# CECL guidebook

## Part 3

*Applying the current condition and reasonable and supportable forecasts to loss rate methodologies*

# Opening perspective

*Since the Financial Instruments — Credit Losses (CECL) accounting standard was issued in June 2016, Plante Moran has been working at the forefront to implement the most complex methodologies and pioneer simplicity with loss rate methodologies.*

Regulators have consistently indicated that community institutions don't need complex models. In our **CECL guidebook part 2: Loss rate calculations of the allowance for loan and lease losses**, released in June 2018, we illustrated several less complex methodologies suitable for community institutions. This CECL guidebook, part 3, takes the next step toward using these simpler loss rate methodologies. Specifically, we illustrate how to apply the current condition and reasonable and supportable forecast adjustments.

## Methodology commentary

The Financial Accounting Standards Board (FASB) has allowed a great deal of flexibility when it comes to CECL. Institutions can choose from among several methodologies that range in complexity, as illustrated in diagram A.
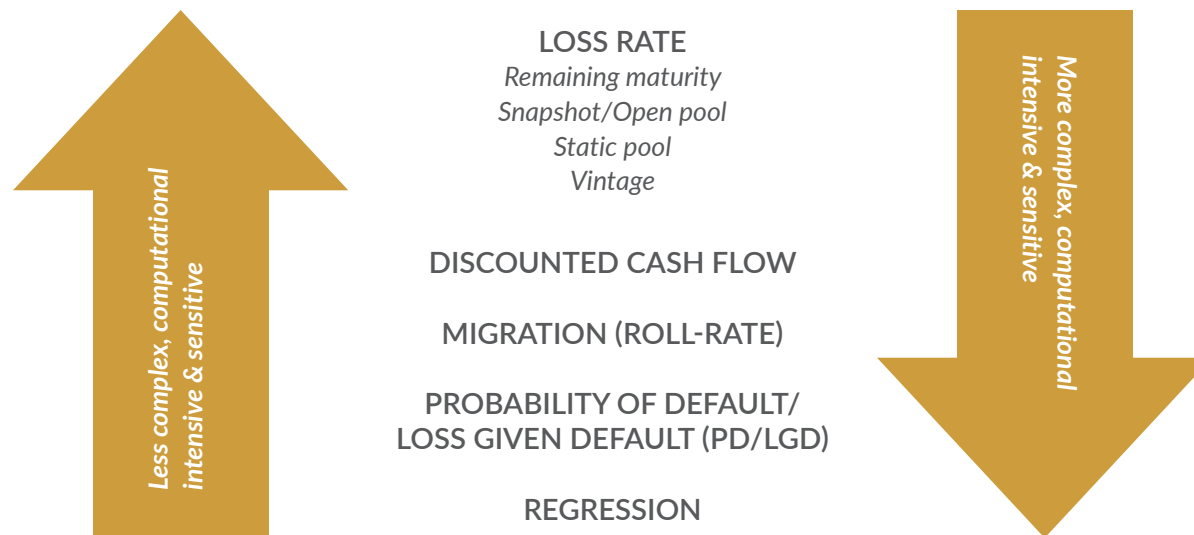
A key factor in a methodology's complexity is the use of loan-level data. In general, the more complex the methodology, the more loan-level data is required for the calculation to be complete and accurate. When selecting a methodology, then, you want to ensure you have a full understanding of all the inputs required and their accuracy.

A common mistake we see is that institutions select a methodology prior to fully understanding the loan-level data required and the potential limitations arising from inadequate historical information.

## THE RESULT?

A fork in the road that forces a choice: Expend resources to ensure adequate loan-level and historical information, or employ a more simplistic methodology for which loan-level data requirements are minimal and historical data are readily available.

## Diagram A

**LOSS RATE**
*Remaining maturity*
*Snapshot/Open pool*
*Static pool*
*Vintage*

**DISCOUNTED CASH FLOW**

**MIGRATION (ROLL-RATE)**

**PROBABILITY OF DEFAULT/
LOSS GIVEN DEFAULT (PD/LGD)**

**REGRESSION**

*Less complex, computational intensive & sensitive*

*More complex, computational intensive & sensitive*

## Understanding the current condition and reasonable and supportable forecast adjustments

Since illustration 1 within the accounting standard is the snapshot method, this guidebook first focuses on the snapshot method. Note however that, as you can see in diagram A, this method isn't the least complex method a community institution could use.

The least complex methodology for community institutions is the weighted-average remaining maturity, or WARM, method, and this guidebook includes additional commentary about its use.

But first, let's take a step back. The CECL adjustments have been causing the industry a lot of anxiety — anxiety we believe may be fueled by the lack of awareness about what the accounting standard itself actually says. In the quotes below, taken directly from the standard, we indicate important concepts for applying these adjustment factors. We start with ASC 326-20-55-4:

*"Because historical experience may not fully reflect an entity's expectations about the future, management should adjust historical loss information, as necessary, **to reflect the current conditions and reasonable and supportable forecasts not already reflected in the historical loss information.** In making this determination, management should consider characteristics of the financial assets that are relevant in the circumstances. To adjust historical credit loss information for current conditions and reasonable and supportable forecasts, **an entity should consider significant factors that are relevant to determining the expected collectability.**"*

What's important to note here is the overall purpose of the current condition and reasonable and supportable forecast adjustments. That purpose is simple: To take into account the difference between the period in which the historical loss rate information was derived versus where we are today in a credit cycle and overall portfolio.

To achieve this, ASC 326-20-55-4 also provides 11 factors for an entity to consider. You might notice that these are very similar to the qualitative factor items included in the 2006 *Interagency Guidance regarding the Allowance for Loan Losses.* The 2006 guidance was based on the incurred loss rules, and was updated with a 2020 Interagency Policy Statement on Allowances for Credit Losses, but the qualitative factors to consider are consistent between the two frameworks.

*"Examples of factors an entity may consider include any of the following, depending on the nature of the asset (not all of these may be relevant to every situation, and other factors not on the list may be relevant):*

1. *The borrower's financial condition, credit rating, credit score, asset quality, or business prospects.*

2. *The borrower's ability to make scheduled interest or principal payments.*

3. *The remaining payment terms of the financial asset(s).*

4. *The remaining time to maturity and the timing and extent of prepayments on the financial asset(s).*

5. *The nature and value of the entity's financial asset(s).*

6. *The volume and severity of past due financial asset(s) and the volume and severity of adversely classified or rated financial asset(s).*

7. *The value of underlying collateral on financial assets in which the collateral-dependent practical expedient has not been utilized.*

8. *The entity's lending policies and procedures, including changes in lending strategies, underwriting standards, collection, writeoff, and recovery practices, as well as knowledge of the borrower's operations or the borrower's standing in the community.*

9. *The quality of the entity's credit review system.*

10. *The experience, ability, and depth of the entity's management, lending staff, and other relevant staff.*

11. *The environmental factors of a borrower and the areas in which the entity's credit is concentrated, such as:*

    a. *Regulatory, legal, or technological environment to which the entity has exposure.*

    b. *Changes and expected changes in the general market condition of either the geographical area or the industry to which the entity has exposure.*

    c. *Changes and expected changes in international, national, regional, and local economic and business conditions and developments in which the entity operates, including the condition and expected condition of various market segments."*

