# Affordable Housing Market Update

January 9, 2020

Contents:

**Friends & Colleagues,**

The aim of this newsletter is to provide our investor and syndicator clients a market update with respect to low-income housing tax credit (LIHTC) funds, as well as preservation and workforce housing funds.

For LIHTC funds, our primary focus is on multi-investor fund pricing, yields and trends. We also consider pricing across the entire market, including proprietary funds, guaranteed funds, secondary sales, and direct investor activity.

In the context of this newsletter, preservation funds (or naturally occurring affordable housing (NOAH)), and workforce housing funds, are non-tax advantaged multi-family real estate equity funds comprised of Class B and C properties or developments. Funds looking to attract equity from CRA investors will qualify under Regulation H as public welfare investments (PWIs) by targeting low- to moderate-income households. These types of funds fall along a spectrum as it relates to PWIs, and some include a component of new construction workforce housing while others do not.

This segment of the affordable housing market has continued to grow and several sponsors we represent now offer these funds in addition to LIHTC funds and a growing number of our investor clients continue to express interest in these types of funds.

As always, this update is a collaborative effort with our colleagues at Beacon Hill Capital. Together, Strategic Tax Credit Investments and Beacon Hill Capital represent nearly a dozen affordable housing syndicators of various sizes, including both for-profit and non-profit sponsors. Our combined syndicator partners account for more than 50% of the syndicated LIHTC market. Broad market representation is the foundation of our information-based approach to the brokerage and advisory services we provide, and it is the basis of the commentary that follows.

This issue follows our July 2019 newsletter which, along with previous newsletters, are available on our website: www.StrategicTaxCreditInvestments.com.

We hope you find this update informative and useful and we welcome your comments and perspective.

*Disclaimer: The information provided in this market update is primarily for informational purposes only and is not a prediction or guaranty of actual events or outcomes and may not be relied upon by the recipient or any other persons for any reason.*

# Summary

If you are pressed for time, here is the quick summary: pricing for both LIHTC funds and preservation/workforce housing funds is essentially unchanged from 6 months ago. Barring any unforeseen shock to the market, we project pricing to hold steady in the first half of 2020. Three sections of this newsletter have important updates:

(i) the California market (a possible exception to pricing stability)
(ii) reform of the Community Reinvestment Act (CRA)
(iii) the analysis of LIHTC yields to alternative investments.

Given the overall market stability, a number of sections remain unchanged from our July newsletter, which we have annotated with "No change" to save the reader time. You may; however, find them useful if you are new to the newsletter, the industry, or just did not get around to reading the July newsletter.

From a macro supply and demand perspective, a few highlights are warranted. Banking consolidations continue and often result in increased CRA goals, driving additional demand for LIHTC investments. The union of BB&T and SunTrust Bank into what is now Truist Bank is the largest of these recent mergers. Truist will join the ranks of the largest LIHTC bank investors and we expect to see increased demand for investment from them in 2020. We also expect to see growing appetite from Fannie Mae and Freddie Mac (together, GSEs) as their respective investment programs continue to ramp up.

On the supply front, Congress approved an additional $1 billion of federal LIHTC credits for California disaster areas, and the state of California has dramatically increased the amount of state credits it will issue in 2020. The potential impact to pricing in that market is specifically discussed in more detail later in this newsletter. Additionally, from a national perspective, as the number of syndicators proliferates and as smaller syndicators show a desire to grow (some substantially), the supply of fund offerings continues to increase. This translates to increased competition for investor equity.

Our secondary headline 6 months ago was the dramatic decline in the 10-year U.S. Treasury. In the interim, it continued to decline, dropping below 1.50% briefly. Yields have since rebounded off those lows, but today the 10-year Treasury yield is down roughly 20-25 bps from 6 months ago, further improving the spread of fund yields to this important benchmark.

# LIHTC Pricing Outlook

***No Change***

As always, we emphasize that there is a range in LIHTC yields across the market. Reasons for this include, but are not limited to, differences in portfolio composition, sponsor strength, load, the use of bridge financing as well as inefficiencies in the market.

Our pricing summary focuses on three specific segments: multi-investor national funds; CRA versus non-CRA; and California regional funds. Below, we discuss the outlook for pricing during the first half of 2020.

In general, investors with CRA needs are less price-sensitive than non-CRA buyers. CRA pricing can apply to investors who require a CRA letter on individual transactions, or groups of transactions depending upon their geographic location. As a result, there is often bifurcated pricing in the market. Where there may be downward yield pressure generally, at times non-CRA investors may be resistant to declining yields, or even require higher yields (due to rising rates, alternative investment returns, etc.).

The influence the non-CRA component of the equity market has on lower-tier pricing (property level) is limited because it comprises only about 15-20% of the total market. However, this segment can move market pricing at the fund level. When non-CRA investors pull back, fund sponsors who rely on non-CRA investor equity will typically cut fees and raise yields as necessary to obtain the investor equity needed to clear their funds.

