Who's holding the bag? Regulatory compliance pressure and bank risk-shifting

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ABSTRACT

US banks undergo examinations for Community Reinvestment Act compliance during discrete periods of time. We find that this CRA compliance pressure leads to an increase in small business lending by small banks but not large banks. Small banks increase origination volume of their smallest business loans by 19 percent during CRA exam years. We also find that these loans are more likely to be funded with Small Business Administration government guarantees. The SBA loans granted in the quarter in which a CRA exam is announced have higher default rates and lower likelihood of being a revolving loan, indicating risk-shifting onto the government. This cyclicality in lending has real effects. More CRA-induced lending leads to a short-term increase in employment for local small businesses but a long-term decrease as the increased risk is realized. Our findings highlight an important interaction between CRA and SBA for small banks, small businesses, and local communities.

Keywords: Community Reinvestment Act, Small Business Administration, small banks, small business lending, risk shifting, real effects

JEL classification: G21, G28, G38

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1. Introduction

Banks have an incentive to manage the costs associated with regulatory compliance. This is because banks are among the most heavily regulated entities in the world, which reflects their important role in most economies. Some of this regulation, such as bank capital requirements, has received significant attention in academic research. However, other types of regulation, along with the strategies banks employ to comply with them, are less understood. In this paper, we focus on a regulation that has received relatively less attention – that governing credit provision to local communities. What strategies do banks use to manage compliance pressure related to local lending?

The US Congress passed the Community Reinvestment Act of 1977 (CRA) in order to combat redlining in the banking industry and to ensure that banks serve the credit needs of local communities from which they take deposits.¹ The CRA mandates that banks provide loans within assessment areas, which are determined by the location of branches or deposit-taking ATM's. The CRA also gives special attention to credit provision in low-to-moderate income (LMI) areas. Banks undergo periodic examinations to determine CRA compliance and the resulting scores from the CRA exams are used in the determination of eligibility for bank mergers or new branch openings. Although evidence for the benefits of CRA is mixed (Berry and Lee 2008; Bhutta 2011), compliance with CRA is an ongoing and important requirement for banks.

The discrete timing of the examinations provides a unique opportunity to study the effect of time-varying regulatory compliance pressure on bank lending and compliance strategies. We use these examinations to ask the following questions. Does CRA compliance pressure increase the supply of small business loans? Does compliance pressure induce greater risk-taking? What

¹ Federal regulators revised CRA requirements in 1995 to clarify expectations and reduce banks' regulatory compliance burden.

 $^{^{2}}$ A more complete description of the 7(a) program is provided below.

strategies do banks employ to relieve compliance pressure? How does CRA compliance pressure affect local economies?

CRA examinations retroactively examine the lending by commercial banks in three main areas: mortgage, small business, and small farm. The CRA exam, which is announced two quarters prior to commencing, also varies depending on bank size. For large banks, the lending period under review usually ends in December of the year prior to the exam date. For small banks, the lending period often ends in last quarter prior to the examination. This implies that small banks have more opportunity to influence the outcome of a CRA exam. We exploit this heterogeneity to identify the impact of regulatory compliance pressure on small business lending. About 50 percent of all small business loans are CRA-related, which highlights the importance of CRA compliance for small business credit availability (Avery et al. 2000).

We first analyze the impact of CRA compliance pressure on total small business lending. Nearly comprehensive data on CRA lending is publicly available from the Federal Financial Institutions Examination Council (FFIEC). These data are available by bank, county, and year, allowing us to control for local economic conditions with county-year fixed effects in all tests. We therefore compare banks undergoing a CRA exam to those that are not in the *same county and year*. This analysis ensures that the bank examination is not simply correlated with other local economic variables that could be driving small business credit supply or demand. We find that small banks react to the exam by increasing small business lending, but only in the smallest loan category of loans less than \$100,000. Specifically, small banks increase the volume (number) of these small loans by roughly 19% (13%) relative to other local banks not undergoing a CRA exam. One channel that banks can use to increase lending is Small Business Administration (SBA) loans. The SBA 7(a) Guaranteed Loan Program is designed to provide credit to eligible small businesses through a national network of SBA lenders. In this program, participating lenders supply the capital for a loan and the SBA guarantees up to 85% of the loan balance in the event of default. The purpose of the program is to mitigate frictions in the small business credit market that lead to credit rationing and to provide capital for small business owners who are unable to obtain credit elsewhere.² Interestingly, for our purposes, the 7(a) program also provides a unique vehicle for banks to meet the regulatory requirements of the CRA without bearing all of the cost.

To study this channel, we examine the proportion of SBA government-guaranteed loans granted by small banks in their CRA exam year. Comprehensive data on these loans is available from the Small Business Administration's (SBA) 7(a) Guaranteed Loan Program. Among small banks able to grant these government-guaranteed loans, we find an increase in the proportion of guaranteed loans, suggesting that small banks use government-subsidized loans as a form of "regulatory holiday" to relieve compliance pressure.

We also examine the performance and characteristics of government-guaranteed loans granted in the quarter of the exam announcement. The CRA mandates that banks employ "safe and sound" practices when complying with CRA guidelines. However, if banks experience pressure to increase supply, the marginal loans are likely to be riskier. We find that these loans have higher default rates and lower likelihood of being a revolving loan. Overall, the results indicate that regulatory compliance pressure from a CRA exam induces risk shifting from small banks to the government. In other words, eligible small banks relieve CRA compliance pressure through the use of SBA government programs.

 $^{^{2}}$ A more complete description of the 7(a) program is provided below.

We then ask whether regulatory pressure has implications for the real economy. We find that a greater proportion of small bank branches undergoing an exam increases the net employment growth rate of the smallest local (county) businesses. The increase in employment holds *only* for those firms with less than 20 employees, mitigating concerns that CRA examinations are correlated with local economic variables. A one-standard-deviation increase in the proportion of small CRA exam branches is associated with a 3.1% increase in the net employment rate of the smallest firms.

Although short-term employment increases with CRA compliance pressure, the effects may be transitory. Our loan-level analysis suggests that CRA induces small banks to make riskier loans, implying that long-term employment may decrease as the riskier businesses fail. We therefore examine the dynamic real effects of CRA compliance pressure on local small businesses. We analyze the employment growth rate of the smallest firms over a 1, 2, 3, 4 and 5-year horizon. We find that the proportion of local branches of small banks undergoing a CRA exam is associated with negative employment growth beginning in year 4, and continuing in year 5. This result is consistent with the loan-level analysis that finds an increase in the 5-year default rate of loans prompted by the CRA exam, and suggests that the positive real effects of CRA compliance on small firms is short-lived.

