

White Paper

Getting Ahead of the New Curve in Reference Rates

The Implications of EONIA and EURIBOR Reform on Banks, and How to Manage the Transition

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EONIA and EURIBOR are the reference rates for financial contracts with a nominal value of more than €150 trillion. But they are about to be replaced. The quantity of unsecured interbank lending has collapsed and, following the LIBOR price-manipulation scandal, regulators seek to reduce the role of expert judgement in setting reference rates. By January 2020, EONIA will be replaced by an entirely new short-term (overnight) reference rate, and the derivation of the EURIBOR term-rate will be significantly revised.

Because EONIA and EURIBOR are ubiquitous in contracts between banks and their counterparties, and commonly used in valuation modelling and internal transfer pricing within banks, nearly every part of the balance sheet and nearly all front-to-back processes are affected. The shifting to new reference rates presents banks not only with one-off transition costs, but with significant risk. If the old rates are no longer published, existing contracts referencing them will need to be renegotiated, presenting not only direct financial risk, but also legal, conduct, and reputational risks that attend such a sensitive process. Redesigning products, hedges, and valuation models for use from 2020 presents the same risks. Get things wrong, and a bank's balance sheet, legal position, and reputation with customers could all be damaged.

On a stand-alone basis, the implementation effort for many banks will be comparable to IFRS 9, potentially €50 million to €100 million for smaller banks to as much as €350 million for G-SIBs. To make the most of this spend, banks should use the enforced reference rate transition as an opportunity to create synergies with other regulatory or operating model initiatives—upgrading their pricing and risk-management frameworks in the process—and move to a more agile and cost-efficient model landscape, data platform, and IT infrastructure. Taking advantage of such synergies could reduce the cost of the combined project by up to 20%.

Out With the Old Rates, in With the New

Euro-denominated financial contracts—from simple mortgages to complex derivatives—rely on two main “reference rates:” the euro overnight index average (EONIA), derived

from overnight unsecured interbank transactions, and the euro interbank offer rate (EURIBOR) for monthly tenors of up to 12 months, based on submissions from a panel of banks. Both rates concern unsecured lending between banks. Since the financial crisis, however, transaction volumes in these markets have declined by more than 90%. Moreover, following the LIBOR price-fixing scandal, reliance on expert judgement has become a point of concern for regulators.

Hence the publication of a set of principles for financial benchmarks by the International Organization of Securities Commissions (IOSCO),¹ and another by the European Banking Authority (EBA) together with the European Securities Market Authority (ESMA),² which specify standards of quality and independence for financial benchmarks. A review of the existing euro reference rates deemed them to be inconsistent with the specified principles. EONIA volumes are so low that it will need to be replaced, while EURIBOR needs to be revised so that it relies less on the expert judgement of a small number of panel banks. The deadline for the application of new benchmarks is January 1, 2020.

The replacement for EONIA has been settled. In June 2018, the ECB's Governing Council decided on the final methodology for calculating the euro short-term rate (ESTER), which will reflect the observed wholesale euro unsecured overnight borrowing costs of banks in the Eurozone (with expected volumes of about €30 billion per day). The methodology for calculating ESTER took feedback received in two public consultations into account, and also adhered to the international standards set by IOSCO on financial benchmarks. ESTER is highly correlated with EONIA (the average spread being +9bps from 2016-18), although less volatile. ESTER will officially be published from October 2019 based on data already available to the Eurosystem.

The revision of EURIBOR, however, is not yet finalized, and consultation will continue through the second half of 2018. EMMI, the publisher of EURIBOR, has suggested a hybrid method, drawing on both observed market rates and submissions from panel banks in a

¹ The Board of International Organization of Securities Commissions (IOSCO): Principles for Financial Benchmarks (Final Report), July 2013

² ESMA-EBA Principles for Benchmark-Setting Processes in the EU, 6 June 2013

three-step process that complies with the new principles on reference rate fixing. However, maintaining a term structure for EURIBOR (so that the reference rate varies with time to maturity) remains a methodological sticking point.

Nor is the transition process yet clear. The old rates may continue to be published for some period after the new rates are introduced, or they could come to an abrupt end (although this seems unlikely). And jurisdictions are making the transition at different speeds. (See Exhibit 1). While the substitution of EONIA and EURIBOR are still many months away, futures contracts referencing replacements for short-term indices have already gone live in the US and the UK — respectively, the Secured Overnight Financing Rate (SOFR) based on the Treasury repurchase market, and the Sterling Overnight Index Average (SONIA).

