

DOES CURRENT EXPECTED CREDIT LOSS ACCOUNTING REFLECT A BEST ESTIMATE? TIME SERIES EVIDENCE FROM CREDIT LOSS REPORTING

Arianna Spina Pinello, Florida Gulf Coast University
Ernest Lee Puschaver, PricewaterhouseCoopers, Retired Partner

ABSTRACT

The current expected credit losses (CECL) accounting model became effective January 1, 2020. This paper examines the relationship between actual loan losses, allowances for credit losses (ACLs), and provisions for credit losses (PCLs) reported by three of the largest U.S. banks for the three years pre-CECL-adoption and the three years post-CECL-adoption. Data was obtained from the banks' filings with the Securities & Exchange Commission on Forms 10-K and 10-Q, including disclosure commentaries by management, as well as earnings releases and transcripts from earnings conference calls with analysts. Our results indicate that CECL has generated faster and greater responses to the macroeconomic environment. However, there has also arisen greater complexity and apparent instances of management control over the estimating process through model input assumptions and the weighting of various forecast scenarios, such that at times, the ACL levels being established appear inconsistent with the related management disclosures about economic outlook. Further, by utilizing analytics with different scenarios and assigning variable weighting of importance, a resulting ACL may not represent management's "best estimate" but instead may reflect "contingency" considerations for relatively improbable adverse economic developments.

JEL: M41

KEYWORDS: CECL, Credit Losses, PCL, ACL, Provision for Credit Losses, Allowance for Credit Losses

INTRODUCTION

Accounting, financial reporting, and auditing are fundamentally responsive to social policy needs which require impartial insight about financial performance. However, since companies are always evolving with new products and the business and social environment is in a constant state of flux, the adjustment or establishment of new accounting principles and their application tend to lag behind developments. The proper valuation of financial instruments is a key assertion when preparing financial statements under generally accepted accounting principles (GAAP), and is an especially challenging estimate to make when there are no external reference points such as trading markets from which to draw comparisons. For banks, which are a critical component of the country's economic health, a proper valuation of loans, which are generally reported on a historical cost basis, is achieved by establishing an appropriate allowance for credit losses (ACL) through a provision for credit losses (PCL). The ACL reflects the estimated amount that is expected to be uncollectible from the outstanding loans and is reported as a contra-asset account on the balance sheet, with the PCL being the related estimated expense reported on the income statement. When a loan is identified as actually being uncollectible, the lender writes off the loan receivable by drawing down the ACL. Such net charge-offs (NCOs) are reflective of actual bad debts.

In 2016, the Financial Accounting Standards Board (FASB) issued significant new guidance that became effective January 1, 2020, requiring management to estimate ACLs based on a "current expected credit

loss” (CECL) accounting model, replacing decades of practice that had recognized ACLs based on an “incurred loss” accounting model. This change arose out of insights from the 2008-2009 Financial Crisis that the recognition within the financial statements of evolving and potential collection problems had severely lagged behind the changing economic environment. CECL requires management not only to assess the collectability of the loan portfolio using traditional tools such as portfolio composition, collectability assessments and historical experience, but also to include a consideration of evolving macroeconomic trends including the use of modeling forecasts. At a fundamental accounting theory level, the use of estimates is inevitable, and in that sense, there is no difference in the financial reporting goals of the CECL approach vis-à-vis the incurred loss approach, other than CECL requiring broader consideration of factors in forming an estimate of the ACL needed by including forecasts through modeling, including macroeconomic factors, etc. Nevertheless, the consequences of changing to the CECL approach have been significant, as we document in this paper. CECL requires consideration of macroeconomic forecasts and scenarios for collectability assessments, which is new to the challenge of determining an appropriate ACL. However, such considerations have been regularly used for asset/liability management as interest rates and fund flows change daily. Recent stresses in the banking industry resulting from various abrupt deposit withdrawals, typically described as a “run on a bank,” have led to the failure of several banks. Such adverse situations evidence the challenges inherent to using modeling techniques.

Under the CECL model, no management team can defend not having an adequate allowance for credit losses recorded on a timely basis; hence, one can conclude that the social policy need for conservative bank loan loss reporting has been met. At the same time, it can be said that CECL has provided a pseudoscience accounting framework for management to establish a baseline ACL estimate while retaining flexibility to record whatever level it feels is appropriate at the moment. As a consequence, accounting rigor may be largely circumventable. Schroeder (2023) calls for research that investigates whether CECL achieved its intended objective to provide more decision-useful information about expected credit losses. Our investigation directly addresses this call for additional research. We investigate how the variability of the provisioning for credit losses under the current expected credit loss accounting model compares to the actual loan losses being experienced. In particular, we employ a case study approach to examine the evolution of reporting from a pre-CECL to a post-CECL era for three of the largest U.S. banks: JPMorgan, Bank of America, and Wells Fargo Corporation. Our analysis draws from data available in annual Form 10-K’s and quarterly Form 10-Q’s, as well as press releases and supplemental information provided by management to the public when reporting financial results. We present analyses of patterns in macroeconomic variables, including gross domestic product (GDP) and unemployment, as well as quarterly NCOs and PCLs for the three banks in our sample for the six-year period 2017-2022 surrounding CECL’s implementation as of January 1, 2020. Our analysis of baseline economic trends in GDP and unemployment reveals the tremendous impact of the COVID-19 pandemic beginning in Q1-2020, with relative economic stability returning by Q1-2021. Banks recorded a CECL transition adjustment at January 1, 2020 based upon a CECL/ACL assessment as of December 31, 2019, and Q1-2020 was the first quarter of recalculating the ACL under CECL in the face of the emerging pandemic-related uncertainties.

Notwithstanding the extreme uncertainty the pandemic raised, we document that NCOs were remarkably steady over the entire six-year period, including the pandemic period. In fact, NCOs show a downward trend over the six-year period for all three banks. Patterns in the three bank’s ACL/PCL reporting reveal that PCLs were generally similar to NCOs and there was not great variability in the pre-CECL era. However, such was not the case in the post-CECL era for which we document significant differences in PCLs versus NCOs and substantial variability for all three banks. In the initial implementation period, just as the pandemic was manifesting itself, such variability is readily attributable to the macroeconomic forecasting required by CECL in such an uncertain environment. But one would expect some degree of stabilization, as it became clear by the end of 2020 that the economy was stabilizing and management teams had gained experience in applying CECL requirements. While banks built their ACLs in 2020, for 2021 we document a pattern of near universal PCL reversals for the three banks, while 2022 demonstrates differing

behaviors across the three banks, some of which seem inconsistent with the underlying disclosures of macroeconomic assumptions being used by the banks. The three banks studied disclosed that they used scenario analytics which by its nature implies a range of underlying CECL/ACL calculations, but the degree of detail disclosed and insight provided was very different and not comparable across the banks, thereby reducing its utility for investors. CECL is an improved, more forward-looking accounting model that has met social policy needs for banks to provide timelier credit loss provisioning. However, the relative constancy of NCOs over the last six years compared to ACL/PCL fluctuations demonstrates that CECL may have actually harmed the utility of credit loss provisioning for consistency and comparability purposes while meeting the social policy need for conservative reserving. To overcome this issue, additional guidance should be issued to require that various aspects of the CECL/ACL determinations are more comprehensively disclosed and discussed by management in a manner consistent across all banks, specifically the input assumptions driving the CECL macroeconomic modeling and the nature and weighting of scenarios with a discussion of sensitivity. This paper proceeds as follows. In the next section, we review related literature and provide background regarding loan loss accounting. Thereafter, we describe our data and methodology, and we present our findings for the three banks. We then close with concluding comments including limitations in our research and suggestions for additional research.

LITERATURE REVIEW

A very critical social policy need is that the banking system maintain public confidence and accurately reflect exposure to loan losses, and thereby evidence its sustainability through difficult times. After the tremendous strains arising from the 2008-09 Financial Crisis, it became obvious to all that the “incurred loss” accounting model for establishing reserves for credit losses had failed to adequately respond to the eroding business environment and the exposure to credit losses that banks were facing. In hindsight, that “incurred loss” accounting model actually prohibited the commonsense action of preparing for expected financial losses from a known economic hurricane coming ashore until the actual waves began to hit by limiting what insights management was allowed to consider in establishing the allowance for credit losses (ACL) it thought was necessary. In light of the shortcomings of the “incurred loss” model, the current expected credit losses (CECL) accounting model was issued in 2016, which requires management to use insight from historical data and experience combined with macroeconomic forecasting models and projections to help in determining what level of ACL is considered prudent and appropriate. Although CECL applies to all financial instruments and credit commitments other than those accounted for on a fair value basis, the new model was intended to address the accounting stresses encountered during the 2008-09 Financial Crisis and is especially relevant to the banking industry with its extensive lending activities. Effective January 1, 2020, banks adopted CECL under its required modified retrospective method and recorded a transition adjustment to their ACLs. Unforeseeably, the new CECL accounting standard became effective and hence had to be implemented coincident with the 2020 COVID-19 pandemic and all the attending great uncertainties it created. Theoretically, after the transition adjustments, the banks then had a commonality of starting points, although each ACL at CECL’s adoption would still have reflected management’s judgment and the particulars of each lending portfolio and historical experience.

