COMMUNITY BANK STRESS TEST MANUAL

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Last update: March 2024

This manual was updated in March 2024 with Call Report data for 2023.

This manual explains how any U.S. community bank can utilize the freely available resources I have developed to build a customized macro stress-testing model. The purpose of the model is to assess the bank's ability to withstand a severe and prolonged period of high credit losses. The base model groups banks by geography and subjects them to high chargeoff rates based on actual loss history between 2008 and 2012. Although U.S. community banks (with less than $10 billion in assets) are not specifically required by regulators to run macro stress tests, those with high levels of commercial real estate lending are required to stress-test their portfolios. In addition, the banking industry has evolved quickly since 2009 to incorporate stress-testing as a routine part of risk management. The resources presented here allow community banks to quickly and costlessly adopt macro stress testing as part of their risk-management toolkit. These resources were originally developed as a service to Arkansas community banks, but I have expanded the scope in the hope that they will benefit all U.S. community banks.

I. Getting Started

This manual explains how to use the stress test to generate a customized stress test for your community bank. The logic of the stress test is explained in **Appendix A**. Read the appendix first if you are unfamiliar with how this stress test works.

You should have downloaded <u>two files from this web page</u>. If not, download the zipped files before proceeding.

1. The first (pdf) file, the one you are now reading, is "Community Bank Stress Test Manual.pdf." It provides the instructions to build a community bank stress test specific to your bank.

2. The second (Excel) file is "Generate Your Bank Stress Test.xlsm." This is a macro-enabled file that allows the user to generate a five-year stress test for any U.S. community bank beginning with the year 2023 bank data. After creating the stress test, the bank can then export it to a standard Excel file (.xlsx) that serves as a template for further customization.
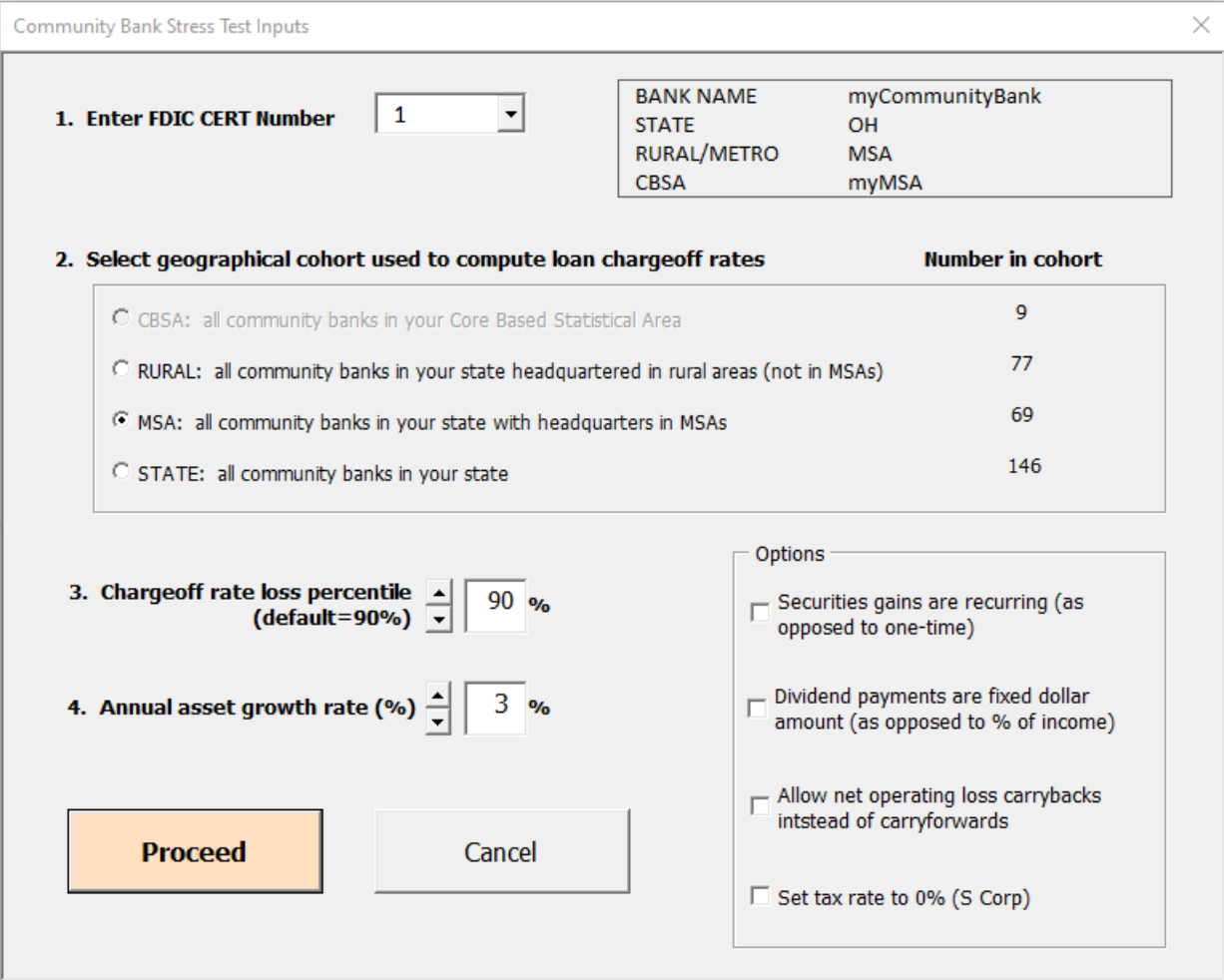
II. Generating the Stress Test for Your Bank