# Fund vs. Property Level Pricing Trends

***No Change***

Our pricing outlook for the next 6 months is based on both fund-level and property-level information from syndicators and investors. It is important to look at both because property-level and fund-level pricing do not always move in concert in the short-term.

Fund-level pricing at year-end was essentially unchanged from mid-2019. We saw Fall funds hold similar pricing to Spring funds and investor demand remained steady.

To confirm whether the fund-level offering is in sync with property-level pricing trends, we conducted an informal survey of our syndicator partners. Based on their feedback, pricing at the property-level continues to trend essentially flat with few exceptions.

# National Funds

## *No Change*

For the broader LIHTC market, pricing has remained relatively stable since the second half of 2018 and it seems that pricing will continue to carry through into early 2020 based on conversations with our syndicator partners regarding their latest funds. That said, we have seen declining yields in certain CRA markets and a slight uptick in yields for anchor-size investors ($30-40M) in national funds.

At this time, national funds seeking to attract economically motivated non-CRA equity are generally priced in the $0.95-$1.00 range on a fully loaded basis with after-tax IRRs in the 5.50-6.00% range. Pricing can fall outside of this range based on investment size and is generally higher (lower yields) for funds with CRA-tiered pricing or for CRA-only funds. See our attached Summary of LIHTC National Funds.

At the higher-end of the yield spectrum, there are a number of economic investors that will make larger investments to secure premium yields within national multi-investor funds. There are also larger CRA-motivated banks that are making blended investments that mix both CRA selections at lower yields with non-CRA allocations in funds to achieve higher overall returns. Outside mainstream LIHTC multi-investor funds, some investors who require higher returns are willing to invest in funds with higher risk profiles, including mixed-income developments, assisted living properties, or LIHTC transactions with higher leverage.

Overall, we generally see a yield range between 4.00% for higher demand metropolitan statistical areas and counties to 5.00% for less competitive CRA markets. The most competitive CRA areas (e.g. Bay Area, NYC five boroughs, Boston, Utah, etc.) may have yields that dip into the 3% range. Periodically, we hear about the odd investment, often on a direct basis, with a return in the 2% range for the most sought-after investments, which often also include a combined CRA debt opportunity. Banks are sometimes willing to be more aggressive on equity pricing when combined with construction lending opportunities.

One variable affecting IRR and price per credit ranges is the amount of bridge financing being utilized by the fund sponsor. In general, most national funds assume at least some modest level of bridge financing to manage capital calls, and a number of syndicators use additional bridging to more effectively compete for product and enhance yield. For investors that are focused on the lowest price per credit and little or no bridging, some funds will offer an unbridged investment class option ("cash needs") which results in a lower IRR.

Conversely, some syndicators offer bridged returns for investors focused on a higher IRR, which generally increases the gross price per credit. These options appeal to different investors based on their internal investment models. It should be noted that the use of bridging by syndicators varies depending on the spread between the cost of bridging and fund yields.

# California Funds

In our past two newsletters we discussed a supply-demand imbalance that contributed to a temporary dislocation of the California segment of the LIHTC market. One of the ways syndicators have adjusted is by including pricing class structures that mirror large national funds. California funds now commonly offer volume discounts or 'anchor' classes for investors committing large dollar amounts (typically $20M+) at yields approaching national fund yields in the 5.00% - 5.75% range.

They also offer various classes for CRA designations, with Bay Area yields offered at around 4.00% and other more competitive counties such as Los Angeles, Orange & San Diego being offered in the 4.25% to 4.50% range. Rural counties and non-CRA designated classes are typically being offered in the 4.75% - 5.00% range. This pricing range held steady for most offerings throughout 2019, but it would be reasonable to expect pricing to creep upward later in 2020.

The balance between supply and demand in California will be further impacted with the adoption of two additional credit awards to help address the affordable housing crisis in the country's largest state. California Assembly Bill 101 was included in the latest state level budget, which was signed in early 2019 by Governor Newsom. The bill provides an additional annual allocation of $500M of California state tax credits designed to be paired with 4% new construction transactions for the 2020 calendar year. These additional state credits will be awarded to 'shovel ready' projects that will commence construction within 180 days. Future years of state credits will be subject to appropriations.

At the federal level, the recent tax extenders legislation, passed by Congress and signed by President Trump in December, included a provision designating approximately $1 billion in additional federal LIHTC in 2020 to California's disaster relief qualified counties impacted by recent wildfires. As a result, the combined 2020 California federal & state tax credit market will increase from $2.3B to $3.75B (assuming a PPC of $.95), an increase of over 60 percent.

It is difficult to predict how this large increase in tax credit supply will affect pricing and demand for California LIHTC product in 2020, and the first six months in particular. The increase in supply will likely impact pricing at the property level and corresponding yields at the fund level, but the timing and extent of the impacts are challenging to forecast.

