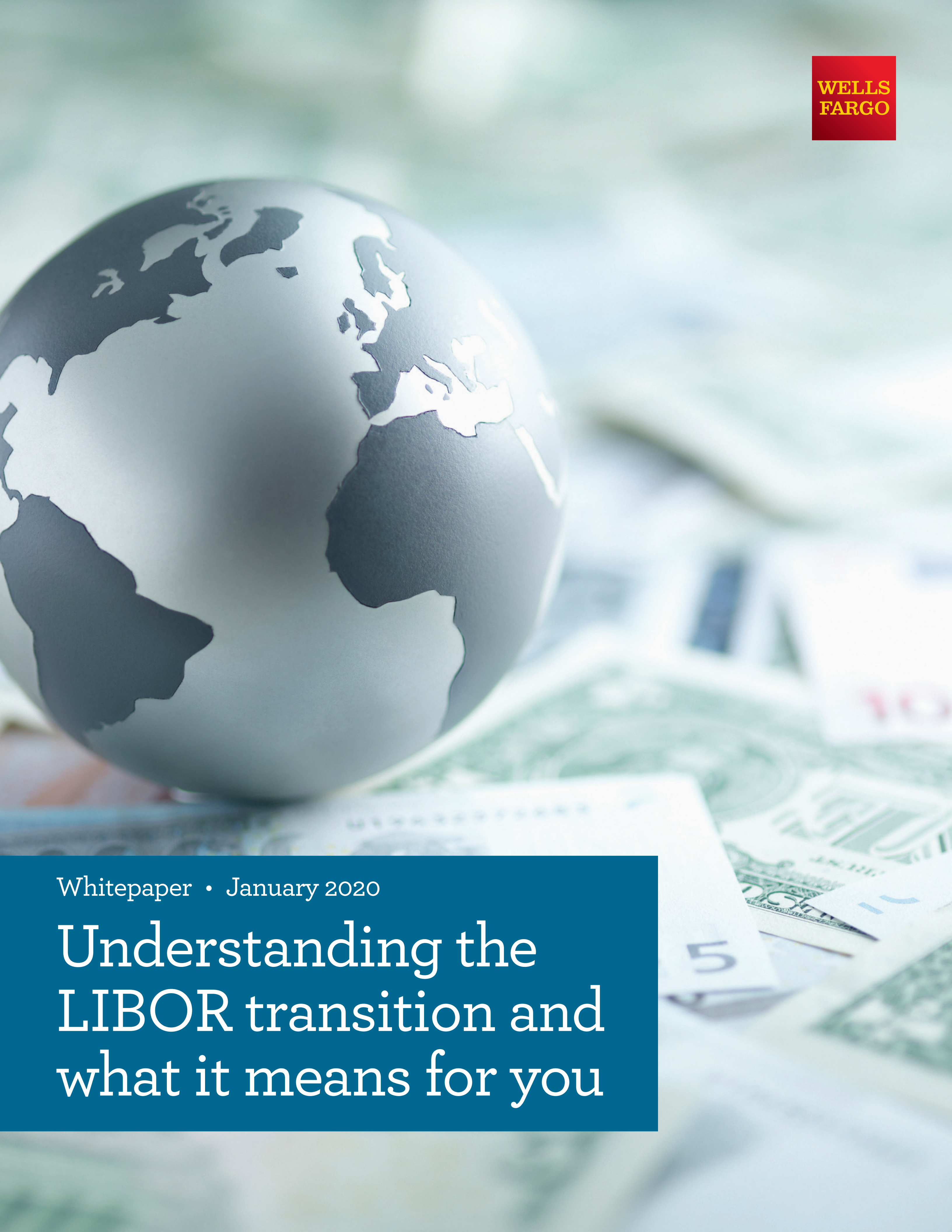

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Understanding the LIBOR transition and what it means for you

What is LIBOR and why is it important?

Interbank Offered Rates (IBORs), including the London Interbank Offered Rate (LIBOR) are interest rate benchmarks that represent the cost of short-term, unsecured, wholesale borrowing by large banks. IBORs are published for a variety of currencies and tenors.

A critical component of the financial system, the IBORs are used in a very wide spectrum of products ranging from residential mortgages to corporate bonds to derivatives (and everything in between) and by some estimates underpin more than $350 trillion of financial contracts.

Why transition away from LIBOR?

The financial crisis that began in 2007 prompted the first major concerns over LIBOR's credibility, as the rate behaved in unpredictable and volatile ways that were inconsistent with other market rates and prices. As the volume of direct borrowing underpinning LIBOR submissions decreased, LIBOR panel banks relied on hypothetical transactions and expert judgement.

Despite improvements made post-financial crisis, the volume of transactions supporting LIBOR continues to shrink and, as a result, the regulator of LIBOR, the U.K.'s Financial Conduct Authority, called for the market to transition to more robust reference rates around the world.

What will LIBOR be replaced with?

Regulators worldwide have convened currency-based working groups to select alternative reference rates (ARRs), sometimes called "risk-free rates," to serve as alternatives or replacements for the different currency IBORs. The ARRs are set forth in the table below:

Currency	Existing rate	Alternative Reference Rate	Industry Working Group
USD	LIBOR	**SOFR**, Secured overnight financing rate	Alternative Reference Rates Committee (ARRC)
EUR*	LIBOR, EURIBOR	**€STR**, Euro short term rate	Working Group on Euro Risk-Free Rates
GBP	LIBOR	**SONIA**, Sterling overnight index average	Working Group on Sterling Risk-Free Reference Rates
JPY*	LIBOR, TIBOR	**TONA**, Tokyo overnight average	Study Group on Risk-Free Reference Rates
CHF	LIBOR	**SARON**, Swiss average rate overnight	National Working Group on Swiss Franc Reference Rates

*The Euro Short Term Rate (€STR) will replace the Euro Overnight Index Average (EONIA), at the end of 2021. No potential cessation date has been given for EURIBOR or TIBOR at this time.

