

# University of California

## Governmental Accounting Standards Board (GASB) Statement No. 93, *Replacement of Interbank Offered Rates*

Issued: March 2020



### Issues Resolution Memo No. 93-1

Evaluation of GASB Statement No. 93 as it Relates to the UC Reporting Entities

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## BACKGROUND

GASB Statement No. 93, *Replacement of Interbank Offered Rates (IBOR)*, was adopted by the University during the year ended June 30, 2020. This Statement establishes accounting and financial reporting requirements related to the replacement of IBORs in hedging derivative instruments and leases.

## DEFINE ISSUES

The University must determine whether GASB Statement No. 93 applies to the accounting for modifications to interest rate swap agreements.

## AUTHORITATIVE GUIDANCE AND APPROACH

The authoritative guidance permits the continuation of hedge accounting when the reference rate of the original hedging derivative instrument's variable payment is an IBOR, and the IBOR is changed and certain criteria are met. The standard can only be applied to transactions that occur after the implementation of the standard.

## IMPLEMENTATION

The University implemented the new standard as of July 1, 2018. For the year ended June 30, 2020, the University had Medical Center Pooled Revenue Bond interest rate swaps with a total notional amount of \$235.26 million related to the \$25.75 million 2013 Series K (UCLA), \$60.49 million 2007 Series B (UCSF), and \$149.03 million 2007 Series C-2 bonds (UCLA). The bonds are variable rate bonds with final maturities ranging from 2032 to 2047. The swaps are fixed rate swaps with the Regents paying a fixed rate and receiving a floating rate based on the London Inter-Bank Offered Rate (LIBOR).

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During the 2019-2020 fiscal year, the University modified the terms of these LIBOR interest rate swap agreements to change the reference rate from LIBOR to the federal funds rate. These modifications were evaluated to determine whether the criteria in GASB Statement No. 93 to continue hedge accounting were met:

GASB 93 Criteria	Analysis
The reference rate of the amended or replacement hedging derivative instrument's variable payment essentially equates the reference rate of the original hedging derivative instrument's variable payment.	Yes, see attached memo from Swap Financial includes an analysis comparing LIBOR to the fed funds rates and the variable interest rate payments will essentially equate to each other.
If the replacement of the reference rate is effectuated by ending the original hedging derivative instrument and entering into a replacement hedging derivative instrument, those transactions occur on the same date.	The termination of the original interest rate swap agreements and the commencement of the new interest rate agreements were all effective on the same day.
Other terms that affect changes in fair values and cash flows in the original and amended or replacement hedging derivative instruments are identical.	No other terms of the agreements were changed.

Therefore, hedge accounting was continued for the Series B and K interest rate swap agreements based on the criteria in GASB Statement No. 93.

However, for the Series C-2 interest rate swap agreement, in addition to amending the agreement, the bonds were refinanced. Under GASB Statement No. 53, retirement of the original bonds that were hedged results in the termination of hedge accounting. Therefore, for the UCLA Medical Center Series C-2 interest rate swap agreements, hedge accounting was terminated. For the new Series O bonds that were issued and the modified interest rate swap agreements, hedge accounting was implemented following the requirements in GASB Statement No. 53.

Note: The University modified interest rate swap agreements in fiscal year 2018-19 to replace LIBOR, and discontinued hedge accounting for these transactions since the changes occurred prior to the issuance of GASB Statement No. 93. The impact of discontinuing hedge accounting was to recognize a loss of \$6.5 million. Since this loss is not material, the University has elected not to restate the financial statements for 2018-19 when the statements are included in the 2019-2020 financial statements.