## California Funds Continued

Tax credit pricing can be somewhat inelastic due to a number of factors including the long project lifecycle from concept to construction, and the protracted negotiations between syndicators and developers over terms and pricing. There is also a lag in feedback from investor demand to resulting adjustments in property-level negotiations with developers.

Another stabilizing factor on pricing, particularly in California, is the presence of programmatic investors. Due to resource constraints relative to their annual investment goals, many investors do not have the luxury of trying to time the market and instead spread their workflow over the course of the year. Banks with CRA needs that are difficult to fill may be inclined to accept current market pricing when opportunities arise, regardless of the potential for pricing changes in the future.

Based on the foregoing, unless there is a significant increase in demand from investors such as the GSE's, health insurance companies, or technological and other non-financial companies, it is likely that the price of California transactions will decline and yields will rise in 2020, but by how much and how soon we do not know.

- https://www.treasurer.ca.gov/ctcac/multi.asp

## Secondary Market Transactions

Secondary sales of LIHTC portfolios were up substantially in 2019 with over $1 billion closing, or about 6-7% of the total equity market. We were aware of transactions ranging from $7M to $250M in size and a large, national syndicator that is selling roughly $300M this year through its proprietary and multi-investor fund offerings.

# Interest Rate Environment

Since the financial crisis of 2008, the consensus view has generally been that both short- and long-term interest rates would rise from their historic lows. The impact of rising interest rates expectations can be felt two-fold in the LIHTC market. First, at the property level where debt service ratios and loan sizing can be impacted by increased rates. Second, on the investor demand side where returns on alternative investments increase along with rising interest rates. This puts upward pressure on yields at the fund level and ultimately lowers credit pricing at the property level.

The prevailing consensus for rising interest rates and the continued flattening of the yield curve has yet to be realized. The ongoing impact of global trade negotiations, potential for increased conflict in the Middle East, slowing global economic growth, the rising risk of recession (and recent yield curve inversion), as well as commentary by the Federal Reserve Board of Governors, and most recently Board Chairman Jerome Powell, has upended this view.

The Federal Reserve decreased interest rates on three occasions since our last newsletter in mid-2019. Chairman Powell also signaled his intention to hold rates steady through 2020. With a protracted low interest rate environment and low unemployment paired with modest wage growth, concerns about inflation are decreasing while the threat of stagflation, similar to that experienced in Japan & the European Union, is increasing in the United States.

# 10-Year U.S. Treasury (10-Year) & Corporate Bonds

Due to the industry's size and specific characteristics, LIHTC yields do not correlate directly with Treasury yields. However, the 10-Year remains a common and important reference point. For those that follow it closely, the 10-year crested at 3.20% in Q4 2018, had dropped to 2.75% at the time of our Q1 2019 newsletter and was just over 2.00% in July due to the factors mentioned above. Since that time, the 10-year has generally fluctuated between 1.50% and 2.00% and currently stands at 1.87%. To date, the dramatic reversal in long-term interest rates has not impacted LIHTC fund yields, but the spread has certainly become more favorable and has returned to the historic average or slightly better.

## 10-Year Treasury Continued

Over the past 15 years, the spread between LIHTC yields (non-CRA yields in national funds) and the 10-year yields (on an after-tax basis) has ranged widely from a low of approximately 135 bps in 2006 to a high of around 900 bps in 2010. This historic average has been approximately 435 bps. Using a non-CRA 5.75% after-tax QIRR from the most recent round of closed multi-investor funds, that spread today is tracking historical norms at approximately 427 bps.

Over the years, a number of investors have indicated that BBB rated corporate bonds may be the best credit proxy for LIHTC investments. The spread between LIHTC yields has also trended favorably against BBB's. Historically, LIHTC's have traded roughly 288 bps over BBB's after tax equivalent, as of January 3, the spread has increased to 326 bps.

Please see our attached exhibits for graphical representations of our yield data.

## LIHTC Foreclosure vs Rated Bond Default

***No Change***

In our last newsletter we decided to look at the default rate for various rated alternative investments relative to the foreclosure rate for LIHTC investments.

While foreclosures and defaults are not an exact risk profile match for various reasons, we compared cumulative default rates of LIHTC properties with Global Averages Default Rates on S&P rated bonds. We analyzed data provided by our colleagues Cindy Fang and Matthew Barcello at CohnReznick from a survey of 22,993 LIHTC properties over the years 1997-2016. Notably, the LIHTC cumulative foreclosure rate is less than the cumulative default rates on AAA rated corporate bonds over a ten-year period. It is important to keep in mind, however, the vastly different size and efficiency of the bond market relative to the LIHTC industry and also, like the 10-Year, to not overstate the correlation between these asset classes. In consideration of this data, we have added the after-tax returns of AAA Bonds to our yield tracking graph (see below).