Further, ASC 326-20-55-18 to 22 demonstrates how to apply a loss rate methodology to a pool with a 10-year life, as follows:

*"After **comparing historical information for similar financial assets with the current and forecasted direction of the economic environment, Community Bank A believes that its most recent 10-year period is a reasonable period on which to base its expected credit-loss-rate calculation after considering the underwriting standards and contractual terms for loans that existed over the historical period in comparison with the current portfolio.** Community Bank A's historical lifetime credit loss rate (that is, a rate based on the sum of all credit losses for a similar pool) for the most recent 10-year period is 1.5 percent. The historical credit loss rate already factors in prepayment history, which it expects to remain unchanged. Community Bank A considered whether any adjustments to historical loss information in accordance with paragraph 326-20-30-8 were needed, before considering adjustments for current conditions and reasonable and supportable forecasts, but determined none were necessary."*

Note that the guidance specifically indicates that the institution select a historical period that is both consistent with the contractual term of the loans in the pool and consistent with underwriting characteristics. Both of these items are conditions of the portfolio as of the measurement date compared to the period in which the loss rate was derived.

Additionally, paragraph 21 continues to apply the 11 items listed above, but it focuses primarily on items 7 and 11, as follows:

> "In accordance with paragraph 326-20-55-4, Community Bank A considered significant factors that could affect the expected collectability of the amortized cost basis of the portfolio and **determined that the primary factors are real estate values and unemployment rates**. As part of this analysis, Community Bank A observed that real estate values in the community have decreased and the unemployment rate in the community has increased as of the current reporting period date. Based on current conditions and reasonable and supportable forecasts, Community Bank A expects that there will be an additional decrease in real estate values over the next one to two years, and unemployment rates are expected to increase further over the next one to two years. To adjust the historical loss rate to reflect the effects of those differences in current conditions and forecasted changes, Community Bank A estimates a 10-basis-point increase in credit losses incremental to the 1.5 percent historical lifetime loss rate due to the expected decrease in real estate values and a 5-basis-point increase in credit losses incremental to the historical lifetime loss rate due to expected deterioration in unemployment rates. **Management estimates the incremental 15-basis-point increase based on its knowledge of historical loss information during past years in which there were similar trends in real estate values and unemployment rates.** Management is unable to support its estimate of expectations for real estate values and unemployment rates beyond the reasonable and supportable forecast period. Under this loss-rate method, the incremental credit losses for the current conditions and reasonable and supportable forecast (the 15 basis points) is added to the 1.5 percent rate that serves as the basis for the expected credit loss rate. No further reversion adjustments are needed because Community Bank A has applied a 1.65 percent loss rate where it has immediately reverted into historical losses reflective of the contractual term in accordance with paragraphs 326-20-30-8 through 30-9. **This approach reflects an immediate reversion technique for the loss-rate method.**"

The bolded text focuses on two factors for determining the historical period: collateral and economic forecast items. The key to applying these qualitative factors is to identify the items that primarily correlate to credit loss and match those to historical periods.

The guidance from the accounting standard provides a framework for the current condition and reasonable and supportable forecast periods. This framework starts with looking at where we currently are in a credit cycle and the direction of the economy that lies ahead.

The graphs below include readily available public information from the St. Louis Federal Reserve, downloaded into Microsoft Excel. These data are national, and the regional data is also available. The idea is to identify economic indicators that precede losses — in other words, leading loss indicators — and build up allowances in anticipation of future inherent risk.

# Table 1

## REASONABLE AND SUPPORTABLE FORECAST
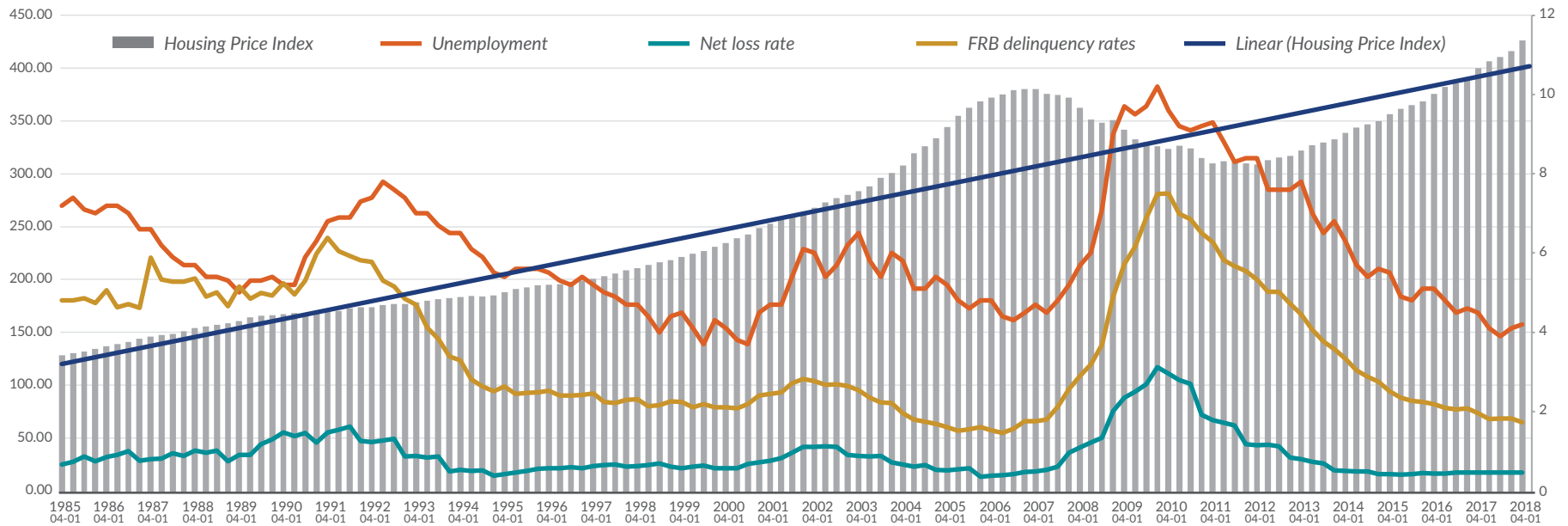


Looking at the graph above, we see a pattern: A rise in housing prices up to or over the long-term trend line leads to an increase in net charge-offs in subsequent years. Due to the amount of time between the rise in housing prices and charge-offs, housing prices might be considered a long-term leading indicator of loss.