Our paper contributes to the broad literature on bank strategy in response to regulation. Much of this literature has focused on bank capital requirements. Research has shown that capital levels influence banks' risk-taking incentives (Holmstrom and Tirole 1997) and capital regulation can mitigate the moral hazard induced by government guarantees (Admati and Hellwig 2013).³ More broadly, financial regulation influences banks' choices of liquidity and investments (Allen et al. 2018; Carletti et al. 2019). Credit guarantees are a particular form of

³ Thakor (2014) surveys the literature on the effects of bank capital and changes in bank capital requirements.

financial policy that has been used to directly influence credit supply (Uesugi et al. 2010). Our paper contributes to this literature by showing how the regulation of bank lending influences banks' lending decisions.

Our paper also contributes to the more focused literature on the effects of the CRA on bank activity. Most papers studying the CRA analyze mortgage lending (e.g., Bostic and Robinson 2003; Bhutta 2011). Our paper is closely related to Agarwal et al. (2012) and Ringo (2017), who study the risk of mortgage loans made under CRA. Our focus on small business lending and CRA follows Bostic and Lee (2017), who find a positive association between small business lending and CRA during certain periods of time. Recent papers, such as Akey et al. (2018), explore changes in CRA compliance related to political pressure. Unlike these papers, we focus on the strategic risk-shifting of eligible banks in the face of CRA compliance pressure. To our knowledge, we are also the first to highlight the difference in CRA examination procedure by bank size and examine its implications for bank lending strategy. Finally, we also extend our analysis to real economic outcomes for local small businesses, which allows us to paint a more complete picture of the effects of the CRA.

Our findings show how banks manage compliance pressure related to local lending requirements, which leads to potentially important policy implications. In particular, the implementation of a short-term lending test for CRA exams results in a cyclicality in small business credit availability at the bank level. Banks also use SBA loans to meet CRA requirements in a form of "regulatory holiday." This interaction between the CRA and SBA could be beneficial, but our results point to higher default rates and the shifting of risk to the government. This suggests that the social benefits of community reinvestment may come with social costs through government guarantees. In addition, the study of dynamic outcomes implies that the short-term increase in credit availability does not lead to long-term community benefits.

The remainder of the paper is organized as follows. Section 2 provides additional institutional background on CRA examinations. Section 3 describes the data. Section 4 explains the empirical methodology and results and Section 5 describes the robustness tests and additional evidence. Section 6 concludes with further explanation of the policy implications.

2. Institutional Background on CRA Examinations

Under the Community Reinvestment Act, banks are examined periodically and assigned a rating according to their compliance with CRA guidelines. The precise examination criteria and procedure depend on bank size. Large banks with at least \$1 billion in assets (2005 numbers) undergo an examination consisting of three tests: lending, investing, and service, of which the lending test is the most heavily weighted. Conversely, small banks with less than \$1 billion in assets only undergo the lending test. The lending test measures the extent to which the bank lends within its assessment area (AA) as a whole and to low-to-moderate income census tracts in particular. If a bank has more than one AA, each is examined individually for CRA compliance and the bank is assigned an aggregate score based on overall performance across its AA's. AA's are determined by either the location of branches or deposit-taking ATM's, or by the intensity of bank lending in that area. Although the geography of the AA's are technically determined by the banks themselves, several technical criteria govern their delineation. First, AA's must generally consist of one or more metro statistical areas (MSA) or political subdivisions such as counties.

Second, AA's cannot arbitrarily exclude minority or low-income census tracts. Finally, AA's must consist of whole geographies.⁴

The lending test that comprises the bulk of the large bank exam and the entirety of the small bank exam reviews the bank's lending practices over a discrete time window. However, the small bank lending test window differs considerably from that of the large bank. Small bank lending tests generally end in the quarter preceding the beginning of the examination, and extend back 1 to 2 years. On the other hand, the large bank lending test window normally ends in December of the year preceding the exam start if the exam occurs in the latter half of the year, and in December from two years prior if the exam is in the first half of the year. Appendix A provides examples of bank performance evaluations for both large and small banks that demonstrate this difference in lending test windows.

Banks are alerted about an upcoming exam two quarters prior to its commencement. Large banks are examined every 2-3 years, and small banks every 4-6 years. Since small banks learn of the exam two quarters prior to the exam start date and the lending window ends in the quarter preceding the exam, small banks can change their lending behavior to comply with CRA requirements after their exam announcement. In contrast, large banks cannot alter their lending behavior to meet CRA guidelines since the time period under examination for the lending test has already passed. The discrete time period of the lending test also gives banks the incentive to time their lending to fall within the window. For small banks, this implies a motivation to "cram" lending in the lead up to the examination. Figure 1 gives a general timeline for large and small bank examinations.⁵

⁴ If the political subdivision is larger than the bank can reasonably serve or is divided by geographic barriers, assessment areas can be made up of partial subdivisions <u>https://www.govinfo.gov/content/pkg/FR-2010-03-11/pdf/2010-4903.pdf#page=26</u>.

⁵ https://www.ffiec.gov/cra/exam_overview.htm

3. Data on CRA and SBA Lending

The primary data source is the CRA data on small business lending provided by the FFIEC. This data contains all Commercial & Industrial (C&I) small business loans secured by non-farm or non-residential real estate provided by commercial banks with at least \$250 million in assets. Small business loans are defined as term loans, lines of credit, and business credit cards under \$1 million, or alternatively to small businesses with less than \$1 million in annual revenue. CRA examination dates are provided by the Office of the Comptroller of the Currency (OCC), Federal Deposit Insurance Corporation (FDIC), and Federal Reserve Board (FRB). The FFIEC changed its reporting threshold for banks toward the end 2005 to exclude banks with less than \$1 billion in assets. We therefore focus on the time period from 1999-2005 to capture the small business lending done by small banks. Over our sample period, we observe 262 Small Bank CRA examinations, of which 25 are performed by the OCC, 60 by the FRB, and 177 by the FDIC. In contrast, there are 2,092 large bank exams from 1999-2005.⁶

SBA loan data was obtained via a Freedom of Information Act (FOIA) request and contains all loans made under the 7(a) program from 1990-2017. Bank branch location is provided by the Summary of Deposits, and bank balance sheet information by the Call Reports. County variables used in later analysis come from the Bureau of Economic Analysis and the Census. Sources and summary statistics for all variables used in the analysis can be found in Table 1.

[Table 1 About Here]

⁶ This discrepancy in exam numbers comes about for 2 primary reasons. First, large bank exams are conducted more frequently than small bank exams. Second, the CRA lending data excludes all banks with less than \$250 million in assets.