The purpose of ACLs is to achieve proper valuation in order to fairly present financial/loan assets. Generally accepted accounting principles (GAAP) seek the “best estimate” of the valuation needed – it is not a discretionary or contingency reserve. In theory, once established, ACLs are then reduced over time as subsequent net charge-offs are experienced. At the same time, as an always-moving estimate target, such reserves are always being reassessed and additional provisions for credit losses (PCL) are recorded as necessary. Moreover, under CECL, the ACL includes consideration of both actual loans outstanding and commitments to lend. Generally, the portion relating to existing loans is reported as a valuation reduction of reported loans, while the portion relating to unfunded commitments is reported in other liabilities, and the financial statement footnote disclosure includes both segments. However, the PCL is generally reported as one overall amount within the income statement and its components are then disclosed in the footnote.

Pinello and Puschaver (2020) point out the stresses and disconnects that arose during CECL's implementation. In particular, the critical input variables regarding forecasts of gross domestic product (GDP) and unemployment appeared disjointed among various banks in contending with pandemic uncertainties. Pinello and Puschaver (2022) explored further discontinuities that were evolving during the post-pandemic period, finding that management judgment was playing an increasingly important role in setting ACL reserve levels, either by influencing the major input variables used in forecasting models or by overtly using additional judgment to intercede and record what management thought was appropriate notwithstanding the modeling. This type of situation brings to mind many adages about the differences between having an opinion versus facts and begs the question: How does one adjust when the forecast "opinion" becomes the selected "fact" used in the CECL modeling to determine a needed ACL level? As pointed out below in the discussion of GDP and unemployment trends, forecasting uncertainties invariably will be shown to be off-target when actual results become known.

Given their importance to the economic health of the banking system and thereby the country itself, bank loan loss reserves have been a subject of debate for years. Due to its significant change in the underlying accounting model and its recent implementation, the issuance of CECL has generated fresh research. One consideration is the degree that users of financial statements might or might not benefit with the CECL approach, and disagreement is evident. Gee et al. (2023) conclude that CECL is decision-useful for investors because it renders credit loss allowances as more relevant and improves their ability to predict future credit losses. Similarly, Lopez-Espinosa et al. (2021) suggest that the switch to expected credit loss provisioning results in higher information content to assess bank risk.

In contrast, according to Bonsall et al. (2022), CECL causes analyst provision forecasts to be associated with reduced accuracy and coverage, and with increased dispersion, consistent with investors perceiving analyst provision forecasts to be less informative post-CECL-adoption. Such a reduction in analytic capability reduces the utility of the information being provided. As determined by our research, the additional complexity of CECL has increased the volatility of PCLs and the complexity involved gives mixed messaging to users of financial statements. Jacobs (2019) investigated 14 alternative CECL modeling approaches and concluded that CECL poses challenges to temporal and cross-institution comparability of results because of the substantial variability of estimates depending on model specification. Extant research highlighting the underlying stresses of the CECL requirement to use macroeconomic forecasting insights is consistent with our findings presented below that the use of scenarios with attending weighting and probability assessments actually results in less insight.

Terminology commonly encountered is that management is "building" the ACL when a quarter's PCL exceeds net charge-offs (NCOs). Conversely, it is "drawing down" the ACL when a quarter's PCL is less than NCO, inferring that management is using previously established reserves. If the PCL is actually negative and increases income, it is characterized as a "reversal." Reporting has become overt in this regard with management presentations often displaying two components of the PCL to demonstrate the "build reserve" portion, etc. At times, the term "release" is used to characterize a drawdown or, more frequently, when a reversal occurs. That is, one can infer that management is reporting that a previous high level for the ACL is no longer needed, which is usually regarded as arising from an improvement in the macroeconomic outlook, and is therefore releasing it back into income. In practice, under the previous "incurred loss" accounting model, it would have been unusual to encounter a PCL of zero or a reversal and, if reported, it would have tended to relate to smaller institutions. Under the CECL model, such has been happening much more widely, but that may be attributable to pandemic stresses.

CECL's Macroeconomic Stresses

The economic environment is characterized by recurring business cycles of good times then bad/recession times, and so forth. While the major 2008-09 Financial Crisis generated much higher loan losses and morphed into the Great Recession, it was still a business cycle. The COVID-19 crisis also created an extreme, but atypical, business cycle which unexpectedly did not result in major loan losses for various reasons, including government intervention. At the current time, we are contending with the uncertainties of a more typical business cycle such as the Federal Reserve increasing interest rates to stem inflation and concerns over GDP growth or possibly a recession. There are always outlooks and concerns to be weighed and considered and, most assuredly, each time there are very differing views of what is likely to happen.

Under CECL, macroeconomic considerations have evolved to include forecasts of what the future macroeconomic environment might look like and to consider how it would impact loss expectations. However, auditors have no baseline/recourse on how to challenge the critical base input assumptions used by management for GDP and unemployment, and such input assumptions are becoming part of recurring disclosure commentary. Furthermore, CECL modeling and forecasting has also evolved to include various "what if" scenarios. However, it is unknown whether the scenarios are driven by using various input assumptions to see what various ACL forecasts using CECL would result and then working backward to select the input assumptions that achieve a particular desired ACL level, or whether the scenarios somehow add sensitivity analysis to the basic input assumptions. An example of such complexity is outlined by Bank of America (BAC) in its 2021 Form 10-K:

“The [ACL] is estimated using quantitative and qualitative methods that consider a variety of factors, such as historical experience...current credit quality...and economic outlook...Qualitative reserves cover losses that are expected but, in the Corporation’s assessment, may not be adequately reflected in the quantitative methods or economic assumptions...The [macroeconomic] scenarios that are chosen each quarter and the weighting given to each scenario depend on a variety of factors including recent economic events, leading economic indicators, internal and third-party economist views, and industry trends (emphasis added)...a baseline scenario...a tail risk scenario similar to the severely adverse scenario used in [regulatory] stress testing (emphasis added), a scenario to account for inflationary risk....”

When one considers the additional judgment factor that management can utilize beyond the CECL calculations themselves, management essentially has great flexibility regarding how much PCL is needed at any particular quarter to achieve a desired ACL. In BAC’s earnings conference call on January 13, 2023, the following exchange occurred which highlights this issue: an analyst asked, “... how much of the reserve building is what might be referred to as management overlay relative to what the models are specifically dictating on reserve building?” Brian Moynihan, CEO, responded: “We don’t disclose that. But you might assume that there’s a fair amount – 3 components to this: one is what the models say; two is basically uncertainty, imprecision and other things we overlay and then a judgmental, and you might think that there’s a fair amount of that right now with the uncertainty. But – so the model piece of that would be a portion of it.”

As a point of information, the regulatory stress tests are designed to assess the potential for the banking system to survive an unexpected calamity; they are in no way designed to reflect expectations of likely evolving economic circumstances and their results would not be a valid consideration for estimating an ACL under current GAAP. Yet, commonsense would lead one to infer that the ACL determined under CECL’s requirements would trend higher if management’s selected GDP and unemployment input assumptions were worsening from the prior reporting period, or, conversely, that the ACL need would trend lower if those input assumptions were improving from the prior reporting period.

Credit Loss Recognition Cycle

By its nature, determining an appropriate ACL requires judgment – it is a critical accounting estimate relating to the valuation assertion. To estimate it, consideration must be given to known troublesome credit situations, the current composition of the credit portfolio, historical experience, and now, under CECL, also forecasts of the evolving macroeconomic environment. After determining an appropriate ACL level, the resulting PCL is actually just the amount needed to adjust the previous reserve level to the new level; however, in practice it is perceived as a critical figure by analysts and others as representing an action taken by management. As previously noted, the ACL generally has two components: a portion attributable to loans and leases currently outstanding and a portion attributable to unfunded lending commitments. Generally, an outstanding commitment gets activated and becomes an outstanding loan before it then might become a charge-off. In contrast to CECL, such expected potential progression was not universally reflected under the incurred loss accounting model. An easy example is to consider credit card lending with its pre-established credit lines. A likely progression is that a potentially troubled borrower might gradually increase the outstanding amount under the credit line before deteriorating into a collection problem and possibly becoming a charge-off situation. With this context, the recognition of NCOs is somewhat anticlimactic within the estimating cycle for credit loss provisioning and reserving. They are a later manifestation/confirmation of what management previously estimated. However, they are important as Jamie Dimon, CEO of JPMorgan, advised during the January 13, 2023 earnings conference call: “*These [CECL/ACL] are all probabilities and possibilities and hypothetical numbers. And if I were you, I’d just look at charge-offs, like actual results.*” Moreover, BAC commented in its 2022 Form 10-K: “*The estimate of credit losses includes expected recoveries of amounts previously charged off (i.e., negative allowance).*” Also, banking regulators bring a consistency discipline across the banking industry regarding charge-off practices. As a consequence, the practice and methodology of actually recording NCOs would have remained constant under both the prior incurred loss model and the new CECL model. After the catch-up adjustment upon adopting CECL at January 1, 2020, there is no inherent reason that CECL would create increased or decreased credit loss provisioning other than as a possible reflection of the macroeconomic environment, and it would also not impact the reporting practices for NCOs.

