Current Expected Credit Loss Methodology and Loan Growth: Evidence from the COVID-19 Event

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In this note, we examine the impact of the current expected credit loss (CECL) standard on loan growth during the COVID event. We take advantage of the fact that CECL had not been adopted by all financial institutions to compare the behavior of loan growth in 2020 of banks that had adopted CECL and banks still under the incurred loss methodology (ILM). This comparison is effective at controlling for loan demand and other alternative explanatory factors. Further, we show that results are robust to the exclusion of the largest banks, which are subject to tighter prudential capital and liquidity standards that could provide confounding factors regarding the causes of weaker loan growth during the COVID event. Our collective findings are as follows:

- The allowance for credit losses for banks that adopted CECL rose markedly at the onset of the COVID event in response to the worsening of economic conditions. However, adjusting the allowances for credit losses using the transitional amounts allowed by the banking agencies, we show that the increase in reserves under CECL mimics closely those under ILM for all major loan portfolios except consumer.

- Regression analyses show that the change in the accounting framework is strongly negatively correlated with consumer loan growth (the sum of credit cards, auto, personal and student loans) during the COVID event.

    - More precisely, we estimate consumer loan growth is about 3 percentage points lower for a bank under CECL relative to a ILM bank during 2020, controlling for other bank characteristics and macroeconomic conditions.

    - The effect on consumer loan growth is mainly driven by reduced availability of credit card and other consumer loans (the sum of personal and student loans); in contrast, auto loans were not adversely affected by the adoption of CECL.

- Meanwhile, we find the adoption of CECL is uncorrelated with commercial and industrial, commercial real estate, and residential real estate loan growth. We argue the lack of correlation is the result of the transitional relief provided by the banking agencies.

- Overall, the results of the note indicate that CECL is procyclical. If the banking agencies had not dampened the impact of CECL on regulatory capital at the onset of the pandemic, the decline in regulatory capital would have likely forced banks to reduce lending more broadly.

BACKGROUND ON CECL

In June 2016, the Financial Accounting Standards Board (FASB) adopted the CECL methodology for reserving for credit losses of loans and other financial assets measured at amortized cost, including held-to-maturity debt securities. The CECL standard replaced the existing ILM framework on Jan. 1, 2020, and is deemed by many to be the most significant change in bank accounting standards in recent

memory.[1] Under CECL, banks are required to establish a credit loss allowance based on the expected lifetime credit losses of all financial assets measured at amortized cost, rather than recognizing credit losses only to the extent that they become probable and estimable at some point during the life of the loan. Thus, under CECL, every loan carries a reserve from the day that it is originated until it is repaid, whereas under ILM, most loans—specifically, those whose default never became probable—never carried a reserve. Banks are required to incorporate reasonable and supportable macroeconomic forecasts into their estimates of lifetime expected credit losses.

In theory, the change in the accounting standard from the ILM to CECL could lead to reduced credit availability, especially at the beginning of economic downturns, for two main reasons. First, under business-as-usual, non-stress conditions, banks generally need to hold higher loan loss reserves under CECL, because the standard applies to a wider range of financial assets. In addition, the allowance is expected to be higher for financial assets with long tenors, such as mortgage loans and certain types of consumer loans. Second, at the beginning of economic downturns, early recognition of losses under CECL is particularly pronounced—as witnessed during the early stages of the pandemic—because it is almost impossible to accurately predict the turning points in the business cycle. As a result, bank regulatory capital falls faster in stress under CECL relative to ILM during the periods of heightened economic uncertainty, as earnings are charged in order to build the allowance. The erosion in capital caused by the increase in reserves at the beginning of a recession could cause a further decline in credit availability and amplify the worsening of the initial shock.

The interaction between the new accounting standard and capital requirements has been recognized, but its impact on lending is not known. Before the start of the pandemic, the banking agencies offered affected banks the option to phase-in the "day-one" impact of the adoption of CECL on regulatory capital over a three-year period. At the onset of the pandemic, the banking agencies delayed the impact of the day-one impact of CECL on regulatory capital for the first two years, followed by a three-year phase-in period. Furthermore, banks were also allowed to delay a portion of the ongoing increase in the allowance for credit losses (a/k/a "day-two" impact) for the first two years, also followed by a three-year phase-in. Specifically, the banking agencies allowed banks to add back 25 percent of the increase in the allowance for credit losses under CECL to retained earnings.

The capital relief provided by the banking agencies is crucial to understanding the results outlined in this note. Specifically, the note investigates if there was still an impact of CECL on loan growth despite the efforts of the banking agencies to reduce the procyclicality of the framework, albeit temporarily. Although the agencies delayed the entire day-one impact of CECL on regulatory capital for the first two years, the ongoing change in the allowance could still have affected lending if the allowance under CECL (using the 25-percent post-tax haircut) exceeded the level of reserves under ILM. This could happen because the 25-percent scaling factor proposed by the banking agencies is not portfolio specific and was calibrated using benign economic conditions. Therefore, the 25-percent scaling factor could be too low for certain types of loans that tend to experience sharp increases in their reserves at the beginning of a downturn.

The banking agencies and the Basel Committee are monitoring the impact of expected credit loss accounting frameworks on the cyclicality of lending and seeing if changes in bank regulatory capital requirements are needed to mitigate procyclicality and the long-run increase in allowances for credit losses and loss absorbency. The results of this note are intended to provide helpful input toward those endeavors.

