

**REPORT PREPARED FOR THE  
FLORIDA HURRICANE CATASTROPHE FUND**



**CLAIMS-PAYING CAPACITY ESTIMATES**

**MAY 26, 2022**

***ONCE FINALIZED, THE STATEMENT OF THE FHCF'S ESTIMATED BORROWING CAPACITY, ESTIMATED CLAIMS-PAYING CAPACITY, AND PROJECTED YEAR-END BALANCE REQUIRED UNDER S. 215.555(4)(c)2., F.S., WILL BE PUBLISHED IN THE FLORIDA ADMINISTRATIVE REGISTER AS REQUIRED BY LAW.***

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## I. Introduction

The Florida Hurricane Catastrophe Fund (“FHCF”) is a tax-exempt trust fund created by the State of Florida in 1993 and is administered by the State Board of Administration of Florida under Section 215.555, Florida Statutes. It was created to operate exclusively for the purpose of protecting and advancing the state’s interest in maintaining insurance capacity by providing contractually specified coverage that provides reimbursement for a portion of residential property insurers’ hurricane losses. Participation is mandatory for authorized property insurers, subject to limited exceptions.

Participating insurers pay the FHCF annual reimbursement premiums as consideration for this reimbursement coverage. The reimbursement premiums are based on insured values of covered properties, as reported annually to the FHCF. The FHCF statute requires the annual adoption of a reimbursement premium formula that generates “actuarially indicated” premiums as defined by law. An insurer’s premium is proportionate to its coverage selection at a percentage level and its share of the FHCF’s total risk exposure.

The annual reimbursement contract provides for reimbursement of a percentage of an insurer’s residential hurricane losses in excess of its “retention” which is determined under a statutory formula. Reimbursement is provided at one of three percentage levels (90%, 75%, or 45%) selected in advance by the insurer.

The FHCF may obtain funds to pay its contractual reimbursement obligations from the following available potential sources:

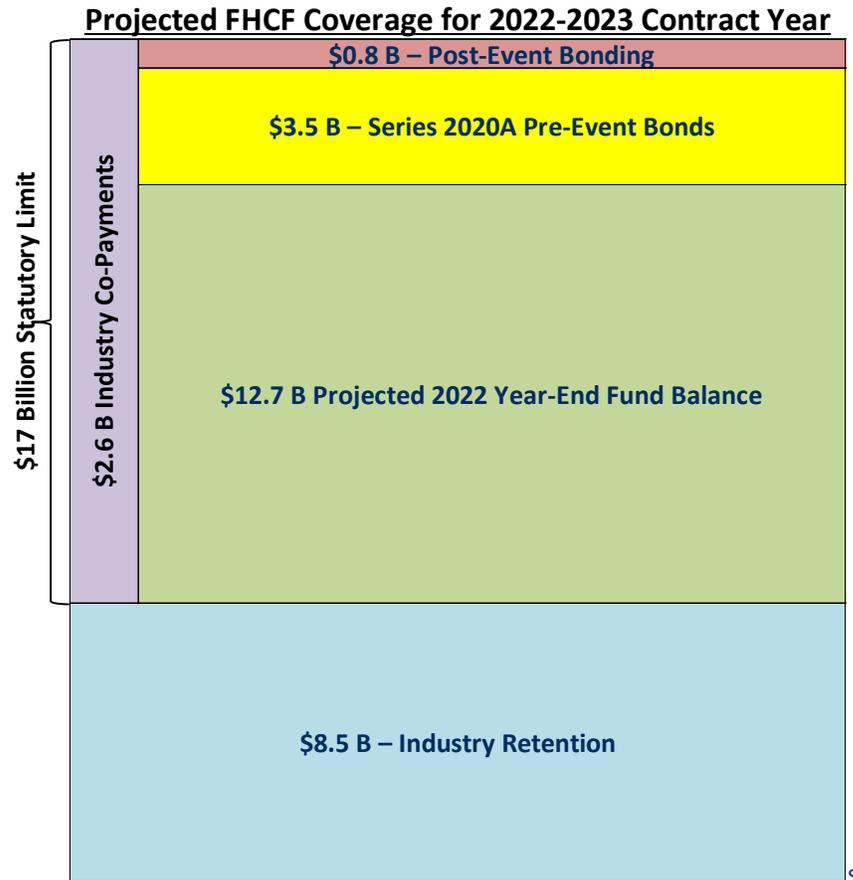
- (1) *Accumulated reimbursement premiums*
- (2) *Recoveries from reinsurance and other risk-transfer mechanisms, if any*
- (3) *Pre-event bond proceeds and other pre-event liquidity resources*
- (4) *Proceeds of post-event revenue bonds issued under Section 215.555(6), Florida Statutes, and secured by emergency assessments, if needed*
- (5) *Emergency assessments under Section 215.555(6)(b), Florida Statutes, if needed*
- (6) *Investment earnings on accumulated reimbursement premiums and emergency assessments*

The actual and potential obligations of the FHCF are limited by statute. For the contract year June 1, 2022 – May 31, 2023, the maximum potential liability of the FHCF is \$17 billion, with projected available total liquid resources of approximately \$16.2 billion, which is comprised of \$12.7 billion of projected year-end fund balance and \$3.5 billion of pre-event bond proceeds. The projected available total liquid



resources of \$16.2 billion is \$800 million below the maximum potential liability, which would therefore require additional financing. In addition, the FHCF statute limits the Fund’s reimbursement liability to its actual claims-paying capacity, which may depend on financial market conditions at the time of sale if any post-event revenue bonds are needed to pay claims.

The following chart summarizes the sources of funds for the FHCF’s projected coverage for the 2022-2023 Contract Year. The \$8.5 billion industry retention is the maximum loss amount retained by the industry below the FHCF coverage layer. The \$12.7 billion projected year-end 2022 fund balance is based on assumptions prepared by Paragon Strategic Solutions Inc. (Paragon), the FHCF’s consulting actuary and Raymond James, the FHCF’s financial advisor. The approximately \$2.6 billion industry co-payment amount is the maximum co-pay for the industry for losses in the FHCF coverage layer based on the projected industry overall coverage selection of 85.981%. The \$17 billion of FHCF coverage includes an allowance of 10% for loss adjustment expenses.



Numbers may not add due to rounding. Not drawn to scale

Historically, the FHCF has shown probabilities of ground up losses based on the impact of simulated industry losses on the FHCF as a whole, with a single industry retention, industry limit and industry coverage selection, and all exposures combined. This approach produces an accurate estimate of industry expected losses for the FHCF coverage layer. However, in actual practice, each participating insurer has its



own loss experience based on its own exposure, retention, limit, and FHCF coverage selection with its own unique probabilities of incurring FHCF layer losses. To more accurately estimate ground up losses and return times for different levels within the FHCF coverage layer, Paragon uses a detailed company approach which includes an additional analysis based on model results by ZIP code and type of business and each individual company retention, company limit, and coverage selection. The following table compares the return times and corresponding ground up losses from these two methods for selected FHCF layer loss levels. The FHCF layer loss includes an allowance of 10% for loss adjustment expenses.

Layer	FHCF Layer Loss (\$ in Billions)	Return Times (Years) for Aggregate FHCF Layer Liabilities Only <sup>1</sup>	Ground Up Losses for Aggregate FHCF Layer Liabilities Only (\$ in Billions) <sup>1</sup>	Return Times (Yrs) for Aggregate AIR and RMS Company Retention Limit Aggregate <sup>2</sup>	Ground Up Losses for Average AIR and RMS Company Retention Limit Aggregate (\$ in Billions) <sup>2</sup>
Maximum Statutory Limit	17.0	30	26.5	256	92.0
Pre-Event Bonds Exhausted	16.2	28	25.6	90	56.0
Project Fund Balance Exhausted	12.7	23	21.6	33	29.4
Hurricane Irma Level Event	7.8	17	16.6	18	19.1
\$5 Billion FHCF Layer	5.0	14	13.7	14	14.8
\$1 Billion FHCF Layer	1.0	10	9.6	8	7.5

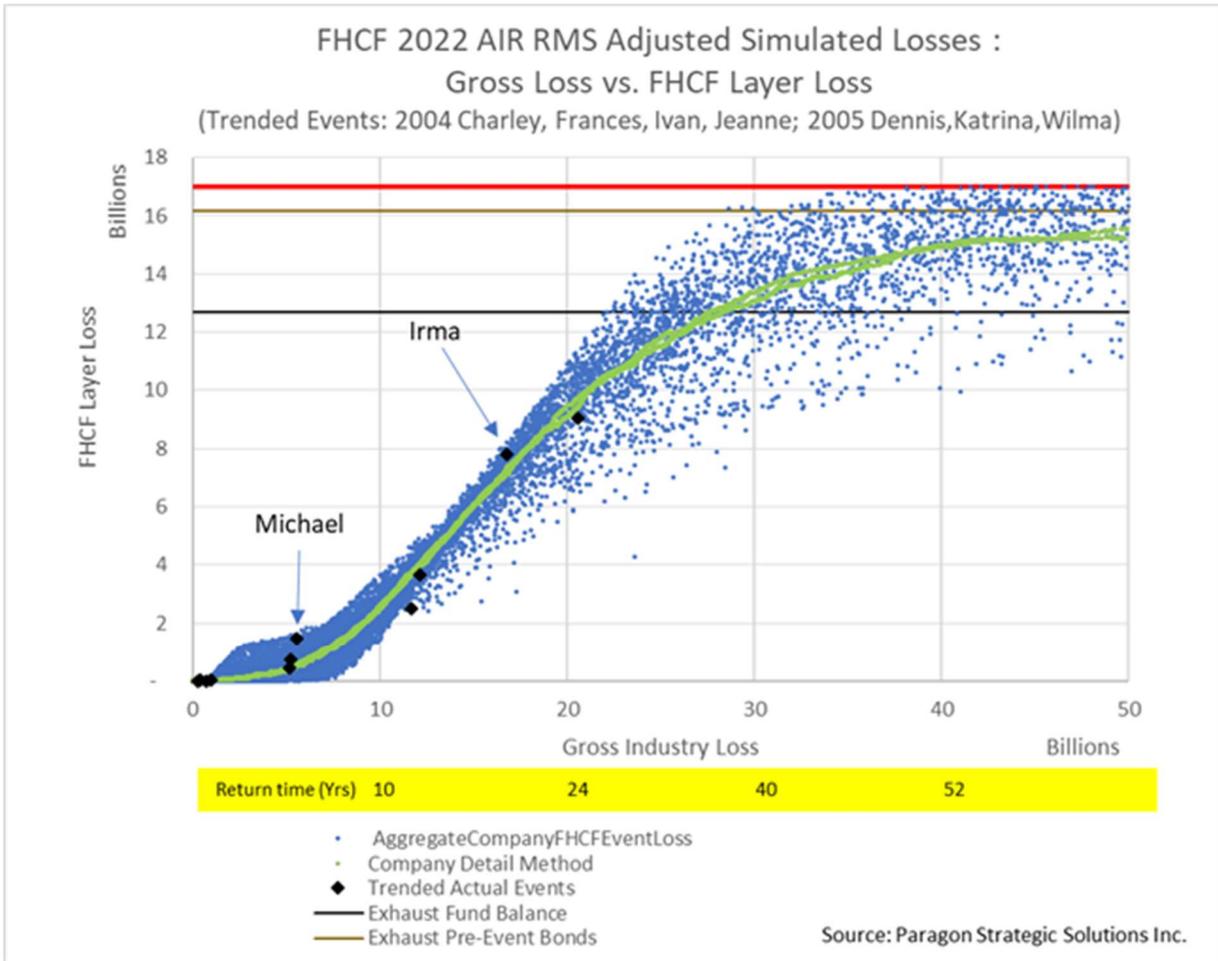
Source: Paragon Strategic Solutions

Return times and ground up losses are shown for illustrative purposes only.

<sup>1</sup> The relevant data is shown aggregated for 155 FHCF participating insurers and the return times are presented as if all of the participating insurers had uniform exposures, coverage selections and loss experiences.

<sup>2</sup> The relevant data is shown for the sum of the 155 participating insurers with each having its own retention and coverage limits based upon its projected market share exposures, and therefore each participating insurer has its own unique probabilities of triggering its FHCF coverage and reaching its FHCF coverage limit.

The chart on the following page shows gross losses versus detailed company FHCF layer losses, simulated events (blue dots) and trended actual events (black diamonds). Note there are many possible FHCF layer losses for each gross loss level. The green line is based on the average of the detailed company approach. The black line is set at the \$12.7 billion projected year-end fund balance. The brown line is the total liquidity level at \$16.2 billion and is the sum of the \$12.7 fund balance and the \$3.5 billion pre-event bonds. The red line is set at the \$17 billion total FHCF limit of liability. The FHCF has funds to cover an event (blue dots) below the funded black line and liquidity to cover an event below the brown line without immediate post-event bonding. Events above the brown line will require post-event bonding for a portion of their payments. For gross industry losses between \$12.5 billion and \$16.7 billion, the two methods generate similar average annual FHCF layer loss estimates.



Pursuant to Section 215.555(4)(c)(2), Florida Statutes, “in May and October of the contract year, the board shall publish in the Florida Administrative Register a statement of the fund’s estimated borrowing capacity, the fund’s estimated claims-paying capacity, and the projected balance of the fund as of December 31.” The purpose of these claims-paying capacity estimate reports is to provide an estimate of the borrowing and claims-paying capacity of the FHCF for the 2022-2023 Contract Year in order to assist the FHCF’s participating insurers in determining their reimbursements.

Providing estimates at these particular times of the year is useful from the perspective that some insurers operate in multiple states and tend to purchase their private reinsurance effective January 1<sup>st</sup>, while many other insurers operate solely in Florida and purchase their private reinsurance prior to June, effective June 1<sup>st</sup> of each year.



## II. The Process

As in prior years, in order to estimate the FHCF's borrowing capacity for the 2022 and 2023 seasons, we took the following three steps:

- (1) Evaluated market conditions for the FHCF using our internal resources. Raymond James & Associates, Inc. ("Raymond James"), a full service broker-dealer with approximately \$20 billion in market capitalization (RJF, [www.raymondjames.com](http://www.raymondjames.com)), serves as the independent financial advisor to the FHCF. Raymond James also serves as an independent advisor to numerous other governmental catastrophe insurance entities across the country and our experience includes the evaluation and placement of risk transfer programs in both traditional and capital markets, the issuance of pre-event bonds and other liquidity mechanisms, the issuance of post-event bonds, and serving as an investment consultant. We rank number one as financial advisor to state-sponsored public insurance entities and are among the top municipal underwriters in the country and participate daily in the market for fixed income securities similar to those the FHCF has issued or would issue to help meet its reimbursement obligations after an event and have served as independent advisor or underwriter on the issuance of over \$43 billion of debt and related financial instruments for the FHCF and other governmental catastrophe insurance entities around the country since 2005. Raymond James currently has approximately \$1.2 trillion of assets under management.
- (2) Solicited formal written feedback from the five current senior managing underwriters of the FHCF's financial services team. These firms – Bank of America, Citi, J.P. Morgan, Morgan Stanley and Wells Fargo – are among the largest financial services firms and municipal underwriters in the world, and each one has extensive experience and expertise with FHCF securities and similar instruments for other municipal issuers. They all were also part of the team for the successful execution of the FHCF's Series 2020A pre-event financing. In the solicitation for the preparation of this report, we asked them to provide their estimates, given certain assumptions, of the FHCF's bonding capacity. As always, in our written request for feedback, we sought to ensure that the underwriters had a clear understanding of the purpose of asking them to provide such estimates and the uses thereof. A copy of the solicitation and the response of each of the managers is contained in Appendix A.
- (3) We evaluated the written feedback and determined a recommended bonding capacity estimate for inclusion in this report.

