

Irving Fisher Committee on  
Central Bank Statistics



# Opportunities and challenges in compiling long series: the BIS central bank statistics

**Bilyana Bogdanova**, Archana Dilip, Marc Flandreau, Olivier Sirello, Robert Szemere

XII Biennial of the Irving Fisher Committee on Central Bank Statistics

Basel, 23 August 2024

## The size of central banks' balance sheets: a key indicator

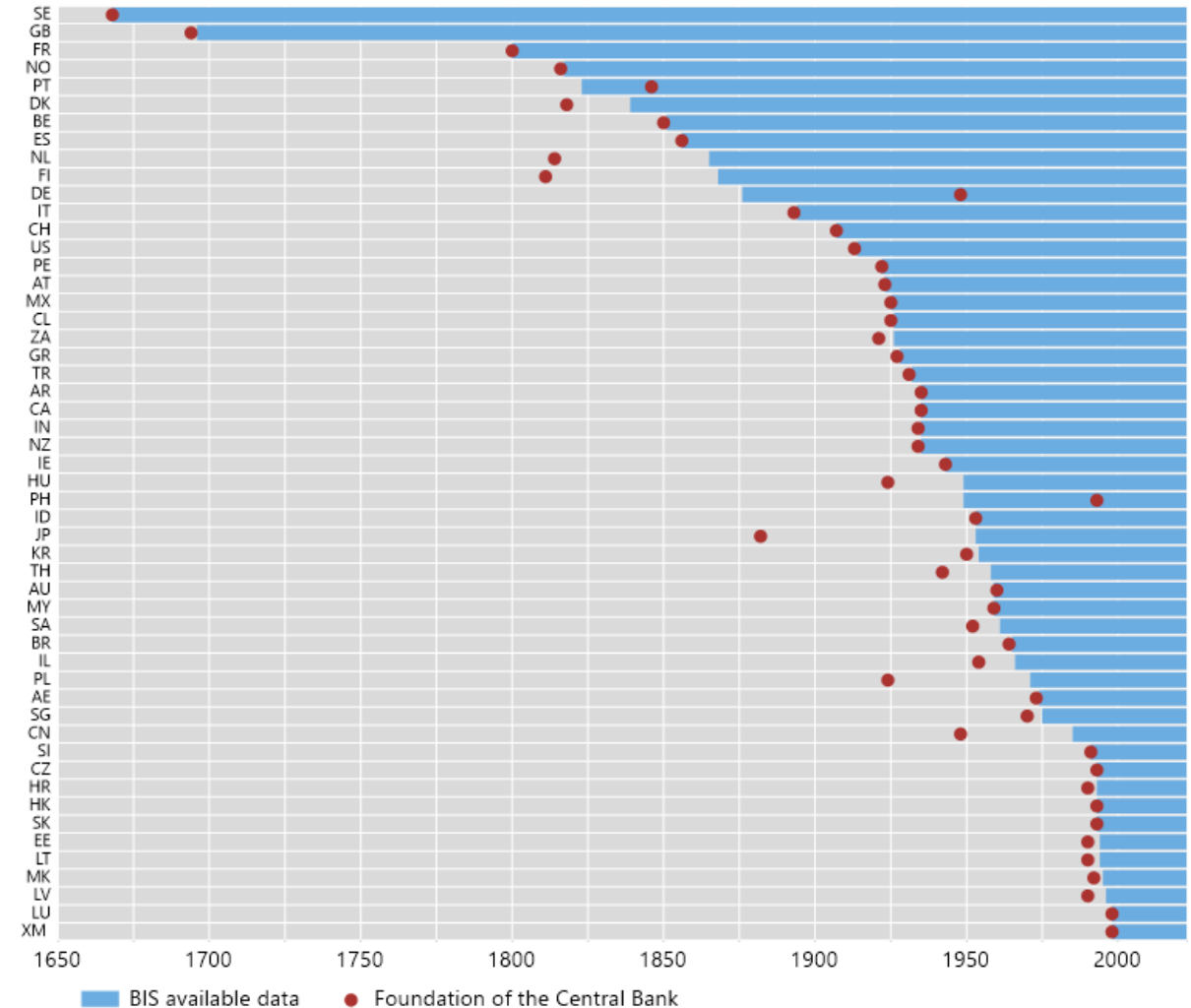
- **Central bank balance sheets** have gained **significant momentum** in the public debate over the past few decades
  - Global financial crisis, the pandemic and, more recently, unprecedented globally-synchronised contraction in central banks' balance sheets
  - They reveal much about monetary policy, financial stability and, broadly, the economy
- Yet, what is needed is **keeping sight on the long run**
  - Documenting extraordinary events and locating periods with large swings
  - Evolution of balance sheets across financial cycles
  - Secular trends in central banking
  - Derive lessons from the past to better assess the present and guide decisions in the future

