Financial Information Infrastructures based on microdata: TR-Like on Derivatives Operations at Banco de Mexico

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The views expressed in this presentation are exclusively the responsibility of the author and do not necessarily reflect those of Banco de Mexico.
• The 2008 global financial crisis unveiled weaknesses in the identification and monitoring of risks undertaken in the derivatives market.

• To mitigate these risks, the G20 promoted a regulatory reform to strengthen derivatives markets. Among other aspects, this reform establishes that all OTC derivative transactions should be reported to trade repositories (TRs), providing to market participants and financial authorities a new set of data for risk monitoring and research.

• Banco de Mexico gathers microdata on derivatives operations since the 1990’s.
• A TR is a Financial Market Infrastructure (FMI) that can help to foster transparency, and provides information to Authorities to implement policies that could reduce or limit systemic risk, enhancing the resilience of the financial system.

• Given its relevance, the Basel Committee and IOSCO published in 2012 a set of *Principles for Financial Markets Infrastructures* (PFMI).

• Banco de Mexico, recognizing the importance of a TR with effective processes and procedures to provide data to relevant authorities and to the public in a timely and appropriate manner, is looking to achieve best practices on these matters using the PFMI as guidelines, whenever these standards are applicable.
Principles for the Financial Market Infrastructures (PFMIs)

• FMIs can strengthen the markets they serve and play a critical role in fostering financial stability.

• The 2008 global financial crisis highlighted important lessons for effective risk management. These lessons, along with the experience of implementing the existing international standards, led the CPSS and IOSCO to review and update the standards for FMI’s. The revised standards also incorporate additional guidance for over-the-counter (OTC) derivatives, CCPs and TRs.

• In general, these standards are expressed as broad principles in recognition of FMIs differing organizations, functions, and designs, and the different ways to achieve a particular result.

• The main public policy objectives of the CPSS and the Technical Committee of IOSCO in setting forth these principles for FMIs are to enhance safety and efficiency in payment, clearing, settlement, and recording arrangements, *and more broadly, to limit systemic risk and foster transparency and financial stability*. 
PFMIs Applicable to TRs

- 12 principles out of 24 are applicable to TRs. Of those, nine are applicable to the TR—Like in Banco de Mexico.

<table>
<thead>
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<th>General Organization</th>
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<tr>
<td>Principle 1: Legal basis</td>
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<td>Principle 2: Governance</td>
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<td>Principle 3: Framework for the comprehensive management of risks</td>
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<tr>
<th>General business and operational risk management</th>
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<tr>
<td>Principle 15: General business risk</td>
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<td>Principle 17: Operational risk</td>
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<th>Access</th>
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<td>Principle 18: Access and participation requirements</td>
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<td>Principle 19: Tiered participation arrangements</td>
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<td>Principle 20: FMI links</td>
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<th>Efficiency</th>
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<td>Principle 21: Efficiency and effectiveness</td>
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<td>Principle 22: Communication procedures and standards</td>
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<th>Transparency</th>
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<td>Principle 23: Disclosure of rules, key procedures, and market data</td>
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<td>Principle 24: Disclosure of market data by trade repositories</td>
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Consolidating a TR in Banco de Mexico would enable, among other aspects, the possibility of complementing the information of market participants in Mexico with that from other TRs in different jurisdictions, allowing us to see more broadly their risk exposures.

In order to obtain information from other jurisdictions, it is necessary to establish clear rules for the exchange of information with foreign TRs in two aspects:

- Changes in regulation to allow information sharing.
- Reinforce rules and procedures established for information sharing, data management and security policies (all considered within the PFMIs).

It is also necessary to adopt unique identifiers (LEI, UPI, UTI) to facilitate the aggregation of transactions from the same entity across different jurisdictions, as well as the proposals for Critical Data Elements (CDE), which would help to harmonize information for further use.

Based on best international practices, the Board of Banco de Mexico decided to transform the area responsible of collecting data on derivatives into a TR-Like repository. This decision was as result of its experience and ability to gather data from the derivatives market as well as for the richness of its microdata; it requires the adoption of the PFMIs.
Banco de Mexico’s Financial Information Model: Derivatives

**Financial intermediaries**
- Commercial Banks
- Development Banks
- Brokerage Houses
- Multiple-purpose non-bank financial institutions regulated entities

**Instruments**
- Futures & Forwards
- Swaps
- Options and "Warrants"
- Credit Derivatives

**Transactions**
- Counterparties
- Entity identifiers
- Economic Sector
- Type of entity
- Nationality
- Type of netting agreement

**Characteristics of**
- Instruments
  - Underlying assets (equity indexes, interest rates, currencies, equities, bonds, commodities, etc.)
  - Asset's specifications (maturity, currency)
  - Market (OTC or derivative exchanges)
  - Strategies (hedge/speculative)

- Transactions
  - Spot prices, settlement prices, upfront payment, exercise prices, etc.
  - Contract size
  - Cash flows
  - Payment dates
  - Holder/issuer
  - Maturity
  - Trading platform/clearing house

**Market valuation**
- Deltas

**Collateral**
- Asset's specifications
- Market value

**Life cycle**
- (Daily)

**Snapshot**
- (monthly)
Microdata on derivatives in Banco de Mexico, have different uses, mainly of market surveillance and financial stability:

- Monitoring the functioning of the market and compliance of regulation;
- Detail of all derivatives transactions involved in the regulatory framework of Capital Adequacy Ratio and Liquidity Coverage Ratio requirements, FX positions and currency and maturity mismatches, among others;
- Analysis of credit risk, which considers all risk positions of a given financial institution with its counterparties; and
- Analysis of market risk of the portfolio of financial institutions by type of instrument and underlying.
- Other kind of analysis related with systemic risk and contagion.
TR-Like in Banco de Mexico: Uses of the Data

Interconection network in derivatives transactions

- Domestic natural persons
- Domestic non-financial entities
- Foreign Banks
- Domestic Banks
- Domestic financial entities (non-Banks)
- Brokerage houses
- Foreign financial entities (non-Banks)
## Scope of Governance

<table>
<thead>
<tr>
<th>Governance Areas</th>
<th>Governance matters</th>
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<tbody>
<tr>
<td><strong>Strategic Guidelines</strong></td>
<td>Mission, vision, functions, services and strategic objectives.</td>
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<td>Organizational structure of the TR</td>
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<td>Strategic planning and projects</td>
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<td><strong>Business Guidelines</strong></td>
<td>Provision of services policy</td>
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<td>Supplier relationship management (SRM) policy</td>
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<td>Client relationship management (CRM) policy</td>
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<td>Risk management policy</td>
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<td>Linkage with other entities and authorities policy</td>
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<tr>
<td><strong>Performance Assessment and Accountability</strong></td>
<td>Scope of performance evaluation (what must/want to be evaluated)</td>
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<td></td>
<td>Scope of accountability (who should/must be informed)</td>
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<tr>
<td><strong>Competence Assurance</strong></td>
<td>Mechanisms for evaluation and accountability</td>
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<td>Distribution of responsibilities: training, habilitation, supervision</td>
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Principal Challenges and Experiences in the Adoption of the PFMIs

• **Internal Challenges**
  - Redesign of information requirements.
  - Improving the platform to adopt a versatile recollection scheme.
  - Documentation and implementation of processes.
  - Establishing an adequate operational risk management framework.
  - Governance definition and implementation.

• **External Challenges**
  - Setting information sharing schemes with other TRs and TR-Likes.
  - Harmonization of different databases’ layouts to share information.
  - Fast-paced regulatory changes.
  - Managing different degrees of sophistication in reporting entities.