Raymond James and the FHCF staff utilized the resources of the FHCF's five senior managing underwriters to estimate FHCF bonding capacity



**III. Analytical Considerations**

The FHCF has very strong debt repayment capabilities. From a credit standpoint, the ability to levy emergency assessments on all property and casualty insurance lines except workers' compensation, medical malpractice, federal flood, and accident and health lines is similar to a statewide sales tax on an essential product with an underlying premium base of \$63.3 billion<sup>1</sup>. The strength of this pledged revenue stream is the primary reason the three major rating agencies – Moody's, Standard & Poor's, and Fitch – rate the FHCF's current debt as Aa3, AA, and AA, respectively. To put these ratings in perspective, less than 5% of U.S. corporations have ratings in the "AA" category by all three rating agencies.

**The major constraint, if any in the future, for the FHCF in achieving its maximum reimbursement obligation is potential limitation of market access and capacity, not a lack of assessment capability or credit strength**

While the FHCF statute does limit the amount of assessments that can be levied – 6% for losses attributable to one contract year and 10% for losses attributable to all years – these percentages, when applied to the current assessment base of \$63.3 billion, mean the FHCF could levy annual assessments of as much as \$3.80 billion for losses from hurricanes occurring in one contract year and as much as \$6.33 billion for losses from hurricanes occurring over all contract years. These annual amounts, in conjunction with the other available resources of the FHCF, are estimated to be more than sufficient to support enough bonds to enable the FHCF to meet its maximum initial season obligation and subsequent season coverage as well, assuming that the fixed income markets continue to function in a normal manner and the FHCF has market access to issue such bonds at the current market rates for the initial season, or even at inflated rates of 5% for the initial season and 7% for the subsequent season.

The FHCF was able to successfully execute the Series 2020A taxable pre-event financing in September 2020. The Series 2020A financing had a preliminary transaction size of \$2.25 billion with \$750 million maturities in five, seven and ten years. Based on significant investor demand even at significantly low interest rates, the FHCF was able to upsize the transaction to \$3.5 billion while maintaining initial pricing levels with a low true interest cost of 1.842%. Based on stronger investor demand for the 5-year and 10-year maturities relative to the 7-year maturity at the time of sale, the 5-year and 10-year maturities were upsized to \$1.25 billion each while the 7-year maturity was upsized to \$1 billion. The Series 2020A financing had strong investor demand with over 100 investors participating in the transaction, placing approximately \$6.4 billion of orders. The Series 2020A transaction re-established the FHCF in the municipal bond marketplace and illustrated the significant amount of investor demand that exists in the taxable municipal market for a strong credit like the FHCF.

<sup>1</sup> See Appendix B for an analysis of the size and growth of the FHCF's assessment base over time.



Financial market conditions remain volatile due to the lingering effects of COVID-19, Russia’s invasion of Ukraine, the ongoing energy crisis, supply shocks, and inflation. U.S. and global interest rates have risen significantly as the Federal Reserve has raised its target rate by 0.75% since March 2022. As a result of volatility in the marketplace and rising interest rates, fixed rate issuance is lower relative to recent years. Market access can never be guaranteed, especially after an event or multiple events either in Florida or globally. Therefore, it is critical to understand the potential challenges the FHCF may face after a large event.

Under section 215.555(4)(b)2, Florida Statutes, an insurer is prohibited from electing a lower coverage percentage upon renewal of its FHCF reimbursement contract if any post-event revenue bonds are outstanding. Pricing conditions in the global reinsurance markets also affect the participating insurers’ coverage percentage selections. Hardening market conditions in the global reinsurance markets, especially in the Florida marketplace, began in 2021 and have continued in 2022. The hardening pricing conditions in the Florida risk transfer market have been exacerbated due to continuous Florida litigation problems and further capital constraints for reinsurers and rapid increase in interest rates, which has resulted in FHCF participation coverage for 2022 of approximately 86.0%.

For the 2022-2023 Contract Year, the FHCF has approximately \$16.2 billion of liquidity resources, which is approximately \$800 million below its maximum statutory obligation of \$17 billion. After an event and depending on market conditions and interest rates, the FHCF may be able to either draw on its pre-event bond proceeds and repay the pre-event bonds by issuing post-event bonds, or the FHCF could issue post-event bonds in the amount of approximately \$4.3 billion and preserve its \$3.5 billion Series 2020A pre-event bond proceeds for subsequent seasons. The table below shows the FHCF’s obligations and its projected liquidity resources for the 2022-2023 Contract Year.

<b>FHCF Obligations and Liquidity Resources – 2022-2023 Contract Year</b>	<b>Amount (\$B)</b>
<b>Total Potential FHCF Obligations</b>	<b>\$17.0</b>
<b>Projected 2022 Year-End Fund Balance</b>	<b>\$12.7</b>
<b>Series 2020A Pre-Event Bonds Balance</b>	<b>\$3.5</b>
<b>Total Liquidity Resources</b>	<b>\$16.2</b>
<b>Total Liquidity Resources Below Potential Obligations</b>	<b>\$0.8</b>

*Numbers may not add due to rounding.*

The FHCF’s 2022-2023 Contract Year liquidity resources are adjusted for paid losses and loss reserves in the total amount of \$9.25 billion for Hurricanes Irma and Michael. At this time, the FHCF’s projected ultimate incurred loss estimates by Paragon are \$7.80 billion from Hurricane Irma and \$1.45 billion from Hurricane Michael.

If the FHCF were to leave all of its \$3.5 billion Series 2020A pre-event bond proceeds outstanding, the potential maximum amount of post-event bonding needed is projected to be approximately \$4.3 billion



for the 2022-2023 Contract Year. As shown in the next two charts, only one single issuance has been greater than \$4.3 billion since 2019. After a hurricane event, the FHCF most likely will not need to do one single large financing. Based on a higher attachment point and the past payout patterns, the FHCF most likely will meet its 2022-2023 statutory obligation by issuing more than one series of bonds over a period of 12 months or longer, if needed. Accordingly, it is helpful to evaluate which issuers in the municipal market (both taxable and tax-exempt) have issued the most debt over a 12-month period. The charts on page 10 show that the cumulative amount issued by a single issuer in a calendar year has exceeded the required \$4.3 billion sixteen times since 2019.

Largest 25 Taxable Municipal Issuances By Par Amount Since 2019					
Rank	Issuer Name	State	Year of Sale	Issue Description	Par (\$MM)
1	<b>Florida St Board Admin Fin Corp</b>	<b>FL</b>	<b>2020</b>	<b>Revenue Bonds</b>	<b>\$3,500</b>
2	Golden State Tobacco Sec Corp	CA	2021	Series 2021 A-1&B-1	\$2,800
3	Regents of the University of Michigan	MI	2022	Series 2022A	\$2,000
4	Regents of the University of Michigan	MI	2022	Series 2022B	\$2,000
5	Hawaii	HI	2021	Series of 2021 GD-J	\$1,883
6	Golden State Tobacco Sec Corp	CA	2021	Series 2021 B	\$1,840
7	NYS Dorm Authority	NY	2021	Series 2021 C	\$1,826
8	Regents of the Univ of California	CA	2020	General Revenue Bonds	\$1,823
9	Regents of the Univ of California	CA	2020	Medical Center Pooled Rev Bonds	\$1,800
10	Los Angeles Comm College Dt	CA	2020	GO Refunding Bonds	\$1,794
11	California State Univ Trustees	CA	2021	Series 2021 B	\$1,664
12	Grand Parkway Transport Corp	TX	2020	Sub Tier Toll Revenue Ref Bonds	\$1,514
13	New York City-New York	NY	2020	General Obligation Bonds	\$1,500
14	Alabama Fed Aid Highway Fin Auth	AL	2021	Series 2021 B	\$1,496
15	NYS Dorm Authority	NY	2019	State Personal Inc Tax Rev Bonds	\$1,392
16	Texas Transportation Commission	TX	2020	GO Mobility Fund Ref Bonds	\$1,271
17	Dallas & Fort Worth Cities-Texas	TX	2020	Joint Revenue Refunding Bonds	\$1,194
18	Dallas & Fort Worth Cities-Texas	TX	2022	Series 2022 A	\$1,188
19	Dallas & Fort Worth Cities-Texas	TX	2019	Joint Revenue Refunding Bonds	\$1,167
20	California	CA	2019	Various Purpose GO Bonds	\$1,138
21	Regents of the University of California	CA	2022	2022 Series Q	\$1,100
21	Port Authority of NY & NJ	NY	2020	Consolidated Notes	\$1,100
22	Massachusetts School Bldg Auth	MA	2020	Sr Dedicated Sales Tax Bonds	\$1,095
23	Michigan Finance Authority	MI	2019	Hospital Revenue Refunding Bonds	\$1,091
24	Regents of the Univ of California	CA	2021	General Revenue Bonds	\$1,089
25	Pennsylvania State University	PA	2020	Revenue Bonds	\$1,065

Source: Thomson Financial for long-term negotiated taxable issuances from January 1, 2019 to April 30, 2022.



Largest 25 Tax-Exempt Municipal Issuances By Par Amount Since 2019					
Rank	Issuer Name	State	Year of Sale	Issue Description	Par (\$MM)
1	Buckeye Tobacco Settle Fin Au	OH	2020	Tobacco Settle Asset-Backed Bonds	\$4,924
2	New Jersey	NJ	2020	GO Emergency Bonds	\$3,672
3	Metropolitan Transport Auth (MTA)	NY	2020	Payroll Mobility Tax BANs	\$2,907
4	California	CA	2020	Various Purpose GO Bonds	\$2,631
5	California	CA	2020	Various Purpose GO & Ref Bonds	\$2,631
6	NYS Dorm Authority	NY	2020	State Personal Income Tx Rev Bond	\$2,434
7	NYS Dorm Authority	NY	2022	Series 2022A	\$2,422
8	California	CA	2019	Various Purpose GO Bonds	\$2,405
9	California	CA	2019	Various Purpose GO Ref Bonds	\$2,292
10	California	CA	2022		\$2,229
11	NYS Urban Development Corp	NY	2020	State Personal Inc Tax Rev Bonds	\$2,225
12	NYS Dorm Authority	NY	2021	Series 2021E	\$2,153
13	California	CA	2020	Various Purp GO & Ref Bonds	\$2,096
14	California	CA	2021		\$2,095
15	California	CA	2019	Various Purpose GO & Ref Bonds	\$2,024
16	NYS Dorm Authority	NY	2019	State Personal Inc Tax Rev Bonds	\$2,013
17	NYS Thruway Authority	NY	2021	Series 2021 A-1	\$1,901
18	Regents of the University of California	CA	2022	2022 Series Q	\$1,900
19	District of Columbia	DC	2019	Income Tax Secured Rev Ref Bonds	\$1,886
20	NYS Dorm Authority	NY	2021	State Personal Inc Tax Rev Bonds	\$1,871
21	California	CA	2021	GO Various Purpose Bonds	\$1,842
22	Colorado Health Facilities Auth	CO	2019	Revenue Bonds	\$1,761
23	NYS Thruway Authority	NY	2019	Gen Rev Jr Indebtedness Oblig	\$1,693
24	San Francisco City & Co Airport Comm	CA	2019	Revenue Bonds	\$1,675
25	Florida Development Fin Corp	FL	2019	Surface Transpo Fac Rev Bonds	\$1,500

Source: Thomson Financial for long-term negotiated tax-exempt issuances from January 1, 2019 to April 30, 2022.

Largest 25 Issuers By Issued Par Amount 2019		
Rank	Issuer Name	Par (\$MM)
<b>1</b>	<b>California</b>	<b>\$9,489</b>
2	NYS Dorm Authority	\$8,915
3	NYC Transitional Finance Auth	\$4,350
4	Metropolitan Transport Auth (MTA)	\$4,246
5	Colorado Health Facilities Auth	\$4,133
6	Massachusetts	\$4,019
7	Michigan Finance Authority	\$3,479
8	New York City-New York	\$3,474
9	New Jersey Trans Trust Fund Au	\$3,316
10	Empire State Development Corp	\$3,217
11	District of Columbia	\$3,157
12	San Francisco City & Co Airport Comm	\$3,078
13	NYC Municipal Water Fin Auth	\$2,938
14	Florida Development Fin Corp	\$2,849
15	Miami-Dade Co-Florida	\$2,711
16	NYS Thruway Authority	\$2,551
17	Connecticut	\$2,414
18	Port Authority of NY & NJ	\$2,401
19	Metro Washington Airports Auth	\$2,176
20	Washington	\$2,135
21	Wisconsin Public Finance Auth	\$2,106
22	Broward Co-Florida	\$2,068
23	Main Street Natural Gas Inc	\$2,003
24	Indiana Finance Authority	\$1,899
25	Texas PAB Surface Trans Corp	\$1,857

Largest 25 Issuers By Issued Par Amount 2020		
Rank	Issuer Name	Par (\$MM)
<b>1</b>	<b>Metropolitan Transport Auth (MTA)</b>	<b>\$9,253</b>
2	NYS Dorm Authority	\$8,920
3	California	\$7,473
4	Texas	\$7,362
5	New York City-New York	\$6,592
6	Buckeye Tobacco Settle Fin Au	\$5,352
7	Massachusetts	\$5,214
8	NYC Transitional Finance Auth	\$5,072
9	Regents of the Univ of California	\$4,599
10	NYS Urban Development Corp	\$4,078
11	New Jersey	\$3,997
12	Hawaii	\$3,592
<b>13</b>	<b>Florida St Board Admin Fin Corp</b>	<b>\$3,500</b>
14	NYC Municipal Water Fin Auth	\$3,154
15	New York Transportation Dev Corp	\$3,124
16	Texas Transportation Commission	\$3,090
17	Massachusetts Dev Finance Agcy	\$3,028
18	Miami-Dade Co-Florida	\$2,973
19	Illinois	\$2,790
20	District of Columbia	\$2,680
21	Pennsylvania State University	\$2,600
22	Connecticut	\$2,550
23	Los Angeles USD	\$2,330
24	Wisconsin	\$2,319
25	Grand Parkway Transport Corp	\$2,307



