**INDIVIDUAL AND SYSTEM-WIDE PROJECTIONS**

FPM 2.0 can generate projections on an individual and a system-wide basis. The system-wide feature allows users to run standardized or tailor-made scenarios over all banks simultaneously, with or without taking into account contagion effects in the banking system that could arise through interbank exposures, as well as market and funding liquidity risks.

**Contagion**:

- **Shocks**: Failure of a bank
- **Failure of a bank**: Causes dry-up of liquidity for the borrower
- **Other banks**: Failure of other banks
- **Results in losses to the lender banks**

**WORLD BANK ASSISTANCE ON FPM 2.0**

Upon agreement on the terms of the World Bank Group engagement, the Implementation Team can provide support to institutionalize the implementation of FPM 2.0 as an ongoing operational tool, which includes:

- Financial modelling training to potential modelers
- Hands-on training on the implementations of the model into viability assessments and other areas
- Assistance in upgrading financial and prudential reporting system for more robust use of FPM 2.0
- Advisory services to develop a framework for the integration of FPM 2.0 into day to day supervision practices

**DISCLAIMER**

It is imperative that projection results are taken carefully with extreme caution and that users consider the necessary range of relevant qualitative and quantitative information in addition to FPM 2.0 results when making decisions. FPM 2.0 shall be subject to the terms and conditions applicable for the materials, communication tools, and new tools, made available to public on the World Bank’s website (http://www.worldbank.org/terms).

**CONTACT**

For more information, contact Murat Arslaner, marslaner@worldbank.org

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FINANCIAL PROJECTION MODEL 2.0

The Financial Projection Model 2.0 (FPM 2.0) is an analytical tool that allows users to make projections to assess the future viability, liquidation cost, and present value of a bank under different scenarios. It can also recreate other scenarios, such as recapitalization, business planning, restructuring, and mergers. FPM 2.0 can help implement a more forward-looking approach to supervision, and ascertain the effect of internal and external events upon the financial viability of a single bank or an entire banking system in a dynamic way.

FPM 2.0 can project banks' financial statements (balance sheet and income statement), as well as regulatory rates (capital adequacy, liquidity, and foreign exchange position ratios) and performance indicators (under a CAMEL approach), based on a set of assumptions regarding the banks' assets, liabilities, capital, liquidity, foreign exchange (FX) position, income, and expenses.

COMMON USES

Individual and system-wide analysis: FPM 2.0 can be run on both individual banks and/or the whole banking system.

Integrated approach for assessing all material risks: Scenarios can be created to assess credit, interest rate, liquidity, market, operational, and foreign exchange risks in an integrated way.

Informative: FPM 2.0 generates well-defined CAMEL performance indicators that enable users to analyze projection results, as well as to identify sources of potential solvency or liquidity problems, in a quick and effective way.

Simplicity: Simplified methodologies are used to project individual items on the balance sheet and income statement based on rules of thumb.

Forward-looking: FPM 2.0 yields projected financial statements and performance indicators that can be used to assess risks over a future horizon.

Inspired from real banking practices: FPM 2.0 is grounded in actual banking practices, including the dynamics of performing and non-performing loans.

Flexibility in defining the projection horizon and frequency: Projections can be made for up to 12 future periods, with a choice of six frequencies (annual, semi-annual, quarterly, monthly, weekly, and daily).

Convenient for scenarios with any granularity: Projections for various purposes are based on very simple sensitivity analyses or comprehensive scenario analyses.

Accommodative to any degree of granularity of financial reports and other regulatory forms: FPM 2.0 runs with medium-level disaggregated data, as well as high-level aggregated data. However, the preciseness of the results will suffer as aggregation increases.

Provides benchmarks for developing projection assumptions: Users can develop their own projection assumptions based on historical rates (implied assumptions) calculated over the past as benchmarks.

Familiar structure for data entry and projections: Data can be loaded in local format, and projection results are generated in a generic format that is common or familiar in many jurisdictions.

MAIN FEATURES

FPM 2.0 is structured as follows:

- **Data Entry** tab: To input all required data in its original format.
- **Mapped Data** tab: To adapt the data to FPM 2.0's generic format.
- **Assumptions** tab: To generate historical rates (implied assumptions) as benchmarks and calibrate the implied assumptions by inserting new projection assumptions.
- **Calculation** tab: To calculate projections.
- **Projections and Summary and Indicators** tabs: To display projections.
- **Scenario Analysis** tabs: To run scenarios against the baseline projections.
- **Liquidation and Present Value** tabs: To calculate the liquidation and present value of the bank.

The Financial Projection Model 2.0 (FPM 2.0) is an analytical tool developed to analyze the impact of macroeconomic shocks in banking risk factors through macroeconomic models. It can be complemented with comprehensive macro scenarios. Once users calculate the impact of macroeconomic shocks in banking risk factors, those factors can be inserted in FPM 2.0 to analyze their impact on the financial statements and indicators of the banks.

RUNNING STRESS TESTS/SCENARIOS

FPM 2.0 is equipped to perform a comprehensive approach for viability assessments against credit, interest rate, market, and liquidity risks, as well as to perform a simplified approach for viability assessments against FX and operational risks.

FPM 2.0 can be used to undertake simple stress testing, like sensitivity analysis. In addition, it can be complemented with comprehensive macro scenarios. Once users calculate the impact of macroeconomic shocks in banking risk factors, those factors can be inserted in FPM 2.0 to analyze their impact on the financial statements and indicators of the banks.

Complementing FPM 2.0 with Econometric Models:
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FPM 2.0 can project banks’ financial statements (balance sheet and income statement), as well as regulatory rates (capital adequacy, liquidity, and foreign exchange position ratios) and performance indicators (under a CAMEL approach), based on a set of assumptions regarding the banks’ assets, liabilities, capital, liquidity, foreign exchange (FX) position, income, and expenses.

COMMON USES

- **Viability Assessment**
- **Stress Testing**
- **Scenario Analysis**
- **Recapitalization**
- **Mergers**
- **Business planning**

FPM 2.0 is grounded in a set of assumptions regarding the banks’ assets, liabilities, capital, liquidity, foreign exchange (FX) position, income, and expenses.

MAIN FEATURES

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INPUT AND OUTPUT

**Input:**

- **Balance Sheet** (including NPL Dynamics)
- **Income Statements**
- **Re-pricing (Maturity and Fixed/Floating) Structure of Balance Sheet Items**

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- **Liquidation and Present Value tabs:** To calculate the liquidation and present value of the bank.

**Output:**

- **Balance Sheet**
- **Profit and Loss Account**
- **Funds Flow**
- **Liquidation Value**
- **Present Value**

**RUNNING STRESS TESTS/SCENARIOS**

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**Complementing FPM 2.0 with Econometric Models:**

- **Macroeconomic and financial risks**
- **Satellite Econometric Models**
- **Banking risk factors**
- **Financial Projection Model**

**Indicators:**

- **Capital Adequacy**
- **Liquidity**
- **FX Position**
- **Liquidity Management**
- **Asset Quality**
- **Management**
- **Earnings**

**Indicators:**

- **Capital Adequacy (Total, Tier I, Core Tier I)**
- **Liquidity Need**
- **Liquidation Value (Cost)**
- **Present Value**
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