4. Empirical Methodology and Results

4.1 Baseline Analysis- Regulatory Compliance Pressure and Small Business Lending

We begin by testing the effect of CRA compliance pressure on the quantity of small business credit. Given the difference between lending test windows noted above, we differentiate between large and small bank exams in all tests. Importantly, only small banks can change their lending behavior to affect CRA exams once the exam is announced. Therefore we expect the effect of the CRA exam to be found <u>only</u> for small banks. Our baseline empirical specification is the following:

$$Ln(1 + SB \ Credit_{b,i,t}) = \beta_0 + \beta_1 CRA \ Exam_{b,t} + \beta_2 Small \ Bank \ Exam_{b,t} + \beta_3 X_{b,t} + \gamma_{i,t} + \eta_b + \epsilon_{b,i,t}$$
(1)

where *SB Credit*_{*b,i,t*} is the number or volume of small business loans provided by banks *b* in county *i* and year *t*. *SB Credit* is further broken up into 4 buckets depending on the origination amount of the loans or the size of the borrower: <100k, 100k<amount<250k, or 250k<amount<1mil. *CRA Exam*_{*b,t*} is a dummy variable equal to one if the bank has a CRA examination that begins in at least the second quarter of the year. *Small Bank Exam*_{*b,t*} is similarly defined as a dummy variable equal to one if the bank undergoes a small bank CRA examination that begins in at least the second quarter of the year. *X*_{*b,t*} contains time-varying bank characteristics such as bank capital (equity/assets), profitability (ROA), non-performing loans ratio, liquidity (cash/deposits), size (ln(1+assets)), and a dummy for whether the bank has a branch in county *i*. The inclusion of county-by-year fixed effects $\gamma_{i,t}$ means that the coefficient of interest β_3 captures the difference in lending between a bank undergoing a small bank CRA

exam to another not undergoing the exam in the same county and year. This analysis thus effectively controls for many of the local supply and demand characteristics that could also determine small business credit volume. Finally, η_b are bank fixed effects that control for time-invariant bank characteristics.

The results of Table 2 show that the small bank CRA exam is associated with an increase in lending, but only for the smallest category of loans. Specifically, small banks increase the number of small loans by almost 14% and the volume by 19% in their exam year relative to other local banks. We find no evidence of an increase in the larger loan categories. The results suggest that small banks do respond to regulatory compliance pressure from the CRA by increasing credit supply.

[Table 2 About Here]

4.2 Compliance Pressure and Regulatory Holidays

Comprehensive data on the largest government-guaranteed small business lending program allow us to examine whether banks relieve regulatory compliance pressure by issuing government-subsidized loans. In this section, we analyze whether the proportion of total CRA lending made up of government-guaranteed SBA loans increases for small banks in their exam year. We focus on the smallest category of loans (<\$100k) since the results of Table 2 suggest that these show the greatest sensitivity to compliance pressure, and aggregate all SBA loans of similar size issued by each bank to a particular county. We then construct 4 measures of SBA loan activity. First, we take the natural log of the number and volume of SBA loans. Next, we divide each of these sums by the total CRA lending within the smallest loan category in that

county, and obtain a bank-county-year proportion of government-guaranteed lending. For the purposes of this analysis, we also limit our analysis to only those banks able to grant SBA loans. We are thus comparing the lending of small SBA banks undergoing a CRA exam to other SBA banks who are not in the same county and year.

The results show that the small bank exam is associated with a significant increase in the level and proportion of small SBA loans. Specifically, the coefficients in columns 1 and 2 suggest that regulatory compliance pressure associated with a small bank CRA examination increases the number (volume) of SBA loans by roughly 3.23% (11.1%) (columns 1 and 2, respectively). Further, the small CRA exam increases the proportion of SBA loans by nearly 71% in terms of number (column 3) and 59% in terms of volume (column 4).⁷

[Table 3 About Here]

4.3 Compliance Pressure and Bank Risk-Taking

To examine the effect of regulatory compliance pressure on bank risk-taking, we conduct an analysis of the SBA loans provided by small banks in the quarter of their exam announcement. Due to the timing of the lending test window for small banks, loans made in this quarter are counted toward the lending score. We therefore examine the quality and characteristics of these loans with the following linear probability model

$$Y_{j,c,t} = \beta_0 + \beta_1 Exam Announcement_{b,q} + X_{j,t} + \gamma_{i,t} + \phi_{NAICS2,t} + \eta_b + \epsilon_{b,i,t}$$
(2)

⁷ Since some banks have no small business lending in a particular county and year, this ratio is not identified for roughly 20,000 observations. This regression can thus be viewed as an examination of the intensive margin.

We focus primarily on two outcomes: the 5-year default rate and revolver status. The sample includes only small banks, and retains the county-by-year fixed effects. Thus, this analysis compares the characteristics of loans provided by small banks in the quarter of their exam announcement to those of other small bank loans in the same county and year. $X_{j,t}$ includes loan and business characteristics such as ownership status (corporation, partnership, or sole proprietorship), ln(employees), SBA subprogram, and in some specifications, loan amount and maturity.⁸

Both dependent variables describe different potential avenues of bank risk-taking in response to compliance pressure. A higher 5-year default rate would suggest that banks make loans to worse quality small businesses on average, and a lower incidence of revolving loans indicates a decrease in the proportion of relationship lending.

The results of Table 4 suggest that increased regulatory compliance pressure results in banks making riskier loans. The positive β_1 in columns 1 and 3 indicates that loans made in the same quarter as the announcement of a small bank CRA exam have a roughly 90 basis point higher 5-year default rate. This is a nearly 15% increase relative to the sample mean default rate of 6.01%.

Additionally, loans made in the quarter of the exam announcement are significantly *less* likely to be revolving lines of credit. The coefficient estimates in columns 2 and 4 indicate an 80 basis point decrease in the probability of being a revolver, which is 9% decrease relative to the sample mean.

[Table 4 About Here]

⁸ In unreported analysis, we find no effect of CRA examinations on these other loan terms. However, since they could also be an outcome of CRA exam, we exclude them from some specifications.

4.4 Real Outcomes- Contemporaneous and Dynamic County Employment

Our next regression estimates the effect of CRA examinations on local real outcomes, both in the short and long-term. We run county-level panel regressions of local employment by firm size buckets on the proportion of local county branches undergoing a small bank exam. We include controls for county unemployment, median income, house price growth, and population to account for local demand, and the HHI of deposits, local bank branches per capita, and small bank branch share to characterize the "small business friendliness" of the local banking market.

These regressions have the added benefit of validating our assumption of exogeneity for our key independent variable of interest. Specifically, if the proportion of local bank branches undergoing a small bank exam is simply correlated with better local economic conditions, we should observe improved employment outcomes for all local businesses, regardless of size. If instead the employment effects are concentrated only in the smallest firms, then it is likely they are instead driven by the increased credit supply of banks undergoing exams.

We test the employment effects of CRA examinations by looking at the net employment growth rate for firms in the following size buckets: 0-19 employees, 20-49 employees, 50-249 employees, and 250-499 employees. Net employment growth is defined as $\frac{Hires-Separations}{Average\ Employment_{i,s,t}}$ for county *i*, size bucket *s*, and year *t*. Table 5 shows that the proportion of banks undergoing a small bank exam is positively related to net employment growth, but only for the smallest firms. The results provide intuitive support for our underlying assumption of exogeneity of the prevalence of local small bank exams.