# Swap Financial Group

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## MEMORANDUM

To: The Regents of the University of California (the “University” or “UC”)  
Peggy Arrivas, Meghan Gutekunst

From: Swap Financial Group (“SFG”)  
Nat Singer, Gerri Magie

Concerning: Conversion of Medical Center Pooled Revenue Bond (“MCPRB”) Interest  
Rate Swaps from LIBOR to Federal Funds

Date: January 7, 2020

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### Background

In 2007, the University issued two series of tax-exempt variable rate bonds on behalf of the Medical Centers, including 2007 Series B in the original amount of \$96,155,000 and 2007 Series C-2 in the amount of \$189,775,000. At the time of issuance, the University entered into a series of interest rate swaps, financial agreements whereby the University pays a fixed rate to and receives a floating rate from a counterparty, to hedge the associated variable rate exposure on the 2007 Series B and C-2 bonds. The floating receipt under the swaps is based on a percentage of LIBOR, which is designed to offset the floating rate paid on the associated tax-exempt variable rate bonds creating “synthetic fixed rate” debt. The synthetic fixed rate debt structure offered a lower cost of capital relative to traditional fixed rate debt at the time of issuance, thereby reducing expected debt service costs to the University and the related Medical Centers.

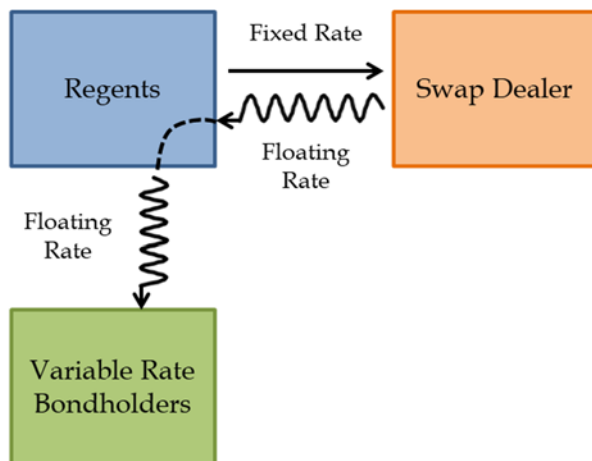
In July 2017, it was announced that LIBOR would be discontinued after 2021. Financial market regulators have already begun the process of developing the replacement benchmark index, “SOFR” (Secured Overnight Financing Rate). SOFR is fundamentally different from LIBOR in many respects – tenor, risk, method of determination, etc. – and as such, there are significant risks and unknowns on how legacy LIBOR-based financial contracts will be transitioned to reference SOFR. The vast majority of LIBOR instruments are shorter-dated, with a maturity of five years or less. The MCPRB swaps, on the other hand, cover a significantly longer time horizon and extend through 2047. A proactive approach to transitioning LIBOR exposures well ahead of the 2021 deadline has been recommended by SFG and the various regulators and would mitigate a considerable amount of the risk and uncertainty associated with the discontinuation of LIBOR. Within this memo, we discuss the current structure of the MCPRB swaps and related bonds and potential alternatives for transitioning away from LIBOR.

As discussed in the Regents’ item dated February 8, 2019, the University restructured the General Revenue Bond 2013 Series AL swaps from LIBOR to Fed Funds and elected to defer a

similar restructuring of the MCPRB swaps to coincide with an upcoming bond issuance. Consistent with the approach taken on the Series AL swaps, SFG recommends amending the MCPRB swap agreements to reference Fed Funds instead of LIBOR given the relative nascency of the SOFR swap market. The sections that follow provide a fuller discussion of the recommended strategy, risk reduction benefits and considerations for the University, and indicative pricing and mechanics for amending the interest rate swaps.

### Overview of Synthetic Fixed Rate Structure

The University has six MCPRB swap agreements where Bank of America is the counterparty on one of the swaps and Wells Fargo is the counterparty on the other five. The swaps have a combined notional amount of \$235.26 million which declines over time in connection with the principal amortization of the associated bonds. Under the swaps, UC pays a fixed rate and receives a floating rate based on a percentage of LIBOR plus a fixed spread. The floating rate received under the swap is intended to offset the variability in the floating rate paid on the associated variable rate bonds. The net debt service cost to the University is the fixed rate paid under the swap plus or minus the difference between the floating rate paid on the bonds and the floating rate received under the swap, as illustrated in the diagram below.