We also see that unemployment seems to mirror net charge-offs, which might be considered a short-term leading indicator of loss.
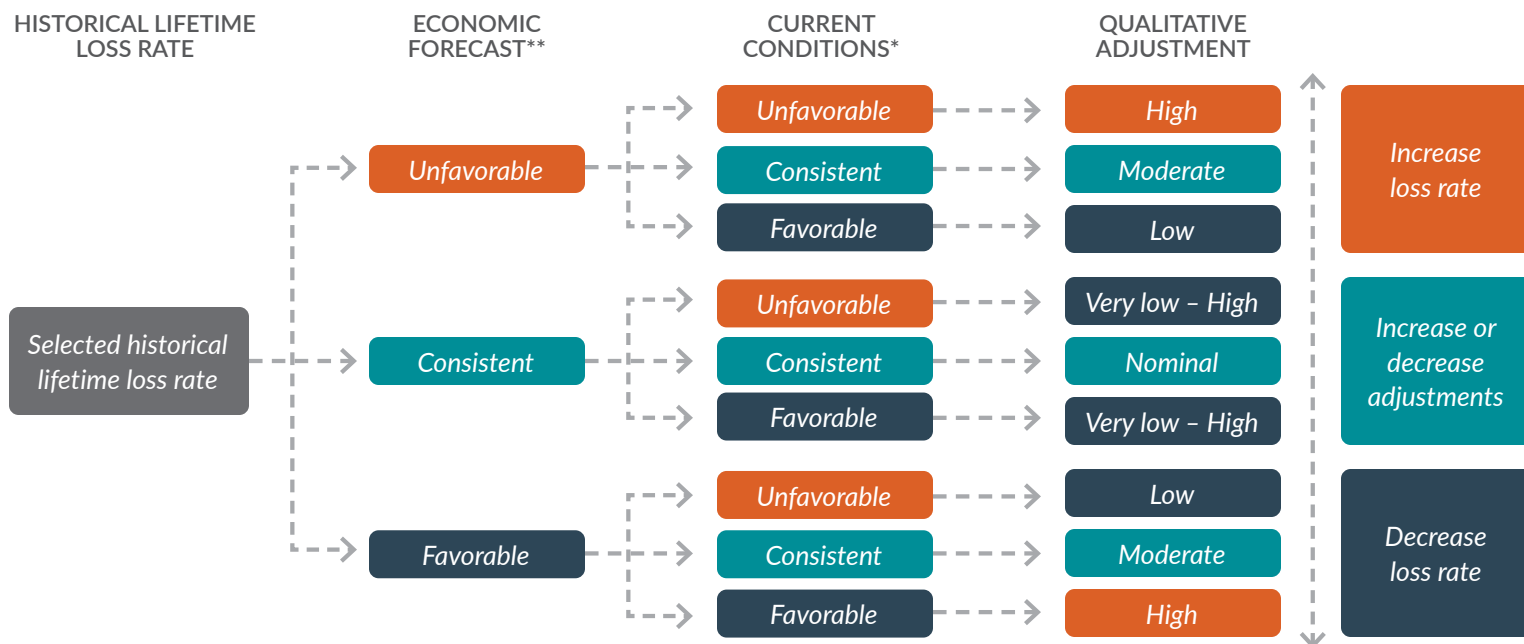
Finally, note how delinquency rates also seem to mirror net charge-offs. Given the relevance of delinquencies at an institution-specific level and the fact that delinquent loans ultimately lead to charge-offs after being past due for over 90 days, delinquency rates also could also be considered a short-term leading indicator of loss.

With this historical information, the framework has us look at the direction and trends of today's economic cycle and compare that to historical periods with similar trends. Therefore, an institution would select a historical period that looks similar to the trends of today.

When looking at today's trends and the rise in housing prices over the long-term trend line, there are historical periods in which such a rise also took place. Recently, the most notable example is the five-year period from 2002 to 2006. For a pool of loans with a contractual life of approximately five years, the loss rates accumulated using the snapshot method from 2002 to 2006 would be relevant loss rates.

From there, we have the ability to make further qualitative adjustments based on the remaining qualitative factors. To further illustrate the framework in the standard, consider Diagram B.

## Diagram B



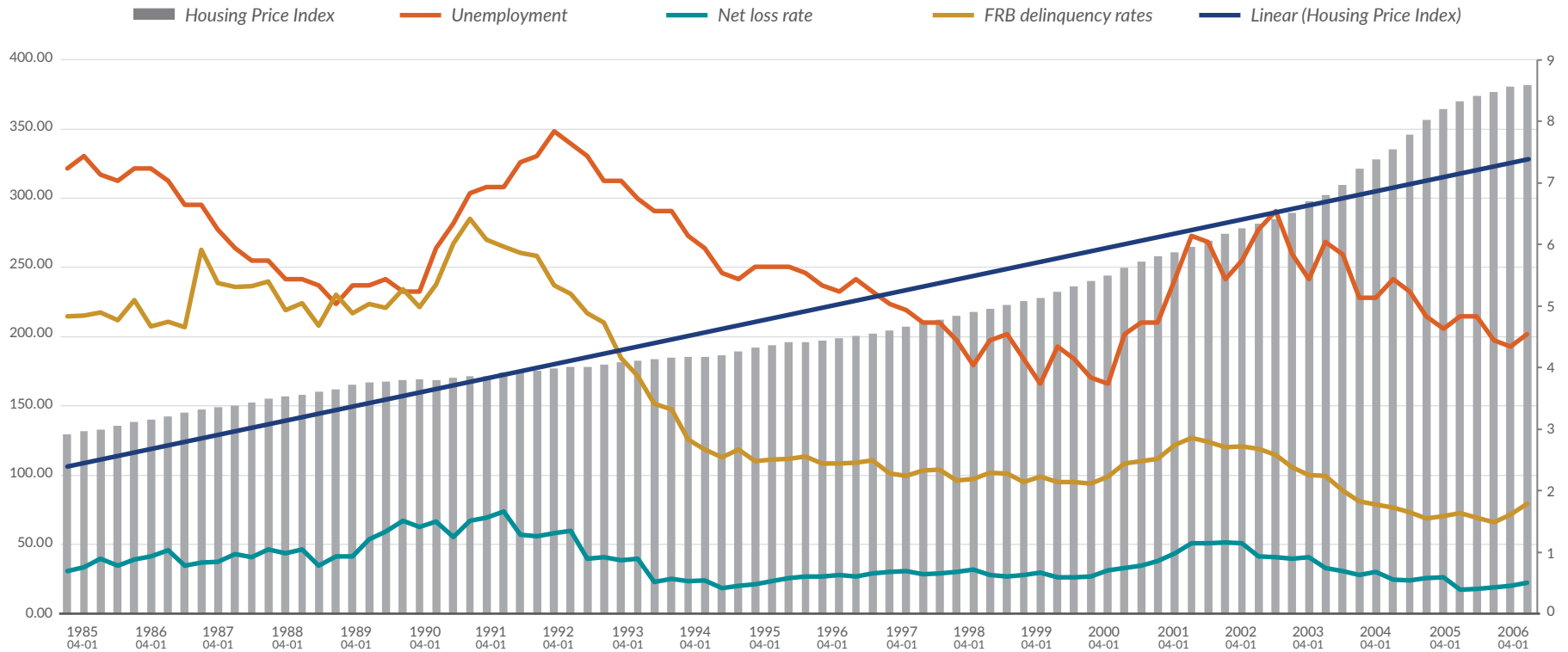| HISTORICAL LIFETIME LOSS RATE | ECONOMIC FORECAST** | CURRENT CONDITIONS* | QUALITATIVE ADJUSTMENT | |
|---|---|---|---|---|
| Selected historical lifetime loss rate | Unfavorable | Unfavorable | High | Increase loss rate |
| | | Consistent | Moderate | |
| | | Favorable | Low | |
| | Consistent | Unfavorable | Very low – High | Increase or decrease adjustments |
| | | Consistent | Nominal | |
| | | Favorable | Very low – High | |
| | Favorable | Unfavorable | Low | Decrease loss rate |
| | | Consistent | Moderate | |
| | | Favorable | High | |

* Current conditions adjust for differences in primary credit risk characteristics between loans today and loans during period in which the lifetime historical loss rate was derived.

