FINASTRA

Future proofing investments in corporate lending

With the imminent transition from LIBOR to Alternative Reference Rates (ARR) or Risk Free Rates (RFR) causing operational challenges to banks and lenders, the need for automation is becoming increasingly clear.

With Finastra's Fusion LIBOR Transition Calculator, applications can calculate key backward-looking, compounded ARR rates, for a given period or for a predefined set of tenors, based on the published ARR rates or ARR Compounded Index, as well as the corresponding interest amounts.

There is no doubt the LIBOR transition is the biggest change the market has seen in lending over the last 20-30 years. With banks required to use a unique daily market rate for each currency, released by different authorities at different times, the need for automation is significant. This highly disruptive event in the lending market brings along complexities around interest calculations using these rates and significant operational impact.

This challenge is increased when each market is leaning towards a different way of doing it, therefore making it necessary to accommodate a range of activities that supports the conversion of lending portfolios from legacy LIBOR-based lending language to new Alternative Reference Rates (ARRs) and Risk Free Rates (RFRs).

Banks must prepare for and manage a period where some deals remain linked to LIBOR while others have transitioned to a new ARR, depending on the jurisdiction of the instrument and this disruption is exacerbated with a diverse portfolio of loans.

Legacy systems lack the ability to process ARR / RFR priced loans, given they weren't designed to perform these calculations, and implementing complex system changes can be costly. The need to have a flexible service that can expand over time as these ARR / RFR methodologies evolve is more important than ever.

But what if a bank doesn't have such a flexible, consolidated solution in place for ARR rate and interest calculation yet? Finastra has created a calculation service for applications and legacy systems that are unable to calculate their own ARR / RFR-based rates and interest accruals.

The Fusion LIBOR Transition Calculator would independently source the ARR / RFRs from external official sources such as the Federal Reserve Bank of New York for SOFR and other domestic data sources, then calculate rates –average compounded in arrears rate and daily non-cumulative compounded rates, along with corresponding interest accrued amounts for a set of inputs.

Fusion LIBOR Transition Calculator will be continually expanded over time as ARR methodologies/conventions evolve, shielding the financial institution using this calculator service from complex system changes. One example would be the incorporation of alternate Observation Period Shift methodology based on market recommended best practices.

Finastra's Fusion LIBOR Transition Calculator is set apart from other offerings on the market by three powerful attributes

How it works

A client can call the ARR/RFR calculator service passing in certain loan parameters (such as Interest cycle start and end dates, etc.) and ARR/RFR parameters (such as Rate Type, Lookback/Lockout Days, Benchmark Spread Adjustments, etc.) and be returned the Average Compounded ARR Rates (Average Compounded in Arrears Rate or Daily Non-Cumulative Compounded Rates) and/or interest accrued for the period specified.

These calculated rate value(s) and/or accrued interest amounts can directly be plugged by the legacy system to address conventional interest accruals calculation needs.

Secondly, it provides ability to retrieve the official Compounded ARR Period Averages for standard tenors wherever published, and otherwise, calculates them for a set of non-standard tenors, for certain key risk-free reference rates.

Lastly, it provides an alternate option to calculate the Average Compounded ARR Rate using daily published ARR Index, wherever available.

Open up a wealth of ideas

Our open platform, FusionFabric.Cloud, underpins the Fusion LIBOR Transition Calculator, which seamlessly integrates Finastra's Fusion Loan IQ ARR calculation methodology into other core lending solutions within the bank via a series of Open APIs.

To access our latest lending APIs, visit our developer portal on FusionFabric.Cloud

Key solution benefits

A trusted methodology

The solution follows Finastra's Fusion Loan IQ ARR calculations which gives banks both consistent and accurate results, every time. The need to have an agile system is more important than ever so we've ensured there's the flexibility to calculate the daily compounding rates for the whole period or only for the end date.

Seamless integration

The Open API based offering can integrate efficiently and seamlessly with legacy systems that are not prepared for the transition, thereby significantly reducing operational risk for banks.
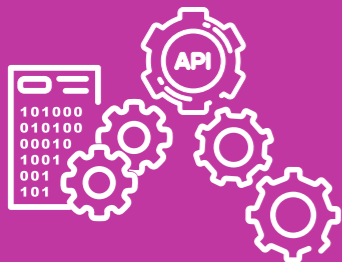
Future proofing your business

As the world's largest lending solution provider, we have the knowledge and expertise to continually expand the calculator service in line with the evolving market and regulatory needs, future-proofing your business from any additional investments due to market developments related to this transition.

Let's take a closer look at how the Fusion LIBOR Transition Calculator can support in individual use-case basis.

Average compounded rates calculator

Challenges

- Complex, time consuming interest calculations based on multiple ARR conventions or protocols

- Legacy lending systems are not prepared for ARR calculation transition. Upgrading them may require significant investment or may not be feasible in certain cases

- The looming timeline to cease new LIBOR originations in 2020 introduces significant operation and reputational risk for banks.

Solution

Fusion LIBOR Transition Calculator provides the option to calculate either the Average Compounded in Arrears Rate or the Daily Non-Cumulative Compounding Rates for the provided start/end dates (such as interest cycle dates) and other ARR parameters, by leveraging key daily published risk-free reference rates.

The calculated rate(s) value can directly be plugged by the legacy system to perform conventional interest accrual calculations.