DATA AND METHODOLOGY

We employ a case study approach to investigate the evolution of credit loss reporting in the pre- and post-current expected credit loss (CECL) eras. Our sample of quarterly data spans the six-year period 2017 through 2022. The three years prior to 2020 (2017-2019) mark the pre-CECL window during which the incurred loss model was applicable, while the three years 2020-2022 mark the post-CECL window during which the CECL model was in effect. This six-year period reflects a suitable timeframe to examine the progression of credit loss reporting and holds constant the length of time examined pre- and post-CECL adoption. Note that including more years in pre-CECL window would not provide meaningful additional insight as the business environment was fairly stable and there is possible data distortion from mergers pre-2017. Included in our sample are three of the largest U.S. banks measured based on assets: JPMorgan (JPM) which is the largest bank in the country, Bank of America (BAC) which is the second largest, and Wells Fargo Corporation (WFC) which is ranked fourth in size. The third largest U.S. bank is Citigroup. In order to focus largely on the U.S. lending environment, we did not include Citigroup in our sample because it has relatively more extensive international operations compared to the other banks in our sample. Additionally, the three banks included in our sample are comparable in size, have similarly large loan portfolios that represent a good cross-section of lending activity including both corporate and consumer lending, with consumer lending representing nearly half of their lending portfolios.

Furthermore, these three banks’ CECL processes and modeling are likely to have a similar degree of sophistication and like characteristics besides the inputs by management as suggested in Pinello and Puschaver (2018). Pinello and Puschaver (2020, 2022) examined CECL-related practices for the 15 largest

banking entities in the country as contrasted to 15 smaller banks near the 100th size ranking. Overall, their investigations revealed similar themes regarding CECL implementation stresses for the large and smaller institutions alike. Thus, an examination of the three large banks included in our sample may be considered to be reflective of banks generally. Nevertheless, highly specialized banks that significantly focus on particular areas of lending such as credit cards, automobile financing, boat lending, etc. and regional or community banks with particular credit portfolio geographic concentrations might have special situations impacting their CECL deliberations. For example, while national forecasts of gross domestic product (GDP) and unemployment data would be applicable for the large banks, such might not be as applicable to the localized area of regional or community banks. Our analysis draws from data available in annual Form 10-K's and quarterly Form 10-Q's, as well as press releases and supplemental information provided by management to the public when reporting financial results (all of these are available through the banks' respective websites under Investor Relations). Importantly, we reviewed the banks' Form 10-K disclosures for the compositions of their loan portfolios at yearend 2017 compared to yearend 2022 and noted that they have remained fairly stable. Therefore, changes in allowance for credit losses (ACL)/provision for credit losses (PCL) reporting can be attributed to each bank's historical experience, their views as to the evolving macroeconomic environment, and CECL forecasting requirements, rather than being attributed to a major change in portfolio composition.

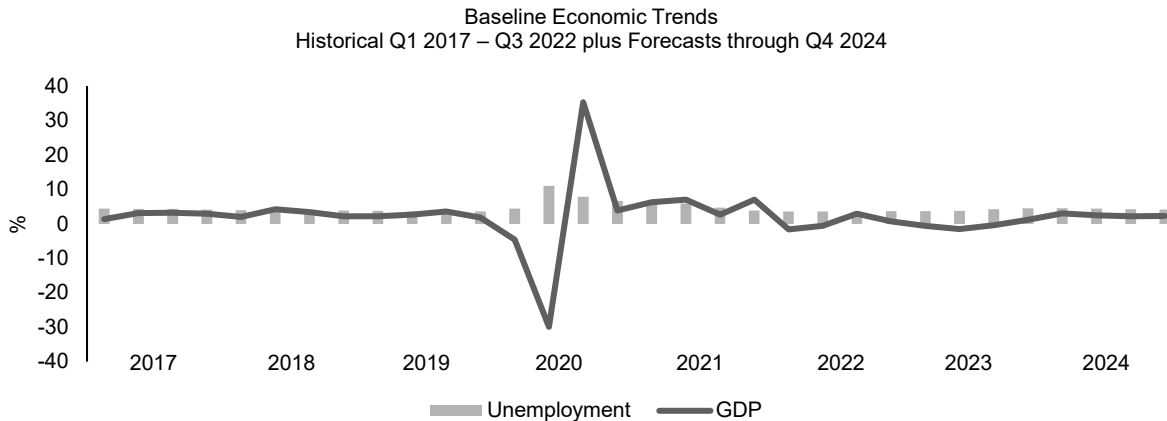
RESULTS

We begin our results section by presenting an analysis of patterns in macroeconomic variables, including gross domestic product (GDP) and unemployment. We then present comparative patterns across the three bank's quarterly net charge-off (NCO) history, followed by an analysis of each bank's provision for credit losses (PCL) as compared to their respective NCO history and disclosure patterns for the six-year period 2017-2022 surrounding the implementation of the current expected credit loss (CECL) model as of January 1, 2020. While each of the three banks would have particular idiosyncrasies relative to their loan portfolios, individual historical experience, modeling techniques, etc., they each must consider the same historical economic data when determining the forecasting parameters deemed most appropriate to use in developing their allowance for credit loss (ACL) analysis under CECL's guidance. From the various disclosures by management and discussions about their efforts to determine CECL forecasts, it is unequivocal that GDP and unemployment are universally considered as major modeling inputs. However, CECL modeling likely includes many other variables such as inflation (both overall and possibly for particular commodities), changes in housing prices, interest rate levels, national trends versus regional and local trends, etc. Accordingly, Figure 1 displays historical quarterly trends in GDP and unemployment for the three years before CECL's implementation at January 1, 2020 and for the subsequent three years (per the Bureau of Economic Analysis and the Bureau of Labor Statistics). While historical data form a basis for modeling, CECL also requires consideration of macroeconomic *forecasts*. Therefore, Figure 1 also includes GDP and unemployment forecasts for the fourth quarter of 2022 and all four quarters of 2023 and 2024 as published by The Conference Board on December 14, 2022. This would be an example of a dataset available as inputs to management as it developed its yearend CECL/ACL needs.

Of course, various management teams likely have their own economic forecasting models or have other sources whose insights they prefer to use, but the Conference Board is a widely recognized institution; hence, we have chosen to display its forecasts as a baseline. However, management has a wide array of possible external input forecasts to select from in addition to any internal forecasting developed by its own economists. For example, on December 23, 2022, the Federal Reserve Bank of Atlanta released its view that Q4-2022 GDP was tracking at 3.7% compared to the Conference Board's 0.7% forecast. This substantial disparity is indicative of just how divergent and judgmental selections of input variables can be, and the difficulty auditors face in evaluating the reasonableness of whatever management decides to use as inputs. But in hindsight, the first estimate of Q4-2022 GDP was reported as 2.9% by the Commerce

Department on January 26, 2022 (Cox, 2023) – obviously both estimates were off significantly, but at the same time the Commerce Department report itself is also only a “first estimate” that will be revised later.

Figure 1: Baseline Economic Trends: Quarterly Gross Domestic Product (GDP) and Unemployment Data



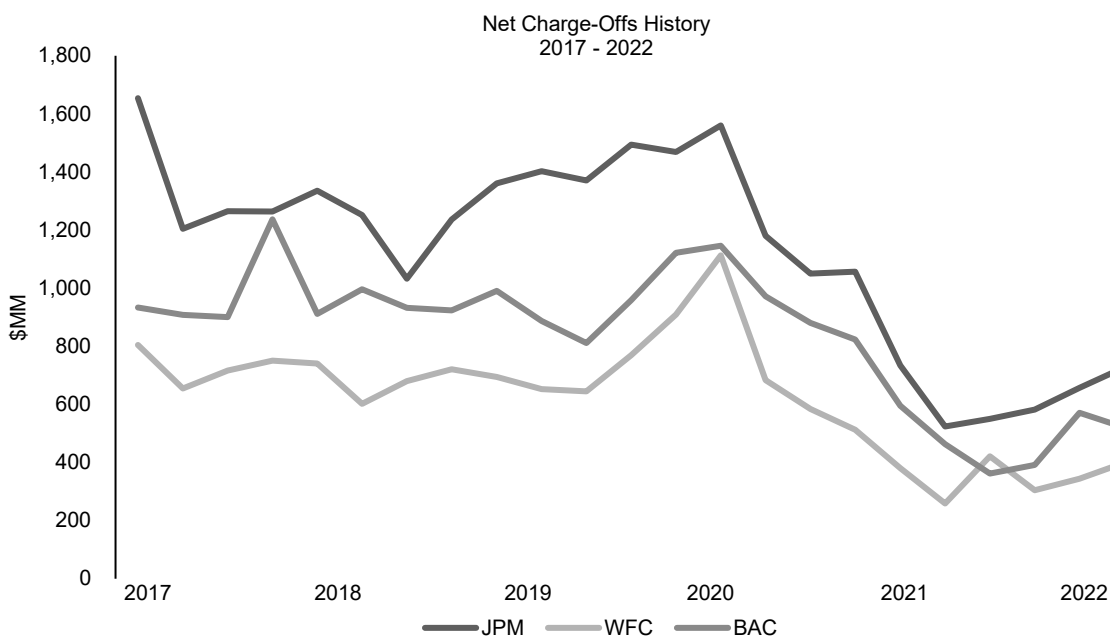
This figure depicts quarterly data trends for U.S. GDP and unemployment for the three years before CECL implementation and the three years after the CECL implementation on January 1, 2020 (per the Bureau of Economic Analysis and the Bureau of Labor Statistics). While historical data form a basis for modeling, CECL also requires consideration of macroeconomic forecasts. Thus, this figure also depicts forecasts for the fourth quarter of 2022 and all four quarters of 2023 and 2024 as published by The Conference Board on December 14, 2022, which reflects the dataset available to management as it developed its yearend CECL/ACL needs.

