SFA Strawman Discussion Proposal: Benchmark for Fixed Rate Structured Products

February 2022

SFA Strawman Proposal

Benchmark for Fixed Rate Structured Products

(for market comment & discussion)

In order to achieve market consistency, SFA is seeking feedback on the below options that have emerged from our survey of and discussions with structured finance investors, issuers and broker-dealers to assess the market's (1) preferred replacement benchmark to use in pricing and quoting fixed rate structured finance products where the LIBOR swap curve has historically been used and (2) preferred timing for such transition.

We will host a market discussion open to all industry participants on Wednesday, February 9th at 3:30 – 4:30

Dial-in Information
Dial-in: 917.962.0650
Conference Code: 391456
Unmute Code: 88*60496

We request all comments and questions by EOD Friday, February 18th

Please send comments and questions to:
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Strawman Proposal for Market Consideration

Benchmark for pricing and quoting fixed rate structured finance products ("Fixed Rate SF Benchmark"):	Either the Treasury [interpolated J-curve or interpolated I-curve]. [Market to make the determination between the two as soon as possible.]
	Background Information on Fixed Rate SF Benchmark: ▪ Based on our January survey (see Appendix I) and multiple market roundtables/forums (see Appendix II), institutional investors and broker-dealer respondents strongly prefer an interpolated Treasury-based benchmark. ▪ However, further discussion is needed to decide the specific Treasury curve to be used, the underlying calculation used for interpolation and which specific Bloomberg screen to use. Considerations:

	▪ The I-Curve — Per Bloomberg, "the conventional yield spread to an interpolated point on the yield curve that matches the bond's weighted average life, given the prepay assumption and price." — The I-Curve interpolates to the actual tenors of the on-the-run[1] Treasury bonds. Given this characteristic, some respondents offered that the I-Curve is more technically accurate than the J-Curve. Other respondents question this statement. — The I-Curve is the current pricing convention of the agency RMBS market. — The I-curve is used the primary benchmark used in pricing fixed-income securities. ▪ The J-curve — Per Bloomberg, "the conventional yield spread to the interpolated *nominal* yield curve, with a hypothetical (interpolated) maturity point set to the mortgage's weighted average life (WAL)". • The J-Curve interpolates to the nominal maturity of the closest on-the-run Treasury bond. — The CMBS market moved from the I-curve to the J-curve in the 1990s. ▪ In a flat yield-curve environment, the difference between the I-curve and J-curve will be slight. However, in a steep yield curve environment, a differential could exist that could meaningfully impact the pricing of the bond. ▪ Some dealers and investors are currently quoting to both Treasury curves in the market but some technical challenges exist due to certain system setups.
Interpolation Calculation Methodology and Corresponding Bloomberg Screen:	[TBD; based upon market selection between interpolated J-curve or interpolated I-curve].

[1] The "on-the-run" Treasury curve graphically shows the current yields versus maturities of the most recently sold U.S. Treasury securities and is the primary benchmark used in pricing fixed-income securities.

Background Information on Bloomberg Screen:

J-Curve

USTI (placeholder)