** Based on short- and long-term trends of economic factors that best correlate with credit risk of an institution's portfolio and assessment of future periods. Note: If an institution's forecast is similar to that experienced during the period over which the lifetime historical loss rate was derived, adjustment may be minimal.

But, what if CECL was in place for our Dec. 31, 2006, financial statements? The following graph includes the same data as above, through Dec. 31, 2006.

# Table 2

## REASONABLE AND SUPPORTABLE FORECAST



Legend: Housing Price Index | Unemployment | Net loss rate | FRB delinquency rates | Linear (Housing Price Index)
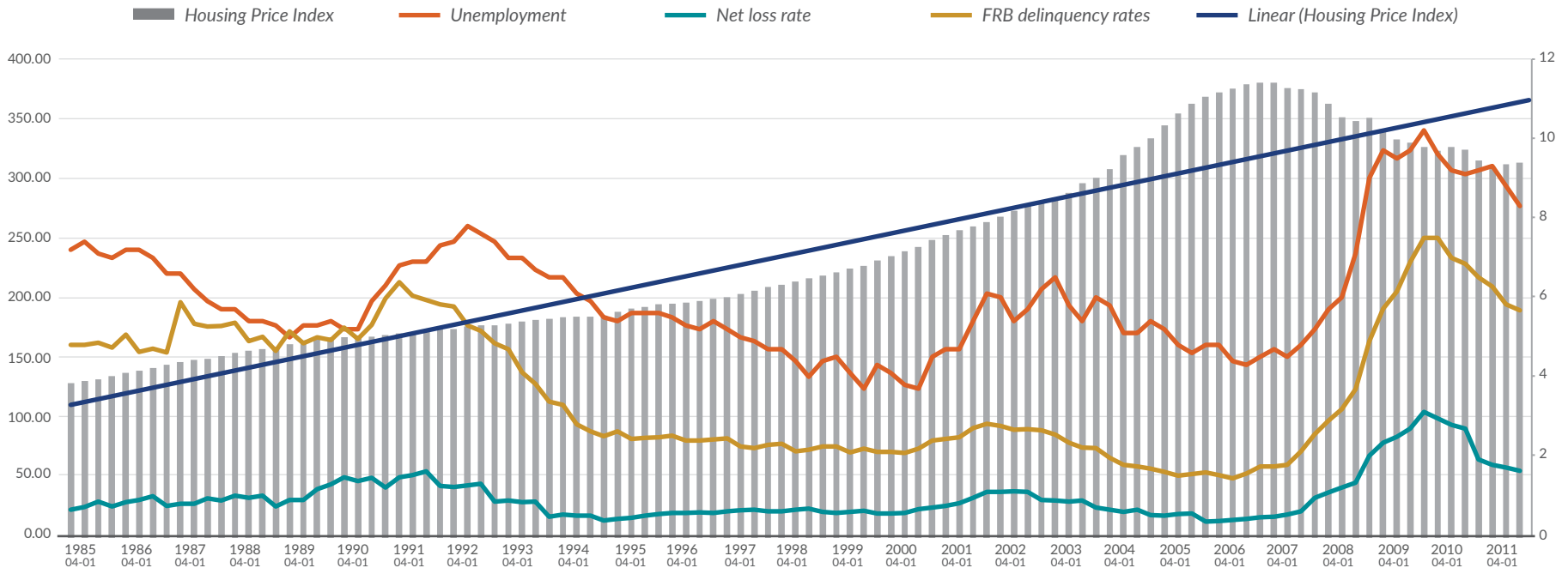
Had CECL been in place for Dec. 31, 2006 financial statements, we would have seen meaningful evidence that asset values were inflated. But after a closer look, it's also apparent that asset values level off at 2006 year-end. With CECL, an institution would have built up the allowance for credit losses well before 2006 by selecting loss rates from the late 1980s as a starting point and adding directionally consistent qualitative adjustments each period from 2003 to 2006.

How might this look when coming out of a severe recession? The graph below includes the same data as above, through Dec. 31, 2011.

# Table 3

## REASONABLE AND SUPPORTABLE FORECAST



Legend: Housing Price Index | Unemployment | Net loss rate | FRB delinquency rates | Linear (Housing Price Index)

Had CECL been in place for Dec. 31, 2011 financial statements, we would have seen evidence that the decline in asset values is leveling off and even starting to improve. Therefore, an institution would look back to periods similar to this trend and might determine that the years between 1992 to 1996 are relevant loss years that can have directionally consistent qualitative adjustments applied.

Contrast these loss rates with the three- to five-year lookback under today's incurred-loss calculation, and the overall reserves would be less.

Put another way, CECL is designed to allow for the buildup of reserves during good times in anticipation of future inherent risk.

Historical periods such as those mentioned above include three recessionary periods, illustrated in the following graph from the St. Louis Federal Reserve. The graph shows a mild recession from 2000 to 2002, moderate recession from 1989 to 1991, and a severe recession from 2007 to 2010. Given these three historical recessionary periods, an institution has the ability to first start to build reserves toward a mild recession. If the economy continues to heat up to the point where a moderate recession may be expected, an institution would continue to build reserves to those loss rates. Should a severe recession appear on the horizon, a continuation of reserve-building would occur to create an allowance for credit losses during the downturn.