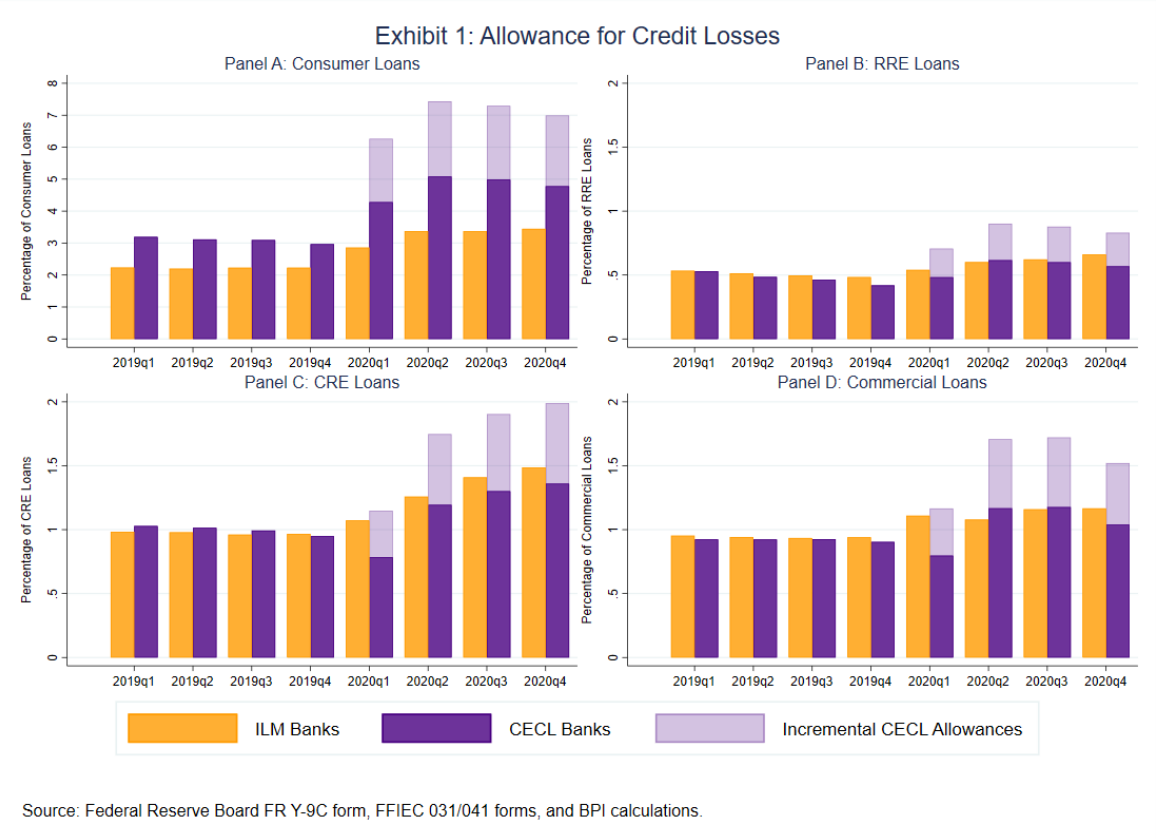
[1] The literature on CECL is still relatively sparse, but a recent book edited by Muzyka, Birade, Wang, and Zhang (2021) presents an excellent overview on the topic.

BEHAVIOR OF THE ALLOWANCE FOR CREDIT LOSSES DURING THE PANDEMIC

The objective of this section is to describe the behavior of reserves for credit losses between CECL and ILM banks before moving to the more formal analysis using regression analysis that controls for differences in banks' business models and macroeconomic conditions.

All large banks that are SEC filers were required to adopt the CECL standard to develop their allowance for credit losses as of Jan. 1, 2020. In October 2019, FASB delayed the adoption of CECL for smaller banks until Jan. 1, 2023. As noted earlier, banks must reserve for expected credit losses over the full expected life of the loan under CECL. Consequently, credit losses need to be forecasted, and the forecasts of expected loss over the full life of the loan depend on loan characteristics and a "reasonable and supportable" forecast of macroeconomic conditions. Since credit losses are generally highly correlated with overall economic conditions, the allowance for credit losses rises sharply when economic conditions deteriorate, and vice versa.

In aggregate, banks subject to the CECL standard reported $103 billion in the allowance for credit losses at the end of 2019 under the ILM standard. The adoption of CECL on Jan. 1, 2020, increased the allowance for credit losses about $32 billion in aggregate. At the end of the first quarter, the allowance for credit losses sat at $176 billion for banks under CECL. Thus, the worsening of economic conditions in the first quarter of last year accounted for more than half the increase in the allowance for credit losses. As a result of continuing deterioration in economic conditions, the allowance for credit losses peaked at $221 billion in 2Q20. So, banks under CECL built nearly an additional $120 billion in reserves, or 115 percent, over just two quarters. Reserves for banks under ILM rose much more modestly over the same period, from $16.1 billion to $19.5 billion, or 21 percent, over the first half of 2020.



Source: Federal Reserve Board FR Y-9C form, FFIEC 031/041 forms, and BPI calculations.