Open the file "Generate Your Bank Stress Test.xlsm" file. With this file, it is possible to run a stress test for any U.S. community bank beginning with 2023 as Year 0 (Y0). Enable the worksheet to run the macros—don't worry, the file will not harm your computer. Go to the "Inputs" worksheet. As in Exhibit 1, you will see year-end 2023 call report information for the fictitious myCommunityBank with FDIC Cert #1, which is used as the example bank. Click on the "**Run Stress Test**" button at the top of the worksheet.

Exhibit 1. Inputs Worksheet

Click to Run Stress Test

myCommunityBank				
Call Report Date: Year 0 of Simulation		**Metropolitan Statistical Area**		**State**
Year:	2023	**myMSA**		**OH**
Quarter:	4			
FDIC Cert	**COHORT**	**Tax Rate**	**PCTL Loss Rate**	**Asset Growth Rate**
1	**MSA**	21%	90%	3.0%

Enter dollar amounts in $000s as year-to-date

Commercial Real Estate	**EOP Balance**	**AVG Balance**	**Annual Interest rate (%)**	**Net Chargeoffs**
MULTIFAM	57,296	57,296	3.60%	69
NFR-Other	143,979	143,979	3.60%	755
NFR-Owner Occupied	178,590	178,590	3.60%	154
FARM	0	0	3.60%	0
CLD-Other	36,299	36,299	3.60%	113
CLD-Residential	7,875	7,875	3.60%	33

Other Loans & Securities	**EOP Balance**	**AVG Balance**	**Annual Interest rate (%)**	**Net Chargeoffs**
Mortgages	198,888	198,888	6.43%	1,639
Consumer	233,220	233,220	2.84%	437
Commercial & Industrial	70,071	70,071	3.09%	2
Agricultural	0	0	3.09%	0
Other Loans	7,453	7,453	5.93%	0
Securities	217,572	217,572	2.44%	
Federal Funds Sold	0	0	0.03%	
Interest Bearing Balances	6,215	6,215	0.02%	

You will see the stress test inputs dialog box appear as in Exhibit 2.

Exhibit 2. Stress Test Dialog Box

Four key inputs are required to run your community banks' initial stress test.

1. *Enter the FDIC cert number.* The information box on the top right of the dialog box will update to reflect the bank's name, state, the rural/metro status of the bank's headquarters, and the Core Based Statistical Area (CBSA) of the headquarters.

2. *Select the geographic cohort to use to compute loan chargeoff rates.* This is the group of banks that are used to compute chargeoff rates that may be likely to replicate your bank's losses under an adverse 5-year horizon such as the one experienced between 2008 and 2012. The choices are:

   a. CBSA, which includes all community banks in your CBSA. A CBSA is a combination of counties that can be a Micropolitan or Metropolitan area. Micropolitan areas are rural; Metropolitan areas are urban.

b. RURAL, which includes all community banks in your state headquartered in rural areas.

c. MSA, which includes all community banks in your state headquartered in an MSA.

d. STATE, which includes all community banks headquartered in your state.