## Table 4
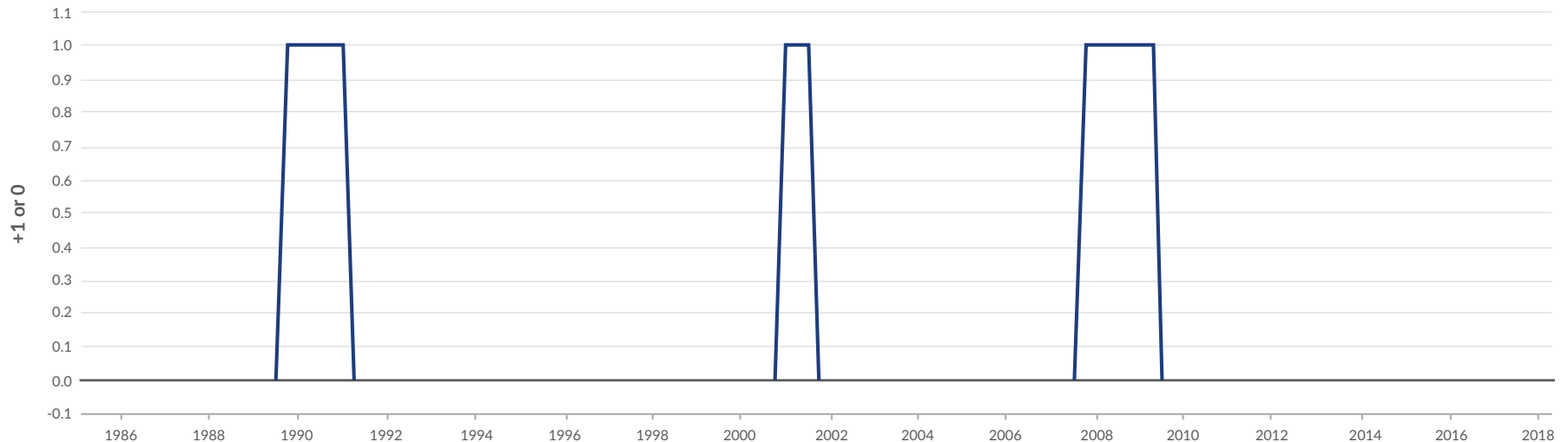


Source: Federal Reserve Bank of St. Louis | **fred.stlouisfed.org**

## Applying the current condition and reasonable and supportable forecast adjustments

With the perspective outlined in the previous section, an institution can then look to apply the current condition and reasonable and supportable forecast adjustments. To do this, take another look at the 11 factors included in the standard and consider the following example of how an institution might think about applying them to the allowance for credit loss calculation.

## Table 5

| # | Item per accounting standard (ASC 326-20-55-4) | Potential application | Potential factor to use | Adjustment |
|---|---|---|---|---|
| 1 | Borrower's financial condition, credit rating, credit score, asset quality, or business prospects | Current condition | % of portfolio classified | Qualitative — directionally consistent |
| 2 | Borrower's ability to make scheduled P&I payments | Current condition | | |
| 3 | Remaining payment terms | Current condition | Approximate life of portfolio | Qualitative — directionally consistent |
| 4 | Time to maturity & timing, & extent of prepayments | Current condition | | |
| 5 | Nature & volume of portfolio | Current condition | Concentration % | Qualitative — directionally consistent |
| 6 | Volume & severity of past-due loans | Current condition | % of portfolio past due | Qualitative — directionally consistent |
| 7 | Value of underlying collateral | Forecast | Graph with real estate index | Part of forecast with selection of historical information or qualitative, directionally consistent (use trendline or judgment) |
| 8 | Changes in lending policies & procedures | Current condition | Subjective | Qualitative — directionally consistent |
| 9 | Quality of credit review system | Current condition | Subjective | Qualitative — directionally consistent |
| 10 | Experience, ability, & depth of staff | Current condition | Subjective | Qualitative — directionally consistent |
| 11 | Environmental factors (regulatory, legal, market, industry, economy) | Forecast | Graph with unemployment | Part of forecast with selection of historical information or qualitative, directionally consistent (use unemployment forecasts) |

Use the same two factors discussed earlier — items 7 and 11 on pages 3 and 4 — as part of the forecast adjustments to help select a historical period similar to today's trends. Then, the remaining nine factors can be considered in the allowance for credit loss calculation by using directionally consistent qualitative adjustments.

For example, we note above that items 1 and 2 relate to specific information about a borrower that is captured with risk ratings. Therefore, the percent of the portfolio classified today versus the percent of the portfolio classified over the period in which the historical loss rate was derived is adjusted in a manner directionally consistent with the risk.

## Weighted-average remaining maturity (WARM) method

The simplest methodology for CECL is the weighted-average remaining maturity (WARM) method. The concepts discussed above remain relevant to the WARM method, but selecting the historical loss period differs due to how loss rates are calculated.

Under the snapshot — and most other loss-rate methods — losses are accumulated to certain vintages, which build a complete loss rate. Whereas, under the WARM method, the loss rates are calculated the same way as a loss rate in the incurred loss methodology, but are converted into a lifetime loss rate by applying the annual loss rate to a declining balance caused by an estimation of amortization and prepayments. Note the estimation of amortization and prepayments can be applied either on a straight-line basis or in a more precise manner.

As a result, the historical period selected would more closely align with annual losses during actual recessionary periods rather than periods preceding. To illustrate this, let's go back to the 2018 graph of data from the St. Louis Federal Reserve.

Table 6

### REASONABLE AND SUPPORTABLE FORECAST
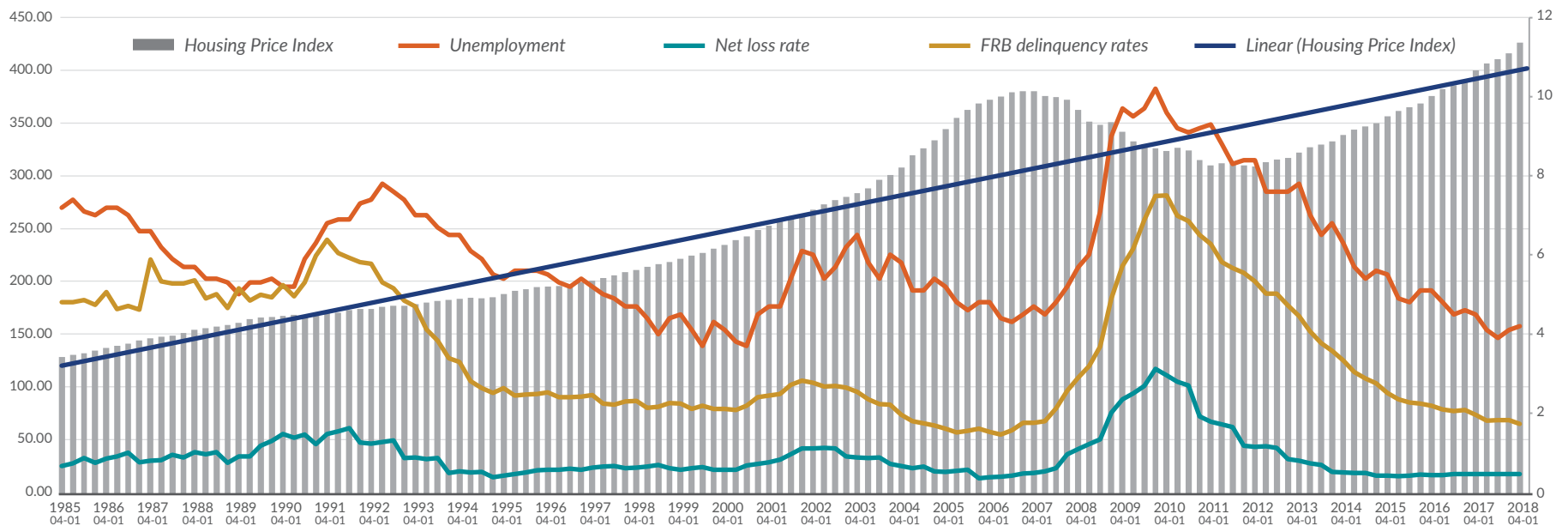


Under the WARM method, if the institution is performing a CECL calculation in summer 2018 and expects a mild recession, the loss rates used for a portfolio with a three-year weighted-average contractual maturity might be from 2001 to 2003. However, based on the current status of housing prices over the long-term trend line, an institution might have determined and measured for a mild recession a year earlier (at the end of 2017). Due to a further increase over the long-term trend line in 2018, the institution might also have selected the loss rates from the moderate recessionary period of 1990 to 1992 for the 2018 calculation.

