

REPORT PREPARED FOR THE
FLORIDA HURRICANE CATASTROPHE FUND



CLAIMS-PAYING CAPACITY ESTIMATES

MAY 16, 2019

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.

RAYMOND JAMES
PUBLIC FINANCE DEPARTMENT
880 CARILLON PARKWAY, THIRD FLOOR
ST. PETERSBURG, FLORIDA 33716
(727) 567-2868



<u>SECTION</u>	<u>PAGE</u>
I. Introduction	1
II. The Process	3
III. Analytical Considerations.....	4
IV. Bonding and Claims-Paying Capacity Estimates	11

Appendix

- A) Bonding Capacity Solicitation & Senior Manager Responses
- B) FHCF Emergency Assessment Base History



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. Its sole purpose is to stabilize the State’s property insurance markets 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 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.

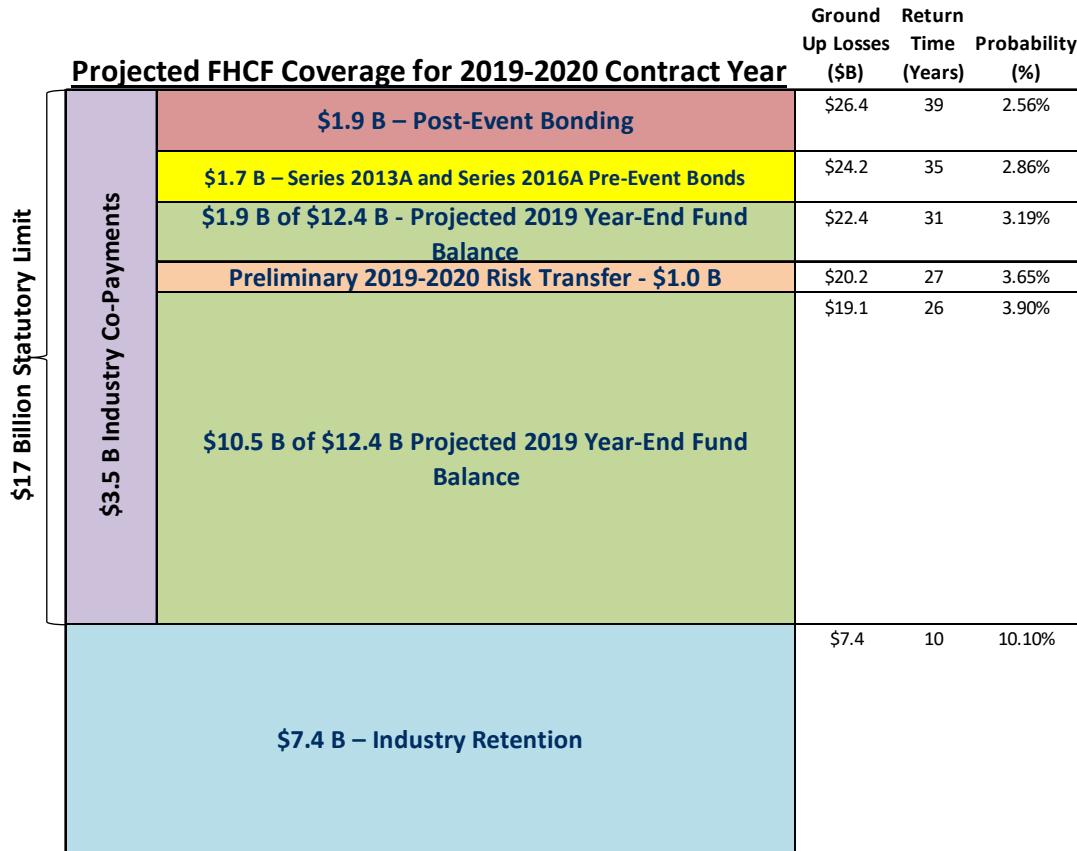
The FHCF may obtain funds to pay its contractual reimbursement obligations from the following available potential sources:

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

The actual and potential obligations of the FHCF are limited by statute. For the contract year June 1, 2019 – May 31, 2020, the maximum potential liability of the FHCF is \$17 billion, with total liquid resources of \$15.1 billion, which is approximately \$1.9 billion below the maximum potential liability and therefore would require \$1.9 billion of post-event borrowing. In addition, the FHCF statute limits the Fund’s reimbursement liability to its actual claims-paying capacity, which may depend on financial market conditions at the time of sale if any post-event revenue bonds are needed to pay claims. The following



chart summarizes the FHCF's projected coverage for the 2019-2020 contract year based on assumptions prepared by Paragon Strategic Solutions, the FHCF's consulting actuary. These projected coverage estimates assume enactment into law of HB 301, which increases the FHCF loss adjustment expense allowance from 5% to 10% of FHCF covered losses on contracts effective on or after June 1, 2019.



Not drawn to scale

Ground-up losses exclude 10% of loss adjustment expenses ("LAE") on the industry co-payments.

In this chart the relevant data are aggregated for FHCF participating insurers. The references to probabilities, probable maximum losses, and cash exhaustion are shown for illustrative purposes only. The probabilities in this chart are presented as if all of the participating insurers had uniform exposures and loss experiences. In actual practice, each participating insurer has its own retention and coverage limits based upon its actual exposures, and therefore each participating insurer has its own unique probability of triggering its FHCF coverage and reaching its FHCF coverage limit.

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 2019 season in order to assist the FHCF's participating insurers in determining their reimbursements.

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



II. The Process

As in prior years, in order to estimate the FHCF's borrowing capacity for the 2019 and 2020 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 over \$12 billion in market capitalization (NYSE:RJF, www.raymondjames.com), serves as the independent financial advisor to the FHCF.

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

Raymond James also serves as an advisor to numerous other governmental catastrophe insurance entities across the country and our experience includes the evaluation and placement of risk transfer programs in the traditional and capital markets, the issuance of pre-event bonds and other liquidity mechanisms, the issuance of post-event bonds, and serving as an investment consultant. We rank number one as financial advisor to state-sponsored public insurance entities and are among the top 10 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 advisor or underwriter on the issuance of over \$40 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 over \$725 billion of assets under management.

- (2) *Solicited formal written feedback from the five current senior managing underwriters of the FHCF's financial services team.* These firms – Bank of America / Merrill Lynch, Citi, J.P. Morgan, Morgan Stanley and Wells Fargo – are among the largest financial services firms in the world, and each one has an 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 Series 2013A and Series 2016A pre-event financings. In the solicitation for the preparation of this report, we asked them to provide their estimates, given certain assumptions, of the FHCF's bonding capacity. As always, in our written request for feedback, we sought to ensure that the underwriters had a clear understanding of the purpose of asking them to provide such estimates and the uses therefore. 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 \$50.4 billion¹. 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 debt 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 \$50.4 billion mean the FHCF could levy annual assessments of as much as \$3.02 billion for losses from hurricanes occurring in one contract year and as much as \$5.04 billion for losses from hurricanes occurring over multiple contract years. These annual amounts, in conjunction with the other available resources of the FHCF, are estimated to be more than sufficient to support enough bonds to enable the FHCF to meet its maximum initial season obligation and subsequent season coverage as well, assuming that the fixed income markets continue to function in a normal manner and the FHCF has market access to issue such bonds at the current market rate for the initial season, or even at inflated rates of 7%.

Economic and market conditions have significantly improved over the last nine years with the U.S. and global interest rates at historically low levels and fixed rate issuance is at all-time highs, which enabled the FHCF to successfully execute the \$2 billion Series 2013A and \$1.2 billion Series 2016A taxable pre-event financings in 2013 and 2016, respectively. However, market conditions and access are never guaranteed, especially after an event or multiple events either in Florida or globally, and therefore always carry marginal uncertainty, which is critical to understanding the potential challenges the FHCF may face, especially after a large event. In addition, since 2015 the FHCF has purchased reinsurance each year in the amount of \$1 billion. For the 2019 season, similar to the 2018 risk transfer placement, the FHCF is projected to transfer \$1 billion of risk through traditional reinsurance at an attachment point of \$10.5 billion.

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



Under section 215.555(4)(b)2, Florida Statutes, an insurer is prohibited from electing a lower coverage percentage upon renewal of its FHCF reimbursement contract if any post-event revenue bonds are outstanding. However, since the defeasance of all outstanding FHCF post-event revenue bonds in 2014, some participating insurers elected to take advantage of global risk transfer markets and lowered their coverage percentage selection starting in the 2015-2016 contract year until the 2018-2019 contract year. The average coverage percentage selection dropped from 89.9% in the 2014-2015 contract year to 73.5% for the 2018-2019 contract year, but has increased to 81.6% for the 2019-2020 contract year as a result of hardening pricing conditions in the global reinsurance markets. As a result of these changes and the assumed enactment into law of HB 301, the co-payment amount for a \$17 billion FHCF payout decreased from approximately \$6.0 billion for the 2018-2019 Contract Year to \$3.5 billion for the 2019-2020 Contract Year.

As reflected in the table below, for the 2019-2020 Contract Year, the FHCF has approximately \$15.1 billion of liquidity resources, which is approximately \$1.9 billion below its maximum statutory obligation of \$17 billion. After an event and depending on the market conditions and interest rates, the FHCF may be able to either draw on its pre-event bond proceeds and repay the pre-event bonds by issuing post-event bonds, or the FHCF could issue post-event bonds in the amount of \$3.6 billion and leave its pre-event bond proceeds outstanding for a subsequent season(s). The table below shows the FHCF's obligations and its projected liquidity resources for the 2019-2020 Contract Year.

FHCF Obligations and Liquidity Resources – 2019-2020 Contract Year	Amount (\$B)
Total Potential FHCF Obligations	\$17.0
Projected 2019 Year-End Fund Balance	\$12.4
Preliminary Risk Transfer	\$1.0
Series 2013A and Series 2016A Pre-Event Bonds Balance	\$1.7
Total Liquidity Resources	\$15.1
Total Liquidity Resources Below Potential Obligations	\$1.9

If the FHCF were to leave all its Series 2013A and Series 2016A pre-event bond proceeds outstanding for the subsequent season, the potential maximum amount of post-event bonding needed is projected to be approximately \$3.6 billion for the 2019-2020 contract year. The FHCF could execute this size of transaction in multiple series over a 12-month period – this issuance amount is standard in the taxable and tax-exempt markets. For example, annual par amount issued over a calendar year by a single municipal issuer has exceeded \$3.6 billion 29 times since 2014.

The FHCF's 2019-2020 Contract Year liquidity resources reflect losses and loss reserves from Hurricanes Irma and Michael. At this time, the FHCF's ultimate losses and loss reserves estimated by



Paragon Strategic Solutions Inc., the FHCF's consulting actuary, are \$3.75 billion from Hurricane Irma and \$1.45 billion from Hurricane Michael.

Largest 25 Taxable Municipal Issuances By Par Amount Since 2014					
Rank	Issuer Name	State	Year of Sale	Issue Description	Par (\$MM)
1	California	CA	2018	Various GO & Refunding Bonds	\$2,147
2	San Jose City Successor Redev Agcy	CA	2017	Sr Tax Allocation Refunding Bonds	\$1,333
3	California	CA	2017	High-Speed Passenger Train Bonds	\$1,248
4	Florida St Board Admin Fin Corp	FL	2016	Revenue Bonds	\$1,200
5	Empire State Development Corp	NY	2017	State Personal Inc Tax Rev Bonds	\$1,035
6	Empire State Development Corp	NY	2017	State Personal Inc Tax Rev Bonds	\$1,018
7	Kansas Development Fin Auth	KS	2015	Revenue Bonds	\$1,005
8	Houston City-Texas	TX	2017	Pension Obligation Bonds	\$1,005
9	Port Authority of NY & NJ	NY	2014	Consolidated Bonds	\$1,000
10	Empire State Development Corp	NY	2019	State Personal Inc Tax Rev Bonds	\$802
11	Chicago City-Illinois	IL	2018	General Airport Sr Ln Rev Bonds	\$800
12	Miami-Dade Co-Florida	FL	2018	Aviation Revenue Refunding Bonds	\$767
13	PA Commonwealth Financing Auth	PA	2016	Revenue Bonds	\$758
14	Chicago City-Illinois	IL	2015	General Obligation Bonds	\$743
15	Regents of the Univ of California	CA	2017	General Revenue Bonds & Notes	\$686
16	Metro City-Oregon	OR	2019	General Obligation Bonds	\$653
17	New Jersey Economic Dev Auth	NJ	2014	School Fas Constr Ref Bonds	\$615
18	Sales Tax Securitization Corp	IL	2019	Sales Tax Securitization Bonds	\$605
19	Houston City-Texas	TX	2014	First Lien Revenue Ref Bonds	\$605
20	Wisconsin	WI	2016	Gen Fund Annual Approp Bond	\$601
21	NYC Transitional Finance Auth	NY	2019	Future Secured Subordinate Bonds	\$600
22	Ohio State University	OH	2016	General Receipts Bonds	\$600
23	Sales Tax Securitization Corp	IL	2017	Sales Tax Securitization Bonds	\$572
24	California Dept of Wtr Resources	CA	2016	Power Supply Revenue Bonds	\$567
25	Alabama Eco Settlement Auth	AL	2016	BP Settlement Revenue Bonds	\$548

Source: Thomson Financial for long-term negotiated taxable issuances from January 1, 2014 to May 1, 2019.

Largest 25 Tax-Exempt Municipal Issuances By Par Amount Since 2014					
Rank	Issuer Name	State	Year of Sale	Issue Description	Par (\$MM)
1	Illinois	IL	2017	General Obligation Bonds	\$4,500
2	Puerto Rico	PR	2014	General Obligation Bonds	\$3,500
3	NJ Tobacco Settlement Fin Corp	NJ	2018	Tobacco Settlement Bonds	\$3,147
4	California	CA	2016	General Obligation Bonds	\$2,951
5	California	CA	2017	GO Var Purpose & Refunding Bonds	\$2,793
6	New Jersey Trans Trust Fund Au	NJ	2016	Revenue Notes	\$2,741
7	California	CA	2016	GO Various Purpose & Ref Bonds	\$2,653
8	California	CA	2017	GO Various Purpose & Ref Bonds	\$2,538
9	North Texas Tollway Auth (NTTA)	TX	2017	System Rev & Ref Bonds	\$2,509
10	California	CA	2014	General Obligation Bonds	\$2,370
11	California	CA	2019	General Obligation Bonds	\$2,292
12	California	CA	2018	General Obligation Bonds	\$2,181
13	Hudson Yards Infrastructure Corp	NY	2017	Second Indenture Revenue Bonds	\$2,108
14	NYC Sales Tax Asset Rec Corp	NY	2014	Sales Tax Asset Revenue Bonds	\$2,035
15	California	CA	2019	Various Purpose GO & Ref Bonds	\$2,024
16	Metropolitan Transport Auth (MTA)	NY	2017	Transport Rev Ref Green Bonds	\$2,021
17	Bay Area Toll Authority (BATA)	CA	2017	Toll Bridge Revenue Bonds	\$1,954
18	California	CA	2015	Various Purpose GO & Ref Bonds	\$1,945
19	California	CA	2015	Various Purpose GO & Ref Bonds	\$1,926
20	Texas Transportation Commission	TX	2014	GO Mobility Fund Bonds	\$1,830
21	California	CA	2014	GO Various Purpose & Ref Bonds	\$1,807
22	Los Angeles Comm College Dt	CA	2014	General Obligation Bonds	\$1,796
23	New Jersey Economic Dev Auth	NJ	2015	School Facilities Con & Ref Bonds	\$1,760
24	NYS Dorm Authority	NY	2017	State Personal Inc Tax Rev Bonds	\$1,750
25	California Health Facs Fin Auth	CA	2017	Revenue Bonds	\$1,747

Source: Thomson Financial for long-term negotiated tax-exempt issuances from January 1, 2014 to May 1, 2019.



After a hurricane event, the FHCF most likely will not need to do one single large financing. Based on a higher attachment point and the past payout patterns, the FHCF could also easily meet its 2019-2020 obligations by issuing one or two series of bonds over a period of 12 months or longer, if needed. Accordingly, it is also helpful to evaluate which issuers in the municipal market (both taxable and tax-exempt) have issued the most debt in a 12-month period. The charts below show the largest amount issued every year since 2014 has exceeded \$3.6 billion.

Largest 25 Issuers By Issued Par Amount In 2014			Largest 25 Issuers By Issued Par Amount In 2015			Largest 25 Issuers By Issued Par Amount In 2016		
Rank	Issuer Name	Par (\$MM)	Rank	Issuer Name	Par (\$MM)	Rank	Issuer Name	Par (\$MM)
1	California	\$6,243	1	NYS Dorm Authority	\$9,093	1	California	\$8,921
2	Texas Transportation Commission	\$5,522	2	California	\$6,380	2	NYS Dorm Authority	\$5,863
3	NYS Dorm Authority	\$4,182	3	NYC Transitional Finance Auth	\$5,475	3	Metropolitan Transport Auth (MTA)	\$5,192
4	NYC Transitional Finance Auth	\$3,831	4	Chicago City-Illinois	\$4,241	4	Massachusetts	\$4,826
5	Massachusetts	\$3,616	5	Connecticut	\$3,611	5	NYC Transitional Finance Auth	\$4,750
6	Puerto Rico	\$3,500	6	Regents of the Univ of California	\$3,350	6	Massachusetts Dev Finance Agcy	\$4,132
7	Connecticut	\$3,283	7	Texas Transportation Commission	\$3,301	7	New York City-New York	\$3,882
8	New York City-New York	\$2,998	8	Metropolitan Transport Auth (MTA)	\$3,111	8	Connecticut	\$3,657
9	Washington	\$2,856	9	New York City-New York	\$3,070	9	Chicago City-Illinois	\$3,513
10	Michigan Finance Authority	\$2,825	10	Port Authority of NY & NJ	\$3,025	10	Illinois	\$3,362
11	Chicago City-Illinois	\$2,585	11	Michigan Finance Authority	\$2,802	11	Illinois Finance Authority	\$3,327
12	Port Authority of NY & NJ	\$2,533	12	Washington	\$2,569	12	New York Transportation Dev Corp	\$3,255
13	Houston City-Texas	\$2,524	13	Massachusetts	\$2,552	13	California Health Facs Fin Auth	\$3,214
14	Illinois	\$2,427	14	New Jersey Economic Dev Auth	\$2,448	14	Pennsylvania	\$2,841
15	NYC Municipal Water Fin Auth	\$2,391	15	Miami-Dade Co-Florida	\$2,168	15	New Jersey Trans Trust Fund Au	\$2,741
16	Metropolitan Transport Auth (MTA)	\$2,348	16	Illinois Finance Authority	\$2,144	16	Pennsylvania Turnpike Commission	\$2,713
17	Bay Area Toll Authority (BATA)	\$2,213	17	NYC Municipal Water Fin Auth	\$2,033	17	Univ of Texas Sys Bd of Regents	\$2,628
18	NYC Sales Tax Asset Rec Corp	\$2,035	18	NYS Housing Fin-Mortgage Agcy	\$1,763	18	Michigan Finance Authority	\$2,567
19	Pennsylvania Turnpike Commission	\$1,982	19	Golden State Tobacco Sec Corp	\$1,692	19	Regents of the Univ of California	\$2,391
20	New Jersey Economic Dev Auth	\$1,972	20	North Texas Tollway Auth (NTTA)	\$1,627	20	Wisconsin	\$2,197
21	NYC Housing Dev Corp	\$1,932	21	Honolulu City & Co-Hawaii	\$1,588	21	Indiana Finance Authority	\$2,165
22	NYS Housing Fin-Mortgage Agcy	\$1,893	22	Wisconsin	\$1,570	22	Miami-Dade Co-Florida	\$1,957
23	Maryland	\$1,887	23	San Antonio City-Texas	\$1,541	23	California Statewide CDA (CSCDA)	\$1,950
24	Los Angeles Comm College Dt	\$1,843	24	Massachusetts Dev Finance Agcy	\$1,527	24	Chicago City BOE	\$1,930
25	Wisconsin	\$1,762	25	Kansas Development Fin Auth	\$1,504	25	Texas Transportation Commission	\$1,894