# Preservation Funds

***No Change***

Preservation funds constitute a segment of the multi-family market that is typically comprised of existing, older multi-family rental properties with rents at or below 80% of area median income (AMI) and may or may not have some form of government subsidy, but they generally cater to renter households with incomes at or below 80% of median income.

Over the last five years, the number of these funds have proliferated and pricing and terms have started to coalesce. The fund sponsors range from those with stated missions to preserve affordable housing, to those that see value-add plays for older multi-family real estate with strong occupancy and cash flow history.

These funds have different investment models (e.g. acquisition versus joint venture) and sourcing strategies (existing developer networks, on-market transactions, off-market transactions, etc.) and fall along a spectrum as it relates to qualifying as a PWI. Currently, banks make up the majority of investor equity as investments in some of these funds qualify for their CRA investment test (and lending test if also providing debt to the fund). Other investor cohorts include a limited number of insurance companies as well as endowments, foundations, family offices and high net worth individuals. Investments by insurance companies has been limited presumably because of risk-based capital charges relative to returns.

Unlike LIHTC funds where properties are largely specified to the fund prior to investor equity closing, preservation funds are typically less specified during the marketing period. As a result, CRA investors may have to get comfortable making capital commitments without specific properties for CRA identified at closing. Subsequent geographic CRA targeting by the fund sponsor is often done on a best-efforts basis.

We currently work with a number of fund sponsors and, similar to the LIHTC market, pricing appears to have settled into an equilibrium and looks to remain stable through year-end barring unforeseen shocks to the industry or economy.

Across these sponsors, multi-investor fund sizes range from $50 to $750M with $100-200M being more typical. Preferred returns are generally in the 6.00 - 7.00% range on a pre-tax basis with total returns in the 8.00 – 11.00% range and it looks like this pricing will hold through 2019 and into early 2020.

Whereas many sponsors of LIHTC funds are able to launch and close two funds per year, the fund cycle for preservation funds has been considerably longer than LIHTC funds. Preservation funds typically have multiple closings over a year or more, and take longer to deploy that capital into property acquisitions due to strong competition for multi-family rental properties from both domestic and international investors.

Looking ahead, it does not appear that competition for multi-family properties will abate and a downward yield trend is expected across the broader U.S. multi-family sector. According to the Pension Real Estate Association's third-quarter Consensus Forecast survey, total returns in the apartment sector of 5.4 % and 4.6% are expected in 2020 & 2021 respectively. These expectations are in line with previous estimates, albeit with a slight uptick. While we expect Preservation fund yields to hold steady into the first half of 2020, assuming continued strong performance of the US rental market overall, it is likely that the increased competition in the preservation/workforce housing equity market may drive down yields at the fund level over time.

- https://www.spglobal.com/marketintelligence/en/news-insights/trending/h114zcaCKezNAUjn45kh-w2
- https://www.nreionline.com/finance-investment/prea-survey-continues-show-expectations-moderating-growth-sentiment-ticked-second

## CRA Reform & Modernization

CRA reform and modernization has been a topic of discussion since the Trump administration appointed Joseph Otting as the head of the Office of the Comptroller of the Currency (OCC). In mid-December, the OCC and Federal Deposit Insurance Corporation (FDIC) jointly announced proposed new rules for CRA that will impact the vast majority (approximately 85% according to the OCC and FDIC) of banks that invest for CRA purposes. As banks account for the lion's share of annual LIHTC equity investment, any change to these rules has the potential for a major impact on the LIHTC industry. Financial institutions regulated by the Federal Reserve (Fed) will not be covered by the proposed rule changes, but the Fed is expected to release its own proposals for CRA modernization sometime in early 2020.

# CRA Reform & Modernization Continued

## What We Know

The proposed rule changes can go into effect after a required 60-day comment period that will end March 9th, 2020. The proposed rule changes focus on four areas: 1) clarify and expand what types of activities that qualify for CRA; 2) expand geographic areas for qualifying CRA activity; 3) create objective measures of CRA activity and performance; 4) revise data collection, reporting and evaluation.

The document outlining the proposed rules is lengthy. For more information, the link is attached below. For our purposes, we have attempted to distill it down to how the changes could impact demand and LIHTC pricing if implemented.

1) Currently, LIHTC equity investments qualify for the "Investment Test" portion of CRA exam evaluations. Under the proposed rules, the Investment Test would be eliminated (along with other component tests) and replaced by a simple ratio: all qualifying CRA activity divided by the quarterly average of the bank's domestic deposits. Historically, LIHTC equity investments have been a primary vehicle for banks to meet their Investment Test and the elimination of the Investment Test could reduce demand for LIHTC investments.

2) The proposed rules greatly expand the list of activities that would qualify for CRA credit including investments in and loans to finance crucial infrastructure (bridges, roads, tunnels etc.) and buildings (schools, fire stations, hospitals, etc.) that benefit the greater public good. Given the scale of these types of projects, they could make it easier for banks to achieve their target CRA ratio and divert investment away from LIHTC and affordable housing.