# Outline

- I. A new BIS data set on central bank total assets
  - I. A historically deep and geographically broad data set
  - II. Building the long composite series: methodological principles
- II. Delving into the expansions and contractions of central banks' balance sheets: some stylised facts over the long run
- III. Going beyond compilation challenges: empowering data with metadata

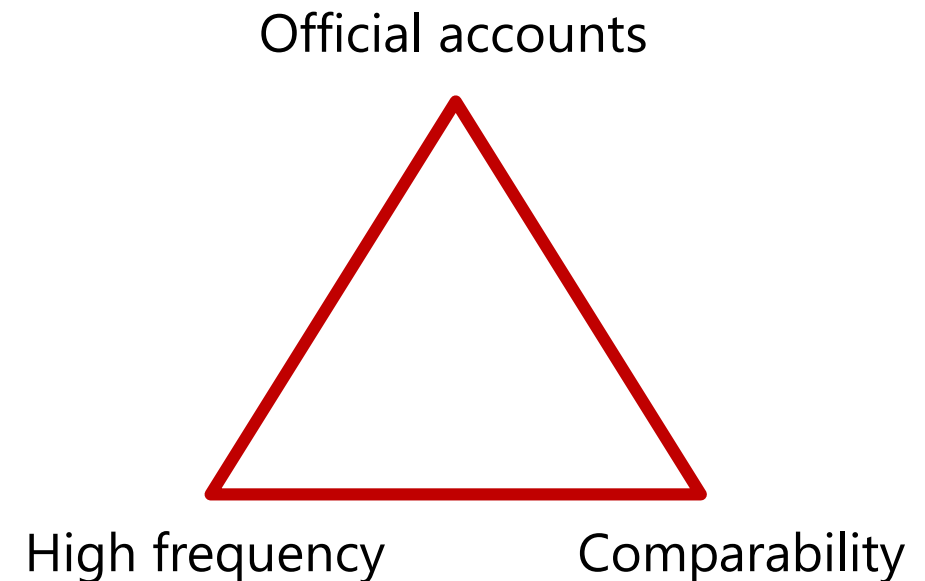
# The new BIS data set on central bank total assets

- Broad coverage with 52 countries
  - 23 emerging market economies
  - 29 advanced economies
- Deep coverage with longest BIS series:
  - Average length (years): 93
  - Median start date: 1942
  - Earliest start date: 1668
- Data available since the foundation of the Central Bank for most of the countries



# I. Building the long composite series: methodological principles (1/2)

- Alignment with the **official accounts** of the Central Banks
  - Usually available since the establishment
  - Annual audited reports
- High available frequencies: **monthly**, quarterly, annual
- **Comparability** across countries
  - Harmonise financial years from monthly series
  - Break-adjustment (eg BIS Quarterly Review (2013))



# I. Building the long composite series: methodological principles (2/2)

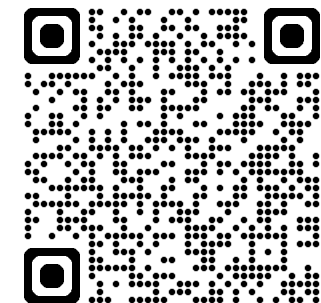
- Diverse **array of sources**

- Central banks
- Digitised repositories
- Historical work and archives

- The data set is **live since August 20** on the BIS Data Portal

- Monthly, quarterly and annual
- USD, ratio to GDP and domestic currency
- Break-adjusted and unadjusted for breaks