Largest 25 Issuers By Issued Par Amount 2017			Largest 25 Issuers By Issued Par Amount 2018			Largest 25 Issuers By Issued Par Amount 2019 YTD		
Rank	Issuer Name	Par (\$MM)	Rank	Issuer Name	Par (\$MM)	Rank	Issuer Name	Par (\$MM)
1	California	\$8,869	1	NYS Dorm Authority	\$8,184	1	California	\$4,316
2	NYS Dorm Authority	\$7,435	2	NYC Transitional Finance Auth	\$6,326	2	Massachusetts	\$1,646
3	NYC Transitional Finance Auth	\$6,503	3	California	\$3,997	3	NYC Municipal Water Fin Auth	\$1,391
4	Metropolitan Transport Auth (MTA)	\$5,645	4	Metropolitan Transport Auth (MTA)	\$3,680	4	Main Street Natural Gas Inc	\$1,371
5	California Health Facs Fin Auth	\$3,782	5	New York City-New York	\$3,569	5	Metropolitan Transport Auth (MTA)	\$1,204
6	New York City-New York	\$3,743	6	Connecticut	\$3,308	6	NYC Transitional Finance Auth	\$1,000
7	Wisconsin	\$3,487	7	NJ Tobacco Settlement Fin Corp	\$3,147	7	NYS Dorm Authority	\$977
8	Massachusetts	\$3,101	8	Texas Water Development Board	\$3,093	8	District of Columbia	\$965
9	New Jersey Turnpike Authority	\$3,080	9	New Jersey Trans Trust Fund Au	\$2,763	9	New York City-New York	\$915
10	Bay Area Toll Authority (BATA)	\$2,813	10	Kentucky Pub Energy Au (PEAK)	\$2,731	10	New Jersey Trans Trust Fund Au	\$750
11	Chicago City-Illinois	\$2,809	11	Golden State Tobacco Sec Corp	\$2,496	11	Connecticut	\$750
12	Illinois Finance Authority	\$2,631	12	Massachusetts	\$2,423	12	Black Belt Energy Gas Dt	\$747
13	Regents of the Univ of California	\$2,621	13	Main Street Natural Gas Inc	\$2,022	13	Empire State Development Corp	\$742
14	Wisconsin Public Finance Auth	\$2,594	14	Illinois	\$1,706	14	Chicago City-Illinois	\$722
15	Massachusetts Dev Finance Agcy	\$2,572	15	Los Angeles Dept of Wtr & Power	\$1,703	15	Washington	\$692
16	North Texas Tollway Auth (NTTA)	\$2,509	16	Southeast Alabama Gas Dt	\$1,692	16	Los Angeles Dept of Wtr & Power	\$655
17	Pennsylvania Turnpike Commission	\$2,281	17	NYC Municipal Water Fin Auth	\$1,692	17	Indianapolis Loc Pub Imp Bond Bank	\$624
18	New Jersey Economic Dev Auth	\$2,209	18	Regents of the Univ of California	\$1,682	18	Illinois Finance Authority	\$616
19	Hudson Yards Infrastructure Corp	\$2,142	19	California Statewide CDA (CSCDA)	\$1,499	19	Tuscaloosa Co Indus Dev Auth	\$612
20	Philadelphia City-Pennsylvania	\$2,014	20	PA Commonwealth Financing Auth	\$1,487	20	Massachusetts Dev Finance Agcy	\$603
21	Miami-Dade Co-Florida	\$1,957	21	Grand Parkway Transport Corp	\$1,484	21	Los Angeles Co Metro Trans Auth	\$603
22	Triborough Bridge & Tunnel Auth	\$1,924	22	Pennsylvania	\$1,448	22	Los Angeles USD	\$595
23	Houston City-Texas	\$1,830	23	Chicago City BOE	\$1,412	23	Baltimore Co-Maryland	\$578
24	Texas A&M University System	\$1,786	24	NYC Housing Dev Corp	\$1,409	24	Wisconsin Public Finance Auth	\$568
25	NYS Housing Fin-Mortgage Agcy	\$1,775	25	Ohio	\$1,391	25	Florida Dept of Transportation	\$552

Source: Thomson Financial for long-term issuances from January 1, 2014 to May 1, 2019.



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 seven bond issues totaling \$12.1 billion (three tax-exempt issues totaling \$2.6 billion and four taxable issues totaling \$9.5 billion), of which \$3.2 billion in pre-event debt has been issued since 2012 with \$1.65 billion outstanding as of July 1, 2019. By comparison, for example, since 2014, the State of California has completed approximately 60 long-term bond issues totaling over \$40 billion and the New York State Dormitory Authority has completed over 130 long-term bond issues totaling over \$32 billion. The FHCF's debt has always been issued with relatively short maturities ranging from 1-7 years (although it has the authority to issue debt with maturities of up to 30 years). California's issues, by comparison, have had maturities ranging from 1-34 years, and the New York State Dormitory Authority has had maturities ranging from 1-30 years.

As a less frequent issuer with relatively less debt outstanding and primarily at the shorter end of the yield curve, the FHCF is not as well covered by investor credit analysts in the primary or secondary markets who invest at the long-end of the yield curve, even though it has very strong credit ratings. This relative lack of long-term exposure and investor familiarity could potentially be a limiting factor in determining the FHCF's potential market access for larger amounts and/or longer maturities in the short run.

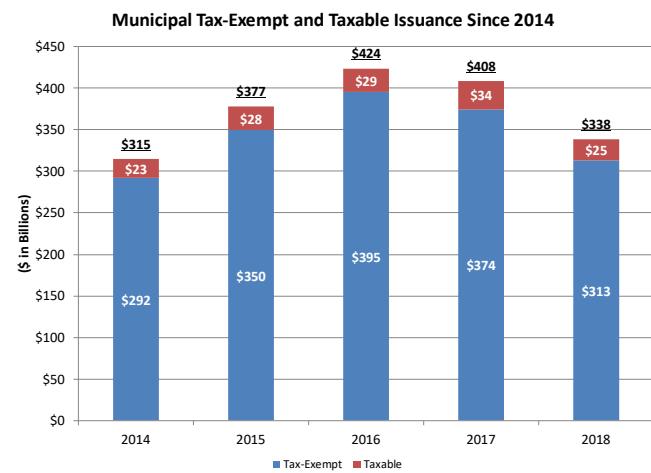
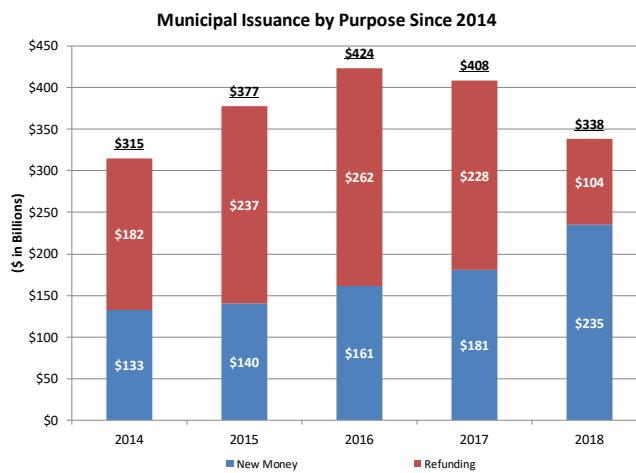
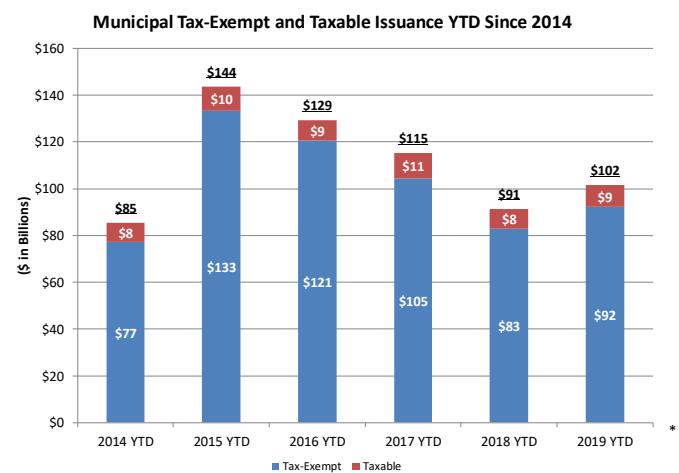
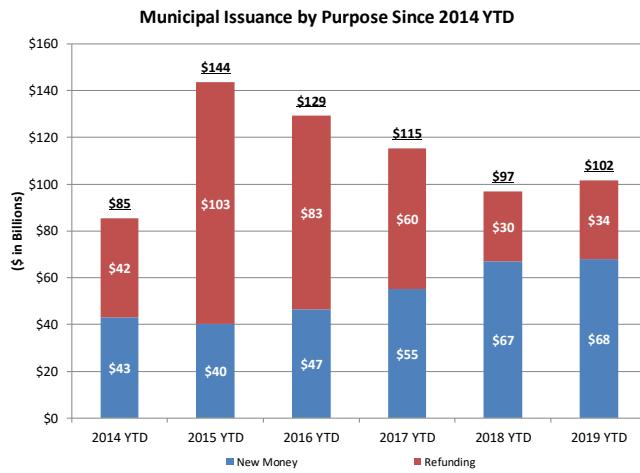
Analysis of potential market acceptance of large amounts of FHCF debt must include not only relevant historical references, but also an evaluation of current market conditions and cash flow needs. In this regard, conditions seem to be excellent in both tax-exempt and taxable municipal markets, as well as in the corporate market.

In 2018, corporate issuance of \$1.38 trillion (\$1.2 trillion investment grade, \$173 billion high yield, and \$39 billion convertible) is 18% lower than the record issuance of \$1.68 trillion (\$1.4 trillion investment grade, \$284 billion high yield, and \$27 billion convertible) in 2017. Year-to-date 2019, corporate bond issuance is \$490 billion, or 20% higher than the \$406 billion issued over the same time period in 2018. The corporate bond market has topped \$1 trillion each year since 2011 as interest rates have been consistently historically low.

While corporate bond issuance has reached record levels since 2011, most issuances are for financial engineering rather than to build manufacturing plants or infrastructure to fund growth – i.e., more issuances are to fund mergers and acquisitions or stock buybacks, which include CVS's issuance in 2018 of \$40 billion to fund its acquisition of health insurer Aetna, Cigna's 2018 issuance of \$20 billion to fund its acquisition of Express Scripts, and Walmart's \$16 billion issuance in 2018 to help finance its investment in India's biggest online seller, FlipKart.



For 2018, municipal long-term issuance was 17% lower compared to 2017 with \$338 billion of issuance. For year-to-date 2019, municipal long-term negotiated issuance is 11% higher than the same time period in 2018 with \$102 billion of issuance. Prior to the Tax Reform Bill of 2018, a majority of municipal issuance over the past few years has been issued for refundings to capitalize on low interest rates, which is evidenced by the amount of new money issuance for 2017 – \$181 billion, or 44% of the total \$326 billion of long-term issuance – versus eleven years ago – in 2007, \$274 billion, or 64% of the total \$429 billion of issuance, was for new money projects. As part of the Tax Reform Bill of 2018, the tax-exempt provision for advance refundings was eliminated, which affected the volume of refundings in 2018 – 31% of municipal issuance was for refundings.



Source: Thomson Financial for municipal long-term issuances from January 1, 2014 to May 1, 2019.

The reduction in both the corporate and municipal markets in 2018 is a reflection of recent tax-law changes, which have allowed for repatriation of overseas cash as well as the elimination of state and local tax deductions of over \$10,000. There is strong investor demand in both the tax-exempt and taxable markets; however, global market conditions can be volatile after a large or multiple global or U.S. events. Nonetheless, the FHCF has multiple factors working in its favor independent of market trends, 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 February 2016,



the FHCF successfully priced \$1.2 billion of Series 2016A taxable pre-event bonds with 3 and 5-year maturities at a true interest cost of 2.52%, 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 hurricanes of various sizes, and an evaluation of the many subjective and substantive considerations surrounding these estimates and the uses thereof. Certainty is not a defining characteristic of an exercise like this; nor can the results be responsibly guaranteed. Nevertheless, with the proper experience, market perspective and analysis, we can make estimates suitable for the FHCF's requirements – conservative estimates, not guaranteed to be accurate, but responsibly determined using the best available sources.

One additional note of caution is that financial markets can be highly volatile and uncertain at various times. Such uncertainty may create an additional risk for participating insurers who rely on the FHCF for reimbursements. Although financial market conditions have significantly improved since the Great Recession of 2007 and are currently very conducive to favorable debt issuance, it is not possible to guarantee financial market conditions into the future for long-term sustainability of the FHCF. The FHCF's estimated post-event borrowing capacity is subjective and depends heavily on the opinions of its five senior managing underwriters' and our evaluation and analysis of their responses to our questions. As such, participating insurers should recognize the potential impact that financial markets can have on the FHCF's claims-paying ability for a subsequent or future 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. The specific wording of the capacity question we asked the FHCF's senior managing underwriters was as follows:

The preliminary estimated bonding capacity of the FHCF for the current contract year is \$8.6 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."³

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

In general, it would take a hurricane event resulting in ground-up losses exceeding approximately \$24.2 billion to exhaust the FHCF's projected liquid resources of approximately \$15.1 billion, or \$1.9 billion below its potential maximum obligation of \$17.0 billion. The amount of debt that the FHCF can raise within the first twelve months is helpful for the FHCF and participating insurers in protecting their financial solvency as well as for the FHCF to preserve its remaining pre-event bond proceeds of \$650 million for a subsequent season (\$1 billion matures on July 1, 2020 and therefore will not be available for the 2020-2021 contract year).

We are also comfortable including estimates that contained some 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 significantly higher rates⁴. For purposes of calculating the potential assessment impact of the FHCF's bonding needs, we have calculated the assessment rate if the FHCF post-event bonds carry interest rates at current market levels as well as at an "above market" interest rate of 7%. There is also some overlap between tax-exempt and taxable capacity estimates as the investor base has changed and market acceptance has increased for municipal taxable bonds and the success of the Series 2013A and Series 2016A pre-event taxable financings, which may marginally reduce the capacity for tax-exempt debt. A summary of the senior managers' responses is shown in the table on the following page:

³ The complete information request and all responses are included in Appendix A.

⁴ For example, a 30-year bond issue at a 7% interest rate sized to produce the maximum potential FHCF obligation (\$3.6 billion) for the current contract year, assuming no pre-event bonds are used to pay claims and no pre-event bonds are refinanced, would require an annual assessment of only 0.50%, well below the 6% statutory cap.



FHCF Post-Event Estimated Bonding Capacity						
	Bank of America / Merrill Lynch	Citi	J.P. Morgan	Morgan Stanley	Wells Fargo	Average ¹
Bonding Estimates						
Tax-Exempt:						
0-12 Months	\$2-\$3B	\$3.5-\$4.0B	\$5-\$6B	\$3.5-\$4B	\$6-\$8B	\$4.5B
12-24 Months	\$2-\$3B	\$3.5-\$4.0B	\$3-\$4B	\$3-\$4B	\$3-\$5B	\$3.5B
<i>Total tax-exempt</i>	<i>\$4-\$6B</i>	<i>\$7-\$8B</i>	<i>\$8-\$10B</i>	<i>\$6.5-\$8B</i>	<i>\$9-\$13B</i>	<i>\$8.0B</i>
Taxable:						
0-12 Months	\$4-\$5B	\$3-\$4B	\$4-\$5B	\$4-\$5B	\$3-\$4B	\$4.1B
12-24 Months	\$4-\$5B	\$4-\$5B	\$3-\$4B	\$4.5-\$5B	\$2-\$3B	\$4.0B
<i>Total taxable</i>	<i>\$8-\$10B</i>	<i>\$7-\$9B</i>	<i>\$7-\$9B</i>	<i>\$8.5-\$10B</i>	<i>\$5-\$7B</i>	<i>\$8.1B</i>
Tax-Exempt and Taxable						
0-12 Months Total	\$6-\$8B	\$6.5-\$8.0B	\$9-\$11B	\$7.5-\$9B	\$9-\$12B	\$8.6B
12-24 Months Total	\$6-\$8B	\$7.5-\$9.0B	\$6-\$8B	\$7.5-\$9B	\$5-\$8B	\$7.5B
0-24 Months Total	\$12-\$16B	\$14-\$17B	\$15-\$19B	\$15-\$18B	\$14-\$20B	\$16.1B

¹ Averages are rounded to the nearest hundred million dollars

As discussed earlier, we 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 \$8.6 billion and this capacity is significantly above what would be needed to meet the FHCF's potential obligations for the initial season if it were to leave its already issued pre-event bond proceeds outstanding, even if one conservatively expects that the FHCF payout after an event will need to occur within the first twelve months. However, when considering the larger picture of the FHCF's ability to pay additional claims for a subsequent season, the FHCF's bonding capacity beyond 0-12 months is also an important factor. Each of the senior managers believes that the FHCF would have significant additional capacity in the period 12-24 months after an event⁵. This additional capacity could be used to fund a portion of the amount potentially needed for the 2020-2021 contract year or subsequent season losses, in the approximate amounts as shown on the following pages.

Estimated Claims-Paying Capacity

Estimated claims-paying capacity of the FHCF is equal to the sum of the projected year-end fund balance plus preliminary risk transfer placement (\$1 billion for the 2019-2020 contract year), any other financing resources available, and the estimated bonding capacity. The FHCF projects that its year-end fund balance for the 2019-2020 contract year is \$12.4 billion, its preliminary risk transfer placement is \$1 billion for the 2019-2020 contract year, and it has an estimated bonding capacity of \$8.6 billion (which includes repayment of pre-event bond proceeds in the amount of \$1.65 billion), which equals a total estimated claims-paying capacity of \$22.0 billion, or \$5.0 billion above its statutory limit of \$17.0 billion.

The subsequent season may have some remaining additional bonding capacity from the initial season, but for purposes of this analysis we assume the available initial season bonding capacity in the

⁵ The longer the time frame for estimation purposes, the greater the degree of uncertainty.



amount of \$8.6 billion is also available for the subsequent or 2020-2021 contract year. For any remaining losses beyond the FHCF's estimated claims-paying capacity for the 2020-2021 season, the FHCF may have additional 12-24 month bonding capacity of up to \$7.5 billion available.

