Florida Hurricane Catastrophe Fund

Annual Report of Aggregate Net Probable Maximum Losses,
Financing Options, and Potential Assessments

February 2019

Table of Contents

	Page
Purpose and Scope	3
Introduction	3
Aggregate Net Probable Maximum Losses	4
Financing Options	6
Assessment Impact	8
Conclusion	8

The data contained in this report has not been audited. This report was prepared by Raymond James & Associates as financial advisor to the Florida Hurricane Catastrophe Fund.

Annual Report of Aggregate Net Probable Maximum Losses, Financing Options, and Potential Assessments

Purpose and Scope

Section 627.35191, Florida Statutes, enacted in 2013, requires the Florida Hurricane Catastrophe Fund (FHCF) to provide a report for the upcoming contract year to the Legislature and the Financial Services Commission regarding the aggregate net probable maximum losses, financing options, and potential assessments of the FHCF. More specifically:

> **627.35191 Required Reports.—**
> (1) By February 1 of each year, the Florida Hurricane Catastrophe Fund and Citizens Property Insurance Corporation shall each submit a report to the Legislature and the Financial Services Commission identifying their respective aggregate net probable maximum losses, financing options, and potential assessments. The report issued by the fund and the corporation must include their respective 50-year, 100-year, and 250-year probable maximum losses; analysis of all reasonable financing strategies for each such probable maximum loss, including the amount and term of debt instruments; specification of the percentage assessments that would be needed to support each of the financing strategies; and calculations of the aggregate assessment burden on Florida property and casualty policyholders for each of the probable maximum losses.

Introduction

The FHCF plays a significant role in the provision of property insurance coverage for Florida residents. Eleven years of minimal storm activity from 2006 to 2016 resulted in the FHCF accumulating sufficient reserves to prepare for future storms. For the upcoming 2019-2020 contract year the FHCF is in a strong financial position. As of the end of 2018, prior to payment and reserves for Hurricane Michael losses, the FHCF has an estimated fund balance of approximately $12.4 billion and the FHCF also has $1.65 billion available in pre-event bond proceeds from outstanding Series 2013A pre-event debt ($1.0 billion outstanding) and Series 2016A pre-event debt ($650 million outstanding) providing additional liquidity for 2019 and subsequent seasons. Nonetheless, the FHCF might still need to rely on emergency assessments and post-event bonding to pay claims if a storm or storms of sufficient magnitude impacted Florida. The analyses presented in this report summarize those resources and how the FHCF would apply them after an event.

Aggregate Net Probable Maximum Loss

The basic claims payment structure of the FHCF is as follows:

- Except for certain de minimis exemptions, all admitted insurers writing residential property insurance in Florida, including Citizens Property Insurance Corporation, are required by Section 215.555, Florida Statutes, to obtain FHCF reimbursement coverage.

- The FHCF reimburses each participating insurer for a portion of its hurricane losses under residential policies. All participating insurers, excluding Citizens Property Insurance Corporation ("Citizens") have the option of selecting a coverage percentage of 45%, 75%, or 90%. Citizens is statutorily required to select the 90% coverage percentage.

- An insurer's FHCF reimbursement coverage is triggered after it meets its retention (the functional equivalent of a deductible). As of December 31, 2018, for the contract year that began on June 1, 2018 and ends on May 31, 2019, the aggregate retention for all participating insurers is approximately $7.2 billion. Aggregate retention for the contract year beginning on June 1, 2019 is projected to be over $7.4 billion. Once an insurer's losses exceed its share of the aggregate industry retention, it triggers coverage. It is not a requirement that aggregate insurer losses exceed the aggregate industry retention prior to that insurer being eligible for FHCF reimbursement.

- The maximum obligation of the FHCF for a given contract year is specified by statute. The current maximum is $17 billion. Each participating insurer's reimbursement coverage is limited to its share of the $17 billion maximum obligation.

- A participating insurer's reimbursement premium, retention, and coverage limit are based on its total insured values by ZIP code as of June 30, which must be reported by each insurer annually by September 1 of each year.

- The claims-paying resources of the FHCF include:

  - Reimbursement premiums: cash available from current and past accumulation of reimbursement premiums and investment income. The fund balance is used before any of the other claims-paying resources are used. The FHCF collected over $1.1 billion in reimbursement premium and interest earnings, net of expenses and debt service, for the 2018-2019 contract year and the total preliminary fund balance as of December 31, 2018 was $12.4 billion, which includes estimated ultimate losses and loss reserves from Hurricane Irma of $3.75 billion. Ultimate losses and loss reserves are estimated to be $1.45 billion for Hurricane Michael. The FHCF is projected to collect over $1.3 billion in reimbursement premium and interest earnings, net of expenses and debt service, for the 2019-2020 contract year, which results in a total projected fund balance of $12.3 billion as of December 31, 2019.

