Introduction

- The information of the financial system managed by Banco de Mexico has two types of users, general public and financial authorities users (Banxico and other authorities).
- Most microdata has been used by the latter for financial institutions monitoring and supervision for financial stability analysis. For that purpose it is disseminated using a restricted Central Data Hub.
- Public information is disseminated using an in-house time series platform.
- Microdata is increasingly used to generate detailed statistics. The large volume of potential information requires new approaches for data dissemination for both type of users.
- Our approach to improve data dissemination includes:
  - Publication of detailed statistics on financial markets.
  - Graphic tools for summarizing the main characteristics of large data bases and create dashboards for user specific information interests.
  - Other business intelligence tools (cubes).
## Financial Information Model of Banco de Mexico

Collected by BANCO DE MEXICO, directly from the institutions

Commercial banks, development banks, brokerage houses, exchange houses, other regulated financial entities

Other financial authorities (CNBV, CNSF, CONSAR), price vendors, securities depository, credit card switches, exchanges, etc.

### Transactional or very detailed information

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Category</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily</td>
<td>Foreign exchange ops.</td>
<td>Interbank loans, Cross-border transactions</td>
</tr>
<tr>
<td></td>
<td>Derivatives</td>
<td>Credit &amp; debit card transactions (switches)</td>
</tr>
<tr>
<td></td>
<td>Securities (Repo / Buy – Sell / Security Lending)</td>
<td>Pension and investment funds</td>
</tr>
<tr>
<td>Monthly</td>
<td>Equities holdings</td>
<td>Mortgages, Commercial loans</td>
</tr>
<tr>
<td></td>
<td>Financial fees and discount rates</td>
<td>Credit bureaus</td>
</tr>
<tr>
<td>Bimonthly</td>
<td></td>
<td>Consumer loans (credit card, auto, personal, wage, etc.)</td>
</tr>
<tr>
<td>Quarterly</td>
<td></td>
<td></td>
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<tr>
<td>Semiannual</td>
<td></td>
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</tr>
</tbody>
</table>

### Aggregated

(Granularity according to the type of information)

- Financial products and services
- Ratings, prices, indices, interest rates, economic and financial variables and risk factors
- Capital adequacy (Basel III)
- MXP cash transactions
- USD cash transactions
- Regulated intermediaries financial statements
- Liquidity (Basel III)
- Demand deposits
- Retail payment systems
- Payment network costs

### Core information process

- **DATA COLLECTION**
  - Large volume
  - In house application

- **VALIDATION**
  - Technical, business rules, cross checks institution and other sources

- **TRANSFORMATION**

- **DISSEMINATION**
  - Central Data Hub, Statistics and Graphic Portal

### End users

- **Supervisor Role**
- **Domestic Users**
- **International Financial Institutions**
Statistics on Derivatives of Banks and Brokerage Houses

**Turnover**
- Methodological changes and broad scope.
- Daily information since Jan-2007.
- 600 data concepts (1,800 time series).
- Describes development of the derivatives market.

**Outstanding operations**
- 600 data concepts (1,800 time series).
- Describes behavior of portfolio derivatives.

**Risk positions and prices**
- 500 data concepts (1,500 time series).
- Describes exposures to market risk and counterparty sector risk.
Structure for Turnover Statistics of Derivatives Traded by Banks and Brokerage Houses (Exchanges and OTC)

- By underlying (currencies, interest rates, securities, equity, indexes, etc.)
- By location of counterparty
- By market (Exchanges or OTC)
- By original maturity

Sub-categories for Derivatives transactions by instrument:

- Swaps
- Futures
- Forwards
- Options and Warrants
  - Buying
  - Selling
    - Plain vanilla
    - Exotic
    - Warrants

Sub-categories:
- By underlying
- By location of counterparty
- By market (Exchanges or OTC)
- By original maturity
Financial Information Interactive Application (PIIF)

- The Financial Information Interactive Application allows users to interact with graphics developed and customize dashboards according to their main interests.
Derivatives are financial instruments (futures, forwards, swaps, and options) traded in derivative exchanges and Over-the-Counter (OTC) markets, whose value depends on the price of one or more variables (such as equities, bonds, currencies, equity indexes, commodities, etc.), and their settlement is made in one or more future dates. Derivatives may be used for hedging or speculation.
By type of underlying asset

Structure of turnover by type of underlying asset

Turnover behavior by type of underlying asset

Tools
- Send to dashboard:
  - Select

Display:
- Stacked Vertical Bar

View:
- Pesos
- Percentage

Select series:
- Hide
- Show
- Restore graph:

Reference
- Tooltip off:
  - On
  - Off

Select series:
- Hide
- Show
- Restore graph:
PIIF

By type of trading market

Structure of turnover by type of market

<table>
<thead>
<tr>
<th>Year</th>
<th>Domestic Derivative Exchange Market (MexDer)</th>
<th>Foreign Derivative Exchange Markets</th>
<th>OTC Derivatives traded with domestic counterparties</th>
<th>OTC Derivatives traded with foreign counterparties</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
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<td>2015</td>
<td>5</td>
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Turnover behavior by type of market

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Tools
- Send to dashboard: Select
- Display: Stacked Vertical Bar
- Select series: Show
- Tooltip off: Off
- View: Peso
- Restore graph: Restore

Reference