Largest 25 Issuers By Issued Par Amount 2021		
Rank	Issuer Name	Par (\$MM)
1	<b>NYS Dorm Authority</b>	<b>\$7,863</b>
2	California	\$6,886
3	Golden State Tobacco Sec Corp	\$6,462
4	NYC Transitional Finance Auth	\$5,494
5	CSCDA Community Imp Auth	\$4,140
6	Connecticut	\$3,321
7	Triborough Bridge & Tunnel Auth	\$3,054
8	NYC Housing Dev Corp	\$2,981
9	Regents of the Univ of California	\$2,923
10	NYC Municipal Water Fin Auth	\$2,870
11	Wisconsin Public Finance Auth	\$2,729
12	Washington	\$2,661
13	Massachusetts	\$2,550
14	NYS Thruway Authority	\$2,504
15	Ohio	\$2,458
16	Empire State Development Corp	\$2,403
17	Miami-Dade Co-Florida	\$2,348
18	Indiana Finance Authority	\$2,310
19	New York City-New York	\$2,300
20	Pennsylvania Turnpike Commission	\$2,299
21	Black Belt Energy Gas Dt	\$2,288
22	Illinois	\$2,151
23	Port Authority of NY & NJ	\$2,119
24	Nashville-Davidson Co Metro Govt	\$2,084
25	California Housing Finance Agcy	\$2,046

Largest 25 Issuers By Issued Par Amount 2022 YTD		
Rank	Issuer Name	Par (\$MM)
1	<b>NYC Transitional Finance Auth</b>	<b>\$3,470</b>
2	NYS Dorm Authority	\$3,454
3	Regents of the University of California	\$3,000
4	Regents of the University of Michigan	\$2,469
5	Virginia Small Business Fin Auth	\$2,349
6	California	\$2,229
7	Washington	\$2,096
8	Triborough Bridge & Tunnel Auth	\$1,593
9	Los Angeles Dept of Airports	\$1,521
10	NYC Municipal Water Fin Auth	\$1,379
11	New York Transportation Dev Corp	\$1,324
12	SC Pub Svc Au (Santee Cooper)	\$1,283
13	Iowa Finance Authority	\$1,242
14	Los Angeles Dept Wtr & Pwr (LADWP)	\$1,230
15	Dallas & Fort Worth Cities-Texas	\$1,188
16	Main Street Natural Gas Inc	\$1,165
17	California Health Facs Fin Auth	\$1,050
18	Black Belt Energy Gas Dt	\$1,016
19	Wisconsin Public Finance Auth	\$1,008
20	Louisiana	\$969
21	New York City-New York	\$956
22	Matching Fund Sec Corp (VI)	\$953
23	Florida Development Fin Corp	\$884
24	San Antonio City-Texas	\$883
25	Chicago City BOE	\$872

Source: Thomson Financial for long-term issuances from January 1, 2019 to April 30, 2022.

In reviewing this history of large municipal issuers, however, it is important to note that the FHCF has been a relatively infrequent but large issuer of debt. Since 2006, the FHCF has completed eight bond issues totaling \$15.6 billion (three tax-exempt issues totaling \$2.6 billion and five taxable issues totaling \$13.0 billion), of which \$3.5 billion is outstanding. By comparison, for example, since 2019, the State of California has completed 34 long-term bond issues totaling over \$26 billion, the New York State Dormitory Authority has completed 100 long-term bond issues totaling approximately \$26 billion, the New York City Transitional Finance Authority has completed 59 long-term bond issues totaling over \$18 billion, and the Commonwealth of Massachusetts has completed 35 long-term bond issues totaling approximately \$11 billion. The FHCF's debt has always been issued with relatively short maturities ranging from 1-10 years (although it has the authority to issue debt with maturities of up to 30 years). All of the issuers listed above have had final maturities of 30 years or more. Interest rates are still relatively low from a historical perspective, however, investor demand is waning because of market volatility and a possible impending recession.

Analysis of potential market acceptance of large amounts of FHCF debt must include not only relevant historical references, but also an evaluation of current market conditions and cash flow needs.

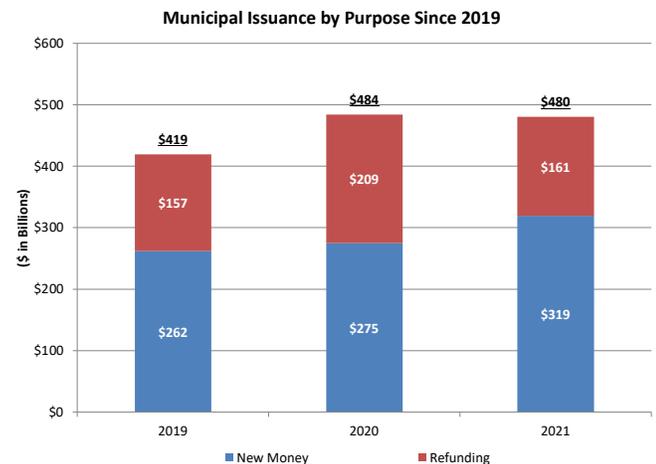
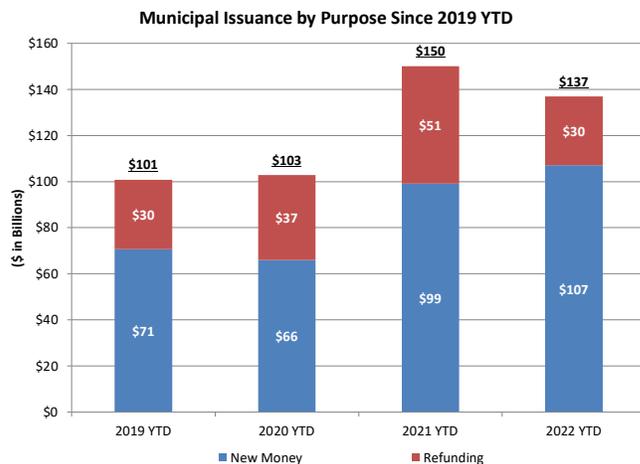


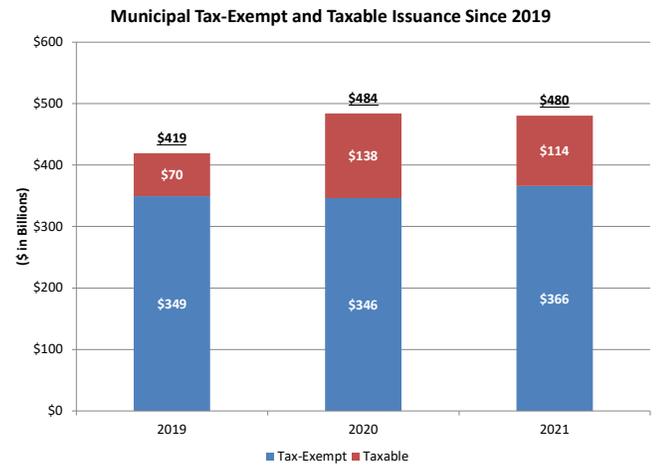
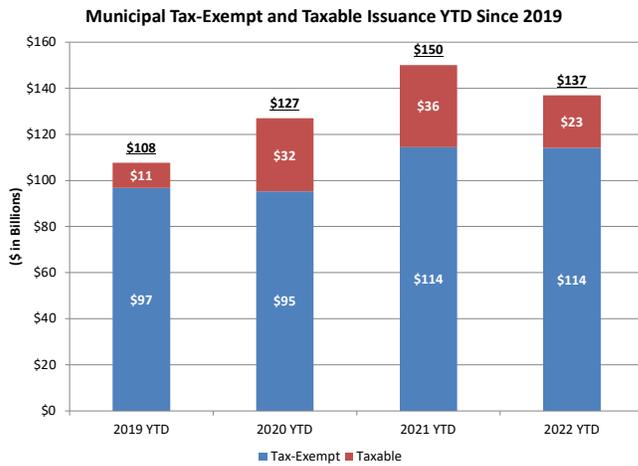
Market conditions in both tax-exempt and taxable municipal markets, as well as in the corporate market, remain volatile.

In 2021, corporate issuance was \$2.0 trillion (\$1.5 trillion investment grade, \$485 billion high yield, and \$400 million convertible), which was lower than 2020 issuance of \$2.3 trillion (\$1.9 trillion investment grade, \$424 billion high yield, and \$1.8 billion convertible). Through April 30, 2022, corporate bond issuance is at \$623 billion (\$562 billion investment grade, \$61 billion high yield, and \$500 million convertible), or 21% lower than the \$784 billion issued over the same time period in 2021. The corporate bond market has topped \$1 trillion each year since 2011 as interest rates have been consistently historically low, and we expect 2022 issuance to be moderately lower than in prior years with issuance closer to \$1.7 trillion.

While corporate bond issuance has reached record levels since 2011, most issuances are for liquidity and financial engineering rather than to build manufacturing plants or infrastructure to fund growth – i.e., more issuances are to fund mergers and acquisitions, build additional reserves, stock buybacks, and refinance higher yielding debt with lower interest rates, which include Discovery’s \$30 billion investment-grade deal to finance its merger with WarnerMedia, Bank of America’s \$15 billion issuance, and JPMorgan’s \$13 billion issuance.

For 2021, municipal long-term issuance was relatively flat compared to 2020 with \$480 billion of issuance. For year-to-date 2022, municipal long-term issuance is \$137 billion and is 9% lower compared to the \$150 billion issued over the same time period in 2021.





Source: Thomson Financial for municipal long-term issuances from January 1, 2019 to April 30, 2022.

While market conditions remain volatile, the fixed income markets remain moderately strong. Additionally, the FHCF has multiple factors working in its favor, including, but not limited to: (1) the FHCF is a well-regarded, highly-rated credit (AA category), closely associated with (though not guaranteed by) the State of Florida, a blue-chip name in the market; (2) in September 2020, the FHCF successfully priced \$3.5 billion of Series 2020A taxable pre-event bonds with a 10-year final maturity at a true interest cost of 1.842%, which re-established the strength of the FHCF credit in the taxable market; (3) sufficient demand in the current market environment for taxable issuances and (4) similar to its pre-event financings, any post-event bond issuances of the size the FHCF may need to 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 usually associated with typical “AA” rated credits.

Estimating the FHCF’s post-event bonding capacity is an inexact science. To do so requires a consideration of the factors above, an extrapolation about what market conditions might exist after single or multiple hurricanes of various sizes, and an evaluation of the many subjective and substantive considerations surrounding these estimates and the uses thereof. Certainty is not a defining characteristic of an exercise like this; nor can the results be responsibly guaranteed. Nevertheless, with the proper experience, market perspective and analysis, we can make estimates suitable for the FHCF’s requirements – conservative estimates, not guaranteed to be accurate, but responsibly determined using the best available sources.

One additional note of caution is that financial markets and risk transfer markets can be highly volatile and uncertain at various times. Such uncertainty may create an additional risk for participating insurers who rely on the FHCF for reimbursements. Currently, financial market conditions are volatile but we expect the markets to stabilize with a correction to interest rate levels. Nonetheless, it is never possible



to guarantee financial market conditions for very large issuances or into the future for long-term sustainability of the FHCF. The FHCF’s estimated post-event borrowing capacity is subjective and depends heavily on the opinions of its five senior managing underwriters and our evaluation and analysis of their responses to our questions. As such, participating insurers should recognize the potential impact that financial markets can have on the FHCF’s claims-paying ability for subsequent seasons. The following pages provide current bonding and claims-paying capacity estimates.



#### IV. Bonding and Claims-Paying Capacity Estimates

To estimate the FHCF's bonding capacity, we used the general process described in Section II and detailed in Appendix A. As always, the specific wording of the capacity question we asked the FHCF's senior managing underwriters remains unchanged:

**The preliminary estimated bonding capacity of the FHCF for the current contract year is \$8.0 billion**

*"Please provide us with your firm's opinion on the potential tax-exempt and/or taxable post-event market capacity over the next 0-12 and 12-24 months at rates that are at or above the current "market" scale, as needed."*<sup>2</sup>

We considered all data elements, and based on cash flow requirement projections from Paragon, guidance from FHCF staff about potential payout timing, and a desire for prudence, we continue to use the capacity estimates for the first 12 months in formulating the bonding capacity estimate for the initial season.

In general, it would take a hurricane event resulting in ground-up losses exceeding approximately \$25.6 billion based on the detailed company approach to exhaust the FHCF's projected liquid resources of approximately \$16.2 billion, which is \$800 million below its potential maximum obligation of \$17.0 billion. The amount of debt that the FHCF can raise within the first twelve months is helpful for the FHCF and participating insurers in protecting their financial solvency.

We are also comfortable including estimates that contain some above-market interest rate capacity in recognition of market volatility and the fact that the FHCF has ample assessment capability within its statutory limits to support the issuance of bonds, even at significantly higher rates. For purposes of calculating the potential assessment impact of the FHCF's bonding needs, we have calculated the assessment rate assuming the FHCF post-event bonds carry interest rates at an "above market" interest rate of 5% for the initial season and 7% for the subsequent season. There is also some overlap between tax-exempt and taxable capacity estimates and therefore the total capacity available will be marginally less than the sum of the tax-exempt and taxable capacity individually. A summary of the senior managers' responses is shown in the table on the following page:

<sup>2</sup> The complete information request and all responses are included in Appendix A.



FHCF Post-Event Estimated Bonding Capacity						
	Bank of America	Citi	J.P. Morgan	Morgan Stanley	Wells Fargo	Average <sup>1</sup>
<b>Bonding Estimates</b>						
<b>Tax-Exempt:</b>						
0-12 Months	\$1.5-\$2B	\$2-\$3B	\$5-\$6B	\$2-\$3B	\$3-\$4B	\$3.2B
12-24 Months	\$2-\$3B	\$2-\$3B	\$5-\$6B	\$4-\$5B	\$2-\$3B	\$3.5B
<i>Total tax-exempt</i>	<i>\$3.5-\$5B</i>	<i>\$4-\$6B</i>	<i>\$10-\$12B</i>	<i>\$6-\$8B</i>	<i>\$5-\$7B</i>	<i>\$6.7B</i>
<b>Taxable:</b>						
0-12 Months	\$3-\$5B	\$3.5-\$4.5B	\$6-\$7B	\$5-\$7B	\$3-\$4B	\$4.8B
12-24 Months	\$3-\$5B	\$3-\$4B	\$6-\$7B	\$8-\$12B	\$2-\$3B	\$5.3B
<i>Total taxable</i>	<i>\$6-\$10B</i>	<i>\$6.5-\$8.5B</i>	<i>\$12-\$14B</i>	<i>\$13-\$19B</i>	<i>\$5-\$7B</i>	<i>\$10.1B</i>
<b>Tax-Exempt and Taxable</b>						
<b>0-12 Months Total</b>	<b>\$4.5-\$7B</b>	<b>\$5.5-\$7.5B</b>	<b>\$11-\$13B</b>	<b>\$7-\$10B</b>	<b>\$6-\$8B</b>	<b>\$8.0B</b>
<b>12-24 Months Total</b>	<b>\$5-\$8B</b>	<b>\$5-\$7B</b>	<b>\$11-\$13B</b>	<b>\$12-\$17B</b>	<b>\$4-\$6B</b>	<b>\$8.8B</b>
<b>0-24 Months Total</b>	<b>\$9.5-\$15B</b>	<b>\$10.5-\$14.5B</b>	<b>\$22-\$26B</b>	<b>\$19-\$27B</b>	<b>\$10-\$14B</b>	<b>\$16.8B</b>

<sup>1</sup> Averages are rounded to the nearest hundred million dollars

Even under the current volatile market conditions, we still believe that using only the 0-12 months number to compute an average is a prudent approach to estimating bonding capacity for the initial season. Using this methodology yields an estimated bonding capacity of approximately \$8.0 billion and this capacity is significantly above what would be needed to meet the FHCF’s potential obligations for the initial season if it were to leave its already issued pre-event bond proceeds outstanding, even if one conservatively expects that the FHCF payout after an event will need to occur within the first twelve months. However, when considering the larger picture of the FHCF’s ability to pay additional claims for a subsequent season, the FHCF’s bonding capacity beyond 0-12 months is also an important factor. Each of the senior managers believes that the FHCF would have significant additional capacity in the period 12-24 months after an event<sup>3</sup>. This additional capacity could be used to fund a portion of the amount potentially needed for the 2023-2024 Contract Year or subsequent season losses, in the approximate amounts as shown on the following pages.