How are ARRs different from IBORs?

ARRs differ from IBORs in several fundamental ways. IBOR rates are forward-looking term rates which incorporate unsecured bank credit risk. In contrast, ARRs are overnight interest rates which incorporate little or no credit risk. Furthermore, the markets underpinning the ARRs are significantly more active than the markets underpinning the IBORs. Therefore, while IBORs may rely on expert judgement, ARRs are transaction-based.

Benchmark	IBORs	ARRs
Tenors	Published for various tenors; LIBOR tenors include: overnight, 1 week, 1 month, 2 months, 3 months, 6 months and 12 months	Overnight
Secured vs. Unsecured	Unsecured	Secured: SOFR and SARON; Unsecured: €STR, SONIA and TONA
Credit risk	Incorporates a term bank credit spread	Minimal credit risk
Rate determination method	Relies in large part on expert judgement, due to low volume in underlying market	Transaction-based; Significant volume

Is the transition the same for all IBOR currencies?

In some jurisdictions, the new ARRs are expected to coexist alongside certain reformed IBORs, such as EURIBOR in Europe and TIBOR in Tokyo. While each working group is focused on their specific currency transition, there is a global effort to work across jurisdictions in recognition of the global impacts of the LIBOR transition.

What is the timeline for the LIBOR transition?

Regulators across the globe have directed the market to prepare for a world where LIBOR no longer exists by the end of 2021. That date is based on an agreement that the regulator of LIBOR (the U.K.'s Financial Conduct Authority) has with the panel banks to continue submitting LIBOR estimates through the end of 2021. In addition, even before LIBOR stops being published, regulators may announce that it is no longer representative of the relevant underlying markets, which could affect the market's ability to continue using an "unrepresentative" benchmark.

The timing of any of these developments is uncertain and may vary across different currencies and tenors in which LIBOR is currently produced and may differ from other interest rate benchmarks.

How is Wells Fargo preparing for the transition?

Wells Fargo recognized the LIBOR transition posed a critical risk to the company and our customers. As a result, in February 2018, Wells Fargo established a dedicated, enterprise-level office called the LIBOR Transition Office (LTO), staffed with people whose full-time focus is the LIBOR transition. The LTO is comprised of subject-matter experts in derivatives, credit products, cash products, and consumer products, as well as project management, finance, risk, legal, communications, and all other major disciplines that are necessary for a successful transition. In addition to providing oversight for the enterprise transition work, the LTO represents Wells Fargo on industry groups and committees related to the LIBOR transition.

What will the LIBOR transition mean for customers?

Customers will need to understand the new alternative reference rates, why the industry is moving away from LIBOR, and how these changes may impact new and existing IBOR-linked contracts. Customers should consider whether and when to transact in products that reference new ARRs.

Customers should consider reviewing existing contracts to ensure they contain robust language that sets forth the steps to be taken, or the interest rate to be applied, should an IBOR be discontinued during the term of a contract. These contract provisions are commonly referred to as "fallback language."

For derivatives, the International Swaps and Derivatives Association (ISDA), after consultation with market participants, is developing more robust fallback language to include in its standard definitions for use in new derivatives transactions. ISDA will also publish a protocol to allow market participants to include the new fallback language in existing or legacy transactions for adhering counterparties. Wells Fargo plans to adhere to the protocol and we will reach out to our derivatives customers as this develops.

At Wells Fargo, we are taking steps to ensure our customers have the necessary support through this transition. Our goal is to ensure our customers are informed with the appropriate information and equipped to make educated decisions. **For more information please contact your Wells Fargo relationship manager.**

LIBOR Transition Risks
This information is not intended to override, and should be considered in conjunction with, any disclosures, or other statements identifying potential risks provided to you by Wells Fargo. The events described in these Materials could have unpredictable and material consequences for transactions, products, and services that require payments or calculations to be made by reference to LIBOR. These consequences include, but are not limited to, the following:

(a) changes to the way in which LIBOR is calculated, or differences between the way a replacement rate and LIBOR are calculated, could significantly affect the value, price, cost and/or performance of affected contracts;

(b) replacement rates for LIBOR may differ across affected contracts, and those differences may create material economic mismatches with any affected contracts used for hedging or similar purposes;

(c) some existing affected contracts may not provide for any replacement rate; as such, there could be disputes about what replacement rate applies when LIBOR is unavailable or is no longer representative or whether contracts are enforceable in the absence of any replacement rate;

(d) new alternative rates are likely to be developed over time and these new rates may be significantly different from both LIBOR and replacement rates that are currently being considered;

(e) existing or new regulations may limit the ability of market participants to enter into new transactions, products, or services linked to LIBOR if a determination or announcement is made that LIBOR is no longer representative of the relevant market;

(f) Wells Fargo may have rights to determine a replacement rate for LIBOR for affected contracts, including any price or other adjustments to account for differences between the replacement rate and LIBOR, and the replacement rate and any adjustments we select may be inconsistent with, or contrary to, your interests or positions; and

(g) moving from LIBOR to a replacement rate may raise a variety of tax, accounting, and regulatory risks.

Wells Fargo cannot provide any assurances as to the consequences, or likely costs or expenses associated with any of the changes arising from the LIBOR transition, though they may be important to you. The above is provided for informational purposes only and is not intended to apply to any specific customer or transaction.