The MCPRB swap agreements are presently associated with the 2007B, 2007C and 2013K (as successor to a portion of 2007C) variable rate bonds. The 2007B and 2013K bonds are structured as Variable Rate Demand Obligations (“VRDOs”) in the daily interest rate mode (rates reset daily) and the University provides self-liquidity. The interest rate is assumed to follow the SIFMA index, though in reality the interest rate on the 2007B and 2013K bonds trade well below SIFMA due to the exemption from California state taxes. The 2007C bonds are currently structured as LIBOR floating rate notes (FRNs), with an interest rate that resets quarterly at 67% of 3-month LIBOR plus a fixed spread. The University intends to refund the 2007C FRNs with VRDOs in connection with the upcoming MCPRB bond issuance in order to reduce expected debt service costs and eliminate LIBOR exposure. The MCPRB swaps and associated bonds are summarized in the following table.

Summary of MCPRB Interest Rate Swaps and Related Bonds

<u>Series</u>	<u>Notional</u>	<u>Maturity</u>	<u>Average Life</u>	<u>Current LIBOR Floating Swap Receipt</u>	<u>Amended Fed Funds Floating Swap Receipt*</u>	<u>Incremental Spread*</u>
2007B	\$60,485,000	5/15/2032	6.9 yrs	58% 1ML + 0.48%	58% FF + 0.53%	5 bps
2007C	\$31,610,000	5/15/2030	7.1 yrs	67% 3ML + 0.61%	67% FF + 0.75%	13 bps
2007C	\$38,670,000	5/15/2037	14.5 yrs	67% 3ML + 0.67%	67% FF + 0.80%	13 bps
2007C	\$54,495,000	5/15/2043	21.0 yrs	67% 3ML + 0.74%	67% FF + 0.86%	13 bps
2007C	\$24,250,000	5/15/2045	24.2 yrs	67% 3ML + 0.79%	67% FF + 0.92%	13 bps
2013K	\$25,750,000	5/15/2047	26.6 yrs	67% 3ML + 0.79%	67% FF + 0.92%	13 bps

\* Indicative pricing based on market conditions as of 1/7/2020.

The University assessed the potential risks associated with the MCPRB swap structure at the time of issuance and was comfortable that the risks were manageable. The risks include:

- Potential termination risk – risk that the swap could be terminated prior to maturity and potentially result in a termination payment due by the University
- Basis risk – risk that the floating rate on the bonds is not exactly offset by the floating rate on the swap
- Tax risk – risk that the federal tax rate changes and reduces the value of tax-exemption
- Collateral posting risk – risk that the University is required to post collateral to the swap counterparty

Since inception in 2007, the risks outlined above have not materialized and the synthetic fixed rate structure has performed as expected. The University has not faced any potential swap termination events, the relationship between California exempt floating rate debt and LIBOR has remained within historical averages, the University has been experiencing positive basis on the 2007B and 2013K swaps (i.e., the floating receipts on the swaps have, on average, exceeded the floating payments on the bonds), and the University has not had to post collateral on the swaps because the MCPRB credit ratings remain sufficiently high enough to give the University an infinite collateral posting threshold. The key risk that the University now faces is LIBOR phase-out risk, which is discussed in the sections that immediately follow.

Potential Impact of the LIBOR Phase-Out

In July 2017, the regulators in the UK, the UK Financial Conduct Authority (FCA), announced unexpectedly that the LIBOR benchmark in its current form is not sustainable and set a date specific in 2021 to stop obliging banks to submit rates in order to determine LIBOR. The FCA alleges that LIBOR was in fact tainted by manipulation during and immediately after the financial crisis which resulted in over \$9 billion in fines to financial institutions (to date) and convictions of individual employees. Since that time, the volume of LIBOR-based lending between financial institutions has declined to the point where it is becoming more difficult to identify observable transactions and determining LIBOR has become even more subjective, which is not desirable.