Under this scenario, if an event happens, we assume that the FHCF would leave its pre-event bond proceeds outstanding and issue \$3.6 billion of post-event bonds to fund its maximum potential obligation for the 2019-2020 contract year. For the 2020-2021 contract year, the FHCF can then use its estimated bonding capacity of \$8.6 billion (which includes repayment of pre-event bond proceeds) and the \$1.2 billion of reimbursement premiums projected to be accumulated during the subsequent season for total funding sources of \$9.8 billion, or approximately 58% of its potential maximum statutory obligation of \$17 billion for the 2020-2021 contract year. Under this scenario, the FHCF would need an additional \$7.2 billion in funding sources in order to reach its maximum statutory obligation of \$17 billion for the 2020-2021 contract year.

(\$ in Billions, Totals may not add due to rounding)	2019-2020 Contract Year	2020-2021 Contract Year
FHCF Potential Coverage Obligation		
FHCF Coverage Obligation	(A)	\$17.0
FHCF Estimated Funding Sources Available		
Projected FHCF Year-End Fund Balance	(B)	\$12.4
Preliminary Risk Transfer	(C)	\$1.0
2013A and 2016A Pre-Event Bond Proceeds Available ¹	(D)	\$1.7
Total Liquid Resources Available	(B + C + D) = (E)	\$15.1
Additional Funds / Potential Borrowing Need	(\$1.9)	(\$15.2)
FHCF Claims-Paying Capacity		
Projected FHCF Year-End Fund Balance	(B)	\$12.4
Preliminary Risk Transfer	(C)	\$1.0
Estimated FHCF Borrowing Capacity ¹	(G)	\$8.6
Total Estimated Claims-Paying Capacity	(B + C + G) = (H)	\$22.0
Total Estimated Claims-Paying Capacity as a % of FHCF Coverage Obligation		
(H / A) = (I)		130%
Amount Above / (Below) Coverage Obligation		
(H - A) = (J)	\$5.0	(\$7.2)

Totals may not add due to rounding.

¹ Estimated borrowing capacity is inclusive of any repayment of pre-event bond proceeds. Pre-event bonds are available as a liquidity resource for the 2019-2020 contract year in the amount of \$1.65 billion but we are assuming no pre-event bonds will be used to pay claims for the 2019-2020 contract year and therefore will be available to pay claims for the 2020-2021 contract year in the amount of \$650 million (\$1 billion matures on July 1, 2020).

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



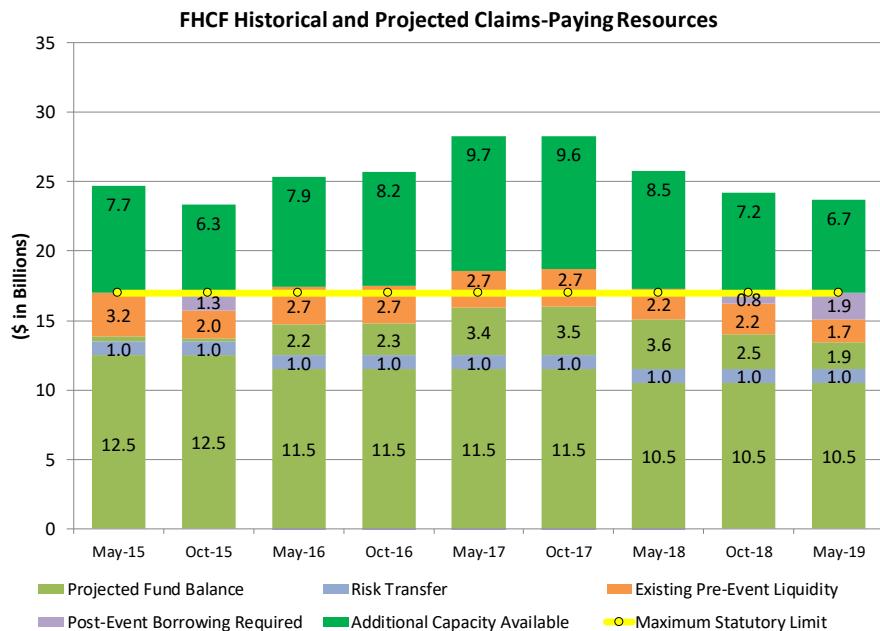
(\$ in Billions)	2019-2020 Contract Year	2020-2021 Contract Year
Total Potential Borrowing	\$3.6	\$8.6
Assessment % if Financed at Current Market Rates	0.35%	N/A
Assessment % if Financed at "Above Market" Rate of 7%	0.50%	1.27%

*For the 2020-2021 Contract Year, the FHCF is projecting a claims-paying capacity of \$9.8 billion, or 58% of its statutory limit.

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 \$3.75 billion of Hurricane Irma losses in 2017 and \$1.45 billion of Hurricane Michael losses in 2018 reduced the estimated FHCF's projected fund balance to approximately \$12.4 billion for the 2019-2020 Contract Year. During this time the senior managers' estimates of the FHCF's bonding capacity have stabilized, but have significantly varied during other time periods, 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 current average estimate for 0-12 months of \$8.6 billion is \$600 million higher than it was in October 2018.

The chart below shows the total estimated initial season claims-paying resources of the FHCF since May 2015 with projected fund balance (light green), existing pre-event liquidity (orange), \$1 billion of risk transfer for every year since starting in the 2015-2016 contract years and preliminary for the 2019-2020 contract year (blue), post-event borrowing required (purple), if needed, and maximum statutory limit (yellow) with additional capacity available above (dark green) the maximum statutory limit.



Numbers may not add due to rounding.

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



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

Even though the range has narrowed and stabilized, 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 2015.

Post-Event Estimated Bonding Capacity Over 12 Months (Senior Managers' Range)										
(\$ in Billions)	May-15	Oct-15	May-16	Oct-16	May-17	Oct-17	May-18	Oct-18	May-19	May 2019 - Oct. 2018 Change
Overall Range	\$5-\$12	\$4.5-\$12	\$4.5-\$12	\$5.5-\$12	\$5-\$12	\$6-\$12	\$6.5-\$12	\$5.5-\$12	\$6-\$12	↔

The range of estimates shown in the table reflects the fundamental underlying volatility and uncertainty of the markets and the bonding capacity estimating process for the FHCF. We believe the process of using a survey of the opinions of the best experts with the most relevant experience, and employing a prudent approach to pick among several potential estimates of capacity, provides a reasonable estimate that suits the purposes of the FHCF and the needs of its participating insurers. While the FHCF is \$1.9 billion below fully funding the initial season, it has additional capacity available after an event for the subsequent season. This additional capacity still does not provide a guaranteed source of liquidity or claims-paying capacity for subsequent seasons, and the actual bonding results achieved by the FHCF after a hurricane could vary substantially from this estimate for subsequent seasons. The FHCF has \$15.1 billion of liquidity, \$1.9 billion below its potential maximum statutory obligation of \$17 billion for the 2019-2020 contract year. For the subsequent season, the FHCF has a projected potential claims-paying capacity of \$9.8 billion (assuming no pre-event bonds will be used to pay claims for the 2019-2020 contract year), or up to approximately 58% of its maximum statutory obligation of \$17 billion for the 2020-2021 contract year.



Appendix A – Bonding Capacity Solicitation & Senior Manager Responses

Sasha Stipanovich

From: Sasha Stipanovich
Sent: Wednesday, April 24, 2019 10:40 PM
Cc: Kapil Bhatia
Subject: FHCF Bonding Capacity Analysis

FHCF Senior Manager Team:

We need your input in preparation for presenting the FHCF's statutorily required semiannual bonding capacity estimate at the FHCF Advisory Council Meeting scheduled for May 16th.

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. We are still comfortable including estimates that contain some 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. We use an above-market estimate of 7%, which is significantly above the FHCF's expected current market rates in order to add more conservatism to the analysis.

In order to prepare the FHCF Bonding Capacity Report for May 2019, we need the following data elements from you by Thursday, May 2nd:

1. Please provide a 30-year tax-exempt scale for the FHCF using the MMD at the close of business Thursday, April 25th. This scale should be the one that you believe reflects a "market" scale given the FHCF's credit with no capacity constraints. Please use serial bonds and 20, 25, and/or 30-year term bonds, as needed, over a 30-year amortization period (7/1/20 - 7/1/49) with 5.0% coupons throughout when writing the scale. Base the scale on an uninsured financing given the FHCF's current underlying ratings of Aa3/AA/AA (Moody's / S&P / Fitch).
2. Please provide a 30-year taxable scale using the Treasury curve at the close of business Thursday, April 25th. This scale should be the one that you believe reflects a "market" scale given the FHCF's credit with no capacity constraints. Please use serial bonds and 20, 25, and/or 30-year term bonds, as needed, over a 30-year amortization period (7/1/20 - 7/1/49) 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 Thursday, May 2nd. Additionally, we would like a representative from your firm (banker and/or underwriter) to be present at the meeting either via phone or in-person to answer any questions. If you have any questions or comments, please call or e-mail Kapil Bhatia (727-567-1791, kapil.bhatia@raymondjames.com) or Sasha Stipanovich (727-567-1790, sasha.stipanovich@raymondjames.com).

Memorandum



To: Florida Hurricane Catastrophe Fund
From: Bank of America Merrill Lynch
Date: May 2, 2019
Subject: Florida Hurricane Catastrophe Fund – May 2019 Bonding Capacity Analysis

Bank of America Merrill Lynch (“BofAML”) is pleased to provide the Florida Hurricane Catastrophe Fund (“FHCF”) with our firm’s estimates and views of the FHCF’s post-event bonding capacity and current market borrowing costs.

Market Commentary

Since FHCF’s last capacity report, the outlook for general economic conditions as well as the municipal market has shifted significantly. The Federal Reserve has left rates unchanged this year after an aggressive tightening cycle in 2018 and it has dialed back projections for rate increases in 2019 from an expected three rate increases at the time of the last capacity report to no expected rate increases. One factor that may affect its policy stance going forward is the core inflation target that has remained below the Federal Reserve’s target of 2%. The Fed is continuing its balance sheet normalization process as it does not view its quantitative easing process as one of its monetary tools. In the municipal market, money continues to chase supply with new issuance tracking 2018’s new issuance trend, the first year affected by the Tax Cut and Jobs Act that eliminated advance refundings. The municipal market is currently exhibiting a supply demand imbalance that has been driving MMD rates lower as investors look to put their money to work. While the broader market continues to exhibit headline strength, with Q1 GDP at 3.2% driven by inventories, a lower trade deficit and government spending (together, contributing 2.1% or 70% of GDP growth), consumption – the typical driver of GDP growth – was not as impactful to economic activity in the first quarter suggesting some headwinds could be ahead and trade tensions continue to loom as a significant risk to the economy.

Municipal bond funds have seen net inflows of approximately \$18.9 billion year to date with only a single week of outflows thus far this week (first week of January). Weekly municipal net bond fund flows year to date are nearly 6 times higher as compared to the same period last year. Since our last bonding capacity analysis presented at the October meeting, yields across the entire yield curve have fallen significantly. On the longer end of the tax-exempt MMD curve (10+ years), yields have decreased an average of 65 basis points and within 10 years, rates have fallen an average of 51 basis points. Yields in the municipal market have been driven by low supply as well as a pause in the Fed’s tightening cycle. In the taxable market, trends are similar but the Treasury curve is currently exhibiting an inversion in years 1 - 5. Since our October 2018 report, rates across the UST curve have decreased between 16 and 63 basis points, with the spread between the 1- and 30-year UST currently at 52 bps, down from 65 bps from our last update reflecting a further flattening of the yield curve. New issue supply in the municipal market thus far in 2019 has averaged approximately \$5.9 billion per week, with 2019 total issuance projected to be approximately 14% above 2018 levels.

As we have stated in the past, despite the market dynamics in play in the current environment, a transaction or series of transactions by the FHCF and possibly other insurance-related entities in the State of Florida (Citizens, FIGA) after a hurricane event has been generally untested and may significantly impact market dynamics for a specific transaction. In the pages that follow, we provide BofAML’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 BofAML team.

“Bank of America Merrill Lynch” is the marketing name for the global banking and global markets businesses of Bank of America Corporation. Lending, derivatives, and other commercial banking activities are performed globally by banking affiliates of Bank of America Corporation, including Bank of America, N.A., member FDIC. Securities, strategic advisory, and other investment banking activities are performed globally by investment banking affiliates of Bank of America Corporation (“Investment Banking Affiliates”), including, in the United States, Merrill Lynch, Pierce, Fenner & Smith Incorporated and Merrill Lynch Professional Clearing Corp., both of which are registered broker dealers and members of FINRA and SIPC, and, in other jurisdictions, by locally registered entities. Investment products offered by Investment Banking Affiliates: Are Not FDIC Insured * May Lose Value * Are Not Bank Guaranteed.

1. Please provide a 30-year tax-exempt scale for the FHCF using the MMD at the close of business Thursday, April 25th. This scale should be the one that you believe reflects a “market” scale given the FHCF’s credit with no capacity constraints. Please use serial bonds and 20, 25, and/or 30-year term bonds, as needed, over a 30-year amortization period (7/1/20 - 7/1/49) with 5.0% coupons throughout when writing the scale. Base the scale on an uninsured financing given the FHCF’s current underlying ratings of Aa3/AA/AA (Moody’s / S&P / Fitch).

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

Tax-Exempt Scale					
Term	Maturity (July 1)	Coupon	MMD	Spread	Yield
1	2020	5.000%	1.550%	10	1.650%
2	2021	5.000%	1.570%	15	1.720%
3	2022	5.000%	1.590%	20	1.790%
4	2023	5.000%	1.610%	25	1.860%
5	2024	5.000%	1.650%	30	1.950%
6	2025	5.000%	1.690%	35	2.040%
7	2026	5.000%	1.730%	38	2.110%
8	2027	5.000%	1.770%	40	2.170%
9	2028	5.000%	1.820%	43	2.250%
10	2029	5.000%	1.900%	45	2.350%
11	2030	5.000%	1.980%	48	2.460%
12	2031	5.000%	2.050%	50	2.550%
13	2032	5.000%	2.110%	50	2.610%
14	2033	5.000%	2.170%	50	2.670%
15	2034	5.000%	2.220%	50	2.720%
16	2035	5.000%	2.270%	50	2.770%
17	2036	5.000%	2.310%	50	2.810%
18	2037	5.000%	2.350%	50	2.850%
19	2038	5.000%	2.390%	50	2.890%
20	2039	5.000%	2.430%	50	2.930%
21	2040	-	2.460%	-	-
22	2041	-	2.490%	-	-
23	2042	-	2.510%	-	-
24	2043	-	2.530%	-	-
25	2044	5.000%	2.540%	55	3.090%
26	2045	-	2.550%	-	-
27	2046	-	2.560%	-	-
28	2047	-	2.570%	-	-
29	2048	-	2.580%	-	-
30	2049	5.000%	2.590%	55	3.140%

-
2. Please provide a 30-year taxable scale using the Treasury curve at the close of business Thursday, April 25th. This scale should be the one that you believe reflects a “market” scale given the FHCF’s credit with no capacity constraints. Please use serial bonds and 20, 25, and/or 30-year term bonds, as needed, over a 30-year amortization period (7/1/20 - 7/1/49) 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	2020	2.920%	2.420%	50	2.920%
2	2021	2.930%	2.330%	60	2.930%
3	2022	2.990%	2.290%	70	2.990%
4	2023	3.130%	2.330%	80	3.130%
5	2024	3.230%	2.330%	90	3.230%
6	2025	3.320%	2.420%	90	3.320%
7	2026	3.420%	2.420%	100	3.420%
8	2027	3.540%	2.540%	100	3.540%
9	2028	3.590%	2.540%	105	3.590%
10	2029	3.640%	2.540%	110	3.640%
11	2030	3.660%	2.540%	112	3.660%
12	2031	3.690%	2.540%	115	3.690%
13	2032	3.710%	2.540%	117	3.710%
14	2033	3.740%	2.540%	120	3.740%
15	2034	3.760%	2.540%	122	3.760%
16	2035	-	-	-	-
17	2036	-	-	-	-
18	2037	-	-	-	-
19	2038	-	-	-	-
20	2039	3.910%	2.760%	115	3.910%
21	2040	-	-	-	-
22	2041	-	-	-	-
23	2042	-	-	-	-
24	2043	-	-	-	-
25	2044	-	-	-	-
26	2045	-	-	-	-
27	2046	-	-	-	-
28	2047	-	-	-	-
29	2048	-	-	-	-
30	2049	4.190%	2.940%	125	4.190%

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 "unconstrained" FHCF capacity estimates. We believe that sufficient demand exists at these capacity levels to complete a transaction of the sizes provided below and the risk of cross-market cannibalization is low.

FLORIDA HURRICANE CATASTROPHE FUND POST-EVENT MARKET CAPACITY (\$ BILLION)			
Time Period	Tax-Exempt	Taxable	Total
0-12 Months	\$2.0-3.0	\$3.5-5.5	\$5.5-8.5
12-24 Months	\$2.0-3.0	\$3.5-5.5	\$5.5-8.5
0-24 Months	\$4.0-6.0	\$7.0-11.0	\$11.0-17.0



Confidential Notice to Recipient

"Bank of America Merrill Lynch" is the marketing name for the global banking and global markets businesses of Bank of America Corporation. Lending, derivatives, and other commercial banking activities are performed globally by banking affiliates of Bank of America Corporation, including Bank of America, N.A., member FDIC. Securities, strategic advisory, and other investment banking activities are performed globally by investment banking affiliates of Bank of America Corporation ("Investment Banking Affiliates"), including, in the United States, Merrill Lynch, Pierce, Fenner & Smith Incorporated and Merrill Lynch Professional Clearing Corp., which are both registered broker dealers and members of FINRA and SIPC, and, in other jurisdictions, by locally registered entities.

**Investment products offered by Investment Banking Affiliates:
Are Not FDIC Insured * May Lose Value * Are Not Bank Guaranteed.**

These materials have been prepared by one or more subsidiaries of Bank of America Corporation for the client or potential client to whom such materials are directly addressed and delivered (the "Company") in connection with an actual or potential mandate or engagement and may not be used or relied upon for any purpose other than as specifically contemplated by a written agreement with us. These materials are based on information provided by or on behalf of the Company and/or other potential transaction participants, from public sources or otherwise reviewed by us. We assume no responsibility for independent investigation or verification of such information (including, without limitation, data from third party suppliers) and have relied on such information being complete and accurate in all material respects. To the extent such information includes estimates and forecasts of future financial performance prepared by or reviewed with the managements of the Company and/or other potential transaction participants or obtained from public sources, we have assumed that such estimates and forecasts have been reasonably prepared on bases reflecting the best currently available estimates and judgments of such managements (or, with respect to estimates and forecasts obtained from public sources, represent reasonable estimates). No representation or warranty, express or implied, is made as to the accuracy or completeness of such information and nothing contained herein is, or shall be relied upon as, a representation, whether as to the past, the present or the future. These materials were designed for use by specific persons familiar with the business and affairs of the Company and are being furnished and should be considered only in connection with other information, oral or written, being provided by us in connection herewith. These materials are not intended to provide the sole basis for evaluating, and should not be considered a recommendation with respect to, any transaction or other matter. These materials do not constitute an offer or solicitation to sell or purchase any securities and are not a commitment by Bank of America Corporation or any of its affiliates to provide or arrange any financing for any transaction or to purchase any security in connection therewith. These materials are for discussion purposes only and are subject to our review and assessment from a legal, compliance, accounting policy and risk perspective, as appropriate, following our discussion with the Company. We assume no obligation to update or otherwise revise these materials. These materials have not been prepared with a view toward public disclosure under applicable securities laws or otherwise, are intended for the benefit and use of the Company, and may not be reproduced, disseminated, quoted or referred to, in whole or in part, without our prior written consent. These materials may not reflect information known to other professionals in other business areas of Bank of America Corporation and its affiliates. Any League Tables referenced within these materials have been prepared using data sourced from external third party providers as outlined in the relevant footnotes where applicable. For persons wishing to request further information regarding these third party providers and the criteria and methodology used to prepare a league table please contact your usual Bank of America Merrill Lynch representative/Relationship Manager.