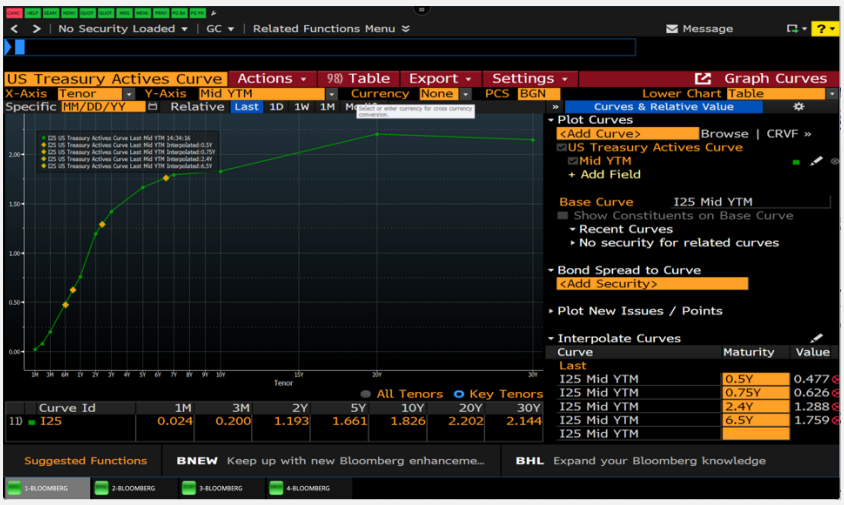
I-Curve

3.7 average life = 1.506 yield using ICUR

- Interest around using the Bloomberg ICUR page as a consistent reference for the benchmark calculation, however this page will be retired in late 2022

GC I25

3.7 average life = 1.510 yield using GC I25 (see below for Bloomberg page)



Transition Date:	Beginning on [Friday, April 1, 2022 / Monday April 4, 2022], pricing and quoting will be based on Treasury [J-curve / I-curve]
Transition Period:	Between today and [Thursday, March 31, 2022 / Friday, April 1, 2022] structured finance participants will continue to price and quote based on the interpolated LIBOR swap curve. During the transition period it is recommended that market participants consider also providing the spread to the interpolated Treasury [J- or I-curve] as a means to tie out calculations prior to the Transition Date.
	Background Information: ▪ Based on our January survey (see Appendix I) and multiple market roundtables/forums (see Appendix II), there is a strong market desire to move by the end of the 1Q22. Considerations: ▪ Would the market like to transition exactly on the quarter-end which is a Friday? Or wait until Monday, April 4th?

Appendix I: SFA Survey: Benchmark for Fixed Rate Structured Finance Products

STRUCTURED FINANCE ASSOCIATION

SFA Survey: Benchmark for Fixed Rate Structured Products

January 11, 2022

SFA surveyed structured finance investors, issuers and broker-dealers to assess the market's (1) preferred replacement benchmark to use in pricing and quoting fixed rate structured finance products where the LIBOR swap curve has historically been used and (2) preferred timing for such transition.

Key Takeaways

- A vast majority (~77%) of institutional investor survey respondents prefer the use of a Treasury-based benchmark.
  - Of the instutional investors selecting a Treasury-based curve as their desired replacement benchmark, ~92% specified their preference for using the Treasury J- or I-curve.
- A similar percentage (~78%) of broker-dealer respondents also prefer the use of a Treasury-based curve – with the vast majority of those broker-dealers expressing their top choice as the Treasury J- or I-curve.
- We had a very small universe of issuer respondents to the survey, which we understand from some issuers is, at least in part, due to some issuers chosing not to express a view as they prefer to prioritize achieving a market consensus amongst investors and broker-dealers that supports maximum market liquidity and eliminates any market confusion that could reduce the liquidity the market benefits from today.
  - With that caveat, of the small number of issuer respondents (10, across an array of asset classes), 60% prefer using the SOFR swap curve, 30% prefer using a Treasury-based benchmark and the remaining 10% had expressed a preference for a Treasury-based for one asset class they issue and the SOFR swap curve for the other.
- Survey respondents across issuers, investors and broker-dealers prefer to move to a new benchmark sooner rather than later with 73% of respondents selecting their top preference is transitioning in the 1Q .

Respondent Preferred Benchmark

Our survey, conducted in December 30, 2021 through January 10, 2022, reflects input from 75 respondents representing diverse perspectives across large diversified financial institutions, investors and securitization issuers.