Currently, the successor index is slated to be the Secured Overnight Financing Rate (“SOFR”). The SOFR index is a broad-based US Treasury repo financing index based on actual transactions rather than subjective submissions by participating banks. The key differences between LIBOR

and SOFR is that (1) LIBOR is an unsecured rate based upon where AA-rated banks borrow from one another while SOFR is a secured short-term rate and (2) SOFR is an overnight rate while LIBOR typically represents either a 30-day rate (1M LIBOR) or 90-day rate (3M LIBOR). Understandably, due to these factors SOFR has historically represented a lower rate than LIBOR.

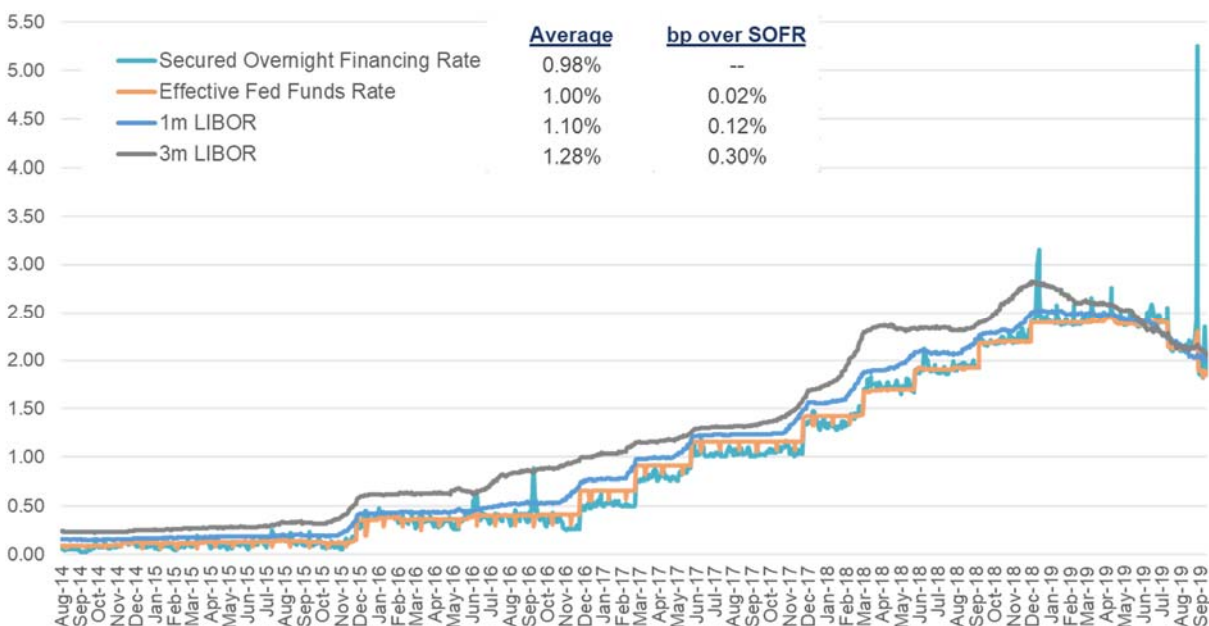
Financial market regulators in Europe and the US (the Federal Reserve Bank) have been actively engaged in accelerating the process toward the phase-out of LIBOR and the introduction of SOFR as the replacement index. They have established the Alternative Reference Rate Committee (ARRC) to create an implementation plan for the introduction of SOFR and metrics for the conversion of LIBOR-based contracts to SOFR-based. At this point the conversion metrics are being debated (i.e. how will LIBOR-based contracts be converted to SOFR-based contracts equitably without a transfer of “value” between the counterparties). It is SFG’s view (as well as certain of the legal professionals within the Securities Industry and Financial Markets Association (SIFMA)) that the ultimate proposal will be challenged, and litigated, by various market participants.

