

# **A Pilot Initiative for Element Based Reporting in the Indian Banking Sector**

**SDMX Global Conference 2025**

**29th September to 3rd October 2025**

**Italy**

Sujeesh Kumar

Reserve Bank of India



# Outline of the presentation

- Overview of Data Management in the Reserve Bank of India
- SDMX implementation at the RBI
- Conversion of Traditional Database to SDMX
- Pilot implementation plan
- Execution of the pilot plan
- Present status
- Q&A



# Overview of Data Management in RBI

- 10,000+ Regulated Entities
- 243 data templates
- Regulatory, Supervisory, Financial Sector, Payment Systems, Economic Statistics, and Survey Statistics
- Various channels of data collations
- Maintaining Macro-economic data of SAARC Countries
- Database on Indian economy- data dissemination portal of RBI  
(<https://dbie.rbi.org.in>)
- 1000+ Reports
- 200000+ data series
- Sector-wise data series
- Data query tool for macro-economic data



# SDMX- Data Collection: Pre –requisites/readiness

## Element, Dimension, Measure and Attribute, OBS Value

Area of Operation  
(Dimension)

Assets  
(Element/DSD)

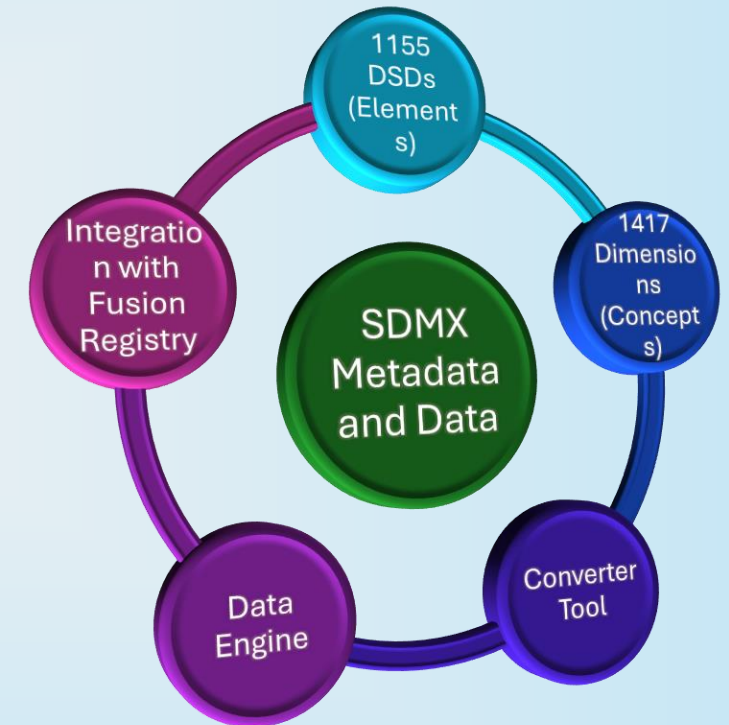
Unit Multiplier  
(Attributes)

Measure Type  
(Dimension)

Asset List  
(Dimension)

Data Point/Measure  
(OBS\_value)

Part-A: ASSETS (Amount Outstanding at end of Month)	Domestic Operations (Rs. Lakh)		Overseas Operations (Rs. Lakh)		Global Operations (Rs. Lakh)	
	Total	Of Which Held in Forex	Total	Of Which Held in Forex	Total	Of Which Held in Forex
I. Cash Funds	0.00	0.00	0.00	0.00	0.00	0.00
I.1 Cash on Hand						
I.2 Balances/Deposits with RBI/central Banks						
II. Due from Banks in India	0.00	0.00	0.00	0.00	0.00	0.00
II.1 Balances in Current a/c's (Annexure 1- A)						
II.2 Money at call and short notice						
II.3 Placements/ Time Deposits						
II.4 Loans and advances						
III. Due from FIs/Central Counter Parties (CCPs) in India	0.00	0.00	0.00	0.00	0.00	0.00
III. 1 Due from FIs in India						
III. 2 Due from CCPs in India (incl. CBLO Lending)						
IV. Due from Overseas Banks	0.00	0.00	0.00	0.00	0.00	0.00
IV.1 Balances in current accounts (Annexure 1-B)						
IV.2 Placements/ Time deposits						
IV.3 Loans and advances						
V. Due from Overseas FIs						
VI. SLR/Approved securities	0.00		0.00		0.00	
VI.1 GOI treasury bills						
VI.2 GOI (dated) securities						
VI.3 State Government securities						
VI.4 Other approved securities						