[Table 5 About Here]

It is also interesting to examine the dynamic real effects of CRA examinations. The loanlevel results described above show an increase in the 5-year default rate of loans granted in an exam year. Therefore, we may see a reversal of the immediate positive employment effects over time as the riskier firms fail. To test the long-term impact of CRA examinations, we construct cumulative employment growth rates for increasing time windows, up to 5 year. We focus our analysis on the smallest firms (0-19 employees) that see an initial increase in employment.

The results of Table 6 show that the proportion of banks undergoing a small bank exam is associated with a decrease in employment growth for the smallest firms beginning after 4 years. This result complements the findings of the loan-level analysis above, and suggests that banks make loans to riskier firms on average during an exam year. These firms initially boost employment, but fail within 5 years as their quality is realized.⁹

[Table 6 About Here]

5. Robustness and Further Evidence

5.1 Tests by Regulatory Agency

Small bank exams are administered by 3 different regulatory agencies: the FDIC, OCC, and FRB. A comparison of the performance evaluations granted by each agency reveals a difference in the determination of the lending test window. For both the FDIC and FRB, the small bank lending test window covers the period up until the quarter preceding the exam start date. However, the OCC small bank lending test follows the same procedure as the large banks,

⁹ In unreported analysis, we confirm that the decrease in employment growth is not the result of the smallest firms growing and therefore entering the next size category.

and generally ends at the calendar-year-end preceding the exam. This difference in procedure means that small banks examined by the OCC are not able to "cram" in the same way as those examined by the FDIC or FRB, since the lending window has already passed.

We formally test this difference by allowing the effect of the small bank exam to be different for each regulatory agency. This test also helps us to rule out a "small bank effect", whereby small banks simply respond differently to the presence of examiners. Put differently, small banks should all behave similarly if bank size is the true determinant of the increase in lending in the exam year. Instead, if only small banks supervised by the FDIC or FRB increase lending, we can reasonably conclude that the difference in exam procedure has a material effect on bank strategy to comply with the CRA.

The results of Table 7 show that only small bank exams administered by the FDIC and FRB positively impact small business lending. However, the magnitude of the effect is much different. FRB small bank exams are associated with a nearly 23% (29%) increase in the number (volume) of small business loans, nearly double the effect of FDIC exams in the same category. On the other hand, only FDIC exams are associated with an increase the proportion of SBA loans in an exam year (columns 3 and 4). These results suggest that the structure of the lending test is a crucial determinant of the bank's strategic response.

[Table 7 About Here]

5.2 CRA Exams Post-2005

Our examination of the lending test procedure for large and small banks reveals that only small banks can affect their CRA compliance after learning about their exam date. We test the validity of this assumption by examining small business lending after 2005, when CRA data only include large banks over \$1 billion in assets. We re-run the baseline specification described in Equation 1, excluding the Small Bank Exam dummy since small banks are not included in the dataset. We expect that CRA exams for these large banks does not affect small business lending.

Table 8 shows that the CRA exam is not associated with an increase in small business lending for large banks. This result confirms the non-result from the baseline tests, when the CRA exam dummy is insignificant once the Small Bank Exam dummy is included. Taken together with the main tests, the result support the conclusion that only small banks change their lending behavior in response to a CRA exam.

[Table 8 About Here]

6. Conclusion and Policy Implications

We find that small banks respond to compliance pressure during CRA exams by expanding credit to small businesses, but only in the smallest size category. Small banks that are SBA lenders relieve this compliance pressure by issuing government-guaranteed SBA loans. We also find that this shift in lending has real effects. These results point to a number of potential policy implications.

Our first policy implication relates to the length of the small business lending test. The small business lending test in a small bank CRA exam only covers a limited period of time prior to the exam. This incentivizes small banks to postpone their small business lending until it will count for compliance purposes. Although having a short lending test window reduces the regulatory burden on small banks, it also leads to small banks "cramming for the exam." In other

words, CRA compliance influences not just *where* small banks lend, but also *when* small banks lend. Policymakers should weigh the benefits and costs of a short small business lending test window.

Our second policy implication is regarding the interaction between CRA and SBA in small business lending. One of the express goals of the Community Reinvestment Act is to incentivize banks to make small business loans in low-to-moderate-income communities. The Small Business Administration government-guaranteed loan programs are designed to increase credit available to marginal borrowers. Therefore, it is no surprise that these two federal policies work together. We find that eligible small banks use SBA loans to meet CRA lending requirements by increasing their SBA lending during a CRA exam year. This could be considered a "regulatory holiday." Although this interaction could be beneficial for some borrowers and communities, we find that SBA loans issued by small banks in the exam announcement quarter have higher default rates and lower likelihood of being a revolving loan, indicating risk-shifting onto the government. This implies that the social benefits of CRA may come with social costs through SBA guarantees. Policymakers should evaluate whether the increased risk of SBA loans used for CRA purposes still qualifies as "safe and sound" lending.

Our third policy implication relates to the real effects in local communities. We find that local employment for the smallest firms initially rises with the proportion of local small bank branches undergoing a CRA exam, but the effects appear to be transitory as long-term employment growth declines. If CRA cramming and SBA risk-shifting had no real effects, then any potential concerns would be limited. However, our results point to short-term benefits and long-term costs for local communities. If small banks do artificially increase credit availability for the purpose of the CRA lending test, this appears to produce a misallocation of local resources. In other words, this cyclicality in loan supply can have negative implications for local small businesses.

Overall, our paper points to the benefits of CRA for small business credit but also raises questions about CRA implementation. In contrast to some previous research, our findings indicate that CRA compliance pressure is economically significant. Small banks reallocate their small business loan originations to comply with CRA requirements. Consistent with Chakraborty et al. (2018), this implies that CRA has social benefits for low-to-moderate-income areas. However, our paper also points to potential downsides of the current CRA implementation. Because of their relatively short lending test window, small banks concentrate their small business lending during their CRA exam by using SBA loans. This bank behavior shifts risk to the government and creates cyclicality in real outcomes like local employment. A smoothing of CRA compliance pressure potentially would maintain the social benefits while reducing the social costs.

References

- Admati, A. and M. Hellwig, 2013. The bankers' new clothes: What's wrong with banking and what to do about it. Princeton University Press.
- Agarwal, S., E. Benmelech, N. Bergman and A. Seru, 2012. Did the Community Reinvestment Act (CRA) lead to risky lending? NBER Working Paper 18609.
- Akey, P., R. Heimer and S. Lewellen, 2018. Politicizing consumer credit. Working Paper.
- Allen, F., E. Carletti, I. Golstein, and A. Leonello, 2018. Government guarantees and financial stability. *Journal of Economic Theory* 177, 518-557.
- Avery, R., R. Bostic and G. Canner, 2000. The performance and profitability of CRA-related lending. *Economic Commentary*, Federal Reserve Bank of Cleveland.
- Berry, C. and S. Lee, 2008. The Community Reinvestment Act after thirty years. University of Chicago Working Paper.
- Bhutta, N., 2011. The Community Reinvestment Act and mortgage lending to lower income borrowers and neighborhoods. Journal of Law and Economics 54, 953-983.
- Bostic, R. and H. Lee, 2017. Small business lending under the community reinvestment act. *Cityscape: A Journal of Policy Development and Research* 19, 63-84.
- Bostic, R. and B. Robinson, 2003. Do CRA agreements influence lending patterns? *Real Estate Economics* 31, 23-51.
- Carletti, E., I. Goldstein and A. Leonello, 2019. The interdependence of bank capital and liquidity. Working paper.

