

The Crisis, the Fallout, the Change:

The Great Recession in Retrospect

The Great Recession started 10 years ago this month and left in its wake lasting change to the banking industry, borrowers, and regulators. Cleveland Fed examiners and others reflect on how the financial crisis happened and weigh in on whether it could happen again.

By Michelle Park Lazette
December 18, 2017

CHAPTER 1

All hands on deck

Bank loans were going sour. Bank stock prices were in free fall. Big-name firms were outright failing or on the brink.

As the housing bubble popped and the most severe financial crisis since the Great Depression tightened its grip on the US economy, the situation swiftly became an all-hands-on-deck state of affairs for the Federal Reserve, which supervises bank holding companies and state member banks to ensure they're safe and sound.

Assessing the financial condition of firms is nothing new for bank examiners, but given the rapidly deteriorating economic conditions across the nation, identifying the banks in distress took on increased urgency. The Fed ramped up the number of bank exams, scrutinizing: What kinds of loans did banks have in their portfolios, and how risky were they in light of the economic crisis? Did banks have large exposures to one particular type of lending or one particular geography? How viable were the banks, period?

Ten- and twelve-hour days involved scouring, line by line, banks' funding needs and funding sources. Reports that banks used to furnish to examiners every quarter started arriving daily.

"Things were moving at lightning speed," says Jenni Frazer, who at the time was leading a team to supervise one of the largest banks in the region the Cleveland Fed serves.

"The economy was a concern in general—the unemployment rate was rising,

real estate values were falling—and banks and financial firms were under a lot of pressure,” Frazer continues. “With some financial firms in trouble, the public was losing confidence in the banks, and this exacerbated the issues.

“Companies were making strategic decisions—what were they going to do to maintain enough liquidity and capital?” says Frazer, now vice president of large bank supervision for the Cleveland Fed. “How were they going to raise capital

as loan losses grew? How were they going to get or maintain liquidity as market conditions became more volatile? During the crisis, we got reports from companies every day, and we’d have calls with them every day. Those calls often went into the evenings after the markets closed and banks had settled their accounts, or finalized the day’s debits [money out] and credits [money in].

“Our job was—and is—to protect the Deposit Insurance Fund by preventing bank failures,” Frazer says.

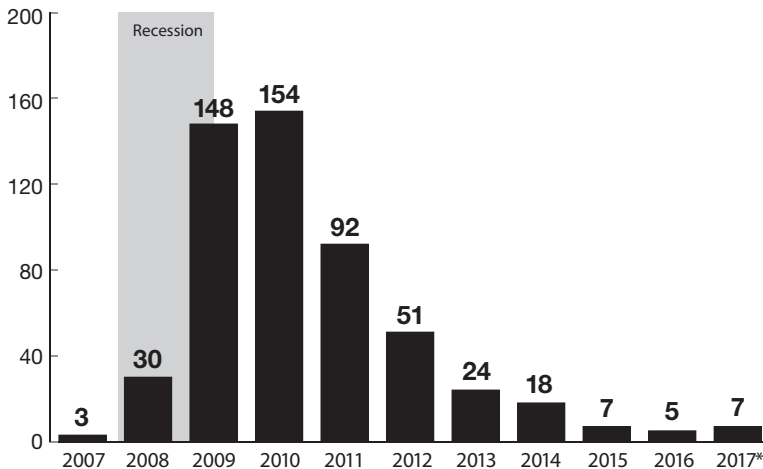
In the end, many banks in the country wouldn’t survive.

This month marks 10 years since the beginning of the Great Recession, a period during which millions of people lost their jobs and homes. The banking crisis that ensued spelled the demise of hundreds of institutions: From 2008 through 2015, more than 500 banks failed, according to Federal Deposit Insurance Corporation (FDIC) data. In contrast, in the 7 years that preceded the recession, 25 banks failed.

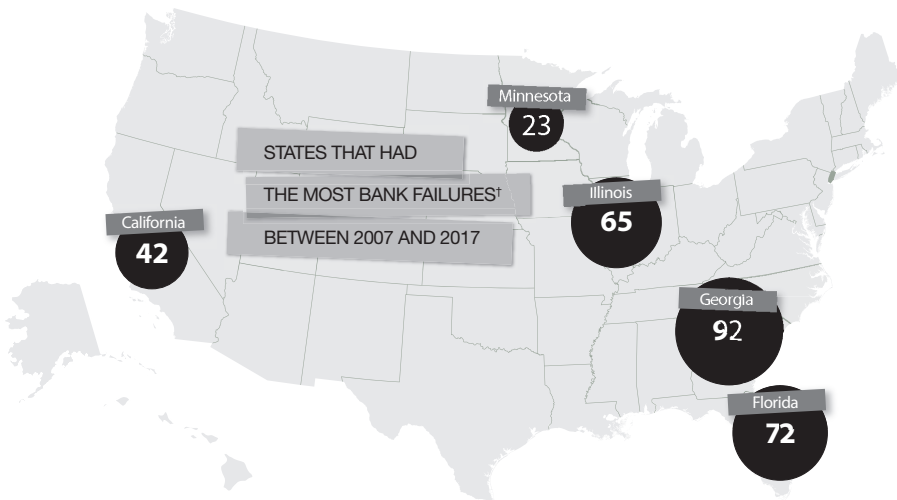
As the crisis was building, bankers shared data and plans for mitigating

problems, and Cleveland Fed bank supervisors needed to fact-check and ensure the banks had contingency plans for staying liquid. If what you expect to happen doesn’t happen, what is your back-up plan to remain viable? Liquidity

During and immediately after the Great Recession, US bank failures ballooned, spiking to roughly 150 in both 2009 and 2010. Since 2015, bank failures[†] have fallen to single-digit numbers.