Figure 1

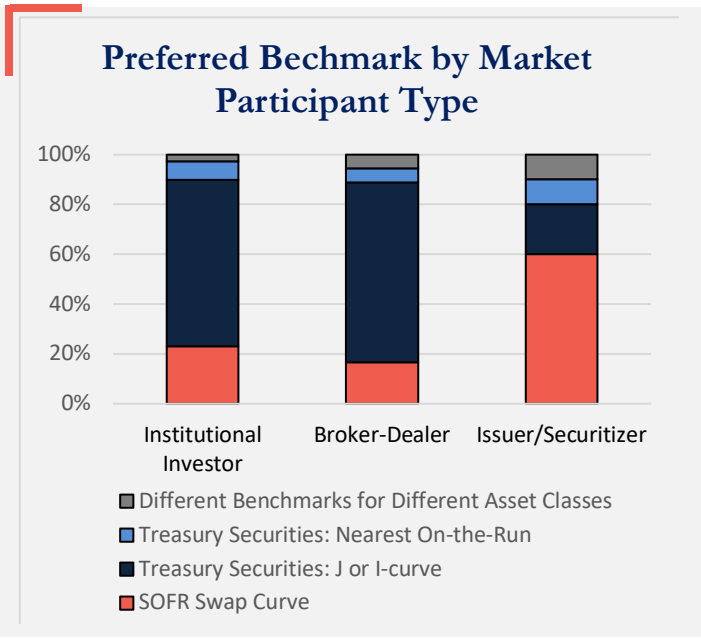


Figure 2

Survey Respondent Commentary: Preferred Benchmark

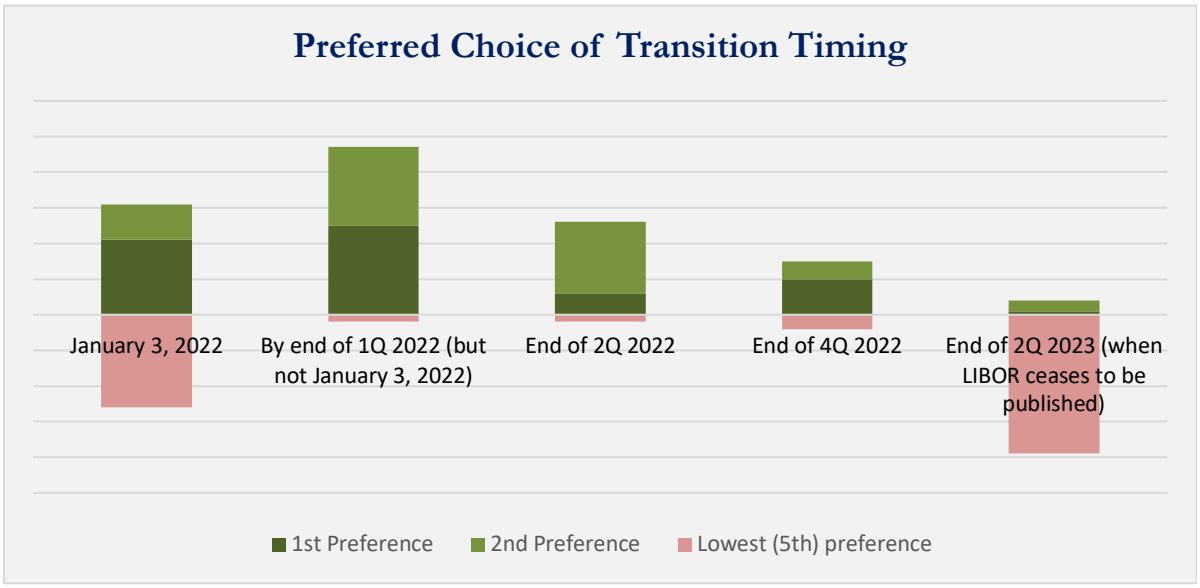
- [XYZ broker-dealer's] strongest view is that CMBS and CLO should use SOFR swaps. For ABS and RMBS, we are amenable to either SOFR swaps or interpolated Treasuries, though we note that for interpolated Treasuries the market will need to further agree upon how to calculate such an interpolation. To interpolate between SOFR swaps, the market would use the methodology that currently exists with LIBOR swaps.
- Suggest BBRG I25 (ask) curve as benchmark source. For 2y+ bonds, this is the tsy component of our current mid-mkt libor swap construct.
- Z-spread to Treasury (constant spread to spot)
- I prefer using the I-spread rather than the J-spread. This uses the literal maturity instead of the nominal maturity. There isn't MUCH difference, but I prefer I-spread.
- All fixed structured to J curve

