

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



**CLAIMS-PAYING CAPACITY ESTIMATES**

**OCTOBER 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 or bank loans issued under Section 215.555(6), Florida Statutes, and secured by emergency assessments, if needed*
- (5) *Investment earnings on accumulated reimbursement premiums and emergency assessments*

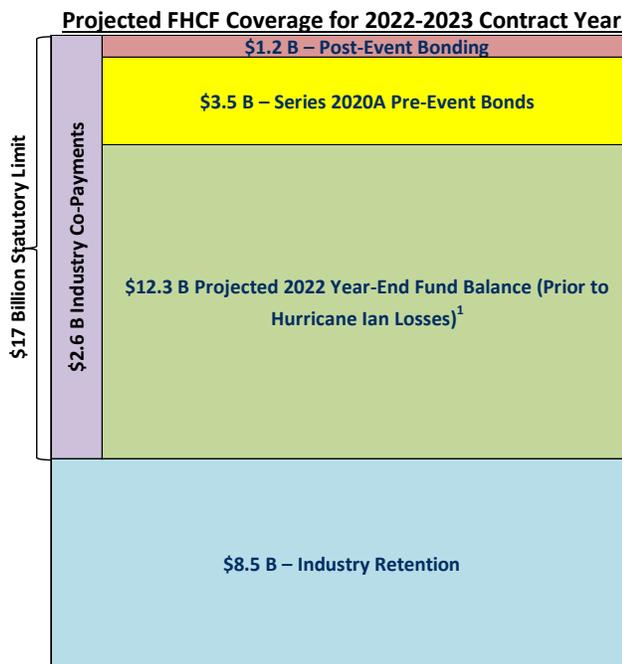
The actual and potential obligations of the FHCF are limited by statute. For the contract year June 1, 2022 – May 31, 2023, the maximum potential liability of the FHCF is \$17 billion, with projected available total liquid resources of approximately \$15.8 billion, which is comprised of \$12.3 billion of projected year-end fund balance and \$3.5 billion of pre-event bond proceeds. The projected available total liquid resources of \$15.8 billion is \$1.2 billion 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.

Hurricane Ian initially made landfall on September 28<sup>th</sup> near Cayo Costa, Florida as a very strong Category 4 hurricane with sustained winds near 150 mph. Paragon Strategic Solutions Inc. ("Paragon"), the FHCF's consulting actuary, estimates the FHCF's share of losses will be between \$4-\$12 billion and is projecting a conservative point estimate of \$10 billion. There is significant uncertainty regarding the ultimate loss amount. as losses are just beginning to develop. Estimates are based on the output of models and are subject to significant uncertainty; therefore, there is no guarantee that actual losses will fall within the projected range. Due to the preliminary nature of these estimates, a reserve has not yet been established.

The chart below summarizes the sources of funds for the FHCF's projected coverage for the 2022-2023 Contract Year prior to Hurricane Ian loss estimates. The \$8.5 billion industry retention is the maximum loss amount retained by the industry below the FHCF coverage layer. The \$12.3 billion projected year-end 2022 fund balance is based on assumptions prepared by Paragon, the FHCF's consulting actuary, and Raymond James, the FHCF's financial advisor, prior to Hurricane Ian losses. 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. The FHCF's preliminary projected coverage for the 2023-2024 Contract Year after Hurricane Ian losses is summarized on page 16.



<sup>1</sup> Paragon Strategic Solutions, the FHCF's consulting actuary, has projected the range of FHCF losses from Hurricane Ian to be between \$4-\$12 billion with a conservative point estimate of \$10 billion. However, no assurance can be given that actual losses will fall within this range of projections.

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 a proxy for 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 table below 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	Return Times (Yrs) for Aggregate FHCF Layer Liabilities Only <sup>1</sup>	Ground Up Losses for Aggregate FHCF Layer Liabilities Only <sup>1</sup>	Return Times (Yrs) for Aggregate AIR,RMS Company Retention Limit Aggregate <sup>2</sup>	Ground Up Losses for Average AIR,RMS Company Retention Limit Aggregate <sup>2</sup>
Maximum Statutory Limit	17.0	30	26.5	256	92.0
Pre-Event Bonds Exhausted	15.8	28	25.2	75	50.7
Project Fund Balance Exhausted	12.3	23	21.3	31	28.5
\$10 Billion FHCF Layer	10.0	20	18.9	23	22.8
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

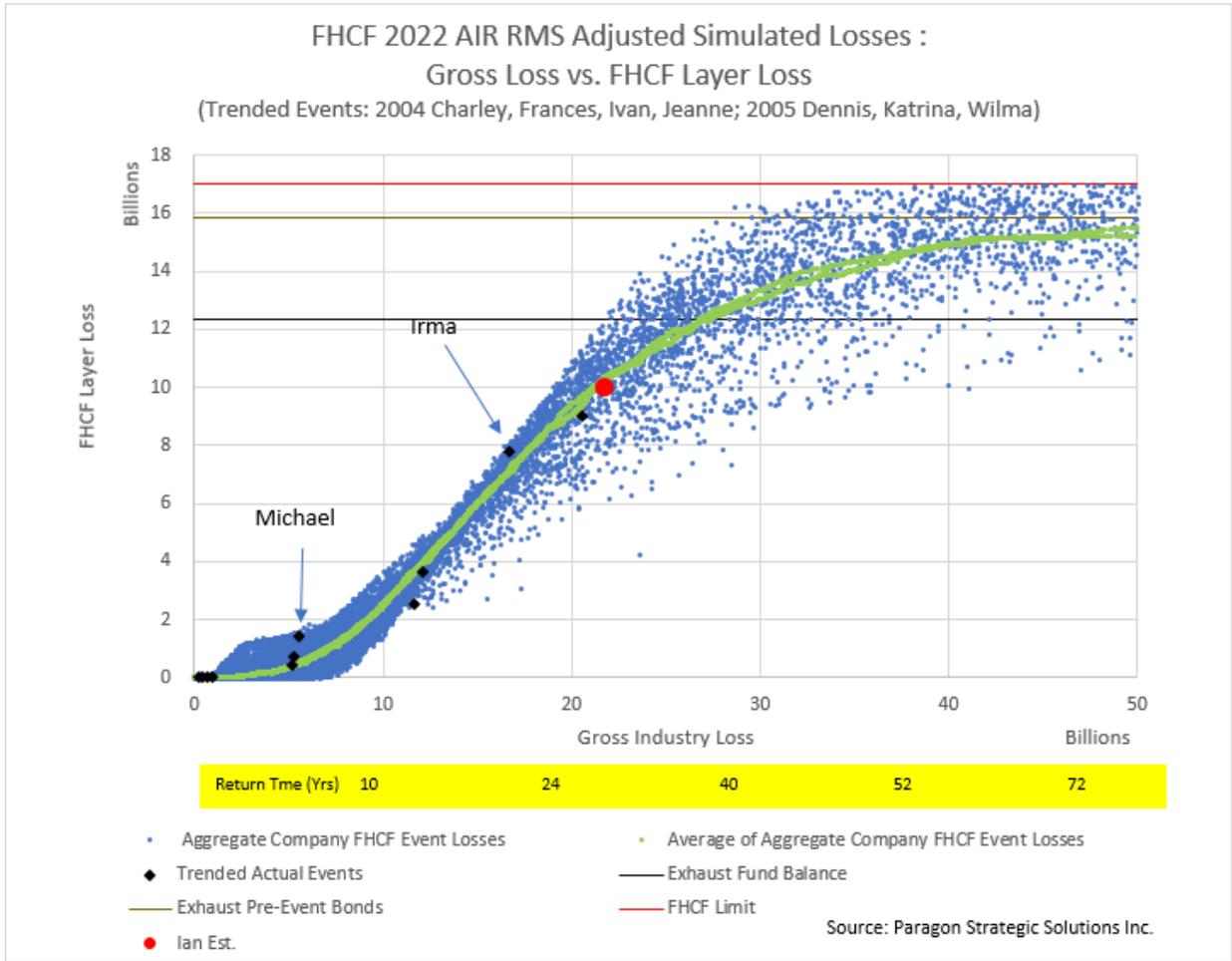
Source: Paragon Strategic Solutions

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 \$12.3 billion projected year-end fund balance, which is prior to the conservative point estimate of Hurricane Ian losses of \$10 billion. The brown line is the total liquidity level at \$15.8 billion and is the sum of the \$12.3 fund balance and the \$3.5 billion pre-event bonds. The red line is set at the \$17 billion total FHCF limit of liability. Prior to Hurricane Ian, the FHCF had funds to cover an event (blue dots) below the funded black line and liquidity to cover an event below the brown line without post-event bonding. Events above the brown line would require post-event bonding for a portion of their payments. For gross industry losses between \$12.5 billion and \$16.6 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 and the following 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 purchase 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 \$22 billion in market capitalization (RJF, [www.raymondjames.com](http://www.raymondjames.com)), serves as the independent

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

- 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, structuring bank loans, 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 \$1.3 trillion of assets under management.
- (2) Solicited formal written feedback from the five current senior managing underwriters of the FHCF’s financial services team after Hurricane Ian landfall and given certain assumptions. 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. 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.



**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 sufficient to support the estimated borrowing capacity for the FHCF. The financial markets are currently in flux as interest rates have significantly increased and are currently very volatile due to global macroeconomic factors such as Russia’s invasion of the Ukraine and actions by both the Federal Reserve and global central banks to combat inflation that is at historically high levels not seen since the 1980’s. Credit spreads have widened due to the volatility in the fixed income markets – even for high-grade credits such as the FHCF – therefore, we have utilized rates of 7% for the initial season and 9% for the subsequent season, which are “above market” rates.

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

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



bond marketplace and illustrated the significant amount of investor demand that exists in the taxable municipal market for a strong credit like the FHCF. However, market access can never be guaranteed, especially in volatile times or 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 an event.

In addition, pricing conditions in the global reinsurance markets affect the participating insurers' coverage percentage selections. Hardening market conditions in the global reinsurance markets, especially in the Florida marketplace, began in 2020 and have continued into 2022. Florida has experienced a significant decrease in reinsurance capacity from global reinsurers due to Florida's insurance market conditions. Due to hardening reinsurance pricing and reduced capacity in the Florida market, the FHCF's average coverage increased for 2022 to approximately 86.0%. Due to Hurricane Ian losses and global macroeconomic factors, the global reinsurance markets are expected to harden further, which will further reduce the reinsurance capacity for the Florida market.