### Estimated Claims-Paying Capacity

Estimated claims-paying capacity of the FHCF is equal to the sum of the projected year-end fund balance plus risk transfer, if any, and any other potential financing resources, such as bank loans, and the estimated bonding capacity. The FHCF projects that its year-end fund balance for the 2022-2023 Contract Year is approximately \$12.7 billion and it has an estimated bonding capacity of \$8.0 billion (includes repayment of pre-event bond proceeds in the amount of \$3.5 billion), which equals a total estimated claims-paying capacity of \$20.7 billion, or \$3.7 billion above its statutory limit of \$17.0 billion.

The subsequent season may have some remaining unused bonding capacity from the initial season, but for purposes of this analysis we assume the available initial season bonding capacity in the amount of \$8.0 billion is also available for the subsequent or 2023-2024 Contract Year. For any remaining losses

<sup>3</sup> The longer the time frame for estimation purposes, the greater the degree of uncertainty.



beyond the FHCF’s estimated claims-paying capacity for the 2023-2024 Contract Year, the FHCF may have additional 12-24 month bonding capacity of up to \$8.8 billion available.

(\$ in Billions, Totals may not add due to rounding)	2022-2023 Contract Year	2023-2024 Contract Year
<b>FHCF Potential Coverage Obligation</b>		
FHCF Coverage Obligation (A)	\$17.0	\$17.0
<b>FHCF Estimated Funding Sources Available</b>		
Projected FHCF Year-End Fund Balance (B)	\$12.7	\$1.4
Risk Transfer (C)	\$0.0	\$0.0
Pre-Event Bond Proceeds Available <sup>1</sup> (D)	\$3.5	\$3.5
<b>Total Liquid Resources Available (B + C + D) = (E)</b>	<b>\$16.2</b>	<b>\$4.9</b>
<b>Additional Funds / Potential Borrowing Need (E - A) = (F)</b>	<b>(\$0.8)</b>	<b>(\$12.1)</b>
<b>FHCF Claims-Paying Capacity</b>		
Projected FHCF Year-End Fund Balance (B)	\$12.7	\$1.4
Risk Transfer (C)	\$0.0	\$0.0
Estimated FHCF Borrowing Capacity <sup>1</sup> (G)	\$8.0	\$8.0
<b>Total Estimated Claims-Paying Capacity (B + C + G) = (H)</b>	<b>\$20.7</b>	<b>\$9.4</b>
<b>Total Estimated Claims-Paying Capacity as a % of FHCF Coverage Obligation (H / A) = (I)</b>	<b>122%</b>	<b>55%</b>
<b>Amount Above / (Below) Coverage Obligation (H - A) = (J)</b>	<b>\$3.7</b>	<b>(\$7.6)</b>

Totals may not add due to rounding.

<sup>1</sup> Estimated borrowing capacity is inclusive of any repayment of pre-event bond proceeds. Pre-event bonds are available as a liquidity resource for the 2022-2023 Contract Year in the amount of \$3.5 billion, but we are assuming no pre-event bonds will be used to pay claims for the 2022-2023 Contract Year. However, the \$3.5 billion of pre-event bond proceeds will be available for the 2022-2023 Contract Year and, if used, will reduce the estimated FHCF borrowing capacity from \$8.0 billion to \$4.5 billion.

Under a scenario when a large event happens that depletes the liquid resources of the FHCF, we assume that the FHCF would leave its pre-event bond proceeds outstanding and issue approximately \$4.3 billion of post-event bonds to fund its maximum potential obligation for the 2022-2023 Contract Year. For the 2023-2024 Contract Year, the FHCF can then use its estimated bonding capacity of \$8.0 billion and the \$1.4 billion of reimbursement premiums projected to be accumulated during the subsequent season for total funding sources of \$9.4 billion, or approximately 55% of its potential maximum statutory obligation of \$17 billion for the 2023-2024 Contract Year. The FHCF would need an additional \$7.6 billion in funding sources in order to reach its maximum statutory obligation of \$17 billion for the 2023-2024 Contract Year.

Under this scenario, the breakdown of the potential assessments required for the FHCF’s potential borrowing needs and repayment of pre-event bond proceeds are shown in the table on the following page based on an “above market” interest rate of 5% for the initial season and 7% for the subsequent season over a 30-year period, for informational purposes only. As seen in the table on the following page, even with an “above market” rate of 5% for the initial season and 7% for the subsequent season, the FHCF has significant remaining assessment capabilities within its 6% statutory cap.

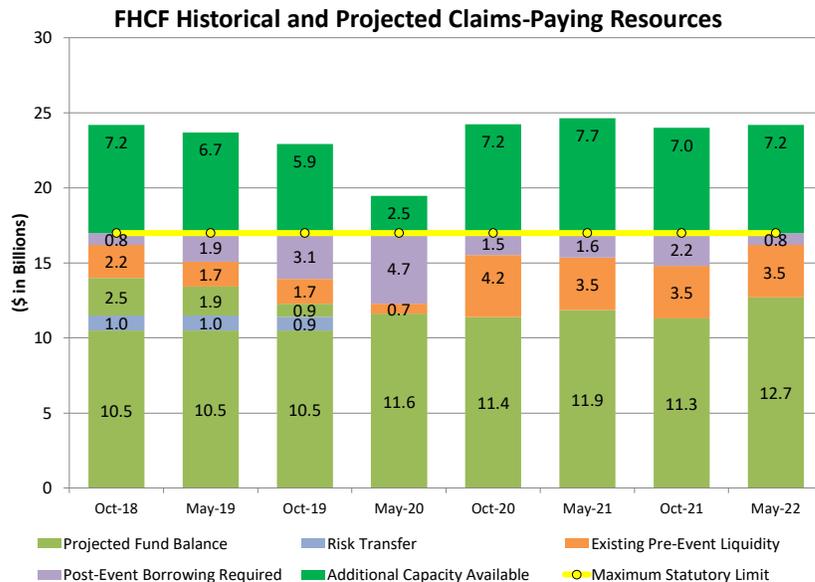


(\$ in Billions)	2022-2023 Contract Year	2023-2024 Contract Year
<b>Total Potential Borrowing</b>	<b>\$4.3</b>	<b>\$8.0</b>
Assessment % over 30 Years if Financed at "Above Market" Rate of 5% for the Initial Season and 7% for the Subsequent Season	0.44%	1.01%
Assessment % over 10 Years if Financed at "Above Market" Rate of 5% for the Initial Season and 7% for the Subsequent Season	0.86%	1.76%

### Historical Perspective on Estimated Claims-Paying Capacity

The estimated claims-paying capacity of the FHCF over time is subject to changes in the projected fund balance, risk transfer amount, available pre-event liquidity, and estimates of bonding capacity. While the projected fund balance climbed steadily from 2006 to 2017 without a major hurricane that triggered the FHCF, the estimated \$7.80 billion of Hurricane Irma losses and \$1.45 billion of Hurricane Michael losses reduced the growth in the FHCF’s projected fund balance to approximately \$12.7 billion available for the 2022-2023 Contract Year. In recent years, the senior managers’ estimate ranges of the FHCF’s bonding capacity have remained stable, but due to volatility in the marketplace so far in 2022, the senior managers’ estimates as of May 2022 are diverse and have decreased marginally, reflecting both the big picture fundamental changes to the market described in Section III and the impact of market volatility at the time we asked them for estimates. The October 2021 average bonding estimate for 0-12 months was \$9.2 billion and the May 2022 average bonding estimate for 0-12 months is moderately lower at \$8.0 billion.

The chart below shows the total estimated initial season claims-paying resources of the FHCF since October 2018 with projected fund balance (light green), existing pre-event liquidity (orange), risk transfer (blue), post-event borrowing required (purple), if needed, and maximum statutory limit (yellow) with additional capacity available above (dark green) the maximum statutory limit.



Numbers may not add due to rounding.

The additional capacity above the maximum statutory limit reflects the estimated borrowing capacity plus any additional funds available.



The chart on the prior page reflects the history of the FHCF’s claims-paying resources. The outstanding pre-event notes, risk transfer, and the projected fund balance are reliable amounts since they are known prior to an event, but the post-event bonding capacity can vary depending on financial market conditions after a hurricane event. It is important that the FHCF’s claims-paying capacity estimates be reasonable and prudent in order to minimize financial risk for participating insurers for the initial and subsequent seasons as well as for long-term sustainability of the Florida residential property insurance market even under the current volatile market conditions.

Over time, the range has narrowed and stabilized, however it has started to widen again, and therefore it is interesting to compare the range of the estimates during this time period, which is indicative of the level of uncertainty and variability among the team of senior managers with regard to the FHCF’s bonding capacity. The table below shows the aggregate ranges for each estimate since October 2018.

Post-Event Estimated Bonding Capacity Over 12 Months (Senior Managers' Range)									
(\$ in Billions)	Oct-18	May-19	Oct-19	May-20	Oct-20	May-21	Oct-21	May-22	Oct. 2021 - May 2022 Change
Overall Range	\$5.5-\$12	\$6-\$12	\$5.5-\$12	\$4-\$11	\$6.5-\$11	\$5.5-\$13	\$5.5-\$13	\$4.5-\$13	<·>

We believe the process of using a survey of the opinions of the best experts with the most relevant experience, and employing a prudent approach to pick among several potential estimates of capacity, provides a reasonable estimate that suits the purposes of the FHCF and the needs of its participating insurers. While the FHCF has liquid resources that are \$800 million below fully funding the initial season, the projected 0-12 month bonding capacity of \$8.0 billion allows for the FHCF to reach its maximum statutory obligation of \$17 billion with additional bonding capacity of \$3.7 billion, even after preserving pre-event bond proceeds for the subsequent season. Further, the FHCF has additional capacity available after an event for the subsequent season. This additional capacity still does not provide a guaranteed source of liquidity or claims-paying capacity for subsequent seasons, and the actual bonding results achieved by the FHCF after a hurricane could vary substantially from this estimate for subsequent seasons. Nonetheless, with strong cash balance and the successful execution of the Series 2020A financing, the FHCF is in a very strong financial position with approximately \$16.2 billion of liquidity. In addition, for the subsequent season, the FHCF has an ample but not sufficient projected potential claims-paying capacity of \$9.4 billion, or approximately 55% of its maximum statutory obligation of \$17 billion for the 2023-2024 Contract Year.

**Appendix A – Bonding Capacity Solicitation & Senior Manager  
Responses**

# Memorandum

**To:** Florida Hurricane Catastrophe Fund  
**From:** BofA Securities, Inc.  
**Date:** May 13, 2022  
**Subject:** Florida Hurricane Catastrophe Fund – May 2022 Bonding Capacity Analysis

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BofA Securities, Inc. (“BofA”) is pleased to provide the Florida Hurricane Catastrophe Fund (“FHCF”) with our firm’s estimates and views of the FHCF’s post-event bonding capacity and current market borrowing costs.

## Market Commentary

As the FHCF is aware, much has changed in the capital markets since our last update in October 2021. In reaction to continued elevated inflation, supply chain issues, commodity price shocks and a tight labor market, the Federal Reserve raised overnight rates by 50 bps on Wednesday, May 4, 2022. Additionally, the Federal Reserve indicated that more 50 bps hikes are on the way for the next few meetings. Concurrently, the Federal Reserve announced its Quantitative Tightening plan. Starting in June, the Federal Reserve will allow \$47.5 billion of bonds to run off its balance sheet per month, with the amount rising over time to a cap of \$95 billion per month. While the market initially reacted favorably when the Federal Reserve ruled out the possibility of a 75 bps rate hike and its desire to engineer a soft landing of the economy, continued volatility in both the equity and debt capital markets persisted through the week ending May 6, 2022.

The municipal market’s improvements thus far in May have been less than expected, as mutual fund outflows persist and long-term Treasury rates remain volatile. Year-to-date, net municipal funds outflows total approximately \$50 billion. Having said that, the pace of net outflows have become smaller, and municipal market volatilities are lower than Treasuries. New buyers in tax-exempt municipal bonds are more active on the short maturities, including money market and short call bonds, while long duration bonds need to price cheap in the primary market. Municipal year-to-date issuance was \$139.3 billion, down 9% versus last year. New issue supply in the municipal market thus far in 2022 has averaged approximately \$7.7 billion per week, with taxable issuance representing 15.6% of all muni bonds issued this year.

Since the last bonding capacity analysis presented at the October 2021 meeting, the municipal yield curve has increased across the entire curve. On the short-end of the tax-exempt AAA MMD yield curve (within 10 years), rates have increased an average of 190 bps while on the medium- to long-end of the curve (11+ years), yields have increased an average of 155 bps. The US Treasury curve has flattened significantly since the last bonding capacity meeting with the spread between the 2-30 year, 3-30 year, 5-30 year and 10-30 year having decreased from 182, 156, 112, and 56 bps to 44, 24, 14, and 10 bps, respectively. Over this same time period, the UST curve from year 1-5 increased by 199-243 basis points, and years 10-30 has increased by 105-151 basis points. MMD/UST ratios remain elevated, with 10-year MMD/UST ratio at 92% and 30-year MMD/UST ratio at 100%.

As we have stated in the past, and especially true in this market, despite the market dynamics in play in the current environment, a transaction or series of transactions by the FHCF and possibly other insurance-related entities in the State of Florida (e.g. Citizens, FIGA) after a hurricane event have been generally untested and may significantly impact market dynamics for a specific transaction. In the pages that follow, we provide BofA’s estimate of the FHCF’s current borrowing costs, as well as our view on the FHCF’s unconstrained issuance capacity in the current market. If you have any questions, please contact the BofA team.

