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# LEVERAGED LENDING AND CORPORATE BORROWING: Increased Reliance on Capital Markets, With Important Bank Links

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## Introduction

In the decade after the 2008 financial crisis, U.S. corporations have taken advantage of low interest rates to significantly increase their debt. The FDIC and other financial regulators are devoting significant attention to rising corporate debt as a potential source of economic and financial market risk.

Not only have the level of debt and the risks associated with it changed over the past decade, but the sources of borrowing have shifted from banks to nonbanks. Nonfinancial corporations are relying more on capital markets and less on bank loans as a funding source.<sup>1</sup> Despite a modest increase in use of bank loans by nonfinancial corporations since the end of the financial crisis, bank loans make up a significantly lower share of nonfinancial corporate debt obligations than in past decades. Most of this broad historical shift has been toward greater use of corporate bonds and other debt securities, though in the past two decades the market for syndicated leveraged loans has also grown.

The term “leveraged loan” is used differently by different sources. This article focuses on broadly syndicated institutional term leveraged loans as defined by Standard & Poor’s Leveraged Commentary and Data (LCD). Other types of leveraged loans such as revolving “pro rata” loans are discussed but are not included in most of the analysis.

With leveraged loans, banks have increasingly used an originate-to-distribute model instead of holding loans they have originated. Nonbanks such as loan mutual funds and collateralized loan obligation (CLO) securitization vehicles are the ultimate holders of a growing share of these loans. This shift from bank financing to capital market financing through bonds and leveraged loans could have implications for banking system stability.

The shift may reduce banking risk, because when corporations rely less on direct bank loans, direct bank exposure to corporate borrower credit risk is reduced. However, banks are still vulnerable to corporate debt distress during an economic downturn in several ways:

- Higher corporate leverage built up through capital markets could reduce the ability of corporate borrowers to pay bank and nonbank debt in times of distress.
- Banks lend to nonbank financial firms that in turn lend to corporations, so if corporations default on loans from nonbank financial firms, then nonbank financial firms may default on loans from banks.
- In a downturn, bond issuances and leveraged loan syndications could decline, and any income that a bank had been earning from organizing bond issuances and leveraged loan syndications would be likely to decline.
- The migration of lending activity away from the regulated banking sector has increased competition for loans and facilitated looser underwriting standards and risky lending practices that could expose the financial system to new risks.
- Any macroeconomic effects of corporate debt distress could affect the ability of small businesses, which borrow more heavily from banks, to service their debt.

This article discusses the growing volume of corporate debt and the changes in its balance between bank lending and nonbank sources. The next section examines bank exposure to the growth and increasing risk of leveraged loans. The article then discusses corporate bonds, including the role of banks in these markets and developing risks. The final section details the macroeconomic risks banks face from corporate debt as well as potential risk-mitigating factors.

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<sup>1</sup> The Federal Reserve defines nonfinancial corporate businesses as “private for-profit domestic nonfinancial corporations.” This includes both large and smaller incorporated firms, corporate farms, small S corporations, and foreign-owned U.S. corporations. It excludes foreign subsidiaries of U.S.-owned firms and financial firms, including banks, finance companies, holding companies, and real estate investment trusts, among others.

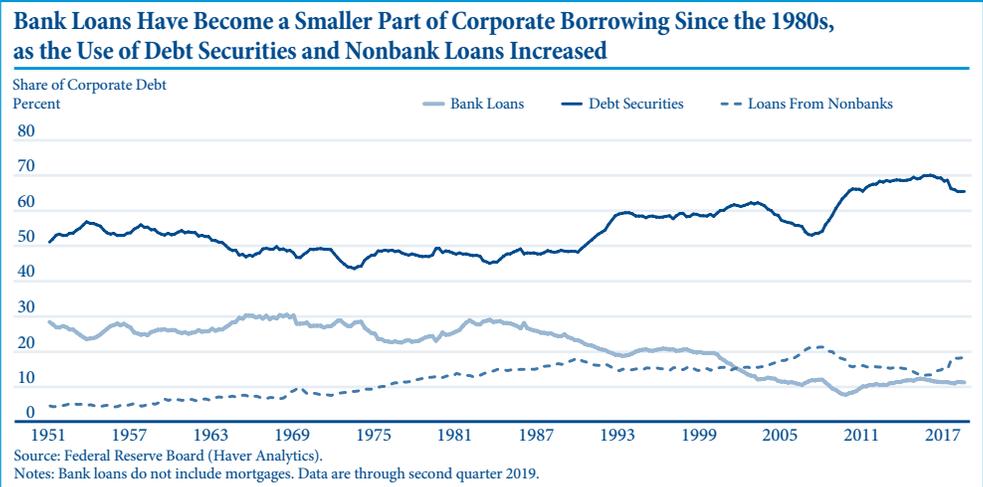
**Growth and Composition of Nonfinancial Corporate Debt**