With respect to UC’s interest rate swaps, a simple substitution of LIBOR with SOFR without an adjustment, or without sufficient adjustment, could result in increased basis risk and decreased cash flow to the University. As per the ISDA definitions, the swap counterparty has a tremendous amount of latitude in terms of determining a substitute rate if LIBOR is not published. The fallback language established by ISDA was defined to address a temporary market disruption not a permanent elimination of the LIBOR index. ISDA is currently considering alternatives in conjunction with the European regulators and the Fed as they understand that the swaps governed by the ISDA documentation are often tied to bank loans, debt, etc. In addition, the Federal Reserve has established industry working groups to report back on the impact of the proposed change within specific sectors of the market. SFG is part of these working groups.

The SOFR swap market is still in the early stages of development, and the most active SOFR swaps trading is for tenors of 4 years and less. While swap dealers have begun quoting longer-dated SOFR swaps, SFG is not aware of any such transactions that have occurred in the tax-exempt market. As such, we believe it is premature to convert the MCPRB swap exposures directly to SOFR. Alternatively, an immediate risk mitigation strategy for UC would be to convert the MCPRB interest rate swaps from a LIBOR-based swap to a Fed Funds-based swap. The idea here would be to convert away from a risk based term index to a “secured” overnight index in advance of 2021. By doing so now, UC could protect itself from potential permanent negative basis exposure should LIBOR simply be replaced by SOFR without sufficient adjustment. In March 2019, UC converted the GRB 2013 Series AL swaps from LIBOR to Fed Funds as a risk-reduction measure and to gain certainty on the swap index and economics beyond the LIBOR sunset date. SFG’s view is that Fed Funds and SOFR should track one another very closely as both are secured short-term rates (the Fed Funds Rate is effectively “secured” by the US Treasury), as illustrated in the following chart.

[Historical SOFR, Fed Funds, 1m LIBOR and 3m LIBOR \(August 2014 to Present\)](#)





The swap index conversion would entail changing the floating rate of the swap from a percentage of LIBOR to the same percentage of Fed Funds plus a fixed spread. The fixed spread is dependent upon market conditions and the tenor of the swap and would reflect the fact that Fed Funds typically resets at a lower rate than LIBOR. There would be no upfront payment to the counterparty to effect this change and the mark-to-market value of the swaps would remain unchanged. The following table shows indicative pricing for the conversions of the 2007B, 2007C and 2013K swaps.

Series	Notional	Maturity	Average Life	Current LIBOR Floating Swap Receipt	Amended Fed Funds Floating Swap Receipt*	Incremental Spread*
2007B	\$60,485,000	5/15/2032	7.0 yrs	58% 1ML + 0.48%	58% FF + 0.53%	5 bps
2007C	\$31,610,000	5/15/2030	7.2 yrs	67% 3ML + 0.61%	67% FF + 0.75%	13 bps
2007C	\$38,670,000	5/15/2037	14.7 yrs	67% 3ML + 0.67%	67% FF + 0.80%	13 bps
2007C	\$54,495,000	5/15/2043	21.1 yrs	67% 3ML + 0.74%	67% FF + 0.86%	13 bps
2007C	\$24,250,000	5/15/2045	24.3 yrs	67% 3ML + 0.79%	67% FF + 0.92%	13 bps
2013K	\$25,750,000	5/15/2047	26.7 yrs	67% 3ML + 0.79%	67% FF + 0.92%	13 bps