3) The proposed rules also provide "double credit" for certain investments. It is unclear whether this would mean that an institution will only have to do half the amount of investing they have done in the past, or if this will provide an incentive to make CRA investments in addition to core lending activity.

4) CRA assessment areas will be defined in two ways going forward. There will be facility-based assessment areas (headquarters, branches, etc.), essentially as they currently exist, as well as deposit-based assessment areas. Based on our understanding, deposit-based assessment areas will be required if more than 50% of the bank's deposits come from outside of their facility-based assessment areas. Furthermore, deposit-based assessment areas will be defined for any areas where 5% or more the bank's deposits originate, tied to the depositor's physical address. It is also important to note that, the proposed rules also award CRA credit for qualifying activity outside of both of these assessment areas.

# CRA Reform & Modernization Continued

These proposed changes to CRA assessment areas should result in a reduction of CRA "hot spots" and provide more capital to underserved markets with the upshot for LIHTC likely being higher yields in what have historically been the most competitive CRA markets and lower yields in rural and underserved markets. Nonetheless, CRA will still be focused on physical branch locations and the non-overlapping areas where deposits originate, so regions with both will continue to see the most CRA-related activity.

There are some potential positives in the proposed rule changes, but like the negatives, the potential impact is hard to quantify at this point. For example, a minimum of 2% of CRA activity must go to community development loans or investments to achieve a "satisfactory", or "outstanding" rating. The new rules also favor long-term investments, like LIHTC, because it is a balance sheet measure. Furthermore, for banks to maintain their CRA activity ratio, they must grow CRA activity in proportion to deposit growth.

Based on the proposed changes, we believe demand for LIHTC equity investments will be negatively impacted over the long-term, which would result in falling LIHTC prices, rising yields, and therefore, decreased production of affordable housing units in the future. But the magnitude and timing is unknown and does not impact the six-month horizon that is the focus of this newsletter.

The new rules could go into effect as early as mid-February, giving the OCC and FDIC regulated institutions one year to comply with the record keeping provisions and two years to comply with the reporting requirements. These institutions will then be subject to evaluation under the new rules based on the timing of their respective CRA cycles. Therefore, affected institutions have will have over 2 years from the date the rules are finalized to comply with the new rules, which will fluctuate depending on their individual CRA cycles. In the interim, they will be focused on completing their existing CRA plans and exams. It would follow that changes to bank investing behavior may not begin for at least two years after the new rules go into effect, and will then occur on a rolling basis rather than simultaneously.

It is also possible that the proposed rules will be modified after the sixty-day comment period. With the Fed expected to announce their CRA modernization proposals sometime in early 2020, they could influence the final rules issued by the OCC and FDIC, and it is still to be determined what impact additional lobbying efforts may have on the final rules. Lastly, the durability of any rule changes is in question given the upcoming congressional and presidential election in 2020.

For more information, see the OCC's Summary of the Proposal and CRA Fact Sheet.

If you really want to dive into the details follow this link: Joint Notice of Proposed Rulemaking on Community Reinvestment Act (CRA) Modernization.

# The Affordable Housing Credit Improvement Act of 2019

While our industry hoped that some provisions from the Affordable Housing Credit Improvement Act (AHCIA) would be incorporated into the recently completed $1.4 trillion government spending package, they did not materialize and it is unlikely they will be considered again until after the 2020 elections. The signed legislation did include $1 billion of additional housing credit allocation for California disaster areas as mentioned in our summary and overview of the California regional fund market above.

To review, the impetus for the AHCIA comes from tax reform when the equity market decreased in size after the value of losses generated in LIHTC equity investments decreased as a result of the corporate tax rate adjustment from 35% to 21%. In March of 2018, Congress provided some relief with the temporary increase in LIHTC allocation of 12.5% for 9% credits for 4 successive years.

More comprehensive legislation is required to bring LIHTC back to pre-tax reform levels. The AHCIA was reintroduced in both houses of Congress with the support of the following congressional leaders: Senators Maria Cantwell (D-WA), Todd Young (R-IN), Ron Wyden (D-OR), and Johnny Isakson (R-GA), and Representatives Suzan DelBene (D-WA), Kenny Marchant (R-TX), Don Beyer (D-VA), and Jackie Walorski (R-IN).

Two significant impacts of the proposed bill are: (i) gradually increase the amount of 9% credits awarded over a five-year period by 50% and (ii) eliminate the floating rate at which 4% credits are calculated. This rate, which has recently hovered around 3.25-3.30%, would increase the floor to 4.00%, eliminating some of the guess work on behalf of developers and providing increased certainty in structuring affordable housing projects financed with tax-exempt bonds. Both provisions would increase the amount of available tax credits to the private market and consequently increase the supply of much needed affordable housing.

As mentioned above, we do not expect any progress with respect to AHCIA until potentially after the presidential election.