The FHCF had approximately \$15.8 billion of liquidity resources for the 2022-2023 Contract Year, prior to the estimated \$10 billion of Hurricane Ian losses, which was \$1.2 billion below its maximum statutory obligation of \$17 billion. 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. The table below shows the FHCF's obligations and its projected liquidity resources for the 2022-2023 Contract Year prior to Hurricane Ian losses.

<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 Prior to Hurricane Ian Losses</b>	<b>\$12.3</b>
<b>Series 2020A Pre-Event Bonds Balance</b>	<b>\$3.5</b>
<b>Total Liquidity Resources</b>	<b>\$15.8</b>
<b>Total Liquidity Resources Below Potential Obligations</b>	<b>\$1.2</b>

*Numbers may not add due to rounding.*

The estimated Hurricane Ian losses of \$10 billion will reduce the available liquidity resources for the 2022-2023 Contract Year and subsequent contract years. Absent any future events for the remainder of the 2022-2023 Contract Year and assuming no additional growth in Hurricane Irma or Michael losses, the FHCF is projected to have liquid resources of \$7.4 billion for the 2023-2024 Contract Year, comprised of \$2.3 billion of projected year-end 2022 fund balance after Hurricane Ian losses and \$1.6 billion of projected reimbursement premiums and investment income in 2023, and \$3.5 billion of pre-event bonds, which in total is approximately \$9.6 billion below its maximum statutory obligation of \$17 billion. After an event and depending on market conditions and interest rates, the FHCF could 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 and preserve its \$3.5 billion Series 2020A pre-event bond proceeds for subsequent seasons.

For the 2023-2024 Contract Year, if the FHCF were to use all of its \$3.5 billion Series 2020A pre-event bond proceeds, the remaining statutory obligation is projected to be approximately \$9.6 billion. As shown in the next two charts, the largest single issuance since 2019 was \$4.9 billion. After a hurricane event, the FHCF most likely will not need to do one single large financing, but could issue two to three series of bonds likely over more than one year based on loss payouts from storms. 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 pages 9-10 show that the largest cumulative amount issued by a single issuer in a calendar year since 2019 has ranged from \$7.8-\$12.4 billion.

Largest 25 Taxable Municipal Issuances By Par Amount Since 2019					
Rank	Issuer Name	State	Year of Sale	Issue Description	Par (\$MM)
1	Florida St Board Admin Fin Corp	FL	2020	Revenue Bonds	\$3,500
2	Louisiana Gov Env Fac & CDA (LCDA)	LA	2022	System Restoration Bonds	\$3,194
3	Golden State Tobacco Sec Corp	CA	2021	Tobacco Settle Asset-Backed Bonds	\$2,800
4	Massachusetts	MA	2022	Special Obligation Rev Bonds	\$2,681
5	Regents of the Univ of California	CA	2020	General Revenue Bonds	\$2,650
6	Regents of the University of Michigan	MI	2022	General Revenue Bonds	\$2,000
7	Hawaii	HI	2021	GO & Refunding Bonds	\$1,883
8	NYS Dorm Authority	NY	2021	State Personal Income Tax Bonds	\$1,826
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	Systemwide Revenue Bonds	\$1,664
12	Grand Parkway Transport Corp	TX	2020	1st 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	Special Obligation Revenue Bonds	\$1,496
15	NYS Dorm Authority	NY	2019	State Personal Inc Tax Rev Bonds	\$1,392
16	Oklahoma Dev Finance Auth	OK	2022	Ratepayer-Backed Bonds	\$1,354
17	Texas Transportation Commission	TX	2020	GO Mobility Fund Ref Bonds	\$1,271
18	Dallas & Fort Worth Cities-Texas	TX	2019	Joint Revenue Refunding Bonds	\$1,167
19	Regents of the University of California	CA	2022	Medical Ctr Pooled Rev Bonds	\$1,100
20	Port Authority of NY & NJ	NY	2020	Consolidated Notes	\$1,100
21	Massachusetts School Bldg Auth	MA	2020	Sr Dedicated Sales Tax Bonds	\$1,095
22	Michigan Finance Authority	MI	2019	Hospital Revenue Refunding Bonds	\$1,091
23	Regents of the Univ of California	CA	2021	General Revenue Bonds	\$1,089
24	Pennsylvania State University	PA	2020	Revenue Bonds	\$1,065
25	Pennsylvania State University	PA	2020	General Obligation Notes	\$1,061

Source: Thomson Financial for long-term negotiated taxable issuances from January 1, 2019 to September 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	NYS Dorm Authority	NY	2020	State Personal Income Tx Rev Bond	\$2,434
6	NYS Dorm Authority	NY	2022	State Personal Inc Tax Rev Bonds	\$2,422
7	California	CA	2019	Various Purpose GO Bonds	\$2,405
8	California	CA	2022	Various Purpose GO Ref Bonds	\$2,317
9	California	CA	2019	Various Purpose GO Ref Bonds	\$2,292
10	California	CA	2022	Various Purpose GO Ref Bonds	\$2,229
11	NYS Urban Development Corp	NY	2020	State Personal Inc Tax Rev Bonds	\$2,225
12	NYS Dorm Authority	NY	2021	State Personal Inc Tax Rev Bonds	\$2,153
13	California	CA	2020	Various Purp GO & Ref Bonds	\$2,096
14	California	CA	2021	Various Purp GO & Refunding Bonds	\$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	2022	State Personal Inc Tax Rev Bonds	\$1,938
18	NYS Thruway Authority	NY	2021	Revenue Bonds	\$1,901
19	Regents of the University of California	CA	2022	Medical Ctr Pooled Rev Bonds	\$1,900
20	District of Columbia	DC	2019	Income Tax Secured Rev Ref Bonds	\$1,886
21	NYS Dorm Authority	NY	2021	State Personal Inc Tax Rev Bonds	\$1,871
22	California	CA	2021	GO Various Purpose Bonds	\$1,842
23	Chicago City-Illinois	IL	2022	General Airport Sr Lien Bonds	\$1,768
24	Colorado Health Facilities Auth	CO	2019	Revenue Bonds	\$1,761
25	Florida Development Fin Corp	FL	2019	Surface Transpo Fac Rev Bonds	\$1,750

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

Largest 25 Issuers By Issued Par Amount 2019		
Rank	Issuer Name	Par (\$MM)
1	California	\$9,489
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)
1	Metropolitan Transport Auth (MTA)	\$9,253
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
13	Florida St Board Admin Fin Corp	\$3,500
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>\$12,438</b>
2	NYS Dorm Authority	\$10,941
3	Triborough Bridge & Tunnel Auth	\$10,649
4	California	\$9,091
5	Regents of the University of California	\$8,171
6	New York City-New York	\$7,422
7	Massachusetts	\$7,362
8	Louisiana Gov Env Fac & CDA (LCDA)	\$6,646
9	Washington	\$6,220
10	Oklahoma Dev Finance Auth	\$5,670
11	NYS Thruway Authority	\$5,663
12	Regents of the University of Michigan	\$4,938
13	Los Angeles Dept of Airports	\$4,897
14	Illinois	\$4,677
15	Wisconsin Public Finance Auth	\$4,579
16	Virginia Small Business Fin Auth	\$4,450
17	Denver City and Co-Colorado	\$4,394
18	NYC Municipal Water Fin Auth	\$4,274
19	Black Belt Energy Gas Dt	\$4,171
20	Main Street Natural Gas Inc	\$3,749
21	Chicago City-Illinois	\$3,744
22	Los Angeles Dept Wtr & Pwr (LADWP)	\$3,537
23	Los Angeles City-California	\$3,528
24	Florida Development Fin Corp	\$3,506
25	Dallas & Fort Worth Cities-Texas	\$3,484

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

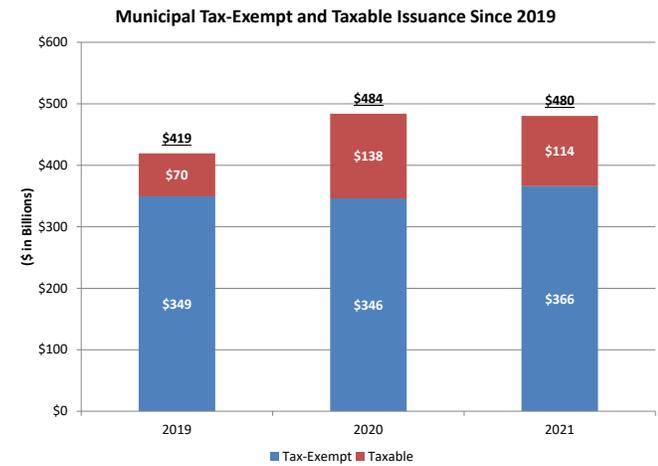
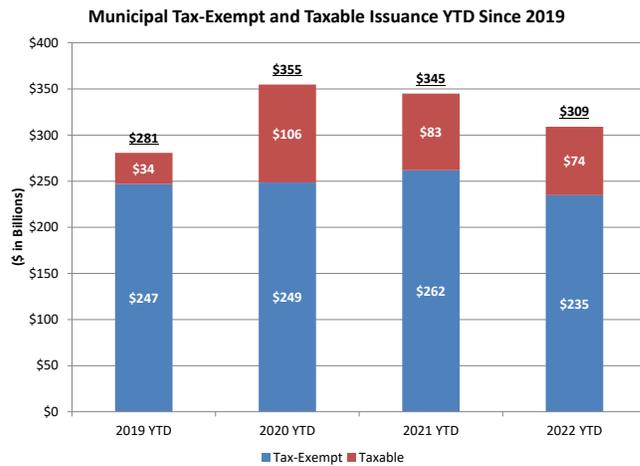
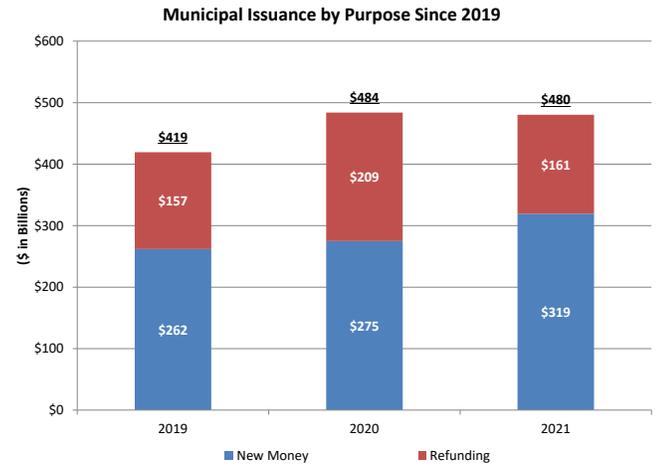
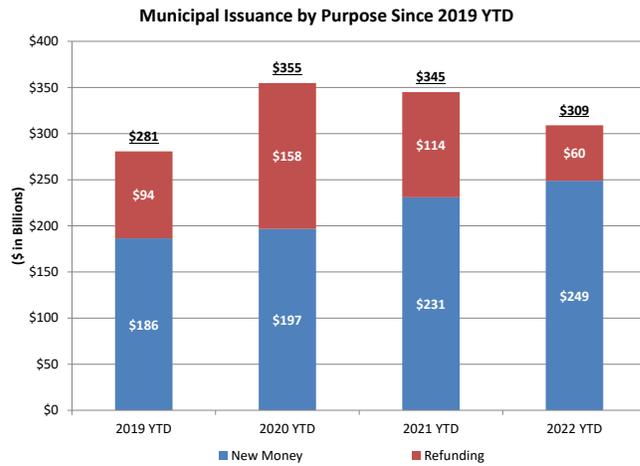
In reviewing this history of large municipal issuers, however, it is important to note that the FHCF has been a relatively infrequent but large issuer of debt. Since 2006, the FHCF has completed eight bond issues totaling \$15.6 billion (three tax-exempt issues totaling \$2.6 billion and five taxable issues totaling \$13.0 billion), of which \$3.5 billion is outstanding. By comparison, for example, since 2019, the State of California has completed 36 long-term bond issues totaling over \$28 billion, the New York State Dormitory Authority has completed 119 long-term bond issues totaling over \$30 billion, the New York City Transitional Finance Authority has completed 82 long-term bond issues totaling over \$27 billion, and the Commonwealth of Massachusetts has completed 42 long-term bond issues totaling approximately \$15 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.

