Executive Summary

The 1990 Cranston-Gonzalez National Affordable Housing Act (NAHA) requires an independent actuarial analysis of the economic net worth and soundness of the Federal Housing Administration's (FHA's) Mutual Mortgage Insurance (MMI) Fund. This report presents our findings with respect to this required analysis for fiscal year (FY) 2006.

The primary purpose of our review was to estimate

- the *economic value* of the MMI Fund, defined as the sum of existing capital plus the net present value of the current books of business, and
- the current and projected *capital ratio*, defined as the economic value divided by the total insurance-in-force (IIF).

A. Status of the Fund

NAHA mandated that the MMI Fund achieve a capital ratio of at least 2 percent by FY 2000 and maintain that level in all future years. The capital ratio of the Fund reached the 2 percent threshold in FY 1995 and has stayed above that mandated level ever since. This year, we estimated that the FY 2006 capital ratio increased to 6.82 percent from last year's 6.02 percent. We also estimated the FY 2013 capital ratio to be 6.73 percent. Exhibit ES-1 provides our estimates of the Fund's current and future economic values and capital ratios.

Projected MMI Fund Performance for FYs 2006 to 2013 ($ Millions)						
Fiscal Year	Economic Value of the Fund[a]	Capital Ratio %	Volume of New Endorse-ments[b]	Insurance in Force[c]	Economic Value of Each New Book of Business	Investment Earnings on Fund Balances
2006	22,021	6.82	51,728	323,028	33	
2007	23,127	6.90	53,868	335,398	81	1,025
2008	24,610	7.03	57,115	350,143	344	1,139
2009	26,463	7.09	62,888	373,298	604	1,249
2010	28,646	7.03	74,586	407,269	814	1,369
2011	31,113	6.93	87,049	449,002	964	1,504
2012	33,808	6.82	97,751	495,530	1,044	1,651
2013	36,763	6.73	108,668	546,129	1,146	1,809

[a] All values are as of the end of each fiscal year. The economic value for future years (FYs 2007 through 2013) is equal to the economic value of
the Fund at the end of the previous year, plus the current year's interest earned on previous fund balance, plus the economic value of the new book
of business.
[b] Based on the FHA August 2006 projection.
[c] Estimated based on MMI Fund data extract as of February 28, 2006.

In describing the capital ratio, NAHA stipulates the use of unamortized insurance-in-force as the denominator. However, "unamortized insurance-in-force" is defined in the legislation as "the remaining obligation on outstanding mortgages" – a definition generally understood to apply to amortized IIF. Following the convention of previous actuarial reviews, we continue to use the unamortized IIF in calculating the capital ratio. It is also instructive to consider the capital ratio based on amortized IIF, which is the basis the Government Accountability Office has used in its previous reports on the status of the Fund during the 1990's. The estimated capital ratio using amortized IIF is 7.38 percent for FY 2006 and 7.32 percent for FY 2013. Unless stated otherwise, all capital ratios mentioned in this report refer to the ratio computed using unamortized IIF.

We also subjected the Fund to stressful future economic scenarios (reported below) and found that the projected capital ratio in each case remained above 2 percent. **We therefore conclude that the MMI Fund has met and will continue to meet the NAHA capital requirement.**

B. Sources of Change in the Status of the Fund

Change in Economic Value from FY 2005 to FY 2006

We estimated that the economic value of the MMI Fund is $22.021 billion as of the end of FY 2006, which represents an increase of $400 million over the economic value as of the end of FY 2005 as reported in the previous year's Actuarial Review. Combining this 1.85 percent increase in the estimated economic value of the MMI Fund with a 10.0 percent decrease in the unamortized IIF resulted in a sizeable increase in the capital ratio of 0.80 percentage points from
6.02 percent to 6.82 percent.

Current Estimate of FY 2006 Economic Value Compared with the Estimate Presented in the FY 2005 Actuarial Review

Our estimate of the FY 2006 economic value is $681 million lower than the economic value projected for FY 2006 in the FY 2005 Actuarial Review. The estimated FY 2012 capital ratio is
0.20 percentage point higher than that was estimated in the FY 2005 Review. These differences are attributed to seven changes:

- update for the actual origination volume of the FY 2005 book of business,
- update for the actual termination experiences that occurred during FY 2005,
- enhanced econometric models,
- updated economic forecasts by Global Insight, Inc. and updated demand volume forecasts by HUD,
- special loss reserve for damages related to Hurricanes Katrina, Rita, and Wilma,
- updated assumptions of the loss severity rates, and
- IRS actions which may eliminate future loans receiving downpayment gifts from nonprofit organizations,

The impacts of each of these changes on the performance of the Fund are estimated as follows:

- The lower-than-expected origination volume in FY 2005 from the level forecasted in the FY 2005 Review reduced the FY 2006 economic value by $36 million.