* Number as of November 2017.
[†] Includes assisted transactions typically made because of imminent failure.
 Source: Federal Deposit Insurance Corporation.



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 Source: Federal Deposit Insurance Corporation.

is important because a bank must have enough liquid assets on hand to meet its short-term obligations, including overnight or same-day payments, deposit withdrawals, and other debt payments.

“Things just kept getting worse quarter by quarter,” remembers John Shackelford, who at the time the crisis began was in charge of the Cleveland Fed’s credit risk function. “What we were trying to do is on a bank-by-bank basis, see what was happening, and really try to understand, too, the systemic impact. How bad could it get?”

His answer today, a decade later: “Much deeper than we had originally thought. It really influences today our cautiousness on how much capital and liquidity a bank [should] have.”

The Federal Reserve’s response extended well beyond examiners’ work.

As a bank for banks, the Federal Reserve provides short-term liquidity to otherwise healthy depository institutions, including banks, credit unions, and savings and loan associations. Usually, the Fed’s loans have less favorable terms (including higher costs) than those from other sources such as the Federal Home Loan Banks, so the Fed tends not to be the first-choice lender. But when market rates spike above the Fed’s rates, as they can during a crisis, or when an institution faces an unexpected liquidity need late in the day or after other lenders have closed or cannot meet the institution’s need, the Fed remains open and ready to lend.

Banks rushed to avail themselves of the Fed’s loans, recalls Todd Berardinelli, who managed the Cleveland Fed’s secured lending at the time.

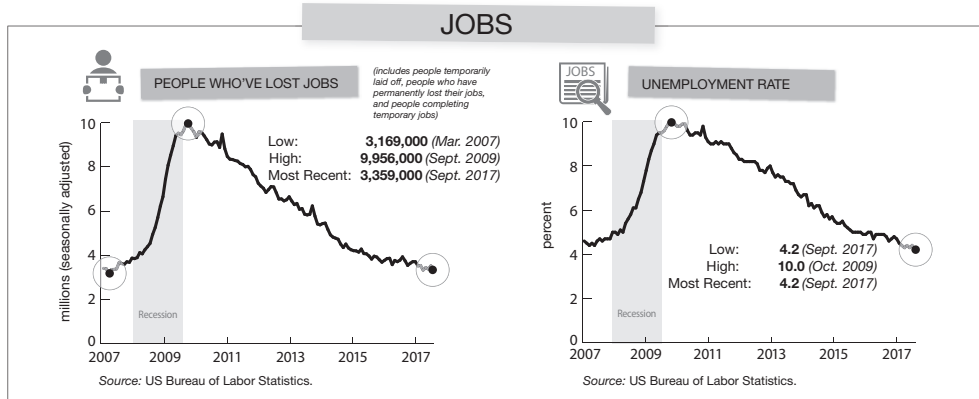
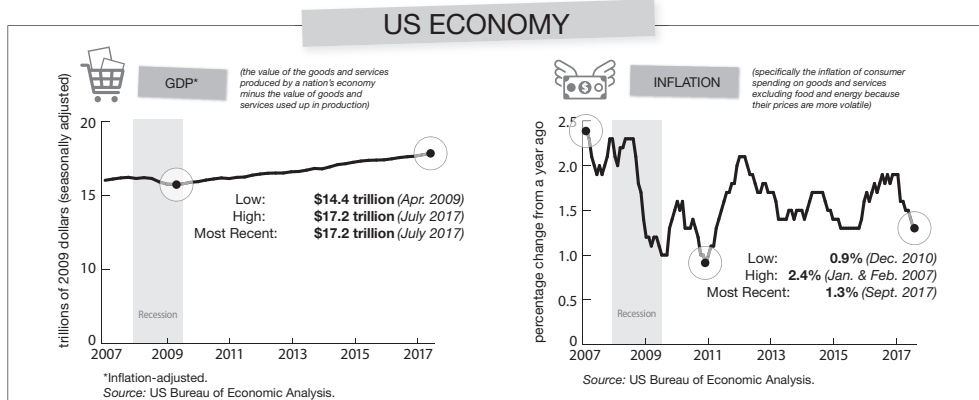
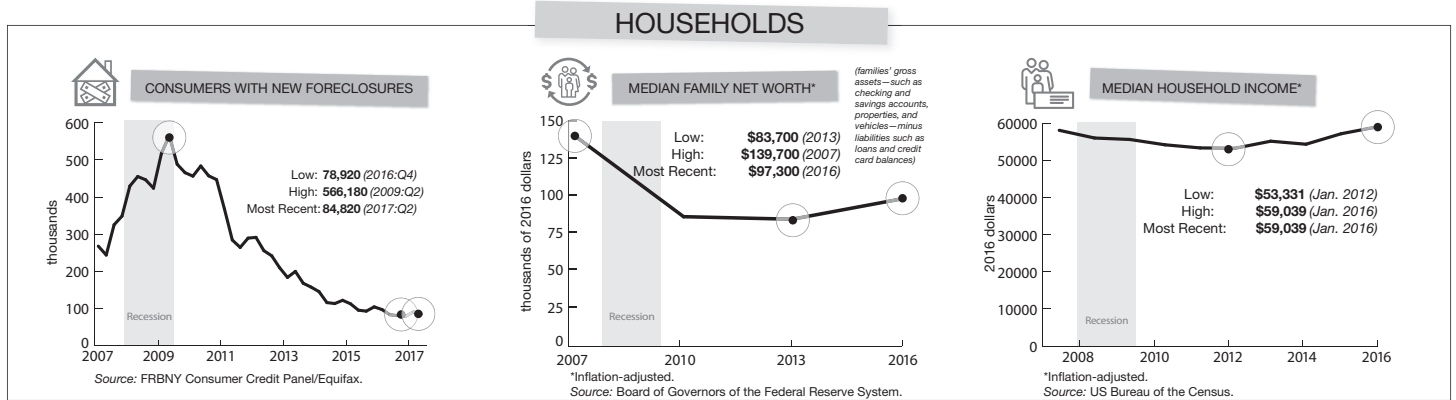
Demand for its loans became so great that in late 2007 the Fed introduced a new form of lending, the Term Auction Facility, or TAF, which allowed banks to bid to borrow money from the Fed. Quickly, the Fed found it needed to increase 2 things: the money it was willing to lend through each auction and the frequency of the auctions.