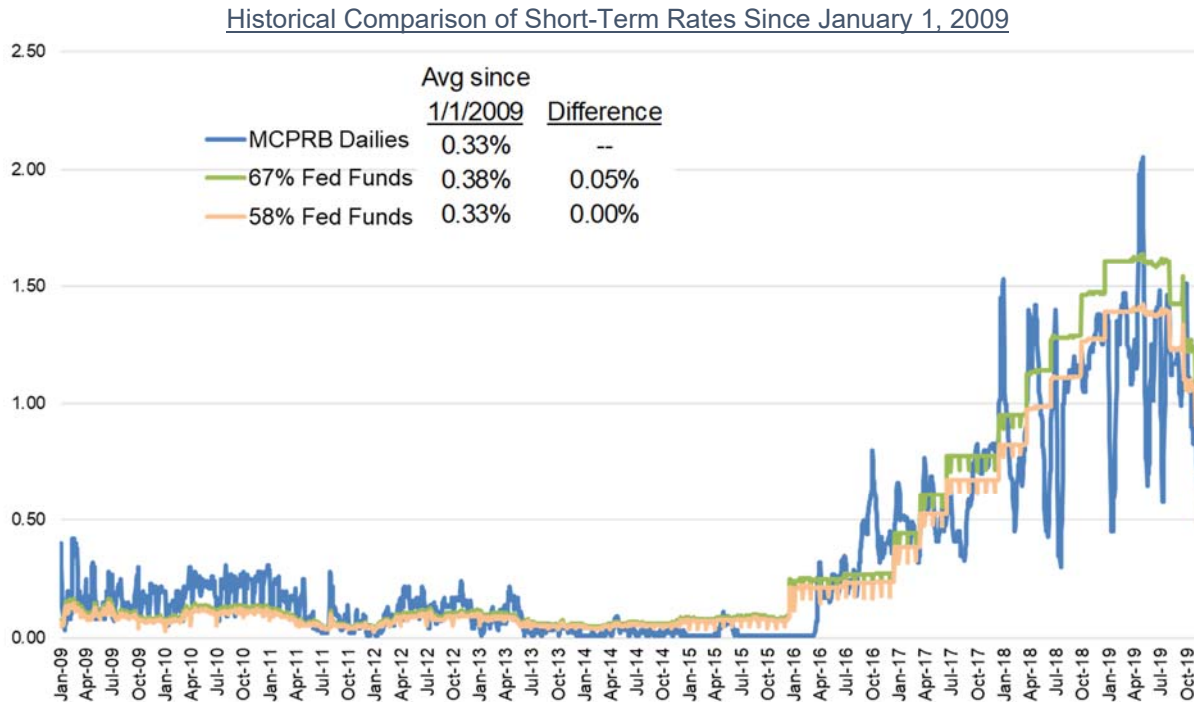
\* Indicative pricing based on market conditions as of 12/11/2019.

The spread differential highlighted in the chart above could be used by the University to either enhance the floating rate receipts paid to the University by the counterparties upon conversion or to lower the fixed payer rate. Either approach would result in identical relative economics to the University.

### Historical Short-term Rate Relationships

SFG has analyzed the historical basis risk between receiving 58% of Fed Funds and 67% of Fed Funds (the swap receipts) versus paying a daily California tax-exempt rate on its floating rate debt. Similar to the relationship between 58% and 67% of LIBOR and daily VRDBs, there is a certain amount of mismatch between the two floating rates on a day-to-day basis, but on

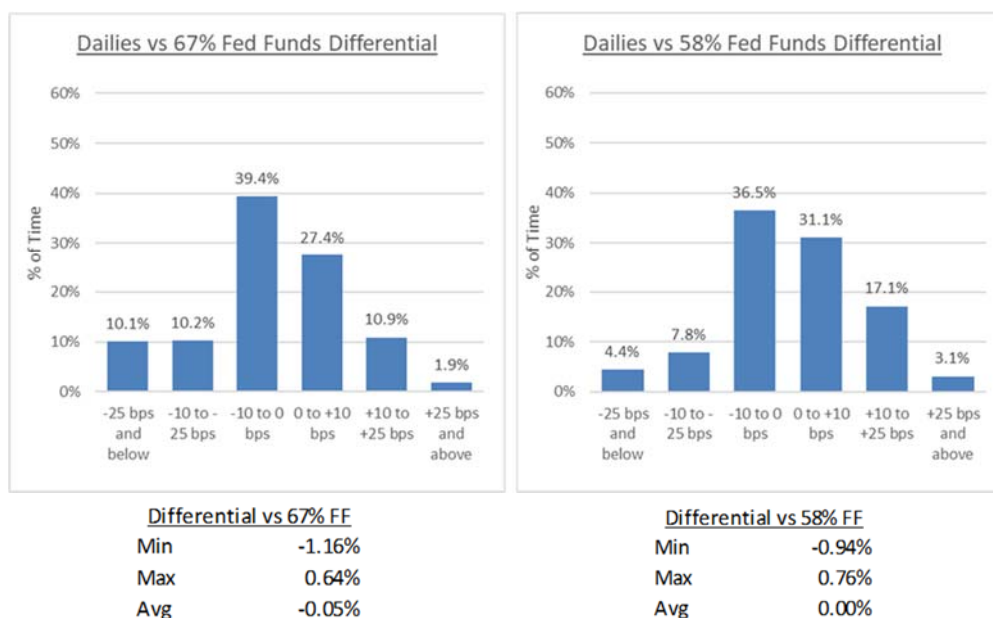
average have tracked each other very closely over the long term. The chart below shows the historical relationship between MCPRB dailies, 67% of Fed Funds and 58% of Fed Funds.