Bank of America Corporation and its affiliates (collectively, the "BAC Group") comprise a full service securities firm and commercial bank engaged in securities, commodities and derivatives trading, foreign exchange and other brokerage activities, and principal investing as well as providing investment, corporate and private banking, asset and investment management, financing and strategic advisory services and other commercial services and products to a wide range of corporations, governments and individuals, domestically and offshore, from which conflicting interests or duties, or a perception thereof, may arise. In the ordinary course of these activities, parts of the BAC Group at any time may invest on a principal basis or manage funds that invest, make or hold long or short positions, finance positions or trade or otherwise effect transactions, for their own accounts or the accounts of customers, in debt, equity or other securities or financial instruments (including derivatives, bank loans or other obligations) of the Company, potential counterparties or any other company that may be involved in a transaction. Products and services that may be referenced in the accompanying materials may be provided through one or more affiliates of Bank of America Corporation. We have adopted policies and guidelines designed to preserve the independence of our research analysts. The BAC Group prohibits employees from, directly or indirectly, offering a favorable research rating or specific price target, or offering to change a rating or price target to a subject company as consideration or inducement for the receipt of business or for compensation and the BAC Group prohibits research analysts from being directly compensated for involvement in investment banking transactions. The views expressed herein are the views solely of Global Corporate and Investment Banking, and no inference should be made that the views expressed represent the view of the firm's research department. We are required to obtain, verify and record certain information that identifies the Company, which information includes the name and address of the Company and other information that will allow us to identify the Company in accordance, as applicable, with the USA Patriot Act (Title III of Pub. L. 107-56 (signed into law October 26, 2001)) and such other laws, rules and regulations as applicable within and outside the United States.

We do not provide legal, compliance, tax or accounting advice. Accordingly, any statements contained herein as to tax matters were neither written nor intended by us to be used and cannot be used by any taxpayer for the purpose of avoiding tax penalties that may be imposed on such taxpayer. If any person uses or refers to any such tax statement in promoting, marketing or recommending a partnership or other entity, investment plan or arrangement to any taxpayer, then the statement expressed herein is being delivered to support the promotion or marketing of the transaction or matter addressed and the recipient should seek advice based on its particular circumstances from an independent tax advisor. Notwithstanding anything that may appear herein or in other materials to the contrary, the Company shall be permitted to disclose the tax treatment and tax structure of a transaction (including any materials, opinions or analyses relating to such tax treatment or tax structure, but without disclosure of identifying information or any nonpublic commercial or financial information (except to the extent any such information relates to the tax structure or tax treatment)) on and after the earliest to occur of the date of (i) public announcement of discussions relating to such transaction, (ii) public announcement of such transaction or (iii) execution of a definitive agreement (with or without conditions) to enter into such transaction; provided, however, that if such transaction is not consummated for any reason, the provisions of this sentence shall cease to apply. Copyright 2019 Bank of America Corporation.



BofAML IS NOT YOUR MUNICIPAL ADVISOR OR FIDUCIARY.

Bank of America Merrill Lynch ("BofAML") is providing the information contained herein for discussion purposes only either as an underwriter or in anticipation of being engaged to serve as an underwriter. By providing the information contained herein pursuant IRMA: the participation by an independent registered municipal advisor exemption provided under SEC Rule 15Ba1-1(d)(3)(vi), BofAML is not acting as your "municipal advisor" within the meaning of Section 15B of the Securities Exchange Act of 1934, as amended (the "Act"), and does not owe a fiduciary duty to you pursuant to the Act with respect to the information and material contained in this communication. BofAML is either serving as an underwriter or is seeking to serve as an underwriter on a future transaction and not as a financial advisor or municipal advisor. The primary role of BofAML, as an underwriter, is to purchase securities with a view to distribution in an arm's-length commercial transaction between you and BofAML and BofAML has financial and other interests that differ from yours. BofAML is acting for its own interests. You should discuss any information and material contained in this communication with any and all of your own internal or external municipal and/or financial, legal, accounting, tax and other advisors and experts, as applicable, to the extent you deem appropriate before acting on this information or material.

Memorandum

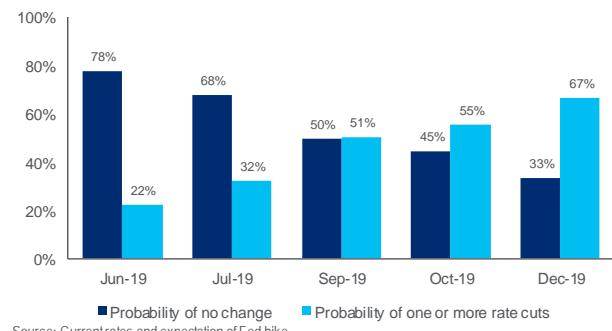
To: Florida Hurricane Catastrophe Fund
 From: Citigroup Global Markets Inc. ("Citi")
 Date: May 3, 2019
 Re: FHCF May 2019 Capacity Analysis

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

Municipal interest rates have trended downward since January 1, 2019. 30-year MMD has declined a total of 47 basis points over that span of time, while 5-year MMD has declined by 30 basis points over the same period. Credit spreads have continued to tighten, while supply is expected to increase by approximately 13% over 2018 supply, to a total of \$385 billion. Municipal bond funds have reported significant inflows this year, with sixteen consecutive weeks of inflows as of the week ending April 24th. Bond funds have now netted approximately \$28.4 billion of inflows this year, compared to \$6.5 billion over the same period last year. Total new issue supply is currently about \$100 billion YTD, up approximately +10% from the supply levels seen this time last year. MMD continues to trend near historic lows with the current rate environment being attractive to issuers, as rates in the middle part and long end of the curve have only been lower 2-7% of the time since 1986. Citi currently forecasts a relatively flat interest rate environment throughout 2019, while Economists' Consensus (per Bloomberg) predicts a slightly higher rate environment throughout the rest of the year. The Federal Reserve held interest rates steady on Wednesday's meeting, citing lack of inflation pressure and solid economic activity growth.

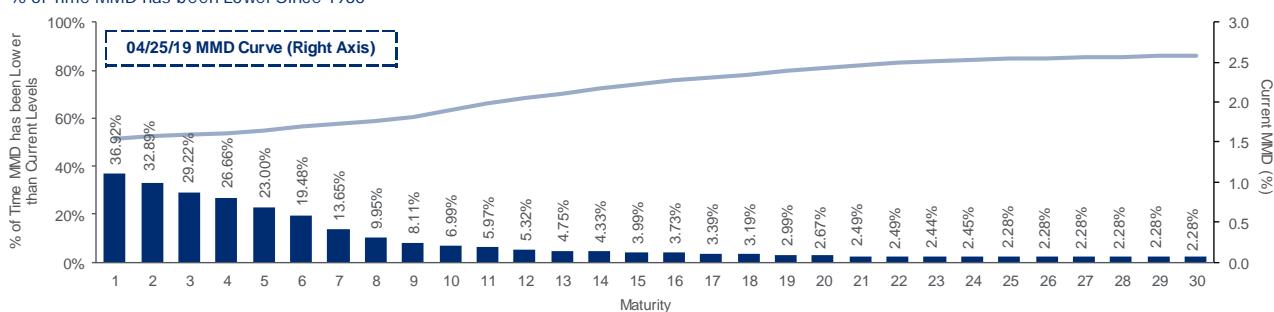
Expectations of Next Fed Increase in Rates

Wednesday's FOMC decision resulted in no change in interest rates, given the current economic environment.



Source: Current rates and expectation of Fed hike.

% of Time MMD has been Lower Since 1986

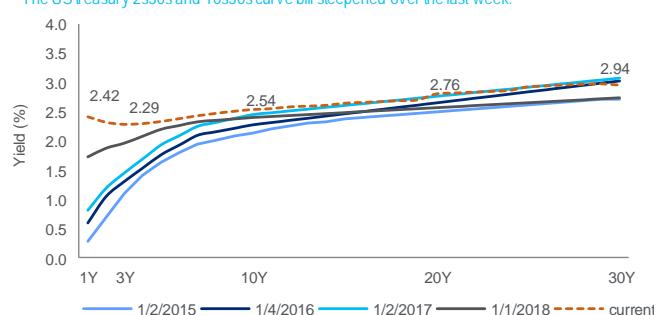


Source: Thomson Reuters, data as of April 25, 2019.

Yield Curve Environment. Given changing outlook from the Federal Reserve, mixed global monetary policy and macro-events, short term fixed rates have edged higher, leading to an inversion in the short-term portion of the yield curve. Market dynamics have continued to keep long term rates historically low, which has contributed to the continued flattening of the yield curve. The graph to the right illustrates this effect, with the 1-year treasury yield rising 217 bps from near historic lows in 2015 (30 year to 1 year slope of 244 bps) while 30-year yields rose by just 25 bps over that same period. This has resulted in a Treasury yield curve with just 52 bps of spread between 1-year and 30-year treasuries as of April 25th.

US Treasury Yield Curve

The US treasury 2s30s and 10s30s curve bill steepened over the last week.



Source: Current rates as of April 25, 2019.

1. Please provide a 30-year tax-exempt scale for the FHCF using the MMD at the close of business Thursday, April 25th. This scale should be the one that you believe reflects a "market" scale given the FHCF's credit with no capacity constraints. Please use serial bonds and 20, 25, and/or 30-year term bonds, as needed, over a 30-year amortization period (7/1/20 - 7/1/49) with 5.0% coupons throughout when writing the scale. Base the scale on an uninsured financing given the FHCF's current underlying ratings of Aa3/AA/AA (Moody's / S&P / Fitch).

Tax-Exempt Scale				
Year	Apr 25 MMD*	MMD Spread	Coupon	Base Yield
2020	1.55%	10	5.00%	1.65%
2021	1.57%	15	5.00%	1.72%
2022	1.60%	20	5.00%	1.80%
2023	1.62%	25	5.00%	1.87%
2024	1.66%	30	5.00%	1.96%
2025	1.70%	35	5.00%	2.05%
2026	1.74%	37	5.00%	2.11%
2027	1.79%	39	5.00%	2.18%
2028	1.84%	40	5.00%	2.24%
2029	1.92%	40	5.00%	2.32%
2030	2.00%	40	5.00%	2.40%
2031	2.06%	40	5.00%	2.46%
2032	2.12%	40	5.00%	2.52%
2033	2.17%	40	5.00%	2.57%
2034	2.22%	40	5.00%	2.62%
2035	2.27%	40	5.00%	2.67%
2036	2.31%	40	5.00%	2.71%
2037	2.35%	40	5.00%	2.75%
2038	2.39%	40	5.00%	2.79%
2039	2.43%	40	5.00%	2.83%
2040	2.46%			
2041	2.49%			
2042	2.51%			
2043	2.53%			
2044	2.54%	45	5.00%	2.99%
2045	2.55%			
2046	2.56%			
2047	2.57%			
2048	2.58%			
2049	2.59%	45	5.00%	3.04%

*July Interpolated MMD

2. Please provide a 30-year taxable scale using the Treasury curve at the close of business Thursday, April 25th. This scale should be the one that you believe reflects a "market" scale given the FHCF's credit with no capacity constraints. Please use serial bonds and 20, 25, and/or 30-year term bonds, as needed, over a 30-year amortization period (7/1/20 - 7/1/49) 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	Apr 25 TSY	TSY Spread	Coupon	Yield
2020	2 Yr	2.33%	40	2.73%	2.73%
2021	2 Yr	2.33%	50	2.83%	2.83%
2022	3 Yr	2.29%	60	2.89%	2.89%
2023	5 Yr	2.33%	55	2.88%	2.88%
2024	5 Yr	2.33%	65	2.98%	2.98%
2025	7 Yr	2.42%	70	3.12%	3.12%
2026	7 Yr	2.42%	80	3.22%	3.22%
2027	10 Yr	2.54%	85	3.39%	3.39%
2028	10 Yr	2.54%	90	3.44%	3.44%
2029	10 Yr	2.54%	100	3.54%	3.54%
2030					
2031					
2032					
2033					
2034	10 Yr	2.54%	120	3.74%	3.74%
2035					
2036					
2037					
2038					
2039	30 Yr	2.94%	120	4.14%	4.14%
2040					
2041					
2042					
2043					
2044					
2045					
2046					
2047					
2048					
2049	30 Yr	2.94%	130	4.24%	4.24%

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	\$3.5-4.0 bn	\$3.0-4.0	\$6.5-8.0
12-24 Months	\$3.5-4.0 bn	\$4.0-5.0	\$7.5-9.0
Total	\$7.0-8.0 bn	\$7.0-9.0	\$14.0-17.0

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

In any instance where distribution of this communication is subject to the rules of the US Commodity Futures Trading Commission ("CFTC"), this communication constitutes an invitation to consider entering into a derivatives transaction under U.S. CFTC Regulations §§ 1.71 and 23.605, where applicable, but is not a binding offer to buy/sell any financial instrument.

This presentation has been prepared by individual personnel of Citigroup Global Markets Inc., Citigroup Global Markets Limited or their subsidiaries or affiliates (collectively, "Citi"). Such employees are not research analysts and are not subject to SEC or FSA rules designed to promote the independence of research and research analysts and accordingly may receive compensation related to securities or products to which these materials relate. These materials may contain general market commentary and excerpts of research; however they are not intended to constitute investment research, a research recommendation, research analysis or a research report for purposes of such rules.

In connection with any proposed transaction, Citi will be acting solely as a principal and not as your agent, advisor, account manager or fiduciary. Citi has not assumed a fiduciary responsibility with respect to the proposed transaction, and nothing in this or in any prior relationship between you and Citi will be deemed to create an advisory, fiduciary or agency relationship between us in respect of a proposed transaction. You should consider carefully whether you would like to engage an independent advisor to represent or otherwise advise you in connection with any proposed transaction, if you have not already done so.

Any terms set forth herein are intended for discussion purposes only and are subject to the final terms as set forth in separate definitive written agreements. This presentation is not a commitment to lend, syndicate a financing, underwrite or purchase securities, or commit capital nor does it obligate us to enter into such a commitment. By accepting this presentation, subject to applicable law or regulation, you agree to keep confidential the existence of and proposed terms for any contemplated transaction.

The provision of information in this presentation is not based on your individual circumstances and should not be relied upon as an assessment of suitability for you of a particular product or transaction. Even if Citi possesses information as to your objectives in relation to any transaction, series of transactions or trading strategy, this will not be deemed sufficient for any assessment of suitability for you of any transaction, series of transactions or trading strategy.

This presentation is provided for information purposes and is intended for your use only. Except in those jurisdictions where it is impermissible to make such a statement, Citi hereby informs you that this presentation should not be considered as an offer to sell or the solicitation of an offer to purchase any securities or other financial products. This presentation does not constitute investment advice and does not purport to identify all risks or material considerations which should be considered when undertaking a transaction. Citi makes no recommendation as to the suitability of any of the products or transactions mentioned. Any trading or investment decisions you take are in reliance on your own analysis and judgment and/or that of your advisors and not in reliance on us.

Certain transactions, including those involving swaps and options, give rise to substantial risk including the potential loss of the principal amount invested, and are not suitable for all investors. Citi does not provide investment, accounting, tax, financial or legal advice; however, you should be aware that any proposed indicative transaction could have accounting, tax, legal or other implications that should be discussed with your independent advisors. Therefore, prior to entering into any transaction, you should determine, without reliance on Citi, the economic risks or merits, as well as the legal, tax and accounting characteristics and consequences of the transaction and that you are able to assume these risks. By acceptance of these materials, you and Citi hereby agree that from the commencement of discussions with respect to any transaction, and notwithstanding any other provision in this presentation, Citi hereby confirms that no participant in any transaction shall be limited from disclosing the U.S. tax treatment or U.S. tax structure of such transaction.

This presentation is not intended to forecast or predict future events. Past performance is not a guarantee or indication of future results. Any estimates and opinions included herein constitute Citi's judgment as of the date hereof and are subject to change without any notice. This presentation may contain "forward-looking" information. Such information may include, but not be limited to, projections, forecasts or estimates of cash flows, yields or return, scenario analyses and proposed or expected portfolio composition. Any forward-looking information is based upon certain assumptions about future events or conditions and is intended only to illustrate hypothetical results under those assumptions (not all of which are specified herein or can be ascertained at this time). It does not represent actual termination or unwind prices that may be available to you. Actual events or conditions are unlikely to be consistent with, and may differ significantly from, those assumed. Illustrative performance results may be based on mathematical models that calculate those results by using inputs that are based on assumptions about a variety of future conditions and events and not all relevant events or conditions may have been considered in developing such assumptions. Accordingly, actual results may vary and the variations may be substantial. The products or securities identified in any of the illustrative calculations presented herein may therefore not perform as described and actual performance may differ, and may differ substantially, from those illustrated in this material. When evaluating any forward looking information you should understand the assumptions used and, together with your independent advisors, consider whether they are appropriate for your purposes.

Any securities or other financial products described herein may be subject to fluctuations of their mark-to-market price or value. Such fluctuations may be substantial, depending on the type of securities or other financial products and the financial environment. In addition certain securities described in the presentation may provide for payments linked to or derived from prices or yields of one or more securities or other instruments or foreign currencies, and such provisions may result in negative fluctuations in the value of and the amounts payable with respect to such securities prior to or at redemption. You should consider the implication of such fluctuation with your independent accounting, tax and risk advisors.

Citi shall have no liability to you, the user or to third parties, for the quality, accuracy, timeliness, continued availability or completeness of the data nor for any special, direct, indirect, incidental or consequential loss or damage which may be experienced because of the use of the information in this presentation or otherwise arising in connection with this presentation, provided that this exclusion of liability shall not exclude or limit any liability under any law or regulation applicable to Citi that may not be excluded or restricted. These materials are intended for distribution solely to customers of Citi in jurisdictions where such distribution is permitted. The information contained herein is proprietary information of Citi and may not be reproduced or otherwise disseminated in whole or in part without Citi's prior written consent.

Citi often acts as (i) a market maker; (ii) an issuer of financial instruments and other products; and (iii) trades as principal in many different financial instruments and other products, and can be expected to perform or seek to perform investment banking and other services for the issuer of such financial instruments or other products. The author of this presentation may have discussed the information contained herein with others within or outside Citi and the author and/or such other Citi personnel may have already acted on the basis of this information (including by trading for Citi's proprietary accounts or communicating the information contained herein to other customers of Citi). Citi, Citi's personnel (including those with whom the author may have consulted in the preparation of this presentation), and other customers of Citi may be long or short the financial instruments or other products referred to in this presentation, may have acquired such positions at prices and market conditions that are no longer available, and may have interests different from or adverse to your interests.