The establishment and scale-up of the TAF brought home the magnitude of the crisis to Berardinelli, now assistant vice president of risk management and innovation for the Cleveland Fed. It was, he says, “the first indication that, ‘Wow, this is big.’”

Retired in March 2010, the auctions involved institutions’ telling the Fed how much they wanted to borrow from the Federal Reserve and what interest rates they were willing to pay. The Fed then awarded funding up to the fixed amount it had set for each auction at a rate determined through the process.

By year-end 2008, the Cleveland Fed's loans to depository institutions, which included TAF loans, had climbed more than 1,700 percent to more than \$15.6 billion, up from \$853 million the year prior.

7 ways the US economy and US households changed since 2007



A blow to an industry and its borrowers

A recession is a significant decline in economic activity across the economy and can last from a few months to more than a year.

Early in the crisis, bankers doing business in the region served by the Cleveland Fed—Ohio, western Pennsylvania, the northern panhandle of West Virginia, and eastern Kentucky—didn't expect problems linked to collapsing house prices in hot real estate markets on the West Coast and elsewhere to affect them, says Charlie Crowley, who has worked with community banks for 35 years and is now managing director of investment banking for Philadelphia-based Boenning & Scattergood, Inc. (He advises banks on mergers, branch acquisitions, and capital raising.)

“When these problems started erupting in the economy, people thought, ‘There will be banks in California that will suffer from bad loans, but it’s not going to affect my well-run, profitable bank [in Ohio, Pennsylvania, West Virginia, Kentucky],’” he says.

And in some respects, they were right: Ohio, Pennsylvania, West Virginia, and Kentucky lost relatively few banks to failure between 2007 and 2017—6 in Ohio, 9 in Pennsylvania, 1 in West Virginia, and 2 in Kentucky. That’s a testament to how well banks were managed, Crowley says. (The largest losses in the Cleveland Fed’s region, by distressed sale and failure, respectively, were those of National City Corporation and AmTrust Bank, he notes.)

Still, even well-managed financial institutions suffered.

“What happened was the subprime mortgage problem became contagious and affected

all real estate values, whether commercial real estate or mortgages,” Crowley says. “The belief that housing markets could only go up was shattered. Real estate values were hit hard, which meant that an 80 percent loan-to-value (LTV) ratio became a 110 percent loan-to-value ratio in some cases. So even our relatively small, very well-run banks saw a big spike in nonperforming assets.”



The largest losses in the Cleveland Fed’s region during the financial crisis, by distressed sale and failure, respectively, were those of National City Corporation and AmTrust Bank, says Charlie Crowley (pictured), who has worked with community banks for 35 years.



“There were people who couldn’t afford homes who were buying homes. There were lenders thinking, ‘I know that person can’t afford the mortgage, but the value of the house will go up, so if we have to foreclose, we’ll be OK.’ It was a classic bubble mentality.”

— **Charlie Crowley**, managing director, Boenning & Scattergood, Inc.

The root of the cascading problems, from Crowley’s perspective, was one widely shared belief.

“It was this pervasive sense across the economy that housing values could only go up,” he says. “That was ultimately, in my opinion, what led to all of the carnage that took place. There were people who couldn’t afford homes who were buying homes. There were lenders thinking, ‘I know that person can’t afford the mortgage, but the value of the house will go up, so if we have to foreclose, we’ll be OK.’ It was a classic bubble mentality.”

Investor Denise M. Penz had a close look at bank balance sheets in early 2009 while shopping with other investors to buy a bank. Of the 12 institutions in the Canton, Ohio, area they considered, many banks “we looked at had a regulatory agreement,” she says. “They were under some type of scrutiny by the regulators.” Ultimately, the group bought a controlling interest in Ohio Legacy Corporation in early 2010.

There was risk in acquiring the troubled bank holding company, Penz explains, but Penz had worked for another bank during its turnaround and was familiar with the pitfalls. Ohio Legacy doubled its size (in assets) by the end of 2016 and turned a profit for four and a half years before the investors sold in January 2017 to Home Savings Bank based in Youngstown. Penz remains an investor and is executive director of wealth management for Home Savings Bank.

“A lot of community banks found themselves in the same position as Ohio Legacy” during the recession, Penz says. “Not only were their loan portfolios suffering a downturn, but they couldn’t get new loans on the books to take the place of the troubled loans they were having to write down [as they became unlikely to be collected].”

Fred Cummings recalls “unbelievable” volatility in 2008 and 2009 but he also notes that not every bank was plagued by the problems. Cummings is president of Elizabeth Park Capital Management, a Pepper Pike, Ohio-based hedge fund that invests exclusively in banks. “A lot of companies went through the downturn unscathed, made money every single quarter, never cut the dividend,” he says.

Lending certainly changed during and after the crisis, but what changed most of all is commercial real estate (CRE) loans, Cleveland Fed examiners agree, in particular the way banks manage the risk of CRE assets. Banks monitor risk more carefully, paying attention to concentrations in loan products and geographies.