  Feel it quite important for all Structured sectors to be in sync and CMBS seem to be clearly moving to J curve.
- SOFR for CLO since it is primarily floating rate
- Market standard risk free rate where you can actually acquire treasuries as an alternative, better hedging in the short end, will make us more directly comparable to other markets on a relative value basis
- The I curve is a suitable option for the market as well. I curve would be preferred but can live with the J curve

  Using SOFR swaps as a fixed-rate benchmark will allow for more apples-to-apples comparison vs floating-rate securitizations that are issued at a spread over compounded SOFR. Money managers are also more likely to use SOFR swaps to hedge duration, so quoting a spread over the natural hedge will be more intuitive.

- As detailed in Figure 2, below, **market respondents overwhelming (73%) have a preference to transition to a new benchmark within the 1Q 2022**.
  - Transitioning on January 3rd was a very divisive date with as many respondents chosing it as their first choice as respondents chosing it as their 5th or last choice.
  - By the end of 1Q 2022 received as many first choice selections as January 3rd; however, very minimal chosing it as their last choice and significantly more chosing it as their 2nd choice vs January 3rd .

Figure 3



Survey Respondent Commentary: Transition Timing

Rationale for Immediate to 1Q Transition

- no reason to kick the can
- We are due to actually make a change ASAP
- The sooner we come to a market consensus on a replacement benchmark, the better for the market
- We believe this change should be made as soon as practicable, because liquidity of LIBOR swaps may deteriorate quickly given supervisory guidance that banks should no longer enter into new LIBOR contracts. The market should make this change in pricing benchmarks during 1Q'22, and sooner rather than later.
- There's no reason to stretch out the transition- we all know it needs to happen, let's get on with it.
- Let's move on asap.
- LIBOR swaps becoming less liquid/relevant
- Concern that Libor swap mkt will increase in vol as it goes away
- this can be implemented right now
- The sooner the better. The longer we deal with lack of consensus, the more at-risk we are for market liquidity/health to begin to suffer from the uncertainty. It matters less what we choose, and more that we all make a choice.
- J-curve is immediately available on Intex, Trepp, and Bloomberg. Pending industry discussion, an expedient and efficient can take place at any time.
- The sooner the better. Just makes sense to move on from this transition rather than drag it on. Might not be that simple but that is my opinion.
- CMBS already seems to be moving to J curve
- Realistic timing for "ASAP"
- asap to minimize uncertainty
- No reason to wait and no switching costs.
- Any delay will lead to disagreements on relative spreads across products and impact liquidity.
- Would prefer as immediate transition as possible.
- Regardless of whatever date is set, there will be a transition period of 1-2 months after that date. Therefore no reason to stall or delay the timing. Can't set the date for Jan 3rd given that the survey was just released on Dec 30th. Set end of 1Q which will give the market time to adopt a new standard and "double quote" during the transition, then stop using Swap curve starting April 1
- The sooner we start the transition the better. We still have the flexibility to look at deals off of swaps and the new benchmark so that should help ease the transition.
- We want the market to transition as soon as possible, so that when we do finally come to market, the new curve has been in use and investors are comfortable with it.

Rationale for Needing a little bit more time – be it end of 1Q or later

- Need to have a unified decision for the market.
- Gives issuers a little more time to get comfortable.
- We don't have any models or processes that would have difficulty moving to a new benchmark, so we'd rather get on with the transition.
- Achieve a balance of (1) observing/assessing new benchmark convention (2) switching to new benchmark before old benchmark is volatile/less reliable.
- Agreement and operationalizing won't be done timely enough. It may be to run parallel
- Let SOFR market settle in
- 12 months should be plenty of time for everyone to get up to speed
- Minimal market disruption, better continuity across products.
- More time to develop a consistent timeline.
- Sooner is better. But understand that this is impossible because the key issue will be to limit liability from the switch. And that would be hard to do within the next quarter.