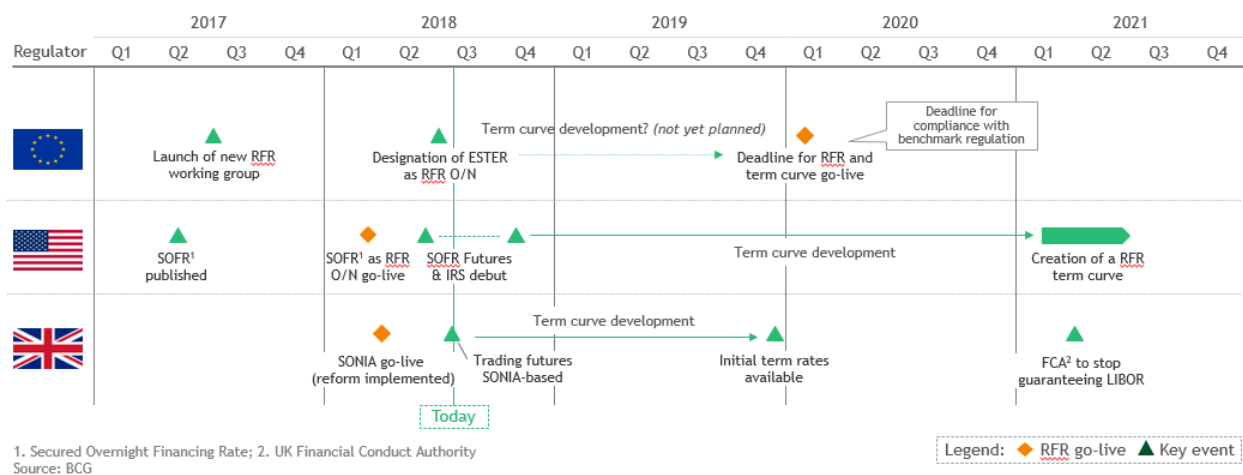


Exhibit 1: Timeline for the Introduction of New Reference Rates

The Transition Is a Challenge for Any Bank

Shifting away from the old reference will require banks to redesign not only the products that now refer to them, but also the valuation, hedging, and other risk-management models that use them as a key parameter. Internal steering mechanisms will also need modification. For example, funds transfer pricing (FTP) for a vanilla fixed-rate loan is usually constructed from the variable deposit rate and a swap (which would use the reference rate). The transition to a new reference rate may therefore entail changes to

the FTP and, hence, to measured performance of the business units. Targets and other performance-based steering mechanisms must be adjusted accordingly.

With both first- and second-line functions affected, the transition will be costly. BCG estimates range from €250 million to €350 million for G-SIBs, and €50 million to €100 million for smaller banks. But this predictable cost is small compared to the risks entailed by the transition.

After the transition date of January 1, 2020, many extant contracts will refer to EURIBOR and EONIA rates which may then be unavailable. Financial contracts typically include “fall-back” clauses which specify the rate to be used if the reference rate becomes unavailable. However, these are designed with the assumption that the reference rate will be unavailable for a short period only. Replacing the reference rate with the fall-back rate for the remaining life of the contract could provide one party to the contract with windfall gains and the other with corresponding losses. Or, to put it another way, it could dramatically change the value of the contracts a bank has entered (on both the asset and liability side), and thus alter its balance-sheet position.

If EURIBOR and EONIA continue to be reported after January 1, 2020, banks would have the option of persisting with the old contracts that reference them. However, this too would entail risk because these rates have been deemed inconsistent with the new IOSCO and EBA principles for reference rates. Banks that continue to use these rates may be exposed to costly regulatory interventions.

To reduce these risks, banks will need to renegotiate contracts prior to 2020. However, finding new terms that prevent the bank from incurring losses on each contract could be cumbersome. And the process will be legally perilous, exposing banks to the risk of lawsuits or interference by regulators. These risks will arise even when banks are adjusting rates without contractual impediment. New reference rates will still have the potential to alter the value of products that use them, with the potential to arouse discontent among customers and regulators, especially in the retail banking space where customers are deemed to require greater protection.