Citi is required to obtain, verify and record certain information that identifies each entity that enters into a formal business relationship with Citi. Citi will ask for your complete name, street address, and taxpayer ID number. Citi may also request corporate formation documents, or other forms of identification, to verify information provided.

Although Citibank, N.A. (together with its subsidiaries and branches worldwide, "Citibank") is an affiliate of Citi, you should be aware that none of the financial instruments or other products mentioned in this presentation (unless expressly stated otherwise) are (i) insured by the Federal Deposit Insurance Corporation or any other governmental authority, or (ii) deposits or other obligations of, or guaranteed by, Citibank or any other insured depository institution.

IRS Circular 230 Disclosure: Citi and its employees are not in the business of providing, and do not provide, tax or legal advice to any taxpayer outside of Citi. Any statements in this presentation regarding tax matters were not intended or written to be used, and cannot be used or relied upon, by any taxpayer for the purpose of avoiding tax penalties. Any such taxpayer should seek advice based on the taxpayer's particular circumstances from an independent tax advisor.

© 2011 Citigroup Global Markets Inc. Member SIPC. All rights reserved. Citi and Arc Design are trademarks and service marks of Citigroup Inc. or its affiliates and are used and registered throughout the world.

J.P.Morgan

To: Florida Hurricane Catastrophe Fund

From: J.P. Morgan

Date: May 2, 2019

Subject: FHCF Estimated Bonding Capacity and Pricing

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 and Recent Developments¹

Last week, UST yields fluctuated throughout the week but ultimately declined on lower global developed market government bond yields, mixed economic data releases, and lower core PCE fueling speculation surrounding potential rate cuts later this year. Real GDP grew at a 3.2% annualized pace in 1Q19, boosted by increased inventories and net exports; this was above J.P. Morgan Research's expectation of 2.9% and consensus expectations of 2.3%. Both the S&P 500 and NASDAQ closed the week at record highs on the back of strong corporate earnings, while the Dow was essentially unchanged.

In the municipal market, the MMD curve flattened and the long end declined significantly amid continued light supply and inflows into municipal bond funds; the 2-year MMD yield rose by 1 basis point and 5-, 10-, and 30-year MMD yields decreased by 3, 8, and 15 basis points, respectively. On Friday, April 26th, 11-year through 30-year MMD yields reached YTD lows and the 10- and 30-year MMD/UST ratios reached their lowest levels since mid-2016. The following tables include J.P. Morgan's forecast for both UST and MMD rates over the four quarters, through 1Q2020.

JPM U.S. Treasury Interest Rate Forecast (%)

	4/26/2019	6/30/19	9/30/19	12/31/19	3/31/2020
	Current	2Q19 Forecast	3Q19 Forecast	4Q19 Forecast	1Q20 Forecast
Fed Funds	2.44%	2.40%	2.40%	2.40%	2.40%
3M LIBOR	2.58%	2.60%	2.55%	2.65%	2.55%
2Y UST	2.28%	2.35%	2.50%	2.60%	2.70%
5Y UST	2.28%	2.30%	2.45%	2.55%	2.65%
10Y UST	2.50%	2.55%	2.65%	2.75%	2.80%
30Y UST	2.92%	2.95%	3.05%	3.10%	3.15%

Source: J.P. Morgan Research, *US Fixed Income Markets Weekly*, 4/26/2019, jpmm.com;
Rates as of 4/26/2019

JPM Tax-Exempt Yield Forecast (%)

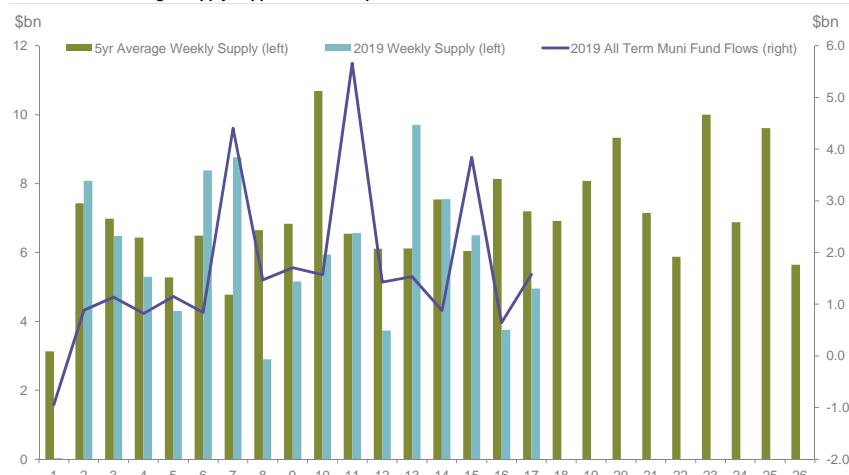
	4/26/2019		6/30/19	9/30/19	12/31/19	3/31/20
	AAA MMD	Current	2Q19 Forecast	3Q19 Forecast	4Q19 Forecast	1Q20 Forecast
2Y		1.57%	1.65%	1.85%	1.80%	1.90%
5Y		1.64%	1.65%	1.85%	1.85%	1.85%
10Y		1.87%	1.90%	2.10%	2.10%	2.10%
30Y		2.55%	2.60%	2.75%	2.80%	2.80%
10Y MMD/ UST Ratio	74.72%	74.51%	79.25%	76.36%	75.00%	
30Y MMD/ UST Ratio	87.17%	88.14%	90.16%	90.32%	88.89%	

Source: J.P. Morgan Research, *US Fixed Income Markets Weekly*, 4/26/2019, jpmm.com;
Rates as of 4/26/2019

Tax-reform continues to have an impact on the municipal market; however, strong demand and low supply has driven market dynamics in 2019. During the first quarter of 2019, Lipper's all municipal fund category produced record weekly and monthly inflows of \$22.5 billion, or 3.0% of assets, marking the best start to a year since the data set started in 1992. Weekly and monthly inflows into high-yield (\$4.8 billion), intermediate (\$9.5 billion), and long-term (\$10.7 billion) municipal funds also established records during the first quarter.

Municipal bond funds reported its 16th consecutive weeks of inflows with weekly

Record inflows and light supply support the municipal market in 2019



Source: J.P. Morgan Research, *US Fixed Income Markets Weekly*, 4/12/2019, jpmm.com; Lipper iMoneyNet as of 4/24/2019, Bloomberg as of 4/26/2019

¹ J.P. Morgan, *Municipal Issuers Market Update*, 4/29/2019, jpmm.com

J.P.Morgan

reporting funds responsible for all of the \$1.6 billion of inflows for the period ending April 24th, bringing YTD net investment to \$29.4 billion, continuing the best start to the year since 1992.

Potential Market Capacity

Based on market conditions as of close of business Wednesday, May 2nd, J.P. Morgan estimates that FHCF could sell \$5-6 billion of tax-exempt bonds and \$4-5 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 \$3-4 billion of tax-exempt bonds and \$3-4 billion of taxable bonds. This would provide FHCF a total post-event market capacity of \$8-10 billion tax-exempt and \$7-9 billion taxable, for a total of \$15-19 billion.

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 April 25th 2019. The scales assume FHCF's current underlying ratings of Aa3/AA/AA.

Indicative Post-Event Market Capacity as of May 2, 2019			
Time Period	Tax-exempt	Taxable	Total
0 - 12 Months	\$5-6 billion	\$4-5 billion	\$9-11 billion
12 - 24 Months	\$3-4 billion	\$3-4 billion	\$6-8 billion
Total	\$8-10 billion	\$7-9 billion	\$15-19 billion

J.P.Morgan

Florida Hurricane Catastrophe Fund - Tax-exempt Scale

Year	Maturity	Sinker/Term	Int. MMD	Spread	Coupon	Stated Yield
1	7/1/2020		1.55%	20	3.00%	1.75%
2	7/1/2021		1.57%	23	4.00%	1.80%
3	7/1/2022		1.60%	25	5.00%	1.85%
4	7/1/2023		1.62%	28	5.00%	1.90%
5	7/1/2024		1.66%	30	5.00%	1.96%
6	7/1/2025		1.70%	33	5.00%	2.03%
7	7/1/2026		1.74%	35	5.00%	2.09%
8	7/1/2027		1.79%	38	5.00%	2.17%
9	7/1/2028		1.84%	40	5.00%	2.24%
10	7/1/2029		1.92%	43	5.00%	2.35%
11	7/1/2030		2.00%	45	5.00%	2.45%
12	7/1/2031		2.06%	45	5.00%	2.51%
13	7/1/2032		2.12%	45	5.00%	2.57%
14	7/1/2033		2.17%	45	5.00%	2.62%
15	7/1/2034		2.22%	45	5.00%	2.67%
16	7/1/2035		2.27%	45	5.00%	2.72%
17	7/1/2036		2.31%	45	5.00%	2.76%
18	7/1/2037		2.35%	45	5.00%	2.80%
19	7/1/2038		2.39%	45	5.00%	2.84%
20	7/1/2039		2.43%	45	5.00%	2.88%
21	7/1/2040	*	2.46%			
22	7/1/2041	*	2.49%			
23	7/1/2042	*	2.51%			
24	7/1/2043	*	2.53%			
25	7/1/2044	T	2.54%	47	5.00%	3.01%
26	7/1/2045	*	2.55%			
27	7/1/2046	*	2.56%			
28	7/1/2047	*	2.57%			
29	7/1/2048	*	2.58%			
30	7/1/2049	T	2.59%	47	5.00%	3.06%

Assumes MMD as of close of business April 25, 2019, and an optional redemption date of 7/1/2029 at par.

J.P.Morgan

Florida Hurricane Catastrophe Fund - Taxable Scale

Year	Maturity	Sinker/Term	UST	Spread	Coupon	Stated Yield
1	7/1/2020		2.42%	30	2.72%	2.72%
2	7/1/2021		2.33%	40	2.73%	2.73%
3	7/1/2022		2.30%	50	2.80%	2.80%
4	7/1/2023		2.33%	55	2.88%	2.88%
5	7/1/2024		2.33%	65	2.98%	2.98%
6	7/1/2025		2.43%	70	3.13%	3.13%
7	7/1/2026		2.43%	80	3.23%	3.23%
8	7/1/2027		2.53%	80	3.33%	3.33%
9	7/1/2028		2.53%	90	3.43%	3.43%
10	7/1/2029		2.53%	95	3.48%	3.48%
11	7/1/2030		2.53%	100	3.53%	3.53%
12	7/1/2031		2.53%	105	3.58%	3.58%
13	7/1/2032		2.53%	110	3.63%	3.63%
14	7/1/2033		2.53%	115	3.68%	3.68%
15	7/1/2034		2.53%	120	3.73%	3.73%
16	7/1/2035	*	2.95%			
17	7/1/2036	*	2.95%			
18	7/1/2037	*	2.95%			
19	7/1/2038	*	2.95%			
20	7/1/2039	T	2.95%	110	4.05%	4.05%
21	7/1/2040	*	2.95%			
22	7/1/2041	*	2.95%			
23	7/1/2042	*	2.95%			
24	7/1/2043	*	2.95%			
25	7/1/2044	*	2.95%			
26	7/1/2045	*	2.95%			
27	7/1/2046	*	2.95%			
28	7/1/2047	*	2.95%			
29	7/1/2048	*	2.95%			
30	7/1/2049	T	2.95%	120	4.15%	4.15%

Assumes UST rates as of close of business April 25, 2019, and a make-whole call.

J.P.Morgan

Disclaimer

This presentation was prepared exclusively for the benefit and internal use of the J.P. Morgan client to whom it is directly addressed and delivered (including such client's affiliates, the "Client") in order to assist the Client in evaluating, on a preliminary basis, the feasibility of possible transactions referenced herein. The materials have been provided to the Client for informational purposes only and may not be relied upon by the Client in evaluating the merits of pursuing transactions described herein. No assurance can be given that any transaction mentioned herein could in fact be executed.

Information has been obtained from sources believed to be reliable but J.P. Morgan does not warrant its completeness or accuracy. Opinions and estimates constitute our judgment as of the date of this material and are subject to change without notice. Past performance is not indicative of future results. Any financial products discussed may fluctuate in price or value. This presentation does not constitute a commitment by any J.P. Morgan entity to underwrite, subscribe for or place any securities or to extend or arrange credit or to provide any other services.

J.P. Morgan's presentation is delivered to you for the purpose of being engaged as an underwriter, not as an advisor, (including, without limitation, a Municipal Advisor (as such term is defined in Section 975(e) of the Dodd-Frank Wall Street Reform and Consumer Protection Act)). The role of an underwriter and its relationship to an issuer of debt is not equivalent to the role of an independent financial advisor. The primary role of an underwriter is to purchase, or arrange for the purchase of, securities in an arm's-length commercial transaction between the issuer and the underwriter. An underwriter has financial and other interests that differ from those of the issuer. If selected as your underwriter, J.P. Morgan will be acting as a principal and not as your agent or your fiduciary with respect to the offering of the securities or the process leading to issuance (whether or not J.P. Morgan or any affiliate has advised or is currently advising the Client on other matters). Any portion of this presentation which provides information on municipal financial products or the issuance of municipal securities is given in response to your questions or to demonstrate our experience in the municipal markets and does not constitute "advice" within the meaning of Section 975 of the Dodd-Frank Wall Street Reform and Consumer Protection Act. We encourage you to consult with your own legal and financial advisors to the extent you deem appropriate in connection with the offering of the securities. If you have any questions concerning our intended role and relationship with you, we would be happy to discuss this with you further.

This communication shall not constitute an offer to sell or the solicitation of an offer to buy, nor shall there be any sale of the securities in any state or jurisdiction in which such an offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state or jurisdiction.

This material is not a product of the Research Departments of J.P. Morgan Securities LLC ("JPMS") and is not a research report. Unless otherwise specifically stated, any views or opinions expressed herein are solely those of the authors listed, and may differ from the views and opinions expressed by JPMS's Research Departments or other departments or divisions of JPMS and its affiliates. Research reports and notes produced by the Research Departments of JPMS are available from your Registered Representative or at <http://www.jpmm.com>. JPMS's policies prohibit employees from offering, directly or indirectly, a favorable research rating or specific price target, or offering to change a rating or price target, to a subject Client as consideration or inducement for the receipt of business or for compensation. JPMS also prohibits its research analysts from being compensated for involvement in investment banking transactions except to the extent that such participation is intended to benefit investors.

J.P. Morgan makes no representations as to the legal, tax, credit, or accounting treatment of any transactions mentioned herein, or any other effects such transactions may have on you and your affiliates or any other parties to such transactions and their respective affiliates. You should consult with your own advisors as to such matters.

JPMorgan Chase & Co. and its affiliates do not provide tax, legal or accounting advice. This material has been prepared for informational purposes only, and is not intended to provide, and should not be relied on as the basis for making an investment decision nor as tax, legal or accounting advice. You should consult your own advisors in respect of any tax, legal or accounting matter.

This presentation does not carry any right of publication or disclosure, in whole or in part, to any other party, without the prior consent of J.P. Morgan. Additional information is available upon request.

J.P. Morgan is the marketing name for the investment banking activities of JPMorgan Chase Bank, N.A., J.P. Morgan Securities LLC (member, NYSE), J.P. Morgan Securities plc (authorized by the FSA and member, LSE) and their investment banking affiliates.

J.P.Morgan

This material is delivered in reliance on the Municipal Advisor Rule's IRMA Exemption

(a) This material is provided to you in reliance on the Independent Registered Municipal Advisor exemption pursuant to Section 15B of the Securities Exchange Act of 1934, as amended; (b) J.P. Morgan is not acting as an advisor to you and does not owe a fiduciary duty pursuant to Section 15B of the Securities Exchange Act of 1934, as amended, to you with respect to the information and material contained in this communication; (c) J.P. Morgan is acting for its own interests; (d) You should discuss any information and material contained in this communication with any and all internal or external advisors and experts that you deem appropriate before acting on this information or material; and (e) J.P. Morgan seeks to serve as an underwriter on a future transaction and not as a financial advisor or municipal advisor. The information provided is for discussion purposes only in anticipation of being engaged to serve or in relation to our engagement as an underwriter. The primary role of an underwriter is to purchase securities with a view to distribute in an arm's-length commercial transaction. The underwriter has financial and other interests that differ from yours.

To: Florida Hurricane Catastrophe Fund

Date: May 3, 2019

From: Morgan Stanley

Subject: Florida Hurricane Catastrophe Fund
Semi-annual Bonding Capacity Analysis – May 2019

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

TREASURY MARKET UPDATE

Since the beginning of the year, 5-year and 10-year treasury yields have declined 17 and 13 basis points, respectively. As of April 25th 2019, the 5-year UST yield is 2.33% and the 10-year UST yield is 2.53%. The shorter end of the yield curve has experienced modest movements, as the 5-year and 10-year yields are 29 and 25 basis points lower than their corresponding 2019YTD highs, respectively. On the longer end of the yield curve, there has been relatively less movement. As of April 25th, 2019, the 30-year UST yield closed at 2.950%, 17 basis points lower in yield than its 2019YTD high.

Rate Hike Expectations. Due to transitory factors weighing on first quarter growth, such as the 35-day partial government shutdown and the Polar Vortex, Morgan Stanley economists believe that GDP growth is not currently strong enough to convince the Fed that inflationary pressures will rise before December 2019. For this reason, Morgan Stanley revised its initial outlook of two Fed rate hikes originally predicted before the end of 2018 to only one rate hike in December 2019.

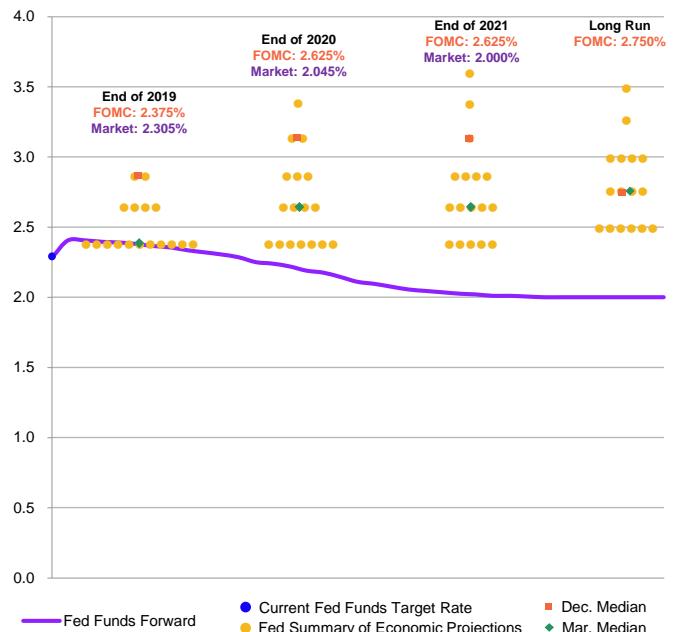
MUNICIPAL MARKET HIGHLIGHTS

Rates remain close to historical lows and have traded in a relatively tight band this year. Municipals should continue to outperform treasuries in the short-end of the yield curve due to positive market technicals (strong demand from SMAs and moderate supply). In the last month, MMD rates outperformed UST rates across the curve, as 5-year, 10-year and 20-year MMD rates all experienced greater declines in yield than their Treasury counterparts. Due to the flatness of the yield curve investors currently earn 64% of total yield in the first 5 years and 73% in 10 years as compared to this time last year where only 47% of absolute yield was available in 5 years and 71% in 10 years.