1. Please provide a 30-year tax-exempt scale for the FHCF using the MMD at the close of business Thursday, May 5th. This scale should be the one that you believe reflects a “market” scale given the FHCF’s strong credit with no capacity constraints. Please use serial bonds and 15, 20, 25, and/or 30-year term bonds, as needed, over a 30-year amortization period (7/1/23 - 7/1/52) with 5.0% coupons throughout when writing the scale. Base your scale on an uninsured financing given the FHCF’s strong current underlying ratings of Aa3/AA/AA (Moody’s / S&P / Fitch).

Below, we have provided a 30-year tax-exempt scale reflecting our view of the FHCF’s estimated current market borrowing costs based on an uninsured financing, Aa3/AA/AA ratings from Moody’s, S&P and Fitch, respectively, and no capacity constraints.

Tax-Exempt Scale						
Term	Maturity (July 1)	Coupon	MMD	Spread	Yield	
1	2023	5.00%	1.97%	10 bps	2.07%	
2	2024	5.00%	2.25%	15 bps	2.40%	
3	2025	5.00%	2.42%	20 bps	2.62%	
4	2026	5.00%	2.45%	25 bps	2.70%	
5	2027	5.00%	2.51%	30 bps	2.81%	
6	2028	5.00%	2.56%	34 bps	2.90%	
7	2029	5.00%	2.65%	38 bps	3.03%	
8	2030	5.00%	2.71%	42 bps	3.13%	
9	2031	5.00%	2.76%	45 bps	3.21%	
10	2032	5.00%	2.81%	48 bps	3.29%	
11	2033	5.00%	2.85%	52 bps	3.37%	
12	2034	5.00%	2.87%	55 bps	3.42%	
13	2035	5.00%	2.89%	58 bps	3.47%	
14	2036	5.00%	2.91%	62 bps	3.53%	
15	2037	5.00%	2.93%	65 bps	3.58%	
16	2038	5.00%	2.95%	68 bps	3.63%	
17	2039	5.00%	2.97%	70 bps	3.67%	
18	2040	5.00%	2.98%	72 bps	3.70%	
19	2041	5.00%	2.99%	75 bps	3.74%	
20	2042	5.00%	3.01%	75 bps	3.76%	
21	2043	-	-	-	-	
22	2044	-	-	-	-	
23	2045	-	-	-	-	
24	2046	-	-	-	-	
25	2047	5.00%	3.09%	80 bps	3.89%	
26	2048	-	-	-	-	
27	2049	-	-	-	-	
28	2050	-	-	-	-	
29	2051	-	-	-	-	
30	2052	5.00%	3.14%	85 bps	3.99%	

2. Please provide a 30-year taxable scale using the Treasury curve at the close of business Thursday, May 5th. This scale should be the one that you believe reflects a “market” scale given the FHCF’s strong credit with no capacity constraints. Please use serial bonds and 15, 20, 25, and/or 30-year term bonds, as needed, over a 30-year amortization period (7/1/23 - 7/1/52) with par-ish coupons throughout when writing the scale. Again, base the scale on an uninsured financing given again the FHCF’s current underlying ratings of Aa3/AA/AA (Moody’s / S&P / Fitch).

Below, we have provided a 30-year taxable scale reflecting our view of the FHCF’s estimated current market borrowing costs based on an uninsured financing, Aa3/AA/AA ratings from Moody’s, S&P and Fitch, respectively, and no capacity constraints.

Taxable Scale						
Term	Maturity (July 1)	Coupon	UST	Spread	Yield	
1	2023	3.11%	2.71%	40 bps	3.11%	
2	2024	3.21%	2.71%	50 bps	3.21%	
3	2025	3.46%	2.91%	55 bps	3.46%	
4	2026	3.66%	3.01%	65 bps	3.66%	
5	2027	3.76%	3.01%	75 bps	3.76%	
6	2028	3.92%	3.07%	85 bps	3.92%	
7	2029	3.97%	3.07%	90 bps	3.97%	
8	2030	4.05%	3.05%	100 bps	4.05%	
9	2031	4.15%	3.05%	110 bps	4.15%	
10	2032	4.25%	3.05%	120 bps	4.25%	
11	2033	4.40%	3.05%	135 bps	4.40%	
12	2034	4.55%	3.05%	150 bps	4.55%	
13	2035	4.70%	3.05%	165 bps	4.70%	
14	2036	4.80%	3.05%	175 bps	4.80%	
15	2037	4.90%	3.05%	185 bps	4.90%	
16	2038	-	-	-	-	
17	2039	-	-	-	-	
18	2040	-	-	-	-	
19	2041	-	-	-	-	
20	2042	5.03%	3.15%	188 bps	5.03%	
21	2043	-	-	-	-	
22	2044	-	-	-	-	
23	2045	-	-	-	-	
24	2046	-	-	-	-	
25	2047	5.10%	3.15%	195 bps	5.10%	
26	2048	-	-	-	-	
27	2049	-	-	-	-	
28	2050	-	-	-	-	
29	2051	-	-	-	-	
30	2052	5.15%	3.15%	200 bps	5.15%	

3. Please provide us with your firm’s opinion on the potential tax-exempt and/or taxable post-event market capacity over the next 0-12 and 12-24 months at rates that are at or above the current “market” scale, as needed. In addition, please include and describe briefly in your response if there is any overlap in tax-exempt / taxable capacity.

In the table below, we have provided our current tax-exempt and taxable FHCF capacity estimates at rates that are at or above the current “market” scale, as needed. We believe that sufficient demand exists at these capacity levels to complete a transaction of the sizes provided below. In the current market, we have observed an increase in crossover participation and the likelihood of some cannibalization between tax-exempt/taxable capacity.

<b>FLORIDA HURRICANE CATASTROPHE FUND POST-EVENT MARKET CAPACITY (\$ BILLION)</b>			
<b>Time Period</b>	<b>Tax-Exempt</b>	<b>Taxable</b>	<b>Total</b>
0-12 Months	\$1.5-2.0	\$3.0-5.0	\$4.5-7.0
12-24 Months	\$2.0-3.0	\$3.0-5.0	\$5.0-8.0
<b>0-24 Months</b>	<b>\$3.5-5.0</b>	<b>\$6.0-10.0</b>	<b>\$9.5-15.0</b>

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# Memorandum



To: Florida Hurricane Catastrophe Fund

From: Citigroup Global Markets Inc. ("Citi")

Date: May 13, 2022

Re: FHCF May 2022 Capacity Analysis

Citigroup is pleased to provide the Florida Hurricane Catastrophe Fund (the "FHCF") with an updated estimated post-event bond capacity analysis.

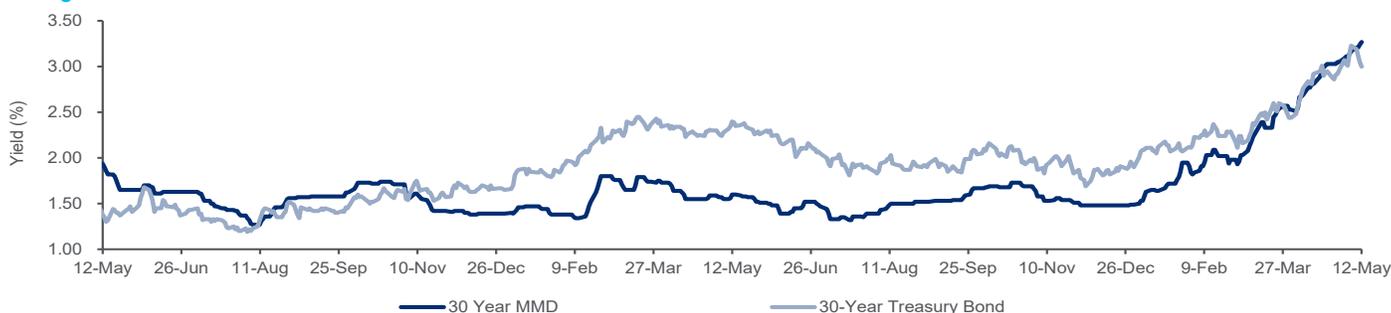
**Municipal Market Update.** Municipal volatility has increased since the start of 2022 due to economic and geopolitical uncertainty that includes a hawkish Fed, heightened inflation, and the effects of the Russia-Ukraine War. Over the last two-weeks, municipals outperformed treasuries across the curve while investors monitored economic data and the May 5th Federal Open Market Committee ("FOMC") meeting that led to a treasury curve steepening.

The volatility in the rates market has leaked into the municipal market amid moderate supply, elevated sell pressure, municipal fund outflows, and widening credit spreads. 10-, 20- and 30-year MMD rates are up +191bps, +184bps, and +178bps, respectively, year-to-date. Total new supply sits at \$151.1 billion year-to-date, down 8.3% year-over-year due to a slow down in taxable issuance to start the year. Weekly reporting municipal funds recorded outflows of \$2.4 billion for the latest week, following prior week outflows of \$2.7 billion, with 2022 outflows totaling \$54.8 billion. Credit spreads have widened, with AAA G.O. spreads increasing ~167 bps year-over-year.

While there have been a number of negative headwinds for issuers since the beginning of 2022, we see few positive trends in the upcoming months. MMD/Treasury ratios have returned to levels that are close to their 5-year average, which should help re-ignite demand for municipal bonds on a relative value basis. The current ratios as of May 12, 2022 for 5-, 10- and 30-year benchmarks are 91.1%, 103.5%, and 109.0%, respectively. Further, it is important to remember that long-term interest rates remain historically attractive, with the 30-year MMD benchmark currently at 3.27%, having been lower only 24.69% of the time since 1986.

## 30-Year MMD and 30-Year Treasury

### Trailing 2-Years



**Yield Curve Environment.** Since March of 2020, the Federal Reserve kept interest rates near zero as a means to address the effects of the COVID-19 pandemic on the U.S. economy. Faced with a quick rise in inflation in recent months, however, and following a 25bp interest rate hike in March, the FOMC voted unanimously in its May meeting to increase the policy interest rate by another 50bps, the largest interest-rate increase since 2000. Since then, the market has penciled in seven to eight additional rate hikes by the end of 2022.

## US Treasury Yield Curve



1. Please provide a 30-year tax-exempt scale for the FHCF using the MMD at the close of business Thursday, May 5th. This scale should be the one that you believe reflects a “market” scale given the FHCF’s strong credit with no capacity constraints. Please use serial bonds and 15, 20, 25, and/or 30-year term bonds, as needed, over a 30-year amortization period (7/1/23 - 7/1/52) with 5.0% coupons throughout when writing the scale. Base your scale on an uninsured financing given the FHCF’s strong current underlying ratings of Aa3/AA/AA (Moody’s / S&P / Fitch).

Tax-Exempt Scale				
Year	5/5/2022 MMD	MMD Spread	Coupon	Base Yield
2023	2.02%	10	5.00%	2.12%
2024	2.26%	15	5.00%	2.41%
2025	2.43%	20	5.00%	2.63%
2026	2.46%	25	5.00%	2.71%
2027	2.51%	30	5.00%	2.81%
2028	2.56%	35	5.00%	2.91%
2029	2.65%	40	5.00%	3.05%
2030	2.71%	45	5.00%	3.16%
2031	2.77%	50	5.00%	3.27%
2032	2.81%	55	5.00%	3.36%
2033	2.85%	60	5.00%	3.45%
2034	2.87%	65	5.00%	3.52%
2035	2.89%	70	5.00%	3.59%
2036	2.91%	75	5.00%	3.66%
2037	2.93%	75	5.00%	3.68%
2038	2.95%	75	5.00%	3.70%
2039	2.97%	75	5.00%	3.72%
2040	2.98%	75	5.00%	3.73%
2041	2.99%	75	5.00%	3.74%
2042	3.01%	75	5.00%	3.76%
2043	3.03%			
2044	3.05%			
2045	3.07%			
2046	3.08%			
2047	3.09%	80	5.00%	3.89%
2048	3.10%			
2049	3.11%			
2050	3.12%			
2051	3.13%			
2052	3.14%	80	5.00%	3.94%

1. July Interpolated MMD.
2. Assumes a 10-year par call.



2. Please provide a 30-year taxable scale using the Treasury curve at the close of business Thursday, May 5th. This scale should be the one that you believe reflects a “market” scale given the FHCF’s strong credit with no capacity constraints. Please use serial bonds and 15, 20, 25, and/or 30-year term bonds, as needed, over a 30-year amortization period (7/1/23 - 7/1/52) with par-ish coupons throughout when writing the scale. Again, base the scale on an uninsured financing given again the FHCF’s current underlying ratings of Aa3/AA/AA (Moody’s / S&P / Fitch).

Taxable Scale					
Year	TSY	5/5/2022 TSY	Spread	Coupon	Yield
2023	2 Yr	2.71%	40	3.11%	3.11%
2024	2 Yr	2.71%	60	3.31%	3.31%
2025	3 Yr	2.91%	60	3.51%	3.51%
2026	5 Yr	3.01%	65	3.66%	3.66%
2027	5 Yr	3.01%	80	3.81%	3.81%
2028	7 Yr	3.07%	85	3.92%	3.92%
2029	7 Yr	3.07%	95	4.02%	4.02%
2030	10 Yr	3.05%	110	4.15%	4.15%
2031	10 Yr	3.05%	120	4.25%	4.25%
2032	10 Yr	3.05%	130	4.35%	4.35%
2033	10 Yr	3.05%	140	4.45%	4.45%
2034	10 Yr	3.05%	150	4.55%	4.55%
2035	10 Yr	3.05%	160	4.65%	4.65%
2036	10 Yr	3.05%	170	4.75%	4.75%
2037	10 Yr	3.05%	180	4.85%	4.85%
2038					
2039					
2040					
2041					
2042	30 Yr	3.15%	180	4.95%	4.95%
2043					
2044					
2045					
2046					
2047					
2048					
2049					
2050					
2051					
2052	30 Yr	3.15%	190	5.05%	5.05%

1. Assumes a make-whole call.

3. Please provide us with your firm's opinion on the potential tax-exempt and/or taxable post-event market capacity over the next 0-12 and 12-24 months at rates that are at or above the current "market" scale, as needed. In addition, please include and describe briefly in your response if there is any overlap in tax-exempt / taxable capacity.

<b>FHCF Post-Event Market Capacity</b>			
<b>Time Period</b>	<b>Tax-Exempt</b>	<b>Taxable</b>	<b>Total</b>
0-12 Months	\$2.0-\$3.0	\$3.5-\$4.5	\$5.0-\$7.0
12-24 Months	\$2.0-\$3.0	\$3.0-\$4.0	\$5.0-\$7.0
<b>Total</b>	<b>\$4.0-\$6.0</b>	<b>\$6.5-\$8.5</b>	<b>\$10.0-\$14.0</b>

Our capacity numbers assume no overlap between the tax-exempt and taxable sectors.