# SDMX Data Query – Combined Graphics (data series from three elements)

Home

Indicators

Dashboard

Statistics

Publications

Unit Level Data

SDMX Data Query

Banking Outlet

About Us

SAARC Finance Database

50 Macroeconomic Indicators

Database on Indian Economy

Feedback: Statistical Data and Metadata exchange (SDMX) based data query functionality has been Introduced for searching metadata, exploring time series data with visualisation and advanced options. User manual may be referred before using the functionality. Please provide your feedback at ebrdq@rbi.org.in

Element

Frequency and time period

Dimension

Advanced Options

Output

Search Element

Corporate Sector

External Sector

Financial Markets

Financial Sector

Public Finance

Real Sector

Selection

Clear All

Element

Frequency and time period (MM-DD-YYYY)

Dimension

User Manual

DSD

MetaData Registry

Next

line

Absolute

Crore

Download Graph

Select Secondary Axis

☐ Data Set 1

☒ Data Set 2

☒ Data Set 3

RBI Assets\_Annual

Annual Gross Domestic Product at Market Price

Year	Data Set 1 (Indian rupee)	Data Set 2 (Gross Domestic Product)	Data Set 3 (GFCF)
1998	~200,000	~200,000	~100,000
2000	~300,000	~300,000	~150,000
2002	~400,000	~400,000	~200,000
2004	~500,000	~500,000	~250,000
2006	~700,000	~700,000	~300,000
2008	~1,200,000	~1,200,000	~400,000
2010	~1,500,000	~1,500,000	~500,000
2012	~2,000,000	~2,000,000	~600,000
2014	~2,500,000	~2,500,000	~700,000
2016	~3,200,000	~3,200,000	~800,000
2018	~4,000,000	~4,000,000	~900,000
2020	~5,500,000	~5,500,000	~1,200,000
2022	~6,500,000	~6,500,000	~1,500,000
2024	~7,000,000	~7,000,000	~2,000,000

Data Set 1

Data Set 2

Data Set 3

Data Set 1 - Indian rupee | RBI Assets\_Annual-(RBI\_ASSET\_A\_RN) | Absolute | Primary Axis |

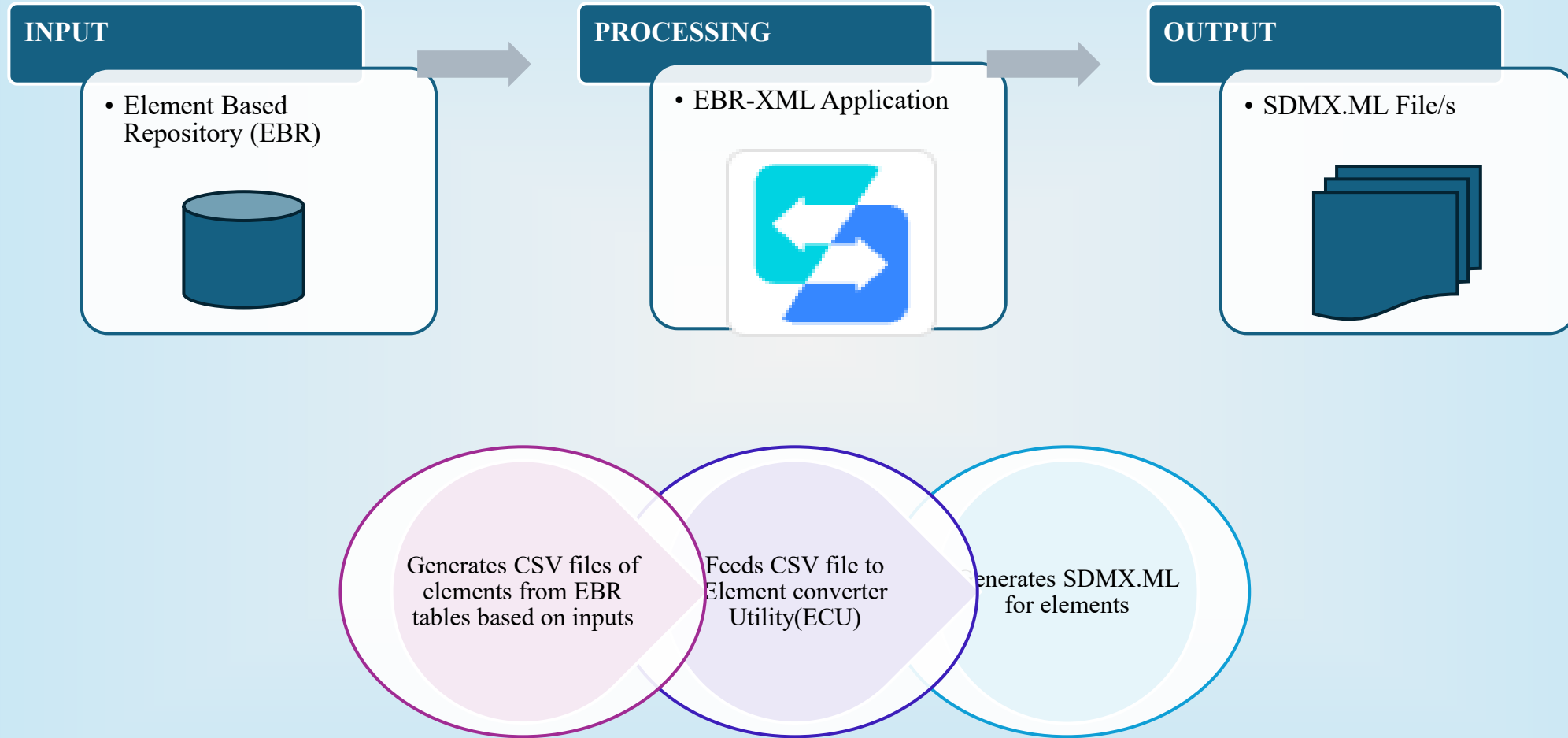
Data Set 2 - Base Year : 2011-12 | Gross Domestic Product | Market Prices | Current Price | Indian rupee | Annual Gross Domestic Product at Market Price-(ANN\_GDP\_MRKT\_PRC\_RN) | Absolute | Secondary Axis |