“Banks will allow builders to create product that has a ready buyer,” senior bank examiner Shackelford says, but “there’s not as much speculative lending.” Shackelford sees fewer defaults and losses related to commercial real estate loans as a byproduct of heightened risk management.

Also changed is US banks' auto lending, the outstanding balance of which is up 57 percent since March 2011, when auto loan data began being broken out separately, according to call report data for US commercial and savings banks. At the time the country emerged from the recession in 2009, the average age of cars on the road was more than 10 years old, driving demand for new vehicles and fueling auto loan borrowing.

In recent years, "we've seen a lot of changes with how banks

underwrite [auto loan] products, extending term loans out longer than we've seen historically, and also [extending credit] to more borrowers on the credit spectrum," the Cleveland Fed's Frazer says. The increasing volume of subprime auto lending is on examiners' radar because subprime loans inherently carry higher risk and because examiners observe "risk-layering," where bankers are lending to less creditworthy borrowers *and* loaning more against vehicle values *plus* extending loan terms.

Where examiners are not seeing much growth is in the home equity line of credit products, notes Bryan Huddleston, assistant vice president of community and regional supervision at the Cleveland Fed.

Tyler Burkle, a deputy central point of contact in large bank supervision with the Cleveland Fed, concurs. "The crisis has left a lasting impact on consumers [in how] they think about mortgages, home equity loans—products that are secured by a property," he says. "We're seeing consumers moving away from real estate-secured transactions and moving toward unsecured products. People are less willing to put their homes at risk."

Another reason for home equity lending's drop is bankers no longer are willing to make loans with as high a loan-to-value ratio as they may have been precrisis, Burkle says. (Residential real estate LTV ratios reached 100 percent in the run-up to the crisis; more sound LTVs are 80 percent and lower.)

Diminished property values are another reason for the decline in home equity borrowing because where there's less equity, there's less borrowing.

The requirements that need to be met in order to close mortgages and exchange house keys are far more rigorous today, too, industry observers say.

"You've got to verify income, you've got to verify assets," hedge fund manager Cummings says. "The underwriting criteria are much more difficult [now]. Very few banks are offering subprime mortgage loans."



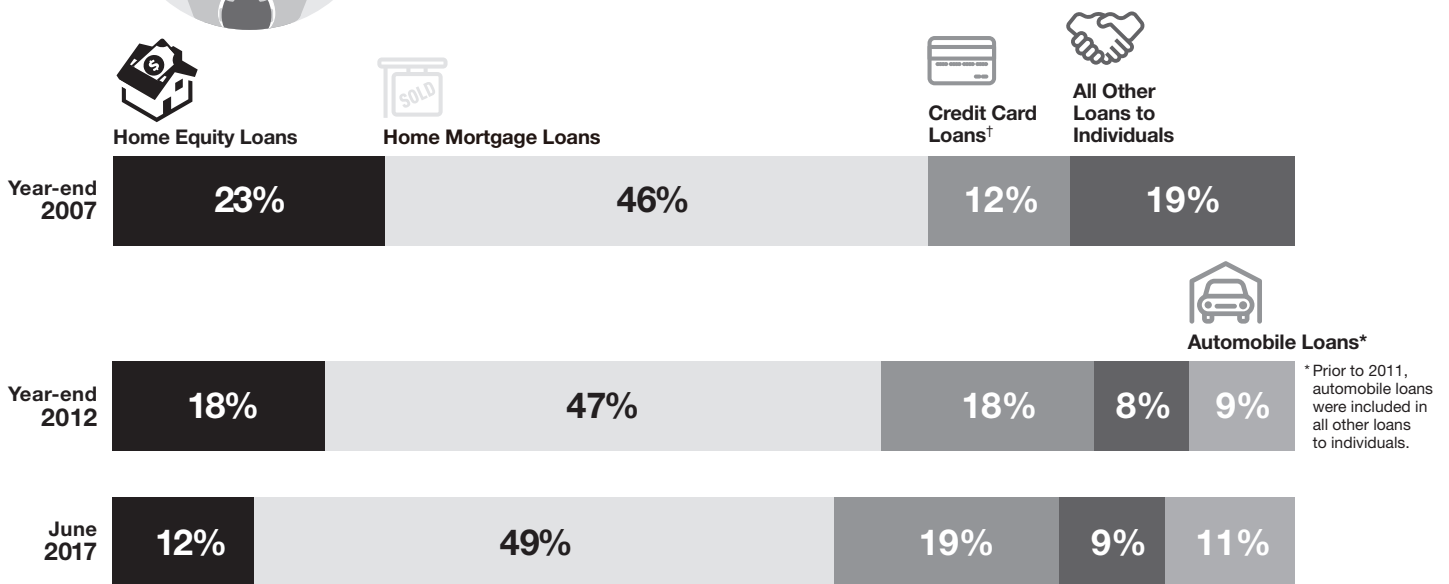
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Property appraisals, many of which became unreasonably high prior to the recession, remain conservative, and bankers are keeping loan-to-value ratios on home mortgages at appropriate and reasonable levels—10 to 15 percent lower than norms leading up to the financial crisis, Cleveland Fed examiners estimate.



Over the past decade, home equity lending has become a smaller share of the consumer loans US banks make, while the share of credit card lending has grown.