U.S. corporations have long relied on both banks and capital markets for debt financing. Banks finance corporations through commercial and industrial (C&I) loans and commercial mortgages. Businesses can be grouped into corporate and noncorporate. Corporations are generally larger businesses and are owned by shareholders. Larger corporations can raise funds by issuing shares of stock or bonds and can borrow from nonbank lenders and banks, but they rely less on banks for funding than do smaller, noncorporate businesses. Corporate borrowers account for less than half of total C&I bank loans and only 13 percent of commercial mortgages.<sup>2</sup> Noncorporate businesses are generally sole proprietorships and partnerships and rely more heavily on banks for financing because they cannot issue stock or bonds.

Community banks participate in both C&I and commercial mortgage lending and account for roughly 10 percent of C&I bank loans and 33 percent of commercial mortgage loans held by banks.<sup>3</sup> Data on the portion of these community bank loans that go to corporate versus noncorporate borrowers are unavailable, but it is possible that small noncorporate businesses are more likely to turn to community banks for debt financing than are larger corporations.

The balance between corporate borrowing via banks and corporate borrowing via capital markets has shifted over the decades, with the percentage of corporate debt in bank loans on a declining trend since the mid-1980s (Chart 1).<sup>4</sup> Since the financial crisis, nonfinancial corporations have used debt securities more and have used bank loans less than at any time since 1950. Bank loans recovered from a sharp decline in share after the financial crisis but remain around 12 percent of corporate borrowing, half the level in 1990. From 1990 through 2017, debt securities increased their share of corporate borrowing from 48 percent to around 69 percent.

**Chart 1**



<sup>2</sup> Total C&I bank loans include those made to both corporate and noncorporate (such as single proprietorships and partnerships) borrowers. Banks hold only a portion of total outstanding commercial mortgages, according to the Federal Reserve Board, "Financial Accounts of the United States," and FDIC, "Quarterly Banking Profile," First Quarter 2019, <https://www.fdic.gov/bank/analytical/qbp/2019mar/qbp.pdf>.

<sup>3</sup> FDIC, "Quarterly Banking Profile," First Quarter 2019, <https://www.fdic.gov/bank/analytical/qbp/2019mar/qbp.pdf>.

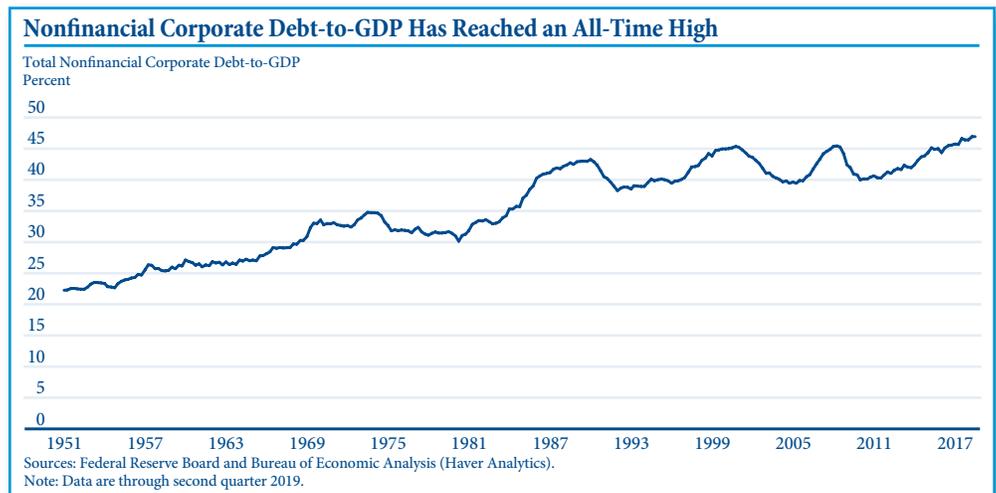
<sup>4</sup> Bank loans exclude mortgages since only a portion of commercial mortgages are held by banks. The share of corporate debt represented by bank loans is larger when mortgages are included, but the trend in bank loans' share of corporate borrowing remains the same.