A minimum of 20 community banks in your cohort are required each year between 2008 and 2012 to produce statistically reliable loan loss rates. A particular cohort is unavailable (grayed out) if fewer than 20 banks are available. For example, the CBSA option is unavailable for myCommunityBank because an average of nine community banks existed in that CBSA during those years.

If the CBSA option is available to click, that may be the most appropriate selection for your bank because the banks in your CBSA are likely to be in the closest competition with your bank in your market, and the chargeoff rates of these banks during the 2008-2012 period reflect realistic representations for how high your bank's chargeoffs could rise in a severely adverse scenario. If CBSA is unavailable, the next best selection may be RURAL if your bank is headquartered in a rural area; and MSA, if your bank is headquartered in an MSA. If an insufficient number of community banks exist in your state to select the rural or MSA cohort, the remaining option is to select all community banks headquartered in your state.

Because myCommunityBank is in an MSA, and because CBSA is grayed out due to an insufficient number of banks, we select the MSA option.

3. *Chargeoff rate loss percentile.* By clicking the spinner, you can raise or lower the percentile of the cohort's chargeoff rates by 5 percentage point increments. The maximum loss percentile (and the default value) is 90% and the minimum is 50%. A value of 90% means that the chargeoff rates for each of your bank's loan types for years one through five (Y1-Y5) will equal the 90th percentile chargeoff rates of all the banks in your cohort for the years 2008 through 2012, respectively. A value of 50% means that the chargeoff rates will be at the median values of the banks in your cohort. Higher values produce more severe stress tests.

4. *Annual asset growth rate.* The final key input to run the stress test is your bank's average annual growth rate through the simulation's five-year horizon. The growth rate can range from 0% to 20%, and the default value is 3%. You should choose the value that reflects a realistic target annual growth rate of your bank's assets during an adverse scenario.

5. *Options.* The user has four options that affect different aspects of the simulation. For most banks, these 'Options' on the dialog box will remain unchecked.

a. The first option deals with how the bank treats securities gains. By default, any securities gains earned by your bank in Y0 are assumed to be one-time gains. If they are recurring, select the checkbox.

b. The second option deals with dividends. By default, dividend payments are assumed to be a fixed proportion of the bank's net income based on the bank's ratio in Y0. If instead, dividends are likely to be a fixed dollar payment (even under adverse conditions), select that checkbox.

c. The third option deals with carrybacks and carryforwards on net operating losses. The default assumption is that the bank will use carryforwards to generate deferred tax assets, which offset cash-based tax payments in future years. This default choice is consistent with current tax code. If the user checks the box, the model resorts to using carrybacks to offset cash-based tax payments in the current year. See **Appendix B** in this manual for more details.

d. The fourth option deals with income tax rates. The default assumption is that the tax rate after Y0 is 21%. If the user checks the box, the model sets the tax rate to 0%, which may be appropriate for some S corporations.

Once you have selected your bank's stress-test inputs and options, if any, click the "Proceed" button. You will be taken to the "Results" worksheet, which contains the stress test report. We emphasize that the stress test is not designed to forecast or predict any bank's *actual* performance over the five-year horizon. Rather, the results represent a plausible worst-case outcome based on the worst-case outcomes of banks in its cohort during the financial crisis years. Save the file to preserve your work. However, you can reproduce your results any time by opening the file and repeating the steps above.

III. Transferring stress test results to your bank's customizable template

The next step is to convert the stress test in the Excel macro-enabled 'xlsm' file to a standard 'xlsx' template that you can customize by changing chargeoff rates or bank inputs. On the Results worksheet, click the gray button titled "Create Your Bank's Template File." A dialog box will appear, shown in Exhibit 3, that asks you to confirm your desire to create the stress test template file. By clicking 'YES' to proceed, a new spreadsheet file will be created with the name "myCommunityBank Stress Test Template.xlsx", (myCommunityBank is replaced with your bank's name) and it will contain your bank's stress test results that are identical to the one you have just generated. **WARNING: The file will be saved in your current active directory, and it will overwrite any file in that directory with the same name. To avoid overwriting an existing template file, either rename or move the file to a different directory.**