The frustration of the situation and using forecasts for CECL macroeconomic modeling to establish ACL levels was captured well by Jamie Dimon, JPM CEO, during an earnings conference call with analysts on April 13, 2022 discussing the firm’s Q1-2022 results: “...I just want to caution this. First of all, I can’t forecast the future any more than anyone else. And the [Federal Reserve] forecasts it, and everyone forecasts it, and everyone’s wrong all the time.” In this inherent environment of uncertainty, with the issuance of Auditing Standard (AS) 2501, Auditing Accounting Estimates, Including Fair Value Measurements (issued December 20, 2018 and effective for audits of financial statements with fiscal years ending on or after December 15, 2020), the Public Company Accounting Oversight Board (PCAOB) has been pressing for greater attention in auditing estimates. Likewise, in an effort to improve audits of estimates, the American Institute of Certified Public Accountants (AICPA) issued Statement on Auditing Standards (SAS) 143, Auditing Accounting Estimates and Related Disclosures (issued July 2020 and effective for audits of financial statements with fiscal years ending on or after December 15, 2023). Despite these efforts, in its Spotlight December 2022 release, even while noting some progress with CECL auditing efforts, the PCAOB went on to be critical of the efforts put forth by auditors noting: “Auditors reviewed management’s memorandum describing assumptions used in determining CECL but did not evaluate the qualitative factors or evidence supporting certain assumption changes from the prior year, or lack of changes, when evaluating the reasonableness of such assumptions” (PCAOB, December 2022, page 15). In addition, the PCAOB issued AS 3101, The Auditor’s Report on an Audit of Financial Statements When the Auditor Expresses an Unqualified Opinion (issued 2017 and effective for audits of financial statements with fiscal years ending after December 15, 2020) which requires that the auditor discuss “critical audit matters (CAMs)” highlighting those audit areas that “...involved especially challenging, subjective, or complex auditor judgment...” Pinello et al. (2020) examined the relationship between CAMs and other SEC regulations that require management to discuss critical accounting matters in Form 10-K filings noting that the requirements overlap and, as a consequence, ACLs are universally considered as a CAM when auditing banks.

The challenge in auditing CECL estimates is substantial. It is difficult to audit with any objectivity what management decides to adopt as a particular forecast view and the qualitative factors management chooses

to consider at each reporting date. Making CECL macroeconomic input decisions is a great deal more judgmental than attempting to determine a warranty reserve or a reserve for litigation based on evolving trends and developments. Each quarter the economic environment changes and, as stated above, there is always a wide variance in what is being forecasted by diverse, but competent groups. There is no single primary frame of reference against which auditors could evaluate the reasonableness of management input selections and, clearly, management sentiments can change significantly quarter to quarter. Overall, the data in Figure 1 demonstrate the tremendous impact of the pandemic beginning in Q1-2020, but it does not capture the great uncertainty everyone faced in considering what the economic consequences of the pandemic would be. At that time, economic prognosticators were widely disparate and generally very pessimistic, and hoped-for government efforts to alleviate the crisis were speculative and contemplated actions that had never been done before. As reported by Pinello and Puschaver (2020), this great uncertainty led to discontinuities in the first application of CECL in Q1-2020. However, Pinello and Puschaver (2022) reveal that soon thereafter, the environment began to stabilize and the various forecasts began to become more stable and consistent, yet there still were aberrations in Q2-2020 CECL/PCL assessments and afterward. But the data presented in Figure 1 evidence relative economic stability returning by Q1-2021. Establishing an ACL estimation under CECL requires three critical aspects – one, historical experience and the insight that provides; two, the composition and credit status of the lending portfolio at any particular point in time; and three, forecasts of the macroeconomic environment and how the existing portfolio might manifest losses under that scenario. However, as depicted in Figure 2, reported NCOs for our three sample banks over the past six years are a reality check regarding those assessment efforts. The data in Figure 2 evidence that NCOs have been remarkably steady over the six-year period, including the pandemic period notwithstanding the extreme stresses and concerns it raised. In fact, NCOs show a downward trend over the past six years for all three banks. The relative magnitudes of the NCOs appear consistent with the relative size of the three banks.

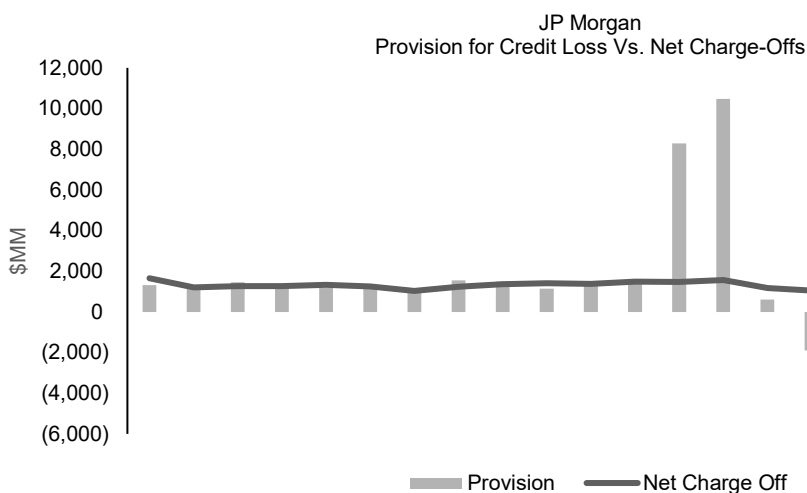
Figure 2: Net Charge-Off History for JPM, BAC, and WFC Spanning 2017-2022



This figure depicts quarterly net charge off history for our three case studies, JPMorgan (JPM), Bank of America (BAC), and Wells Fargo Corporation (WFC), from the first quarter of 2017 through the fourth quarter of 2022.

Given the history of GDP, unemployment, and NCOs examined in Figures 1 and 2, we next review the patterns in each of the three bank’s ACL/PCL reporting and discuss each of the bank’s related disclosure patterns. Recall that CECL was implemented as of January 1, 2020, at which time banks recorded a transition adjustment calculated as of December 31, 2019. Hence, Q1-2020 was the first quarter of recalculating the ACL under CECL which occurred in an emerging pandemic situation during which great uncertainty and variability arose. We begin with JPMorgan (JPM) which is the largest bank in the country with a wide-ranging array of lending activities. In our reviews of the last several years, JPM has been informative with its related disclosures. It had already been recording and disclosing an allowance for lending-related commitments prior to CECL. At the time of CECL adoption, JPM increased its ACL by 30% up to \$18.6B, citing a need to increase it for its credit card operations and a need to decrease it for its wholesale lending portfolio. As depicted in Figure 3, in the pre-CECL window, JPM’s PCL was generally similar to its NCO levels and there was not great variability. In fact, for those three years combined, JPM had PCLs aggregating \$15.746B closely matching its NCO of \$15.872B.

Figure 3: JPMorgan’s Quarterly Provision for Credit Losses and Net Charge-Offs for 2017-2022



This figure depicts JPMorgan’s quarterly PCLs and NCOs for the first quarter of 2017 through the fourth quarter of 2022.

Pinello and Puschaver (2022) noted that management teams were often disclosing the forecast assumptions for GDP and unemployment which are critical for gaining insight, and speculated that such might become normal practice. JPM was one of the most forthcoming with such disclosures and has been including them regularly in its Form10-Q and Form 10-K filings, disclosing in a tabular format input assumptions for GDP and unemployment for three future quarters reaching out eighteen months combined with some explanatory narrative. In reviewing those disclosures and comparing them to PCL activity, the following observations are noteworthy. As the pandemic hit, JPM built up its initial reserves with significant provisioning in Q1-2020 and Q2-2020, which is reasonable and expected. Additionally, it disclosed the underlying economic assumptions it was using. For various reasons, the country fortunately avoided a severe economic downfall; consequently, JPM recorded a minimal provision in Q3-2020 and then recorded a PCL reversal in Q4-2020, which seems reasonable. The GDP and unemployment input assumptions used for the Q4-2020 ACL determination and PCL reversal were more optimistic than those used at Q3-2020 which is consistent with recording a reversal. Yet, in perspective, overall NCOs in 2019 were \$5.629B and remained stable at \$5.529B in 2020 in spite of the pandemic, while it reported a PCL of \$5.585B for the year 2019 under the "incurred loss" model and \$17.480B for the year 2020 under CECL, inclusive of the Q4-2020 reversal.

As 2021 unfolded, JPM reported a PCL reversal each quarter, resulting in a total reversal of \$9.256B for the year. This trend seems reasonable as the economic environment improved, forecasting prognostications were more comparable, and its NCO decreased significantly to \$2.865B. However, as already noted, its NCO had not really increased dramatically in 2020. In combination, 2019 was a "normal" economic environment while 2020 was "chaotic" because of the pandemic; nonetheless, JPM's NCO remained stable across the two years. When the economic environment improved somewhat in 2021, its NCO decreased significantly. Perhaps the 2021 PCL reversals could have been more aggressive sooner, but Q1-2021 was the largest of the four quarters of reversal, consistent with management taking a decisive PCL action as the outlook for 2021 began to appear more optimistic. Overall, actions taken by JPM seem consistent with the disclosures of its forward-looking input assumptions. Input assumptions for forward-looking unemployment showed improving conditions with decreases at each quarterly assessment date. While the input assumptions for GDP at December 31, 2020 reflected a modest recovery developing, and then the following quarterly disclosures showed increasing optimism. For 2021, JPM reported \$9.256B of PCL reversals compared to \$2.865B of NCO, thereby drawing down its ACL substantially.