## ANOTHER ECONOMIC INDICATOR

Although residential real estate has pervasive implications for the economy — since consumers tend to spend more when feeling good about the value of their home and consumer spending comprises a large percentage of gross domestic product (GDP) — other economic indicators might also be useful.

The graph below represents the historical 10-Year Treasury Rate Minus the Federal Funds Rate (FFR) since 1965, obtained from the St. Louis Federal Reserve website. Notice the trends prior to the shaded periods that represent a recession. In nearly every period in which the spread declined, approached zero, and subsequently went negative, a recession followed roughly within a one to three-year period. A leading indicator of loss, then, might be periods when the spread is trending downward and approaching zero. In those periods, an expectation of future loss becomes increasingly likely, which would be the period to build reserves in accordance with CECL.

Table 7



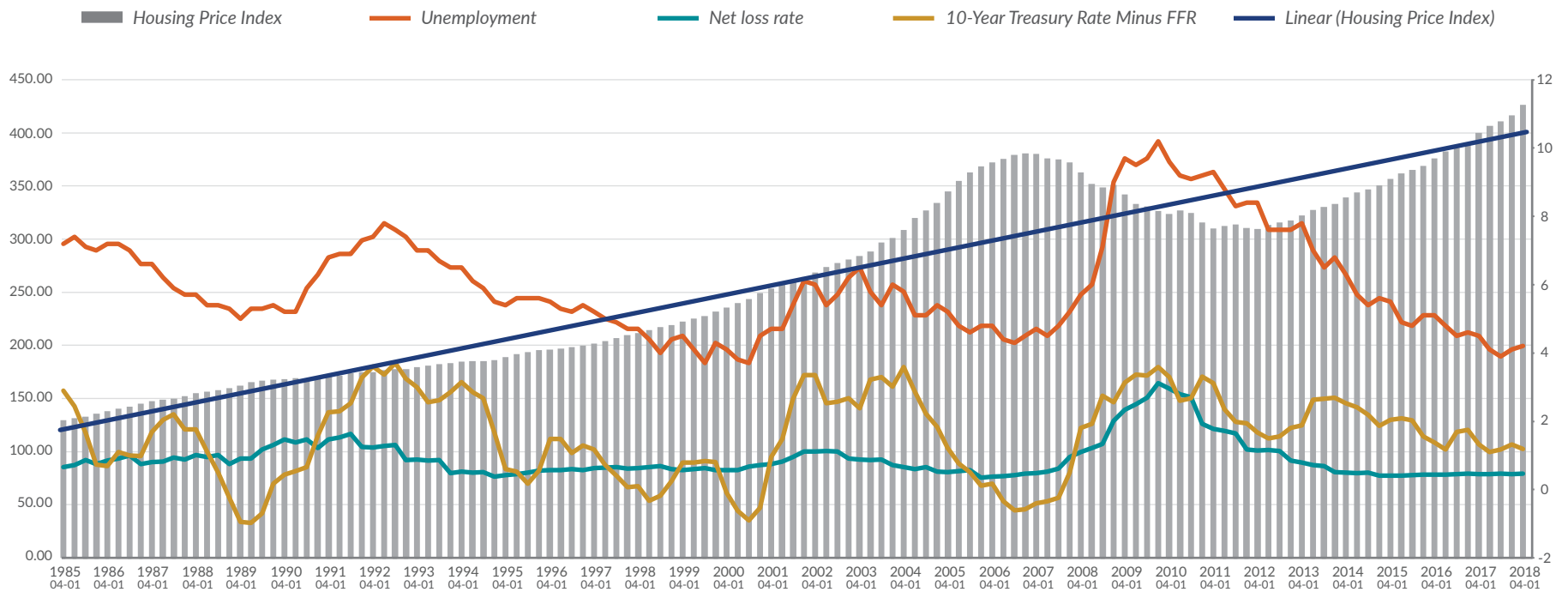Source: Federal Reserve Bank of St. Louis | fred.stlouisfed.org
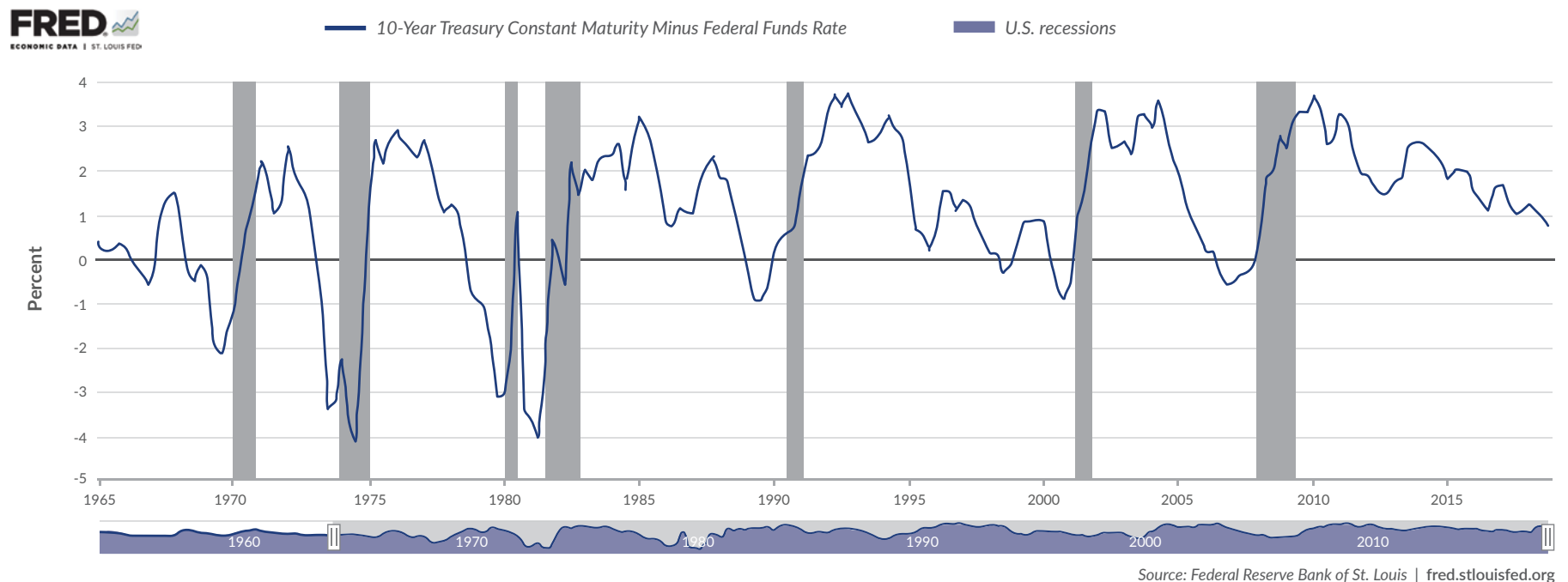
Now look at the graph above and consider the 2007–2009 recession. The decline in the spread began in 2004 and approached zero in the first quarter of 2006. An institution could have begun to build reserves beginning in 2006 — perhaps even for Dec. 31, 2005 — in anticipation. Contrast this with a common incurred loss methodology, which uses the most recent loss information and economic data considerations only through the reporting date. Both of these sources painted a favorable picture for credit loss.