Exhibit 3. Stress Test Results Worksheet

myCommunityBank STRESS TEST RESULTS							
YEAR 0 CALL REPORT DATE: 2023 Q4		FDIC CERT:	1	PCTL LOSS	COHORT:	MSA	
myMSA		GROWTH RT:	3.0%	RATE	SEC GAINS	FIXED DIV	CARRYBACK
		TAX RT:	21%	90%	NO	NO	NO

| Create Your Bank's Template File |

Balance Sheet ($000s)	Y0	Y1	Y2	Y3	Y4	Y5
Interest Bearing Balances	6,215	6,401	6,593	6,791	6,995	7,205
Federal Funds Sold					0	0
Securities					244,879	252,226
Total Loans					978,733	992,484
LLR					14,681	14,887
Net Loans					964,052	977,597
Trading Assets					0	0
Total Earning Assets					1,215,927	1,237,027
Non-Earning Assets (Includes Accum. DTA)					103,507	105,633
Total Assets					1,319,433	1,342,661
Liabilities					1,194,700	1,217,549
Equity					124,733	125,112

Create Template ✕

By clicking 'YES', Excel will close, and a new spreadsheet file called myCommunityBank Stress Test Template.xlsx will be created with a stress test identical to this one. The file will be saved in the same directory, and it will serve as your bank's customizable stress-test template. Go to the file directory to open the new file. WARNING: If you have previously created a template file for this bank, the new file will overwrite the existing one unless you have changed the filename or directory.

[YES]   [CANCEL]

Net Chargeoffs (annualized in $000s)					Y4	Y5
Net chargeoffs					17,884	15,230

IV.   Customizing your stress test model

Your "myCommunityBank Stress Test Template.xlsx" file derived from the "Generate Your Bank Stress Test.xlsm" file is now ready to customize.

1. Projected Loss Rate Changes

    The most common way to customize your bank's stress test is to alter the projected loss rates for years 1 to 5 on the ProjectedLossRates worksheet. Enter the desired chargeoff rates directly into the worksheet.

    Another option is to re-run the stress test in the "Generate Your Bank Stress Test.xlsm" file and choose a different geographic cohort and/or loss percentile for the simulation, which will result in different net chargeoff rates. You can save these new results as a new Excel template file, but again, **rename or move any existing template files first to avoid overwriting those files**.

    Note that once you have transferred your bank's stress test to the .xlsx template file, changing the PCTL Loss Rate value in Cell D7 on the Inputs worksheet will have no effect on the chargeoff rates used in the stress test. This loss rate percentile retains its value from the "Generate Your Stress Test.xlsm" file and is not updated for any changes you subsequently make in the template file.   The chargeoff rates applied to your customized stress test are those in the ProjectedLossRates worksheet of the template file.

2. Bank Data Changes

    You may also wish to customize the stress test by changing the date and the bank input data. Although the "Generate Your Bank Stress Test.xlsm" file always uses fourth quarter Call Report data, you can run your stress test using data from any quarter. Updating your stress test model for a period other than year-end 2023 is straightforward. On the Inputs worksheet, you must manually update all the Call Report values in the shaded cells with **blue** font. All income items, net chargeoffs, and average balances are entered as year-to-date (YTD). Because the stress test automatically annualizes the flow values, it is critical that you enter the correct quarter into Cell B5 so that the spreadsheet annualizes the data correctly. Select any desired options for securities gains, dividends, and carrybacks by checking the appropriate boxes on the bottom-right of the Inputs sheet.

V.   Interpreting your customized stress test results

In your customized template file, the stress-test results update as you change the values in the Inputs and ProjectedLossRates worksheets. There is no button to click. To view your results, go to the Results worksheet.

Exhibit 4 displays partial results of the myCommunityBank stress test using year-end 2023 as Year 0, a growth rate of 3%, and a loss percentile of 90% from the MSA cohort. The report titled "myCommunityBank Stress Test Results" contains the balance sheet, the dollar amount of net chargeoffs, the income statement, and net chargeoff rates.

Key patterns in the results are emphasized to enhance your intuition about the model's logic.