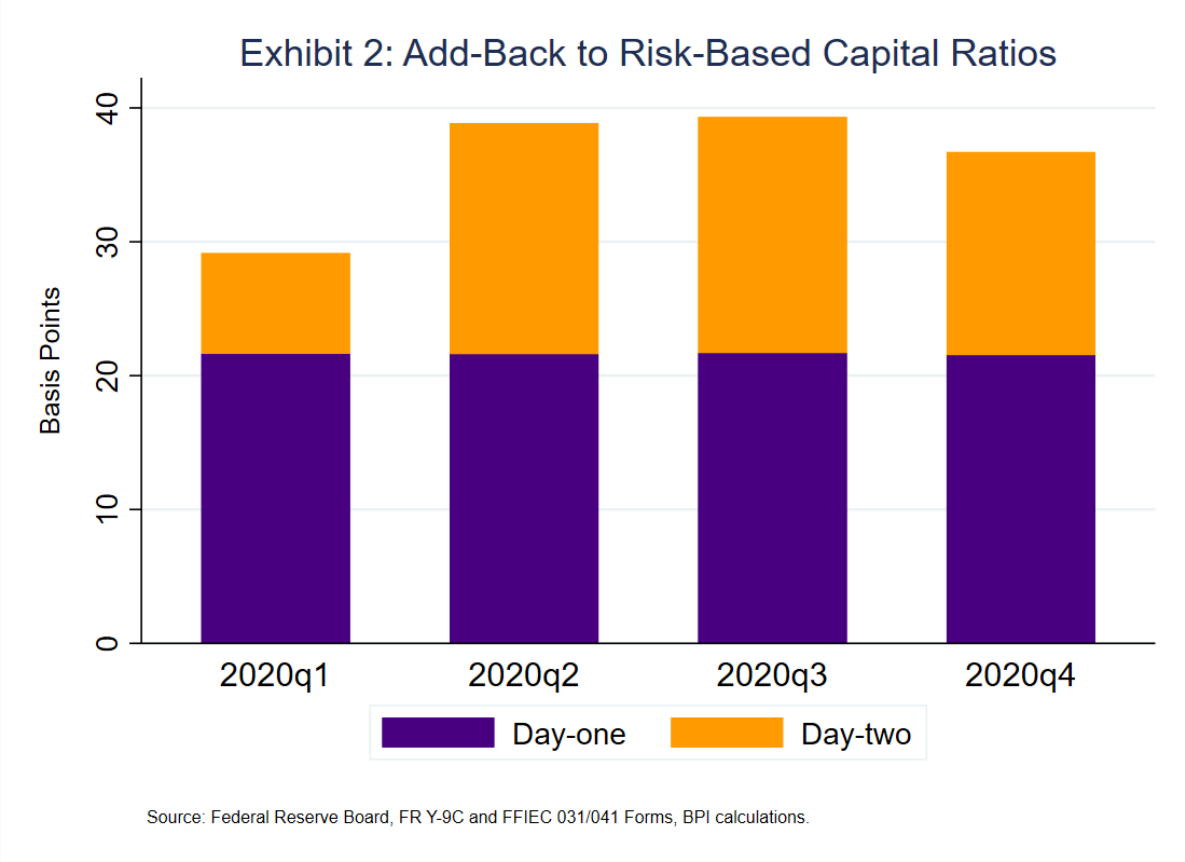
Exhibit 1 shows the allowance for credit losses relative to loans across the four major loan portfolios: consumer, residential real estate (RRE), commercial real estate (CRE), and commercial loans.[2] The purple bars represent the allowance for CECL banks, and the yellow bars for ILM banks. The increase in the allowance for credit losses was sharp for consumer loans and more gradual for CRE, commercial, and RRE loans.

The increase in the reserves for consumer loans was significantly driven by the deterioration of economic conditions, as well as by moving consumer loans from a framework that reserved for losses already incurred to one with a lifetime loss coverage. Consequently, for banks under the new reserving method, the allowance for losses on consumer loans increased from 3.0 percent to 6.3 percent between 4Q19 and 1Q20. The lighter portion of the purple bars represent the incremental CECL allowances that exceed the banking agencies' 25-percent scaling factor. The 25-percent scaling factor approximates the after-tax provision for credit losses attributable to CECL that is in excess of the provision under the ILM (pre-tax, it is about 32 percent). Thus, the darker proportion of each allowance bar represents the banking agencies' approximation of the allowance under the ILM for banks that have adopted CECL. Despite the impact of the CECL relief, the darker portion of the bar is nearly 2 percentage points above the allowance for banks under ILM in 2020 (up from less than 1 pp in 2019), which suggests the approximation for the allowance under ILM for CECL banks set by the banking agencies is insufficient for consumer loans.

For RRE loans, the allowance also roughly doubled from 0.4 percent of loans to 0.7 percent for banks that adopted CECL in 1Q20. However, when the 25-percent scaling factor is taken into consideration, the adjusted allowance under CECL is at about the same level as reserves under ILM. This suggests that the 25-percent scaling factor was set at an appropriate level for RRE loans. Similarly, the scaling factor also appears to have been calibrated at an appropriate level for CRE and commercial loans *after* 1Q20. The increase in CECL-based reserves in 2020 for business loans mainly reflects the worsening in the economic outlook. Moreover, the allowance for credit losses for CRE loans increased steadily over the course of 2020, and reserves of commercial loans appeared to have stabilized at the end of 2020, likely as the uncertainty in the economic outlook abated somewhat.

Interestingly, the adoption of CECL had less of an impact on the level of reserves in 1Q20 for business loans. Indeed, when we apply the 25-percent scaling factor the level of reserves is lower for CECL banks relative to ILM banks. One important factor is that banks are not allowed to use discounting on workout-related recovery cashflows under CECL. CRE and commercial loans typically have long workout periods, so using a discount factor of 1 can result in a material decrease in the LGD for CECL models relative to ILM. As a result, in aggregate the day-one impact of CECL was negative for business loans in a benign macroeconomic environment (that is, reserves under CECL were lower than reserves under ILM).

[2] The category "commercial loans" is broader than "commercial and industrial loans" because it includes all loans and leases not reported as real estate loans, credit cards, or other consumer loans (e.g., loans to nonbanks, etc).



Source: Federal Reserve Board, FR Y-9C and FFIEC 031/041 Forms, BPI calculations.

