+ country pairs
HISTORY	From 1947	TRADE TYPE	Merchandise goods
MIRROR STATS	Yes — gap filling	ACCESS	Free portal

KEY DATA AND FEATURES

- Bilateral merchandise export and import values for 190+ reporting countries and their partners
- Monthly frequency in recent decades — one of the highest-frequency bilateral trade databases
- Mirror statistics incorporated to fill reporting gaps in countries with limited statistical capacity
- Essential for gravity model estimation — provides the bilateral trade flow dependent variable
- Useful for identifying trade diversion, sanctions effects, and shifts from regional trade agreements
- Complements CEPII BACI (product-level HS codes) with greater timeliness and country coverage
- Data harmonised across reporters in USD, facilitating direct cross-country comparison

TYPICAL USE CASES

Gravity model estimation, trade diversion analysis, sanctions and trade policy research, regional integration studies.

- <https://data.imf.org/?sk=9d6028d4-f14a-464c-a2f2-59b2cd424b85>

Part 2 — Historical & Long-Run Datasets

Databases specialising in multi-decade to multi-century economic history

Penn World Tables (PWT)

Groningen Growth and Development Centre (GGDC) — University of Groningen

Annual 183 Countries Growth Accounting

OVERVIEW

Penn World Tables is the benchmark dataset for empirical research on economic growth, productivity, and comparative living standards. Now in version 10.0, it covers 183 countries from 1950 to 2019. Its defining feature is the use of internationally comparable purchasing-power-parity (PPP) exchange rates to convert national accounts data into a common unit, enabling genuine cross-country comparisons of output *levels* — not just growth rates. PWT is built on extensive price surveys conducted through the International Comparison Programme (ICP) and is the standard data source cited in Solow growth model regressions, total factor productivity decompositions, and endogenous growth theory tests. The key reference is Feenstra, Inklaar, and Timmer (2015).

DATABASE PROFILE

FREQUENCY	Annual	COUNTRIES	183
SPAN	1950–present	BASE YEAR	2017 ICP PPPs
CORE OUTPUT	Real GDP (expenditure, output, income)	ACCESS	Free download

KEY DATA AND FEATURES

- Real GDP in PPP (expenditure-side, output-side, and income-side) — three conceptually distinct measures
- Capital stock series constructed via the perpetual inventory method with asset-specific depreciation rates
- Total Factor Productivity (TFP) at current and constant PPPs — the core variable for growth accounting
- Labour input: number of persons engaged, average hours worked, and human capital index
- Human capital index based on Mincerian returns to schooling (Psacharopoulos estimates)
- Trade openness: exports and imports as shares of GDP at current and constant prices
- Price level of GDP, investment, consumption and government relative to the US
- Population series consistent with national accounts data

TYPICAL USE CASES

Solow model regressions, TFP decompositions, cross-country income level comparisons, trade-growth nexus studies, endogenous growth theory tests.

Feenstra, R.C., Inklaar, R., & Timmer, M.P. (2015). *The next generation of the Penn World Table*. *American Economic Review*, 105(10), 3150–82.

• <https://www.rug.nl/ggdc/productivity/pwt/>

Maddison Project Database

Groningen Growth and Development Centre (GGDC)

Annual

169 Countries

From 1 CE

OVERVIEW

The Maddison Project Database continues the pioneering historical GDP reconstruction work of the late Angus Maddison, coordinated by Jutta Bolt and Jan Luiten van Zanden at the University of Groningen. The 2023 update covers 169 countries with PPP-adjusted real GDP per capita estimates extending in some cases to 1 CE and regionally from 1820 CE. Development economists Branko Milanovic and Morten Jerven, the World Bank, and Bill Gates have all identified it as one of the three indispensable long-run economic datasets alongside PWT and WDI. Paul Krugman has endorsed it specifically for historical debt, growth, and labour productivity research. Our World in Data uses it as the primary source for long-run economic development visualisations.