1. The initial balance sheet and chargeoffs in Y0 should <u>exactly</u> match your call report data. For example, myCommunityBank at year-end 2023 has (in $000s) $1,235,679 in assets, $933,671 in loans, $128,988 in equity, and $3,202 in net chargeoffs. The evolution of the balance sheet for Y1-Y5 follows the logic of the stress test as explained in Appendix A.

2. The income statement in Y0 should <u>closely approximate</u> your bank's actual reported income. The results are unlikely to match exactly because interest income is estimated from asset yields

Exhibit 4. Partial Stress Test Results

myCommunityBank STRESS TEST RESULTS						

YEAR 0 CALL REPORT DATE: 2023 Q4	FDIC CERT:	1	PCTL LOSS	COHORT:	MSA	
myMSA	GROWTH RT:	3.0%	RATE	SEC GAINS	FIXED DIV	CARRYBACK
	TAX RT:	21%	90%	NO	NO	NO

Create Your Bank's Template File

Balance Sheet ($000s)	Y0	Y1	Y2	Y3	Y4	Y5
Interest Bearing Balances	6,215	6,401	6,593	6,791	6,995	7,205
Federal Funds Sold	0	0	0	0	0	0
Securities	217,572	224,099	230,822	237,747	244,879	252,226
Total Loans	933,671	950,895	960,139	968,103	978,733	992,484
LLR	17,416	14,263	14,402	14,522	14,681	14,887
Net Loans	916,255	936,631	945,737	953,582	964,052	977,597
Trading Assets	0	0	0	0	0	0
Total Earning Assets	1,140,042	1,167,132	1,183,153	1,198,120	1,215,927	1,237,027
Non-Earning Assets (Includes Accum. DTA)	95,637	97,910	99,254	101,130	103,507	105,633
Total Assets	1,235,679	1,265,041	1,282,406	1,299,250	1,319,433	1,342,661
Liabilities	1,106,691	1,133,309	1,153,010	1,173,176	1,194,700	1,217,549
Equity	128,988	131,732	129,396	126,074	124,733	125,112

Net Chargeoffs (annualized in $000s)	Y0	Y1	Y2	Y3	Y4	Y5
Net chargeoffs	3,202	10,545	18,745	20,255	17,884	15,230

Income Statement (annualized in $000s)	Y0	Y1	Y2	Y3	Y4	Y5
Interest income	42,615	43,060	43,823	44,418	45,015	45,728
Interest expense	4,789	4,903	4,970	5,033	5,108	5,196
Net Interest Income	37,826	38,157	38,853	39,385	39,907	40,531
Noninterest expense	35,090	35,924	36,417	36,878	37,426	38,075
Noninterest income	12,999	13,308	13,491	13,661	13,864	14,105
Provision expense	3,113	7,392	18,883	20,374	18,043	15,436
Securities & Extraordinary gains	-5	0	0	0	0	0
Operating income	12,617	8,149	-2,957	-4,205	-1,697	1,125
Taxes	3,379	1,711	-621	-883	-356	236
Net income	9,238	6,437	-2,336	-3,322	-1,341	888
Dividend Payout	5,300	3,693	0	0	0	510
Undivided Profits	3,938	2,744	-2,336	-3,322	-1,341	379
Deferred Tax Assets	0	0	621	883	356	-189
Accumulated Deferred Tax Assets	0	0	621	1504	1860	1672

Annualized Net Chargeoffs to Avg Loans (%)	Y0	Y1	Y2	Y3	Y4	Y5
Commercial Real Estate	0.27%	0.71%	1.50%	1.74%	2.09%	1.13%
Multifamily	0.12%	0.77%	0.59%	0.84%	3.30%	0.68%
NFR-Other	0.52%	0.25%	2.66%	1.85%	1.56%	1.22%
NFR-Owner Occupied	0.09%	1.25%	0.99%	1.26%	0.97%	0.91%
Farm	0.00%	0.00%	0.00%	0.00%	0.02%	0.00%
CLD-Other	0.31%	0.00%	1.25%	5.70%	8.00%	3.14%
CLD-Residential	0.42%	0.34%	0.60%	0.00%	3.17%	0.32%

and average loan amounts derived from the Call Report data or entered in the Inputs worksheet. Consequently, estimated net income and ROA may be slightly higher or lower than actual ROA. Again, the income statement for Y1-Y5 follows the logic of the stress test.