Since the financial crisis, some of the most rapid corporate debt growth has occurred in the corporate bond and syndicated leveraged loan markets. Syndicated leveraged loans are made to highly indebted borrowers and are funded by groups of investors and lenders. Similar to bond issuances, the loan offerings are typically arranged by large banks, but most of the funding comes from nonbank investors.<sup>5</sup>

From the end of 2008 to first quarter 2019, nonfinancial corporate bonds outstanding grew by 91 percent in nominal terms while institutional leveraged loans outstanding grew by 101 percent, not accounting for inflation. Corporate bonds were especially appealing to corporate borrowers during the prolonged post-crisis period of low interest rates. Floating-rate leveraged loans became appealing to lenders and investors as the Federal Reserve began raising interest rates in 2016.

While the composition of corporate debt has shifted over time, the level of debt relative to GDP has grown substantially over the past half century. Between 1951 and the 1970s, the nonfinancial corporate debt-to-GDP ratio ranged from 22 percent to 35 percent, growing steadily throughout the period (Chart 2).<sup>6</sup> Starting in the 1980s, the corporate debt-to-GDP ratio grew rapidly to exceed 43 percent. Since then, the corporate debt-to-GDP ratio has fluctuated with the business cycle, peaking at about 45 percent near the end of economic expansions before falling to about 39 percent during recession and recovery. As of second quarter 2019, the nonfinancial corporate debt-to-GDP ratio had reached an all-time high of 47 percent.

Chart 2



<sup>5</sup> Leveraged loan arrangers do not necessarily fund the loans and hold them on their books before selling them, but they set the terms of the debt offering and recruit investors to fund the leveraged loan. In “best-efforts” syndications, the arranger is not required to fund any unsold loan balance. In “underwritten” syndications, the arranger pledges to fund any unsold portion of the loan offering, though they have the flexibility to adjust the loan terms within a set range (called market price flexing) to attract investors.

<sup>6</sup> This article focuses on nonfinancial corporate debt as that is the area of debt which has grown substantially since the financial crisis.

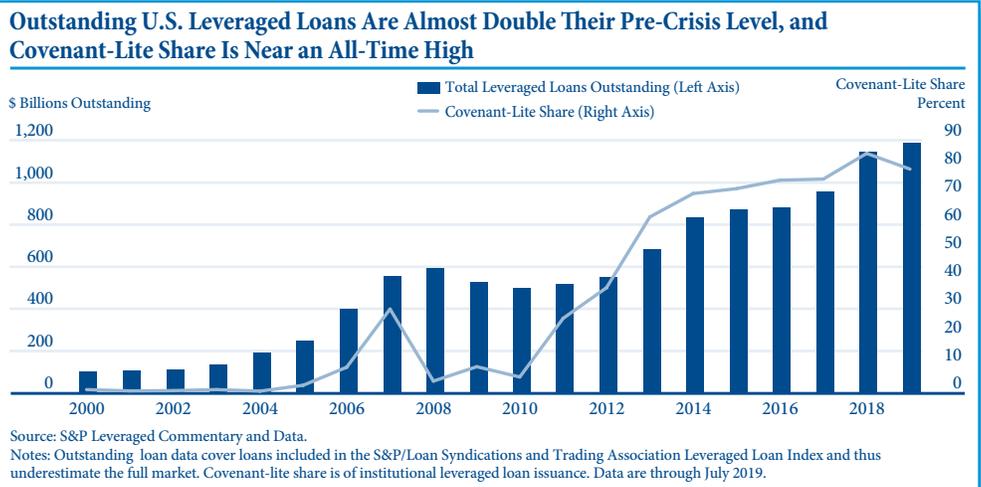
**Growth in Leveraged Loans Has Been Driven in Large Part by Nonbank Investors, as Riskiness of Loans Has Increased**