- The deviation of the actual claim and prepayment rates experienced during FY 2005 from those projected in the FY 2005 Review translates into a reduction in the FY 2006 economic value of $42 million.
- The enhancement of the econometric model specifications added $191 million to the FY 2006 economic value. The main enhancement was to incorporate borrower credit scores into the claim model. Borrower credit scores showed a strong relationship with the claim probability at the individual loan level. This finding suggests that borrower credit history should be included as a key variable in the underwriting process and/or in determining the fair insurance premium, should FHA choose to risk-base price the insurance premium. However, currently, the inclusion of the credit history information had no significant impact to the economic value at the portfolio level of the MMI Fund.
- According to OFHEO, the national average house price growth rate between the second quarter of 2005 and the first quarter of 2006 was 9.07 percent, which is much higher than the 3.18 percent forecasted by Global Insight in May 2005. The updated economic forecasts of Global Insight and the revised origination volume forecast by FHA translated into an increase of FY 2006 economic value by $546 million.
- FHA has estimated the expected claim losses caused by Hurricanes Katrina, Rita, and Wilma in 2005 to be $613 million. This amount is deducted from the FY 2006 economic value as a one-time special loss reserve item.
- The refinement of the loss severity rate assumptions lowered the FY 2006 economic value by $727 million. The higher loss severity rates realized during FY 2004 and FY 2005 are likely to remain as the house price growth rates are expected to remain moderate in the future.
- In May 2006, the IRS published a ruling against non-profit organizations that provide downpayment assistance to homebuyers using funds contributed by the involved home sellers. The IRS expects that organizations involved in the said activities will be completely eliminated from their 503(c) tax-exempt statuses within two years. Removal of the tax-exempt status would make these organizations ineligible to provide downpayment assistance to FHA borrowers. This change has no impact on the economic value of FY 2006, but improves the credit quality of future books of business and raised the FY 2012 capital ratio by 0.71 percentage points.

Exhibit ES-2 provides the details of the changes in the Fund's economic value between FY 2005 and FY 2006, and their long-term effects on the capital ratio in FY 2012.

Exhibit ES-2

Summary of Changes in MMI Fund Estimated Economic Value Between FY 2005 and FY 2006 ($ Millions)				
	Change in FY 2006 Economic Value	FY 2006 Economic Value	Change in FY 2012 Capital Ratio (%)	Corresponding FY 2012 Capital Ratio (%)
FY 2005 Economic Value Presented in the FY 2005 Review		21,621[a]		
FY 2006 Economic Value Presented in the FY 2005 Review, Excluding the FY 2006 Book of Business:	$763	22,384		
Plus: Forecasted Value of 2006 Book of Business Presented in the FY 2005 Review	$318			
Equals: FY 2006 Economic Value Presented in the FY 2005 Actuarial Review		**$22,702**		**6.62%**
Plus: a. Update Actual Origination Volume in the FY 2005	- $36	$22,666	- 0.01%	6.61%
Plus: b. Update Actual Conditional Claim Rates and Conditional Prepayment Rates in the FY 2005	-$42	$22,624	0.08%	6.69%
Plus: c. Switch to the FY 2006 Econometric Model	$191	$22,815	-0.19%	6.50%
Plus: d. Update Economic and Demand Forecasts	$546	$23,361	0.32%	6.82%
Plus: e. Deduct Special Loss Reserves for Damages Related to 2005 Hurricanes	- $613	$22,748	-0.17%	6.65%
Plus: f. Change in Loss Severity Assumptions	- $727	$22,021	-0.54%	6.11%
Plus: g. Expected Impact of IRS Ruling on Downpayment Gift Providers[b]	$0	$22,021	0.71%	6.82%
Equals: Estimate of FY 2006 Economic Value	**-$681**	**$22,021**	**0.20%**	**6.82%**

[a] Economic value as the end of FY 2005.

[b] The IRS ruling will only have an impact on future books and therefore has no effect on FY 2006 economic value.

