Dear Sirs,

in its ongoing work on the accounting implications of the Reference Rate Reform, the FASB (and the IASB) has until now focused on facilitating a transition from e.g. LIBOR to SOFR for existing hedges, derivatives and floating rate bonds as smooth as possible.

One significant technical challenge doesn’t seem to be on the current agenda: The amortization/accretion of premium and discount for floating rate bonds based on overnight rates like SOFR.

Judging from the SOFR based bonds issued until now, it seems that the coupons paid are based on compounding or averaging the daily SOFR rates during the coupon period, ending a few days before the actual coupon to facilitate correct and timely settlement of the amounts.

In short, the coupon rate is fixed in arrears and the best guess on the coming coupon changes daily (on business days) based on overnight rates published the day after it was observed.

An amortization calculation requires a purchase yield and a cash flow. With a daily changing coupon rate, the cash flow also changes daily.

As a provider of investment management software to a number of US financial institutions (and worldwide), we and our customers need a workable solution to this amortization challenge for floating rate notes based on SOFR and similar overnight reference rates.

A workable solution for determining the purchase yield is to assume the coupon rate known at the purchase date to continue unchanged throughout the lifetime of the bond.

At intervals this yield must then be adjusted (prospectively) corresponding to the subsequent changes in the coupon rate and thus in the cash flow.

There are two main methods for calculating amortization, the multiplication method and the discounted cash flow method.

Without IT support, the discounted cash flow method is a daunting task. With IT support, it comes at no extra effort, given the capability of theoretical pricing.

It is an inherent artefact of the multiplication method to accumulate an over- or under-amortization to maturity. Ideally only in the order of cents due to accumulated rounding differences, but if you let yield and cash flow get “out of sync” the amounts can be significant.

If you apply the discounted cash flow method without adjusting the yield, the over- and under-amortization will appear continuously over the lifetime as amortization jumps at every cash flow change.

Which in our analysis leaves one acceptable solution, the discounted cash flow method with regular yield updates.

We see a simplified and a complex path to implement this.

- Simplified approach:
  The cash flow used for amortization (and only amortization) is fixed at every coupon date, assuming the latest paid coupon to remain fixed for the rest of the lifetime. During the coupon period, the amortization calculation is based on this cash flow. On the next coupon date, the yield and the cash flow for amortization are updated and the process repeats.
Complex approach:
On every day where the coupon rate and the cash flow change, the yield is updated. E.g. in a workflow with monthly amortizations, this monthly amortization calculation will loop through all the dates since the previous amortization and perform a cumulative yield adjustment day by day.
The (prospective) yield adjustment is in both approaches based on – as of the date of the cash flow change – calculating an up-to-date net present value (clean value) based on the current cash flow and the current yield. This up-to-date value is then set against the new cash flow to calculate the new, updated yield.

The questions we would want to put to the EITF is: Has the EITF (or the FASB) considered a recommended amortization process for bonds with a coupon fixed in arrears or guidelines for which methods would be acceptable?

Best regards

ARNE E. JØRGENSEN
Product Manager, Director
ABOR Product Management DK