- Proceeds from pre-event financing: the FHCF also has $1.65 billion in pre-event bond proceeds consisting of $1.0 billion of Series 2013A pre-event bonds and $650 million of Series 2016A pre-event bonds available for the 2019-2020 contract year.

- Proceeds from any post-event debt: post-event debt is repaid from emergency assessments on most Florida property and casualty premiums of both admitted and non-admitted lines of business (the exceptions are workers' compensation, medical malpractice, accident and health, and federal flood insurance). The maximum assessment percentage is 6% with respect to any one contract year's losses and 10% with respect to all contract years' losses combined. No such post-event debt is outstanding and therefore there are currently no assessments.

- Risk transfer: recoverables from reinsurance and other risk transfer products. The FHCF has purchased $1 billion of reinsurance for each of the last four seasons. No such risk transfer products are in place as of the date of this report for the 2019 season.

Table 1 on the following page shows the net probable maximum loss to the FHCF from storms of the return time specified. The loss calculations were derived from the FHCF 2018 Ratemaking Formula Report prepared by Paragon Strategic Solutions Inc., consulting actuary to the FHCF. The complete 2018 Ratemaking Formula Report can be found at http://fhcf.paragonbenfield.com/pdf/18ratereport.pdf

Table 1
($ in billions)

Return Time (Years)	Gross Probable Maximum Loss[1]	Maximum Net Losses to FHCF[2]	Adjusted Net Losses to FHCF[3]	Projected Year-End Fund Balance[4]	Potential Post-Event Bonding[5]
250	$74.50	$17.00	$16.74	$12.29	$4.45
100	49.88	17.00	15.56	12.29	3.27
50	33.34	16.41	12.69	12.29	0.40

Coverages	Amount
2019 Retention (Projected)	$7.42
FHCF Coverage	$17.00

[1] *Represents gross loss to all Florida residential policyholders from a storm of the indicated return time multiplied by 1.05 to allow for 5% loss adjustment expenses pursuant to Section 215.555(4)(b)1, FL Statutes.*

[2] *Based on the maximum statutory limit and the assumption that the FHCF operates as a single industry entity with a single industry retention and industry limit that apply to industry gross losses from total industry exposure. Adjusted loss information for 2019 is not available, and may be different from that shown as derived from the 2018 Ratemaking Formula Report.*

[3] *Based on the assumption that the total FHCF net losses is the sum of losses from approximately 165 individual companies, each with its own retention, limit and exposure distribution. Under this assumption it is unlikely for all insurers to trigger or exhaust the total of all FHCF coverage. Adjusted loss information for 2019 is not available, and may be different from that shown as derived from the 2018 Ratemaking Formula Report.*

[4] *FHCF fund balance is projected as of 12/31/19.*

[5] *Adjusted Net Losses to FHCF less Projected Year-End Fund Balance. Assumes the use of post-event financing, which is repaid with emergency assessments but does not contemplate any risk transfer for 2019-2020 contract year.*

Financing Options

The FHCF undertakes two basic types of financing: (1) pre-event financing to provide liquid funds to reimburse participating insurers in a timely manner; and (2) post-event financing designed to provide the ultimate source of payment of covered claims in excess of cash on hand and risk transfer, if any.

The FHCF has $1.65 billion of pre-event debt available for the 2019-2020 contract year consisting of $1.0 billion of Series 2013A pre-event bonds and $650 million of Series 2016A pre-event bonds. The proceeds of these pre-event financings are available to pay future claims. Pre-event interest expenses are designed to be paid primarily from the interest earnings on the invested proceeds of the pre-event bonds (which are retained pending their use to pay future claims) and from reimbursement premiums. There are no assessments associated with pre-event bonds of the FHCF. If the proceeds of pre-event bonds are ever used to pay claims, the FHCF can refinance such pre-event bonds using post-event bond proceeds secured by emergency assessments.

The FHCF has no post-event bonds outstanding. The FHCF defeased its outstanding post-event bonds issued to pay claims for 2005 events and therefore the associated assessments were also eliminated for all policies issued or renewed on or after January 1, 2015.

The FHCF has the statutory authority to amortize its debt over a term of up to 30 years. Given the magnitude of the losses summarized in Table 1 in the prior page, the FHCF could use this full term (or any shorter term) for any bonds associated with the financing of these losses. Current market and economic conditions are favorable; however, access to the market can at times be uncertain yet critical to understanding the challenges facing the FHCF, especially after a large event. As summarized in Table 2 below, bonding needs of this size are normal by municipal market standards.

Conditions in the municipal and corporate markets are favorable, having significantly improved in recent years. The corporate bond market has topped $1 trillion each year since 2010. In 2018, corporate bond issuance was $1.4 trillion, or 18% lower than the record $1.7 trillion issued in 2017 – increasing interest rates and 2018 tax law changes reduced corporate issuance volume for the first time since 2008. The municipal market has also been very strong over the last ten years. In 2018, municipal long-term issuance was $338 billion, which is significantly reduced as compared to $439 billion of issuance in 2017 due to 2018 changes in tax law regarding the elimination of advance refundings.