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, which was lower than 2020 issuance of \$2.3 trillion. Through September 30, 2022, corporate bond issuance is at \$1.1 trillion, or 28% lower than the \$1.6 trillion issued over the same time period in 2021. The corporate bond market has topped \$1 trillion each year since 2011 while rates were historically low, but rates in 2022 have increased dramatically and issuance has waned due to the higher rate environment, wider credit spreads, and volatility in the marketplace.

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 \$309 billion and is 10% lower compared to the \$345 billion issued over the same time period in 2021.



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

While market conditions remain highly volatile, 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; and (3) 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, especially after a large event, 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, as seen in today’s current environment. As such uncertainty is currently present, this may create an additional risk for participating insurers who rely on the FHCF for reimbursements. 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. Based on the FHCF’s preliminary point estimate of \$10 billion for Hurricane Ian and its current and projected resources, the FHCF’s remaining statutory obligation for the 2023-2024 Contract Year is projected to be approximately \$9.6 billion. Due to the impact of Hurricane Ian on the FHCF’s claims-paying capacity, the participating insurers should recognize the significant impact that financial markets can have on the FHCF’s claims-paying ability for the 2023-2024 Contract Year and 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. Below is the capacity question we asked the FHCF’s senior managing underwriters:

**The preliminary estimated bonding capacity of the FHCF for the current contract year is \$8.4 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. Based on past payout patterns, the amount of debt that the FHCF can raise within the first twelve months is integral for the FHCF and its ability to reimburse participating insurers up to its statutory limit.

We are comfortable including estimates that contain some above-market interest rate capacity in recognition of the significant current market volatility along with the fact that the FHCF’s strong assessment capability can support its estimated borrowing capacity, 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 7% for the initial season and 9% 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:

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	\$3.5-\$5B	\$3-\$4B	\$3.5B
12-24 Months	\$2-\$3B	\$2-\$3B	\$5-\$6B	\$6-\$8B	\$2-\$3B	\$4.0B
<i>Total tax-exempt</i>	<i>\$3.5-\$5B</i>	<i>\$4-\$6B</i>	<i>\$10-\$12B</i>	<i>\$9.5-\$13B</i>	<i>\$5-\$7B</i>	<i>\$7.5B</i>
<b>Taxable:</b>						
0-12 Months	\$3-\$5B	\$3.5-\$5B	\$6-\$7B	\$5-\$7B	\$3-\$4B	\$4.9B
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-\$9B</i>	<i>\$12-\$14B</i>	<i>\$13-\$19B</i>	<i>\$5-\$7B</i>	<i>\$10.2B</i>
<b>Tax-Exempt and Taxable</b>						
<b>0-12 Months Total</b>	<b>\$4.5-\$7B</b>	<b>\$5.5-\$8B</b>	<b>\$11-\$13B</b>	<b>\$8.5-\$12B</b>	<b>\$6-\$8B</b>	<b>\$8.4B</b>
<b>12-24 Months Total</b>	<b>\$5-\$8B</b>	<b>\$5-\$7B</b>	<b>\$11-\$13B</b>	<b>\$14-\$20B</b>	<b>\$4-\$6B</b>	<b>\$9.3B</b>
<b>0-24 Months Total</b>	<b>\$9.5-\$15B</b>	<b>\$10.5-\$15B</b>	<b>\$22-\$26B</b>	<b>\$22.5-\$32B</b>	<b>\$10-\$14B</b>	<b>\$17.7B</b>

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

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



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 \$8.4 billion. This capacity is \$1.2 billion below what would be needed to meet the FHCF's maximum statutory obligation for the 2023-2024 Contract Year. As the FHCF's ability to pay additional claims for a subsequent season is also important, the FHCF's bonding capacity beyond 0-12 months is another 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, 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. Under a scenario when an 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 post-event bonds. Prior to adjusting for estimated Hurricane Ian losses of \$10 billion, the FHCF projects that its year-end fund balance for the 2022-2023 Contract Year is approximately \$12.3 billion and it has an estimated bonding capacity of \$8.4 billion, which equals a total estimated claims-paying capacity of \$20.7 billion prior to Hurricane Ian losses.

Absent any future events for the 2022-2023 Contract Year and assuming no additional growth in Hurricane Irma or Michael losses, the 2023-2024 Contract Year is projected to have a year-end fund balance of approximately \$3.9 billion, including projected 2023-2024 Contract Year reimbursement premiums, which when combined with the existing pre-event bond proceeds of \$3.5 billion and 0-12 month estimated bonding capacity of \$8.4 billion, this equals a total estimated claims-paying capacity of \$15.8 billion, which is approximately 93% of its statutory limit of \$17 billion. For any remaining losses 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 \$9.3 billion available.

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

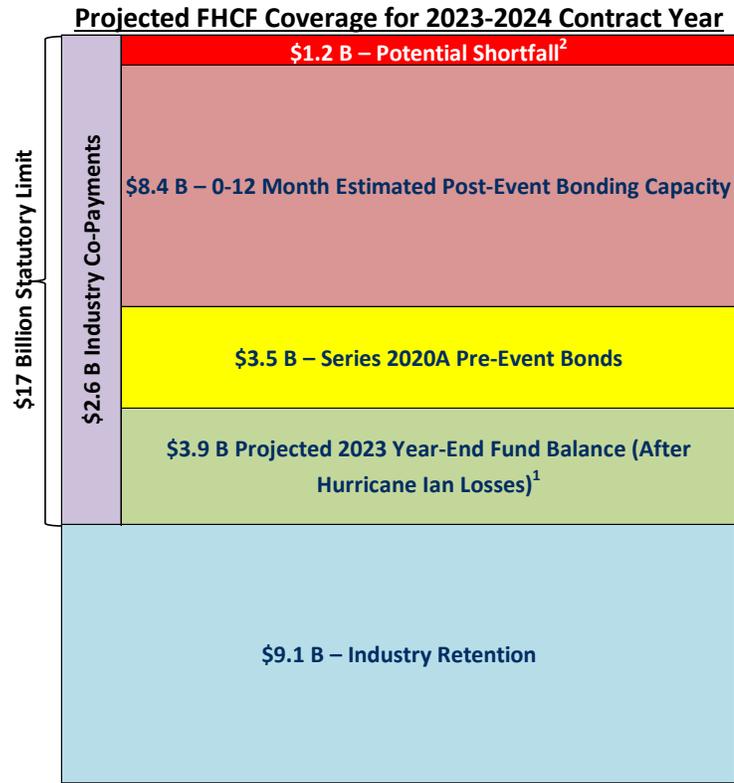


(\$ in Billions, Totals may not add due to rounding)	2022-2023 Contract Year	2023-2024 Contract Year
<b>FHCF Potential Coverage Obligation</b>		
FHCF Coverage Obligation (A)	\$17.0	\$17.0
2022 Hurricane Ian Loss Estimates <sup>1</sup> (-) (B)	\$10.0	N/A
<b>FHCF Remaining Coverage Obligation (A - B) = (C)</b>	<b>\$7.0</b>	<b>\$17.0</b>
<b>FHCF Estimated Funding Sources Available</b>		
Projected FHCF Year-End Fund Balance (D)	\$12.3	\$3.9
2022 Hurricane Ian Loss Estimates <sup>1</sup> (-) (E)	\$10.0	N/A
<b>Projected Remaining FHCF Year-End Fund Balance (D - E) = (F)</b>	<b>\$2.3</b>	<b>\$3.9</b>
Risk Transfer and Other Financial Transactions (G)	\$0.0	\$0.0
Pre-Event Bond Proceeds Available <sup>2</sup> (H)	\$3.5	\$3.5
<b>Total Remaining Funding Sources Available After Hurricane Ian Losses (F + G + H) = (I)</b>	<b>\$5.8</b>	<b>\$7.4</b>
<b>Additional Funds / Potential Borrowing Need (I - C) = (J)</b>	<b>(\$1.2)</b>	<b>(\$9.6)</b>
<b>FHCF Claims-Paying Capacity</b>		
Estimated FHCF Borrowing Capacity <sup>2</sup> (K)	\$8.4	\$8.4
Total Remaining Funding Sources Available After Ian Losses Assuming Pre-Event Bond Proceeds are Used in 2023-2024 (I - H) = (L)	\$2.3	\$7.4
<b>Total Estimated Remaining Claims-Paying Capacity After Ian Loss Estimates (K + L) = (M)</b>	<b>\$10.7</b>	<b>\$15.8</b>
<b>Total Estimated Remaining Claims-Paying Capacity as a % of FHCF Remaining Coverage Obligation (M / C) = (N)</b>	<b>154%</b>	<b>93%</b>
<b>Amount Above / (Below) Remaining Coverage Obligation After Ian Loss Estimates (M - C) = (O)</b>	<b>\$3.7</b>	<b>(\$1.2)</b>

<sup>1</sup> Paragon Strategic Solutions, the FHCF's consulting actuary, has projected the range of FHCF losses from Hurricane Ian to be between \$4-\$12 billion with a conservative point estimate of \$10 billion. However, no assurance can be given that actual losses will fall within this range of projections.