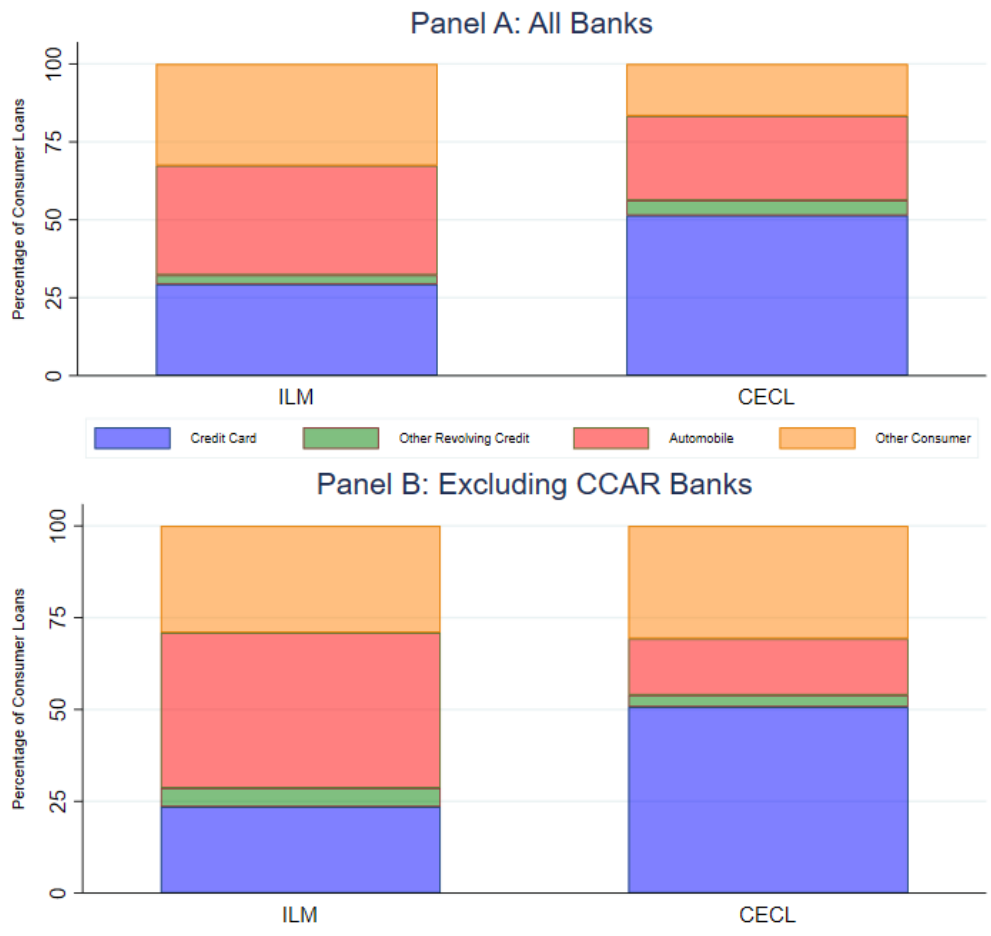
Exhibit 2 shows the impact of the CECL transition rule on regulatory risk-based ratios. The combined transitional regulatory capital relief was approximately 35 basis points during 2020 on average. More than one half of the add-back to retained earnings is accounted for the day-one impact of CECL and the remainder by the ongoing increase in the allowance for credit losses during 2020, or the day-two impact.

A CLOSER LOOK AT CONSUMER LOANS

Exhibit 1 suggests the increase in the allowance for credit losses on consumer loans substantially exceeds the rise in reserves under ILM, even after accounting for the CECL relief allowed by the banking agencies. Put another way, unlike with other portfolios, the agency relief was insufficient to prevent CECL from having a procyclical effect on consumer loans. This is because the allowance for the other portfolios increased more gradually, and those increases were effectively neutralized by the delay in the impact of CECL on regulatory capital.

The regulatory reports present data on loans outstanding for four different types of consumer loans: credit cards, other revolving loans, automobile loans, and other consumer loans. The latter category includes personal loans, student loans, and home improvement loans that are not secured by real estate. The allowance for credit loss schedule divides consumer loans into two portfolios: credit card loans and other consumer loans.