3. The annualized net chargeoff to loan ratios in Y1 through Y5 equal the projected chargeoff rates listed in the ProjectedLossRates worksheet. These chargeoff rates are the critical inputs of the model, and they should reflect realistic values for your bank. Recall that projected chargeoff rates by loan type for myCommunityBank in this example came from the 90th percentile chargeoff rates for each year between 2008 and 2012 for all banks headquartered in MSAs in Ohio. If the net chargeoff rates obtained from the "Generate Your Bank Stress Test.xlsm" file are not representative of a plausible severely adverse scenario, you should change them to reflect more appropriate loss rates.

4. Between Y1 and Y5, provision expense each year equals chargeoffs in that year plus a buffer to account for loan growth. However, provisions cannot be negative, and they are capped so that the loan loss reserves (LLR) to total loans ratio does not exceed 1.5%. For example, myCommunityBank is projected to have $10,545 chargeoffs in Y1. Provision expense is allocated to replenish those chargeoffs and to account for growth in loan loss reserves equal to the realized loan growth rate of 1.845%. Without the cap, provision expense would be ($10,545 + 1.845% x $17,416) $10,866, and the ratio of loan loss reserves (LLR) to total loans would be ($17,739/$950,395) 1.87%. Consequently, provision expense is set to $7,392, which results in the maximum allowed ratio of 1.5%. For the subsequent years, the ratio of loan loss reserves (LLR) to total loans remains unchanged. The cap on the ratio at 1.5% rewards banks that begin the stress test with relatively high levels of loss reserves.

5. The default amount of dividend payments equals the Y0 ratio of dividends to net income. But if the "Dividends are fixed dollar amount each period" checkbox on the Inputs worksheet is checked, dividend payments equal the initial Y0 dollar amount. In either case, if net income is negative, dividends are set to $0. myCommunityBank has an initial dividend payout of 64%, but when net income is negative in years two through four, no dividends are paid.

6. Unless the carryback option on the Inputs worksheet is selected, Deferred Tax Assets (DTAs) accrue for negative operating losses (NOLs) at an amount equal to 21% of operating income. Accumulated DTAs are part of nonearning assets in the balance sheet, and they are applied to future profitable years at 80% positive operating income to offset cash-based taxes. Net operating income at myCommunityBank is $1,125 in Y5, and the bank has Accumulated DTAs of $1,860 from previous NOLs. Consequently, the bank uses ($1,125 x 80% x 21%) $189 of DTAs to reduce its cash-based tax payments in Y5 by the same amount. In the stress test, year-end assets and liabilities both decline by the reduction in Accumulated DTAs of $189. Because DTAs are excluded from regulatory capital, Tier 1 capital is unaffected, but the Tier 1 leverage ratio increases.

Exhibit 5. Profitability and Capital Results

Profitability and Capital (%)	Y0	Y1	Y2	Y3	Y4	Y5
ROAA (annualized)	0.75%	0.51%	-0.18%	-0.26%	-0.10%	0.07%
ROE (annualized)	0.75%	4.94%	-1.79%	-2.60%	-1.07%	0.71%
Equity to assets	10.44%	10.41%	10.09%	9.70%	9.45%	9.32%
Tier 1 leverage ratio	8.88%	8.89%	8.54%	8.10%	7.85%	7.75%

The critical stress-test results are the five-year projections of ROA and the Tier 1 leverage ratio, found in the Profitability and Capital section of the Results worksheet and listed in Exhibit 5. For this bank, the Tier 1 leverage ratio is projected to decline from 8.88% in Y0 to 7.75% in Y5. The capital declines because ROA is negative in years 2 through 4. Nevertheless, myCommunityBank has sufficient capital to weather this severely adverse scenario. In general, a Tier 1 leverage ratio less than 6% signals that the bank has a capital level that is becoming uncomfortably low. A ratio less than 2% signals that a bank is on the verge of failure.

A series of charts are also available to assess your bank's stress-test performance. Click on the ROA, ROE, Capital, Net Chargeoffs, Chargeoffs by Loan Category, and Chargeoffs by CRE Category worksheets to view the different charts.