In short, the introduction of new reference rates presents banks with considerable financial, legal, and reputational risks. To minimize them, the transition process—including communication with clients and regulators—must be carefully planned and managed.

How to Manage the Transition

To successfully manage the transition to the new reference rates, banks will need to undertake a series of tasks, which we outline below.

- **Assess and mitigate the financial impact.** Banks must understand the size of their (external and internal) exposures to the transition, and where they are located. This means identifying all products and contracts to which they are party that reference EONIA or EURIBOR.

Once exposures are identified, the bank will need to estimate the gains or losses from moving to the new rates for all instruments, subject to fair-value considerations. This assessment should cover changes in the fair value of assets and liabilities, the P&L impact, and the impact on OCI and on overall capital. In addition, the stability of hedge accounting relationships needs to be reconsidered. This is especially important when the basis for the reference changes—for example, from unsecured to secured, or from the offered side to the bid side. This may require discussions with auditors to avoid any unintended accounting effects.

Banks should also attend to the potential impact on regulatory metrics of liquidity or capital, which may need to be recalibrated to the new reference yield curves. They should also consider various scenarios—for example, regarding the ongoing availability of the old reference rates and the timing of changes to products and risk models. This assessment will automatically reveal the lines of business and products that are most affected by the transition and, hence, where efforts should be concentrated.

Finally, an action plan to mitigate the financial impact of the transition should be formulated. This plan will specify actions for the transition period itself (such as avoiding new long-term contracts priced off the old reference rates), and preparations for future business with the new rates—such as redesigning products and valuation models to use the new reference rates.

- **Ensure compliance with the new rate-fixing method.** As noted, EMMI has suggested a three-step rate-fixing method that is internal to panel banks. Management must ensure that the first and second lines of defense are prepared to provide the input demanded by this new rate calculation. Any required changes from the status quo should be identified as soon as possible, so that they can safely be made before 2020.

To minimize compliance and legal risk, Chinese walls must be created by a clear separation of the trading businesses from the units involved in calculating and submitting the rates, which might imply some changes in organizational structures and processes. More generally, the process will require efficient governance, controls, and policies that ensure the integrity of the rate submissions.

- **Engage with counterparties.** Having identified its exposures, the bank will need to start dealing with the counterparties concerned. First, the bank must identify the contractual details for every contract, perhaps using optical character recognition technology (where legacy contracts are not in digital form), and robotic process automation to handle the potentially vast number of contracts concerned.

Second, the bank needs a plan for dealing with these counterparties—perhaps deciding simply to run-off contracts that reference EONIA or EURIBOR (assuming these rates continue to be published), or deciding on terms to recommend when renegotiating contracts so that they reference the new rates. The answers may well vary by customer segment and product.

Then the practicalities of the process must be handled. This means deciding how to contact clients—by phone, email, letter, or in person—and who should contact them. Again, this communication strategy is likely to vary with the type of counterparty concerned. Is it a retail customer, another bank, a corporation, an SME, or a pension fund?

Initial contact to explain the new reference rates and the need for contract changes should be made at the lowest cost possible—for example, by using robotic process automation to retrieve a contract from legacy IT systems, and generating mail automatically. When counterparties reject the initial proposal, or demand more information, banks will need to evaluate the trade-off between the negotiation costs and the gains to be had from engaging in it. In some cases, it may be better to quickly acquiesce to a renegotiation that (slightly) favors the counterparty. This will also minimize legal and reputational risk. In all cases, the clients should be approached well in advance of the transition to allow them to understand its rationale and necessity.

- **Establish a pricing and valuation framework for the future.** The new rates that replace EONIA and EURIBOR cannot simply be plugged into the old pricing schedules. ESTER+50bps, for example, will not be the same as EONIA+50bps, and the revised EURIBOR is unlikely to have the same term structure as the old one. So banks will need to create new pricing yield curves, adapting their margin spreads to the new reference rates to ensure no loss of margin.

Yields curves are typically used in many pricing, valuation, and risk-management models across a bank. To ensure that nothing falls through the cracks, the transition team should make an inventory of all the models in the bank that employ yield curves based on EONIA and EURIBOR. Many of these models may need to be recalibrated to the new yield curves and, potentially, validated by the local regulator. The changes may also need to be reflected in the specification of pricing and risk limits for frontline staff. The implications for hedge accounting relationships, OCI, and capital must be assessed and potential mitigation plans formulated.