The growth in corporate debt has been partly driven by significant growth in leveraged lending. The leveraged loan market has grown dramatically over the past 20 years from about \$100 billion outstanding in 2000 to almost \$1.2 trillion in 2019 (Chart 3). Risks have also increased in this market. Leveraged loans are generally made to lower-rated corporate borrowers, which typically have high debt levels. They are frequently used to finance mergers and acquisitions, including leveraged buyouts. In addition, they generally carry floating interest rates, typically based on a spread over LIBOR, versus the fixed interest rates in most corporate bonds. Floating interest rates made them appealing to investors throughout 2017 and 2018 as the Federal Reserve accelerated the pace of interest rate increases. This increase in demand from nonbank investors with potentially greater tolerance for credit risk facilitated large increases in leveraged loan issuance, as well as deterioration in lender protections, which reached a record low in 2018, according to Moody’s Investor Service.<sup>7</sup>

Traditionally, leveraged loans have included “maintenance covenants” that required the borrower to meet certain financial performance metrics to remain in compliance with their loan agreement. In the early 2000s, virtually all leveraged loans contained these covenants. In 2007, the share of leveraged loans lacking these covenants (called “covenant-lite” loans) rose sharply to 29 percent of new loans (Chart 3). The share of covenant-lite leveraged loans fell after the financial crisis, but increased sharply again, passed the previous record high in 2012, and reached 85 percent of new loans in 2018.<sup>8</sup>

Aside from covenants, other aspects of leveraged loan credit quality have deteriorated as well. Reported leverage for borrowers has risen significantly, with debt reaching 5.4 times earnings in the first half of 2019, up from 3.9 times in 2010. Actual leverage could be even higher, as the use of earnings “add-backs,” which inflate earnings to account for future anticipated cost savings or revenue increases, has become more prevalent. In the first half of 2019, 43 percent of leveraged loan deals contained earnings add-backs, up from only 10 percent in 2010.

**Chart 3**



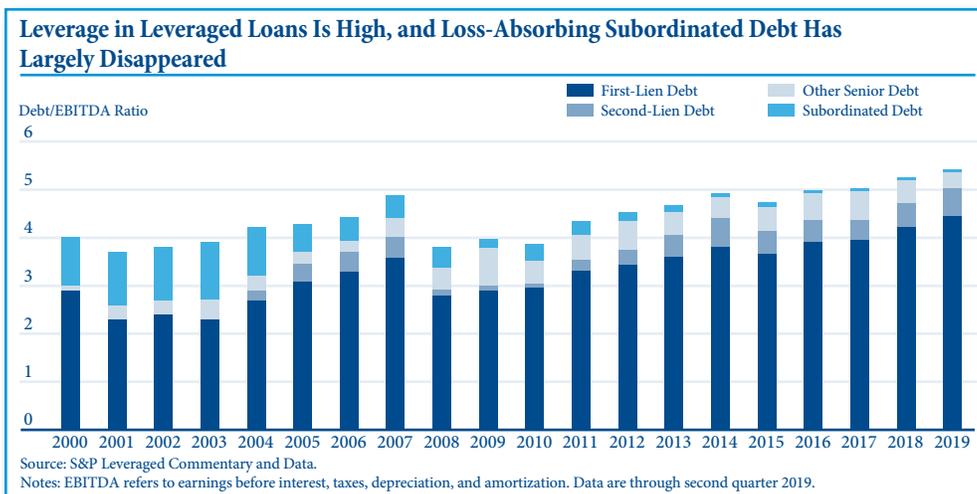
<sup>7</sup> Moody’s Investor Service, “Leveraged Lending Risk Rising but Contained Barring Adverse Turn in Operating Conditions,” February 20, 2019.

<sup>8</sup> S&P LCD.

The composition of borrower debt has deteriorated as well, with loss-absorbing subordinated debt declining significantly, leaving less protection for senior lenders (Chart 4).<sup>9</sup> Some borrowers have even been able to remove assets from the reach of creditors without violating the terms of their loans. All of these factors increase the risk to lenders in the leveraged loan market. Credit rating agency Moody’s predicts that recovery rates on defaulted leveraged loans will be significantly lower during the next default cycle than they have been historically.<sup>10</sup>

Banks have increasingly used an originate-to-distribute model for leveraged loans, with the result that nonbank investors increasingly are the ultimate holders of these loans. In the mid-1990s, U.S. and foreign banks funded more than 70 percent of institutional leveraged loans. By the first half of 2019, they funded less than 11 percent (Chart 5).<sup>11</sup> Banks continued to fund the revolving credit “pro rata” portions of leveraged loans. Over the past 20 years those have become a smaller portion of total leveraged lending, with pro rata loans falling from 76 percent of leveraged loan issuance in 2000 to 30 percent in 2018.<sup>11</sup> The shrinking bank share of institutional leveraged loans was largely replaced with funding from collateralized loan obligations (CLOs) and loan mutual funds. CLOs are securitization vehicles that bundle leveraged loans and then sell debt tranches with varying levels of risk to investors.