Exhibit 3: Distribution of Consumer Loans

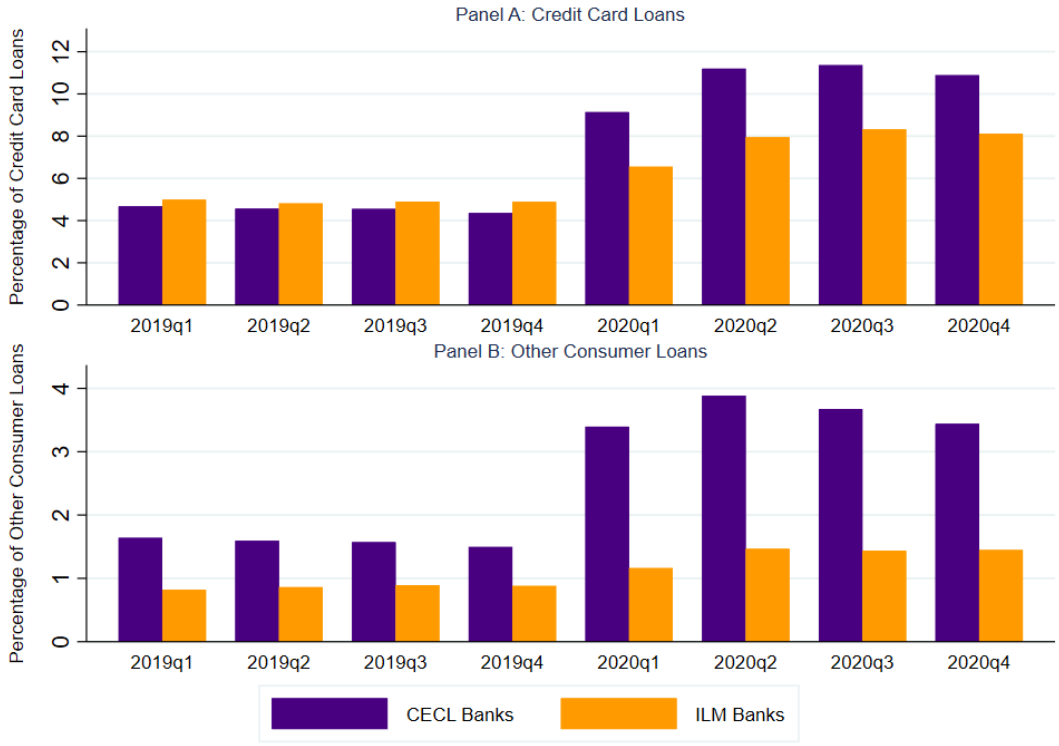


Source: Federal Reserve Board FR Y-9C form, FFIEC 031/041 forms, BPI calculations.

As shown in Panel A of Exhibit 3, credit card loans account for about 50 percent of consumer loans at CECL banks. ILM banks report a higher share of automobile loans and other consumer loans. As shown in Panel B, when the largest banks are excluded from the sample, there are still significant differences in the composition of consumer loans held by CECL and ILM banks. CECL banks tend to have a higher share of credit card and other consumer loans, while ILM banks report a larger share of automobile loans.

In addition, we can also further decompose the allowance for consumer loans. The regulatory data split reserves for consumer loans into credit cards and all other consumer loans. As seen in Exhibit 4, the rise in reserves is much more sudden for banks under CECL (Exhibit 4 excludes banks subject to the stress tests, since that is our baseline case). The difference is small for credit card loans after the CECL relief is taken into consideration. For other consumer loans, the increase in reserves is much steeper for CECL banks relative to those under ILM.

Exhibit 4: Allowance for Credit Losses for Consumer Loans



Source: Federal Reserve Board FR Y-9C form, FFIEC 031/041 forms, and BPI calculations.

ECONOMETRIC FRAMEWORK

To test for the impact of CECL on loan growth, we explore variation in the implementation of CECL across banks. CECL applies to all banks, which includes all banks and bank holding companies that file bank regulatory reports. However, the implementation of CECL is being phased in, and different banks have varying compliance dates. All publicly traded banks and SEC filers that do not qualify as smaller reporting companies had to comply with CECL on Jan. 1, 2020. The remaining banks must comply with CECL by Jan. 1, 2023. Moreover, the CARES Act also gave the option for some of the publicly traded firms to delay CECL implementation until Jan. 1, 2021.[3]

We are examining the impact of CECL on credit availability by comparing loan growth across CECL and ILM banks in response to the COVID event. Therefore, we compare loan growth at treated banks (i.e., those that have adopted CECL) against loan growth at untreated banks (those that have not yet adopted CECL and are still under ILM). Furthermore, the identification strategy also assumes that banks in the control group are similar to the treated banks, with the exception of the adoption of CECL. We take several steps in the empirical analysis to try to ameliorate concerns about omitted variables that are correlated with loan growth. Specifically, the baseline specification excludes bank holding companies with more than $100 billion in consolidated assets. Those banks are also subject to stricter prudential standards (i.e., stress tests) and have a slightly different portfolio composition

[3] Only a few banks opted to take advantage of the provision provided in the CARES Act and those banks are assumed to be under the ILM accounting standard in the analysis.

(e.g., larger share of credit card loans). In addition, all regression specifications include bank-specific time-varying determinants of loan growth and bank fixed effects to account for time-invariant unobservable factors at the bank level that may affect loan growth.

We estimate our model using the OLS regression model where i indexes banks and t indexes time (year-quarters) in Equation 1:

$$\text{Loan Growth}_{i,t} = \beta_1 \text{CECL}_i \times Recession_t + \text{Bank Controls}_{i,t-1} + \delta_i + d_t + \varepsilon_{i,t} \quad (1)$$

The dependent variable is annualized quarterly loan growth of bank i in time t. We include two sets of control variables. First, time-varying bank-level variables are used to control for differences between CECL and ILM banks. The set of bank level controls includes log of total assets, the Tier 1 leverage ratio, the share of liquid assets, the share of core deposits, the return on assets, and the share of nonperforming loans. All bank control variables are lagged one quarter to mitigate endogeneity concerns. Second, we include bank and year-quarter fixed effects. Bank fixed effects account for time-invariant observable and unobservable factors at the bank level that could explain the differences in loan growth between CECL and ILM banks. Lastly, year-quarter fixed effects account for economic shocks that could be correlated with loan growth.

The variable $CECL_i$ is an indicator variable equal to 1 if bank i is under the CECL accounting framework, and to zero otherwise. To prevent having the provisions in the CARES Act that offer temporary relief to banks to comply with CECL to drive some of our results, we only included banks that adopted CECL in the first quarter of 2020. The variable $Recession_t$ is an indicator variable equal to 1 if the year-quarter is part of a recession (defined by the National Bureau of Economic Research as the year 2020 after the first quarter of 2020 inclusive), and to zero otherwise. The standard errors are clustered by bank-quarter as it is standard in the literature.[4]

If banks that have adopted CECL will reduce lending as the economy entered in a recession by more than banks that are still using ILM, we expect $\beta_1 < 0$. The empirical strategy follows a differences-in-differences regression design. We need parallel trends to be able to interpret the results as causation; that is, before the COVID event, the trend in loan growth between the various loan types needs to be similar across CECL and ILM banks. Although the adoption of CECL has been discussed for some time among FASB, regulators, and the banks themselves, it is reasonable to assume that loan growth was similar before CECL was adopted, because of the benign macroeconomic environment.