Banks should take advantage of the opportunity created by these required changes to improve their overall pricing framework. Pricing should be harmonized so that a consistent logic is applied across the bank, even when the important drivers of the optimal price differ between products and lines of business. This harmonization should be delivered by a single central pricing engine that uses modern technology, such as micro services and cloud computing, to store the necessary data and make the pricing model easily accessible to front-line staff. Where discretionary pricing is required, the technology should also make simulation tools available to the relevant staff. The efficiency gains and improved price realization delivered by this technology will more than compensate for the investment cost.

Master Complexity and Get Ready for the Future

The work required to transition to the new rates will be technical and detailed. Banks must protect themselves from the downsides of a badly managed transition. But program managers must also avoid getting lost in the details. As the replacement of reference rates touches so many elements of a bank's front-to-back operating model, it overlaps with many other ongoing or planned projects. In the worst case, these other initiatives will need to be reprioritized to free up budget and resources for the reference rate program. In the best case, however, synergies of up to 20% can be achieved by smooth coordination. Successfully executing a large program of overlapping project initiatives requires central management that adheres to six guiding principles. (See Exhibit 2.)

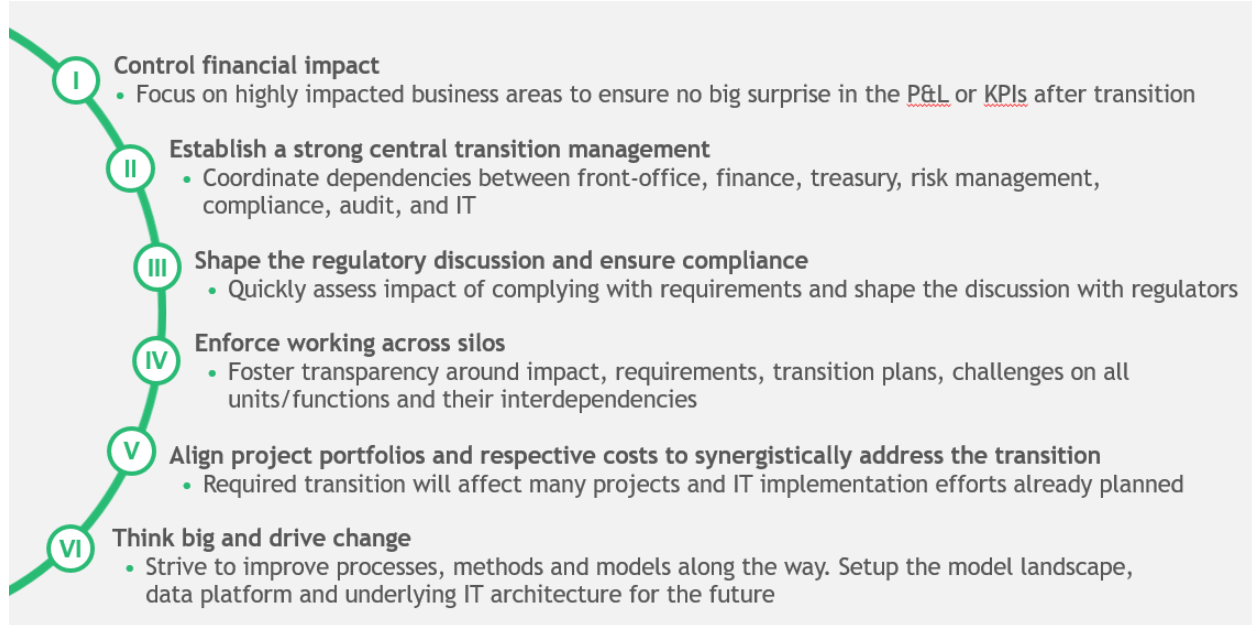


Exhibit 2: Six Guiding Principles for an Effective Reference Rate Transition

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The transition to new reference rates is not a strategic decision by any bank. It is a consequence both of shifts in market liquidity and increased regulatory engagement. Nevertheless, if banks use the transition as an “imposed opportunity,” they can not only minimize the financial and operational risks, but greatly improve their pricing systems, model landscape, data platform, and IT infrastructure.

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