Appendix II: Key Takeaways from SFA Roundtable Discussion

After LIBOR:
Pricing Benchmark Convention for Fixed Rate ABS

Market Survey Request
and
Key Takeaways from SFA Roundtable

By:
Kristi Leo, President
Elen Callahan, Head of Research

Survey Request

Securitization Issuers, Investors and Broker-Dealers: Your Input is Needed. This survey seeks your view on the benchmark convention that should be used for pricing and quoting relative value of fixed rate asset-backed bonds in the primary and secondary markets after the market transitions away from the LIBOR Swap Curve.

Background

The impact of the LIBOR transition on new and legacy *floating rate* structured finance products has been the primary focus of our market. **However, LIBOR's end will also bring a significant change to *fixed rate* structured finance products which are priced and quoted primarily off a swap rate curve that's derived from LIBOR-based future contracts.** Thus, it is imperative for the market to come together as it has in the transition of floating rate LIBOR products to build an agreed market consensus solution. **Without market consensus around a replacement pricing benchmark, the market could experience initial confusion. And, if sustained, this confusion could negatively impact liquidity and pricing levels in both the primary and secondary markets.** This is a particular concern for the ABS market which has become increasingly fixed rate. In 2012, fixed rate ABS contributed 63% of that year's new issuance. By years 2020 and 2021, fixed rate ABS represented 96% of total new issuance, according to Deutsche Bank Securitization Research.

Key Takeaways: SFA Roundtable

SFA members convened over 100 members including investors, issuers, broker-dealers for a December 28th roundtable to discuss this needed market transition away from the LIBOR Swap Curve. The roundtable featured an interactive and robust dialogue on a number of important topics related to the transition of pricing and valuing structured finance bonds in the primary and secondary markets. Below we highlight the key considerations discussed across the following areas:

1. Potential benchmark replacements for the LIBOR Swap Curve
2. Need for a single consistent benchmark replacement
3. How to the interpolation convention will work for the replacement benchmark
4. Timing of transition away from the LIBOR Swap Curve

1. Potential Benchmark Replacements for the LIBOR Swap Curve

Not surprisingly, the main issue discussed **was what benchmark should replace the LIBOR Swap Curve** used today to price the vast majority of fixed rate structured finance bonds. Market participants offered their perspectives on three alternative benchmarks: (1) On-the-Run Treasury Securities, (2) Treasury Securities Interpolated J-curve and (3) SOFR Swap Curve.

- **Treasury Securities (On-the-run Treasuries or Interpolated Treasury J-curve)**
  Yields on Treasury securities are in theory free of credit risk and are often used as a benchmark to evaluate the relative value of most non-Treasury bonds. Asset-backed bonds are one of the few historical exceptions. One of the most common pricing benchmarks for non-ABS bonds are "on-the-run" Treasuries which reflects the most recently issued bonds or notes of a particular maturity. When the maturity or weighted average life of a bonds does not coincide exactly with the maturity of a specific on-the-run Treasury bond – such as almost all amortizing ABS bonds – benchmark pricing curves are constructed using the yields of the underlying on-the-run bonds with maturities from three months to 30 years.

  Many market participants of the roundtable, expressed interest in considering the use of Treasuries as the pricing benchmark replacement for fixed rate ABS bonds. Key takeaways on the advantages and potential drawbacks of Treasury securities raised during the roundtable were:

  - Allows for better clarity around yield changes due to changes in credit risk of the ABS bond as the benchmark is risk-free.
  - Reflects a benchmark used by the broader fixed income market allowing for simpler comparison to other fixed income products.
  - Increases selling potential to crossover buyers as pricing off swap curve is "unique" for non-ABS fixed income investors.
  - Provides straightforward hedging for certain products.
  - Some market participants also raised potential concerns to the use of a Treasury Securities benchmark including:
    - Lower liquidity of Treasuries further out the curve, especially beyond 5 years – which would introduce another component to the benchmark, a liquidity premium, that isn't largely present in today's LIBOR Swap Curve.
    - Practicality of using Treasury Benchmark for the such varied weighted average lives of amortizing securitization bonds.
    - Heightened sensitivity of Treasuries to technicals such as interest rate movements, inflation and economic growth which could causing a "noisier" benchmark vs. a SOFR Swap Curve (i.e., more day-to-day volatility).