<sup>2</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 2022-2023 and if needed, post-event bonds will be issued in place of the pre-event bond proceeds.

Based on the projected 2023-2024 Contract Year claims-paying resources, the chart on the following page summarizes the potential 2023-2024 claims-paying capacity and is based on utilizing a projected industry retention of \$9.1 billion and the same industry participation from the 2022-2023 Contract Year. Actual retention and industry participation for the 2023-2024 Contract Year will be projected based on Paragon's 2023 Ratemaking Formula Report.



<sup>1</sup> Paragon Strategic Solutions, the FHCF's consulting actuary, has projected the range of FHCF losses from Hurricane Ian to be between \$4-\$12 billion with a conservative point estimate of \$10 billion. However, no assurance can be given that actual losses will fall within this range of projections. Assumes no growth in Hurricane Irma and Hurricane Michael losses.

<sup>2</sup> The FHCF is statutorily obligated to pay its contractual reimbursement obligations from its claims-paying resources, which are comprised of: accumulated reimbursement premiums, recoveries from reinsurance and other risk-transfer mechanisms, pre-event bond proceeds and other pre-event liquidity resources, and proceeds of post-event revenue bonds or bank loans issued under Section 215.555(6), Florida Statutes, and investment earnings on accumulated reimbursement premiums.

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

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 below based on an interest rate of 7% for the initial season and 9% for the subsequent season over a 30-year period, for informational purposes only.

(\$ in Billions)	2022-2023 Contract Year	2023-2024 Contract Year <sup>1</sup>
<b>Total Potential Borrowing</b>	<b>\$4.7</b>	<b>\$11.9</b>
<b>Assessment % over 30 Years if Financed at a Rate of 7% for the Initial Season and 9% for the Subsequent Season</b>	<b>0.59%</b>	<b>1.81%</b>
<b>Assessment % over 10 Years if Financed at a Rate of 7% for the Initial Season and 9% for the Subsequent Season</b>	<b>1.03%</b>	<b>2.85%</b>

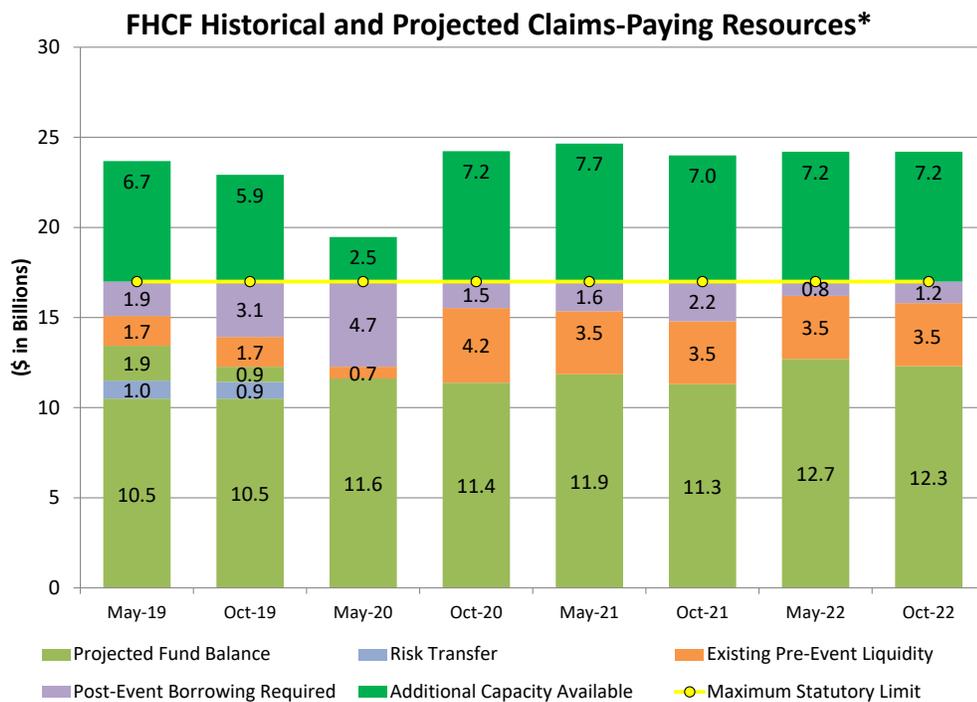
<sup>1</sup> The potential borrowing for the 2023-2024 Contract Year is shown as the 0-12 month estimated bonding capacity of \$8.4 billion and the assessments required to repay the pre-event bond proceeds of \$3.5 billion. The actual assessment amount of repaying the pre-event bond proceeds will depend on the tenor of repayment, which is based on the maturity of the pre-event bonds.



## 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 \$12.3 billion available for the 2022-2023 Contract Year. Hurricane Ian loss estimates of \$10 billion results in a projected fund balance of approximately \$3.9 billion available for the 2023-2024 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, the senior managers’ estimates for October 2022 are diverse, 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 May 2022 average bonding estimate for 0-12 months was \$8.0 billion and the October 2022 average bonding estimate for 0-12 months has marginally increased to \$8.4 billion.

The chart below shows the total estimated initial season claims-paying resources of the FHCF since May 2019 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.

\* For October 2022, Paragon Strategic Solutions, the FHCF’s consulting actuary, has projected the range of FHCF losses from Hurricane Ian to be between \$4-\$12 billion and has included a conservative point estimate of \$10 billion, but is not reflected in this chart.



This chart 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.

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 May 2019.

Post-Event Estimated Bonding Capacity Over 12 Months (Senior Managers' Range)									
(\$ in Billions)	May-19	Oct-19	May-20	Oct-20	May-21	Oct-21	May-22	Oct-22	May 2022 - Oct. 2022 Change
Overall Range	\$6-\$12	\$5.5-\$12	\$4-\$11	\$6.5-\$11	\$5.5-\$13	\$5.5-\$13	\$4.5-\$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. After adjusting for Hurricane Ian loss estimates, the FHCF has liquid resources that are significantly below its statutory limit for the subsequent season. The projected 0-12 month bonding capacity of \$8.4 billion allows for the FHCF to fund a majority of its maximum statutory obligation, but additional funding sources are needed to fund its statutory limit of \$17 billion for the 2023-2024 Contract Year. This assumes the FHCF would need to bond within 12 months, which is conservative, however the FHCF may have more time for additional bonding. While the FHCF has additional bonding capacity from 12-24 months available, this projected additional capacity is subject to greater uncertainty and does not provide a guaranteed source of liquidity or claims-paying capacity. Therefore, the actual bonding results achieved by the FHCF could vary substantially from this estimate. The FHCF can take advantage of the capital markets by issuing pre-event bonds or utilizing other alternative options to reduce its potential post-event market exposure and bolster its available liquidity, which will allow the FHCF to continue to be stable and sustainable towards its mission to provide strong reimbursement capacity to the Florida property insurance market for both the initial and subsequent season.

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

## Sasha Stipanovich

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**From:** Sasha Stipanovich  
**Sent:** Wednesday, October 5, 2022 1:48 PM  
**Cc:** Kapil Bhatia  
**Subject:** FHCF Bonding Capacity

FHCF Senior Manager Team:

We are aware of the current volatility in the fixed income and equity markets, as well as the unknowns regarding the potential losses from Hurricane Ian. The FHCF is currently working with its chief actuary, Paragon, to estimate its potential losses from Hurricane Ian, but at this time we do not have any preliminary estimates to share and will have its reserve estimate range prior to the Advisory Council Meeting on October 26<sup>th</sup>. Despite these factors, we need your input in preparation for presenting the bonding capacity estimates at the FHCF Advisory Council Meeting on October 26<sup>th</sup> at 1:30 PM. We understand your capacity estimates may potentially change based on the better understanding of Hurricane Ian losses, but we need to prepare the bonding capacity analysis report based on current market conditions and the information that we have available as of now.

***For the bonding capacity analysis, we would like to know your opinion of the FHCF's tax-exempt and taxable bonding capacity over a 0-12 month and 12-24 month period and are still comfortable including estimates that contain above-market interest rate capacity estimates in recognition of the fact that the FHCF has ample assessment capability within its statutory limits to issue bonds, even at above market rates, if needed.***

In order to prepare the FHCF Bonding Capacity Report for October 2022, we need the following data elements from you by close of business Wednesday, October 12<sup>th</sup>:

1. Please provide a 30-year tax-exempt scale for the FHCF using the MMD at the close of business Friday, October 7<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 premium 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).
2. Please provide a 30-year taxable scale using the Treasury curve at the close of business Friday, October 7<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).
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			
Time Period	Tax-Exempt	Taxable	Total
0-12 Months			
12-24 Months			

**We would like to have to your responses back by close of business Wednesday, October 12<sup>th</sup>.** Additionally, we would like a representative from your firm (banker and/or underwriter) to dial-in during the meeting to answer any questions – Dial-In: (888) 585-9008; Code: 973-664-296. As you are preparing your responses, please let us know if you have any questions or comments – you can call or e-mail Kapil Bhatia (727-415-3267, [kapil.bhatia@raymondjames.com](mailto:kapil.bhatia@raymondjames.com)) or Sasha Stipanovich (850-544-1117, [sasha.stipanovich@raymondjames.com](mailto:sasha.stipanovich@raymondjames.com)).

Sasha Stipanovich  
Director

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**RAYMOND JAMES®**

# Memorandum

**To:** Florida Hurricane Catastrophe Fund  
**From:** BofA Securities, Inc.  
**Date:** October 12, 2022  
**Subject:** Florida Hurricane Catastrophe Fund – October 2022 Bonding Capacity Analysis

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BofA Securities, Inc. (“BofA”) is pleased to provide the Florida Hurricane Catastrophe Fund (“FHCF” or the “Fund”) with our firm’s estimates and views of the FHCF’s post-event bonding capacity and current market borrowing costs. As FHCF is acutely aware, the near- and long-term impacts from Hurricane Ian continue to develop, and its total influence may not be known for a considerable amount of time. As shown further below, our assessment of investor appetite for an FHCF offering (or offerings) has not changed, and we believe total unconstrained issuance capacity remains at levels we presented in May 2022. However, since our last update to FHCF, taxable and tax-exempt credit spreads have widened. These levels are a function largely of overall technical factors in the broader fixed income markets and are not a reflection of the Fund’s credit or standing with investors, as discussed below.