Compounded ARR based accrued interest calculator

Challenges

- Legacy lending systems are not prepared for ARR calculation transition. Upgrading them may require significant investment or may not be feasible in certain cases

- Need to display daily interest calculations in borrower bills

- Reconciliation/validation of amounts in lender notices on a syndicated deal is an arduous task if the lender doesn't have a system capable to calculate ARR based interest accrued amount.

Solution

Fusion LIBOR Transition Calculator not only calculates the Compounded ARR Rates - Average Compounded in Arrears Rate or the Daily Non-Cumulative Compounding Rates - but additionally computes the accrued interest amounts (Cumulative Accrued interest or Daily Accrued interest respectively), based on provided loan parameters such as interest cycle dates, loan balance amounts, etc. along with other ARR parameters.

These results can directly be plugged in as accrued interest amounts in the legacy applications, or be used to reconcile the interest accrued details in a lender notice.

Calculate average compounded rates for different tenors

Challenge

- There is a growing need in the loan market to have an easy access to Average Compounded ARR Rates over a range of set time periods

  The Federal Reserve Bank of New York, for example, has started publishing the Compounded SOFR Period Averages for 3 standard tenors – 30, 90 and 180 day – from March 2nd, 2020. Such pre-calculated ARR rates for any other non-standard tenors, however, are not presently available

- Banks need easy access to ARR Compounded Rates for more flexible compounded periods in order to price loans with non-standard interest cycles. This is especially useful to calculate interest for loan contracts using "Compounded in Advance", the rate that is calculated by looking over the past 90 days (say) to lock in the rate for the next 90 days, or for contracts where interest is not known until the end of the interest period.

Solution

Fusion LIBOR Transition Calculator retrieves the official Compounded ARR Period Averages for standard tenors wherever published, and otherwise, calculates them for a set of non-standard tenors, for the provided date and other ARR parameters, by leveraging key daily published risk-free reference rates data.

Calculate average compounded rates based on ARR index

Challenge

- There is a growing need to simplify the calculation of Compounded ARR Rates in order to support their use in a wide range of financial products, and to enable a successful transition away from LIBOR

- The Federal Reserve Bank of New York, for example, has started publishing a daily SOFR index from March 2nd, 2020 that would allow banks to calculate the compounded average rates over custom time periods in a relatively simpler way

- Banks are looking at simpler ways to validate the interest calculations, and help eliminate calculation mismatches, therefore reducing operational risk.

Solution

Fusion LIBOR Transition Calculator provides the option to calculate the Average Compounded in Arrears Rate for the provided start/end dates (such as interest cycle dates) and other ARR parameters, by leveraging the daily published ARR Index, wherever available.

The calculated rate value can either directly be plugged by the legacy system to perform conventional interest accrual calculations or used as an alternate and reliable verification method of the long form of calculating the Average Compounded Rate.

Setting you up for transition success

Built on Finastra's <u>FusionFabric.Cloud</u>, Finastra's open and collaborative developer platform and marketplace for financial solutions, the Fusion LIBOR Transition Calculator's service works independent of Fusion Loan IQ, which can be seamlessly integrated into your lending systems, unlocking the potential to leverage Finastra's Fusion Loan IQ ARR calculation methodologies onto your other systems.

End Points

1. Calculated Rate – Using Average Compounded in Arrears

2. Calculated Rates – Using Daily Compounding in Arrears (NCCR)

3. Interest Calculator – using Average Compounded in Arrears

4. Interest Calculator – Using Daily Compounding in Arrears (NCCR)

5. Calculated Rate for different Tenors

6. Calculated Rate using ARR Index

Summary

Calculates the ARR rate based on Average Compounded in Arrears for the provided start/end dates (such as interest cycle dates) and other ARR parameters, by leveraging the daily published risk-free reference rate.

Calculates the ARR rates based on Daily Compounding in Arrears (Non Cumulative Compounded Rate) for the provided start/end dates (such as interest cycle dates) and other ARR parameters, by leveraging the daily published risk-free reference rate.

Calculates the ARR rate based on Average Compounded in Arrears and accrued interest amounts for the provided loan parameters such as interest cycle dates, loan balance amounts etc. and other ARR parameters, using the daily published risk-free reference rate.

Calculates the ARR rate - based on Daily Compounding in Arrears (Non Cumulative Compounded Rate), accrued interest amounts, including the daily interest breakdown, for the provided loan parameters such as interest cycle dates, loan balance amounts etc. and other ARR parameters, using the daily published risk-free reference rate.

Retrieves the official Compounded ARR Period Averages for standard tenors wherever published, and otherwise, calculates them for a set of non-standard tenors (such as 7 days, 60 days, etc.) for the provided date and other ARR parameters, by leveraging key daily published risk-free reference rate data.

Calculates the Average Compounded in Arrears Rate for the provided start/end dates (such as interest cycle dates) and other ARR parameters, by leveraging the daily published SOFR Index.

About Finastra

Finastra is building an open platform that accelerates collaboration and innovation in financial services, creating better experiences for people, businesses and communities. Supported by the broadest and deepest portfolio of financial services software, Finastra delivers this vitally important technology to financial institutions of all sizes across the globe, including 90 of the world's top100 banks. Our open architecture approach brings together a number of partners and innovators. Together we are leading the way in which applications are written, deployed and consumed in financial services to evolve with the changing needs of customers. Learn more at **finastra.com**

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