Municipal Bond Fund Net Inflows. In the week of April 25th, 2019, Lipper reported \$1.6 billion of net inflows into municipal bond funds, comprised of \$2.2 billion long term inflows, \$162.0 million of intermediate outflows,

Federal Reserve Expectations for US Interest Rates

March 2019 Summary of Economic Projections
(%)



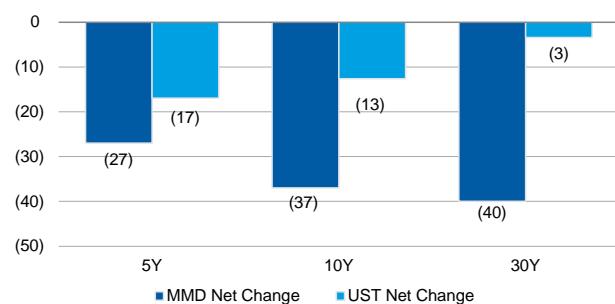
Morgan Stanley

\$482.0 million of short term outflows, and \$279 million of high yield inflows. Thus far in 2019 muni bond fund flows are net positive \$22.4 billion and the market has seen 16 weeks of outflows.

Lower Issuance Volume in 2019. Since the start of 2019, there has been \$99.81 billion of issuance, which is up ~3% in volume from this time last year (\$97.01 billion by the end of April 2018). Municipal bond issuance for the month of April totaled \$21.86 billion, down 31% from \$31.52 billion during the same period last year.

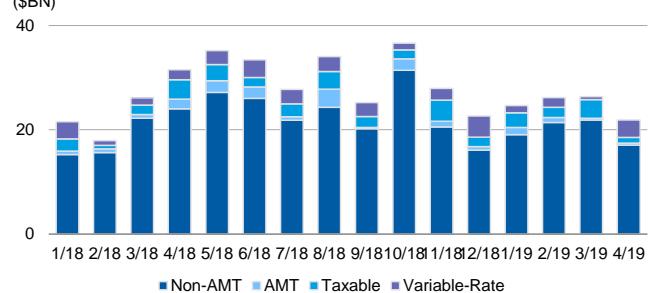
MMD and UST Movement Year-to-Date

January 2, 2019 – April 25, 2019 (bps)



Long-Term Municipal Issuance in 2018 Fell 31% vs. 2017

Municipal Market Volume (2018 Total = \$339.7BN; 2019YTD = \$99.8BN) (\$BN)



MMD

5Y 10Y 30Y

	Current:	1.65%	1.90%	2.59%
2019 YTD Low:	1.57%	1.86%	2.59%	
2019 YTD High:	1.92%	2.27%	3.11%	

UST

5Y 10Y 30Y

	Current:	2.33%	2.53%	2.95%
2019 YTD Low:	2.16%	2.37%	2.81%	
2019 YTD High:	2.62%	2.78%	3.12%	

MMD/UST Ratios

5Y 10Y 30Y

	Current:	71%	75%	88%
2019 YTD Low:	66%	75%	88%	
2019 YTD High:	79%	86%	102%	

PRICING VIEWS

Current 30-year UST yields remain at lower levels since the beginning of the year and are 29 basis points lower than where they were at the time of our last bonding capacity analysis in September 2018. Similar to UST yields, current 30-year MMD yields have declined 40 basis points since the beginning of 2019 and have reached a new low for the year. As of April 25, 2019, 30-year MMD yields are 52 basis points lower than 2019YTD highs and are 64 basis points lower since the time of our last bonding capacity analysis in September 2018.

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

Morgan Stanley

1. Please provide a 30-year tax-exempt scale for the FHCF using the MMD at the close of business Thursday, April 25th. This scale should be the one that you believe reflects a “market” scale given the FHCF’s credit with no capacity constraints. Please use serial bonds and 20, 25, and/or 30-year term bonds, as needed, over a 30-year amortization period (7/1/20 - 7/1/49) with 5.0% coupons throughout when writing the scale. Base the scale on an uninsured financing given the FHCF’s current underlying ratings of Aa3/AA/AA (Moody’s / S&P / Fitch).

FHCF Pricing Views: 30-Year Tax-Exempt Scale					
Year	Maturity	MMD (04/25/2019) ⁽¹⁾	Spread (bps)	Coupon	Yield
1	2020	1.550%	5	5.000%	1.600%
2	2021	1.570%	10	5.000%	1.670%
3	2022	1.600%	15	5.000%	1.750%
4	2023	1.620%	25	5.000%	1.870%
5	2024	1.660%	30	5.000%	1.960%
6	2025	1.700%	35	5.000%	2.050%
7	2026	1.740%	38	5.000%	2.120%
8	2027	1.790%	40	5.000%	2.190%
9	2028	1.840%	40	5.000%	2.240%
10	2029	1.920%	40	5.000%	2.320%
11	2030	2.000%	40	5.000%	2.400%
12	2031	2.060%	40	5.000%	2.460%
13	2032	2.120%	40	5.000%	2.520%
14	2033	2.170%	40	5.000%	2.570%
15	2034	2.220%	40	5.000%	2.620%
16	2035	2.270%	40	5.000%	2.670%
17	2036	2.310%	40	5.000%	2.710%
18	2037	2.350%	40	5.000%	2.750%
19	2038	2.390%	40	5.000%	2.790%
20	2039	2.430%	40	5.000%	2.830%
21	2040				
22	2041				
23	2042				
24	2043				
25	2044	2.540%	40	5.000%	2.940%
26	2045				
27	2046				
28	2047				
29	2048				
30	2049	2.590%	40	5.000%	2.990%

Notes:

Based on July Interpolated MMD⁽¹⁾

Morgan Stanley

2. Please provide a 30-year taxable scale using the Treasury curve at the close of business Thursday, April 25th. This scale should be the one that you believe reflects a “market” scale given the FHCF’s credit with no capacity constraints. Please use serial bonds and 20, 25, and/or 30-year term bonds, as needed, over a 30-year amortization period (7/1/20 - 7/1/49) 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					
Year	Maturity	UST (04/25/2019)	Spread (bps)	Coupon	Yield
1	2020	2.3294%	25	2.579%	2.579%
2	2021	2.3294%	35	2.651%	2.651%
3	2022	2.3008%	45	2.780%	2.780%
4	2023	2.3301%	45	2.780%	2.780%
5	2024	2.3301%	60	3.027%	3.027%
6	2025	2.4268%	65	3.077%	3.077%
7	2026	2.4268%	75	3.283%	3.283%
8	2027	2.5334%	75	3.283%	3.283%
9	2028	2.5334%	85	3.383%	3.383%
10	2029	2.5334%	90	3.433%	3.433%
11	2030	2.5334%	100	3.533%	3.533%
12	2031	2.5334%	110	3.633%	3.633%
13	2032	2.5334%	115	3.683%	3.683%
14	2033	2.5334%	120	3.733%	3.733%
15	2034	2.5334%	125	4.197%	4.197%
16	2035				
17	2036				
18	2037				
19	2038				
20	2039	2.9467%	100	3.947%	3.947%
21	2040				
22	2041				
23	2042				
24	2043				
25	2044				
26	2045				
27	2046				
28	2047				
29	2048				
30	2049	2.9467%	115	4.097%	4.097%

Morgan Stanley

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	3.5-4.0	4.0-5.0	7.5-9.0
12-24 Months	3.0-4.0	4.5-5.0	7.5-9.0
Total	6.5-8	8.5-10.0	15.0-18.0

Morgan Stanley

G-23 and Municipal Advisor Disclosure

(a) Morgan Stanley & Co. LLC (“Morgan Stanley”) is not acting as an advisor to you and does not owe a fiduciary duty pursuant to Section 15B of the Exchange Act to you with respect to the information and material contained in this communication; (b) Morgan Stanley is acting for its own interests; (c) you should discuss any information and material contained in this communication with any and all internal or external advisors and experts that you deem appropriate before acting on this information or material; and (d) Morgan Stanley seeks to serve as an underwriter on a future transaction and not as a financial advisor or municipal advisor. The information provided is for discussion purposes only in anticipation of serving as underwriter. The primary role of an underwriter is to purchase securities with a view to distribution in an arm’s-length commercial transaction with the issuer. The underwriter has financial and other interests that differ from those of the issuer and obligated persons.

Any non-historical interest rates used herein are hypothetical and take into consideration conditions in today’s market and other factual information such as the issuer’s or obligated person’s credit rating, geographic location and market sector. As such, these rates should not be viewed as rates that Morgan Stanley guarantees to achieve for the transaction. Any information about interest rates and terms for SLGs is based on current publicly available information and treasury or agency rates for open-market escrows are based on current market interest rates for these types of credits and should not be seen as costs or rates that Morgan Stanley guarantees to achieve for the transaction.

Disclaimer

This information was prepared by Morgan Stanley sales, trading, banking or other non-research personnel. This is not a research report and the views or information contained herein should not be viewed as independent of the interest of Morgan Stanley trading desks. Such interest may conflict with your interests and recipients should be mindful of such potential conflicts of interest when reviewing this information. The views of the trading desk may differ from those of the Research Department or others at Morgan Stanley. Morgan Stanley may deal as principal in or own or act as market maker or liquidity provider for the securities/instruments (or related derivatives) mentioned herein. The trading desks may engage in a variety of trading activities (which may conflict with the position an investor may have) before or after providing this information, including accumulation of a position in the subject securities/instruments based on the information contained herein or otherwise. Morgan Stanley may also perform or seek to perform investment banking services for the issuers of the securities and instruments mentioned herein. Morgan Stanley is not a municipal advisor and the opinions or views contained herein are not intended to be, and do not constitute, advice, including within the meaning of Section 975 of the Dodd-Frank Wall Street Reform and Consumer Protection Act. Please see additional important information and qualifications at the end of this material.

This material was prepared by sales, trading, banking or other non-research personnel of one of the following: Morgan Stanley & Co. LLC, Morgan Stanley & Co. International plc, Morgan Stanley MUFG Securities Co., Ltd., Morgan Stanley Capital Group Inc. and/or Morgan Stanley Asia Limited (together with their affiliates, hereinafter “Morgan Stanley”). Unless otherwise indicated, the views herein (if any) are the author’s and may differ from those of the Morgan Stanley Research Department or others in the Firm. This information should be treated as confidential and is being delivered to sophisticated prospective investors in order to assist them in determining whether they have an interest in the type of instruments described herein and is solely for internal use.

This material does not provide investment advice or offer tax, regulatory, accounting or legal advice. By submitting this document to you, Morgan Stanley is not advising you to take any particular action based on the information, opinions or views contained in this document, and acceptance of such document will be deemed by you acceptance of these conclusions. You should consult with your own municipal, financial, accounting and legal advisors regarding the information, opinions or views contained in this document. Unless stated otherwise, the material contained herein has not been based on a consideration of any individual client circumstances and as such should not be considered to be a personal recommendation. This material was not intended or written to be used, and it cannot be used by any taxpayer, for the purpose of avoiding penalties that may be imposed on the taxpayer under U.S. federal tax laws. Each taxpayer should seek advice based on the taxpayer’s particular circumstances from an independent tax advisor.

This material has been prepared for information purposes only and is not a solicitation of any offer to buy or sell any security, commodity, futures contract or instrument or related derivative (hereinafter “instrument”) or to participate in any trading strategy. Any such offer would be made only after a prospective participant had completed its own independent investigation of the instrument or trading strategy and received all information it required to make its own investment decision, including, where applicable, a review of any prospectus, prospectus supplement, offering circular or memorandum describing such instrument or trading strategy. That information would supersede this material and contain information not contained herein and to which prospective participants are referred. If this material is being distributed in connection with or in advance of the issuance of asset backed securities, information herein regarding any assets backing any such securities supersedes all prior information regarding such assets. Unless otherwise specifically indicated, all information in these materials with respect to any third party entity not affiliated with Morgan Stanley has been provided by, and is the sole responsibility of, such third party and has not been independently verified by Morgan Stanley or its affiliates or any other independent third party. We have no obligation to tell you when information herein is stale or may change. We make no express or implied representation or warranty with respect to the accuracy or completeness of this material, nor are we obligated to provide updated information on the instruments mentioned herein. Further, we disclaim any and all liability relating to this material.

Morgan Stanley

To the extent any prices or price levels are noted, they are for informational purposes only and are not intended for use by third parties, and are indicative as of the date shown and are not a commitment by Morgan Stanley to trade at any price.

This material may have been prepared by or in conjunction with Morgan Stanley trading desks that may deal as principal in or own or act as market maker or liquidity provider for the instruments or issuers mentioned herein and may also seek to advise issuers of such instruments. Where you provide us with information relating to your order or proposed transaction ("Information"), we may use that Information to facilitate the execution of your orders or transactions, in managing our market making, other counterparty facilitation activities or otherwise in carrying out our legitimate business (which may include, but is not limited to, hedging a risk or otherwise limiting the risks to which we are exposed). Counterparty facilitation activities may include, without limitation, us taking a principal position in relation to providing counterparties with quotes or as part of the ongoing management of inventories used to facilitate counterparties. Where we commit our capital in relation to either ongoing management of inventories used to facilitate clients, or in relation to providing you with quotes we may make use of that information to enter into transactions that subsequently enable us to facilitate clients on terms that are competitive in the prevailing market conditions. Trading desk materials are not independent of the proprietary interests of Morgan Stanley, which may conflict with your interests. Morgan Stanley may also perform or seek to perform investment banking services for the issuers of instruments mentioned herein.

The value of and income from investments may vary because of changes in interest rates, foreign exchange rates, default rates, prepayment rates, securities, prices of instruments or securities, market indexes, operational or financial conditions of companies or other factors. There may be time limitations on the exercise of options or other rights in instruments (or related derivatives) transactions. Past performance is not necessarily a guide to future performance. Estimates of future performance are based on assumptions that may not be realized. Actual events may differ from those assumed and changes to any assumptions may have a material impact on any projections or estimates. Other events not taken into account may occur and may significantly affect the projections or estimates. Certain assumptions may have been made for modeling purposes only to simplify the presentation and/or calculation of any projections or estimates, and Morgan Stanley does not represent that any such assumptions will reflect actual future events or that all assumptions have been considered or stated. Accordingly, there can be no assurance that estimated returns or projections will be realized or that actual returns or performance results will not materially differ from those estimated herein. Some of the information contained in this document may be aggregated data of transactions executed by Morgan Stanley that has been compiled so as not to identify the underlying transactions of any particular customer.

Notwithstanding anything herein to the contrary, Morgan Stanley and each recipient hereof agree that they (and their employees, representatives, and other agents) may disclose to any and all persons, without limitation of any kind from the commencement of discussions, the U.S. federal and state income tax treatment and tax structure of the transaction and all materials of any kind (including opinions or other tax analyses) that are provided to it relating to the tax treatment and tax structure. For this purpose, "tax structure" is limited to facts relevant to the U.S. federal and state income tax treatment of the transaction and does not include information relating to the identity of the parties, their affiliates, agents or advisors.

This information is not intended to be provided to and may not be used by any person or entity in any jurisdiction where the provision or use thereof would be contrary to applicable laws, rules or regulations.

For additional information, research reports and important disclosures see <https://secure.ms.com/servlet/cls>. The trademarks and service marks contained herein are the property of their respective owners. Third-party data providers make no warranties or representations of any kind relating to the accuracy, completeness, or timeliness of the data they provide and shall not have liability for any damages of any kind relating to such data.

This material may not be redistributed without the prior written consent of Morgan Stanley.

© 2019 Morgan Stanley

To: Florida Hurricane Catastrophe Fund
From: Wells Fargo Securities
Date: May 2, 2019
Re: Florida Hurricane Catastrophe Fund Bonding Capacity Analysis for April/May 2019

Wells Fargo Securities (“Wells Fargo”) is pleased to provide the Florida Hurricane Catastrophe Fund (“FHCF”) with our estimate of FHCF bonding capacity for April/May 2019. 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 time periods assuming unconstrained spreads. Feel free to contact any of the Wells Fargo team if we can provide additional information or address any questions regarding these estimates.

Wells Fargo continues to believe that conditions in the municipal market are favorable for the issuance of FHCF bonds, and our current capacity estimates of \$14.0 billion to \$20.0 billion in combined tax-exempt and taxable bonds over a 24-month time horizon remain unchanged from our previous estimates provided in September 2018. As in our previous bonding capacity estimates, the market scales that we have provided for taxable and tax-exempt FHCF bonds, based on market conditions as of April 25, 2019, both assume a \$3 billion issuance amortized in discrete \$100 million amounts over 30 years. We believe this level of issuance falls within the market’s current capacity for FHCF’s debt.

Wells Fargo has executed more than \$1.2 billion of secondary market trades in FHCF bonds since the beginning of 2016, and our estimates for taxable spreads in this memorandum are informed by our trading activities supporting FHCF’s bonds in the secondary market.

The municipal market has experienced a fall in rates since our last bond capacity estimate in September 2018 with spot rates along the ‘AAA’ MMD¹ yield curve decreasing on average by 6 basis points as of April 25, 2019 market close. The Federal Reserve has left its benchmark interest rate of 2.25%-2.50% unchanged since the March 2019 meeting. At its May 1, 2019 meeting, the Federal Reserve kept its benchmark rate unchanged. Overall, tax-exempt and taxable yield curve shifts have been mixed since our last bonding capacity analysis, as the 3-year and the 30-year benchmark ‘AAA’ MMD yields have decreased by 4 basis points and 6 basis points to 1.60% and 2.59%, respectively, while the 5-year benchmark ‘AAA’ MMD yield has declined by 5 basis points to 1.66%, and the 5-year and 30-year US Treasuries have decreased by 113 and 24 basis points to 1.810% and 2.96%, respectively. This time last year, municipal issuance was down significantly, due to elimination of tax-exempt advance refundings, but the market has recently taken a positive turn due to the overall decrease in municipal borrowing rates and smaller weekly supply. As of April 25, 2019, new municipal issuance volume in 2019 is up 4.0% from the same period a year ago.² Investors are continuing to put cash to work (over \$1.6 billion of net municipal bond fund inflows year-to-date)³ These factors (smaller supply and decreased absolute rates), in conjunction with overall geo-political concerns, provide for a positive market tone for high-grade issuers like FHCF.

Wells Fargo appreciates the opportunity to present our analysis of FHCF’s current bonding capacity. As detailed in our response, should the need arise, we expect that current market conditions should allow FHCF to execute one or more transactions in an aggregate amount equal to or greater than the potential capital market funding needs for the current contract year. We will continue to monitor market conditions on FHCF’s behalf and keep you informed of market developments that may affect FHCF’s future bonding capacity.

¹ Thomson Reuters Municipal Market Data (“MMD”)

² Source: Bond Buyer, Thomson Reuters SDC

³ Source: Lipper, as of April 25, 2019.