Table 2
($ in billions)

	Corporate Issuance		Municipal Issuance			
Year	Par ($B)	% Change from Prior Yr	New Money ($B)	Refunding ($B)	Total Par ($B)	% Change from Prior Yr
2009	$973	38%	$261	$149	$410	5%
2010	$1,083	11%	$279	$154	$433	6%
2011	$1,045	-4%	$150	$145	$295	-32%
2012	$1,387	33%	$149	$234	$383	30%
2013	$1,420	2%	$162	$174	$335	-12%
2014	$1,489	5%	$145	$194	$339	1%
2015	$1,513	2%	$151	$247	$399	18%
2016	$1,525	1%	$174	$272	$446	12%
2017	$1,660	9%	$204	$235	$439	-2%
2018	$1,364	-18%	$235	$104	$338	-23%

Source: SIFMA

The FHCF has some additional factors working in its favor independent of strong fixed income market trends, including, but not limited to: (1) in February 2016, the FHCF re-established itself in the market with the successful pricing of $1.2 billion of Series 2016A taxable pre-event bonds with 3 and 5-year maturities at a true interest cost of 2.52%; (2) the FHCF is a well-regarded, highly-rated credit (long-term ratings of AA/AA/Aa3 from Standard & Poor's, Fitch, and Moody's, respectively), closely associated with (though not guaranteed by) the State of Florida, which is a blue-chip name in the market; (3) similar to the outstanding pre-event financings, any post-event bond issuances of the size the FHCF may undertake would also be included in the various benchmark indices market observers use to track market performance, so institutional money managers seeking to at least match indexed returns may have a strong additional

incentive to buy FHCF bonds, particularly if they are offered at interest rates marginally higher than those typically associated with AA rated credits; and (4) the FHCF has no post-event bonds outstanding.

Although financial market conditions are currently very conducive to favorable debt issuance, it is not possible to guarantee future financial market conditions. If long-term bonding in sufficient amounts is not immediately available, the FHCF may need to explore alternatives, including issuing bonds in multiple tranches over time and/or interim financing alternatives. The FHCF statute provides that the FHCF's liability is limited to the amount it can actually raise from bonding and other available claims payment sources. The timing of reimbursements to insurers can vary depending on whether insurers need to pay their policyholders quickly, such as might occur with a category five hurricane causing a large number of total losses, or slowly due to a covered hurricane where large losses are due to many partial losses materializing over a number of years.

Assessment Impact

In certain situations involving large losses with rapid loss development the FHCF would probably finance based on the projected or actual dollar losses generated by the hurricane or hurricanes in order to finance its statutory limit, as shown in Table 1. These bonds would be repaid using emergency assessments.

Table 3 shows the estimated annual assessment impact from the varying hurricane loss scenarios.

Table 3
($ in millions)

Return Time (Years)	Potential Post-Event Bonding	Required Annual Assessment[1]	Required Annual Assessment (%)[2]
250	$4,449	$289	0.62%
100	3,272	213	0.45%
50	401	26	0.06%

[1] Assumes annual assessment for 30 years using an interest rate of 5%. There is no certainty that FHCF covered loss reimbursements can be financed at assumed interest rates. The amount which can be financed after an event could be financed over a shorter period of time or could be smaller and is subject to financial market conditions following the event.

[2] Assumes annual assessment base of $46.8 billion, which was the base for 2017. If this base is smaller or larger, required assessment percentages would be marginally higher or lower than shown above.

Conclusion

As a result of eleven consecutive years from 2006 to 2016 with no losses, the FHCF is in strong financial condition and with a projected fund balance for the 2019 season of $12.3 billion, or

approximately 72% of its maximum statutory limit of $17 billion. The FHCF's total liquid resources will be $13.9 billion, or approximately $3.1 billion below its maximum statutory limit of $17 billion, which includes the projected fund balance of $12.3 billion and $1.65 billion of pre-event bonds available for the 2019 season. The strong financial condition of the FHCF helps to bolster the Florida economy and reduces the potential assessment burden on Florida policyholders.

For catastrophic events requiring funds beyond cash and pre-event bond proceeds, the FHCF relies on post-event bonding and other revenue sources for claims paying capacity. For catastrophic losses, either from a single event or from multiple events, the FHCF will likely issue post-event bonds to pay claims and assess to repay the bonds. The maximum potential assessment burden for the 2019 season is $4.4 billion which would require a 0.62% emergency assessment if financed over 30 years. In the event bonding is required, conditions in the financial markets are strong. In addition, the FHCF can and may execute one or more post-event financings over a 12 month period in order to accommodate participating insurers that experience rapid loss development and exhaust their FHCF payout limits.

The ability of the FHCF to pay claims in a sufficient and timely manner is critical to the health of the Florida insurance market, property owners and residents, and the Florida economy in general. The FHCF is in a strong position to meet its statutory obligation for the 2019 season.