## Market Commentary

Since our May 2022 update, the Federal Reserve (“Fed”) remains in the driver’s seat. The municipal bond market started this past quarter strong, but finished a lot weaker. While an economic recession view prevailed in July, by early August, with a very strong July employment report and subsequent high CPI data, that view was defeated and rekindled the Fed’s hawkish stance. The municipal market rallied strongly in July with the 10-year AAA yield falling over 50 basis points, followed by 100+ basis points selloff by the end of the third quarter of 2022. Reflecting this trend, since our May 2022 update, the tax-exempt AAA MMD yield curve has increased by an average of 55 basis points. The most significant movement have occurred on the front-end of the curve (years 1-5), increasing an average of 67 basis points. Similarly, the U.S. treasury curve has increased an average of 120 basis points since our May 2022 update, with the highest increase occurring in the first five years and averaging 172 basis points. That said, MMD/UST ratios have improved from May 2022, with 10-year MMD/ UST ratio at 82% (down from 92%) and 30-year MMD/UST ratio down from 100% to 97%.

On the supply side, issuance during 3Q2022 totaled \$93.5 billion, down 26% compared to 3Q2021 and down 17% quarter over quarter. That was largely the result of significantly lower refunding volumes during the quarter, which were down 65% year over year and 26% quarter over quarter. In fact, 3Q2022 issuance was about 29% below BofA’s forecast from June 2022 of \$132 billion for the quarter. On the demand side, principal redemptions of long- and short-term bonds totaled \$123 billion in 3Q2022 and coupon payments totaled \$33 billion. For 3Q2022, all municipal bond fund outflows totaled \$11.4 billion. Money market fund outflows totaled \$3.0 billion and investment grade outflows topped \$9.5 billion. In fact, just in the past nine weeks, municipal bond market outflows totaled \$1.3 billion. The municipal bond market experienced outflows 37 of the 40 weeks thus far in 2022.

Uncertainty around the Fed’s tightening path and elevated inflation remained the bond market’s focus in 3Q2022. Historically, the Fed usually has stopped hiking rates before payrolls prints are negative. BofA believes that this cycle could be different since the Fed is hiking with the expressed purpose of rebalancing the labor market (similar to what was observed during the 1980s). As such, BofA economists believe rate hikes will likely continue until negative payrolls are almost in hand and we expect front-end rates to continue to increase and continued flattening of the U.S. Treasury curve with Fed hikes. Bull steepening pressures are likely to be subdued until the labor market turns and allows the Fed to pivot more clearly around early 2023.

As we have noted in the past, and especially true in the current post-Hurricane Ian market, a transaction or series of transactions by the FHCF and possibly other insurance-related entities in the State (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

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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.

- Please provide a 30-year tax-exempt scale for the FHCF using the MMD at the close of business Friday, October 7th. 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 premium 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)	Premium Coupon	MMD	Spread	Yield
1	2023	5.000%	2.930%	10 bps	3.03%
2	2024	5.000%	2.960%	15 bps	3.11%
3	2025	5.000%	3.000%	20 bps	3.20%
4	2026	5.000%	3.010%	25 bps	3.26%
5	2027	5.000%	3.020%	30 bps	3.32%
6	2028	5.000%	3.050%	34 bps	3.39%
7	2029	5.000%	3.060%	38 bps	3.44%
8	2030	5.000%	3.080%	42 bps	3.50%
9	2031	5.000%	3.130%	45 bps	3.58%
10	2032	5.000%	3.180%	48 bps	3.66%
11	2033	5.000%	3.210%	52 bps	3.73%
12	2034	5.000%	3.320%	55 bps	3.87%
13	2035	5.000%	3.350%	58 bps	3.93%
14	2036	5.000%	3.360%	52 bps	3.88%
15	2037	5.000%	3.380%	65 bps	4.03%
16	2038	5.000%	3.420%	68 bps	4.10%
17	2039	5.000%	3.460%	72 bps	4.18%
18	2040	5.000%	3.520%	75 bps	4.27%
19	2041	5.000%	3.570%	78 bps	4.35%
20	2042	5.000%	3.590%	80 bps	4.39%
21	2043				
22	2044				
23	2045				
24	2046				
25	2047	5.000%	3.710%	85 bps	4.56%
26	2048				
27	2049				
28	2050				
29	2051				
30	2052	5.000%	3.760%	90 bps	4.66%

2. Please provide a 30-year taxable scale using the Treasury curve at the close of business Friday, October 7th. 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	4.700%	4.300%	40 bps	4.700%
2	2024	4.800%	4.300%	50 bps	4.800%
3	2025	4.880%	4.330%	55 bps	4.880%
4	2026	4.790%	4.140%	65 bps	4.790%
5	2027	4.890%	4.140%	75 bps	4.890%
6	2028	4.880%	4.030%	85 bps	4.880%
7	2029	4.930%	4.030%	90 bps	4.930%
8	2030	4.890%	3.890%	100 bps	4.890%
9	2031	5.040%	3.890%	115 bps	5.040%
10	2032	5.190%	3.890%	130 bps	5.190%
11	2033	5.340%	3.890%	145 bps	5.340%
12	2034	5.490%	3.890%	160 bps	5.490%
13	2035	5.640%	3.890%	175 bps	5.640%
14	2036	5.740%	3.890%	185 bps	5.740%
15	2037	5.840%	3.890%	195 bps	5.840%
16	2038				
17	2039				
18	2040				
19	2041				
20	2042	5.860%	3.860%	200 bps	5.860%
21	2043				
22	2044				
23	2045				
24	2046				
25	2047	5.960%	3.860%	210 bps	5.960%
26	2048				
27	2049				
28	2050				
29	2051				
30	2052	5.985%	3.860%	213 bps	5.985%

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: October 12, 2022

Re: FHCF October 2022 Capacity Analysis

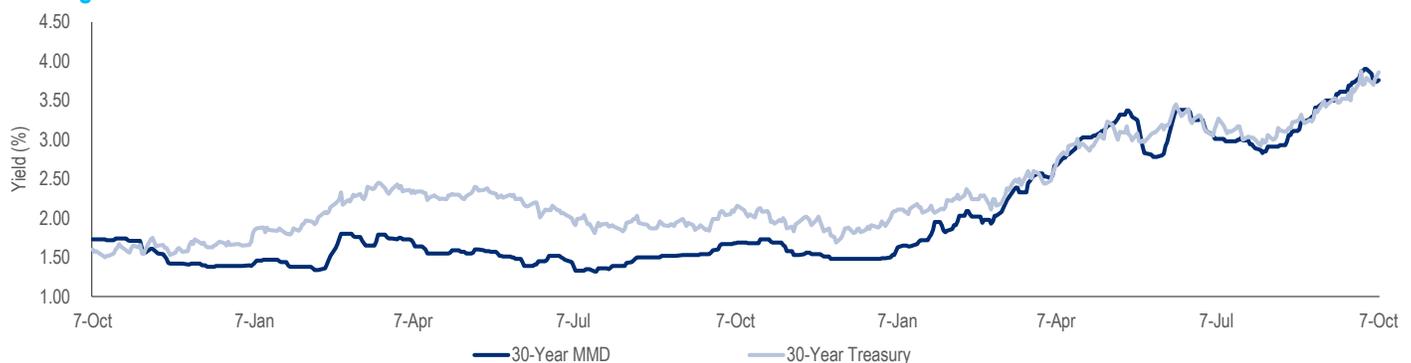
Citigroup is pleased to provide the Florida Hurricane Catastrophe Fund (the "FHCF") with an updated estimated post-event bond capacity analysis.

Based on Citi's long history serving the FHCF as a senior or co-senior manager in the underwriter pool, we are aware that post an event, like Hurricane Ian, it takes time for claims to come in and for potential losses to be estimated accurately. While determining our scale and capacity estimates post Ian, we focus on the fundamental strengths of the FHCF credit, which include a strong current capital position and claims paying capacity, a broad assessment base and an experienced leadership team. Citi believes the FHCF would continue to have tremendous market access based on a positive historical repayment for bond holders, even post Ian.

**Municipal Market Update.** The economic challenges and geopolitical uncertainty present at the start of 2022 persist, contributing to a difficult market environment characterized by financial market volatility, inflation and rising rates. Recent municipal market developments include sustained rate hikes by the Federal Open Market Committee ("FOMC") to curb heightened inflation, recession uncertainty leading to treasury and municipal rate volatility, municipal fund outflows and sell pressure, which all continue to weigh on the market. Treasuries have moved higher in yield throughout 2022 as market participants digest high inflation, an increasingly hawkish Federal Reserve, and geopolitical concerns. The 10-, 20- and 30-year MMD rates are up +213bps, +227bps, and +225bps, respectively, year-to-date. Still, yields remain relatively attractive on the intermediate to long-end from a historical context despite increased volatility and weakening throughout 2022. Moreover, weekly reporting municipal funds recorded outflows of \$2.06 billion for the week ending October 5, marking nine consecutive weeks of outflows and following prior week outflows of \$3.6 billion, with 2022 outflows totaling \$94.6 billion year-to-date. The record outflows, markedly different from last year's reported inflows of \$101.7 billion, are signals indicative of the enduring volatile market environment.

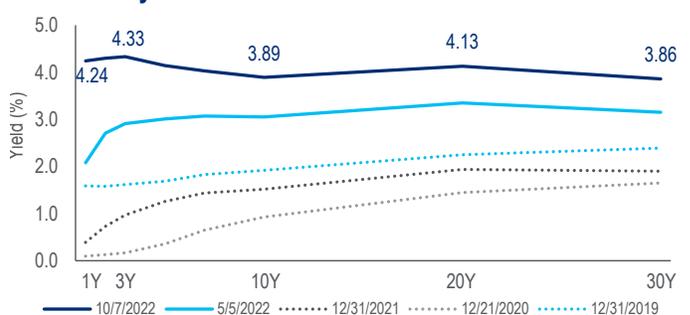
## 30-Year MMD and 30-Year Treasury

### Trailing 2-Years



**Yield Curve Environment.** While 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, even as recently as the first quarter of 2022, the tone shifted quickly amid historically high and above forecast inflation over the course of the year. The FOMC has remained committed to tightening policy, beginning with a 25-basis point hike in March, followed by a 50-basis point hike in May (the largest interest-rate increase since 2000), and three additional 75-basis point hikes in June, July and September. Moreover, the market is anticipating additional hikes, pricing in five 25-basis point rate increases by the end of 2022. Though the market observed a near flat curve yield curve earlier in 2022, the curve has exhibited persistent inversion following the July FOMC meeting rate hike.