Interestingly, for the two-year period ending 2021 overall, JPM's PCLs totaled \$8.224B compared to \$8.124B of NCO. As a result, it had essentially reverted back to the ACL level determined when adopting CECL: \$18.584B at January 1, 2020, compared to \$18.689B at December 31, 2021. The experience gained through working with CECL from adoption through the following eight quarters (including through the pandemic) had resulted in the same ACL level, but was determined with much different economic outlook assumptions. In particular, upon adoption at January 1, 2020, the unemployment rate outlook for Q2-2020 was 3.7%, for Q4-2020 was 3.8%, and for Q2-2021 was 4.0%, while the GDP growth rate outlook for Q2-2020 was 0.9%, for Q4-2020 was 1.7%, and for Q2-2021 was 2.4%. On the other hand, at December 31, 2021, there was a comparable unemployment rate outlook for Q2-2022 of 4.2%, for Q4-2022 of 4.0%, and for Q2-2023 of 3.9%, while there was a more optimistic GDP growth rate outlook for Q2-2022 of 3.1%, for Q4-2022 of 2.8%, and for Q2-2023 of 2.1%.

In summary, the overall economic outlook inputs used appear more optimistic at December 31, 2021 than when CECL was adopted and NCO experience has been declining over the two-year period, yet JPM management deemed the same level of ACL as appropriate. One would not expect such a result, and such begins to raise a concern as to whether the CECL/ACL represents a "best estimate" of loss expectations or a "contingency view" of what might happen. In Q1-2022 and Q2-2022, JPM's NCO aggregated \$1.239B (a decrease compared to \$1.791B in 2021's first two quarters) which annualized is \$2.478B and somewhat less than 2021's \$2.865B, which in itself was an improvement from 2020. Yet, JPM recorded a surprisingly large Q1-2022 provision of \$1.328B and continued at a high level with a \$1.230B provision in Q2-2022, totaling \$2.558B for the six months compared to \$1.239B of NCO over the same period, thus building up the ACL. However, the input assumptions disclosed by JPM as used in Q1-2022 were more upbeat than those used at year-end 2021, yet it recorded a significant and unexpectedly high provision of \$1.238B after recording a Q4-2021 reversal provision of \$1.288B. That reversal was done in spite of an increase in the negativity of the underlying input assumptions compared to those used at Q3-2021. That is, even as its input assumptions worsened for establishing the Q4-2021 ACL from those used in Q3-2021, JPM reported a reversal, then disclosed even more optimistic input assumptions for Q1-2022 only to record what appears to be an inconsistently large PCL.

To review, JPM's Q4-2021 input assumptions, while still upbeat, significantly softened from those used for Q3-2021; nevertheless, it still recorded a significant \$1.288B reversal provision comparable to that in Q3-2021. Then in Q1-2022, its input assumptions were more optimistic than those at Q4-2021, yet it recorded a high provision of \$1.238B. Such a PCL and input sequence is inherently illogical unless management is judgmentally overriding the CECL modeling results. In fact, in its Form 10-Q, management explains Q1-2022's unexpected PCL increase stating that "*greater weight given to adverse scenarios.*" One would

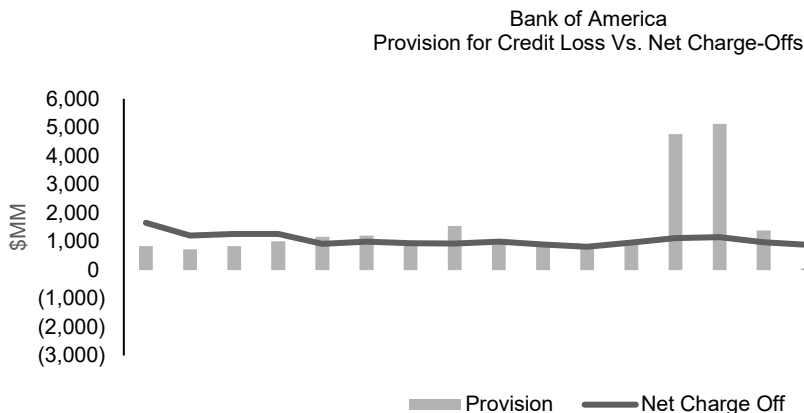
expect the selection of input assumptions to already represent a consideration of appropriate forecast scenarios with inputs considered most probable being the ones used and disclosed. Further, on April 13, 2022, the day of the earnings press release, the Wall Street Journal reported that “...[JPM] surprised Wall Street by setting aside \$900 million in new funds to prepare for economic turmoil...” arising from uncertainties concerning rising inflation and the Ukrainian war, and that the CEO had commented, “No one knows what’s going to turn out” and that while commenting that a recession is far from a sure thing, said “Is it possible? Absolutely” (Benoit, 2022a). Again, one can muse that the ACL/PCL activity possibly moved toward a “contingency” instead of “best estimate” perspective.

In Q2-2022 and Q3-2022, JPM recorded PCLs significantly in excess of NCOs, thereby continuing to build its ACL. However, for those quarters, the underlying disclosures of input assumptions displayed increasing management pessimism regarding the economic outlook, and therefore were consistent with comments by the CEO, per the Wall Street Journal on October 10, 2022 reporting on a CNBC interview that same day, that actions by the Federal Reserve and consequences of the war in Ukraine are “...likely (emphasis added) to put the U.S. in some kind of a recession in six to nine months from now” (Benoit, 2022b). As a result, it is not surprising that JPM again recorded a larger PCL in Q4-2022 of \$2.288B compared to NCO of \$887M for the quarter, while noting in its January 13, 2023, earning press release that doing so was “...driven by modest deterioration in the Firm’s macroeconomic outlook, now reflecting a mild recession in the central case...” And the disclosed base input variables for GDP and unemployment in its Form 10-K depicted greater pessimism compared to those disclosed for the Q3-2022 PCL determination with GDP growth for 4Q-2023 dropping to only up 0.4% from up 1.2% and presenting a first estimate for Q2-2024 of zero GDP growth, with related estimates for unemployment showing increases to 5.0% by Q4-2024.

However, JPM’s additional Form 10-K disclosures about those input assumptions indicate the influence of other management judgments: “The firm’s [ACL] is estimated using a weighted average of five internally developed macroeconomic scenarios. The adverse scenarios incorporate more punitive macroeconomic factors than the central case assumptions provided in the table below, resulting in a weighted average U.S. unemployment rate peaking at 5.6% in the second quarter of 2024, and a 1.2% lower U.S. real GDP exiting the second quarter of 2024.” This disclosure evidences the significance of management judgment influencing CECL modeling and determining what actual prognosis is being used to forecast the ACL need, and, while a very helpful disclosure, it also masks the overtness encountered during the pandemic when some banks explicitly disclosed the increment to the PCL that was management judgment (Pinello & Puschaver 2020, 2022). Overall, for 2022, JPM reported PCLs aggregating \$6.839B compared to NCOs of \$2.853B, thereby building up its ACL by nearly 19%. We next turn our attention to Bank of America (BAC) which is the second largest bank in the country and also has a wide-ranging array of lending activities. It has been providing narrative discussions of its CECL input assumptions in its Form 10-Q’s generally with less detail than provided by JPM. It had also been reporting that it was maintaining a reserve for unfunded lending commitments. Similar to JPM, upon adopting CECL, BAC increased its ACL by 32% up to \$13.481B, noting that a portion related to unfunded commitments. Figure 4 displays BAC’s reporting trend for quarterly PCLs compared to NCO.

Once again it is evident that there was stability in the relationship between quarterly PCLs and NCOs prior to CECL adoption. For those three years combined, BAC had PCLs of \$10.268B which is about 10% less than its NCO of \$11.390B and, as a result, its ACL had declined slightly, but the trend was similar to JPM’s. BAC’s 2020 quarterly PCLs, while generally consistent with JPM’s, showed a slightly different pattern. In Q1-2020, BAC recorded a PCL of \$4.761B then increased that slightly in Q2-2020 to \$5.117B, just as JPM had done a slight increase in Q2-2020 from Q1-2020. However, BAC recorded a PCL of \$1.389B in Q3-2020 while JPM was dropping its provision to a more minimal \$611M. Further, in Q4-2020 BAC recorded a nominal \$53M PCL while JPM recorded a meaningful first of five straight quarters of reversals.

Figure 4: Bank of America’s Quarterly Provision for Credit Losses and Net Charge-Offs for 2017-2022



This figure depicts Bank of America’s quarterly PCLs and NCOs for the first quarter of 2017 through the fourth quarter of 2022.