VI.   Summary

This manual plus the Excel macro-enabled file "Generate Your Bank Stress Test.xlsm" contain the tools necessary for your community bank to quickly generate and customize a macro stress-test model for your bank. The stress test is designed to assess the ability of your bank's current capital to withstand a severely adverse scenario resulting in large and persistent loan chargeoffs. Use of this tool incorporates a macro stress test into your risk-management toolkit.
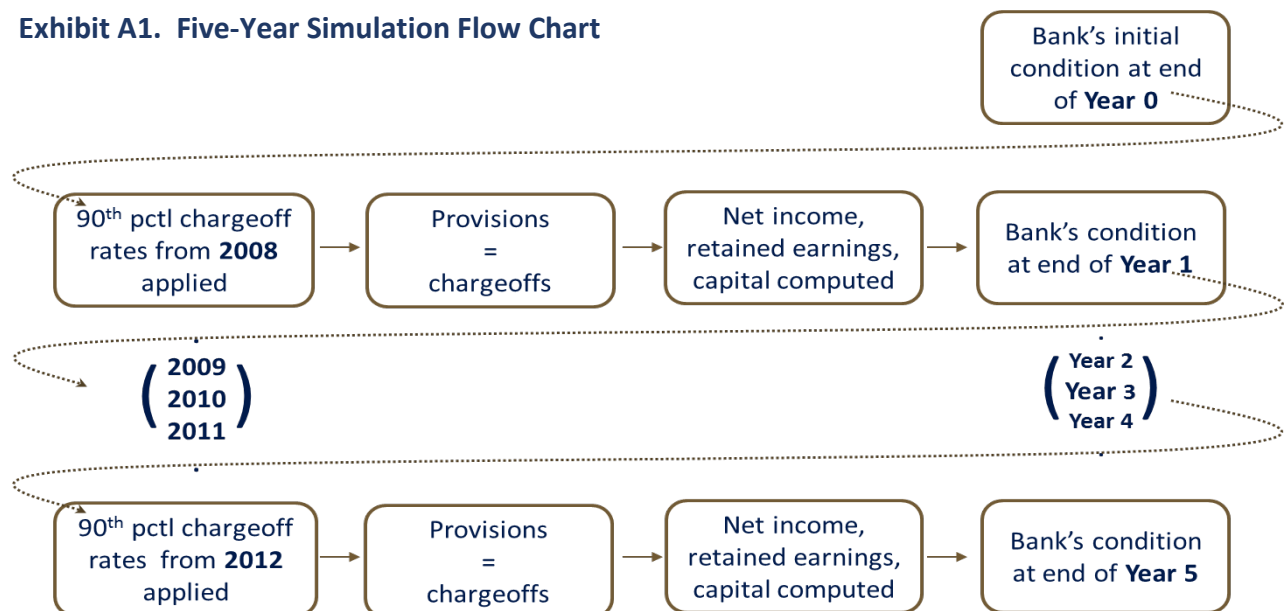
APPENDIX A. THE STRESS-TEST LOGIC

This macro community bank stress test exposes each community bank to the 90th percentile chargeoff rates experienced by banks in the local geographic market of its headquarters during the years 2008-2012, a period encompassing the financial crisis and Great Recession. Each community bank is assigned to a market based on the location of its headquarters. Banks headquartered in a CBSA (core-based statistical area) where at least 20 community banks are headquartered comprise their own market. Urban banks headquartered in MSAs with fewer than 20 community banks are grouped with all community banks headquartered in MSAs in their state. Rural banks (not headquartered in MSAs) in a state form a market if there are at least 20 rural banks headquartered in the state. If there are fewer than 20 urban banks in MSAs in the state or fewer than 20 rural banks in the state, those urban and rural banks are combined into one state-wide market.

The flow chart in Exhibit A1 illustrates the logical progression of the simulation. The initial condition of each bank (Y0 of the simulation) is taken from its annualized year-to-date Call Report data as of the fourth quarter of the year being tested. Inputs include total and average loan amounts, average loan yields, loss rates, and other information obtained from publicly available Call Reports. The five-year stress test (Y1 through Y5) imposes on each bank the 90th percentile net chargeoff rate for each loan type experienced by banks in its respective market for each of the five years 2008-2012. For example, suppose that the 90th percentile net chargeoff rate for residential CLD loans in your bank's geographic cohort in the year 2008 was 5%. That loss rate is applied to your projected residential CLD loans in Y1 of the simulation. If the 2009 loss rate was 8%, that rate is applied to your loan balance in Y2, and so on through Y5.