**Chart 4**



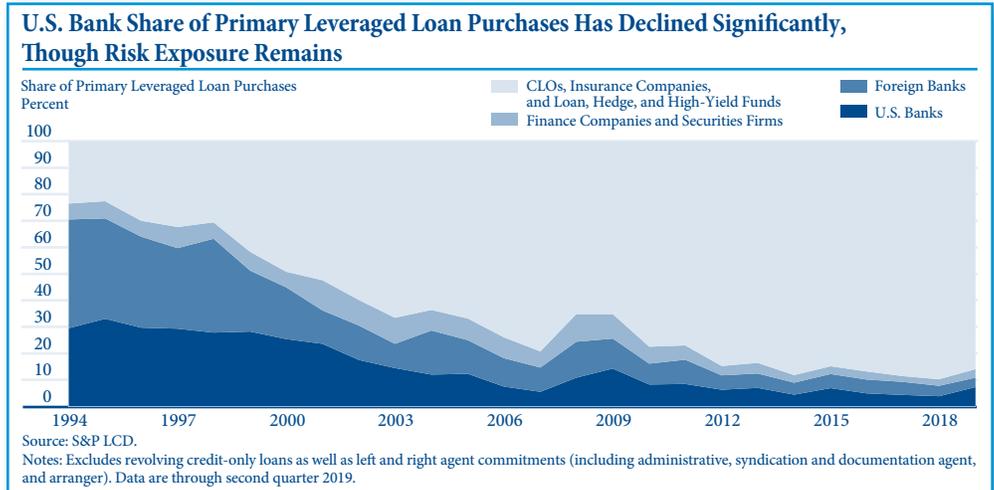
<sup>9</sup> S&P LCD. Second-lien debt also provides loss-absorbing protection for first-lien debt, but growth in second-lien loans since the financial crisis has not been as large as the decline in subordinated debt.

<sup>10</sup> Moody’s Investor Service, “Convergence of Bonds and Loans Sets Stage for Worse Recoveries in the Next Downturn,” August 8, 2018.

<sup>11</sup> S&P LCD.

<sup>12</sup> Revolving credits are lines of credit that the borrower can draw upon as needed. The term “pro rata” is simply a naming convention in the leveraged lending market. Data from LCD.

Chart 5



**Banks Still Face Exposure to Leveraged Loans**

Bank exposure to leveraged loans includes their “pro rata” leveraged lending, holdings of CLOs, lending to CLO arrangers, and participation in leveraged loan syndication. Precise data on bank holdings of pro rata leveraged loans are not available, but data from the Federal Reserve’s Enhanced Financial Accounts (EFA) provide insight. EFA data are not a perfect proxy for leveraged loans as they include a broader set of syndicated loans, not just those made to leveraged borrowers. However, these data can provide an estimate of the potential size of the pro rata lending market.<sup>13</sup> As of second quarter 2019, banks held about \$2 trillion in revolving syndicated credit lines, of which \$515 billion were drawn. Undrawn credit lines represent exposure for banks, as they can be drawn upon as borrowers encounter financial difficulties. Banks also held \$443 billion in syndicated term loans, which would include institutional leveraged loans as well as pro rata term loans to leveraged borrowers and syndicated term loans to non-leveraged borrowers. This exposure has grown over the past decade (Chart 6). Nonbank financial institutions also provide revolving credit lines to syndicated loan borrowers. According to EFA data, nonbank financial institutions provided \$893 billion in revolving credit lines, with \$155 billion drawn upon.<sup>14</sup> Bank holdings of revolving and term loans to leveraged borrowers are a direct exposure to risk in the leveraged lending market.

Large banks also arrange the vast majority of leveraged loan issuances. In the first half of 2019, banks arranged 93 percent of U.S. leveraged loans, and the largest banks arranged more than 92 percent.<sup>15</sup> Arranging debt issuances provides banks with fee income but also exposes them to a degree of risk. When arranging leveraged loan issuances, banks face the possibility that market demand for the debt will contract, which could force the arranging bank to retain the debt on its books. This risk, known as “pipeline risk,” caused challenges in the mortgage-backed securities and leveraged loan markets during the 2008 financial crisis.