SAMPLE

Our baseline sample includes all bank holding companies as well as banks not part of a bank holding company that have between $1 billion and $100 billion in total consolidated assets. Our sample period is between the fourth quarter of 2018 and the fourth quarter of 2020. We chose a short time-series window to better focus on the effect of CECL on lending and maintain a balanced number of observations before and after banks must comply with the CECL standard. The banks in our sample account for about 30 percent of consumer loans across all banks. In the regression analysis, we removed bank-quarters with annualized quarterly consumer loan growth exceeding 25 percent, because these banks have likely acquired other banks or purchased one or more loan portfolios during that quarter. Our final sample includes 4,965 bank-quarter observations from 699 unique banks.

Table 1 presents summary statistics for the variables included in our sample: 150 banks subject to CECL and 549 banks under ILM. For banks under CECL, about half of the sample of banks are between $1 billion and $10 billion,

[4] We used Stata's xtivreg2 routine by Baum, Schaffer, and Stillman to perform two-way clustering of standard errors.

and the remainder between $10 billion and $100 billion. For banks under ILM, more than 95 percent of the sample is between $1 billion and $10 billion. The average change in consumer loans is about -0.05 percent of assets. The average change in credit card, auto and other consumer loans is -0.02, -0.03 and -0.02 percent, respectively. The average bank in our sample has a leverage ratio of 10.1 percent, with average size of $2.6 billion, 80 percent in core deposits relative to total assets, a liquidity ratio of 23 percent, an average return on assets of 1.2 percent, and about 0.4 percent in nonperforming loans.

Table 1: Descriptive Statistics

This table presents the descriptive statistics for the primary variables employed in our study. Panel A includes the dependent variables and Panel B the explanatory variables. Loan growth is defined as the change in gross loans over the quarter scaled by total assets at the beginning of the quarter. All continuous bank-level variables are winsorized at the 1st and 99th percentiles.

Panel A: Dependent Variables					
	Mean	Std. Dev.	P25	Median	P75
ΔCONS	–0.0470	0.9502	–0.2100	–0.0383	0.0581
ΔCC	–0.0170	0.1772	–0.0259	–0.0008	0.0097
ΔAUTO	–0.0259	0.4226	–0.0427	–0.0012	0.0099
ΔOTHCONS	–0.0238	0.4632	–0.1102	–0.0181	0.0338

Panel B: Explanatory Variables					
	Mean	Std. Dev.	P25	Median	P75
Tier 1 Leverage	10.1150	2.2930	8.8228	9.7009	10.7864
Log of Size	14.7786	1.0721	13.9555	14.4249	15.3991
Liquidity	23.2483	11.0000	15.7479	20.8405	28.0508
Core Deposits	79.9697	7.7318	76.0808	81.5234	85.5810
Return on Assets	1.1637	0.6736	0.8546	1.1398	1.4217
Nonperforming Loans	0.4382	0.9804	0.0000	0.1278	0.4031

We do not include the largest banks in our baseline specification. They are subject to enhanced prudential regulation standards, and excluding the largest banks helps to identify the impact of CECL on loan growth during the COVID event. For instance, excluding the largest banks avoids results being driven by the effect of stress tests on loan growth. In addition, the capital requirements of stress-tested banks are different from those of the other banks, because the capital conservation buffer of 2.5 percent is replaced with a stress capital buffer (SCB) determined by bank performance in the stress tests. Moreover, the SCB is also affected by CECL, because the allowance for credit losses at the start of the stress tests is an important determinant of a bank's stress capital buffer. Consequently, if a deterioration in economic conditions immediately forces a bank to increase its allowance for credit losses under CECL, its performance in the stress tests would improve and result in a lower capital requirement if all else is the same. Thus, in theory the overall effect of CECL on loan growth could be mixed.

REGRESSION RESULTS

Table 2 reports the results of Equation 1 for consumer loans and across its main subcomponents: credit card loans, automobile loans, and other consumer loans. The change in loans is defined as the annualized change in gross loans over the quarter scaled by total assets in the prior quarter. The credit card loan series includes the sum of credit card loans and other revolving plans, since having the two sets of results separately did not change the results.

Table 2: CECL and Consumer Lending

This table presents the results of estimating Equation 1 using ordinary least squares. The dependent variable is either consumer loan growth, credit card loan growth, auto loan growth, or growth in other consumer loans. Loan growth is defined as the change in gross loans over the quarter scaled by total assets at the beginning of the quarter. The series is annualized. The main explanatory variable is $\mathrm{CECL}_i \times Recession_t$, which represents whether a bank is under CECL after the start of the recession. All regressions include the full set of control variables, bank fixed effects, and year-quarter fixed effects. All variables are defined in the appendix. Standard errors presented below are clustered by bank-quarter. ***, **, * denote two-tailed statistical significance at the 1-, 5-, and 10-percent levels.