The five-year stress test assumes that each community bank maintains its initial Y0 asset composition except that charged off loans are not replaced. All assets are assumed to grow by 3% each year before

Exhibit A1. Five-Year Simulation Flow Chart

accounting for the chargeoffs. Consequently, loan growth and the realized asset growth rate is less than 3%.

Provision expense equals net chargeoffs each year up to a cap where the loan loss reserve to total loan ratio is 1.5%. The cap allows for banks to draw down high initial loan loss reserves before replenishing them with new provisions. Loan yields are assumed to be unchanged from Y0, and interest income is generated on average loan balances. Net income is taxed at a rate of 21% unless the no-tax option is selected.

The bank pays dividends equal to its initial dividend to net income ratio if net income is positive, and $0 if the bank suffers losses. Undivided profits flow into retained earnings. Net operating losses generate DTAs.

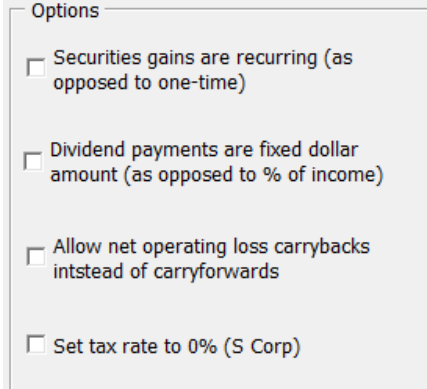# APPENDIX B. CARRYFORWARDS AND DEFERRED TAX ASSETS

The Tax Cut and Jobs Act (TCJA) of 2017 lowered the corporate tax rate from 35% to 21%, eliminated net operating loss (NOL) carrybacks, and limited NOL deductions on carryforwards to 80% of taxable income. Under the old tax law, a bank with a $100 NOL in Y2 of the stress test, for example, could have applied a carryback for taxes paid in the previous five years to receive a cash-based tax benefit of $35 ($100 x 0.35) in Y2. The benefit saves the bank $35 in cash in that year. Retained earnings and Tier 1 capital both decline in Y2 by the amount of the after-tax loss.

Under TCJA, a bank with a $100 NOL in Y2 must use a carryforward to receive an accrual-based tax benefit of $21 ($100 x 0.21), which has implications for cash flow and regulatory capital. With carryforwards, NOLs generate a deferred tax asset (DTA) that represents reduced cash-based tax payments in future profitable years. Importantly, the Basel III Capital Accord excludes DTAs from Tier 1 capital because severely distressed banks may be unable to generate future positive operating income to utilize them. Although the carryforward tax benefit increases assets and equity in the year of the NOL by the amount of the DTA, regulatory capital ratios are unaffected until the DTA is utilized. Because the law limits NOL deductions to 80% of taxable income, a bank that earns $100 net operating income in Y3 of the stress test can apply $16.80 ($100 x 0.21 x 0.8) in accumulated DTAs in that year to reduce its cash-based taxes.

Although the new law went into effect in 2018, the CARES Act of 2020 temporarily nullified the rules in TCJA that eliminated carrybacks. Specifically, the CARES Act allows a five-year carryback of any NOL generated in a taxable year beginning after December 31, 2017, and before January 1, 2021.

The community bank stress test is updated beginning with the 2023 Call Report data so that the TCJA rules excluding carrybacks are set as the default. When the stress test is run, the third option in the dialog box shown in Exhibit A2 states, "Allow net operating loss carrybacks instead of carryforwards." By checking this box, the user chooses to apply carrybacks instead of carryforwards to the stress test. Unless the DTA rules are relaxed again in the future, banks would not want to select this option. The default option, by leaving the box unchecked, is that the TCJA rules apply. The 'Results' worksheet includes Accumulated DTAs from NOLs generated in Years 1-5 of the stress test, and they are applied in profitable stress-test years at the lesser of 80% of taxable income or the Accumulated DTA balance.

Exhibit A2. Options Dialog Box

Options

☐ Securities gains are recurring (as opposed to one-time)

☐ Dividend payments are fixed dollar amount (as opposed to % of income)

☐ Allow net operating loss carrybacks intstead of carryforwards

☐ Set tax rate to 0% (S Corp)