Additional Comments

The estimates presented here reflect projections of events more than 30 years into the future. These projections are dependent upon a number of assumptions, including economic forecasts by Global Insight, Inc. and FHA, future demand forecast by HUD, and the assumption that FHA does not change its policies regarding refunds, premiums, distributive shares, administrative expense accounting method, and underwriting rules. To the extent that these or other assumptions are subject to change, the actual results will vary, perhaps significantly, from our current projections.

Estimation of the equations used for predicting prepayments and claims requires large amounts of loan-level data. It takes several weeks to process the raw data before it can be used. In order to complete the Review within the limited timeframe required by OMB, we continued to adopt the convention of using partial-year data to estimate the picture for the entire FY 2006. As part of this approach, we obtained a data extract from FHA that represented activities entered into the database by February 28, 2006. This data extract contained loan-level information on both the new endorsement characteristics and terminations due to prepayments, claims or other reasons. Although we have not audited this data source for accuracy, we have reviewed the integrity and consistency of the data supplied by FHA and believe it to be reasonable. Additionally, the information contained in this report may not correspond exactly with other published analyses that rely on FHA data compiled at a different time or obtained from other systems.

C. Impact of Economic Forecasts

The economic value of the Fund and its pattern of capital accumulation to FY 2013 depend on many factors. One of the most important factors is the nation's future economy during the remaining lifetime of FHA's books of business. We captured the most significant factors in the
U.S. economy affecting the performance of the loans insured by the MMI Fund through the use of the following variables in our models:

- 30-year home mortgage commitment rates
- Ten-year Treasury rate
- One-year Treasury rate
- Average growth rate of national house prices
- Dispersion of individual house price appreciation rates from the national average rate

The performance of FHA's books of business, measured by their economic value, is affected by changes in these economic variables. The base-case results in this report are based on Global Insight, Inc. forecasts as of June 2006 for interest rates and national average house price indices, the house price growth rate dispersion estimates published by OFHEO, and additional dispersion parameters estimated by our research team.

We considered four alternative scenarios to assess the strength of the MMI Fund in sustaining difficult market situations: 1) low house price appreciation for three consecutive years, 2) low house price appreciation combined with high interest rates for three consecutive years, 3) higher loss severity rates on insurance claim cases, and 4) the concentration of loans receiving downpayment assistance from non-profit organizations remains high. These four scenarios do not represent the full range of possible experiences, but provide variations from the base case that might reasonably be expected. They demonstrate the sensitivity of the analysis results to reasonably stressful variations in economic conditions and hence provide insights into the capability of the MMI Fund to withstand difficult economic environments. The results of these sensitivity analyses on the Fund's performance are presented in Exhibit ES-3.

Compared to the base case, the estimated FY 2006 economic values under alternative scenarios could further decrease by $2.497 billion, the estimated FY 2006 capital ratio could decrease by
0.78 percentage points to 6.04 percent, and the FY 2013 capital ratio could be reduced to 4.76 percent. These alternative scenario analyses suggest that the MMI Fund would continue to meet the NAHA mandated 2 percent capital ratio through FY 2013 even under these reasonably stressful economic environments.

Exhibit ES-3

Projected MMI Fund's Capital Ratio Under Alternative Economic Scenarios					
Fiscal Year	**Base Case**	**Price Growth Low House**	**Price Growth & High Low House Interest Rates**	**High Loss Rate**	**Concentration of Gift High Loans**
FY 2006 Economic Value (in $ Million)	$22,021	$19,524	$21,620	$20,962	$22,021
FY 2006 Capital Ratio	6.82%	6.04%	6.69%	6.49%	6.82%
FY 2013 Capital Ratio	6.73%	5.33%	4.76%	6.02%	5.88%

D. Decrease in Market Share

Similar to the FY 2005 experience, the total FHA originations of the FY 2006 book of business continued to decrease. In March 2006, HUD estimated that the FHA market share for FY 2006 would be only 3.81 percent, significantly lower than the 12 to 14 percent range in the late 1990s and early 2000s. The lower volume of the last few books of business caused the decrease in insurance in force for FY 2006, leading to a much higher capital ratio, reinforcing the capital adequacy of the Fund.

In response to the decreasing market share, the President proposed a reform plan to the Congress in his FY 2007 Budget. At the time this Review was prepared, the House of Representatives had passed the proposal but it has yet to be considered by the Senate. This Review is prepared with no adjustments for possible impacts from implementing the FHA reform proposal, should it be approved by the Senate.