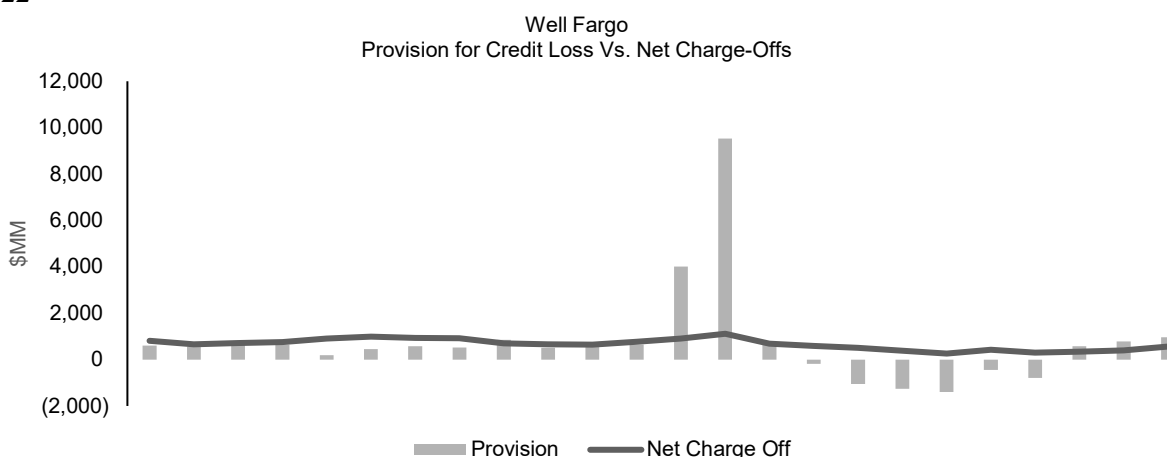
Similar to JPM, for the two-year period after adopting CECL, BAC reported total PCLs of \$6.726B compared to NCOs of \$6.364B, so its ACL only increased modestly to \$13.843B from its CECL adoption level of \$13.481B. BAC did not disclose details of its input assumptions upon adoption of CECL so one cannot make a direct comparison to the 2021 year-end input assumptions regarding economic outlook. However, it did disclose: “As of January 1, 2020, the Corporation’s economic outlook was weighted to include a moderate potential of a recession with some expectation of tail risk similar to the severely adverse scenario used in stress testing.” Even though its ACL level remained fairly constant over the two-year period with only a slight increase, as detailed below, its assumptions at December 31, 2021 would appear more optimistic. Therefore, similar to JPM, the overall input outlooks used appear more optimistic at December 31, 2021 than when CECL was adopted and NCO experience was declining over the two-year period, yet management deemed as appropriate a similar level of ACL. This pattern again brings into question whether the CECL/ACL represents a “best estimate” of loss expectations or a “contingency view” of what might happen. In reviewing BAC’s disclosures, it is evident that there was not much change in the key input assumptions for unemployment from those at Q4-2020 versus those at Q4-2021 and a modest decline in outlook for GDP. Per BAC’s 2021 Form 10-K, the input assumptions used at December 31, 2020 were an unemployment rate outlook of 6.6% at Q4-2021, 5.5% at Q4-2022, and 5.0% at Q4-2023 combined with a GDP growth rate outlook of 2.5% at Q4-2021, 2.4% at Q4-2022, and 2.1% at Q4-2023. In contrast, the year-end 2021 ACL input assumptions were disclosed as “average unemployment rate will be just above 5 percent by the fourth quarter of 2022 and slowly declines to just under 5 percent by the fourth quarter of 2023” and “...[GDP] is forecasted to grow at 2.1 percent and 1.9 percent year-over-year in the fourth quarters of 2022 and 2023.” Note that the forecasting disclosure at this point was forward-looking for only two years instead of the three-year forecasting window previously used. This change represents a noticeable reduction in the precision and detail of BAC’s disclosures regarding forecasts.

BAC’s Q4-2022 report showed a PCL of \$1.092B exceeding all of the earlier quarters, and combined with NCO of \$689M, it means it was building its ACL. BAC commented in its January 13, 2023 press release that such was due to “loan growth and a dampened macroeconomic outlook.” During the earnings conference call that same day, Brian Moynihan CEO commented: “Our baseline scenario contemplates a mild recession... But we also add to that a downside scenario. And what this results in is 95% of our reserve methodology is weighted toward a recessionary environment in 2023... This scenario is more conservative than last quarter’s scenario. Now to be clear... it contemplates a rapid rise in unemployment to peak at 5.5% early this year in 2023 and remain at 5% or above all the way through the end of [2024], obviously, much more conservative than the economic estimates that are out there.” Comments in its 2022 Form 10-K were consistent with the above and added that “U.S. [GDP] was forecasted at 2.1 percent and 1.9 percent year-

over-year in the fourth quarters of 2022 and 2023.” Overall, for 2022 BAC reported PCLs aggregating \$2.543B while experiencing \$2.172B of NCOs so it built its ACL slightly less than 3%.

Turning our attention to Wells Fargo Corporation (WFC), the fourth largest bank in the country that also has a wide-ranging array of lending activities, we note that WFC also had been disclosing that it was maintaining an allowance for unfunded credit commitments prior to CECL. However, in contrast to JPM and BAC, upon adopting CECL, WFC decreased its ACL by 13% down to \$9.127B, commenting that a decrease was needed for commercial loans and an increase was needed for credit card operations and unfunded commitments. Its various commentaries indicated that unemployment and GDP forecasts were key components used in determining ACL levels, but we could not find any disclosures of the actual assumptions being used.

Figure 5: Wells Fargo Corporation’s Quarterly Provision for Credit Losses and Net Charge-Offs for 2017-2022



This figure depicts Wells Fargo Corporation’s quarterly PCLs and NCOs for the first quarter of 2017 through the fourth quarter of 2022.

As can be seen in Figure 5, once again it is evident that there was stability prior to CECL’s adoption in the relationship between quarterly PCLs and NCOs. However, for 2017-2019 combined, WFC had PCLs of \$6.959B which is about 17% less than its NCO of \$8.434B. As a result, it was drawing down its ACL even before the further decrease at the time of adopting CECL and to a greater degree than either JPM or BAC. Moreover, it had also been drawing down the ACL in the period 2013 through 2017. This pattern is consistent with WFC’s management apparently viewing the ACL as having been too great under both the incurred loss accounting model and the new CECL model.

Once the pandemic evidenced itself and economic turmoil and uncertainty became a universal concern, WFC increased its ACL with a large PCL of \$4.005B in Q1-2020 which seemed comparable to the PCLs being reported by JPM and BAC in light of its smaller size and accordingly lower ACL level. However, thereafter in Q2-2020, WFC reported a stunning PCL of \$9.534B, but without disclosing any input assumptions. The disclosure it made for the Q2-2020 PCL was that they did “*apply some weighting on a downside scenario to reflect the uncertainty in the economic forecast*” but it did not disclose an amount. Its Form 10-Q included several paragraphs discussing the sensitivity of the CECL analysis and the almost poignant observation: “*Management believes that the estimate for the ACL for loans was appropriate at the balance sheet date. Because significant judgment is used, it is possible that others performing similar analyses could reach different conclusions.*” In its disclosures, WFC also commented that under certain scenarios the PCL might have even been \$5B greater than reported. Such a statement reflects how dramatically different ACL/PCLs can be depending on input assumptions.

In Q3-2020, WFC recorded a PCL of \$769M which is comparable to the \$683M of NCO it experienced. It went on to record a modest PCL reversal of \$179M in Q4-2020 compared to NCO of \$584M, although together the two quarters evidence a drawing down of the ACL. The explanation for the Q4-2020 reversal was disclosed as being “... *predominantly due to a \$757 million reserve release due to the announced sale of our student loan portfolio, as well as lower net charge-offs.*” Thereafter in 2021, WFC recorded PCL reversals every quarter aggregating \$4.155B compared to NCO of \$1.574B, further drawing down the reserve. Viewing 2020 and 2021 in total, WFC recorded PCLs of \$9.974B compared to NCO of \$4.863B, maintaining an ACL of \$13.788B well in excess of the \$9.127B established upon CECL adoption at January 1, 2020. This pattern is dramatically different than that of JPM and BAC. Of further note, WFC has been enduring severe regulatory pressure for many of its practices and it cannot be known what effect, if any, that pressure has had on the CECL/ACL determinations. In 2022, WFC’s PCLs were fluctuating: a reversal of \$787M in Q1-2022, \$580M for Q2-2022, \$784M for Q3-2022, and \$957M for Q4-2022. For 2022 overall, its PCL of \$1.534B was slightly less than the \$1.608B of NCO experienced so its ACL was drawn down slightly, in contrast to JPM and BAC who built up their ACLs during the year. As noted in WFC’s Form 10-K footnote to the financial statements, “*The ACL for loans decreased \$179 million from December 31, 2021, reflecting reduced uncertainty around the impact of the COVID-19 pandemic on our loan portfolio. The decrease was partially offset by loan growth and a less favorable economic environment.*”

The above asserts a view of less uncertainty but within the context a less favorable economic environment at the end of 2022 compared to the end of 2021. Above we noted that at Q2-2020, WFC had introduced in the Form 10-Q a broad discussion about the sensitivity of the CECL/ACL determination, noting that others using the same data might discern a need for a \$5.0 billion greater PCL. While commenting on a less favorable economic environment at the end of 2022 compared to the end of 2021, the economic environment at the end of 2022 was still much better than that which was apparent at Q2-2020. However, WFC continued to have an expansive discussion about the sensitivities involved in the CECL/ACL determinations:

“Our sensitivity analysis does not represent management’s view of expected credit losses...we applied a 100% weight to a more severe downside scenario...the sensitivity analysis resulted in a hypothetical increase in the ACL for loans of approximately \$7.0 billion at December 31, 2022. The hypothetical increase in our ACL for loans does not incorporate the impact of management judgment for qualitative factors applied in the current ACL for loans, which may have a positive or negative effect on the results. It is possible that others performing similar sensitivity analyses could reach different conclusions or results.”

It appears that CECL has brought into play additional concerns about conservatism – the above yearend comment by WFC regarding the \$7.0B uses the same language framing as in Q2-2020 when it recorded a very large PCL and expressed that others might feel that an additional \$5.0B could be warranted, although, without a doubt the forward-looking economic outlook and uncertainty was much, much greater and downcast at Q2-2020 amid the pandemic than it was at the end of 2022. Such appears to represent an inconsistent base of analysis being applied.