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# J.P.Morgan

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To: Florida Hurricane Catastrophe Fund  
From: J.P. Morgan  
Date: May 2022  
Subject: FHCF Estimated Bonding Capacity and Pricing

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Please find below J.P. Morgan's estimate of the Florida Hurricane Catastrophe Fund's ("FHCF") potential bonding capacity over the next 0-12 and 12-24 months, based on current market conditions. In addition, we have provided indicative pricing for tax-exempt and taxable offerings, as requested.

## Market Update

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- U.S. Treasury yields were volatile last week and ultimately steepened significantly following the May FOMC meeting and ahead of a strong U.S. Employment Report; week-over-week, the 2-year spot was unchanged while yields in the 5-, 10-, and 30-year spots increased by 13 bps, 24 bps, and 27 bps, respectively
  - On Wednesday, U.S. Treasuries steepened significantly after the FOMC announced a 50 bps hike, the largest hike in 22 years
    - While most of the market believed that the FOMC would raise rates 50 bps, there was some sentiment of a more hawkish outcome that Fed Chair Powell shut down by stating "a 75bp increase is not something the Committee is actively considering"
    - The Fed also signaled that beginning on June 1, 2022, they will reduce their balance sheet initially at a combined monthly pace of \$47.5 billion (\$30 billion in Treasuries and \$17.5 billion in MBS), before increasing the monthly pace of reduction in September to a combined \$95 billion (\$60 billion in Treasuries and \$35 billion in MBS)
    - Additionally, J.P. Morgan Research expects the Committee to increase rates another 50 bps at the June and July meetings and 25 bps per each subsequent meeting into early next year, with a terminal rate of 3.00-3.25% by March 2023
    - There is some risk to J.P. Morgan Research's forecast as Chair Powell reiterated that the Fed doesn't have a set path and will need to remain "nimble" to combat inflation
  - Last week, the April Jobs report showed healthy growth while other economic data leaned weaker
    - April non-farm employment increased by 428,000 vs. market estimates of 380,000, the unemployment rate was unchanged from March at 3.6%, and the average hourly earnings increased by 0.3% in April, all signs that the job market is strong
    - On the other hand, the April ISM manufacturing survey's headline composite number declined from 57.1 to 55.4 and the April ISM services declined from 58.3 to 57.1, both pointing to signs of continued supply chain pressures
  - J.P. Morgan Research notes that last week's U.S. Treasury moves were likely exaggerated by relatively low levels of liquidity and a weakened risk appetite among market participants ahead of this week's Treasury auctions
- The S&P 500, Dow Jones Industrial Average, and Nasdaq 100 fell for the fifth straight week amid the market's reaction to increased rates and subsequent commentary from the FOMC; week-over-week, the S&P 500, Dow Jones Industrial Average, and Nasdaq 100 decreased by 0.2%, 0.2%, and 1.3%, respectively
- In the municipal market, tax-exempt yields increased amid continued outflows and elevated bids wanted despite light issuance; week-over-week, yields in the 2-, 5-, 10-, and 30-year spots increased by 5 bps, 9 bps, 13 bps, and 12 bps, respectively
  - MMD/UST ratios ended the week at 84%, 83%, 91%, and 98% in the 2-, 5-, 10-, and 30-year spots, respectively
  - Last week's primary municipal supply totaled \$5.5 billion, consisting of \$4.5 billion of tax-exempt issuance and \$1.1 billion of taxable issuance (inclusive of 501(c)3 corporate CUSIP issuance)
    - Deals received mixed to decent investor demand early in the week but faced significant headwinds amid the rising rate environment following the FOMC meeting, which resulted in several deals widening spreads and / or restructuring
  - Lipper reported weekly and monthly municipal fund outflows of \$3.2 billion for the period ending May 4th, bringing year-to-date outflows to \$44.7 billion, representing the 17th straight week of outflows
    - Municipal ETFs registered inflows of \$618 million, bringing year-to-date inflows into ETFs to \$5.9 billion
  - The amount of bonds where market participants requested bids, or bids wanted, continued to be elevated at \$8.0 billion, or 261% of the trailing one year weekly average

# J.P.Morgan

## Potential Market Capacity

Based on market conditions as of close of business May 5, 2022, J.P. Morgan estimates that FHCF could sell \$5-6 billion of tax-exempt bonds and \$6-7 billion of taxable bonds over the next 0-12 months at the market rate assumptions provided. Over the following 12-24 month period, FHCF could sell an additional \$5-6 billion of tax-exempt bonds and \$6-7 billion of taxable bonds. This would provide FHCF a total post-event market capacity of \$10-12 billion tax-exempt and \$12-14 billion taxable, for a total of \$22-26 billion.

Indicative Post-Event Market Capacity as of May 5, 2022			
Time Period	Tax-Exempt	Taxable	Total
0-12 Months	\$5-6 billion	\$6-7 billion	\$11-13 billion
12-24 Months	\$5-6 billion	\$6-7 billion	\$11-13 billion
<b>Total</b>	<b>\$10-12 billion</b>	<b>\$12-14 billion</b>	<b>\$22-26 billion</b>

In order to accomplish an issuance of maximum size, FHCF would likely want to access both the tax-exempt and taxable markets across one or more offerings. Although the post-event bonds would qualify for tax-exemption, the taxable markets may provide additional depth of institutional buyers. By issuing taxable bonds in addition to tax-exempt bonds, FHCF would access certain investors that do not typically participate in tax-exempt offerings, and are not able to use the tax-exemption of municipal bonds. FHCF would likely see a significant increase in capacity by offering both a tax-exempt and taxable series as part of the same issuance, with the ultimate goal being to maximize the tax-exempt issuance. The capacity estimates above do consider the capacity overlap from investors that participate in both the tax-exempt and taxable markets, while prioritizing tax-exempt capacity over taxable.

On the following pages, please find J.P. Morgan's estimated 30-year tax-exempt and taxable scales assuming market conditions as of the close of business May 5, 2022. The scales assume FHCF's current underlying ratings of Aa3/AA/AA.

# J.P.Morgan

## Florida Hurricane Catastrophe Fund - Tax-exempt Scale

Year	Maturity	Sinker/Term	Int. MMD	Spread	Coupon	Stated Yield
1	7/1/2023		2.02%	30	5.00%	2.32%
2	7/1/2024		2.26%	35	5.00%	2.61%
3	7/1/2025		2.43%	40	5.00%	2.83%
4	7/1/2026		2.46%	45	5.00%	2.91%
5	7/1/2027		2.51%	50	5.00%	3.01%
6	7/1/2028		2.56%	55	5.00%	3.11%
7	7/1/2029		2.65%	58	5.00%	3.23%
8	7/1/2030		2.71%	62	5.00%	3.33%
9	7/1/2031		2.77%	65	5.00%	3.42%
10	7/1/2032		2.81%	68	5.00%	3.49%
11	7/1/2033		2.85%	72	5.00%	3.57%
12	7/1/2034		2.87%	74	5.00%	3.61%
13	7/1/2035		2.89%	75	5.00%	3.64%
14	7/1/2036		2.91%	75	5.00%	3.66%
15	7/1/2037		2.93%	75	5.00%	3.68%
16	7/1/2038		2.95%	75	5.00%	3.70%
17	7/1/2039		2.97%	75	5.00%	3.72%
18	7/1/2040		2.98%	75	5.00%	3.73%
19	7/1/2041		2.99%	75	5.00%	3.74%
20	7/1/2042		3.01%	75	5.00%	3.76%
21	7/1/2043	*				
22	7/1/2044	*				
23	7/1/2045	*				
24	7/1/2046	*				
25	7/1/2047	T	3.09%	80	5.00%	3.89%
26	7/1/2048	*				
27	7/1/2049	*				
28	7/1/2050	*				
29	7/1/2051	*				
30	7/1/2052	T	3.14%	85	5.00%	3.99%

Assumes MMD as of close of business May 5, 2022 and an optional redemption date of 7/1/2032 at par.

# J.P.Morgan

## Florida Hurricane Catastrophe Fund - Taxable Scale

Year	Maturity	Sinker/Term	UST	Spread	Coupon	Stated Yield
1	7/1/2023		2.72%	55	3.27%	3.27%
2	7/1/2024		2.72%	75	3.47%	3.47%
3	7/1/2025		2.92%	80	3.72%	3.72%
4	7/1/2026		3.02%	90	3.92%	3.92%
5	7/1/2027		3.02%	105	4.07%	4.07%
6	7/1/2028		3.09%	115	4.24%	4.24%
7	7/1/2029		3.09%	125	4.34%	4.34%
8	7/1/2030		3.07%	140	4.47%	4.47%
9	7/1/2031		3.07%	150	4.57%	4.57%
10	7/1/2032		3.07%	160	4.67%	4.67%
11	7/1/2033		3.07%	170	4.77%	4.77%
12	7/1/2034		3.07%	180	4.87%	4.87%
13	7/1/2035		3.07%	185	4.92%	4.92%
14	7/1/2036		3.07%	190	4.97%	4.97%
15	7/1/2037		3.07%	195	5.02%	5.02%
16	7/1/2038	*				
17	7/1/2039	*				
18	7/1/2040	*				
19	7/1/2041	*				
20	7/1/2042	T	3.35%	175	5.10%	5.10%
21	7/1/2043	*				
22	7/1/2044	*				
23	7/1/2045	*				
24	7/1/2046	*				
25	7/1/2047	*				
26	7/1/2048	*				
27	7/1/2049	*				
28	7/1/2050	*				
29	7/1/2051	*				
30	7/1/2052	T	3.16%	200	5.16%	5.16%

Assumes UST rates as of close of business May 5, 2022, and a make-whole call.

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To: Florida Hurricane Catastrophe Fund

Date: May 13, 2022

From: Morgan Stanley

Subject: FHCF May 2022 Semi-Annual Bonding Capacity Analysis

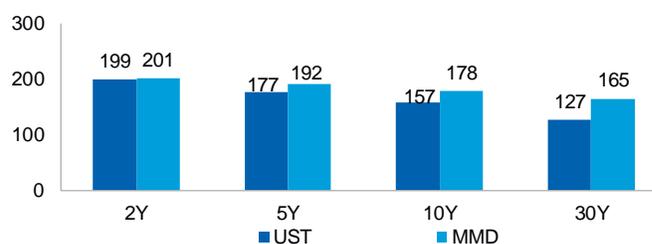
Morgan Stanley is pleased to provide the Florida Hurricane Catastrophe Fund (“FHCF”) with our Firm’s Semi-Annual Bonding Capacity Analysis.

**Current Macroeconomic Themes.** This Wednesday, CPI increase year-over-year was announced at 8.3%, a 0.2% drop from March’s 40-year high. Last Wednesday, the FOMC increased its target range for the Federal Funds rate by a full 50 bps to a new range of 0.75% - 1.00%, a broadly expected hike that was nonetheless its most aggressive hike in decades as the central bank continues its ongoing efforts to tame the most elevated inflation levels in the US in the past 40 years. Overall, economic data was mixed as the April Employment Report showed non-farm payrolls rising 428k on the month but the labor force participation rate declined on the month as underlying data suggested a pickup in voluntary departures of employed workers. Elsewhere, China’s COVID-Zero strategy continues to weigh on global supply chains as stringent lockdowns in many of China’s large cities and manufacturing provinces led to China’s NBS Manufacturing PMI contracting to 47.4 in April, the second weakest level since the 2008 financial crisis while production, new export orders, and business expectations also all lowered sharply.

**Municipal Market Dynamics.** Market conditions this year have been marked by a sharp increase in both benchmark AAA MMD and US Treasury rates, with 10-year MMD and 10-year US Treasury rates rising 178 and 157 bps on the year, respectively, as market participants react to inflation and the expectation of continued Fed rate hikes throughout the year. Morgan Stanley’s year-end Treasury forecast has been updated to 3.00% for the 10-year US Treasury and 3.05% for the 30-year US Treasury, as we expect rates to remain elevated and the yield curve to remain flat through the end of the year. Technicals in the municipal market have been marked by consistent outflows from bond funds. Last week, net outflows totaled \$3.2 billion, pushing 2022YTD outflows to \$44.7 billion. This is coupled by daily bid-wanted lists that have averaged \$2.5 billion as secondary selling has picked up, totaling \$161.2 billion YTD, up 50% from last year. In the new issue market, new issue supply has been moderate, with YTD issuance totaling \$140.1 billion which is 12% off of last year’s pace. Despite less than favorable technicals, on May 11<sup>th</sup>, Morgan Stanley served as joint bookrunner on a \$3.2 billion taxable municipal transaction for the Louisiana Utilities Restoration Corporation which received strong investor interest and subscription levels ranging from 1.2-2.1x, a sign that jumbo taxable deals be executed successfully in the current market.

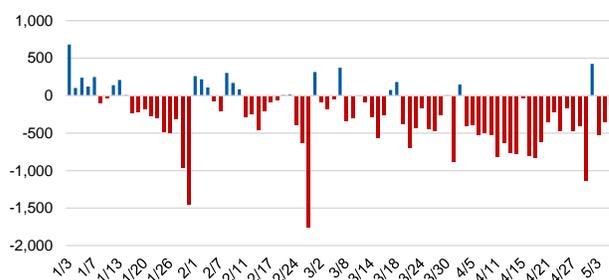
**MMD and UST Movement in 2022YTD**

bps; January 1, 2022 - May 5, 2022



**Net Outflows Last Week Totaled \$3.2 Bn, as Market Continues to Leave Muni Market Funds**

(\$MM) Daily EPFR Fund Flows from January 3, 2022 – May 5, 2022



**Pricing Views.** On the following pages, we have provided our estimate of current pricing levels and bonding capacity over a 0-12 month and 12-24 month period.

# Morgan Stanley

1. Please provide a 30-year tax-exempt scale for the FHCF using the MMD at the close of business Thursday, May 5<sup>th</sup>. This scale should be the one that you believe reflects a “market” scale given the FHCF’s strong credit with no capacity constraints. Please use serial bonds and 15, 20, 25, and/or 30-year term bonds, as needed, over a 30-year amortization period (7/1/23 - 7/1/52) with 5.0% coupons throughout when writing the scale. Base the scale on an uninsured financing given the FHCF’s current underlying ratings of Aa3/AA/AA (Moody’s / S&P / Fitch).