# Wrap Up

We anticipate circulation of our next market update in mid-July to coincide with the multi-investor LIHTC fund cycle. Please feel free to contact us with any follow-up questions, or if you'd like to discuss the LIHTC market and fund offerings in more detail. We thank you, as always, for your feedback and continue to welcome questions and comments. Hearing from you is the best way for us to continue to deliver the most relevant updates and information.

You can reach Dave Robbins at 617-340-7040 and Brian Rajotte at 503-575-9232.

Our thanks to John McDonald, Mike Connolly, Chris McCarthy and Garret Daigler at Beacon Hill Capital for their contributions and insights to this market update. You can reach them at 781-740-8981.

**Exhibit A:**

| Year of Investment | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| Cumulative LIHTC Foreclosure Rate | | | | | | | | | | |
| | 0.00% | 0.00% | 0.01% | 0.03% | 0.04% | 0.07% | 0.13% | 0.20% | 0.26% | 0.29% |

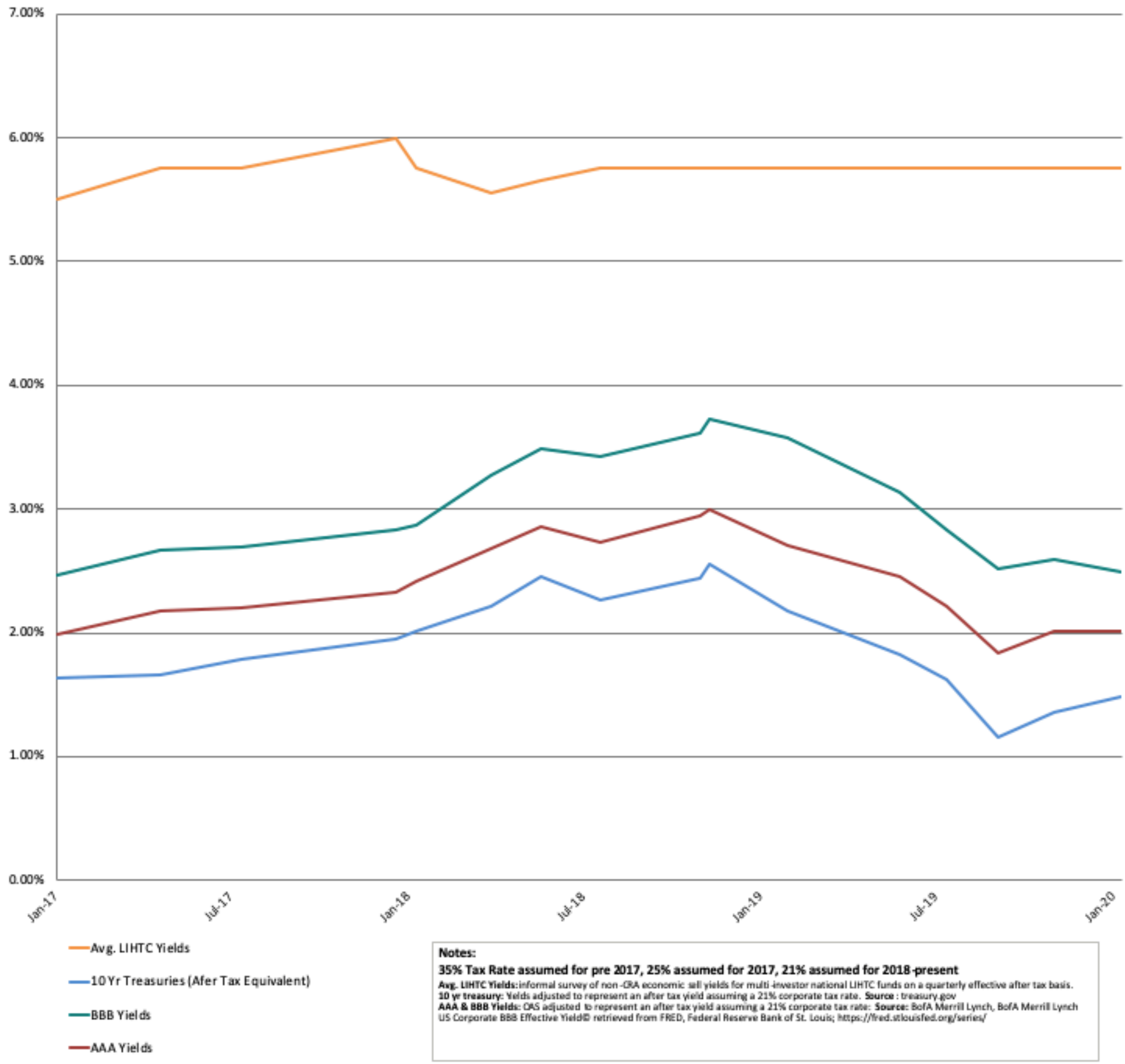
***Source:*** *CohnReznick LIHTC Industry Survey of 22,993 LIHTC properties (1997-2016)*