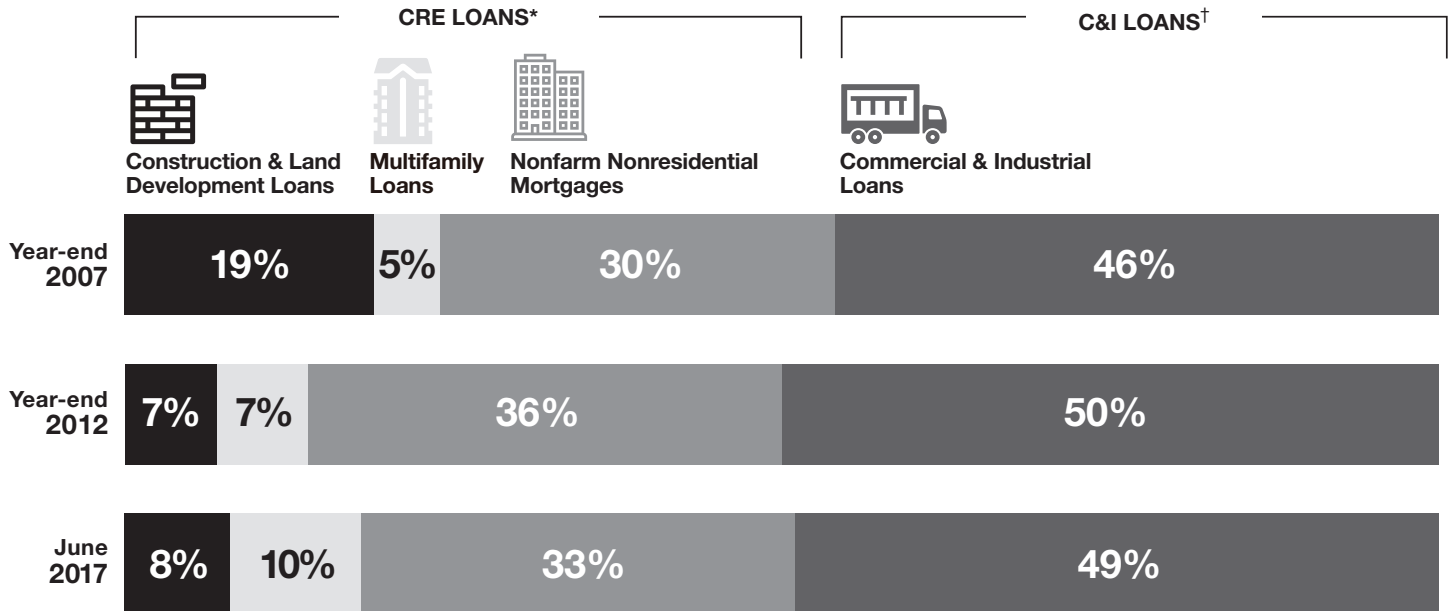
[†]In the first quarter of 2010, accounting changes required banks to bring onto their balance sheets certain balances, including those originated under credit card agreements, that were previously held elsewhere. Those changes resulted in significant increases in credit card balances.

Sources: Call reports for all US commercial and savings banks (does not include savings and loan associations or credit unions)/S&P Global Market Intelligence. All percentages based on outstanding consumer loan balances.

*Prior to 2011, automobile loans were included in all other loans to individuals.



Over the past decade, the share of commercial real estate (CRE) lending* that US banks do for construction and land development has fallen and stayed lower.



*Loans secured by specific property that is income-producing.

†Loans to businesses not secured by real estate and used as working capital (to pay bills, payroll, etc.) and to buy equipment.

Sources: Call reports for all US commercial and savings banks (does not include savings and loan associations or credit unions)/S&P Global Market Intelligence. All percentages based on outstanding commercial loan balances.

TYPES OF CRE LOANS:

- **Construction & Land Development:** Loans to clear land and develop lots and subdivisions and to build houses for sale.
- **Multifamily:** Loans to develop, remodel, and/or construct dwellings for more than one family, such as apartments.
- **Nonfarm Nonresidential Mortgages:** Loans secured by property that's not agricultural (farm) and that's not housing (single-family or multifamily). An example of such property is a commercial building.

TYPES OF C&I LOANS:

For the most creditworthy business borrowers, these loans may be unsecured, or not collateralized. In other cases, C&I loans may be secured with non-real estate assets such as equipment, a business's inventory, etc.





Roughly 10 years after the Great Recession began, US banks' home equity loan balances are down following a consistent slide, while auto loan and credit card loan balances have climbed.



CONSUMER LOANS OUTSTANDING



OF US BANK ASSETS, THESE LOANS TOTAL*

	As of year-end 2007	As of June 2017	Percent change 2007-June 2017	Percentage at year-end 2007	Percentage at June 2017	Percent change 2007-June 2017
 Home Equity Loans	\$720.9 billion	\$456.0 billion	↓ 37%	6.2%	2.8%	↓ 55%
 Mortgages	\$1.4 trillion	\$1.8 trillion	↑ 26%	12.4%	11.2%	↓ 10%
 Credit Cards [†]	\$375.7 billion	\$687.1 billion	↑ 83%	3.2%	4.2%	↑ 31%
	As of March 2011	As of June 2017	Percent change 2011-June 2017	Percentage at March 2011	Percentage at June 2017	Percent change 2011-June 2017
 Automobile Loans ^{††}	\$267.4 billion	\$421.1 billion	↑ 57%	2.1%	2.6%	↑ 24%

*Why chart this metric? Because banks could be growing mortgages by, say, billions each year, but could be growing other loans and assets more and/or reducing their mortgage balances in other ways, such as charge-offs, driving down mortgages as a percentage of all that banks have on their balance sheets. Over the past decade, mortgages grew in dollar amount, but now represent less of banks' total assets.

†In the first quarter of 2010, accounting changes required banks to bring onto their balance sheets certain balances, including those originated under credit card agreements, that were previously held elsewhere. Those changes resulted in significant increases in credit card balances.

††Auto loans weren't broken out until 2011.

Sources: Call reports for all US commercial and savings banks (does not include savings and loan associations or credit unions)/S&P Global Market Intelligence.