The graph below further illustrates the correlation for this leading loss indicator. It uses the same information from above but replaces national delinquency rates with the 10-Year Treasury Rate Minus the FFR. Note that each time the spread trends toward zero and goes negative, net loss rates subsequently increase with the magnitude correlated to the level at which real estate is above the long-term trend line.

## Table 8

### REASONABLE AND SUPPORTABLE FORECAST



Legend: Housing Price Index | Unemployment | Net loss rate | 10-Year Treasury Rate Minus FFR | Linear (Housing Price Index)

The graph below narrows this focus to the 10-Year Treasury Rate Minus the FFR compared to the national net loss rate, which further illustrates a leading indicator of loss. And when zooming in on the most recent four-year period (2014 to 2018), note a trend that moves toward zero but, through April 2018, has not gone to zero. With this long-term trend information, an institution could acknowledge the trend and build the accounting for credit losses.

## Table 9

### REASONABLE AND SUPPORTABLE FORECAST
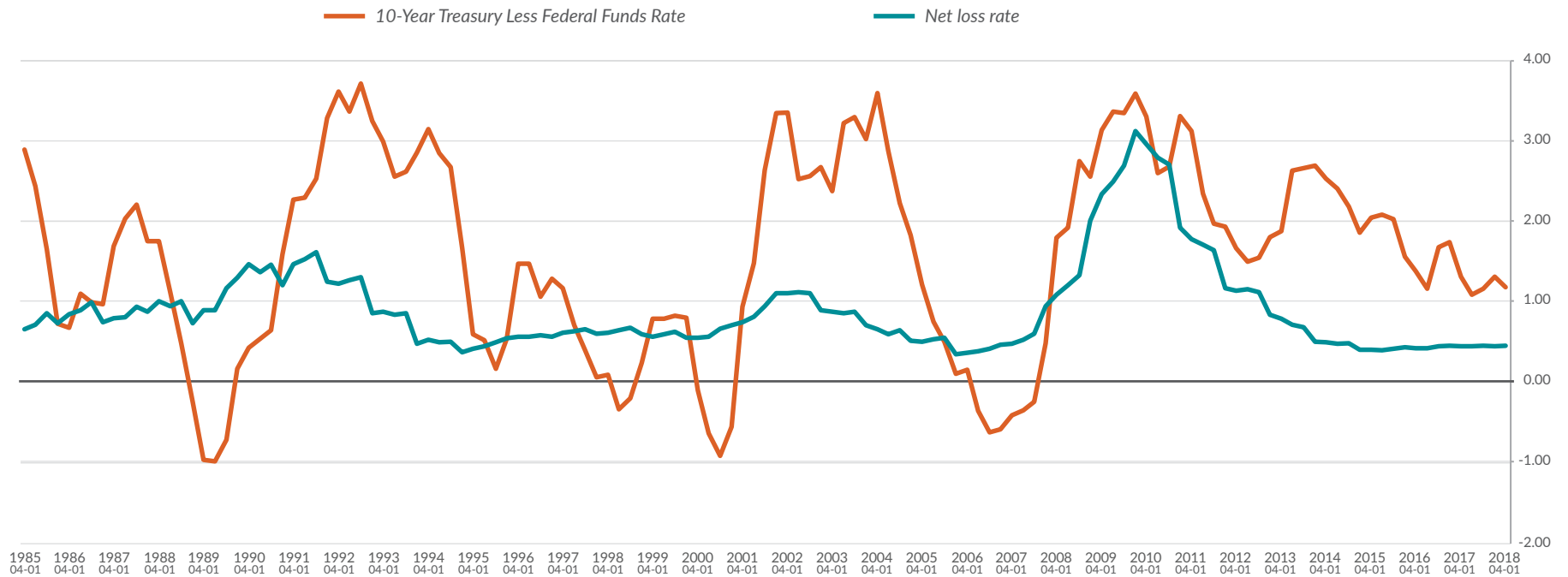
## Reversion

The example on page 5 describes a methodology with an immediate reversion to historical losses. In other words, the losses in the period immediately following the allowance for credit losses calculation's as-of date are expected to be consistent with the long-term historical averages. In contrast, some methodologies will predict losses in the near term based on management's forecast. Forecasted losses during this forecast period may be based on regression equations or other approaches. After the period through which management can develop a reasonable and supportable forecast, the model will revert back to long-term historical averages. This reversion may be immediate or may take place over time. The chart below illustrates the concept of reversion for an institution calculating historical loss rates over the past 10 years, forecasting losses for the next 12 months, and using a straight-line reversion to historical averages over the next 12 months. This example calculation would be used in determining the allowance for credit losses as of Dec. 31, 2020.
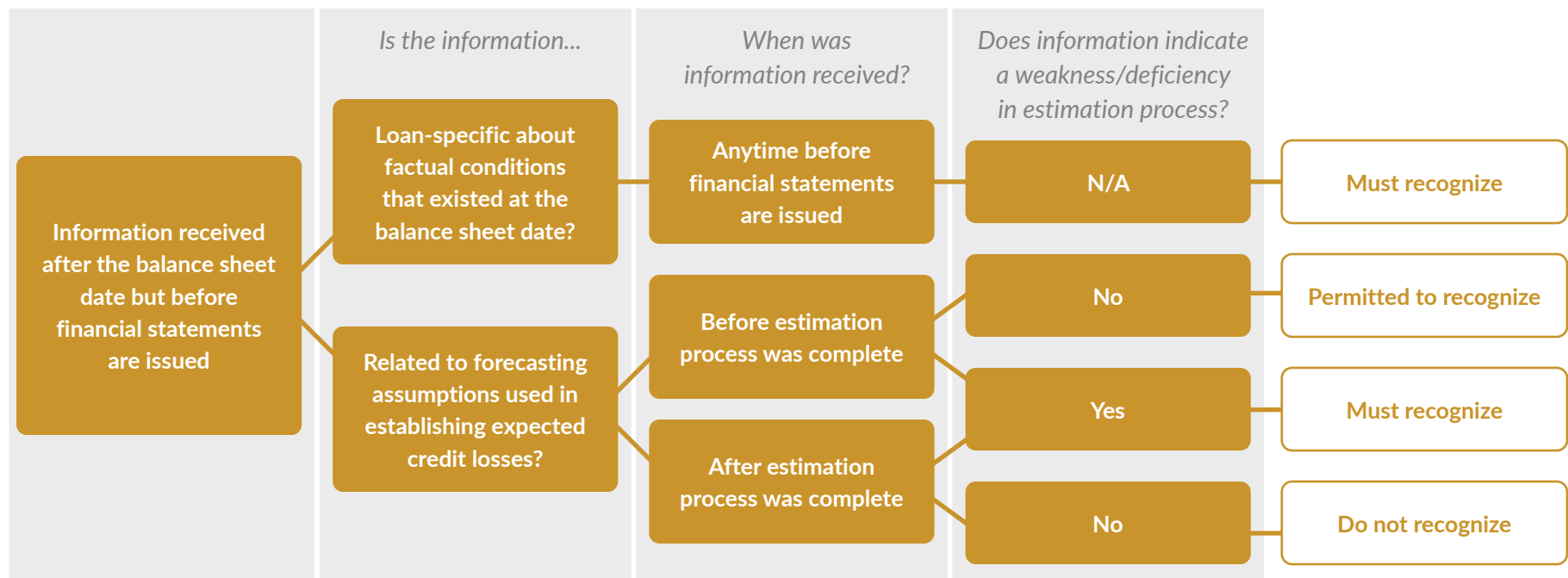
## Table 10