DATABASE PROFILE

FREQUENCY	Annual	COUNTRIES	169
SPAN	1 CE – 2022	PPP BASE	2011 international \$
LATEST VERSION	2023 (Bolt & Van Zanden)	ACCESS	Free, CC-BY

KEY DATA AND FEATURES

- Real GDP per capita in 2011 international dollars — longest cross-country economic history available
- Population series consistent with GDP estimates across the full historical span
- Multiple benchmark years used to handle structural breaks in price levels over centuries
- Covers pre-industrial growth phases invisible in modern databases starting from 1950 or 1960
- Widely used to study the Great Divergence, Industrial Revolution, and colonial-era growth patterns
- 2023 update methodology described in Bolt & Van Zanden (2024), *Journal of Economic Surveys*
- Hosted on the GGDC Dataverse with full documentation and country-specific source sheets

TYPICAL USE CASES

Long-run growth studies, the Great Divergence, colonial economics, pre-industrial economic history, cross-century income comparisons.

Bolt, J. & Van Zanden, J.L. (2024). Maddison style estimates of the evolution of the world economy: A new 2023 update. Journal of Economic Surveys. DOI: 10.1111/joes.12618

• <https://www.rug.nl/ggdc/historicaldevelopment/maddison/releases/maddison-project-database-20>

Macrohistory Database (JST)

Bonn Graduate School of Economics

Annual **17 Advanced Economies** **From 1870**

OVERVIEW

The Macrohistory Database, constructed by Oscar Jordà, Moritz Schularick, and Alan Taylor at the Bonn Graduate School of Economics, is a unique annual dataset covering 17 advanced economies from 1870 to the present. It was designed specifically to study the long-run dynamics of finance, credit, and macroeconomic fluctuations — topics that require data spanning pre-WWII financial structures not available in modern databases. The database is the empirical foundation for the influential ‘Rate of Return on Everything’ paper and the Jordà–Schularick–Taylor research programme on credit cycles, banking crises, and the financial origins of recessions. Its credit and asset price series are unique in their historical depth and consistency.

DATABASE PROFILE

FREQUENCY	Annual	COUNTRIES	17 advanced economies
SPAN	1870–present	KEY SERIES	Credit, asset prices, monetary
CITATION	Jordà-Schularick-Taylor (JST)	ACCESS	Free download

KEY DATA AND FEATURES

- Bank credit to the private sector: total, mortgage, and non-mortgage components
- Broad money supply (M2), monetary base, and money multiplier
- Nominal and real equity returns, dividend yields, and price-earnings ratios
- Residential house price indices spanning over a century for core countries
- Long-term government bond yields and short-term interest rates
- GDP, investment, consumption, current account, and inflation (CPI and GDP deflator)
- Financial crisis chronology aligned with Reinhart–Rogoff and Laeven–Valencia classifications
- Enables study of financial deepening, leverage cycles, and long-run risk premiums

TYPICAL USE CASES

Financial crises research, credit cycle analysis, long-run asset returns, monetary history, leverage and systemic risk over the business cycle.

• <https://www.macrohstory.net/database/>

Global Macro Database (GMD)

Muller, Xu, Lehib & Chen — NBER Working Paper No. 33714

Annual

243 Countries

121 Sources Unified

OVERVIEW

The Global Macro Database is a landmark open-source dataset that harmonises 121 data sources — 27 contemporary international databases (IMF, World Bank, OECD, BIS, and others) and 94 historical datasets — into a single, consistently formatted panel covering 243 countries from 1086 to 2025, with forward projections to 2030. Updated quarterly, it addresses a fundamental friction in empirical macroeconomics: data scattered across hundreds of sources with inconsistent units, missing value codes, currency changes, and definitional shifts. The GMD pipeline corrects known errors in the IMF IFS (misspecified units, erroneously coded missing values, unaccounted currency changes). Trusted by over 8,000 researchers, policy makers, and practitioners worldwide.