1. Please provide a 30-year tax-exempt scale for the FHCF using the MMD at the close of business Thursday, April 25th. This scale should be the one that you believe reflects a “market” scale given the FHCF’s credit with no capacity constraints. Please use serial bonds and 20, 25, and/or 30-year term bonds, as needed, over a 30-year amortization period (7/1/20 - 7/1/49) with 5.0% coupons throughout when writing the scale. Base the scale on an uninsured financing given the FHCF’s current underlying ratings of Aa3/AA/AA (Moody’s / S&P / Fitch).

Florida Hurricane Catastrophe Fund Tax-Exempt Scale Rates as of April 25, 2019						
Maturity	MMD	Spread (bps)	Coupon	Yield	Price	Yield to Maturity
7/1/2020	1.55%	10	5.000%	1.650%	103.308	-
7/1/2021	1.57%	15	5.000%	1.720%	106.421	-
7/1/2022	1.60%	20	5.000%	1.800%	109.304	-
7/1/2023	1.62%	25	5.000%	1.870%	112.009	-
7/1/2024	1.66%	30	5.000%	1.960%	114.411	-
7/1/2025	1.70%	33	5.000%	2.030%	116.697	-
7/1/2026	1.74%	35	5.000%	2.090%	118.858	-
7/1/2027	1.79%	38	5.000%	2.170%	120.681	-
7/1/2028	1.84%	40	5.000%	2.240%	122.383	-
7/1/2029	1.92%	43	5.000%	2.350%	123.494	-
7/1/2030	2.00%	45	5.000%	2.450%	122.495	2.631%
7/1/2031	2.06%	45	5.000%	2.510%	121.900	2.834%
7/1/2032	2.12%	45	5.000%	2.570%	121.308	3.008%
7/1/2033	2.17%	45	5.000%	2.620%	120.818	3.150%
7/1/2034	2.22%	45	5.000%	2.670%	120.330	3.274%
7/1/2035	2.27%	45	5.000%	2.720%	119.845	3.384%
7/1/2036	2.31%	45	5.000%	2.760%	119.458	3.475%
7/1/2037	2.35%	45	5.000%	2.800%	119.072	3.556%
7/1/2038	2.39%	45	5.000%	2.840%	118.689	3.630%
7/1/2039	2.43%	45	5.000%	2.880%	118.306	3.697%
7/1/2040	2.46%	45	5.000%	2.910%	118.021	3.752%
7/1/2041						
7/1/2042						
7/1/2043						
7/1/2044	2.54%	50	5.000%	3.040%	116.792	3.938%
7/1/2045						
7/1/2046						
7/1/2047						
7/1/2048						
7/1/2049	2.59%	50	5.000%	3.090%	116.323	4.055%

Please note that the tax-exempt scale shown above assumes that the bonds would be issued with a 10-year par call provision. Bond prices shown in the table above assume an July 1, 2019 dated date.

2. Please provide a 30-year taxable scale using the Treasury curve at the close of business Thursday, April 25th. This scale should be the one that you believe reflects a “market” scale given the FHCF’s credit with no capacity constraints. Please use serial bonds and 20, 25, and/or 30-year term bonds, as needed, over a 30-year amortization period (7/1/20 - 7/1/49) 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).

Florida Hurricane Catastrophe Fund Taxable Scale Rates as of April 25, 2019						
Maturity	UST	Spread (bps)	Coupon	Yield	Price	Yield to Maturity
7/1/2020	1.060%	45	1.510%	1.510%	100.000	-
7/1/2021	1.250%	45	1.700%	1.700%	100.000	-
7/1/2022	1.440%	50	1.940%	1.940%	100.000	-
7/1/2023	1.810%	55	2.360%	2.360%	100.000	-
7/1/2024	1.810%	65	2.460%	2.460%	100.000	-
7/1/2025	2.100%	70	2.800%	2.800%	100.000	-
7/1/2026	2.100%	95	3.050%	3.050%	100.000	-
7/1/2027	2.300%	90	3.200%	3.200%	100.000	-
7/1/2028	2.300%	100	3.300%	3.300%	100.000	-
7/1/2029	2.300%	105	3.350%	3.350%	100.000	-
7/1/2030	2.300%	110	3.400%	3.400%	100.000	-
7/1/2031	2.300%	115	3.450%	3.450%	100.000	-
7/1/2032	2.300%	120	3.500%	3.500%	100.000	-
7/1/2033	2.300%	125	3.550%	3.550%	100.000	-
7/1/2034	2.300%	130	3.600%	3.600%	100.000	-
7/1/2035						
7/1/2036						
7/1/2037						
7/1/2038						
7/1/2039	2.960%	115	4.110%	4.110%	100.000	-
7/1/2040						
7/1/2041						
7/1/2042						
7/1/2043						
7/1/2044						
7/1/2045						
7/1/2046						
7/1/2047						
7/1/2048						
7/1/2049	2.960%	130	4.260%	4.260%	100.000	-

Please note that the taxable scale shown above assumes the bonds would be issued with a make-whole call provision.

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	\$6.0 - \$8.0 billion	\$3.0 - \$4.0 billion	\$9.0 - \$12.0 billion
12-24 Months	\$3.0 - \$5.0 billion	\$2.0 - \$3.0 billion	\$5.0 - \$8.0 billion

The capacity estimates shown in the table above assume FHCF 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. Also, please note that there is an overlap between the buyers of taxable and tax-exempt FHCF bonds and the capacity estimates provided in the table above take that overlap into consideration.

Important Information & Disclaimer

This document and any other materials accompanying this document (collectively, the "Materials") are provided for general informational purposes only. By accepting any Materials, the recipient acknowledges and agrees to the matters set forth below.

Wells Fargo Securities ("WFS") is the trade name for certain securities-related capital markets and investment banking services of Wells Fargo & Company ("WFC") and its subsidiaries, including Wells Fargo Bank, N.A., acting through its Municipal Products Group. Municipal derivatives services are provided by Wells Fargo Bank, N.A., a swap dealer registered with the CFTC and member of the NFA. Commercial banking products and services are provided by Wells Fargo Bank, N.A. Investment banking and capital markets products and services provided by Wells Fargo Securities, are not a condition to any banking product or service.

Wells Fargo Bank, N.A. ("WFBNA"), as potential derivatives provider, and Wells Fargo Securities , as potential underwriter or placement agent, (collectively, for purposes hereof, "we", or "Wells Fargo") are providing the information contained in the Materials for discussion purposes only in anticipation of, or in connection with, engaging in arm's length commercial transactions with you in which Wells Fargo would be acting solely as a principal or agent, as applicable, and not as a municipal advisor, financial advisor or fiduciary to you or any other person or entity regardless of whether we, or an affiliate has or is currently acting as such on a separate transaction (the use of the term "agent" does not imply any fiduciary relationship).

These Materials are being provided to you for the purpose of working with you as an underwriter or placement agent (collectively, "underwriter") and/or derivatives provider on the transaction(s) described in the Materials. As part of its services as underwriter, WFS may provide information concerning the structure, timing, terms, and other similar matters concerning the issue of municipal securities that WFS proposes to underwrite as described in the Materials. The Materials may also contain such information. Any such information has been, and would be, provided by WFS in the context of serving as an underwriter and not as your municipal or financial advisor. Additionally, WFBNA, as derivatives provider, and WFS, as underwriter, have financial and other interests that differ from your interests (or those of the issuer). In its capacity as underwriter, WFS' primary role would be to purchase securities from you (or the issuer in the case of a conduit transaction) for resale to investors, or arrange for the placement of securities with investors on your behalf. Wells Fargo will not have any duties or liability to any person or entity in connection with the information being provided in the Materials.

The information provided herein is not intended to be and should not be construed as advice within the meaning of Section 15B of the Securities Exchange Act of 1934, and Wells Fargo will not be acting as your municipal advisor under the municipal advisor rules ("Muni Advisor Rules") of the Securities and Exchange Commission ("SEC") and the SEC's guidance in its Registration of Municipal Advisors Frequently Asked Questions dated May 19, 2014, as supplemented (collectively, "Muni Advisor Rules").

Please be advised that any information in the Materials regarding municipal derivatives is being provided by WFBNA as a swap dealer and that any swap offered or recommended in the Materials is being offered or recommended by WFBNA as a swap dealer. No part of the Materials is intended to be and should not be construed as an offer or recommendation of a municipal derivatives service or product by WFS, as underwriter, for purposes of Municipal Securities Rulemaking Board Rule G-17, or otherwise. You should consult with your own financial and/or municipal, legal, accounting, tax, and other advisors, as applicable, to the extent you deem appropriate. If you would like a municipal advisor that has legal fiduciary duties to you, you are certainly free to engage a municipal advisor to serve in that capacity.

Transactions referenced in the Materials which are attributed to Wells Fargo or to WFS may include transactions executed by a Wachovia Corporation or Wells Fargo & Company broker-dealer affiliate or by other municipal securities dealers and/or broker-dealers which were acquired by Wachovia Corporation or WFC.

WFS distributes municipal securities to institutional investors primarily through Wells Fargo Bank, N.A. Municipal Products Group ("WFBNA MPG") and Wells Fargo Securities, LLC ("WFSLLC"). Distribution to middle market clients is provided primarily through WFSLLC. Retail distribution is primarily provided by Wells Fargo Advisors, which is the trade name used by Wells Fargo Clearing Services, LLC ("WFCS") and Wells Fargo Advisors Financial Network, LLC ("WFAFN"), two non-bank separate registered broker-dealers (members FINRA and SIPC). WFSLLC, WFBNA MPG, WFCS, and WFAFN are affiliates and are each wholly owned subsidiaries of WFC. Any municipal underwriting, commercial paper and remarketing rankings referenced herein represent combined totals for WFBNA MPG and WFSLLC. Non-municipal underwriting, commercial paper and remarketing rankings referenced herein represent totals for WFSLLC only. Source information for any ranking information not otherwise provided herein is available on request. Any rankings referencing competitive municipal new issues for time periods prior to 2011 include issues underwritten by WFCS. Underwriting activities of WFCS are not managed or otherwise controlled by WFBNA MPG or WFSLLC.

If the Materials are being provided to you under any of the following events, the information contained in the Materials and any subsequent discussions between us, including any and all information, advice, recommendations, opinions, indicative pricing, quotations and analysis with respect to any municipal financial product or issuance of municipal securities, are provided to you in reliance upon the Swap Dealer, Bank, RFP, IRMA exemptions and underwriter exclusion, as applicable, provided under the Muni Advisor Rules. In the event the Swap Dealer, Bank, RFP, IRMA exemptions, or underwriter exclusion do not apply, the information included in the Materials are provided in reliance on the general information exclusion to advice under the Muni Advisor Rules.

In the event that you have provided us with your written representation in form and substance acceptable to WFBNA that you are represented by a "qualified independent representative" as defined in the Commodity Exchange Act ("CEA") with respect to any municipal derivative or trading strategy involving municipal derivatives described in the Materials, we have provided you with our written disclosure that we are not acting as an advisor to you with respect to the municipal derivative or trading strategy pursuant to Section 4s(h)(4) of the CEA and the rules and regulations thereunder, and have taken certain other steps to establish the "Swap Dealer exemption" under the Muni Advisor Rules.

Any information related to a bank-purchased bond transaction (“Direct Purchase”) included in the Materials is a product offering of WFBNA or a subsidiary thereof (“Purchaser”) as purchaser / investor. WFS will not participate in any manner in any Direct Purchase transaction between you and Purchaser, and Wells Fargo employees involved with a Direct Purchase transaction are not acting on behalf of or as representatives of WFS. The information contained herein regarding Purchaser’s Direct Purchase is being provided to you by WFS only for purposes of providing financing alternatives that may be available to you from WFC and its affiliates. Information contained in this document regarding Direct Purchase is for discussion purposes only in anticipation of engaging in arm’s length commercial transactions with you in which Purchaser would be acting solely as a principal to purchase securities from you or a conduit issuer, and not as a municipal advisor, financial advisor or fiduciary to you or any other person or entity regardless of whether Purchaser, or an affiliate has or is currently acting as such on a separate transaction. Additionally, Purchaser has financial and other interests that differ from your interests. Purchaser’s sole role would be to purchase securities from you (or the conduit issuer). Any information relating to a Direct Purchase is being provided to you pursuant to and in reliance on the “Bank exemption” under the Muni Advisor Rules and the general information exclusion to advice under the Muni Advisor Rules.

In the event the Materials are being provided in connection with a RFP, the SEC exempts from the definition of municipal advisor “any person providing a response in writing or orally to a request for proposals or qualifications from a municipal entity or obligated person for services in connection with a municipal financial product or the issuance of municipal securities; provided however, that such person does not receive separate direct or indirect compensation for advice provided as part of such response” (“RFP exemption”). In such event, we have relied upon the RFP exemption, and on your distribution and execution of this RFP through a competitive process. In the event WFBNA MPG is the party providing the Materials responses to all questions, certifications, attestations, information requests, and similar in the RFP or RFQ to which this response relates are specifically limited to, in context of, and as applied to, WFBNA MPG in its capacity as a separately identifiable department of a national bank that is registered as a municipal securities dealer with the Securities and Exchange Commission, Office of the Comptroller of the Currency, and Municipal Securities Rulemaking Board; and not on behalf of Wells Fargo Bank, N.A., unless specified otherwise in our response.

In the event that you have provided us with your written representation that you are represented by an independent registered municipal advisor (an “IRMA”) within the meaning of the Muni Advisor Rules, with respect to the transaction(s) described in the Materials we have provided you with our written disclosure that we are not a municipal advisor to you and are not subject to the fiduciary duty under the Muni Advisor Rules, if applicable, and have taken certain other steps to establish the “IRMA exemption” under the Muni Advisor Rules.

In the event that you have engaged us to serve as an underwriter with respect to the municipal securities issuance described in the Materials we have provided you with our written disclosure regarding our role as an underwriter, that we are not a municipal advisor to you and are not subject to the fiduciary duty under the Muni Advisor Rules, if applicable.

If savings threshold level information is contained herein, please be advised that WFS is not recommending nor providing advice regarding which maturities should be refunded by you.

See additional important disclosures at the end of the Materials.

Disclosures (Continued):

Important Information

The Materials are provided for general information about the transactions described herein. The Materials do not constitute an offer to sell or a solicitation of an offer to buy, or a recommendation or commitment for any transaction involving the securities or financial products named or described herein, and are not intended as investment advice or as a confirmation of any transaction. Assumptions stated herein may or may not be valid. Externally sourced information contained in the Materials has been obtained or derived from sources we reasonably believe to be reliable, but Wells Fargo Securities and WFBNA make no representation or warranty, express or implied, with respect thereto, and do not represent or guarantee that such information is accurate or complete. Wells Fargo Securities and WFBNA do not assume or accept any liability for any loss which may result from reliance thereon. Wells Fargo Securities and/or one or more of its affiliates may provide advice or may from time to time have proprietary positions in, or trade as principal in, any securities or other financial products that may be mentioned in the Materials, or in derivatives related thereto.

Terms, rates, prices and structure in the Materials are indicative only, and should not be relied upon as the terms, rates, prices or structure on which we or anyone else would be willing to enter into, terminate or transfer any transaction with you, including without limit, the swap, bond or loan, letter of credit and/or remarketing agreement (if applicable), or relied upon for any other purpose. Actual rates and prices may be higher or lower depending on market conditions at the time of execution, and are subject to market conditions at deal time, final credit approval, agreement on deal terms and compliance to our satisfaction with all applicable legal and regulatory requirements, including without limit, onboarding, swap/securities trading relationship and transaction documentation. Any historical information provided in the Materials is for information only, and past performance may not be relied upon as a guarantee of future results. Examples in the Materials are hypothetical only and are not a prediction of future results. There are frequently sharp differences between projections or forecasts and the actual results achieved.

Arm's Length Relationship

All transactions described in the Materials are arm's length transactions to be negotiated by each party acting in its own best interests. The price and other terms of any transaction will be individually negotiated, and there is no assurance that they will represent the best price or terms available to you from us or other sources. Whether they are executable, indicative or illustrative, you should assume that any price we offer, quote or otherwise provide to you for entering into, transferring or terminating a transaction with WFBNA is strictly a WFBNA price and should not be considered a "market price" offered by anyone else in the relevant market. In this regard, please note that when we offer you an executable price for a swap with WFBNA, CFTC Rule §23.431 requires that we also disclose to you the "mid-market mark" of the swap in order for you to assess the material incentives and conflicts of interest we may have in connection with the swap. Information about the mid-market mark and other material disclosures regarding swaps can be found at www.wellsfargo.com/swapdisclosures. The decision whether you should enter into any transaction upon mutually agreed terms rests solely with you. Before entering into any transaction described in the Materials, you should consider whether it is appropriate for you in light of your objectives, experience, financial and operational resources, legal capacity and authority, and other relevant circumstances, and you should conduct a thorough and independent evaluation of the financial, tax, accounting, legal and regulatory characteristics, consequences, costs and risks of the transaction in light of your particular circumstances, based upon the advice of your own financial, legal, tax, accounting, and other professional advisors. Neither we nor any of our affiliates will be providing any such advice in connection with any such transaction, and neither we nor they will be acting as your agent, broker, financial advisor, municipal advisor, or fiduciary in connection with any such transaction, whether or not we or they may otherwise be engaged to act in such capacity in connection with other products or services.

Risks to Consider

While certain transactions described in the Materials may be used for hedging purposes to reduce or eliminate certain risks associated with your assets or liabilities, the effectiveness of hedging may depend upon holding these transactions to maturity and not reducing or disposing of all or any portion of the asset or liability during the term of the hedge. If a swap transaction is terminated early, or if you reduce or dispose of all or a portion of the underlying asset or liability before the transaction matures (such as prepaying a floating rate loan you hedge with a swap), then depending on the nature of the transaction, its characteristics and your position in it (e.g., buyer, seller, counterparty, etc.), you may incur a substantial loss or you may receive little or no hedging benefit from any upfront or periodic payments or exchanges or any other costs incurred in purchasing, selling, acquiring, maintaining or disposing of the transaction. You may also incur a substantial loss if you enter into a swap transaction in anticipation of hedging an asset or liability that does not materialize. You should understand that significant potential amounts could become payable by you for modifying a swap transaction, terminating it early or transferring your position in the transaction to another person or entity, or in connection with the exercise of any option or other rights under the transaction or governing documents, depending upon then existing market conditions. You should also consider that prepaying your loan or disposing of an asset or other liability does not relieve you of your obligations under a swap transaction, which may be terminated early only in accordance with the terms of the swap trading relationship documentation (such as an ISDA Master Agreement) or other transaction documents, or otherwise by mutual agreement. Such termination may require payment by you of an early termination amount, which amount may be substantial. Whether you use a swap transaction for hedging or another purpose, you should satisfy yourself that you understand these and other risks relative to the benefits you are seeking to achieve and that the transaction and risks are suitable for you. These risks are discussed in greater detail in disclosures provided to you through the following website: www.wellsfargo.com/swapdisclosures

Independent Obligation

To the extent any swap transaction described in the Materials may be used to hedge against increases in the interest expense of a loan or other financing, the swap transaction would be a separate and independent obligation and would not be contingent on whether or not any loan or other financing closes, is outstanding, or is repaid, in whole or in part, at any time, subject to any contractual requirement to terminate and settle the transaction early upon prepayment of the loan or financing or for other financing-related events. In addition, if you provide any existing or future collateral or other credit support to secure the transaction and any loan or other financing, then you would be entitled to the release of such collateral or credit support only if certain conditions contained in

the related collateral agreement or credit support document are completely satisfied for both the transaction and any such loan or financing, or we otherwise reach agreement with you on alternative collateral, credit support or other arrangements.