## US Treasury Yield Curve



1. Please provide a 30-year tax-exempt scale for the FHCF using the MMD at the close of business Friday, October 7th. 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 premium 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	10/7/2022 MMD	MMD Spread	Coupon	Base Yield
2023	2.93%	30	5.00%	3.23%
2024	2.96%	35	5.00%	3.31%
2025	3.00%	40	5.00%	3.40%
2026	3.01%	45	5.00%	3.46%
2027	3.02%	50	5.00%	3.52%
2028	3.05%	55	5.00%	3.60%
2029	3.06%	60	5.00%	3.66%
2030	3.08%	65	5.00%	3.73%
2031	3.13%	70	5.00%	3.83%
2032	3.18%	75	5.00%	3.93%
2033	3.21%			
2034	3.32%			
2035	3.35%			
2036	3.36%			
2037	3.38%	85	5.00%	4.23%
2038	3.42%			
2039	3.46%			
2040	3.52%			
2041	3.57%			
2042	3.59%	90	5.00%	4.49%
2043	3.63%			
2044	3.66%			
2045	3.68%			
2046	3.70%			
2047	3.71%	95	5.00%	4.66%
2048	3.72%			
2049	3.73%			
2050	3.74%			
2051	3.75%			
2052	3.76%	100	5.00%	4.76%

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 Friday, October 7th. 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	10/7/2022	Spread	Coupon	Yield
		TSY			
2023	2 Yr	4.30%	85	5.15%	5.15%
2024	2 Yr	4.30%	95	5.25%	5.25%
2025	3 Yr	4.33%	100	5.33%	5.33%
2026	5 Yr	4.14%	125	5.39%	5.39%
2027	5 Yr	4.14%	130	5.44%	5.44%
2028	7 Yr	4.03%	145	5.48%	5.48%
2029	7 Yr	4.03%	150	5.53%	5.53%
2030	10 Yr	3.89%	170	5.59%	5.59%
2031	10 Yr	3.89%	175	5.64%	5.64%
2032	10 Yr	3.89%	185	5.74%	5.74%
2033					
2034					
2035					
2036					
2037	10 Yr	3.89%	230	6.19%	6.19%
2038					
2039					
2040					
2041					
2042	30 Yr	3.86%	240	6.26%	6.26%
2043					
2044					
2045					
2046					
2047					
2048					
2049					
2050					
2051					
2052	30 Yr	3.86%	245	6.31%	6.31%

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>Time Period</b>	<b>Tax-Exempt</b>	<b>Taxable</b>	<b>Total</b>
0-12 Months	\$2.0-\$3.0	\$3.5-\$5.0	\$5.5-\$8.0
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-\$9.0</b>	<b>\$10.5-\$15.0</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: October 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 increased and experienced significant volatility last week amid global market economic and monetary developments, hawkish Fed commentary, and stronger-than-expected economic data; week-over-week U.S. Treasury yields increased in the 2-, 5-, 10-, and 30-year spots by 10 bps, 10 bps, 8 bps, and 8 bps, respectively
  - Week-over-week, U.S. Treasury yields in the 10-year spot operated within a 34 bps high/low band
  - Early in the week, the United Kingdom (UK) Chancellor reversed a decision to cut tax rates amid disappointing UK economic data spurring a rally in U.S. Treasury yields last Monday, while the Royal Bank of Australia surprised the market by raising rates 25 bps vs the market expectations of 50 bps last Tuesday
  - Mid-week, U.S. Treasury yields increased amid hawkish Fed commentary as San Francisco Fed President Daly stated that she doesn't see rates being cut next year and it's "really challenging" to slow the pace of tightening amid rising core inflation
    - Daly followed up stating "it's a clear path to higher rates and that the Fed must get rates to restrictive levels and leave them there for a while to bring down inflation, that is the Fed's commitment"
  - Economic data was generally stronger-than-expected last week, headlined by labor data
    - The September nonfarm employment beat market expectations coming in at 263k versus 255k, but lower than the previous month's amount of 315k
    - The September ADP came in at 208k vs 200k market expectations, while the previous month's data was revised higher from 132k to 185k
    - The September Unemployment Rate decreased from 3.7% in August to 3.5%, beating market expectations of 3.7%
- After three straight week of declines, U.S. equity indices increased last week as the U.S. markets reacted to global news and hawkish Fed commentary; week-over-week, the S&P 500, Dow Jones Industrial Average, and NASDAQ 100 indices increased by 1.51%, 1.99%, and 0.62%, respectively
- Last week, tax-exempt yields decreased across the curve for the first week since August 2nd; the strength in tax-exempt yields was sparked by the U.S. Treasury rally on Monday and then persisted over Tuesday and Wednesday, despite outflows from municipal bond funds and selling pressures through bids wanted
  - Light primary supply totaling \$3.7 billion helped support the tax-exempt market, with MMD yields in the 2-, 5-, 10-, and 30-year spots decreasing by 12 bps, 10 bps, 12 bps, and 14 bps, respectively, bringing the 30-year MMD/U.S. Treasury ratio to 97.90%
  - New issuance received decent demand despite the challenging technicals and broader market volatility
  - Bids wanted, or the amount of bonds where market participants requested bids, remained elevated as selling pressure was concentrated in the intermediate and longer portions of the curve, offset by persistent SMA demand inside of 10-years
  - Municipal bond funds reported a 9th consecutive week of outflows, with weekly and monthly reporting funds experiencing outflows of \$3.1 billion for the week ending October 6th, bringing year-to-date net outflows to a new record of \$94.6 billion
- This week, J.P. Morgan Research projects total municipal supply of \$2.2 billion for the holiday-shortened week, consisting of \$2.0 billion of tax-exempt issuance and \$0.2 billion of taxable issuance

## Potential Market Capacity

Based on market conditions as of close of business October 7, 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.

<b>Indicative Post-Event Market Capacity as of October 7, 2022</b>			
<b>Time Period</b>	<b>Tax-Exempt</b>	<b>Taxable</b>	<b>Total</b>
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 October 7, 2022. The scales assume FHCF's current underlying ratings of Aa3/AA/AA and \$3 billion transaction size.

# J.P.Morgan

## Florida Hurricane Catastrophe Fund - Tax-Exempt Scale

Year	Maturity	Sinker/Term	Int. MMD	Spread	Coupon	Stated Yield
1	7/1/2023		2.93%	30	5.00%	3.23%
2	7/1/2024		2.96%	35	5.00%	3.31%
3	7/1/2025		3.00%	40	5.00%	3.40%
4	7/1/2026		3.01%	45	5.00%	3.46%
5	7/1/2027		3.02%	50	5.00%	3.52%
6	7/1/2028		3.05%	55	5.00%	3.60%
7	7/1/2029		3.06%	58	5.00%	3.64%
8	7/1/2030		3.08%	62	5.00%	3.70%
9	7/1/2031		3.13%	65	5.00%	3.78%
10	7/1/2032		3.18%	68	5.00%	3.86%
11	7/1/2033		3.21%	72	5.00%	3.93%
12	7/1/2034		3.32%	74	5.00%	4.06%
13	7/1/2035		3.35%	75	5.00%	4.10%
14	7/1/2036		3.36%	75	5.00%	4.11%
15	7/1/2037		3.38%	75	5.00%	4.13%
16	7/1/2038		3.42%	75	5.00%	4.17%
17	7/1/2039		3.46%	75	5.00%	4.21%
18	7/1/2040		3.52%	75	5.00%	4.27%
19	7/1/2041		3.57%	75	5.00%	4.32%
20	7/1/2042		3.59%	75	5.00%	4.34%
21	7/1/2043	*				
22	7/1/2044	*				
23	7/1/2045	*				
24	7/1/2046	*				
25	7/1/2047	T	3.71%	80	5.00%	4.51%
26	7/1/2048	*				
27	7/1/2049	*				
28	7/1/2050	*				
29	7/1/2051	*				
30	7/1/2052	T	3.76%	85	5.00%	4.61%

Assumes MMD as of close of business October 7, 2022, an optional redemption date of 7/1/2032 at par and \$3 billion transaction size.

# J.P.Morgan

## Florida Hurricane Catastrophe Fund - Taxable Scale

Year	Maturity	Sinker/Term	UST	Spread	Coupon	Stated Yield
1	7/1/2023		4.31%	70	5.01%	5.01%
2	7/1/2024		4.31%	80	5.11%	5.11%
3	7/1/2025		4.34%	90	5.24%	5.24%
4	7/1/2026		4.14%	115	5.29%	5.29%
5	7/1/2027		4.14%	120	5.34%	5.34%
6	7/1/2028		4.03%	135	5.38%	5.38%
7	7/1/2029		4.03%	140	5.43%	5.43%
8	7/1/2030		3.88%	155	5.43%	5.43%
9	7/1/2031		3.88%	160	5.48%	5.48%
10	7/1/2032		3.88%	165	5.53%	5.53%
11	7/1/2033		3.88%	175	5.63%	5.63%
12	7/1/2034		3.88%	180	5.68%	5.68%
13	7/1/2035		3.88%	185	5.73%	5.73%
14	7/1/2036		3.88%	190	5.78%	5.78%
15	7/1/2037		3.88%	195	5.83%	5.83%
16	7/1/2038	*				
17	7/1/2039	*				
18	7/1/2040	*				
19	7/1/2041	*				
20	7/1/2042	T	4.14%	170	5.84%	5.84%
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	3.84%	205	5.89%	5.89%

Assumes UST as of close of business October 7, 2022, a make-whole call and \$3 billion transaction size.

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To: Florida Hurricane Catastrophe Fund

Date: October 12, 2022

From: Morgan Stanley

Subject: FHCF October 2022 Semi-Annual Bonding Capacity Analysis

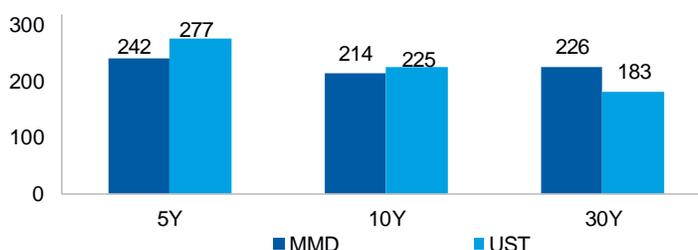
Morgan Stanley is pleased to provide the Florida Hurricane Catastrophe Fund (“FHCF”) with our Firm’s Semi-Annual Bonding Capacity Analysis. Morgan Stanley recognizes the significant loss of life and devastating property damages from Hurricane Ian. We understand that the FHCF and its partners are in the early stages of discovery of the extent of the damages and claims estimates. Within this context we know that our estimates may be relied upon by the FHCF. In this report, Morgan Stanley has added a brief discussion on other recent disaster recovery related financings issued through state conduits to demonstrate that the market is accepting and investing.