DATABASE PROFILE

FREQUENCY	Annual (quarterly updates)	COUNTRIES	243
SPAN	1086–2030	SOURCES INTEGRATED	121 (27 contemporary + 94 historical)
VARIABLES	46 harmonised	ACCESS	Free, CC BY-NC-SA 4.0

KEY DATA AND FEATURES

- GDP, inflation, government debt, fiscal balance, trade, unemployment — 46 consistently defined variables
- Extends contemporary sources (WEO from 1980, WDI from 1960, PWT from 1950) with centuries of historical data
- Corrects known data quality issues in IMF IFS: unit misspecification, missing value coding, currency changes
- Open-source download and processing pipeline on GitHub — fully transparent and reproducible
- Quarterly update cycle: all 121 sources refreshed systematically to keep data current
- Applications include: long-run output losses from financial crises; temperature shock effects on GDP
- Trusted by 8,000+ researchers, policy makers, and practitioners worldwide

TYPICAL USE CASES

Long-run macro-financial research, panel data studies requiring deep historical coverage, replication with consistent definitions across countries and centuries.

Muller, K., Xu, C., Lehib, M., & Chen, Z. (2025). *The Global Macro Database: A New International Macroeconomic Dataset*. NBER Working Paper No. 33714.

• <https://www.globalmacrodata.com/>

Global Financial Data (GFD)

Global Financial Data Inc.

Daily-Annual

Centuries of Data

Subscription

OVERVIEW

Global Financial Data is one of the most extensive private databases of long-run financial market statistics available, with some equity market series dating to the 17th century. It compiles historical data on stock markets, government bond yields, exchange rates, commodity prices, and economic indicators for hundreds of countries, filling critical gaps in the pre-WWII period unavailable from official statistical agencies. GFD is frequently cited in long-horizon asset pricing research, financial history studies, and as a key historical source in the Global Macro Database (GMD). Its breadth makes it particularly valuable for researchers studying risk premiums, the equity premium puzzle, and the long-run behaviour of financial markets across regimes.

DATABASE PROFILE

FREQUENCY	Daily to Annual	COVERAGE	Global / historical
EQUITY DATA	From 17th century	BOND DATA	Centuries of yields
FORMAT	Excel / API	ACCESS	Commercial subscription

KEY DATA AND FEATURES

- Stock market total return indices from the 1600s for some markets (UK, Netherlands, US)
- Long-run government bond yields spanning centuries for major economies
- Historical exchange rates including pre-decimal and colonial-era currencies
- Commodity price histories: gold, silver, oil, agricultural goods going back centuries
- Inflation and price level data enabling real return calculations over very long horizons
- Corporate bond spreads and credit market series for historical default risk analysis
- Frequently used as a historical source in the JST Macrohistory Database and GMD

TYPICAL USE CASES

Long-horizon asset pricing, equity premium estimation, financial history, cross-regime risk analysis, pre-WWII macrofinancial research.

• <https://globalfinancialdata.com/>

Part 3 — European & Regional Sources

Authoritative databases covering the European Union and European economic area

Eurostat

Statistical Office of the European Union

Monthly/Quarterly/Annual

EU + EEA

Free / API

OVERVIEW

Eurostat is the statistical office of the European Union, responsible for producing harmonised statistics for EU member states and EEA countries. It is the authoritative source for official EU statistics used in Commission policy-making, ECB monetary analysis, and academic research on European economies. All data are compiled according to harmonised methodologies — ESA 2010 for national accounts, HICP for inflation, LFS for labour markets — ensuring genuine comparability across member states. Eurostat’s regional database (NUTS 2 and 3 level) is unique in providing sub-national economic and demographic data for the entire EU, enabling spatial econometric analysis that is impossible with national-level data alone.