| Global Corporate Average Cumulative Default Rates by Rating Modifier (1981-2017) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| AAA | 0.00% | 0.03% | 0.13% | 0.24% | 0.35% | 0.46% | 0.51% | 0.60% | 0.65% | 0.71% |
| AA+ | 0.00% | 0.05% | 0.05% | 0.10% | 0.16% | 0.21% | 0.27% | 0.33% | 0.39% | 0.45% |
| AA | 0.02% | 0.03% | 0.08% | 0.22% | 0.36% | 0.48% | 0.61% | 0.72% | 0.81% | 0.91% |
| AA- | 0.03% | 0.09% | 0.18% | 0.25% | 0.33% | 0.45% | 0.52% | 0.57% | 0.63% | 0.69% |
| A+ | 0.05% | 0.09% | 0.20% | 0.34% | 0.45% | 0.55% | 0.66% | 0.79% | 0.93% | 1.08% |
| A | 0.06% | 0.15% | 0.24% | 0.36% | 0.49% | 0.68% | 0.86% | 1.03% | 1.23% | 1.47% |
| A- | 0.07% | 0.17% | 0.28% | 0.40% | 0.57% | 0.74% | 0.98% | 1.16% | 1.30% | 1.42% |
| BBB+ | 0.11% | 0.31% | 0.53% | 0.77% | 1.03% | 1.32% | 1.54% | 1.78% | 2.04% | 2.30% |
| BBB | 0.17% | 0.43% | 0.68% | 1.05% | 1.42% | 1.80% | 2.15% | 2.49% | 2.85% | 3.23% |
| BBB- | 0.25% | 0.77% | 1.39% | 2.11% | 2.84% | 3.50% | 4.09% | 4.65% | 5.11% | 5.53% |
| BB+ | 0.34% | 1.11% | 2.02% | 2.94% | 3.86% | 4.74% | 5.50% | 6.05% | 6.70% | 7.33% |
| BB | 0.56% | 1.71% | 3.38% | 4.94% | 6.52% | 7.77% | 8.89% | 9.85% | 10.75% | 11.53% |
| BB- | 1.00% | 3.13% | 5.37% | 7.66% | 9.66% | 11.62% | 13.24% | 14.80% | 16.04% | 17.12% |
| B+ | 2.08% | 5.71% | 9.23% | 12.21% | 14.53% | 16.33% | 17.98% | 19.43% | 20.77% | 21.97% |
| B | 3.60% | 8.29% | 12.29% | 15.46% | 17.89% | 20.15% | 21.66% | 22.76% | 23.77% | 24.81% |
| B- | 7.15% | 14.28% | 19.62% | 23.37% | 26.18% | 28.31% | 29.99% | 31.13% | 31.84% | 32.40% |
| CCC/C | 26.82% | 36.03% | 41.03% | 43.97% | 46.22% | 47.13% | 48.33% | 49.23% | 50.08% | 50.71% |
| Investment Grade | 0.10% | 0.26% | 0.45% | 0.68% | 0.92% | 1.17% | 1.40% | 1.61% | 1.82% | 2.03% |
| Speculative Grade | 3.75% | 7.31% | 10.39% | 12.90% | 14.95% | 16.64% | 18.05% | 19.23% | 20.27% | 21.21% |
| All Rated | 1.50% | 2.95% | 4.22% | 5.29% | 6.18% | 6.94% | 7.57% | 8.12% | 8.60% | 9.05% |

***Source:*** *Standard & Poor's Global Research*

**Exhibit B:**

Average LIHTC Multi-Fund Yield
vs. 10 Yr Treasury & BBB Index (After Tax Equivalent)