Data Set 3 - Base Year : 2011-12 | GFCF: Gross Fixed Capital Formation | Market Prices | Current Price | Indian rupee | Annual Gross Domestic Product at Market Price-(ANN\_GDP\_MRKT\_PRC\_RN) | Absolute | Secondary Axis |

Download Graph Generated

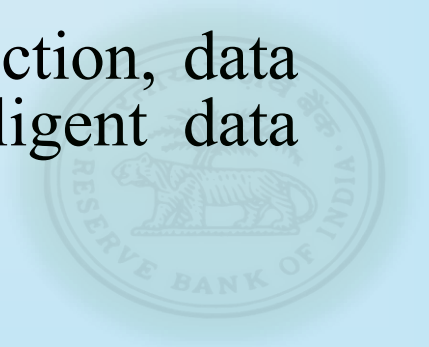
Data (Excel)

# SDMX-ML Generation Tool

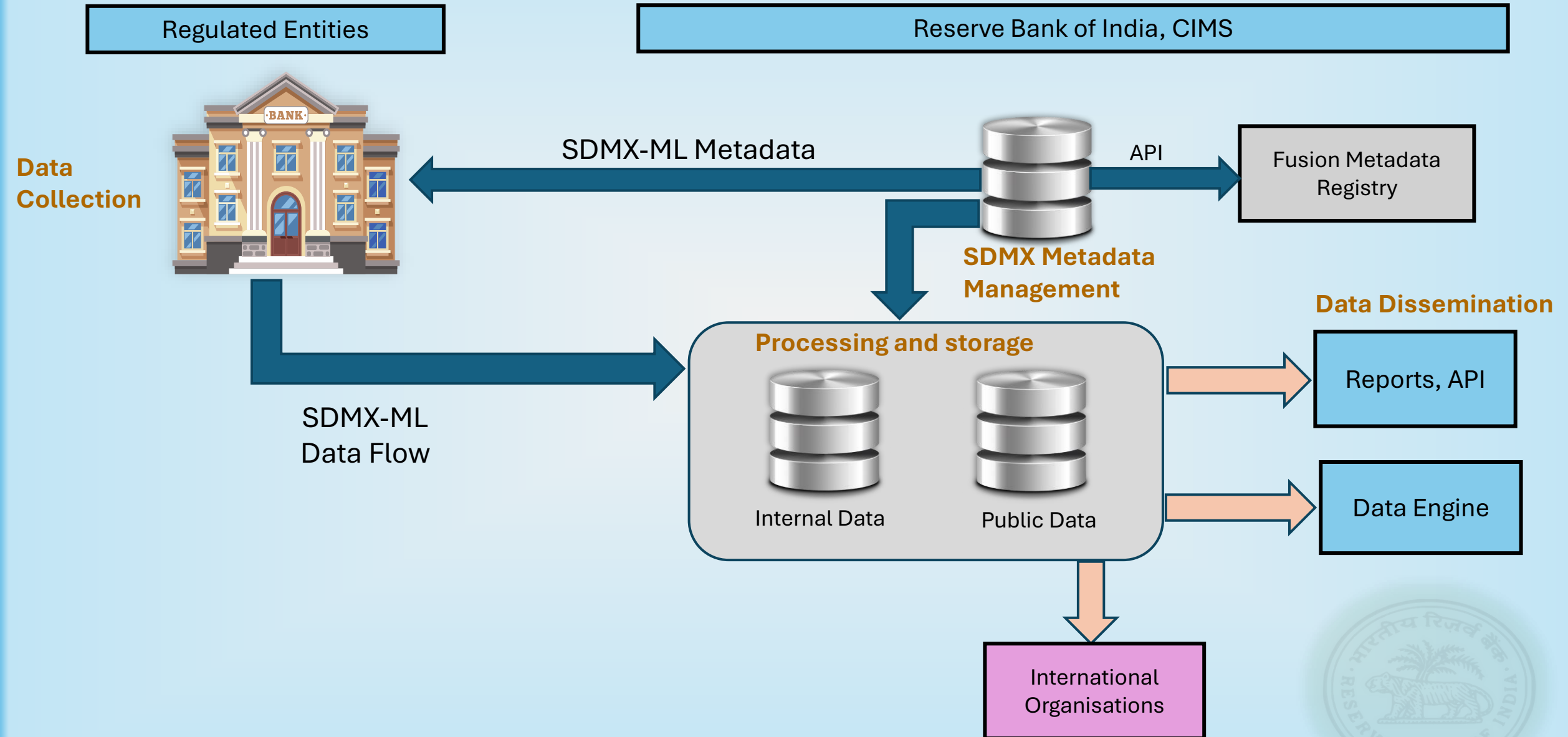


# SDMX Based Data Collection

- Pilot project was executed with (four)select regulatory entities.
- Transition from a return-based reporting framework to an element-based data reporting model with SDMX as its backbone.
- This transition is aimed to improve the overall reporting efficiency of the regulated entities by reducing the reporting burden and enhancing data consistency and data quality.
- Providing a foundation to implement a data quality formwork leading to efficient data governance for the RBI.
- The pilot process suggest a transformative impact on data collection, data quality, and data governance, laying foundations for an intelligent data reporting in the regulatory landscape in the long run.



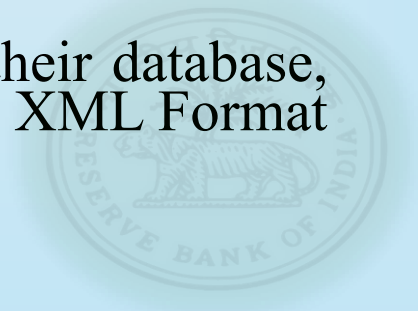
# SDMX collection-Implementation design





# SDMX data collection process

- **SDMX Manager:** At the heart of the system, SDMX Manager, which is the metadata hub that defines and manages the SDMX metadata – including data structures, dimensions, code lists, and data dictionaries. It has interface with the Fusion Metadata Registry (FMR) – a metadata repository system that enables storage, versioning, and distribution of metadata.
- **Data Collection from Regulated Entities:** The Automatic Dataflow Server (ADF) located at banks end receives granular data from various databases within banks and the bank has to create an SDMX based structured data using SDMX metadata definitions provided by the RBI.
- **RBI has developed a convertor tool application,** which will take care of the SDMX-XML generation and deployment of the file in the system -to -system channel. Even if the REs uses different type of databases like, oracle, DB2, MSQl etc., the convertor tool will work in any of these databases.
- **Once the REs created the SDMX based table structure and embedded in their database,** The convertor tool picks up the data from the database and convert data into XML Format and then file to RBI.



# Developments

- Intended to cover 90 per cent of the banking business in India.
- All requisite information were provided to the banks.
- Training sessions on EBR and convertor applications were conducted
- The testing was focused on twelve returns/24 data elements. The structure and format created for these 12 returns were provided to the banks and they have been testing the element structure in test environment provided by the RBI.
- The testing is under progress

Q&A....

Thank you