DATABASE PROFILE

FREQUENCY	Monthly, Quarterly, Annual	COVERAGE	EU 27 + EEA
NATIONAL ACCOUNTS	ESA 2010 framework	INFLATION MEASURE	HICP
REGIONAL DATA	NUTS 2 and 3	ACCESS	Free, open data

KEY DATA AND FEATURES

- Flash GDP estimates released within 30 days of quarter-end; full quarterly national accounts by ESA 2010
- HICP: Harmonised Index of Consumer Prices — the ECB’s inflation target measure, comparable across all EU states
- Labour Force Survey (LFS): monthly unemployment, quarterly employment by age, gender, sector, and contract type
- Government finance and EDP notifications: fiscal balance, gross debt, revenue, expenditure in ESA terms
- International trade in goods and services: Intrastat (EU internal) and Extrastat (EU external) data
- NUTS 2 regional GDP, employment, and population — enabling sub-national convergence analysis
- Structural business statistics: enterprise demographics, R&D expenditure, innovation surveys
- Eurostat API (JSON-stat format) and bulk data downloads available for all datasets

TYPICAL USE CASES

European integration studies, ECB monetary research, regional convergence analysis, EU fiscal policy

evaluation, HICP-based inflation research.

- <https://ec.europa.eu/eurostat/data/database>

ECB Statistical Data Warehouse (SDW)

European Central Bank

Daily-Quarterly

Euro Area

SDMX API

OVERVIEW

The ECB Statistical Data Warehouse is the primary public portal for all ECB-compiled statistical data on the euro area and individual member states. It covers the full range of ECB statistical work: monetary aggregates and their counterparts, MFI balance sheets, bank lending surveys, securities statistics, and balance of payments. Of particular research value is the Macroeconomic Projection Database (MPD), which stores all ECB/Eurosystem staff macroeconomic projections from 2000 to the present — enabling studies of forecast accuracy, policy reaction functions, and the information content of central bank projections. The SDW offers a modern RESTful API in SDMX-JSON and SDMX-XML formats, making it one of the most developer-friendly central bank data portals available.

DATABASE PROFILE

FREQUENCY	Daily, Monthly, Quarterly	COVERAGE	Euro area + member states
MONETARY DATA	MFI balance sheets, M1–M3	PROJECTIONS	MPD: 2000–present
API	SDMX-JSON / SDMX-XML	ACCESS	Free

KEY DATA AND FEATURES

- Euro area monetary aggregates (M1, M2, M3) and their counterparts (loans, securities, net external assets)
- MFI interest rates on loans and deposits by sector and maturity
- Bank lending survey: quarterly qualitative data on credit standards, terms, and loan demand
- Securities holdings statistics (SHS): who holds which securities, by sector and country
- Macroeconomic Projection Database (MPD): ECB/Eurosystem projections for GDP, HICP, unemployment since 2000
- Balance of payments and international investment position for the euro area
- TARGET2 and payment statistics: interbank settlement flows across the euro area
- RESTful SDMX API enables full programmatic access; R and Python wrappers available

TYPICAL USE CASES

Euro area monetary policy research, bank lending survey analysis, ECB forecast evaluation, MFI balance

sheet dynamics, euro area financial integration.

• <https://data.ecb.europa.eu/>

CEPII Databases

Centre d'Etudes Prospectives et d'Informations Internationales (France)

Annual

Global Trade

Gravity Model Data

OVERVIEW

The CEPII is a French government-funded research centre specialising in international economics, and it maintains several datasets that have become indispensable in international trade research. Its BACI database harmonises bilateral merchandise trade flows from UN Comtrade by reconciling discrepancies between importer and exporter reports, producing a cleaner and more complete panel than raw Comtrade. Its GeoDist database provides all the bilateral gravity variables — distances, contiguity, shared language, colonial history — needed for standard gravity model estimation. Together, BACI and GeoDist form the empirical backbone of a large share of published trade economics papers. The CHELEM database extends historical coverage further.