2022 Year-End CECL/ACL Positioning

All three banks reported earnings on January 13, 2023, and all three increased their PCL in Q4-2022 compared to Q3-2022 and above their NCO for the quarter, thereby building their ACLs. All three had Q4-2022 NCO greater than they experienced in Q3-2022. There is a required disclosure in Form 10-Ks that management present an allocation of the ACL to the various segments of the lending portfolio. At December 31, 2022, the three banks, each of which had experienced a favorable trend of reducing NCO over the three years since CECL’s adoption, and each of which had somewhat similar loan portfolios, were in the following postures regarding their CECL/ACL: JPM had an ACL of \$22.204B representing 7.8x its NCO during 2022. The ACL for unfunded commitments was 10.1% of the total ACL. Its consumer-related

lending portfolio was 43.7% of its total lending portfolio, yet was allocated 59.6% of the ACL. However, it also disclosed that its total credit exposure, including unfunded commitments and the consumer-related exposure, was 52.3%, which leads one to infer that higher ACL allocation to consumer reflects that additional unfunded exposure. BAC had an ACL of \$14.222B representing 6.6x its NCO during 2022. The ACL for unfunded commitments was 10.8% of the total ACL. Its consumer-related lending portfolio was 43.6% of its total lending portfolio and was allocated 50.9% of the ACL.

WFC had an ACL of \$13.609B representing 8.5x its NCO during 2022 -- the greatest coverage out of the three banks. The ACL for unfunded commitments was only 4.6% of the total ACL compared to the ten percent levels for JPM and BAC. Its consumer-related lending portfolio was 41.7% of its total lending portfolio and was allocated 48.9% of the ACL, but it also disclosed that 54.3% was allocated to the consumer banking and lending segment, although it did not explain the distinction between the two allocations. Additionally, regarding the allocation to residential mortgage activity, there was a footnote disclosing that the amount “*includes negative allowance for expected recoveries of amounts previously charged off*” – a similar commentary was also made by BAC. In summary, all three banks display similar and yet diverse positioning reflective of their own experience and perceptions of what is likely to evolve. Yet, from past hindsight, the various forecasts used by all three will most likely not be what actually unfolds for the economy. During 2022, JPM built its ACL by almost 19%, BAC built its ACL by nearly 3%, and WFC drew down its ACL by a modest amount. Their year-end ACLs represent a range of coverage compared to their 2022 NCO experience with WFC appearing to have the most conservative posture.

As reported by the Federal Deposit Insurance Corporation’s (FDIC, 2023) Quarterly Banking Profile released on February 28, 2023, in pandemic-stressed 2020, the banking system recorded \$132B of PCLs up significantly from \$55B in 2019, followed in 2021 by \$31B of PCL reversals, only to then be followed by \$52B of PCLs in 2022. The posturing by the three large banks in our sample, which have a significant representation within the banking system, has been generally consistent with that of the banking system as a whole. In 2020, these three large banks recorded \$43.0B of PCLs (about 32% of the system total), then in 2021 recorded \$18.0B of net PCL reversals (about 58% of the system total), and then followed in 2022 with \$10.6B of PCLs (representing about 20% of the system total). At yearend 2022, there was an evolving consensus regarding the macroeconomic outlook as reported by CNBC on December 28, 2022, noting that its latest quarterly CFO Survey revealed an 80% sentiment that there will be a recession in 2023 with views evenly split as to whether it will be in the first or second half of the year (Rosenbaum, 2022). Furthermore, prior to earnings reports, on January 3, 2023, the Wall Street Journal reported that “*More than two-thirds of the economists at ... 23 large financial institutions ... are betting the U.S. will have a recession in 2023. Two others are predicting a recession in 2024*” (Rabouin, 2023, p. B1).

CECL Evolution Post-Pandemic

Before the adoption of CECL, PCLs were fairly steady as one would expect under the previous “incurred loss” accounting model being applied within an environment when NCOs were steady. In contrast, beginning with the adoption of CECL amid the great economic uncertainties generated by the pandemic at January 1, 2020, PCLs reported each quarter began to have great variability. Such variability is readily attributable to the macroeconomic forecasting required by CECL when management is developing ACL estimates in such an uncertain environment. But one must keep in mind that major characteristics of the macroeconomic models are the various inputs used by management concerning GDP and unemployment, which can vary greatly from one management team to another as documented by Pinello and Puschaver (2020, 2022). Experts discuss to no agreed conclusion what would be an appropriate point to consider as “post-pandemic.” The pandemic caused many disruptions such as changes in workforce behavior and supply-chain bottlenecks and shortages, etc. It is therefore a fundamental historical event that will have consequences for years. But, as noted earlier, now management is contending with those lingering issues

and uncertainties within a more typical business cycle framework, such as the Federal Reserve increasing interest rates to stem inflation and concerns over GDP growth or possibly a recession.

Implementing CECL in Q1-20 and through the pandemic evidenced many discontinuities as management teams struggled to form reliable and responsible macroeconomic forecasts and establish ACL targets that they considered the most appropriate in the circumstances. However, one would expect that by the end of 2020, as it became clear that the economy was stabilizing and after having performed five quarters of CECL analysis (at adoption plus the four quarters of 2020) and also having devoted three years to developing the CECL modeling process, that management had achieved sufficient experience and familiarity with the issues. However, for early 2020, we observed an obvious and expected pattern of significant PCLs being reported, which built related ACLs only to then taper off and even approach some reversals as the year concluded. For the following year, 2021, we observed a pattern of near universal PCL reversals. Yet, thereafter we observed more differing behaviors in 2022, some of which seem inconsistent with the underlying disclosures of macroeconomic assumptions being used. Further, bank management teams have regularly used "what if" scenario planning for asset-liability management of bank balance sheets or securities trading activities, since interest rates change daily as do deposit inflows and outflows and management must seek to maintain adequate liquidity. As CECL modeling has evolved, management has also been implementing such scenario planning analytics. As noted in the discussion above, the use of this approach has morphed the concept of management forming a "best estimate" of CECL/ACL needs into a more mathematical "probability" analysis which covers a wide array of possibilities including those that might be very unlikely. As disclosed by JPM in its 2022 Form 10-K, the result is that the assumptions melded into its scenario analytics are different than the ones management might consider as its "best estimate."

CONCLUDING COMMENTS

The current expected credit loss (CECL) framework is an improved, more forward-looking accounting model in that it has met social policy needs for banks to provide timelier provisions for credit losses (PCLs). Notably, social policy has a bias toward conservatism for the financial industry. However, there no longer appears to be as meaningful a correlation between credit loss provisioning and subsequent actual net charge-offs (NCOs) experienced or even necessarily to management's base modeling assumptions about the evolving economy. While reporting NCOs is anticlimactic to the establishment of an allowance for credit losses (ACL), their relative constancy over the last six years compared to ACL/PCL fluctuations displays that CECL may have actually harmed the utility of credit loss provisioning for consistency and comparability while meeting the social policy need for conservative reserving. Jamie Dimon, JPMorgan (JPM) CEO, has been an outspoken critic regarding CECL: during the Q4-2020 earnings conference call on January 15, 2021, with analysts when JPM reported a PCL reversal, he commented: "...*It's ink on paper...*" consistent with views he has expressed at other times; and during the Q1-2022 earnings conference call on April 13, 2022, "... *and it's a guess. It's probability weighted, hypothetical, multiyear scenarios that we do the best we can, but to spend a lot of time on earnings calls about CECL swings is a waste of time. It's got nothing to do with the underlying business;*" and echoing again during the Q3-2022 earnings conference call with analysts on October 14, 2022, he added: "... *CECL is an enormously bad accounting policy... because it's not a real number. It's a hypothetical probability-based number...*" While the adoption of the CECL/ACL accounting model was a significant event, as outlined above, it has evolved into important information being presented in a manner that is at odds with the precepts outlined in the Financial Accounting Standards Board's (FASB) Statement of Financial Accounting Concepts (SFAC) No. 8 – Conceptual Framework for Financial Reporting (2010) which prioritizes the usefulness of information for decision-making as most important and in particular comparability and consistency, noting:

"...information about a reporting entity is more useful if it can be compared with similar information about other entities and with similar information about the same entity for another period or another date.

Comparability is the qualitative characteristic that enables users to identify and understand similarities in, and differences among, items. Unlike the other qualitative characteristics, comparability does not relate to a single item. A comparison requires at least two items. Consistency, although related to comparability, is not the same. Consistency refers to the use of the same methods for the same items, either from period to period within a reporting entity or in a single period across entities. Comparability is the goal; consistency helps to achieve that goal. Comparability is not uniformity. For information to be comparable, like things must look alike and different things must look different. Comparability of financial information is not enhanced by making unlike things look alike any more than it is enhanced by making like things look different.... Although a single economic phenomenon can be faithfully represented in multiple ways, permitting alternative accounting methods for the same economic phenomenon diminishes comparability.” (FASB, 2010, p. 4-5).