Necessary change

The Federal Reserve's supervision of banks is different today than it was before the crisis. One key change is that bank examiners now look at institutions as part of a system as well as individual businesses. "What we learned is we've got to

look across a portfolio of institutions with similar risk characteristics, similar balance sheets, and similar strategies," Frazer explains, "to glean what we can about risks across the financial system."

Before the recession, the way the Fed supervised banks was point-in-time focused. Examiners studied financial conditions they could observe in the present or historically.

"If you looked back at 2007, a number of banks, particularly community banks, had portfolios that had never experienced losses in commercial real estate," Shackelford reflects. "Those were the numbers banks were using [to project] losses they would incur" were something to happen.

Today, bankers and examiners consider the future and its hypotheticals.

"We test the banks through current conditions and where conditions could be," Burkle says. "We want to be prepared for scenarios. That's a major change in the way we examine companies. Our stress tests consider hypothetical, severe, economic downturn conditions."

Those stress tests—called the Comprehensive Capital Analysis and Review—require banks today to hold more capital, or rainy-day funds, to guard against future economic downturns.

"In the past, when you look at the way we'd require companies to hold a certain amount of capital, it was based on a simple formula," Burkle says. "Now, our capital approach is much more risk-based."

For example, if 2 banks hold commercial real estate loans on their books, those balance sheets may look similar. But if stress tests and



The Federal Reserve Bank of Cleveland's main office opened in 1923 in Cleveland. Visitors to the Bank's free Learning Center and Money Museum can take in the building's ornate lobby while they're there. A virtual tour is also available.



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bank exams reveal that one bank's loans have higher loan-to-value ratios (i.e., are riskier), that bank will need to set more capital aside in today's postcrisis regulatory environment.

That's not the only change that bankers face. Supervisors today also require additional liquidity, as some types of funding become unavailable when markets panic.

Supervisory action is more real time than before, too, the Cleveland Fed's Shackelford adds. For example, when oil and gas prices dropped in recent years, impacting the borrowers of some large bank loans, "we moved on that very quickly," he says. "We talked to banks, told them what our supervisory expectations were, and they made adjustments."

The result was that banks became much more rigorous in monitoring the values of the oil and gas assets against which they were lending. While Shackelford can't say it resulted in fewer defaults (there were a lot), he can say awareness was heightened among bankers.

Cleveland Fed examiners stress that supervisors aren't trying to constrain access to credit.

"We are focused on safety and soundness," Shackelford begins. "We are not trying to restrict the flow of credit. However, we expect bankers to understand the risks that they're taking on."

In addition to changed supervision, banks face more regulation, much of it originating from the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, which introduced numerous changes—including bank capital stress tests—raising the costs of compliance for banks large and small. Dodd-Frank also created the Consumer Financial Protection Bureau, which seeks to protect consumers from unfair, deceptive, or abusive practices and to take action against companies that break the law.

Wayne Abernathy, executive vice president of financial institutions policy with the American Bankers Association, has 2 worries about today's



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more heavily regulated mortgage business: One, that borrowers who might not fit the traditional mold (for example, seasonal workers and retirees) may struggle to



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— **Denise M. Penz**, executive director of wealth management,
Home Savings Bank

get approved for home loans, and two, that the effective standardization he feels has happened means community banks can’t be as responsive to their communities’ needs.

“Community banks’ competitive advantage is they know very well their local markets and they can customize their products to their local markets,” Abernathy asserts. “[This increased regulation is] undermining their competitive advantage.”

Penz agrees. “Regulation has made it more difficult to be a bank, but more protective for the consumer, so there’s a balance there,” she says. “Probably all of it is meant for the good, but there are unintended consequences at times. The regulatory landscape has caused changes in banking [in several areas, including] lending, how we gather deposits, [and] how we generate fee income. My concern continues to be for community banks, [which] have a tough time competing.”

Not if another recession will happen – when

When asked to weigh in on whether another *great* recession will happen, Joseph Haubrich, a vice president and economist with the Cleveland Fed, cites as a strong defense the same improvements to bank supervision that Cleveland Fed examiners do.

“That said, I also think there are big parts of the financial sector that we don’t understand,” he says. “I’ve heard a saying from boxing: ‘The blow that knocks you out is the one you didn’t see coming.’ There’s always a concern about what is out there that we don’t understand.”

The Cleveland Fed’s Huddleston concurs that the Fed and the industry must contend with increased competition and unknowns such as cybersecurity risks. Much of so-called shadow banking, including hedge funds, certain investment banks, and alternative types of payments products such as Bitcoin, PayPal, and Venmo, lies outside of the Federal Reserve’s regulatory purview, which could prove problematic as the “off-the-grid” marketplace grows, the Cleveland Fed’s Berardinelli says.

When a recession and a banking crisis are simultaneous, as happened 10 years ago, “very frequently, the recession is deeper than usual,” Haubrich explains.

“The classic case is the Great Depression.”

It’s usually true—stretching back to the 1880s—that steep recessions are followed by steep recoveries, according to research by Haubrich and Michael D.

Bordo of Rutgers University. But the recovery following the Great Recession was weak. A slow recovery may mean people don’t feel as optimistic, Haubrich says, the domino effect of which could be less borrowing.

Today the economy is growing, but observers question why inflation is so low with unemployment low, Haubrich says. (Throughout history, there’s good evidence that when the economy is strong, inflation tends to be higher because people’s consumption drives up prices, demand for labor drives up wages, and so on.)

All agree: Another recession will happen.

“Recessions are a part of the economic cycle,” says Burkle, who is part of a team



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that supervises one of the largest banks supervised by the Cleveland Fed. “It’s our job to make sure financial institutions have enough capital and are managing their risks so they can withstand [downturns] and keep the economy moving.”



