DBnomics

The world's economic database

CEP**RE**MAP
CENTRE POUR LA RECHERCHE ECONOMIQUE ET SES APPLICATIONS

BANQUE DE FRANCE
EUROSYSTÈME

FRANCE STRATÉGIE
ÉVALUER. ANTICIPER. DÉBATTRE. PROPOSER.

The birth of the project

Originally a tool to improve data handling processes in macroeconomic research, with three objectives:

- ▶ Simplifying retrieval of economic data
- ▶ Automatically providing updated data
- ▶ Allowing reproducible results

Increasingly, objectives shared by many different people:

- ▶ Public/Private Sector: economic indicators, panels, graphs, ...
- ▶ Journalism: data journalism, fact-checking, ...
- ▶ Civil society: professors, associations, bloggers, ...

Objectives

Create a free, open-source platform to aggregate publicly-available data series provided by national and international statistical institutions.

Value added: a unique economic database with wide, systematic coverage of economic data (600 million series at present from 62 providers)

Four important principles of the project:

▶ Data series are taken directly from providers and kept unchanged

▶ Data series are stored in a tree similar to the provider's (when possible)

▶ Data series are automatically daily updated via provider-specific functions

▶ Archive system: each revision of the data series is archived

Evolution of DBnomics

- ▶ 2015 - 2016 : Prototype of DBnomics

- ▶ 2017 - 2018 : Development of version 1
    - ▶ New long-term partnerships : Bank of France and France Stratégie (French Prime Minister's research center)
    - ▶ Beta website and API (January, 2018)
    - ▶ New infrastructure, to allow full-text search through ALL the providers data series at the same time (September, 2018)
    - ▶ 62 statistical providers (OECD, World Bank, IMF, WTO, ILO, BCEAO, etc.) and 20 000 datasets

- ▶ Since 2019 : Version 1 in production. New objectives.
    - ▶ Improve the resilience of the infrastructure
    - ▶ Enlarge the community (users, contributors, partnerships)

Providers

1. World organizations: 12 providers
2. Africa: 4 providers
3. Asia: 9 providers
4. Europe: 22 providers
5. North America: 12 providers
6. Oceania: 1 provider
7. South America: 2 providers

Web site interface

- Search facility
  - in the entire database
  - in a dataset
- Category tree browsing
  1. Provider
  2. Categories
  3. Dataset
  4. Time series
- Facet selection in a dataset
- Series plot
- CSV, XLSX, JSON download
- Cart for storing series (no account, just cookie)

API

- ▶ GET /datasets/{provider_code} Respond datasets of a provider.
- ▶ GET /datasets/{provider_code}/{dataset_code} Respond datasets of a provider.
- ▶ GET /last-updates Respond a list of providers and a list of datasets sorted by creation/conversion date, most recent first.
- ▶ GET /providers Respond a list of providers.
- ▶ GET /providers/{provider_code} Respond a provider with its category tree.
- ▶ GET /search Respond a list of datasets from a full-text search.
- ▶ GET /series Respond a list of series found by IDs, belonging potentially to different providers and datasets.
- ▶ GET /series/{provider_code}/{dataset_code} Respond a list of series belonging to the same dataset.
- ▶ GET /series/{provider_code}/{dataset_code}/{series_code} Respond a list of series belonging to the same dataset.

Plugins

- R
- Python
- Stata
- Julia
- EViews, Excel import CSV tables
- Matlab import JSON

Technical details and contacts

- Web site : https://db.nomics.world/

- API :
  - R plugin + example
  - Python plugin + example
  - Documentation

- Code : https://git.nomics.world/dbnomics

- Questions : https://forum.db.nomics.world/

- Examples : https://macro.cepremap.fr/