### CLOSED-END 1ST LIEN 1–4
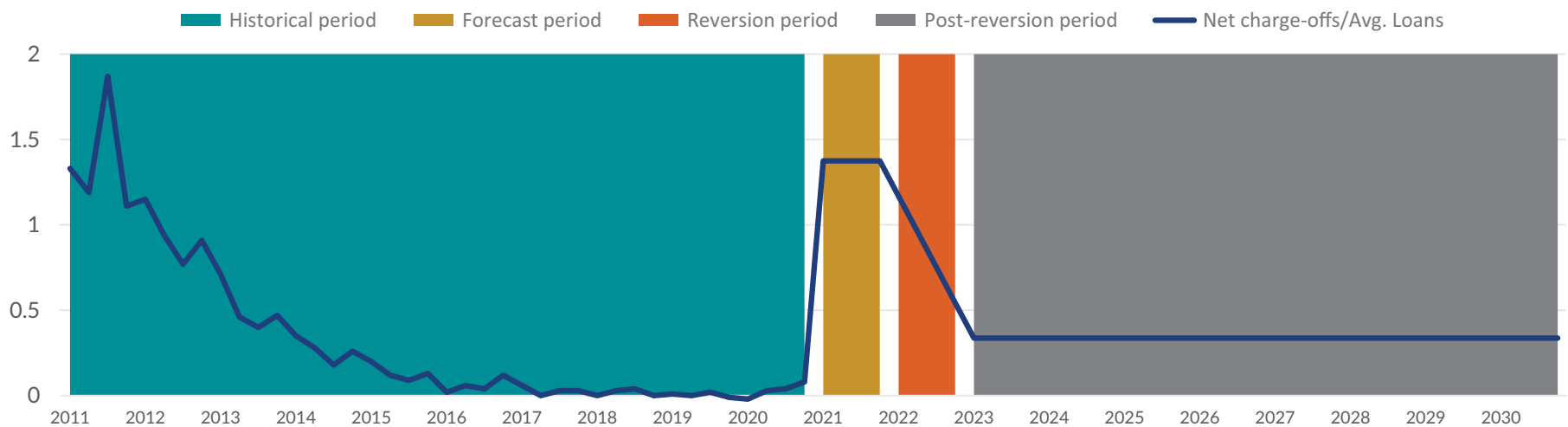
## Subsequent events

The accounting standards provide little guidance on when to incorporate subsequent events into the estimate of credit losses. However, the SEC staff have indicated loan-specific information about factual conditions that existed at the balance sheet date (such as an appraisal or delinquency information) would always be recognized if received prior to the financial statements being issued. Information related to forecasting assumptions received after the estimation process is complete (such as unemployment data) wouldn't be recognized unless it revealed a weakness in the estimation process. If such information were received prior to the estimation process being complete, an institution would be permitted to recognize the information, but would be required to recognize the information if it indicated a weakness in the estimation process. The SEC staff hasn't elaborated on when an estimation process would be considered complete, but we believe this will depend on the process in place at each institution to approve the calculation. In many cases, this will entail approval of the calculation or key conclusions by management, a committee, or the Board of Directors.

# Diagram C



*Source: SEC Senior Associate Chief Accountant Kevin L. Vaughn, remarks before the 2018 AICPA Conference on Current SEC and PCAOB Developments Dec. 10, 2018*
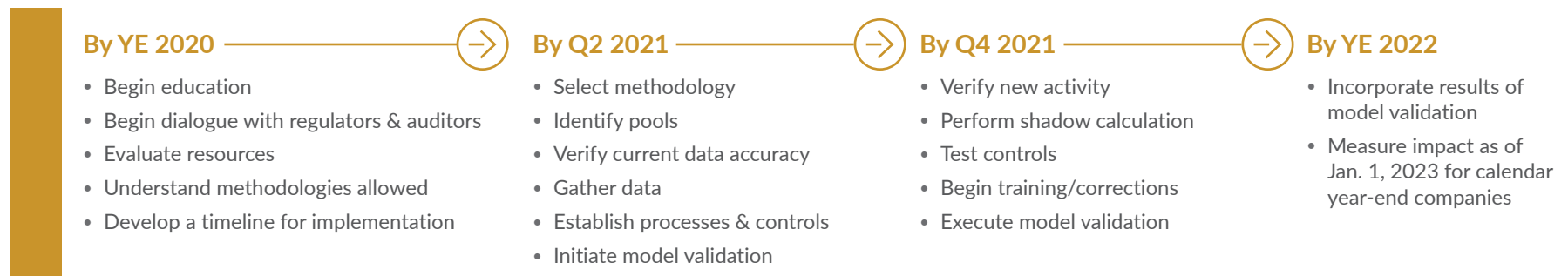
## Implementation timeline and concluding thoughts

Don't let the new standard create unnecessary anxiety for your institution. Of course, no one has a crystal ball to predict the future with 100% accuracy, but using the framework laid out in the accounting standard and discussed in this guide can provide a reasonable basis for your calculation.

## Diagram D

The road to implementation can be realistic and streamlined, we assure you. Take a look at the suggested timeline below.

**By YE 2020** →

- Begin education
- Begin dialogue with regulators & auditors
- Evaluate resources
- Understand methodologies allowed
- Develop a timeline for implementation

**By Q2 2021** →

- Select methodology
- Identify pools
- Verify current data accuracy
- Gather data
- Establish processes & controls
- Initiate model validation

**By Q4 2021** →

- Verify new activity
- Perform shadow calculation
- Test controls
- Begin training/corrections
- Execute model validation

**By YE 2022**

- Incorporate results of model validation
- Measure impact as of Jan. 1, 2023 for calendar year-end companies

*As you plan for implementation, we have a number of tools to ensure you're on the right path, including a thorough presentation to ensure your institution has in-depth knowledge of your options and are alert to potential traps. Our spreadsheet templates also can help calculate a CECL-compliant allowance for credit losses. If your institution determines software is the right path, our subject-matter experts can help with both vendor selection, implementation, and model validation.*

*At the end of the day, CECL can be as hard and complex as you would like it to be. We encourage each institution to measure twice and cut once.*

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**Thank you for using this introductory implementation guide. For additional guidance, feel free to contact us.**

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