DATABASE PROFILE

FREQUENCY	Annual	COVERAGE	Global bilateral
TRADE DATA	BACI: HS product level	GRAVITY VARIABLES	GeoDist + CEPII gravity
HISTORICAL	CHELEM: long-run	ACCESS	Free download

KEY DATA AND FEATURES

- BACI: harmonised bilateral trade flows by HS product code — reconciles Comtrade importer/exporter discrepancies
- GeoDist: bilateral distances (simple, population-weighted), contiguity, shared official language, colonial ties, common currency
- CEPII Gravity dataset: augmented variables including RTAs, WTO membership, and institutional quality
- CHELEM: world trade and balance of payments database with longer historical coverage than BACI
- TradePrices: unit values and prices for bilateral trade flows — useful for terms-of-trade analysis
- Eora MRIO global input-output tables for global value chain and trade-in-value-added analysis

TYPICAL USE CASES

Gravity model estimation, trade policy evaluation, preferential trade agreement analysis, global value chain research, terms-of-trade studies.

- http://www.cepii.fr/CEPII/fr/bdd_modele/bdd_modele.asp

Part 4 — Specialised & Aggregator Platforms

Thematic databases, alternative indicators, and multi-provider aggregators

World Inequality Database (WID)

World Inequality Lab — Paris School of Economics

Annual 100+ Countries Distributional NatAccts

OVERVIEW

The World Inequality Database is the most comprehensive open-access database on the distribution of income and wealth across countries and over time. It is the primary empirical resource associated with the research programme of Thomas Piketty, Emmanuel Saez, Gabriel Zucman, and the World Inequality Lab at the Paris School of Economics. Its distinctive methodological contribution is the Distributional National Accounts (DINA) framework, which combines household surveys, tax records, national accounts, and wealth surveys to produce income and wealth distribution estimates consistent with macroeconomic aggregates. This addresses a fundamental limitation of survey-only inequality measures: the systematic under-coverage of top incomes and wealth.

DATABASE PROFILE

FREQUENCY	Annual	COUNTRIES	100+
KEY METRIC	Income & wealth shares by percentile	METHODOLOGY	DINA — Distributional National Accounts
HISTORY	Long historical series for many countries	ACCESS	Free, open access

KEY DATA AND FEATURES

- Pre-tax and post-tax national income shares: top 1%, top 10%, middle 40%, bottom 50%
- Net personal wealth distribution: top 1% and 10% wealth shares for 100+ countries
- Offshore wealth estimates — correcting national wealth accounts for wealth hidden in tax havens
- Historical series for France, UK, US, and Sweden extending to the 19th century
- Gender income gap data: female share of labour income by country and year
- Consistent with national accounts aggregates — unlike pure survey-based inequality measures
- Underpins Piketty's *Capital in the Twenty-First Century* and related research programme
- WID.world API and R package (`wid`) for programmatic access

TYPICAL USE CASES

Inequality research, top income and wealth studies, fiscal redistribution analysis, Piketty capital-income ratio studies, offshore wealth estimation.

• <https://wid.world/>

UN Comtrade Database

United Nations Statistics Division

Monthly/Annual 200+ Countries HS Product Level

OVERVIEW

UN Comtrade is the world's largest repository of official international merchandise trade statistics, compiled from customs authority data reported by national statistical offices to the UN Statistics Division. It is the raw data source underlying CEPII BACI and many other derivative trade datasets. Comtrade provides bilateral trade flows at a high level of product disaggregation under the Harmonised System (HS), SITC, and BEC classifications. The 2023 launch of the Comtrade+ platform significantly improved programmatic access, offering an updated API with better rate limits and bulk download capabilities.

DATABASE PROFILE

FREQUENCY	Monthly, Annual	COUNTRIES	200+
HISTORY	From 1962	CLASSIFICATION	HS, SITC, BEC
MIRROR STATS	Available (importer & exporter)	ACCESS	Free API (rate limited)

KEY DATA AND FEATURES

- Bilateral merchandise trade flows at 6-digit HS product level — most granular widely available trade data
- Both importer-reported and exporter-reported flows — mirror statistics available for gap filling
- Data under multiple classification systems: HS (1988–2022 revisions), SITC Rev 1–4, BEC
- Comtrade+ API (2023): improved programmatic access with better documentation and bulk download
- Used as the raw input for CEPII BACI, which harmonises mirror-flow discrepancies
- Commodity-specific analysis: agricultural goods, manufactures, intermediates, capital goods
- Monthly frequency for major reporting countries — enables high-frequency trade cycle analysis

TYPICAL USE CASES

Product-level trade analysis, global value chain research, commodity trade studies, input for gravity models at HS-product level.