Dep. Variable	(1) $\Delta CONS$		(2) ΔCC		(3) $\Delta AUTO$		(4) $\Delta OTHCON$	
	Excl. CCAR	All Banks	Excl. CCAR	All Banks	Excl. CCAR	All Banks	Excl. CCAR	All Banks
$CECL \times Recession$	–0.2019***	–0.3058***	–0.0188**	–0.0577*	–0.0181	–0.0228	–0.1310***	–0.1469***
	(0.0598)	(0.8457)	(0.0091)	(0.0316)	(0.0334)	(0.0315)	(0.0352)	(0.368)
Capital	0.0797***	0.0878***	0.0096**	0.0158*	0.0026	0.0076	0.0060	0.0072
	(0.0228)	(0.0279)	(0.0048)	(0.0084)	(0.0102)	(0.0117)	(0.0128)	(0.0122)
Size	–0.1141	–0.1945	0.0073	–0.0190	–0.0551	–0.0291	–0.0828	–0.0965
	(0.2248)	(0.2964)	(0.0672)	(0.1251)	(0.0760)	(0.0764)	(0.1296)	(0.1353)
Liquidity	0.0113***	0.0160***	0.0007	0.0026	0.0054***	0.0047***	0.0011	0.0019
	(0.0040)	(0.0047)	(0.0008)	(0.0022)	(0.0018)	(0.0018)	(0.0023)	(0.0020)
Core Deposits	0.0096	0.0097	0.0008	0.0007	–0.0007	–0.0013	0.0059	0.0060
	(0.0073)	(0.0070)	(0.0013)	(0.0016)	(0.0020)	(0.0020)	(0.0041)	(0.0042)
Return on Assets	0.0158	0.0394	0.0097	0.0284*	0.0106	0.0031	–0.0221*	–0.0255*
	(0.0304)	(0.0524)	(0.0063)	(0.0156)	(0.0068)	(0.0075)	(0.0127)	(0.0141)
Nonperforming	–0.0546**	–0.0651**	–0.0114	–0.0193*	–0.0062*	–0.0074*	0.0023	0.0047
	(0.0236)	(0.0287)	(0.0070)	(0.0115)	(0.0033)	(0.0039)	(0.0146)	(0.0143)
Bank FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year-quarter FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	4,965	5,210	4,965	5,210	4,965	5,210	4,965	5,210
Adjusted R-squared	0.0364	0.0446	0.0478	0.0592	0.0139	0.0149	0.0226	0.0223

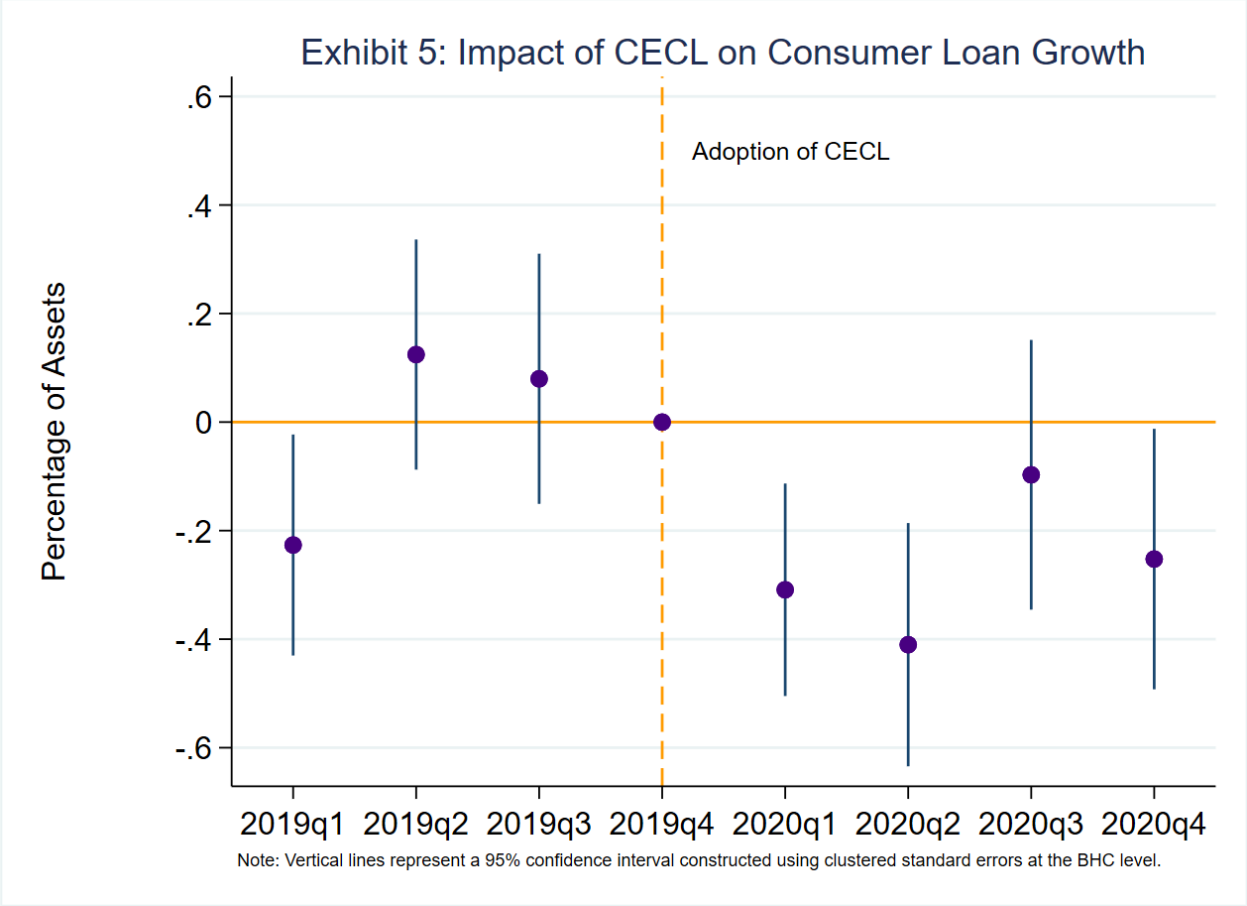
Consumer Loans. Our first set of analyses examines the association between CECL and consumer loan growth. We report the results in the first two columns of Table 2. The first column reports the results without the banks subject to the stress tests, and the next column includes all banks. We find a negative and statistically significant impact of CECL on consumer loan growth. The coefficient reported in column 1 indicates that consumer loan growth was 0.20 percentage point lower for banks under CECL relative to ILM banks during the current recession.