FHCF Pricing Views: 30-Year Tax-Exempt Scale <sup>1</sup>					
Year	Maturity	MMD (5/5/2022) <sup>(1)</sup>	Spread (bps)	Coupon	Yield
1	2023	2.02%	10	5.00%	2.12%
2	2024	2.26%	15	5.00%	2.41%
3	2025	2.43%	20	5.00%	2.63%
4	2026	2.46%	25	5.00%	2.71%
5	2027	2.51%	30	5.00%	2.81%
6	2028	2.56%	35	5.00%	2.91%
7	2029	2.65%	40	5.00%	3.05%
8	2030	2.71%	45	5.00%	3.16%
9	2031	2.77%	50	5.00%	3.27%
10	2032	2.81%	55	5.00%	3.36%
11	2033	2.85%	60	5.00%	3.45%
12	2034	2.87%	64	5.00%	3.51%
13	2035	2.89%	66	5.00%	3.55%
14	2036	2.91%	68	5.00%	3.59%
15	2037	2.93%	70	5.00%	3.63%
16	2038	2.95%	70	5.00%	3.65%
17	2039	2.97%	70	5.00%	3.67%
18	2040	2.98%	70	5.00%	3.68%
19	2041	2.99%	70	5.00%	3.69%
20	2042	3.01%	70	5.00%	3.71%
21	2043				
22	2044				
23	2045				
24	2046				
25	2047	3.09%	75	5.00%	3.84%
26	2048				
27	2049				
28	2050				
29	2051				
30	2052	3.14%	75	5.00%	3.89%

Notes:

(1) Assumes 10-year par call on 7/1/2032

(2) Based on July Interpolated MMD on 5/5/2022

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2. Please provide a 30-year taxable scale using the Treasury curve at the close of business Thursday, May 5<sup>th</sup>. This scale should be the one that you believe reflects a “market” scale given the FHCF’s strong credit with no capacity constraints. Please use serial bonds and 15, 20, 25, and/or 30-year term bonds, as needed, over a 30-year amortization period (7/1/23 - 7/1/52) with par-ish coupons throughout when writing the scale. Again, base the scale on an uninsured financing given again the FHCF’s current underlying ratings of Aa3/AA/AA (Moody’s / S&P / Fitch).

FHCF Pricing Views: 30-Year Taxable Scale <sup>1</sup>					
Year	Maturity	UST (5/5/2022)	Spread (bps)	Coupon	Yield
1	2023	2.72%	25	2.97%	2.97%
2	2024	2.72%	45	3.17%	3.17%
3	2025	2.92%	65	3.57%	3.57%
4	2026	3.02%	65	3.67%	3.67%
5	2027	3.02%	85	3.87%	3.87%
6	2028	3.09%	100	4.09%	4.09%
7	2029	3.09%	100	4.09%	4.09%
8	2030	3.07%	115	4.22%	4.22%
9	2031	3.07%	125	4.32%	4.32%
10	2032	3.07%	135	4.42%	4.42%
11	2033	3.07%	145	4.52%	4.52%
12	2034	3.07%	150	4.57%	4.57%
13	2035	3.07%	155	4.62%	4.62%
14	2036	3.07%	165	4.72%	4.72%
15	2037	3.07%	170	4.77%	4.77%
16	2038				
17	2039				
18	2040				
19	2041				
20	2042	3.16%	185	5.01%	5.01%
21	2043				
22	2044				
23	2045				
24	2046				
25	2047				
26	2048				
27	2049				
28	2050				
29	2051				
30	2052	3.16%	200	5.16%	5.16%

Notes:

(1) Assumes Make-Whole Call

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- 
3. Please provide us with your firm’s opinion on the potential tax-exempt and/or taxable post-event market capacity over the next 0-12 and 12-24 months at rates that are at or above the current “market” scale, as needed. In addition, please include and describe briefly in your response if there is any overlap in tax-exempt / taxable capacity.
- 

FHCF Post-Event Market Capacity (\$ in Billions)			
Time Period	Tax-Exempt	Taxable	Total
0-12 Months	\$2.0 to \$3.0	\$5.0 to \$7.0	\$7.0 to \$10.0
12-24 Months	\$4.0 to \$5.0	\$8.0 to \$12.0	\$12.0 to \$17.0

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**To:** Florida Hurricane Catastrophe Fund  
**From:** Wells Fargo Securities  
**Date:** May 13, 2022  
**Re:** Florida Hurricane Catastrophe Fund Bonding Capacity Estimate for May 2022

Wells Fargo Securities (“Wells Fargo”) is pleased to provide the Florida Hurricane Catastrophe Fund (“FHCF”) with our estimate of FHCF bonding capacity for May 2022. On the following pages, please find our estimate of current market tax-exempt and taxable scales and spreads along with our estimate of bonding capacity for the 0-12 and 12-24 month periods. Feel free to contact any member of the Wells Fargo team if we can provide additional information or address any questions regarding these estimates.

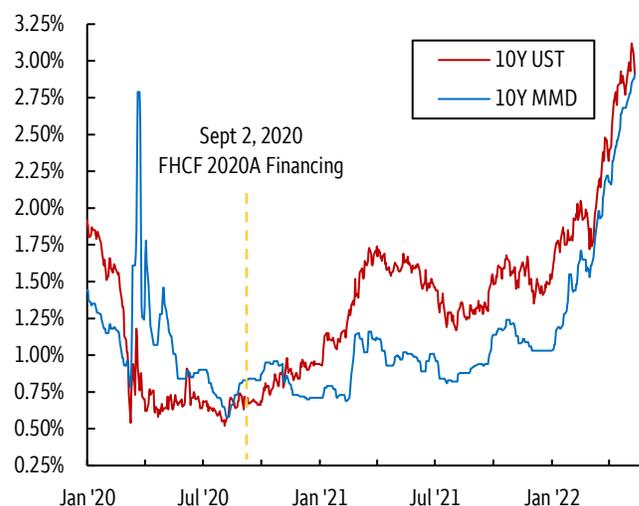
We estimate that FHCF could issue between \$10.0 and \$14.0 billion in combined tax-exempt and taxable bonds over a 24-month time horizon. Our capacity estimate is lower than our October 2021 estimate reflecting increased volatility in the municipal and Treasury markets. The scales that we include on the following pages for taxable and tax-exempt FHCF bonds reflect market conditions as of May 5, 2022 and assume a \$3 billion issuance amortized in discrete \$100 million amounts over 30 years. We believe this level of issuance falls well within the market’s current capacity for FHCF’s debt. Interest rate benchmarks and spreads have increased by considerable amounts since our last bonding capacity estimate.

Wells Fargo appreciates the opportunity to present our estimate of FHCF’s current bonding capacity. We will continue to monitor market conditions and keep you apprised of market developments that may impact FHCF’s bonding capacity.

**Recent Rate Movement.** Since FHCF’s Series 2020A pricing on September 2, 2020, the benchmark 10-year US Treasury has risen by over 240 basis points, briefly breaking through the 3.00% barrier last week before settling back down to 2.91% currently.<sup>1</sup> Tax-exempt rates have increased as well with 10-year MMD has risen 208 basis points since Series 2020A’s pricing, and closed at 2.91% on Wednesday.<sup>1</sup> As reflected in the table to the right, interest rate benchmarks have increased by a considerable amount since FHCF’s last financing.

**Federal Reserve Actions.** Headlines and market activity revolved around the FOMC meeting last week. Market rates drifted higher ahead of the FOMC announcement, as market participants looked to get more guidance on the pace of future rate hikes. The Fed also announced it will begin balance sheet reduction on June 1. Cuts are planned to be \$47.5 billion per month through August then accelerate to \$95 billion per month in September. Fed Chairman Powell claimed the target neutral rate is 2% to 3%, down from the 4% rate that market participants were hypothesizing in recent months. 75bp hikes, which have been proposed by the Fed’s more hawkish Board member, were nearly ruled out as upcoming hikes are likely to follow a 50-25-50 pattern. Powell cited robust job gains, strong household spending, and persistent supply chain issues as components in the policy rationale. His view that the risk of wage inflation is limited has been called into question since this isn’t the first time he’s labeled inflation as transitory when it turned out to be structural.

**Historical 10Y UST and 10Y MMD Rates Since 2020<sup>1</sup>**



<sup>1</sup>Source: US Treasury and Thomson Reuters TM3, as of May 11, 2022

1. Please provide a 30-year tax-exempt scale for the FHCF using the MMD at the close of business Thursday, May 5th. This scale should be the one that you believe reflects a “market” scale given the FHCF’s strong credit with no capacity constraints. Please use serial bonds and 15, 20, 25, and/or 30-year term bonds, as needed, over a 30-year amortization period (7/1/23 - 7/1/52) with 5.0% coupons throughout when writing the scale. Base your scale on an uninsured financing given the FHCF’s strong current underlying ratings of Aa3/AA/AA (Moody’s / S&P / Fitch).

Please note that the tax-exempt scale shown below assumes that the bonds would be issued with a 10-year par call option. Bond prices shown in the table assume an August 15, 2022 delivery date, and term bond maturities in 2047 and 2052.

Florida Hurricane Catastrophe Fund Indicative Tax-Exempt Scale Market Rates as of COB May 5, 2022						
Maturity	I-MMD <sup>2</sup>	Spread (bps)	Coupon	Yield	Price (\$)	Yield-to-Maturity
7/1/2023	2.02%	+40	5.000%	2.420%	102.224	--
7/1/2024	2.26%	+45	5.000%	2.710%	104.161	--
7/1/2025	2.43%	+48	5.000%	2.910%	105.726	--
7/1/2026	2.46%	+50	5.000%	2.960%	107.418	--
7/1/2027	2.51%	+53	5.000%	3.040%	108.819	--
7/1/2028	2.56%	+55	5.000%	3.110%	110.077	--
7/1/2029	2.65%	+57	5.000%	3.220%	110.899	--
7/1/2030	2.71%	+60	5.000%	3.310%	111.631	--
7/1/2031	2.77%	+63	5.000%	3.400%	112.168	--
7/1/2032	2.81%	+65	5.000%	3.460%	112.788	--
7/1/2033	2.85%	+67	5.000%	3.520%	112.254	3.626%
7/1/2034	2.87%	+70	5.000%	3.570%	111.811	3.758%
7/1/2035	2.89%	+73	5.000%	3.620%	111.370	3.870%
7/1/2036	2.91%	+75	5.000%	3.660%	111.019	3.960%
7/1/2037	2.93%	+75	5.000%	3.680%	110.844	4.024%
7/1/2038	2.95%	+75	5.000%	3.700%	110.670	4.080%
7/1/2039	2.97%	+75	5.000%	3.720%	110.495	4.130%
7/1/2040	2.98%	+75	5.000%	3.730%	110.408	4.168%
7/1/2041	2.99%	+75	5.000%	3.740%	110.321	4.202%
7/1/2042	3.01%	+75	5.000%	3.760%	110.148	4.239%
7/1/2043	3.03%	--	--	--	--	--
7/1/2044	3.05%	--	--	--	--	--
7/1/2045	3.07%	--	--	--	--	--
7/1/2046	3.08%	--	--	--	--	--
7/1/2047	3.09%	+80	5.000%	3.890%	109.027	4.399%
7/1/2048	3.10%	--	--	--	--	--
7/1/2049	3.11%	--	--	--	--	--
7/1/2050	3.12%	--	--	--	--	--
7/1/2051	3.13%	--	--	--	--	--
7/1/2052	3.14%	+85	5.000%	3.990%	108.174	4.500%

<sup>2</sup>Note: This scale uses Interpolated MMD as of COB May 5, 2022

2. Please provide a 30-year taxable scale using the Treasury curve at the close of business Thursday, May 5th. This scale should be the one that you believe reflects a “market” scale given the FHCF’s strong credit with no capacity constraints. Please use serial bonds and 15, 20, 25, and/or 30-year term bonds, as needed, over a 30-year amortization period (7/1/23 - 7/1/52) with par-ish coupons throughout when writing the scale. Again, base the scale on an uninsured financing given again the FHCF’s current underlying ratings of Aa3/AA/AA (Moody’s / S&P / Fitch).

Please note that the indicative taxable scale shown below assumes that the bonds would be issued with a 10-year par call option. Bond prices shown in the table assume an August 15, 2022 delivery date, and the 2042 and 2052 maturities represent term bonds.

Florida Hurricane Catastrophe Fund Indicative Taxable Scale Market Rates as of COB May 5, 2022						
Maturity	UST Rate	Spread (bps)	Coupon	Yield	Price (\$)	Yield-to-Maturity
7/1/2023	2.710%	+65	3.360%	3.360%	100.000	--
7/1/2024	2.710%	+80	3.510%	3.510%	100.000	--
7/1/2025	2.910%	+85	3.760%	3.760%	100.000	--
7/1/2026	3.010%	+90	3.910%	3.910%	100.000	--
7/1/2027	3.010%	+100	4.010%	4.010%	100.000	--
7/1/2028	3.070%	+105	4.120%	4.120%	100.000	--
7/1/2029	3.070%	+115	4.220%	4.220%	100.000	--
7/1/2030	3.050%	+135	4.400%	4.400%	100.000	--
7/1/2031	3.050%	+145	4.500%	4.500%	100.000	--
7/1/2032	3.050%	+150	4.550%	4.550%	100.000	--
7/1/2033	3.050%	+165	4.700%	4.700%	100.000	--
7/1/2034	3.050%	+180	4.850%	4.850%	100.000	--
7/1/2035	3.050%	+190	4.950%	4.950%	100.000	--
7/1/2036	3.050%	+205	5.100%	5.100%	100.000	--
7/1/2037	3.050%	+215	5.200%	5.200%	100.000	--
7/1/2038	3.150%	--	--	--	--	--
7/1/2039	3.150%	--	--	--	--	--
7/1/2040	3.150%	--	--	--	--	--
7/1/2041	3.150%	--	--	--	--	--
7/1/2042	3.150%	+220	5.350%	5.350%	100.000	--
7/1/2043	3.150%	--	--	--	--	--
7/1/2044	3.150%	--	--	--	--	--
7/1/2045	3.150%	--	--	--	--	--
7/1/2046	3.150%	--	--	--	--	--
7/1/2047	3.150%	--	--	--	--	--
7/1/2048	3.150%	--	--	--	--	--
7/1/2049	3.150%	--	--	--	--	--
7/1/2050	3.150%	--	--	--	--	--
7/1/2051	3.150%	--	--	--	--	--
7/1/2052	3.150%	+235	5.500%	5.500%	100.000	--

3. Please provide us with your firm’s opinion on the potential tax-exempt and/or taxable post-event market capacity over the next 0-12 and 12-24 months at rates that are at or above the current “market” scale, as needed. In addition, please include and describe briefly in your response if there is any overlap in tax-exempt / taxable capacity.

The capacity estimates shown in the table below assume FCHF would issue debt at higher interest rates than the current “market” tax-exempt and taxable scales that we have provided in our response to questions 1 and 2.