- <https://comtradeplus.un.org/>

Divisia Monetary Aggregates

Center for Financial Stability (CFS)

Monthly

United States

Monetary Theory

OVERVIEW

The Center for Financial Stability maintains Divisia monetary aggregates for the United States — a theoretically superior alternative to the simple-sum aggregates (M1, M2, M3) published by the Federal Reserve. Divisia aggregates, developed by William Barnett, are constructed using index number theory: each monetary asset is weighted by its user cost, which reflects the opportunity cost of holding it rather than investing in a benchmark asset. Simple-sum aggregates implicitly treat a dollar of currency and a dollar of less-liquid time deposits as identical contributors to monetary services — an assumption that fails economically. Empirically, Divisia aggregates outperform simple-sum measures in predicting inflation and output fluctuations, and behaved very differently from M2 during the 2008 financial crisis.

DATABASE PROFILE

FREQUENCY	Monthly	COVERAGE	United States
BROADEST MEASURE	Divisia M4 (incl. Treasuries)	METHOD	Törnqvist-Theil index
ORIGINATOR	William Barnett (UMKC)	ACCESS	Free download

KEY DATA AND FEATURES

- Divisia M1, M2, M3, and M4 — M4 the broadest, including Treasury bills and other near-money instruments
- User-cost weighting based on opportunity cost of each monetary asset relative to a benchmark rate
- Theoretically grounded in microeconomic index number theory (Barnett 1980, Diewert 1976)
- Outperforms simple-sum M2 in predicting nominal GDP, inflation, and output in empirical studies
- Behaved very differently from M2 in 2008–09, signalling collapse of monetary services earlier
- Dual Divisia price aggregate (monetary services price index) also provided
- Monthly data updated regularly as new Federal Reserve H.6 release data become available

TYPICAL USE CASES

Monetarist empirical research, monetary transmission mechanism studies, quantity theory of money tests, comparison with simple-sum aggregates.

- https://centerforfinancialstability.org/amfm_data.php

Alternative Economic Indicators

W.E. Upjohn Institute for Employment Research (ed. C. James Hueng)

High-frequency

Non-traditional

Methodology

OVERVIEW

This volume, edited by C. James Hueng of Western Michigan University, brings together six chapters by leading researchers surveying recent advances in economic theory, econometrics, and information technology that enable the construction of broader, more accurate, and higher-frequency economic indicators. It addresses a fundamental limitation of traditional macroeconomic indicators: GDP is released quarterly with a significant lag, unemployment is measured by surveys with sampling error, and price indices may not capture welfare-relevant substitution. Alternative indicators — from satellite data to scanner prices to internet search trends — can provide faster and sometimes more accurate signals of economic conditions.

DATABASE PROFILE

FORMAT	Academic volume, 6 chapters	PUBLISHER	W.E. Upjohn Institute
EDITOR	C. James Hueng (Western Michigan Univ.)	FOCUS	Measurement methodology
THEMES	Nowcasting, big data, satellite accounts	ACCESS	Free open access

KEY DATA AND FEATURES

- Satellite accounts: extending national accounts to capture non-market activities and welfare
- Nowcasting methodologies: dynamic factor models and mixed-frequency estimation for real-time GDP
- Big data indicators: Google Trends, credit card transactions, and scanner prices as economic proxies
- Satellite imagery and night-light data as measures of economic activity in data-scarce countries
- Limitations of CPI: substitution bias, quality adjustment, and outlet effects
- Machine learning approaches to constructing composite economic indicators from large datasets
- Critique of traditional unemployment measure: hidden unemployment, discouraged workers, underemployment

TYPICAL USE CASES

Nowcasting, unconventional indicator construction, real-time economic analysis, welfare measurement, economic activity in data-scarce environments.