The effect is quantitatively important since consumer loans account for a relatively small share of total assets (about 6.3 percent at banks under CECL) and the dependent variable is scaled by total assets instead of total consumer loans. To obtain the impact on consumer loan growth, we can divide the estimated coefficient of 0.20 by 0.063, which yields a 3.2 percentage point reduction on annualized consumer loan growth because of the adoption of CECL. In our sample, consumer loans fell 2.8 percent during 2020, with consumer loans down 6 percent at banks that have adopted CECL and up 8.9 percent at ILM banks. Since banks under CECL account for about 78 percent of consumer loans in our sample, our results indicate that consumer loan growth would have been -0.3 percent instead of -2.8 percent if the effect of CECL on capital had been fully neutralized.[5]

Exhibit 5 presents the estimates of the interaction term for each quarter in the sample. The coefficient estimates are negative and statistically different from zero for three of the four quarters in 2020. Also, the parallel trend

[5] The algebra is 0.22 x 8.9% + 0.78 x (-6.1%+3.2%) = -0.3%

assumptions are roughly satisfied, since most coefficients in the four quarters in 2019 are not statistically different from zero at conventional levels.



When CCAR banks are included in the sample, the negative impact of CECL on consumer loan growth is slightly stronger. The coefficient on column 2 in Table 2 indicates that the response of consumer loans for CECL banks was 0.31 percentage point lower. The effect of CECL on banks subject to the stress tests could go either way since the increase in reserves reduces the stress capital buffer, all else the same. So, the effect of higher reserves on loan growth could be mixed.

The coefficients on capital and liquidity are consistently positive. Those suggest that banks with more capital and/or with more liquid assets experienced higher growth in consumer loans. The coefficient on nonperforming loans is also consistently negative and statistically different from zero. This indicates that banks with a higher share of delinquent loans are also associated with weaker consumer loan growth, as would be expected.

Subcomponents of Consumer Loans. By turning to the subcomponents of consumer loans, we can identify the portfolios that drive the negative correlation between CECL and consumer loan growth. Overall, we find very strong evidence of a negative impact of CECL on growth of other consumer loans, and also to a lesser extent for credit card loans. The impact of CECL on loans used to purchase a vehicle is not statistically different from zero. For each subcomponent of consumer loans, the results in the first column exclude the banks subject to the stress tests. As shown in column 2 of Table 2, we find a negative impact of CECL on credit card loan growth, as the coefficient

on $\mathrm{CECL}_i \times Recession_t$ is negative and statistically different from zero. Consequently, credit card loan growth is 0.02 percentage point lower for banks under CECL relative to ILM banks during the COVID event.

As shown in column 4 of Table 2, the coefficient on $\mathrm{CECL}_i \times Recession_t$ is negative and statistically different from zero only when $\Delta OTHCON$ is the dependent variable. Consequently, other consumer loan growth is 0.13 percentage point lower for banks under CECL relative to ILM banks during the past year. The estimated coefficient is slightly larger in absolute terms when all banks are included. In contrast with credit card and other consumer loan growth, we do not find evidence of CECL having an impact on auto loan growth. The coefficient on $\mathrm{CECL}_i \times Recession_t$ is negative but not statistically different from zero at conventional levels, as shown in column 3 of Table 2.

RRE, CRE, and C&I Loans. We also examined the correlation between CECL and the growth in residential real estate loans, commercial real estate loans, and commercial and industrial loans. With the banking agencies' capital relief in place, we do not find that CECL has either a negative or a positive impact on loan growth that is statistically different from zero at standard confidence levels across all model specifications that either include or exclude the largest banks. As we have shown, banks subject to CECL experienced significant increases in the allowance for credit losses for CRE loans and to a lesser extent for commercial loans. However, the reduction in regulatory capital that would have resulted from the increase in reserves was neutralized by the delay in the impact of CECL on regulatory capital. Thus, the decision made by the banking agencies to delay the impact of CECL on regulatory capital effectively offset the impact of CECL on lending except for loan categories most significantly affected by the pandemic, where it fell short.

CONCLUSIONS

The mandatory adoption of CECL for SEC filers at the start of 2020 coincided with the start of the economic downturn caused by a large-scale unforecastable health shock from the COVID event. As a result of the CECL adoption and the worsening of economic conditions worldwide, the allowance for credit losses rose nearly $120 billion in the first half of 2020, more than doubling its level relative to the fourth quarter of 2019.

The results in this note show that consumer lending was negatively affected by the adoption of CECL, and the impact was significant. Within the consumer lending portfolio, the loan segments that felt the greatest impact were other consumer loans and credit cards. Moreover, we argue that the lack of an impact on other household and business loan portfolios (namely mortgage loans, commercial real estate loans, and commercial loans) hinged significantly on the decision banking agencies made to delay the impact of CECL on regulatory capital after the adoption of the new accounting standard.

Finally, we believe it is important for the banking agencies to revisit the link between CECL and capital requirements. This is necessary both in terms of the effect that the new accounting standard is having on the level of reserves, as well as to dampen the procyclicality of CECL at the onset of economic downturns.

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