

Appendix D: Economic Forecasts

In order to measure the MMI Fund's soundness against potential future losses in either its current mortgage portfolio or its future books of business, the Fund's economic values were analyzed under alternative economic scenarios by predicting the consequent future loan performance as well as the financial performance of the Fund. We began this analysis with the base case. The base-case economic scenario is extracted from the August 2007 forecast of the U.S. economy published by Global Insight, Inc. The economic factors of the Global Insight forecast used in our analysis are:

- OFHEO national housing price index
- Ten-year Treasury rate
- One-year Treasury rate
- Commitment rate on 30-year fixed-rate mortgages

Data used in the baseline scenario are summarized in Exhibit D-1. The listed economic factors forecasted by Global Insight, Inc. are available from FY 2007 through FY 2017.

Exhibit D-1

| Economic Forecast (Base-Case Scenario) | | | | |
|---|---|--|-------------------------------------|---|
| Fiscal Year | National Housing Price Index | 10-Year Treasury Rate (%) | 1-Year Treasury Rate (%) | Commitment Rate on 30-Year Fixed- Rate (%) |
| 2007 | 409.75 | 4.68 | 5.01 | 6.22 |
| 2008 | 396.26 | 5.08 | 5.01 | 6.72 |
| 2009 | 396.63 | 5.36 | 5.18 | 6.99 |
| 2010 | 410.37 | 5.59 | 5.32 | 7.21 |
| 2011 | 427.30 | 5.65 | 5.34 | 7.27 |
| 2012 | 445.92 | 5.65 | 5.34 | 7.27 |
| 2013 | 465.11 | 5.52 | 5.13 | 7.14 |
| 2014 | 484.66 | 5.26 | 4.81 | 6.88 |
| 2015 | 505.34 | 5.26 | 4.81 | 6.88 |
| 2016 | 526.88 | 5.26 | 4.81 | 6.88 |
| 2017 | 549.52 | 5.26 | 4.81 | 6.88 |

Alternative Economic Scenarios

To conduct sensitivity analysis of the Fund's economic value, four alternative scenarios were used to assess the financial viability of the Fund. The selected scenarios are summarized as follows:

1. **Extended Housing Recession Scenario** – We assumed that the low house price appreciation forecasted by Global Insight, Inc. will last for three consecutive years from FY 2008 to 2010, then return to base-case levels in FY 2011.
2. **High Interest Rate with Extended Housing Recession Scenario** – The assumption regarding house price appreciation is the same as in scenario 1. We further assumed that all three interest rates are 300 basis points higher than in the Global Insight forecast for FY 2008 through FY 2010, and then they return to the baseline levels in FY 2011.
3. **High Claim Loss-Severity Rates Scenario**– We assumed loss rates on claimed mortgages were five percentage points higher than the baseline level. For the current Review, different loss rates were assigned to each of the loan types. The loss rates used for the sensitivity analysis are as follow:

Judicial States:

- 30-year FRMs
 - a. With downpayment gift from non-profit organization = 52.97 percent
 - b. Others = 52.40 percent
- 15-year FRMs
 - a. With downpayment gift from non-profit organization = 48.05 percent
 - b. Others = 66.42 percent
- ARMs
 - a. With downpayment gift from non-profit organization = 50.97 percent
 - b. Others = 47.01 percent
- 30-year SRs = 47.79 percent
- 15-year SRs = 56.10 percent
- ARM SRs = 47.75 percent.

Non-Judicial States:

- 30-year FRMs
 - a. With downpayment gift from non-profit organization = 42.49 percent
 - b. Others = 41.00 percent
- 15-year FRMs
 - a. With downpayment gift from non-profit organization = 44.15 percent
 - b. Others = 44.11 percent

- ARMs
 - a. With downpayment gift from non-profit organization = 38.84 percent
 - b. Others = 36.48 percent
- 30-year SRs = 36.27 percent
- 15-year SRs = 36.39 percent
- ARM SRs = 37.42 percent.

Note that this alternative scenario is based on the same forecasted variables as the base-case scenario. In other words, this sensitivity analysis examines the marginal impact of a change in loss rates.

4. ***Continued High Concentration of Loans with Gift Letters from Non-Profit Organization*** – This scenario assumes that the concentration in loans with downpayment assistance from non-profit organizations will remain high (vs. quickly declining throughout the FY 2008 as assumed in the base-case scenario).

The projected performance of the MMI Fund in response to the selected scenarios listed above is provided in Section V of this Review.