- https://research.upjohn.org/cgi/viewcontent.cgi?article=1283context=up_press

DBnomics

CEPREMAP — French National Research Centre

All Frequencies

70B+ Series

Free Aggregator

OVERVIEW

DBnomics is an open-source platform developed by CEPREMAP that aggregates publicly available economic data from national and international statistical institutions into a single unified interface. Rather than replacing the underlying databases, DBnomics acts as a meta-aggregator: it normalises series identifiers, metadata, and formats across providers, so researchers can retrieve data from BIS, ECB, Eurostat, INSEE, IMF, OECD, World Bank, BEA, and many others through a single consistent API call. This is particularly valuable for reproducible research workflows: instead of manually navigating multiple portals, researchers can script their entire data retrieval in R or Python. DBnomics supports SDMX format and is entirely free.

DATABASE PROFILE

FREQUENCY	All frequencies	SERIES	70+ billion
PROVIDERS	BIS, ECB, IMF, OECD, World Bank, Fed Eurostat, INSEE and 100+ more	R PACKAGE	rdbnomics
PYTHON PACKAGE	dbnomics	ACCESS	Free, open source

KEY DATA AND FEATURES

- Single API access point for series from BIS, ECB, Eurostat, INSEE, IMF, OECD, Fed, World Bank, BEA, and 100+ more
- Normalised series identifiers and metadata across providers — eliminating manual harmonisation
- R package (`rdbnomics`): import any series into R with a single function call
- Python package (`dbnomics`): equivalent functionality for Python-based workflows
- Supports SDMX format for structured, standards-compliant data retrieval
- Designed for reproducible research: all data retrieval is scriptable, versionable, and citable
- Continuously updated as underlying providers release new data; no manual re-download needed
- Web interface with charting and export functionality for quick exploration without coding

TYPICAL USE CASES

Reproducible empirical research, multi-provider panel construction, teaching and pedagogy, quick cross-provider data exploration.

- <https://db.nomics.world/>

NBER Macroeconomic Data Catalogue

National Bureau of Economic Research

Multiple Frequencies

US + International

Research Datasets

OVERVIEW

The NBER hosts and disseminates a wide range of macroeconomic and financial datasets compiled by its affiliated researchers, covering both US and international topics. Unlike institutional databases maintained by statistical agencies, NBER datasets are typically research-driven: produced alongside academic papers, highly curated for a specific analytical purpose, and often filling gaps not covered by official statistics. The International Finance and Macroeconomics Catalogue aggregates dozens of such datasets covering trade, sovereign debt, central bank independence, financial crises, and monetary policy. The NBER-CES Manufacturing Database is the standard source for US industry-level productivity research.

DATABASE PROFILE

FREQUENCY	Varies by dataset	COVERAGE	US + international
CORE COLLECTION	Int'l Finance & Macro Catalogue	US INDUSTRY	NBER-CES Manufacturing DB
UPDATE CYCLE	As papers are published	ACCESS	Free download

KEY DATA AND FEATURES

- NBER-CES Manufacturing Industry Database: output, employment, payroll, capital, and TFP by 6-digit NAICS industry
- Debt of Nations Database: gross government debt for 150+ countries, 1900–2020
- Political pressure on central banks dataset (Binder, 2019): 118 central banks, 2010–2019, quarterly
- Currency composition of foreign exchange reserves (Ito & McCauley): 74 countries, 1999–2020
- Trade in services dataset (Loungani et al.): 192 countries, 1970–2014, 27 sector breakdown
- Global Financial Safety Net database: IMF facilities, reserve swaps, regional arrangements, 150+ countries
- Sovereign debt restructuring chronology (Hale): dates of restructuring and negotiations, 1900–2020
- NBER Macroeconomic History database: long-run US series in the Burns–Mitchell tradition

TYPICAL USE CASES

US industry productivity, sovereign debt research, central bank independence, trade in services, financial crisis chronology.

- <https://www.nber.org/research/data>