**Current Macroeconomic Themes.** Overall, markets remain volatile, driven by mixed economic data. Equities and Treasuries both rallied to start last week after the ISM Manufacturing report disappointed, suggesting the U.S. economy may be starting to cool which would provide some relief from fear over continued hawkish monetary policy. Later in the week, markets capitulated as Non-Farm Payrolls data revealed 263,000 jobs added to the economy in September which resulted in the unemployment rate falling to a 50-year low of 3.5%, signaling the labor market remains strong. This strong employment data suggested the US economy is not in a recession yet and reemphasizes the likelihood of another 75 bp rate hike in November, as already priced into the market. The Fed will look for two consecutive low (sub 150k) job prints to show the labor market is slowing. Morgan Stanley currently expects the Fed to deliver the 75 bp rate hike in November followed by a 50 bp hike in December and a 25 bp hike in January. Last Tuesday, the Treasury department announced the US national debt topped \$31 trillion for the first time, inching closer towards the statutory ceiling of \$31.4 trillion and bringing the debt-to-GDP ratio to 121%. These debt numbers, coupled with rising interest rates, high inflation and a strong US dollar, are causing increasing concerns over the economic health of the country and the ability for fiscal stimulus to be delivered should there be a recession.

**Municipal Market Dynamics.** Market conditions this year continue to be marked by a sharp increase in both benchmark AAA MMD and US Treasury rates, with

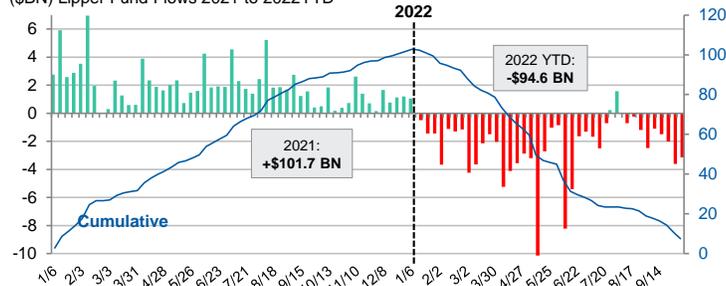
**MMD and UST Movement 2022YTD**

bps; January 3, 2022 - October 7, 2022



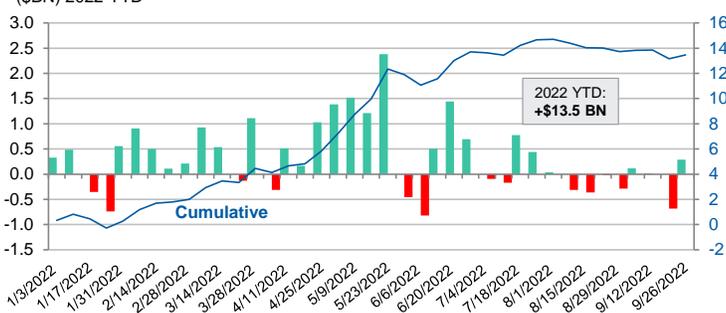
**Muni Mutual Funds Have Experienced \$94.6BN of Outflows YTD...**

(\$BN) Lipper Fund Flows 2021 to 2022YTD



**...While Fast-Growing Muni ETFs Have Seen \$13.5BN of Inflows**

(\$BN) 2022 YTD



# Morgan Stanley

10-year MMD and 10-year US Treasury rates rising 214 and 225 bps on the year, respectively, as market participants continue to react to inflation and the expectation of continued Fed rate hikes throughout the year and into next year. Morgan Stanley's 1H2023 Treasury forecast has been updated to 3.75% (above consensus 3.24%). Technicals in the muni market remain challenged, with muni mutual funds experiencing \$94.6 billion of outflows YTD. This is partially offset by moderate supply of \$309 billion (down 15% vs. 2021) and \$13.5 billion of inflows into fast-growing Muni ETFs. Muni taxable issuance is down 49% YoY to \$44 billion as refundings disappear. US IG taxable bond funds have experienced outflows totaling \$100 billion YTD. Despite a challenged technical picture, large deals continue to get done including the New York City deal the week of October 3<sup>rd</sup> which included \$950 million tax-exempt and \$400 million taxable. The new issue calendar for the week of October 17<sup>th</sup> includes \$1 billion taxable and \$500 million tax-exempt for CommonSpirit Health, \$1.1 billion tax-exempt for the Commonwealth of Massachusetts, \$1.1 billion tax-exempt for the State of Connecticut, and \$800 million taxable for the State of Hawaii.

**Recent Disaster Relief Financings.** As a result of extreme weather events impacting the southwest in 2021, Texas, Louisiana, and Oklahoma introduced legislation to approve associated disaster relief financings. By the first quarter of 2023, Texas, Oklahoma, and Louisiana will have issued \$11.7 billion of bonds in aggregate (\$6.7 billion already issued in 2022 with \$5 billion upcoming). The financings are notable as the notes were issued through municipal conduits as taxable bonds rather than as corporate issuances by the investor owned utilities. This demonstrates that the capital markets are open to investing in assessment based securitization structures for recovery funding of disaster based events. These were financings used to fund financial losses experienced by the energy sector.

<p><b>\$696,920,000</b></p> <p>The Oklahoma Development Finance Authority ("ODFA")</p>  <p>Ratepayer-Backed Bonds (Public Service Company of Oklahoma) Series 2022</p>	<p><b>\$761,654,000</b></p> <p>The Oklahoma Development Finance Authority ("ODFA")</p>  <p>Ratepayer-Backed Bonds (Oklahoma Gas and Electric Company) Series 2022</p>	<p><b>\$3,193,505,000</b></p> <p>Louisiana Local Gov't Environmental Facilities and Comm Dev. Authority ("LCDA")</p>  <p>Entergy Louisiana, LLC System Restoration Bonds Series 2022-A</p>	<p><b>\$2,115,700,000</b></p> <p>Texas Electric Market Stabilization Funding N LLC</p>  <p>Subchapter N Bonds (Electric Reliability Council of Texas, Inc.), Series 2022</p>
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Given the long standing existence of the FHCF and its historical proven access to the capital markets, our capacity analysis reflects the our confidence with respect to the market acceptance of FHCF bonds to be issued (if any) given the damage inflicted by Hurricane Ian.

# Morgan Stanley

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.

1. Please provide a 30-year tax-exempt scale for the FHCF using the MMD at the close of business Friday, October 7<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 premium 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 (10/7/2022) <sup>(1)</sup>	Spread (bps)	Coupon	Yield
1	2023	2.93%	10	5.00%	3.03%
2	2024	2.96%	15	5.00%	3.11%
3	2025	3.00%	20	5.00%	3.20%
4	2026	3.01%	25	5.00%	3.26%
5	2027	3.02%	30	5.00%	3.32%
6	2028	3.05%	35	5.00%	3.40%
7	2029	3.06%	38	5.00%	3.44%
8	2030	3.08%	41	5.00%	3.49%
9	2031	3.13%	43	5.00%	3.56%
10	2032	3.18%	48	5.00%	3.66%
11	2033	3.21%	53	5.00%	3.74%
12	2034	3.32%	58	5.00%	3.90%
13	2035	3.35%	63	5.25%	3.98%
14	2036	3.36%	68	5.25%	4.04%
15	2037	3.38%	70	5.25%	4.08%
16	2038	3.42%	72	5.25%	4.14%
17	2039	3.46%	74	5.25%	4.20%
18	2040	3.52%	76	5.25%	4.28%
19	2041	3.57%	78	5.25%	4.35%
20	2042	3.59%	80	5.25%	4.39%
21	2043				
22	2044				
23	2045				
24	2046				
25	2047	3.71%	83	5.25%	4.54%
26	2048				
27	2049				
28	2050				
29	2051				
30	2052	3.76%	85	5.25%	4.61%

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Notes:

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

(2) Based on July Interpolated MMD on 10/7/2022

2. Please provide a 30-year taxable scale using the Treasury curve at the close of business Friday, October 7<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 (10/7/2022)	Spread (bps)	Coupon	Yield	
1	2023	4.30%	55	4.85%	4.85%	
2	2024	4.30%	60	4.90%	4.90%	
3	2025	4.34%	65	4.99%	4.99%	
4	2026	4.13%	95	5.08%	5.08%	
5	2027	4.13%	100	5.13%	5.13%	
6	2028	4.03%	115	5.18%	5.18%	
7	2029	4.03%	120	5.23%	5.23%	
8	2030	3.88%	135	5.23%	5.23%	
9	2031	3.88%	140	5.28%	5.28%	
10	2032	3.88%	150	5.38%	5.38%	
11	2033	3.88%	160	5.48%	5.48%	
12	2034	3.88%	170	5.58%	5.58%	
13	2035	3.88%	180	5.68%	5.68%	
14	2036	3.88%	185	5.73%	5.73%	
15	2037	3.88%	190	5.78%	5.78%	
16	2038					
17	2039					
18	2040					
19	2041					
20	2042	3.84%	200	5.84%	5.84%	
21	2043					
22	2044					
23	2045					
24	2046					
25	2047					
26	2048					
27	2049					
28	2050					
29	2051					
30	2052	3.84%	210	5.94%	5.94%	

Notes:

(1) Assumes 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.
- 

FHCF Post-Event Market Capacity (\$ in Billions)			
Time Period	Tax-Exempt	Taxable	Total
0-12 Months	3.5 to 5.0	5.0 to 7.0	8.5 to 12.0
12-24 Months	6.0 to 8.0	8.0 to 12.0	14.0 to 20.0

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To: Florida Hurricane Catastrophe Fund  
From: Wells Fargo Securities  
Date: October 12, 2022  
Re: Florida Hurricane Catastrophe Fund Bonding Capacity Estimate for October 2022

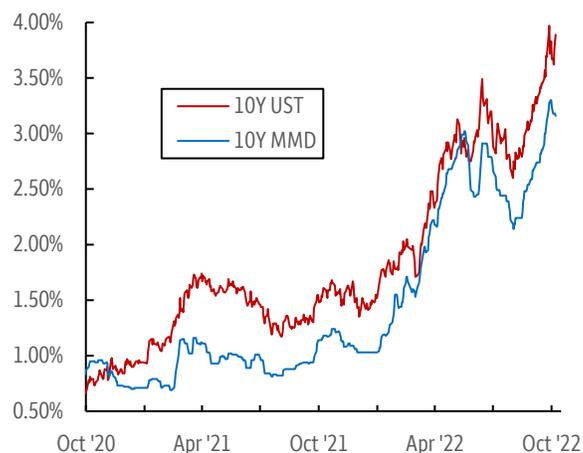
Wells Fargo Securities (“Wells Fargo”) is pleased to provide the Florida Hurricane Catastrophe Fund (“FHCF”) with our estimate of FHCF’s bonding capacity for October 2022. On the following pages, please find our estimate of current market tax-exempt and taxable scales and spreads along with our estimate 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. While we have observed continued market volatility in the municipal and treasury markets, our capacity estimate remains unchanged from our last estimate in May 2022. The scales that we include on the following pages for taxable and tax-exempt FHCF bonds reflect market conditions as of October 7, 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 323 basis points, and it currently sits at 3.89%.<sup>1</sup> Tax-exempt rates have increased as well, with 10-year MMD increasing by 235 basis points over the same period; it closed at 3.18% on Friday.<sup>1</sup> As graphically depicted in the table to the right, interest rate benchmarks have increased by a considerable amount since FHCF’s last financing.