FHCF Post-Event Market Capacity			
Time Period	Tax-Exempt	Taxable	Total
0-12 Months	\$3.0 - \$4.0 billion	\$3.0 - \$4.0 billion	\$6.0 - \$8.0 billion
12-24 Months	\$2.0 - \$3.0 billion	\$2.0 - \$3.0 billion	\$4.0 - \$6.0 billion

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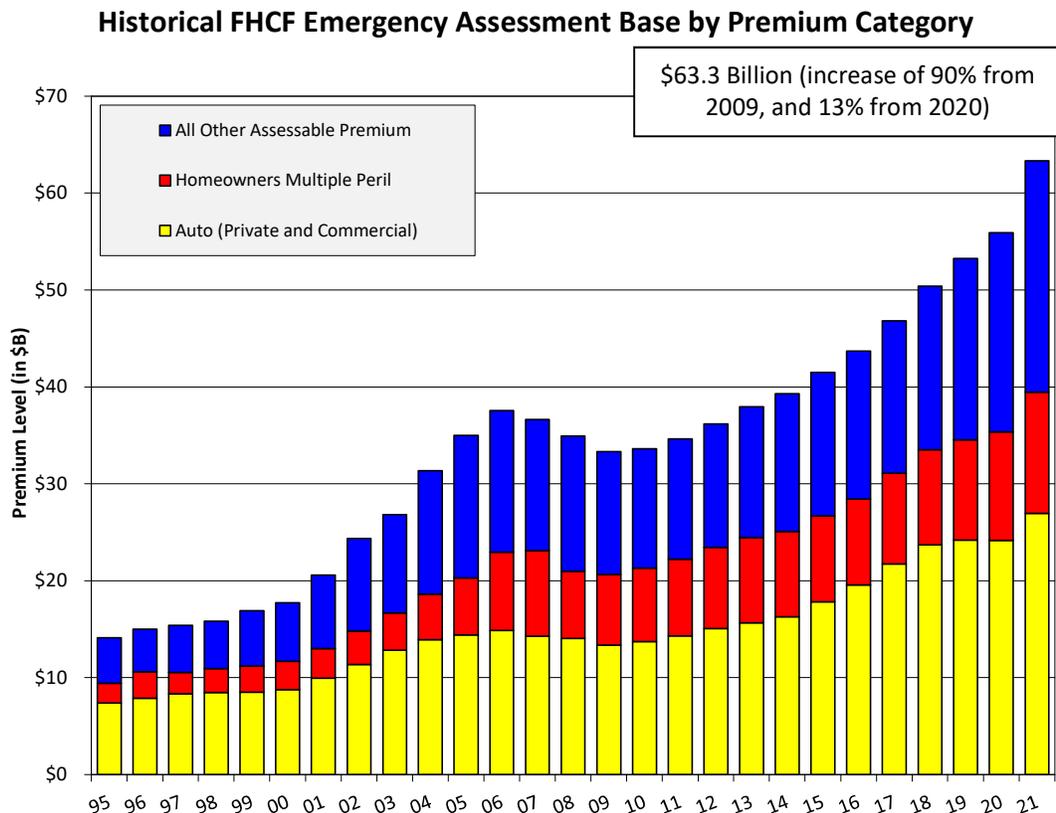
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## Appendix B – The FHCF’s Emergency Assessment Base

According to Section 215.555(6)(b)1., Florida Statutes, “(i)f the board determines that the amount of revenue produced under subsection (5) is insufficient to fund the obligations, costs, and expenses of the fund and the corporation, including repayment of revenue bonds and that portion of the debt service coverage not met by reimbursement premiums, the board shall direct the Office of Insurance Regulation to levy, by order, an **emergency assessment on direct premiums for all property and casualty lines of business in this state, including property and casualty business of surplus lines insurers regulated under part VIII of chapter 626, but not including any workers' compensation premiums or medical malpractice premiums. As used in this subsection, the term "property and casualty business" includes all lines of business identified on Form 2, Exhibit of Premiums and Losses, in the annual statement required of authorized insurers by s. 624.424 and any rule adopted under this section, except for those lines identified as accident and health insurance and except for policies written under the National Flood Insurance Program.**”

In numerical terms, this gives the FHCF an ability to assess against a base which, as of the end of 2021 (the last official measurement date), totaled approximately \$63.3 billion. The chart below and table on the following page show the evolution of the FHCF’s assessment base over time, both by type of coverage and admitted market and surplus lines.



## Historical FHCF Emergency Assessment Base (\$MM)

### Admitted Market, Surplus Lines, and the dollar value of a 6% emergency assessment

Calendar Year	Admitted Lines DWP*	Surplus Lines and NIMA Clearinghouse DWP	Total Aggregate Premium	6% Emergency Assessment	% Premium Change from Prior Year
1995	\$13,783	-	\$13,783	-	
1996	\$14,994	-	\$14,994	-	8.79%
1997	\$15,402	-	\$15,402	-	2.72%
1998	\$15,817	-	\$15,817	-	2.70%
1999	\$16,036	-	\$16,036	-	1.38%
2000	\$16,780	-	\$16,780	-	4.64%
2001	\$19,195	-	\$19,195	-	14.39%
2002	\$22,150	-	\$22,150	-	15.39%
2003	\$24,411	\$2,435	\$26,845	\$1,611	21.20%
2004	\$28,649	\$2,695	\$31,344	\$1,881	16.76%
2005	\$31,714	\$3,275	\$34,989	\$2,099	11.63%
2006	\$33,346	\$4,208	\$37,554	\$2,253	7.33%
2007	\$32,545	\$4,101	\$36,646	\$2,199	-2.42%
2008	\$30,830	\$4,095	\$34,926	\$2,096	-4.69%
2009	\$29,454	\$3,859	\$33,313	\$1,999	-4.62%
2010	\$29,888	\$3,715	\$33,603	\$2,016	0.87%
2011	\$30,943	\$3,696	\$34,640	\$2,078	3.09%
2012	\$32,323	\$3,862	\$36,185	\$2,171	4.46%
2013	\$33,726	\$4,206	\$37,933	\$2,276	4.83%
2014	\$35,085	\$4,216	\$39,302	\$2,358	3.61%
2015	\$36,957	\$4,550	\$41,507	\$2,490	5.61%
2016	\$39,069	\$4,623	\$43,693	\$2,622	5.26%
2017	\$41,844	\$4,973	\$46,817	\$2,809	7.15%
2018	\$44,858	\$5,547	\$50,405	\$3,024	7.66%
2019	\$47,033	\$6,205	\$53,238	\$3,194	5.62%
2020	\$48,827	\$7,066	\$55,892	\$3,354	4.99%
2021	\$54,253	\$9,065	\$63,318	\$3,799	13.29%

Source: Office of Insurance Regulation (“OIR”) and Florida Surplus Lines Service Office (“FSLSO”)

DWP is as of 12/31 and is based on companies reporting to the OIR on behalf of the FHCF and is subject to change as company/agent adjustments are reported. In 2004, the Florida legislature excluded medical malpractice for 3 years and included surplus lines. Medical malpractice has since been permanently exempted.

2011-2016 DWP numbers have been adjusted to reflect unassessable premiums written in assessable lines of business. However, beginning in 2017, this allowed adjustment figure is unavailable. The average reduction to DWP related to these adjustments was approximately 0.90%.

Average direct written premium increase (geometric mean) from 2000-2021 is 6.44%.

## 2021 Admitted Market Lines Premiums (\$MM)

Line of Business	2021 Total Assessable Premium
Fire	\$825.9
Allied Lines	\$2,213.5
Multiple Peril Crop	\$169.7
Private crop	\$0.4
Farmowners Multiple Peril	\$21.5
Homeowners Multiple Peril	\$11,704.3
Commercial multiple peril (liability portion)	\$704.7
Commercial multiple peril (non-liability portion)	\$967.5
Mortgage Guaranty	\$446.8
Ocean Marine	\$499.0
Inland Marine	\$1,785.9
Financial Guaranty	\$12.1
Earthquake	\$7.6
Other liability - occurrence	\$4,948.4
Other liability - claims-made	\$1,031.5
Products Liability	\$114.8
Private Flood	\$91.0
Private passenger auto no-fault (personal injury protection)	\$4,755.5
Other Private Passenger Auto Liability	\$11,253.4
Commercial auto no-fault (personal injury protection)	\$119.4
Other Commercial Auto Liability	\$3,465.2
Private Passenger Auto Physical Damage	\$6,578.9
Commercial Auto Physical Damage	\$545.8
Aircraft (All Perils)	\$194.9
Fidelity	\$67.0
Surety	\$444.2
Burglary and Theft	\$21.4
Boiler and Machinery	\$73.9
Credit	\$139.3
Warranty	\$862.4
Aggregate write-ins for other lines of business	\$187.4
<b>Totals</b>	<b>\$54,253.4</b>

Source: Florida Office of Insurance Regulation, Market Research Unit

## 2021 Surplus Lines Premiums (\$MM)

		2021 Surplus Lines Premiums (\$MM)			2021 Surplus Lines Premiums (\$MM)
Coverage Code			Coverage Code		
1000	Commercial Property	\$3,260.8	3005	Stevedores Legal Liability	\$8.4
1001	Builders Risk	\$111.1	3006	Personal & Pleasure Boats & Yachts	\$2.3
1002	Business Income	\$2.8	3007	Ocean Marine Builder's Risk	\$0.0
1003	Apartments (Commercial)	\$5.3	3008	Longshoremen (Jones Act)	\$0.0
1004	Boiler and Machinery	\$0.9	3010	Marine Operators Legal Liability - Non Taxable	\$0.0
1005	Commercial Package (Property & Casualty)	\$497.7	3011	Marine Liabilities Package - Non Taxable	\$46.9
1006	Condominium Package (Commercial)	\$85.8	4000	Inland Marine (Commercial)	\$20.5
1007	Crop Hail	\$0.0	4001	Inland Marine (Personal)	\$37.3
1008	Difference In Conditions	\$4.6	4002	Motor Truck Cargo	\$6.2
1009	Earthquake	\$0.5	4003	Jewelers Block	\$0.0
1010	Flood	\$60.5	4004	Furriers Block	\$2.4
1011	Glass (Commercial)	\$0.0	4005	Contractors Equipment	\$2.7
1012	Mortgage Impairment	\$0.0	4006	Electronic Data Processing	\$1,415.1
1013	Windstorm &/or Hail	\$176.1	5000	Commercial General Liability	\$115.9
1014	Mold Coverage - Commercial	\$1.2	5001	Commercial Umbrella Liability	\$92.3
1015	Sinkhole Coverage - Commercial	\$0.0	5002	Directors & Officers Liability (Profit)	\$12.5
1016	Excess Flood - Commercial	\$21.7	5003	Directors & Officers Liability (Non-Profit)	\$1.4
1017	Collateral Protection	\$31.6	5004	Educator Legal Liability	\$17.2
1018	Fire	\$0.0	5005	Employment Practices Liability	\$615.4
1100	Bankers Blanket Bond	\$4.0	5006	Excess Commercial General Liability (Not Umbrella)	\$12.5
1101	Blanket Crime Policy	\$1.1	5007	Excess Personal Liability (Not Umbrella)	\$6.2
1102	Employee Dishonesty	\$0.0	5008	Liquor Liability	\$5.0
1103	Identity Theft	\$0.0	5009	Owners & Contractors Protective	\$10.0
1104	Deposit Forgery	\$0.0	5010	Personal Umbrella	\$26.1
1105	Miscellaneous Crime	\$3.2	5011	Personal Liability	\$88.9
1200	Accident & Health	\$0.0	5012	Pollution & Environment Liability	\$23.6
1201	Credit Insurance	\$6.7	5013	Product & Completed Operations Liability	\$11.0
1202	Animal Mortality	\$0.2	5014	Public Officials Liability	\$3.1
1203	Mortgage Guaranty	\$1.3	5015	Police Professional Liability	\$2.6
1204	Worker's Compensation-Excess Only	\$0.0	5016	Media Liability	\$6.4
1205	Product Recall	\$8.7	5017	Railroad Protective Liability	\$0.0
1206	Kidnap/Ransom	\$0.4	5018	Asbestos Removal & Abatement	\$0.2
1207	Surety	\$24.4	5019	Guard Service Liability	\$5.5
1208	Weather Insurance	\$0.6	5020	Special Events Liability	\$145.8
1209	Prize Indemnification	\$0.6	5021	Miscellaneous Liability	\$141.9
1210	Travel Accident	\$0.0	5022	Cyber Liability	\$0.0
1211	Terrorism	\$21.3	6001	Miscellaneous Medical Professionals	\$0.0
1212	Fidelity	\$1.4	6002	Nursing Home Professional Liability	\$0.0
1213	Deductible Buyback – Property	\$16.4	6003	Physician/Surgeon	\$0.0
2000	Homeowners-HO-1	\$23.6	7000	Architects & Engineers Liability	\$28.9
2001	Homeowners-HO-2	\$0.5	7001	Insurance Agents & Brokers E&O	\$13.4
2002	Homeowners-HO-3	\$464.7	7002	Lawyers Professional Liability	\$57.4
2003	Tenant Homeowners-HO-4	\$3.9	7003	Miscellaneous E&O Liability	\$204.3
2004	Homeowners-HO-5	\$104.4	7004	Real Estate Agents E&O	\$7.1
2005	Condo Unit-Owners HO-6	\$125.8	7005	Software Design Computer E & S	\$9.5
2006	Homeowners-HO-8	\$47.9	8000	Commercial Auto Liability	\$143.2
2007	Dwelling Builders Risk	\$11.4	8001	Commercial Auto Excess Liability	\$33.6
2008	Dwelling Flood	\$60.0	8002	Commercial Auto Physical Damage	\$47.9
2009	Dwelling Property	\$162.9	8003	Dealers Open Lot	\$31.3
2010	Farmowners Multi-Peril	\$2.2	8004	Garage Liability	\$42.4
2011	Mobile Homeowners	\$34.3	8005	Garage Keepers Legal	\$0.8
2012	Windstorm	\$35.7	8006	Private Passengers Auto-Physical Damage Only	\$0.6
2013	Mold Coverage - Residential	\$0.0	8007	Personal Excess Auto Liability	\$0.6
2014	Sinkhole Coverage - Residential	\$0.0	9000	Commercial Aircraft Hull &/or Liability	\$19.9
2015	Excess Flood - Residential	\$31.4	9001	Airport Liability	\$5.8
3000	Marine Operators Legal Liability - Taxable	\$2.5	9002	Aviation Cargo	\$1.9
3001	Marine Liabilities Package - Taxable	\$15.1	9003	Aviation Product Liability	\$11.9
3002	Ocean Marine-Hull &/or Protection & Indemnity	\$11.5	9004	Hanger Keepers Legal Liability	\$0.1
3003	Ocean Cargo Policy	\$30.3	9005	Personal & Pleasure Aircraft	\$0.0
3004	Ship Repairers Legal Liability	\$0.0			
			<b>Totals</b>		<b>\$9,065</b>

Source: FLSO

Based on policies with a submitted (filed) date from 1/1/21 to 12/31/21.

## *Disclaimer*

*The analysis or information presented herein is based upon projections and have limitations. No representation is made that any results indicated will be achieved. Changes to any prices, levels, or assumptions contained herein may have a material impact on results. Any estimates or assumptions contained herein represent our best judgment as of the date indicated and are subject to change.*