Federal Economic Statistics Advisory Committee

Statistical Response to the Financial Crisis:
Office of Financial Research

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June 17, 2011
What is the Office of Financial Research?

The Office of Financial Research (OFR) is a new entity established by the Dodd-Frank Act.

**Mission:** to support the Financial Stability Oversight Council (FSOC) in promoting financial stability by:

- Measuring and analyzing factors affecting financial stability and helping to develop policies to promote it;
- Increasing the integrity, accuracy and transparency of information shared by financial market participants, reported to regulators, and used by research communities;
- Reporting to the Congress and the public on the OFR’s analysis of significant financial market developments, potential threats to financial stability, and policy responses;
- Collaborating with foreign policymakers and regulators, as well as multilateral organizations, to establish global standards and policies that promote financial stability, efficiencies, and a level playing field.
How is the OFR different from other Federal financial agencies?

The OFR has a number of unique characteristics among Federal financial agencies.

- Sole focus on risks to the financial system
- Authority to collect data from anywhere in that system
- Mandate to improve the quality of financial reporting by
  - Establishing standards for types and formats of data, including transactions and positions
  - Preparing and publishing reference data on financial companies and instruments
- Commitment to bring science to bear
- Independence
  - Funding
  - Reporting
- Regulatory authority
- Director’s term of appointment
Who does the OFR serve?

**OFR**

**Data Center**
- Standardization
- Reference databases
- Collection
- Warehousing

**Research & Analysis**
- Risk assessment
- Forensics
- Innovation
- Data development
- Tool development

**FSOC**
- Direction for Research Projects, Data Collection
- Reports, Risk Monitoring Tools, Technical Analysis for Committees

**FSOC Members**
- Requests for Reports, Data, Technical Assistance
- New Data, Data Warehousing, Assistance on Data Standardization and Collection, Coordination Within Regulatory Community, Reports

**Congress**
- Annual Report, Testimony

**Public**
- Academic and Industry Expertise
- Reference Databases, Data Standards, Promotion of Data and Risk Management Practices, Academic and International Partnerships
How is the OFR organized?

OFR Operations

- Deputy Director
  - Data Center
    - Chief Business Officer
      - AD Relationship Management
      - AD Business Analysis
      - AD Project Management
      - AD Information Standards
      - AD Data Procurement
      - AD Libraries & Publications
    - Chief Technology Officer
      - AD Information Security
      - AD Solutions Development
      - AD Infrastructure & Operations
      - AD Data Warehousing & Analytics
  - Chief Legal Officer
    - AD Public Affairs
    - Other Support Services (e.g., HR, records)

- Deputy Director
  - Research & Analysis Center
    - AD Macroecon.
    - AD Financial Institutions & Markets
    - AD Statistics & Risk Management
    - AD Applied Sciences
  - Other Support Services (e.g., HR, records)
What should research communities expect from the OFR?

The OFR will:

• Produce, promote and sponsor financial research;

• Publish non-confidential financial data, reference data, and analytical tools;

• Establish fellowship and visiting scholar programs;

• Collaborate with and provide data services for Federal financial regulators and statistical agencies;

• Promote best practices in risk management.
How is the OFR Research and Analysis Center organized?

Projects are
• defined by policy and by individual researchers;
• staffed across skillsets and networks;
• managed by researchers at various levels;
• supported by OFR Data Center / operations.
Examples of near and long-term OFR research projects

- Systemic risk measurement and monitoring
  - Survey paper
  - Analytical tools
  - Metadata for inputs
  - Dashboard for FSOC

- Developing measures of leverage in asset markets
  - Will require aggregating transaction level data from market utilities

- Evaluating stress tests, including translation of scenarios and aggregation of results for macroprudential supervision

- Analyzing the benefits and costs of various macroprudential tools

- Assessing the impact of changes in financial regulation on the supply of credit and economic activity
  - Will require both macro and micro analysis and data

Will be published
Measuring Risk in the Financial System

• Many models and approaches
  • Leverage models
  • Macroeconomic indicators
  • Probability distributions
  • Contingent claims analysis
  • Network models
  • Stress testing
  • Risk accounting
  • Illiquidity and crowded trades
  • Principal components
  • …

• Each approach attempts to answer a particular set of questions

• No one approach can answer all questions

• Vital to approach the problem from multiple perspectives

• Improving the quality of information in the system and identifying new developments are critical
Measuring Risk in the Financial System – Market Liquidity

- Portfolio reaction function
  - Funding sources
    - Exposure to “runnable” funding
    - Access to lifelines
  - Marketable assets
    - Fire-sale pricing
    - Collateral pledges and margin requirements
- Herd behavior

- Role of speculators as liquidity providers

Example: Liquidity Spiral*


- Inputs for analysis
  - Balance sheet details
  - Bid-ask spreads
  - Trading volume
  - Collateral and margins
  - Volatility (e.g., VIX)
How can the OFR improve reporting, processing, and risk management?

Today

Financial Transactions

Trading

Internal Data Architecture

Data Vendor

Data Vendor

Data Vendor

Dedicated Database

Dedicated Database

Dedicated Database

Trade Confirmation

Payments / Settlements

Risk Management

Accounting

Public

Public Disclosure

Regulatory Reporting

Regulators
How can the OFR improve reporting, processing, and risk management?

What’s possible

Financial Transactions

Internal Data Architecture

Trade Data Warehouse

Trade Confirmation ➔ Payments / Settlements ➔ Risk Management ➔ Accounting & Reporting

Common Reference Data ➔ Data Vendor ➔ Public

Public Disclosure

Regulators

Public Disclosure

Regulatory Reporting
How can the OFR improve market discipline and lower costs?

- Standardized reporting
  - OFR reporting (LEI initiative)
  - Coordinating across agencies
  - Accounting-based, risk-based

- Reference data
  - Financial companies
  - Financial instruments

- Research

- Non-confidential data

Market Discipline
  - Improved risk management
  - Lower processing costs
  - Macroprudential Supervision
Estimates of annual industry savings from LEI implementation range from hundreds of millions to billions of US dollars.