- Chakraborty, I., V. Chhaochharia, R. Hai, and P. Vatsa, 2018. Returns to community lending. University of Miami Working Paper.
- Holmstrom, B. and J. Tirole, 1997. Financial intermediation, loanable funds, and the real sector. *The Quarterly Journal of Economics* 112, 663-691.
- Ringo, D., 2017. Mortgage lending, default, and the Community Reinvestment Act. Federal Reserve Board Working Paper.
- Thakor, A., 2014. Bank capital and financial stability: An economic trade-off or a Faustian bargain? *Annual Review of Financial Economics* 6, 185-223.
- Uesugi, I., K. Sakai and G. Yamashiro, 2010. The effectiveness of public credit guarantees in the Japanese loan market. *Journal of the Japanese and International Economies* 24, 457-480

Figure 1: CRA Examination timeline



Small Bank CRA Exam

Table 1: Summary statistics

Variable	Definition	Source	Mean	S.D.
Small Business Credit	-			
Volume of SB loans < \$100k	Total volume of all business credit cards, lines of credit, and C&I loans secured by non-farm or non-residential real estate with initial amounts < \$100k	FFIEC (CRA)	888	5879
\$250k < Volume of SB loans < \$100k	Total volume of all business credit cards, lines of credit, and C&I loans secured by non-farm or non-residential real estate with initial amounts > \$100k and < \$250k	FFIEC (CRA)	521.6	2670
\$1mil < Volume of SB loans < \$2500k	Total volume of all business credit cards, lines of credit, and C&I loans secured by non-farm or non-residential real estate with initial amounts > \$250k and < \$1mil	FFIEC (CRA)	1432	8124
Volume of SB loans to Micro Firms	Total volume of all business credit cards, lines of credit, and C&I loans secured by non-farm or non-residential real estate to firms with annual rev < \$1mil	FFIEC (CRA)	1307	6087
% Small SBA Loan Volume	Proportion of SBA loan volume with initial amounts < \$100k over total CRA loans with initial amounts < \$100k	SBA, FFIEC (CRA)	0.0195	0.742
% Small SBA Loan Number	Proportion of SBA loans with initial amounts < \$100k over total CRA loans with initial amounts < \$100k	SBA, FFIEC (CRA)	0.0635	15.46

Bank Variables

Size	Ln(1+Assets)	Call Report	15.36	2.215
Liquidity	Cash/Deposits	Call Report	0.922	4.886
Profitability	ROA	Call Report	0.0208	0.0337
Non-Perf. Loans	Non-Performing Loans/Total Loans	Call Report	0.0115	0.0084
Capital	Equity/Assets	Call Report	0.120	0.0889
Branch	Dummy variable for branch in county	Summary of Deposits	0.139	0.346
SBA Loan Variables				
Corporation	Dummy variable for loan granted to small corporation	SBA (FOIA)	0.6470	0.4779
Partnership	granted to small partnership	SBA (FOIA)	0.0594	0.2364
Ln(1+Employees)	Natural log of employees at the firm	SBA (FOIA)	0.7038	1.1009
CLP	granted under Certified Lender Program (CLP)	SBA (FOIA)	0.0499	0.2177
PLP	Dummy variable for loan granted under Preferred Lender Program (PLP)	SBA (FOIA)	0.2450	0.4301
Express	Dummy variable for loan granted under Express Lender Program	SBA (FOIA)	0.1385	0.3454
Ln(Gross Approval Amount)	Natural log of loan approval amount	SBA (FOIA)	11.7673	1.0871
Term(months)	Term of loan in months	SBA (FOIA)	119.309	81.6424
Real Outcomes	_			
Net Employment Growth	(Total hires – total separations)/average employment. Calculated for various firm size buckets at the county level	LEHD	0.0032	0.0098
Local Market Characteristics	-			
Median Income	Natural log of county median income	Census	10.51	0.225

Weighted HPI Growth	Growth in zip-level all transaction house price index, weighted by % of county residential housing residing within each zip code	FHFA	0.0382	0.0421
Unemployment Rate	County unemployment rate	BEA	5.238	1.995
Population (thousands)	County Population	Census	10.56	1.270
Financial Market Variables				
Small Bank Exam Share	Proportion of branches of banks with < \$1 billion in total assets undergoing a CRA exam in that year	Call Report, SOD	0.0062	0.0407
Small Bank Branch Share	Proportion of branches of banks with < \$1 billion in total assets	Call Report, SOD	0.456	0.341
ННІ	Concentration of deposits in county	SOD	0.189	0.167
Bank Branch Density	Number of bank branches per capita (county)	Call Report, SOD	0.0004	0.0002

Table 2: Examinations and CRA lending

The table displays coefficients from the following panel regression model:

$$Ln(1 + SB \ Credit_{b,i,t}) = \beta_0 + \beta_1 CRA \ Exam_{b,t} + \beta_2 Small \ Bank \ Exam_{b,t} + \beta_3 X_{b,t} + \gamma_{i,t} + \eta_b + \epsilon_{b,i,t}$$

where *SB Credit_{b,i,t}* is the total number or volume of small business loans with varying origination amounts by bank *b* in county *i* and year *t*. *CRA Exam_{b,t}* is a dummy variable equal to 1 if the bank has a CRA exam beginning at least in Q2 of that year. *Small Bank Exam_{b,t}* is a dummy variable equal to 1 if the bank has a small bank CRA exam beginning in at least Q2 of that year. $X_{b,t}$ includes time varying bank characteristics: equity capital, ROA, non-performing loan ratio, liquidity ratio, and a dummy for whether the bank has a branch in the county. County-year ($\gamma_{i,t}$) and bank (η_b) fixed effects are included in all specifications. Standard errors are clustered at the bank level. T-statistics reported in parentheses.