With banks holding more capital and no “excesses” in any one sector building up (as occurred in the housing market prior to the Great Recession and banking crisis), hedge fund manager Cummings expects that the next industry downturn will have less to do with bank capital and liquidity and more to do with bank earnings.

“The big difference is credit will not dry up,” he says of the hypothetical future downturn. “Banks will continue to lend. Their underwriting standards will change, but they’re still going to be focused on making loans.” This will differ from the Great Recession, he asserts, in that many

banks were not looking to make loans during the crisis. Instead, “they were looking to save their companies.”

In the near term, banks’ competition for “good” commercial and consumer loans will be keen, Cummings expects. “It’s a good time to be a borrower,” he notes.

Speaking of borrowers,

perhaps the greatest takeaway from the most recent crisis, says the American Bankers Association’s Abernathy, is individuals and businesses should ask themselves before they borrow, why am I borrowing?

“Are you borrowing to live beyond your means or are you borrowing to manage your income?” he poses rhetorically. “When you are borrowing more than you can sustain [in repayment of the loan], in the end that will come back to bite you. Loans that cannot be repaid won’t be repaid. That risk will show its ugly head.”

Home Savings’ Penz hopes the banking industry stays cautious. She anticipates that consolidation in the industry will continue, though not at the pace of a decade ago. (In 2006 and 2007, completed bank mergers and acquisitions



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nationwide totaled 404 and 358, respectively, according to S&P Global Market Intelligence data. From 2008 through 2016, mergers and acquisitions have averaged 279 per year.)

“We need to keep an eye on that and watch how big we’re allowing these bigger banks to become,” Penz asserts. “For the small business owner, a lot of larger banks have steep requirements for how big you need to be for them to do business with you. [So] consolidation affects the availability of credit. It can stifle business.”



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— Jenni Frazer, vice president of large bank supervision,
Federal Reserve Bank of Cleveland

Going forward, the risks for bankers remain fundamentally the same, investment banker Crowley says.

“[They are] credit risk and interest rate risk,” he begins. For bankers, “interest rate risk is more likely to hurt you, and credit risk is more likely to kill you. If you get overextended and lose sight of long-term risk management, you’ll run risks of paying the consequences.

“Sadly, there has been a lot of bank bashing in the past 10 years,” Crowley adds. “I worry that the banking industry is very underappreciated in popular culture, whether that’s [fewer] people seeking careers in banking, how people deal with their banks as a lender, other aspects. I hope there’s more of a realization over the next 10 years of how much good banks do.”

Banks serve a function and a need in the economy that no other companies do, says the Cleveland Fed’s Frazer.

“If you need a safe place to deposit your funds, you go to a bank,” she begins. “If you need a loan—many different types of loans—banks are more full-service. They serve a broader need. They’re necessary for extending credit. Without a good lending partner, it’s harder for businesses to expand. Not as many consumers would be able to buy cars and buy homes without loans from banks.

“Changes that have taken place in the banking industry [following the crisis] lessen the probability and potential impact of another banking crisis because banks have stronger capital, more liquidity, and better risk management practices,” Frazer adds.

But after everything that’s happened, Frazer echoes Crowley in acknowledging the reputational hit banks and regulators have taken.

“The banking industry and the regulators played a role in missing the warning signs of the financial crisis, and because of that, the public is wary—skeptical—of the industry,” she says. “Are bankers really wanting to help their customers or are they wanting to grow profit margins? Are the regulators looking at the right things and do we have the right priorities?”

If there’s an enduring lesson learned by all through the Great Recession and the banking crisis, it seems to be this: Ignoring or failing to flag financial risks can embroil many in painful, long-lasting consequences.

Fortunately, the industry and its regulators have acted on those lessons to better position banks for when, not if, the next downturn strikes.

Federal Reserve Bank of Cleveland senior examiner, credit analytics, Juan Carlos Calzada contributed to this article.

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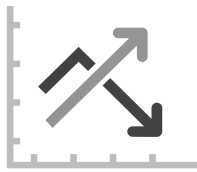


Timeline

A Crisis and Its Aftermath

The 22 most momentous events before, during, and after the financial crisis, according to our sources.

2006



The yield curve inverts, meaning the 3-month interest rate rose above the 10-year interest rate (when this happens, it often predicts a recession in the next year or 18 months). At the time, it strikes Cleveland Fed vice president and economist Joseph Haubrich as strange because the economy was very strong. But “the yield curve turned out to be a good indicator,” he notes.

August 2007



BNP Paribas, the largest listed bank in France, freezes billions worth of funds, citing problems in the US subprime mortgage sector and the rapid decline of 3 funds in recent weeks. *The New York Times* reports, “The news sent shivers through nervous financial markets.” Cleveland Fed vice president and economist Joseph Haubrich says the funds were among the earliest casualties of the crisis.

December 2007



The Great Recession begins, according to the National Bureau of Economic Research, which has published business cycle dates since 1929. During a recession, a significant decline in economic activity occurs across the economy and can last from a few months to more than a year.

March 16, 2008



Bear Stearns, one of the country’s largest securities firms, is sold to JPMorgan Chase for \$2 a share. It’s a shocking price, as Bear Stearns’s shares had fetched \$170 apiece a year prior. Many industry observers recall Bear Stearns’s failure as one of the most stunning fallouts of the crisis. The Federal Reserve makes a loan to facilitate the deal.

September 6, 2008



The Federal Housing Finance Agency places Fannie Mae and Freddie Mac into conservatorship. Fannie and Freddie are 2 government-sponsored enterprises (GSEs) that purchase and securitize mortgages from lenders; those lenders then use the proceeds to finance more mortgages. Substantial deterioration in the housing markets severely damaged the financial condition of the GSEs. The US Treasury provides them \$189.5 billion.