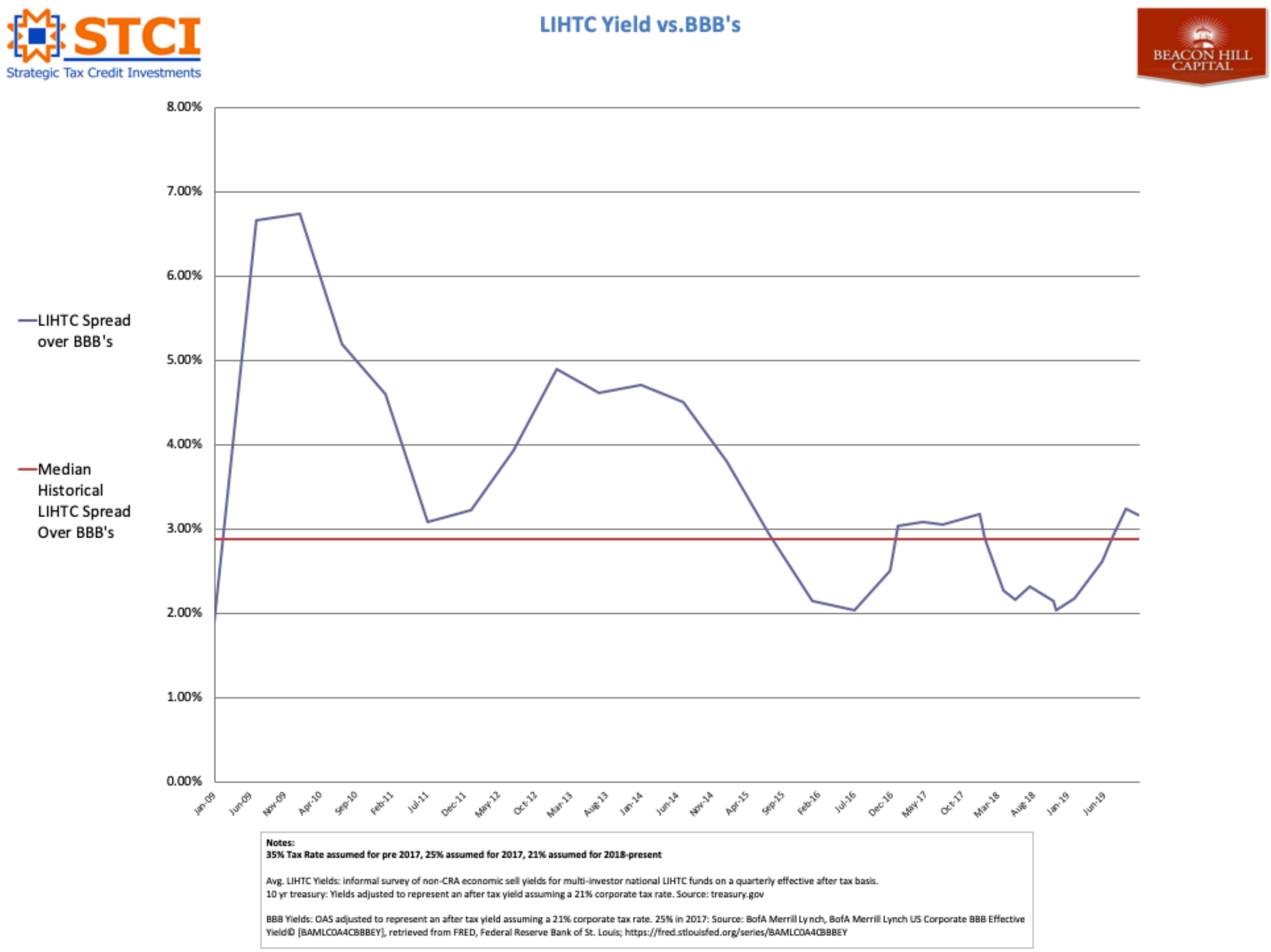



**Notes:**

**35% Tax Rate assumed for pre 2017, 25% assumed for 2017, 21% assumed for 2018-present**

**Avg. LIHTC Yields:** informal survey of non-CRA economic sell yields for multi-investor national LIHTC funds on a quarterly effective after tax basis.
**10 yr treasury:** Yields adjusted to represent an after tax yield assuming a 21% corporate tax rate. **Source** : treasury.gov
**AAA & BBB Yields:** OAS adjusted to represent an after tax yield assuming a 21% corporate tax rate: **Source:** BofA Merrill Lynch, BofA Merrill Lynch US Corporate BBB Effective Yield© retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/

**Exhibit C:**


STCI
Strategic Tax Credit Investments
LIHTC Yield vs.BBB's
BEACON HILL CAPITAL
8.00%
7.00%
6.00%
5.00%
4.00%
3.00%
2.00%
1.00%
0.00%
LIHTC Spread over BBB's
Median Historical LIHTC Spread Over BBB's
Jan-09
Jun-09
Nov-09
Apr-10
Sep-10
Feb-11
Jul-11
Dec-11
May-12
Oct-12
Mar-13
Aug-13
Jan-14
Jun-14
Nov-14
Apr-15
Sep-15
Feb-16
Jul-16
Dec-16
May-17
Oct-17
Mar-18
Aug-18
Jan-19
Jun-19
Notes:
35% Tax Rate assumed for pre 2017, 25% assumed for 2017, 21% assumed for 2018-present
Avg. LIHTC Yields: informal survey of non-CRA economic sell yields for multi-investor national LIHTC funds on a quarterly effective after tax basis.
10 yr treasury: Yields adjusted to represent an after tax yield assuming a 21% corporate tax rate. Source: treasury.gov
BBB Yields: OAS adjusted to represent an after tax yield assuming a 21% corporate tax rate. 25% in 2017: Source: BofA Merrill Ly nch, BofA Merrill Lynch US Corporate BBB Effective Yield© [BAMLC0A4CBBBEY], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/BAMLC0A4CBBBEY