**Historical 10Y UST and 10Y MMD Rates Since 9/2020<sup>1</sup>**



**Economic Data Sheds Light on Slowing Job Market** An onslaught of economic indicators arrived last week at a high level, higher interest rates and inflation appear to be weighing on manufacturing and construction, yet service sector activity has remained fairly resilient with financial markets paying close attention to signs that the labor market is starting to loosen. According to the latest Job Openings and Labor Turnover Survey (the count of job openings plummeted by 1.1 million vacancies in August. This monthly decline was the sharpest drop since 2020 which occurred during the throes of the pandemic. Meanwhile, total payrolls rose by 263 K in September, a shade above consensus, while the unemployment rate fell to 3.5%. The reduction in job vacancies presumably came as welcome news to the FOMC as Fed Chair Powell has frequently cited the high number of openings relative to the number of unemployed workers as an indication that the labor market is tight.

**Fed Indicates No Plan for Slowing Aggressive Monetary Policy** Last week, the Doves were put on notice after a brief reprieve as the Reserve Bank of New Zealand hiked 50 bps for the 5th consecutive meeting. Domestically, Fed officials had 14 scheduled speaking engagements last week, the consensus of which conveyed a consistent message the Fed will remain steadfast in its intent to raise rates aggressively until price stability has been restored notwithstanding potential detriment to domestic employment, growth, and the broader economy. As of last week, Fed Funds futures

<sup>1</sup>Source: US Treasury and Thomson Reuters TM3, as of October 7, 2022

were indicating an 80 chance of a 75 bps hike at the November 2nd meeting with the terminal rate peaking at 4.48% in March 2023 vs 4.60% projected by the median dot plots at last month's meeting.

1. Please provide a 30-year tax-exempt scale for the FHCF using the MMD at the close of business Friday, October 7th. 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 premium 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 October 21, 2022 delivery date, and term bond maturities in 2047 and 2052.

Florida Hurricane Catastrophe Fund Indicative Tax-Exempt Scale Market Rates as of COB October 7, 2022						
Maturity	I-MMD Index	Spread (bps)	Coupon	Yield-to-Worst	Price (\$)	Yield-to-Maturity
7/1/2023	2.93%	+35	5.00%	3.28%	101.166	--
7/1/2024	2.96%	+38	5.00%	3.34%	102.707	--
7/1/2025	3.00%	+41	5.00%	3.41%	104.055	--
7/1/2026	3.01%	+44	5.00%	3.45%	105.328	--
7/1/2027	3.02%	+47	5.00%	3.49%	106.481	--
7/1/2028	3.05%	+52	5.00%	3.57%	107.304	--
7/1/2029	3.06%	+56	5.00%	3.62%	108.133	--
7/1/2030	3.08%	+60	5.00%	3.68%	108.770	--
7/1/2031	3.13%	+65	5.00%	3.78%	108.963	--
7/1/2032	3.18%	+70	5.00%	3.88%	108.972	--
7/1/2033	3.21%	+75	5.00%	3.96%	108.299	4.04%
7/1/2034	3.32%	+80	5.00%	4.12%	106.968	4.24%
7/1/2035	3.35%	+84	5.00%	4.19%	106.393	4.34%
7/1/2036	3.36%	+88	5.25%	4.24%	107.954	4.47%
7/1/2037	3.38%	+91	5.25%	4.29%	107.542	4.54%
7/1/2038	3.42%	+93	5.25%	4.35%	107.050	4.61%
7/1/2039	3.46%	+95	5.25%	4.41%	106.561	4.68%
7/1/2040	3.52%	+97	5.25%	4.49%	105.913	4.75%
7/1/2041	3.57%	+100	5.25%	4.57%	105.270	4.82%
7/1/2042	3.59%	+100	5.25%	4.59%	105.110	4.84%
7/1/2043	3.63%	--	--	--	--	-
7/1/2044	3.66%	--	--	--	--	-
7/1/2045	3.68%	--	--	--	--	-
7/1/2046	3.70%	--	--	--	--	-
7/1/2047	3.71%	+105	5.25%	4.76%	103.762	4.98%
7/1/2048	3.72%	--	--	--	--	-
7/1/2049	3.73%	--	--	--	--	-
7/1/2050	3.74%	--	--	--	--	-
7/1/2051	3.75%	--	--	--	--	-
7/1/2052	3.76%	+110	5.50%	4.86%	104.893	5.18%



2. Please provide a 30-year taxable scale using the Treasury curve at the close of business Friday, October 7th. 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 October 21, 2022 delivery date, and the 2042 and 2052 maturities represent term bonds.

Florida Hurricane Catastrophe Fund Indicative Taxable Scale Market Rates as of COB October 7, 2022						
Maturity	UST Index	Spread (bps)	Coupon	Yield	Price (\$)	Yield-to-Maturity
7/1/2023	4.30%	+115	5.45%	5.45%	100.000	--
7/1/2024	4.30%	+125	5.55%	5.55%	100.000	--
7/1/2025	4.33%	+130	5.63%	5.63%	100.000	--
7/1/2026	4.14%	+155	5.69%	5.69%	100.000	--
7/1/2027	4.14%	+160	5.74%	5.74%	100.000	--
7/1/2028	4.03%	+170	5.73%	5.73%	100.000	--
7/1/2029	4.03%	+175	5.78%	5.78%	100.000	--
7/1/2030	3.89%	+190	5.79%	5.79%	100.000	--
7/1/2031	3.89%	+195	5.84%	5.84%	100.000	--
7/1/2032	3.89%	+200	5.89%	5.89%	100.000	--
7/1/2033	3.89%	+215	6.04%	6.04%	100.000	--
7/1/2034	3.89%	+230	6.19%	6.19%	100.000	--
7/1/2035	3.89%	+245	6.34%	6.34%	100.000	--
7/1/2036	3.89%	+255	6.44%	6.44%	100.000	--
7/1/2037	3.89%	+265	6.54%	6.54%	100.000	--
7/1/2038	3.86%	--	--	--	--	--
7/1/2039	3.86%	--	--	--	--	--
7/1/2040	3.86%	--	--	--	--	--
7/1/2041	3.86%	--	--	--	--	--
7/1/2042	3.86%	+280	6.66%	6.66%	100.000	--
7/1/2043	3.86%	--	--	--	--	--
7/1/2044	3.86%	--	--	--	--	--
7/1/2045	3.86%	--	--	--	--	--
7/1/2046	3.86%	--	--	--	--	--
7/1/2047	3.86%	--	--	--	--	--
7/1/2048	3.86%	--	--	--	--	--
7/1/2049	3.86%	--	--	--	--	--
7/1/2050	3.86%	--	--	--	--	--
7/1/2051	3.86%	--	--	--	--	--
7/1/2052	3.86%	+300	6.86%	6.86%	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.

FCHF 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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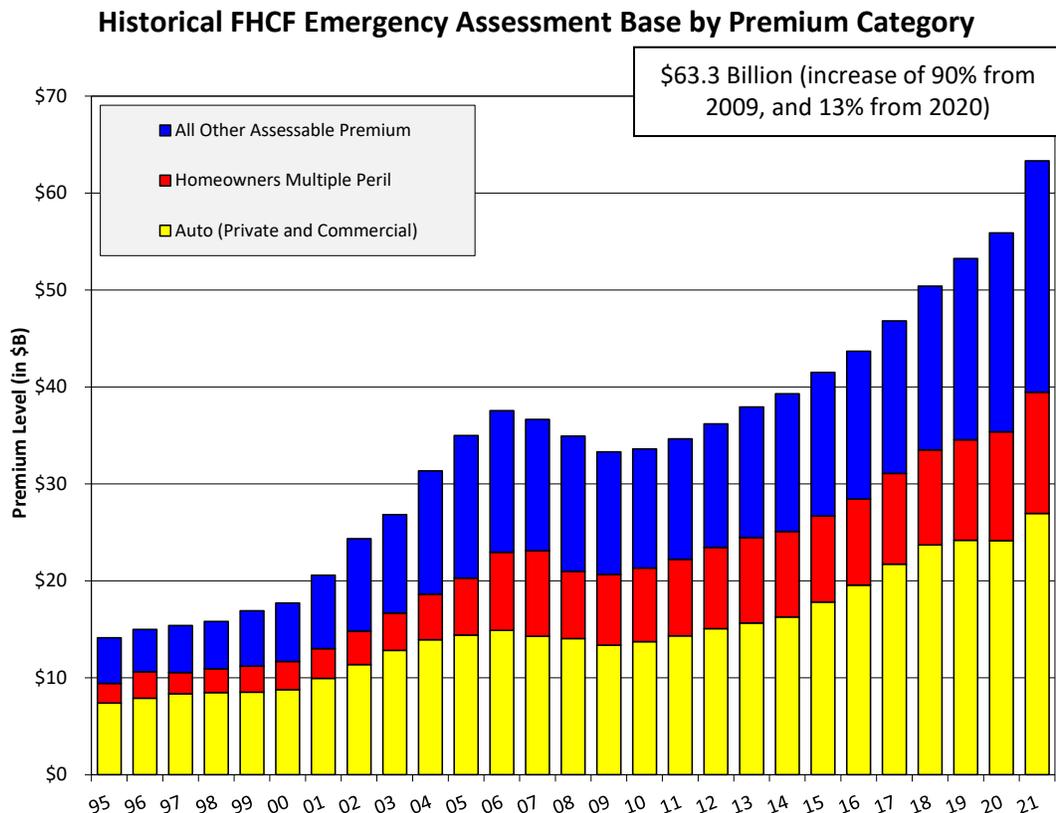
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If you have any questions or concerns about the disclosures presented herein, you should make those questions or concerns known immediately to Wells Fargo.

## 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.*