September 15, 2008

Major investment bank Lehman Brothers files for bankruptcy, surprising markets that expected a bailout instead. Years later, *The New York Times* explored why Lehman “was allowed to die.”



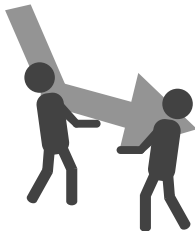
September 16, 2008

The Federal Reserve agrees to an \$85 billion bailout that gives the government control of the troubled insurance giant, American International Group (AIG). *The New York Times* describes it as “the most radical intervention in private business in the central bank’s history.”



October 2008

The Troubled Asset Relief Program (TARP) is created and infuses capital into large and small banks nationwide to help avoid a freezing of bank lending to businesses and consumers. Ultimately, the US Treasury and taxpayers recover through repayments and other income billions of dollars more than the amount originally invested in banks.



December 2008

Throughout 2008, the Federal Reserve aggressively eases its stance of monetary policy in response to the emerging financial crisis. By the end of 2008, the target federal funds rate is lowered to between 0 and ¼ percent (the idea being that reducing that short-term rate would lower interest rates, making borrowing and investment easier). With the target rate effectively as low as it can go, the Fed begins purchasing mortgage-backed securities to lower *longer*-term interest rates and stimulate the economy. Before this, the Fed had purchased only Treasury bills. The mortgage-backed securities are riskier.



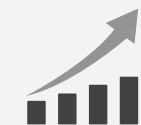
December 31, 2008

Heavily burdened and wounded by “nasty loans,” National City Corporation, a Cleveland-based institution opened in 1845 and the state’s largest bank, is sold for roughly \$2 a share to PNC Financial Services Group, Inc. To facilitate the deal, PNC receives billions in TARP funds. *The (Cleveland) Plain Dealer* later publishes a timeline of National City’s demise.



February 2009

The first regulatory stress tests of the 19 largest US bank holding companies are conducted. The exercise, called the Supervisory Capital Assessment Program (SCAP), is the predecessor to today’s Comprehensive Capital Analysis and Review (CCAR). It’s a positive development for financial markets when the first results reveal that the largest US bank holding companies are financially sound. The stress tests continue.



June 2009

The Great Recession ends, making it the longest recession in the post-World War II period.



March 2010

It's about now that banks' delinquent loans peak. For example, of total home mortgage loans made by US banks, those that were delinquent and not accruing interest reached 14.8 percent as of March 31, 2010. To understand the height of that figure, consider that as of June 2017, the percentage of home mortgage loans that were delinquent and not accruing interest was 3.7, according to call reports for all US commercial and savings banks pulled through S&P Global Market Intelligence.



July 21, 2010

The legislature passes the Dodd–Frank Wall Street Reform and Consumer Protection Act to address problems that led to the crisis. Among many other changes, it creates the Consumer Financial Protection Bureau.



2012

Mergers and acquisitions of banks, when measured as the percentage of banks that are sold relative to the total number of banks in existence, begin to rebound. This could be seen as a signal that other banks are comfortable assuming the balance sheet risk of banks they acquire and also that bank buyers feel confident that the quality of bank assets, i.e., loans and other investments, would continue to improve, says hedge fund manager Fred Cummings.



2012

The economy in Northeast Ohio, which is part of the region served by the Cleveland Fed, begins to enjoy a surge when oil and gas exploration in the Utica Shale takes off. As a result, some area banks reap increased deposits and increased wealth management business.



March 21, 2013

Evidence of weak underwriting prompts federal bank regulators to issue guidance, outlining their expectations of bankers doing leveraged lending. As regulators looked under the hood at some institutions that were engaging in large lending transactions, they found problems such as no or few covenants (which are triggers that alert lenders to deterioration in a borrower's financial performance) and weak understandings of borrowers' cash flow. "...Financial institutions should ensure they do not unnecessarily heighten risks by originating poorly underwritten loans," the interagency guidance urged.



December 18, 2015

As the Federal Reserve's stress tests evolve, the Fed issues 2 letters explaining it has different expectations of banks' capital planning and capital adequacy depending on the size, scope of operations, activities, and systemic importance of a firm. The bar is higher, essentially, for the largest and most complex firms.



September 2016

Wells Fargo makes headlines when it's reported that its employees, in trying to meet aggressive sales goals, created sham accounts in customers' names without customers' knowledge, ultimately costing those people at least \$1.5 million in fees. Hopefully, the industry learns another lesson about the way in which banks'

incentives can create unintended consequences, local banker Denise M. Penz reflects during an interview in fall 2017.



First quarter 2017

The number of banks on the Federal Deposit Insurance Corporation's Problem Bank List falls to 112, the smallest number of problem banks since March 31, 2008, and down significantly from the postcrisis peak (in first quarter 2011) of 888.



June 2017

For the first time, all bank holding companies participating in the Federal Reserve's stress tests (34 in all) pass, hearing no objection from the Federal Reserve Board to their capital plans. This result comes in the 7th year of the Comprehensive Capital Analysis and Review (CCAR). Since the first round of stress tests in 2009, US bank holding companies have increased their capital substantially.



August 3, 2017

The Federal Reserve requests public comment on a proposed new rating system for large financial institutions, or those with \$50 billion or more in total assets. Under it, institutions would be rated for capital planning and positions, liquidity risk management and positions, and, notably, governance and controls. (Read: There will be attention on how well institutions are monitoring, communicating, and engaging their boards in matters of risk.) Initial ratings are proposed to be implemented in 2018.