<sup>13</sup> Analyses based on EFA data and other data sources may differ from the results presented in this article because of differences in market coverage, leveraged loan definitions, and other factors.

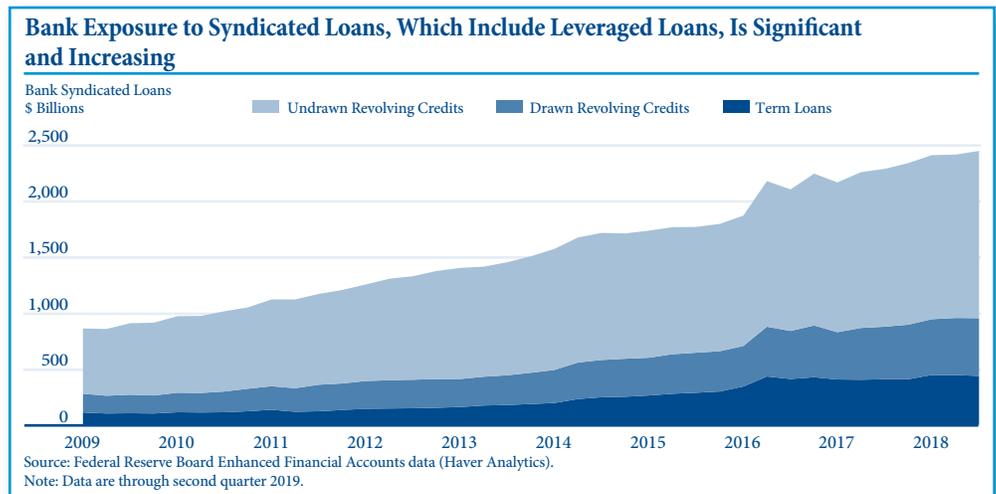
<sup>14</sup> Federal Reserve Board.

<sup>15</sup> S&P LCD. The largest banks are defined as those listed by the Financial Stability Board as global systemically important banks. Share is by loan amount.

Banks have since improved their pipeline risk management, and the International Monetary Fund estimates that pipeline risk in leveraged loan arranging is only about a third of what it was before the financial crisis.<sup>16</sup> In addition, leveraged loans now typically contain “market flex pricing” provisions, which allow the arranger to adjust the loan terms to attract investor demand. Banks also face loss of the fee income they earn from arranging leveraged loan sales should demand for these products wane during periods of market turmoil.

Another source of exposure is bank ownership of tranches of CLOs containing leveraged loans. As of early 2019, the FDIC estimates that U.S. banks held about \$95 billion in CLOs.<sup>17</sup> Bank CLO holdings are generally lower risk than direct leveraged loan holdings, since banks generally hold the safer, senior portions of CLOs.<sup>18</sup> Most of these CLO holdings are also concentrated in the largest banks; banks with at least \$250 billion in assets account for 86 percent of estimated bank CLO holdings.<sup>19</sup> While banks primarily own the most senior tranches, they still could be affected by distress in the leveraged loan market. CLO market liquidity could decline during periods of corporate debt distress, exposing banks to market and liquidity risks. For example, while originally AAA-rated CLOs did not take credit losses during the financial crisis, many AAA-rated CLO tranches saw price declines of around 30 percent.<sup>20</sup> Banks also provide credit, in the form of warehouse lines of credit, to firms that arrange CLOs. CLO arrangers use warehouse lines of credit to purchase leveraged loans. However, this exposure appears to be fairly limited. The International Monetary Fund recently estimated total global CLO warehouse lines of credit to be only \$20 billion, down from \$200 billion in 2008.<sup>21</sup>

Chart 6



<sup>16</sup> International Monetary Fund, “Global Financial Stability Report,” April 2019, <https://www.imf.org/en/Publications/GFSR/Issues/2019/03/27/Global-Financial-Stability-Report-April-2019>.

<sup>17</sup> Data from Quarterly Reports of Condition and Income (Call Reports). CLO holdings are approximated as the sum of the SCCIHA, SCCIAF, SCSCLNHA, SCSCLNFA, TRSCLN, and TRSCCI. Call Report data available on FDIC.gov. Data on CLO holdings are reported only by banks with \$10 billion or more in assets, so this figure may underestimate total bank CLO holdings.