	Loans <	5100k	\$100k< Loans <\$250k		\$250k< Loans <\$1mil	
	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	Num	Vol	Num	Vol	Num	Vol
CRA Exam	-0.0466	-0.0622	-0.0063	-0.0213	-0.0068	-0.0319
	(-1.041)	(-1.268)	(-0.908)	(-0.943)	(-1.149)	(-1.130)
Small Bank Exam	0.1353**	0.1893**	0.0056	0.0568	-0.0270	-0.1057
	(2.055)	(2.456)	(0.335)	(0.909)	(-1.506)	(-1.282)
Ln(Assets)	0.2666*	0.2611*	0.0063	0.0568	0.0038	0.0600**
	(1.792)	(1.651)	(0.651)	(1.302)	(0.675)	(2.160)
Cash/Deposits	0.0058	0.0089	0.0001	-0.0003	-0.0022***	-0.0123***
	(1.314)	(1.434)	(0.216)	(-0.199)	(-4.496)	(-5.924)
ROA	-1.1901	-1.0362	0.0687	0.2118	-0.0347	-0.3126
	(-1.408)	(-1.272)	(0.821)	(0.682)	(-0.435)	(-0.706)
Non-Perf. Loans Ratio	1.8215	0.3990	-0.6104	0.0110	-0.9467	-1.6625
	(0.573)	(0.098)	(-0.817)	(0.003)	(-1.448)	(-0.532)
Capital Ratio	1.5175	0.8691	-0.0972	-0.3229	-0.0537	-0.1045
	(0.976)	(0.725)	(-1.057)	(-0.806)	(-0.733)	(-0.279)
Branch	2.7904***	4.0317***	1.8714***	4.8279***	1.6409***	4.7150***
	(53.157)	(56.676)	(56.177)	(81.117)	(53.496)	(58.988)
Observations	560,864	560,864	560,864	560,864	560,864	560,864
R-squared	0.643	0.497	0.609	0.533	0.584	0.523
County-Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Bank FE	Yes	Yes	Yes	Yes	Yes	Yes

Robust t-statistics in parentheses

Table 3: Proportion of SBA loans

The table displays coefficients from the following panel regression model:

 $SBA \ Credit_{b,i,t} = \beta_0 + \beta_1 CRA \ Exam_{b,t} + \beta_2 Small \ Bank \ Exam_{b,t} + \beta_3 X_{b,t} + \gamma_{i,t} + \eta_b + \epsilon_{b,i,t}$

where *SBA Credit*_{*b,i,t*} refers to SBA loans with origination amounts less than \$100,000. Column 1 examines the log number of these loans, column 2 the log volume, column 3 the proportion of SBA loans, and column 4 the proportion of SBA loan volume, all by bank *b* in county *i* and year *t*. Specifications include only those banks eligible to grant SBA loans. Control variables are identical to those in Table 2. County-year ($\gamma_{i,t}$) and bank (η_b) fixed effects are included in all specifications. Standard errors are clustered at the bank level. T-statistics reported in parentheses.

SBA Loans <\$100k				
(1)	(2)	(3)	(4)	
Num	Vol	Num %	Vol %	
-0.0048	-0.0062	-0.0033	-0.0016	
(-0.501)	(-0.280)	(-1.244)	(-0.753)	
0.0323*	0.1114**	0.0099**	0.0089*	
(1.824)	(2.043)	(2.056)	(1.811)	
0.0140	0.0309	-0.0003	0.0001	
(0.964)	(0.888)	(-0.078)	(0.037)	
0.0065	0.0390	0.0040	0.0028	
(0.501)	(1.320)	(0.999)	(0.876)	
0.5271**	1.8163***	-0.0069	0.0002	
(2.244)	(3.497)	(-0.129)	(0.005)	
-1.6283	-2.4140	-0.4226	-0.2893	
(-0.845)	(-0.609)	(-0.995)	(-0.996)	
-1.2589**	-3.3114***	-0.2244	-0.1452	
(-2.311)	(-2.668)	(-1.344)	(-1.095)	
0.3486***	1.1689***	0.0001	0.0025	
(7.966)	(10.860)	(0.033)	(1.187)	
206,305	206,305	206,305	206,305	
0.342	0.356	0.248	0.240	
Yes	Yes	Yes	Yes	
Yes	Yes	Yes	Yes	
	(1) Num -0.0048 (-0.501) 0.0323* (1.824) 0.0140 (0.964) 0.0065 (0.501) 0.5271** (2.244) -1.6283 (-0.845) -1.2589** (-2.311) 0.3486*** (7.966) 206,305 0.342 Yes Yes	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	

Robust t-statistics in parentheses

Table 4: SBA loan-level analysis

The table displays coefficients from the following panel regression model:

$$Y_{j,c,t} = \beta_0 + \beta_1 Exam Announcement_{b,q} + X_{b,t} + Z_j + \gamma_{i,t} + \phi_{NAICS2} + \eta_b + \epsilon_{b,i,t}$$

where $Y_{j,c,t}$ is the 5-year default rate or a dummy variable for whether the loan is a revolver. *Exam Announcement*_{b,q} is a dummy variable equal to 1 if the bank has a small bank CRA exam announced in that quarter. Bank-level controls are identical to those in Table 2. Z_j contains the following loan-level and business-level characteristics: dummies for whether the business is a partnership or corporation, the log number of employees, the SBA subprogram the loan is granted under (CLP, PLP, Express), the log approval amount, and the maturity of the loan. County-year ($\gamma_{i,t}$), industry (ϕ_{NAICS2}), and bank (η_b) fixed effects are included in all specifications. Standard errors are clustered at the bank level. T-statistics reported in parentheses.

	(1)	(2)	(3)	(4)
VARIABLES	Default (5 yr.)	Revolver	Default (5 yr.)	Revolver
Quarter of Exam Announcement	0.0086**	-0.0074**	0.0088**	-0.0074**
	(2.416)	(-2.410)	(2.442)	(-2.454)
Cash/Deposits	-0.0601	0.0235	-0.0644	0.0151
	(-1.244)	(0.498)	(-1.338)	(0.321)
ROA	-0.0492	0.1213	-0.0247	0.1288
	(-0.419)	(1.190)	(-0.209)	(1.286)
Non-Perf. Loans Ratio	-0.0856*	-0.1810**	-0.0790	-0.1741**
	(-1.752)	(-2.198)	(-1.520)	(-2.138)
Capital	-0.2021	0.1135	-0.1772	0.1376
	(-1.041)	(0.753)	(-0.928)	(0.942)
Branch	-0.0012	-0.0109**	-0.0032	-0.0115**
	(-0.381)	(-2.147)	(-0.998)	(-2.236)
Corporation	-0.0139***	0.0198***	-0.0157***	0.0151***
	(-5.888)	(11.139)	(-6.626)	(6.632)
Partnership	-0.0248***	0.0125***	-0.0223***	0.0127***
	(-5.932)	(3.126)	(-5.392)	(2.957)
Ln(1+Employees)	0.0002	0.0165***	-0.0014	0.0141***
	(0.191)	(5.188)	(-1.083)	(4.436)
CLP	-0.0188***	-0.0147***	0.0012	-0.0058
	(-3.747)	(-2.775)	(0.238)	(-1.222)
PLP	-0.0218***	-0.0762***	0.0015	-0.0612***
	(-6.259)	(-6.217)	(0.441)	(-5.595)
Express	-0.0217***	0.4282***	-0.0426***	0.4232***
	(-4.464)	(23.465)	(-9.204)	(23.425)
Ln(Gross Approval Amount)			0.0004	0.0086***
			(0.338)	(3.053)
Term (months)			-0.0006***	-0.0004***
			(-20.706)	(-11.100)
Observations	84,382	84,382	84,382	84,382