Unmatched Terms & Conventions

If the principal amount or duration of a loan or financing differs from that of a transaction used to hedge such loan or financing, you may be exposed to risk of loss from such over-hedging or under-hedging. If any other economic terms or characteristics of a loan or financing differ from those of the related hedge, then in addition to any losses that you could incur from such differences, the hedge may create unanticipated accounting exposure or tax liability for you. To the extent fair value accounting applies to the hedge, you may have to reflect unrealized gains and losses (i.e., the so-called “mark-to-market” value of the hedge) over the life of the hedge on your balance sheet and/or income statement. If hedge accounting applies, any ineffectiveness in the hedge resulting from such differences may likewise need to be taken into account and reflected in your financial results. These swap valuation considerations may also be important to you for tax purposes, including any tax laws that may require unrealized gains or losses on swaps to be taken into account in determining your income tax liability.

Conventions used in the loan or other financing and swap markets may differ, and we are under no obligation to ensure that any swap we offer is a perfect hedge for your financing even if we provide you with both products. For example, if the method for determining a loan’s floating rate differs from that for a swap’s floating rate, the loan floating rate payments could diverge from those of the swap. Such divergence may occur by convention or as the result of contractual differences, such as in the definition of or the reset timing (e.g., 1-month or 3-month) for the London Interbank Offered Rate (LIBOR), the dates or times at which LIBOR is set, the number of days in the payment periods, any applicable fallback floating rate, or the floating rate rounding convention.

Negative Interest Rates

Express wording in swap transactions is required to place a 0% floor on LIBOR or other floating benchmark rate of the swap transaction, and no such 0% floor is included in an interest rate swap or other swap transaction unless mutually agreed between the parties as reflected in the swap confirmation. Absent such floor, if a Floating Amount is negative under an interest rate swap, the Floating Rate Payer does not make such payment. Instead, the Fixed Rate Payer pays the absolute value of the negative Floating Amount in addition to the Fixed Amount. See §6.4 of the 2006 ISDA Definitions, as amended. If you wish to acquire a swap with a 0% floor, this may increase the price of your swap as reflected in a higher Fixed Rate. For further information on negative interest rates, including their effect on swaps and the loans they are hedging, see Negative Interest Rates at: www.wellsfargo.com/swapdisclosures.

Projections, Forecasts & Other Data

Although the information contained herein is derived from a source that WFBNA considers reliable, WFBNA does not guarantee the accuracy, reliability or completeness of this information and makes no representation or warranty, express or implied, with respect thereto. This information is provided as of the date(s) indicated, is subject to change without notice, does not constitute trading or investment advice or research, and has not been prepared in accordance with any laws or regulations designed to promote the independence of research. Historical data, past trends and past performance do not reflect or guarantee future results. Financial projections and economic forecasts are based on hypothetical assumptions about uncertain future market conditions and events and therefore should not be relied upon in connection with any asset, liability, transaction or otherwise, including any decision whether or when to invest or hedge or to acquire or dispose of any asset, liability or transaction. Projections or forecasts may not materialize, and reliance thereon could result in substantial losses. It is impossible to predict whether, when or to what extent rates, values and other economic factors will rise or fall, and there could be sharp differences between projections or forecasts and actual results. WFBNA makes no representation or warranty that actual results will conform to any projection or forecast and is not responsible for any loss or damage arising out of any reliance on or use of such information.

Applicability of Certain Regulations

WFBNA is a “swap dealer” as defined in the Commodity Exchange Act (“CEA”), and one or more transactions described in the Materials are “swaps” as defined in the CEA and regulations of the Commodity Futures Trading Commission (“CFTC”) or “security based swaps” as defined in the CEA and the Securities Exchange Act of 1934 and regulations of the U.S. Securities and Exchange Commission (“SEC”). From time to time, we may furnish you with certain information or request that you furnish us with certain information or representations or take other action we consider necessary or appropriate to comply with applicable legal or regulatory requirements, including the requirement that, in order to enter into a swap with us, you must be an Eligible Contract Participant (as defined in 17 C.F.R. §1.3(m)). Nothing herein or in the Materials constitutes legal advice or purports to be a complete statement of regulations applicable to swaps, matters which you should address with your own legal advisors. For purposes of CFTC Regulations 1.71 and 23.605, please note that the Materials are a “solicitation” of a swap and not a “research report” as defined therein. To the extent the Materials include a scenario analysis, such inclusion shall not supersede your right under CFTC Regulation 23.431(b) to request and consult in the design of a scenario analysis. Nothing in the Materials should be construed as a recommendation or opinion with respect to any swap or trading strategy involving a swap for purposes of CFTC Regulations Part 23 or the CEA. The Materials do not take into account your particular investment objectives, financial condition or needs and are not intended to serve as a basis for entering into a swap or to suggest, through opinion, recommendation, or otherwise, that you should enter into a particular swap or trading strategy involving a swap. You should consult with your own advisors for opinions on whether to enter into any swap or trading strategy involving a swap.

In certain cases, the transactions described in the Materials may be subject to regulations that have not yet been proposed, adopted in final form or become effective, and some or all of such regulations may have a direct or indirect impact on the substantive terms set forth hereunder. Accordingly, the parties acknowledge partial and/or incomplete information with respect to the requirements of such regulations, but acknowledge that to the extent any term contemplated hereunder is in violation of or subject to any current or future regulation, as amended from time to time, we reserve the right to amend the terms contemplated hereby or cease to offer the transaction described herein.

Wells Fargo as a Counterparty

Transactions described in the Materials are not bank deposits or FDIC insured, may expose you to the credit risk of WFBNA and therefore involve risk of loss to you apart from the market risk associated with the underlying rate, price or other economic measure on which the transaction is based. Financial information WFBNA is available at:

[https://www.wellsfargo.com/invest_relations/investor_relations](http://www.wellsfargo.com/invest_relations/investor_relations)

Additional Information

In addition to the information furnished above, you should not enter into any swap transaction described in the Materials without reviewing and understanding our "Disclosure of Material Information for Swaps" and accompanying documents available to you at: www.wellsfargo.com/swapdisclosures

Updating the Materials

We reserve the right to amend, supplement or replace the Materials at any time, and your use of the Materials constitutes your agreement to update the Materials with any such amendments, supplements or replacements we furnish you.

Confidentiality

The information in the Materials is confidential and may not be disclosed by you to anyone without our written consent, other than to your advisors, and judicial or other governmental authorities or regulators having jurisdiction over you (including, without limitation, federal, state or local tax authorities). Notwithstanding anything to the contrary contained in the Materials, all persons may disclose to any and all persons, without limitations of any kind, the U.S. federal, state or local tax treatment or tax structure of any transaction, any fact that may be relevant to understanding the U.S. federal, state or local tax treatment or tax structure of any transaction, and all materials of any kind (including opinions or other tax analyses) relating to such U.S. federal, state or local tax treatment or tax structure, other than the name of the parties or any other person named herein, or information that would permit identification of the parties or such other persons, and any pricing terms or nonpublic business or financial information that is unrelated to the U.S. federal, state or local tax treatment or tax structure of the transaction to the taxpayer and is not relevant to understanding the U.S. federal, state or local tax treatment or tax structure of the transaction to the taxpayer.

Limitation of Liability

In no event shall Wells Fargo be liable to you or any third party for any direct or indirect, special, incidental, or consequential damages, losses, liabilities, costs or expenses arising directly or indirectly out of or in connection with the Materials.

Wells Fargo does not provide tax advice. Any tax statement herein regarding US federal tax is not intended or written to be used, and cannot be used, by any taxpayer for the purpose of avoiding any penalties. Any such statement herein was written to support the marketing or promotion of a transaction or matter to which the statement relates. Each taxpayer should seek advice based on the taxpayer's particular circumstances from an independent tax advisor.

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

2Q19

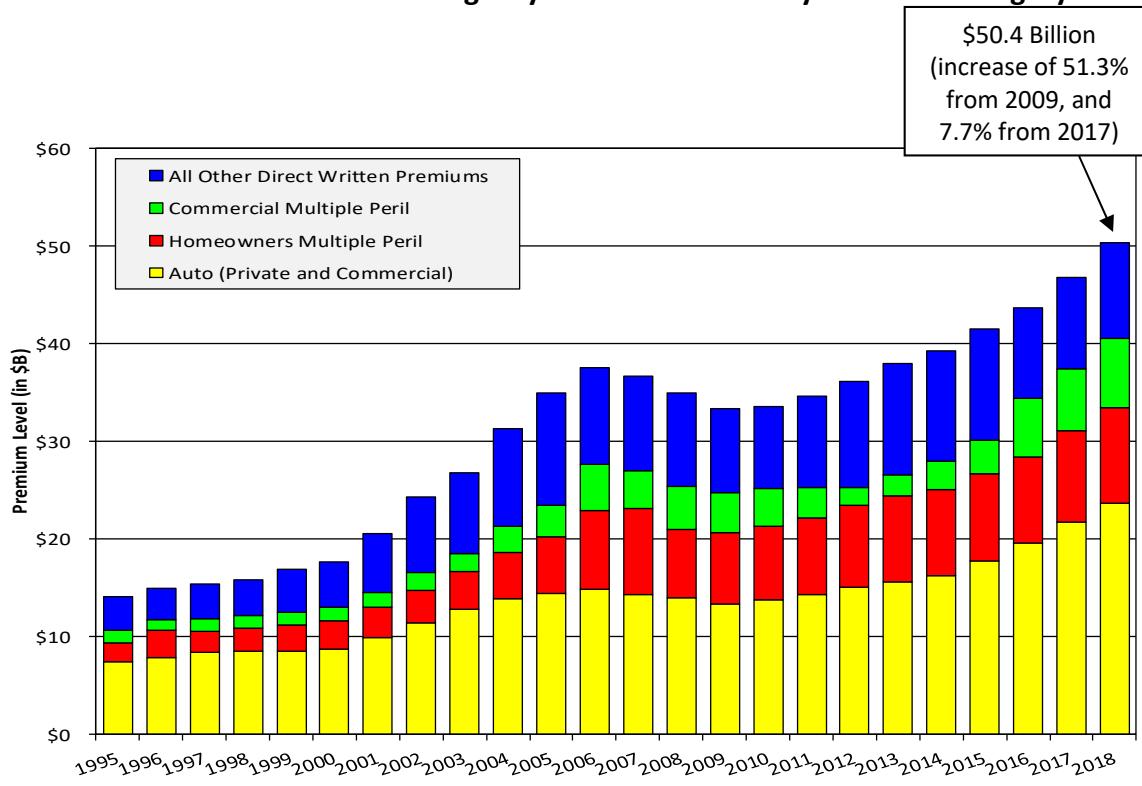


Appendix B – The FHCF’s Emergency Assessment Base

According to Section 215.555(6)(b)1., Florida Statutes, “*(i) if 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 2018 (the last official measurement date), totaled approximately \$50.4 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 by Premium Category





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
		Clearinghouse DWP	Total Premium			
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%

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 and has continued to exclude medical malpractice, which has been extended until June 2020.

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 2000-2018 is 6.21%.



2018 Admitted Market Lines Premiums (\$MM)

Line of Business	2018 Total Assessable Premium
Fire	\$715.8
Allied Lines	\$1,679.0
Multiple Peril Crop	\$104.8
Private crop	\$0.1
Farmowners Multiple Peril	\$22.6
Homeowners Multiple Peril	\$9,152.5
Commercial Multiple Peril (non-liability)	\$897.2
Commercial Multiple Peril (liability)	\$588.2
Mortgage Guaranty	\$352.1
Ocean Marine	\$349.7
Inland Marine	\$1,414.3
Financial Guaranty	\$4.2
Earthquake	\$4.4
Other liability - occurrence	\$3,636.4
Other liability - claims-made	\$650.0
Products Liability	\$118.0
Private Flood	\$56.0
Private passenger Auto No-Fault (PIP)	\$4,261.1
Other Private Passenger Auto Liability	\$10,269.2
Commercial Auto No-Fault (PIP)	\$96.5
Other Commercial Auto Liability	\$2,617.8
Private Passenger Auto Physical Damage	\$5,921.2
Commercial Auto Physical Damage	\$433.9
Aircraft (All Perils)	\$110.6
Fidelity	\$61.6
Surety	\$411.6
Burglary and Theft	\$19.0
Boiler and Machinery	\$60.8
Credit	\$100.6
Warranty	\$566.8
Aggregate Write-ins	\$182.0
Totals	\$44,858.1

Source: Florida Office of Insurance Regulation, Market Research Unit



Florida Hurricane Catastrophe Fund

RAYMOND JAMES

2018 Surplus Lines Premiums (\$MM)

Coverage Code	2018 Surplus Lines Premiums (\$MM)	Coverage Code	2018 Surplus Lines Premiums (\$MM)
1000 Commercial Property	\$1,810.5	3006 Personal & Pleasure Boats & Yachts	\$20.1
1001 Builders Risk	\$66.2	3007 Ocean Marine Builder's Risk	\$0.6
1002 Business Income	\$2.1	3008 Longshoremen (Jones Act)	\$0.7
1003 Apartments (Commercial)	\$3.1	3010 Marine Operators Legal Liability - Non Taxable	\$0.0
1004 Boiler and Machinery	\$0.0	3011 Marine Liabilities Package - Non Taxable	\$0.0
1005 Commercial Package (Property & Casualty)	\$358.6	4000 Inland Marine (Commercial)	\$27.6
1006 Condominium Package (Commercial)	\$43.2	4001 Inland Marine (Personal)	\$12.7
1007 Crop Hail	\$0.0	4002 Motor Truck Cargo	\$28.3
1008 Difference In Conditions	\$8.3	4003 Jewelers Block	\$6.7
1009 Earthquake	\$0.3	4004 Furriers Block	\$0.0
1010 Flood	\$41.6	4005 Contractors Equipment	\$0.7
1011 Glass (Commercial)	\$0.0	4006 Electronic Data Processing	\$5.2
1012 Mortgagee Impairment	\$0.4	5000 Commercial General Liability	\$921.7
1013 Windstorm &/or Hail	\$79.2	5001 Commercial Umbrella Liability	\$57.9
1014 Mold Coverage - Commercial	\$1.6	5002 Directors & Officers Liability (Profit)	\$25.3
1015 Sinkhole Coverage - Commercial	\$0.0	5003 Directors & Officers Liability (Non-Profit)	\$5.5
1016 Excess Flood - Commercial	\$15.5	5004 Educator Legal Liability	\$1.3
1017 Collateral Protection	\$24.7	5005 Employment Practices Liability	\$11.3
1018 Fire	\$0.0	5006 Excess Commercial General Liability (Not Umbrel	\$215.9
1100 Bankers Blanket Bond	\$2.6	5007 Excess Personal Liability (Not Umbrella)	\$5.1
1101 Blanket Crime Policy	\$0.5	5008 Liquor Liability	\$4.4
1102 Employee Dishonesty	\$0.0	5009 Owners & Contractors Protective	\$7.7
1103 Identity Theft	\$0.0	5010 Personal Umbrella	\$7.3
1104 Deposit Forgery	\$0.0	5011 Personal Liability	\$20.0
1105 Miscellaneous Crime	\$0.9	5012 Pollution & Environment Liability	\$58.8
1200 Accident & Health	\$21.6	5013 Product & Completed Operations Liability	\$15.0
1201 Credit Insurance	\$4.5	5014 Public Officials Liability	\$3.1
1202 Animal Mortality	\$0.3	5015 Police Professional Liability	\$1.3
1203 Mortgage Guaranty	\$0.3	5016 Media Liability	\$1.6
1204 Worker's Compensation-Excess Only	\$10.8	5017 Railroad Protective Liability	\$3.2
1205 Product Recall	\$6.6	5018 Asbestos Removal & Abatement	\$0.0
1206 Kidnap/Ransom	\$0.1	5019 Guard Service Liability	\$1.0
1207 Surety	\$5.5	5020 Special Events Liability	\$6.5
1208 Weather Insurance	\$0.1	5021 Miscellaneous Liability	\$78.5
1209 Prize Indemnification	\$0.5	5022 Cyber Liability	\$51.4
1210 Travel Accident	\$0.0	6000 Hospital Professional Liability	\$14.9
1211 Terrorism	\$15.6	6001 Miscellaneous Medical Professionals	\$78.7
1212 Fidelity	\$1.3	6002 Nursing Home Professional Liability	\$10.5
2000 Homeowners-HO-1	\$0.7	6003 Physician/Surgeon	\$24.6
2001 Homeowners-HO-2	\$0.1	7000 Architects & Engineers Liability	\$26.7
2002 Homeowners-HO-3	\$452.3	7001 Insurance Agents & Brokers E&O	\$9.8
2003 Tenant Homeowners-HO-4	\$2.0	7002 Lawyers Professional Liability	\$41.8
2004 Homeowners-HO-5	\$65.5	7003 Miscellaneous E&O Liability	\$129.6
2005 Condo Unit-Owners HO-6	\$84.0	7004 Real Estate Agents E&O	\$3.0
2006 Homeowners-HO-8	\$27.7	7005 Software Design Computer E & S	\$5.2
2007 Dwelling Builders Risk	\$5.8	8000 Commercial Auto Liability	\$38.6
2008 Dwelling Flood	\$26.3	8001 Commercial Auto Excess Liability	\$14.3
2009 Dwelling Property	\$113.8	8002 Commercial Auto Physical Damage	\$45.7
2010 Farmowners Multi-Peril	\$1.7	8003 Dealers Open Lot	\$19.4
2011 Mobile Homeowners	\$17.9	8004 Garage Liability	\$32.5
2012 Windstorm	\$24.8	8005 Garage Keepers Legal	\$2.1
2013 Mold Coverage - Residential	\$0.0	8006 Private Passengers Auto-Physical Damage Only	\$0.1
2014 Sinkhole Coverage - Residential	\$0.0	8007 Personal Excess Auto Liability	\$0.3
2015 Excess Flood - Residential	\$23.3	9000 Commercial Aircraft Hull &/or Liability	\$13.1
3000 Marine Operators Legal Liability - Taxable	\$2.1	9001 Airport Liability	\$1.3
3001 Marine Liabilities Package - Taxable	\$8.3	9002 Aviation Cargo	\$0.2
3002 Ocean Marine-Hull &/or Protection & Indemni	\$13.9	9003 Aviation Product Liability	\$2.6
3003 Ocean Cargo Policy	\$28.2	9004 Hanger Keepers Legal Liability	\$0.0
3004 Ship Repairers Legal Liability	\$0.0	9005 Personal & Pleasure Aircraft	\$0.1
3005 Stevedores Legal Liability	\$0.0	Totals	\$5,547

Source: FLSO

Based on policies with a submitted/filed/written date from 1/1/18 to 12/31/18.



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.