The three banks studied disclosed that they had used scenario analytics which by its nature implies a range of underlying CECL/ACL calculations, but the degree of detail and insight disclosed was very different and not comparable, thereby reducing its utility for investors: JPM discussed that the central case input assumptions disclosed for gross domestic product (GDP) and unemployment were essentially morphed into different and more pessimistic input derivations as management placed greater weighting on more conservative scenarios, and it also disclosed that second set of resulting assumptions. Good information, but then one is left to wonder: What exactly are the firm’s assumptions? Because a blend of scenarios and management’s judgmental weighting thereof that can change quarter-to-quarter is not a real input at all (which is consistent with Jamie Dimon CEO’s observations discussed earlier). Bank of America (BAC) disclosed that its baseline scenario contemplates a mild recession and that it then adds in a more downside scenario such that overall the reserve is weighted 95% toward a recessionary environment in 2023, and acknowledged such a view was much more conservative than the economic estimates being publicized by others. While it discloses inputs for GDP and unemployment, one does not know how to compare that information to JPM which actually disclosed two versions of the GDP input data points

Wells Fargo Corporation (WFC) discussed that it had done a “sensitivity analysis” that applied a 100% weight to a severe downside scenario and commented that such might lead to a further increase to the ACL of \$7.0B, which would be very significant compared to its yearend 2022 ACL of \$13.6B. The disclosure difference is so great as to leave one confused and possibly alarmed as to the intended messaging. Without some insight as to the various input assumptions for the severe scenario, one cannot make a comparison to the inputs used for the CECL/ACL that was reported, especially as those were not disclosed. Thus, the reader only knows the impact that management feels could arise in a severe scenario, but cannot make an insightful comparison to what was actually reported without also knowing management’s views regarding ACL levels under an optimistic scenario, or be able to compare WFC’s views to those at other banks.

Overall, these three examples display obvious stresses in meeting SFAC No. 8’s objectives for comparability and hence usefulness. Furthermore, although highly quantitative, it is not possible to consistently relate the CECL/ACL assessments to any external benchmarks. Amid the grappling with CECL reporting requirements, there has been a renewed emphasis on auditing estimates with the Public Company Accounting Oversight Board’s (PCAOB) issuance of Auditing Standard (AS) 2501, *Auditing Accounting Estimates, Including Fair Value Measurements* (PCAOB, 2018), and by the American Institute of Certified Public Accountants’ (AICPA) issuance of Statement on Auditing Standards (SAS) 143, *Auditing Accounting Estimates and Related Disclosures* (AICPA, 2020). However, the estimates being recorded inherently have tremendous flexibility: as noted by Brian Moynihan, BAC CEO, during the Q4-2022 earnings conference call on January 13, 2023, commenting that BAC’s forecasts for the economy were “...obviously, much more conservative than the economic estimates that are out there”; as well as by WFC in its 2022 Form 10-K commenting that its sensitivity analysis could lead to a projected need for an ACL of \$7.0 billion greater than that reported by management; and, as noted earlier, JPM’s disclosure in its 2022

Form 10-K concerning the degree to which use of scenario weighting had generated more conservative results than the core input assumptions for GDP and unemployment.

Moreover, all CECL-related numbers are adjusted via management judgment for qualitative factors. Overall, the resulting CECL/ACLs may not necessarily reflect management's best estimate of what will happen; rather, they may be reflective of a "contingency aspect" beyond seeking a "most probable estimate" but such would not be consistent with generally accepted accounting principles (GAAP). In addition, the tone we observed of discussions regarding the weighting of scenarios in the CECL calculations appears to drift toward worst case situations and one wonders if there could arise a situation in which say JPM discloses that the result of its scenario weighting is GDP and unemployment inputs more optimistic than its central case, or that WFC might disclose that others could arrive at an ACL determination less than the one recorded? Our findings lead us to suggest that to overcome these issues, additional guidance should be issued to require that various aspects of the CECL/ACL determinations are more comprehensively disclosed and discussed by management in a manner consistent across all banks, specifically the input assumptions driving the CECL macroeconomic modeling and the nature and weighting of scenarios with a discussion of sensitivity. Furthermore, additional research is necessary. As noted, our research was limited to three of the country's largest banks and, while we believe our observations would be pertinent to other banks, additional research could confirm such. Further research could be insightful regarding a longer timeframe prospectively to see if CECL volatility reduces as its use becomes more familiar and it weathers several business cycles. In addition, research as to the degree of evolving disclosure being presented in other banks might be insightful. Lastly, the entire issue of "best estimate" would benefit from additional research to address the fundamental question of whether "best" should mean "most probable" as derived from an amalgamation of weighted probabilities for what "could" happen; e.g., while regulators subject banks to annual "stress tests" to gain insight as to how the banking system might endure a severe economic downturn, they do not require banks to have ACLs that reflect such a scenario.

REFERENCES

- American Institute of Certified Public Accountants (2020, July). Auditing Accounting Estimates and Related Disclosures. Statement on Auditing Standards (SAS) 143. New York, AICPA.
- Benoit, D. (2022a) "JP Morgan CEO Jamie Dimon Says 'Powerful Forces' Threaten U.S. Economy." *The Wall Street Journal*, April 13, 2022.
- Benoit, D. (2022b) "Jamie Dimon Sees U.S. Recession in 6 to 9 Months." *The Wall Street Journal*, October 10, 2022.
- Bonsall, S. B., Schmidt, B., and Xie, B. (2022) "Current Expected Credit Loss (CECL) Model and Analyst Forecasts." Working Paper, Pennsylvania State University.
- Cox, J. (2023) "U.S. GDP Rose 2.9% in the Fourth Quarter, More than Expected Even as Recession Fears Loom." *CNBC.com*, January 26, 2023.
- Federal Deposit Insurance Corporation (FDIC, 2023) *Quarterly Banking Profile, Time Series Spreadsheets, Annual Income*, vol.16(4) released on February 28, 2023, Washington, D.C.
- Federal Reserve Bank of Atlanta (2022) Center for Quantitative Research, *GDPNow*, December 23, 2022.
- Financial Accounting Standards Board (2010, September) *Conceptual Framework for Financial Reporting*. Statement of Financial Accounting Concepts (SFAC) No. 8, FASB, Norwalk, Connecticut.

Financial Accounting Standards Board (2016, June) *Measurement of Credit Losses on Financial Instruments*. FASB Accounting Standards Update (ASU) No. 2016-13, Topic 326 Financial Instruments--Credit Losses, FASB, Norwalk, Connecticut.

Gee, K. H., Neilson, J., Schmidt, B., and Xie, B. (2023) "Are Recognized Expected Credit Losses Decision-Useful and New to Investors?" Working Paper, Pennsylvania State University.

Jacobs, M. (2019) "An Analysis of the Impact of Modeling Assumptions in the Current Expected Credit Loss (CECL) framework on the Provisioning for Credit Loss." *Journal of Risk & Control*, vol. 6(1), 65-112.

Lopez-Espinosa, G., Ormazabal, G., and Sakasai, Y. (2021) "Switching from Incurred to Expected Loan Loss Provisioning: Early Evidence." *Journal of Accounting Research*, vol. 59(3), 757-804.

Pinello, A., and Puschaver, L. (2018) "Accounting for Credit Losses Under ASU 2016-13: Anticipating the Impact on Reporting and Disclosure." *The CPA Journal*, vol. 88(2), 54-59.

Pinello, A., and Puschaver, L. (2020) "CECL Encounters a 'Perfect Storm:' Complexity, Crisis, and Uncertainty." *The CPA Journal*, vol. 90(7/8), 20-28.

Pinello, A., and Puschaver, L. (2022) "Implementing CECL During the Pandemic: Second Quarter Reveals Unexpected Consequences." *The CPA Journal*, vol. 92(1/2), 20-27.

Pinello A., Puschaver, L., and Volkan, A. (2020) "The Relationship Between Critical Accounting Estimates and Critical Audit Matters." *Accounting & Taxation*, vol. 12(1), 23-33.

Public Company Accounting Oversight Board (2017) *The Auditor's Report on an Audit of Financial Statements When the Auditor Expresses an Unqualified Opinion*. Auditing Standard (AS) 3101, PCAOB Release No. 2017-001, PCAOB, Washington, D.C.

Public Company Accounting Oversight Board (2018) *Auditing Accounting Estimates, Including Fair Value Measurements*. Auditing Standard (AS) 2501, PCAOB Release No. 2018-005, PCAOB, Washington D.C.

Public Company Accounting Oversight Board (2022) "Staff Update and Preview of 2021 Inspection Observations." *PCAOB Spotlight*, December 2022, PCAOB, Washington D.C.

Rabouin, D. (2023) "Big Banks Expect Recession and Fed Pivot." *The Wall Street Journal*, January 3, 2023.

Rosenbaum, E. (2022) "Dow Headed Back Below 30,000, Slim Chance of a Soft Landing for Economy in 2023: CNBC CFO Survey." *CNBC.com The Bottom Line*, December 28, 2022.

Schroeder, R. H. (2023) "Research Opportunities to Confirm or Dispel the Myths of CECL: Looking Past the Headlines to Actual Results." *Journal of Accounting, Auditing & Finance*, vol. 38(2), 233-270.

The Conference Board Economic Forecast for the US Economy, December 14, 2022. New York, N.Y.

BIOGRAPHY

Arianna Spina Pinello, Ph.D., CPA, CIA is an Associate Professor of Accounting in the Lutgert College of Business at Florida Gulf Coast University. She is a Certified Public Accountant, a Certified Internal Auditor, and a member of the American Accounting Association, the Institute of Internal Auditors, and the Florida Institute of Certified Public Accountants. Dr. Pinello earned her Ph.D. in Accounting from The Florida State University in 2004, and her research has been published in a variety of academic and professional accounting journals.

Ernest Lee Puschaver, MBA, CPA specialized in audits of large banks during a 28-year career with PwC, and subsequently held executive finance positions with FleetBoston (acquired by Bank of America) and the Federal Home Loan Bank of Atlanta for over five years.