- SOFR Swap Curve

  Similar to the LIBOR swap curve, the SOFR swap curve plots the swap rates across various periods to detail the market's expectations for where future short-term floating SOFR rates will set in one year, two years, three years and so on. Given the liquidity and large size of the LIBOR swap market where new swaps with standard maturities are issued on a daily basis, the LIBOR swap curve provided what the market considered a liquid forecast horizon. Likewise, many roundtable participants noted they believed the SOFR swap curve, once it achieves a significant level of liquidity, should be the benchmark curve used for pricing and quoting fixed rate asset backed bonds. Key takeaways on the advantages and potential drawbacks of using the SOFR swap curve raised during the roundtable were:

  - Provides a risk-free curve.
  - Affords greater stability during periods of market volatility.
  - Represents minimal change to the benchmark convention used in the securitization market today (provided the similar liquidity builds for SOFR swaps as existed for LIBOR swaps).
  - Some market participants raised potential concerns to the use of the SOFR Swap Curve benchmark, including:
    - Applicability to medium and longer-dated structured finance bonds.
    - Whether the SOFR swap curve can achieve the same sharpness that the LIBOR swap curve provides today.
    - Requires significant increase in liquidity and trading swap volumes – which is generally expected to occur quite quickly as all new swap trades must move away from LIBOR.
    - Likely the only fixed income sector to use the SOFR Swap Curve as a benchmark.

2. Need for a Single Consistent Benchmark

There was generally universal agreement across roundtable participants that there needs to be consensus across the issuers, investors and broker-dealers for a universal benchmark used across the structured finance market.

- A number of issuers emphasized that their main priority was achieving market consensus with the goal of supporting maximum market liquidity and eliminating any market confusion that could reduce the liquidity the market benefits from today.

3. Opened Questions on How Interpolation Convention Will Work

There was consensus across the roundtable participants that there needs to be further market discussions around the interpolation conventions that would be used for each of the alternative benchmarks being seriously considered. This was especially emphasized for the Treasury benchmark alternatives where the intent was to mimic the US Investment Grade market's use of on-the-run Treasuries and apply it to amortizing securitization deals without precise 1, 2, 3, 5 year maturities.

4. Transition Timing

Another key topic of discussion was the timing of transition. Market participants explored if there is a requirement or need to immediately transition to a new benchmark on January 3, 2022, or could the

LIBOR swap curve continue to be used for some period of time while market participants assess the optimal new benchmark and convention including allowing time for the SOFR Swap Curve to build further liquidity. Main takeaways surrounding this topic were:

- **Most market participants felt a "light-switch" approach to turn off the use of the LIBOR Swap Curve at year-end 2021 would raise critical risks to the market.**
- Broker-dealers expressed that they **need to consider the supervisory guidance to end use of LIBOR by December 31, 2021** other than for trades related to risk management of existing positions – and how that guidance applies to the use of the LIBOR Swap Curve for benchmarking ABS.
- Some roundtable participants noted that **any transition period would likely need to be relatively short anyway** given concerns that the LIBOR Swaps Curve may become more volatile and less reliable as new LIBOR trades are ceased.

5. Next Steps

As a next step, we agree to seek market participants' benchmark preferences via a survey – and use that information to guide our future discussions on the benchmark conventions. Please provide your input to the survey.

We look forward to continuing work with SFA membership on the transition away from the LIBOR Swap Curve to help ensure as seamless transition to a new benchmark as possible for the structured finance market. If you'd like to join future market discussions, and haven't already registered, you can do so here.

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