R-squared	0.189	0.459	0.210	0.466
County-Year FE	Yes	Yes	Yes	Yes
Bank FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes

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Robust t-statistics in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table 5: County employment effects by firm size

The table displays coefficient estimates from a county-level regression of small business employment rates by various firm size buckets. The dependent variables are the annual number of hires minus separations divided by annual average employment by 4 firm size buckets. The % Bank Branches Undergoing Small Exams is the proportion of local (county) branches of banks undergoing a small bank exam. Control variables include county unemployment, log median income, log population, house price growth, proportion of small bank branches, HHI of deposits, and bank branches per capita. County and year fixed effects are also included. Standard errors are clustered at the county level. T-statistics reported in parentheses.

	(Hires-Separations)/Avg. Emp				
	(1)	(2)	(3)	(4)	
VARIABLES	0-19 Emp	20-49 Emp	50-249 Emp	250-499 Emp	
% Bank Branches undergoing Small Exam	0.0057***	0.0024	-0.0028	0.0035	
	(2.876)	(0.828)	(-0.470)	(0.482)	
Unem. Rate	0.0002	-0.0007***	-0.0004**	-0.0009*	
	(1.380)	(-4.965)	(-2.449)	(-1.841)	
Ln(Median Income)	0.0085**	-0.0093*	-0.0014	0.0164	
	(2.156)	(-1.687)	(-0.230)	(1.365)	
Ln(Population)	-0.0069***	0.0164***	-0.0051	0.0072	
	(-2.725)	(4.015)	(-1.286)	(0.972)	
County HPI Growth	-0.0036	0.0116***	-0.0005	-0.0028	
	(-1.105)	(3.203)	(-0.066)	(-0.229)	
% Small Bank Branches	-0.0015*	-0.0004	0.0033**	0.0016	
	(-1.755)	(-0.377)	(1.981)	(0.500)	
HHI	-0.0005	0.0077	-0.0078	-0.0054	
	(-0.129)	(1.469)	(-1.031)	(-0.425)	
Bank Branch Density	-5.2383***	4.6014*	-3.1340	1.9833	
	(-4.121)	(1.734)	(-1.220)	(0.319)	
Observations	17,002	16,638	16,903	15,504	
R-squared	0.270	0.223	0.142	0.202	
County FE	Yes	Yes	Yes	Yes	
Year FE	Yes	Yes	Yes	Yes	

Robust t-statistics in parentheses

Table 6: Dynamic county employment effects

The table displays coefficient estimates from a county-level regression of small business employment growth rates for the smallest firms. The dependent variables are the gross percentage change in employment for firms with 0-19 employees for 1 to 5 year time windows. The % Bank Branches Undergoing Small Exams is the proportion of local (county) branches of banks undergoing a small bank exam. Control variables include county unemployment, log median income, log population, house price growth, proportion of small bank branches, HHI of deposits, and bank branches per capita. County and year fixed effects are also included. Standard errors are clustered at the county level. T-statistics reported in parentheses.

	Employment growth (0-19 Emp.)				
	(1)	(2)	(3)	(4)	(5)
VARIABLES	1 year	2 year	3 year	4 year	5 year
% Bank Branches Undergoing Small Exam	-0.0227	-0.0275	-0.0201	-0.0646***	-0.0437**
	(-1.243)	(-1.305)	(-0.679)	(-2.957)	(-2.384)
Unem. Rate	0.0013	0.0036***	0.0051***	0.0062***	0.0078***
	(1.510)	(2.604)	(3.045)	(3.948)	(5.289)
Ln(Median Income)	-0.0415	-0.0646	-0.0753	-0.0861	-0.1074*
	(-1.436)	(-1.283)	(-1.406)	(-1.353)	(-1.956)
Ln(Population)	-0.0340	-0.0423	-0.1722***	-0.3343***	-0.4570***
	(-1.444)	(-1.242)	(-4.530)	(-8.015)	(-10.659)
County HPI Growth	-0.1892***	-0.2399***	-0.3423***	-0.3461***	-0.2976***
	(-4.367)	(-5.601)	(-9.335)	(-8.294)	(-6.959)
% Small Bank Branches	-0.0008	0.0019	0.0116	0.0143	0.0110
	(-0.072)	(0.138)	(0.993)	(1.289)	(1.004)
HHI	0.0362	0.0266	0.0576	0.1148**	0.1470***
	(1.308)	(0.788)	(1.327)	(2.450)	(3.014)
Bank Branch Density	-23.9139**	-13.0502	-0.1846	43.9991**	72.3483***
	(-1.973)	(-0.797)	(-0.010)	(2.355)	(3.685)
Observations	17,097	17,097	17,097	17,097	17,097
R-squared	0.119	0.199	0.305	0.412	0.500
County FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes

Robust t-statistics in parentheses

Table 7: Tests by regulator

The table displays coefficients from the following panel regression model:

 $Y_{b,i,t} = \beta_0 + \beta_1 CRA Exam_{b,t} + \beta_2 OCC Small Bank Exam_{b,t} + \beta_3 FDIC Small Bank Exam_{b,t}$

+ β_4 FRB Small Bank Exam_{b,t} + $\beta_5 X_{b,t}$ + $\gamma_{i,t}$ + η_b + $\epsilon_{b,i,t}$

where $Y_{b,i,t}$ is the total number (column 1) or volume (column 2) of small business loans with origination amounts less than \$100k, or the proportion of SBA loans (column 3) or SBA loan volume (column 4) by bank *b* in county *i* and year *t*. The small exam dummy is split into three separate dummy variables according to the regulatory agency that administers the exam. Control variables are identical to those in Table 2. County-year ($\gamma_{i,t}$) and bank (η_b) fixed effects are included in all specifications. Standard errors are clustered at the bank level. T-statistics reported in parentheses.