The daily VRDB's, though more volatile, have outperformed 67% of Fed Funds by 5 basis points and have averaged the same as 58% of Fed Funds since January 2009.

Looking at the basis exposure since 2009 more closely, the charts below show the distribution of the rate differentials between daily VRDB's, 67% of Fed Funds and 58% of Fed Funds and illustrate that the basis has been manageable. For both the 67% and 58% of Fed Funds swaps, the differential to dailies has been within 10 basis points about two-thirds of the time and within 25 basis points approximately 90% of the time. Negative basis exceeded 25 basis points 1.9% of the time for 67% of Fed Funds and 3.1% of the time for 58% of Fed Funds. As such, SFG believes a Fed Funds-based swap would provide an effective interest rate hedge for the MCPRB VRDBs in the daily mode.





### Transaction Execution

As mentioned above, the current counterparties on the MCPRB interest rate swaps are Bank of America (\$60.485 million notional) and Wells Fargo (\$174.775 million notional). Both Bank of America and Wells Fargo are presently rated Aa2 (stable) by Moody's and A+ (stable) by Standard and Poor's, and as such, they meet the ratings-based policy requirement for the University of having at least one rating within the "AA" category. The transactions were executed under ISDA Agreements that contain credit provisions which are extremely favorable to the University. Under the Bank of America ISDA, there is no Credit Support Annex and therefore no obligation for either the University or Bank of America to post collateral. With the Wells Fargo agreement, the collateral posting terms are "asymmetric", such that the University has higher collateral posting thresholds than Wells Fargo. The Additional Termination Event ratings threshold is bilateral for Bank of America and the University at Baa2/BBB, and slightly asymmetric under the other agreement at Baa2/BBB for Wells Fargo and Baa3/BBB- for UC. From the University's perspective, the credit terms contained in both agreements are at or better than current market standards.

Similar to the Series AL swap restructuring, the most efficient way to accomplish the floating rate index conversion on the swaps is to amend the existing agreements with the current swap counterparties. As the LIBOR to Fed Funds swap amendment is a relatively straightforward change, we do not anticipate any issues with either Bank of America or Wells Fargo's ability to execute the amendments in a timely manner. The 2007B and 2013K swap amendments could be executed as soon as practicable. The 2007C swap amendments should potentially be executed contemporaneously with the refunding of the 2007C bonds from LIBOR FRNs to VRDBs, which would constitute a "reissuance" for tax purposes, to streamline the tax and accounting analysis. Based on prior experience with the GRB 2013 Series AL swap amendments, it may be possible for the University to maintain hedge accounting treatment for the swaps and integration of the swaps and bonds for tax purposes.

SFG's Recommendation

It is SFG's belief that amending the floating index on the MCPRB swaps would be a prudent step to mitigate the future LIBOR phase-out risk. Given the risks associated with the pending phase-out of LIBOR, SFG believes that a proactive restructuring of the University's swap exposures from LIBOR to Fed Funds is the most effective SOFR conversion risk mitigation strategy. SFG recommends converting all of the LIBOR-based MCPRB swaps to Fed Funds.