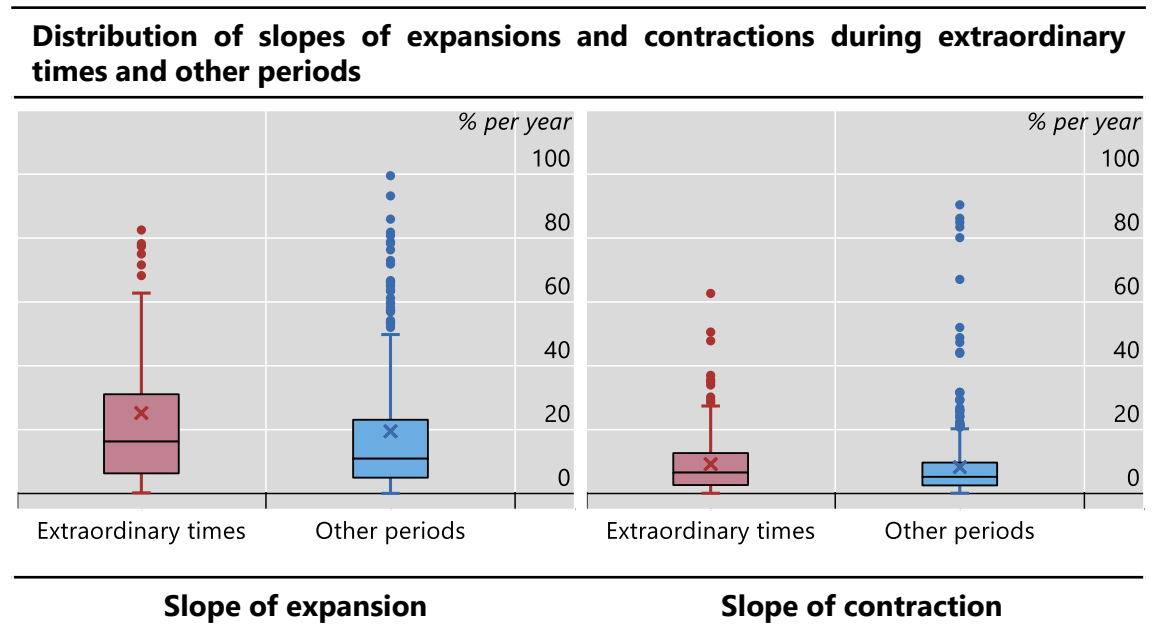
The image displays three historical financial documents. The top left document is the 'BANCO DE RESERVA DEL PERU' balance sheet for December 31, 1922, showing assets and liabilities in Peruvian currency. The top right document is a balance sheet for December 31, 1935, with assets and liabilities in millions of Peruvian soles. The bottom document is the 'RESERVE BANK OF INDIA BULLETIN' for January 1947, Volume 1, Number 1, which includes a review of financial and economic conditions for November 1946.



## II. Delving into the expansions and contractions of central banks' balance sheets

- **Three key stylised facts**, at a glance:

- Over the long run, **expansions have been more frequent than contractions**
  - Central banks expand their balance sheet two and half times more frequently than they decrease it
- **Expansions are bigger than contractions**
  - In terms of magnitude, expansions are twice as much as contractions
- **Expansions are fast, contractions are prolonged**, particularly when crises hit.



### III. Overcoming compilation challenges: looking forward

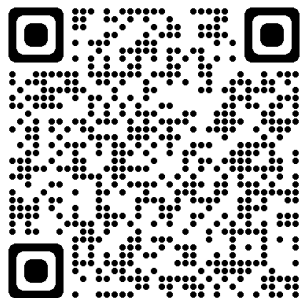
- **Comparability without standardisation is hard yet attainable**
  - Data on central banks' balance sheets are from **accounting documents, not statistical ones**
  - Balance sheets reflect a **diverse array of institutional arrangements** which are born out of each central bank's specificities
  - **Transparency is key:**
    - Enriching and **augmenting the data with metadata**
    - **Fostering the understanding of the data:**
      - For producers, this implies **critically questioning** what is comparable and what is not
      - For users, it entails **understanding how data are manufactured**
  - **All in all, long series call an adaptive and multidisciplinary statistical practice**



Irving Fisher Committee on  
Central Bank Statistics



*Scan me*



<https://data.bis.org/>

Thank you !

# Annex

## Splicing of long series on central bank total assets: an example