	Loans <\$100k				
	(1)	(2)	(3)	(4)	
VARIABLES	Num	Vol	% SBA Num	% SBA Vol	
CRA Exam	-0.0466	-0.0621	-0.0033	-0.0016	
	(-1.039)	(-1.266)	(-1.245)	(-0.754)	
OCC Small Exam	0.0168	0.0731	0.0080	0.0115	
	(0.186)	(0.506)	(1.400)	(1.444)	
FDIC Small Exam	0.1137*	0.1633**	0.0123**	0.0115*	
	(1.712)	(2.000)	(2.186)	(1.891)	
FRB Small Exam	0.2285**	0.2931**	0.0031	0.0006	
	(2.545)	(2.572)	(0.607)	(0.113)	
Ln(Assets)	0.2666*	0.2611*	-0.0003	0.0001	
	(1.793)	(1.651)	(-0.081)	(0.035)	
Cash/Deposits	0.0058	0.0089	0.0040	0.0028	
	(1.313)	(1.433)	(0.998)	(0.874)	
ROA	-1.1901	-1.0361	-0.0070	0.0001	
	(-1.409)	(-1.272)	(-0.130)	(0.004)	
Non-Perf. Loans Ratio	1.8227	0.4009	-0.4222	-0.2890	
	(0.573)	(0.098)	(-0.994)	(-0.995)	
Capital	1.5175	0.8692	-0.2243	-0.1450	
	(0.976)	(0.725)	(-1.343)	(-1.094)	
Branch	2.7904***	4.0317***	0.0001	0.0025	
	(53.155)	(56.675)	(0.034)	(1.188)	
	• (0, 0, ()				
Observations	560,864	560,864	206,305	206,305	
R-squared	0.643	0.497	0.248	0.240	
County-Year FE	Yes	Yes	Yes	Yes	
Bank FE	Yes	Yes	Yes	Yes	

Robust t-statistics in parentheses

Table 8- Robustness: Large exams post-2005

The table displays coefficients from the following panel regression model:

$$Ln(1 + SB \ Credit_{b,i,t}) = \beta_0 + \beta_1 CRA \ Exam_{b,t} + \beta_2 X_{b,t} + \gamma_{i,t} + \eta_b + \epsilon_{b,i,t}$$

where *SB Credit*_{*b,i,t*} is the total number or volume of small business loans with varying origination amounts by bank *b* in county *i* and year *t* from 2005-2010. *CRA Exam*_{*b,t*} is a dummy variable equal to 1 if the bank has a CRA exam beginning at least in Q2 of that year. $X_{b,t}$ includes time varying bank characteristics: equity capital, ROA, non-performing loan ratio, liquidity ratio, and a dummy for whether the bank has a branch in the county. County-year ($\gamma_{i,t}$) and bank (η_b) fixed effects are included in all specifications. Standard errors are clustered at the bank level. Tstatistics reported in parentheses.

	Loans <\$100k			
	(1)	(2)	(3)	(4)
VARIABLES	Num	Vol	% SBA Num	% SBA Vol
CRA Exam	0.0068	0.0310	0.0077	0.0050
	(0.086)	(0.419)	(1.094)	(0.993)
Ln(Assets)	-0.3429**	-0.4093*	-0.0069	-0.0074
	(-2.151)	(-1.828)	(-0.623)	(-0.722)
Cash/Deposits	-0.0711***	-0.0918***	0.0029	0.0144
	(-6.848)	(-9.047)	(0.080)	(0.409)
ROA	-1.4018	-1.2001	-0.0888	-0.0680
	(-1.095)	(-1.055)	(-1.439)	(-1.381)
Non-Perf. Loans Ratio	1.6675	1.6445	-0.5850*	-0.4796*
	(0.965)	(1.055)	(-1.808)	(-1.952)
Capital	0.8492	-0.6047	-0.1475	-0.0964
-	(1.273)	(-0.630)	(-1.068)	(-0.883)
Branch	2.4718***	3.7647***	0.0076**	0.0114**
	(31.206)	(27.871)	(2.054)	(2.013)
Observations	347,167	347,167	164,787	164,787
R-squared	0.681	0.544	0.226	0.209
County-Year FE	Yes	Yes	Yes	Yes
Bank FE	Yes	Yes	Yes	Yes
Robust t-statistics in				

parentheses

Appendix A: Performance Evaluations

Small Bank Performance Evaluation Examples

1. Central Bank- Lebanon, MO

PUBLIC DISCLOSURE

October 29, 2003

COMMUNITY REINVESTMENT ACT PERFORMANCE EVALUATION

Central Bank Certificate Number: 01057

101 West Commercial Street Lebanon, Missouri 65536

Federal Deposit Insurance Corporation

2345 Grand Boulevard, Suite 1200 Kansas City, Missouri 64108

Criterion 2: Lending in Assessment Area

A majority of the number of Central Bank's loans have been originated within its assessment area, reflecting a commitment to meeting local credit needs. For assessment area lending analysis purposes, examiners reviewed all of the bank's residential real estate, commercial, and agricultural loans originated during the six month time period preceding the quarter end date of September 30, 2003.

2. <u>1st Constitution Bank- Cranbury, NJ</u>

PUBLIC DISCLOSURE

August 18, 2003

COMMUNITY REINVESTMENT ACT PERFORMANCE EVALUATION

1st Constitution Bank 27552

796 Route 130 Cranbury, New Jersey 08512

Federal Deposit Insurance Corporation 20 Exchange Place New York, New York 10005

1st CB has one AA which was reviewed using the CRA evaluation procedures described above. Small business loans and HMDA loans originated in 2001, 2002 and year-to-date 2003 (1/1/03-6/30/03) were reviewed to assess the bank's performance. For the purposes of this evaluation, small business loans are defined as all commercial purpose loans originated by the bank in an amount of \$1 million or less. As mentioned previously, 1st CB sells a substantial majority of the HMDA reportable loans that it originates. As a result, the large dollar volume of loans included Large Bank Performance Evaluation Examples

1. Americrest Bank- Oklahoma City, OK

PUBLIC DISCLOSURE

October 20, 2003

COMMUNITY REINVESTMENT ACT PERFORMANCE EVALUATION

Americrest Bank Certificate Number: 18957

3333 NW Expressway Oklahoma City, Oklahoma 73125-0676

FEDERAL DEPOSIT INSURANCE CORPORATION Division of Supervision and Consumer Protection 1910 Pacific Avenue, 19th Floor Dallas, Texas 75201

SCOPE OF EXAMINATION

Americrest's CRA activities in the State of Oklahoma assessment area were reviewed using large bank examination procedures. All 2002 small business and HMDA loans originated by Americrest within the Oklahoma assessment areas were reviewed. In addition, community development loans, investments, and services were also included in this evaluation. 2. Citizens Bank and Savings Company- Russellville, AL

PUBLIC DISCLOSURE

July 26, 2004

COMMUNITY REINVESTMENT ACT PERFORMANCE EVALUATION

Citizens Bank and Savings Company Certificate Number: 15310

> 200 South Jackson Avenue Russellville, Alabama 35653

Federal Deposit Insurance Corporation 10 Tenth Street, NE, Suite 800 Atlanta, Georgia 30309-3906

SCOPE OF EXAMINATION:

SCOPE OF EXAMINATION: A full-scope review was performed for one NonMetropolitan Statistical Area (MSA) according to the Large Bank CRA Examination Procedures. Lending, service, and investment activity was reviewed for this NMSA.

TIME PERIOD REVIEWED: January 1, 2002 to December 31, 2003

PRODUCTS REVIEWED: Home Mortgage, Small Business, Small Farm, and Community Development Loans.