<sup>18</sup> Citi Research, “U.S. CLO 2018 Midyear Outlook,” June 29, 2018.

<sup>19</sup> Call Report data.

<sup>20</sup> S&P Global Market Intelligence, “Those \$700 billion in U.S. CLOs: Who Holds Them, What Risk They Pose,” June 21, 2019; and Loan Syndications and Trading Association, “Risk Retention for CLOs,” <https://www.fdic.gov/regulations/laws/federal/2011/11c00ad74mem40-01.pdf>.

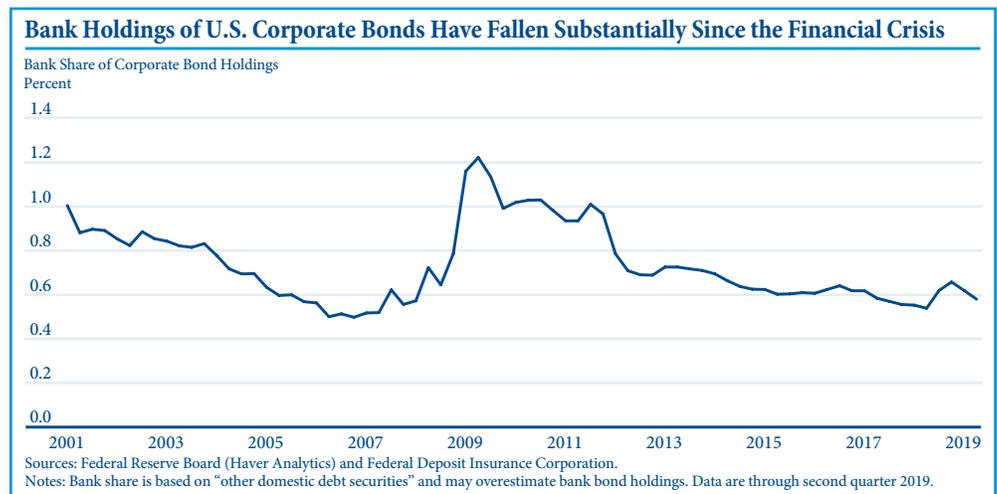
<sup>21</sup> International Monetary Fund, “Global Financial Stability Report,” April 2019.

**Direct Bank Exposure to Increasing Risk in Corporate Bonds Is Limited**

Depository institutions participate in corporate bond markets, but they provide only a small portion of the total funding. The vast majority of financing in corporate bond markets comes from nonbank institutional investors and investment funds. In second quarter 2019, U.S. commercial banks and savings institutions held only around \$67 billion in corporate bonds compared with \$11.5 trillion in total outstanding financial and nonfinancial U.S. corporate bonds.<sup>22</sup> Life insurance companies, mutual funds, pension funds, and non-U.S. individuals and entities, combined, hold more than \$10.5 trillion in U.S. corporate bonds.<sup>23</sup> Banks increased their corporate bond holdings during the financial crisis, but their holdings as a share of total bonds has since fallen significantly, while the corporate bond market has grown (Chart 7).

An increase in risk in some areas has accompanied the growth in corporate bonds over the past decade. Most of the growth in corporate bonds since the financial crisis has been in lower-rated investment-grade borrowers and the highest-rated of the “high-yield” borrowers. The amount of BBB-rated bonds, the lowest investment-grade rating, almost quadrupled from the end of 2007 to late 2018, but the highest-rated AA and AAA bonds grew by only 12 percent in that period (Chart 8).<sup>24</sup> As of late 2018, the dollar volume of BBB-rated bonds made up 49 percent of the investment-grade bond market and was 2.5 times as large as that of the entire high-yield bond market. This presents risks to bond market borrowers and investors. If the rating agencies downgrade a significant portion of BBB-rated debt because of an economic slowdown or other factors affecting borrower creditworthiness, this would increase borrowing costs not only for the downgraded firms but potentially for other high-yield borrowers as well, as the much-smaller high-yield bond market struggles to absorb the additional supply of debt. Mutual funds and some other investors that are required to hold investment-grade bonds would be forced to sell downgraded bonds. This could exacerbate the effects of the downgrades. In 2018, about 45 percent of bonds held by U.S. investment-grade bond mutual funds were rated BBB.<sup>25</sup>

**Chart 7**



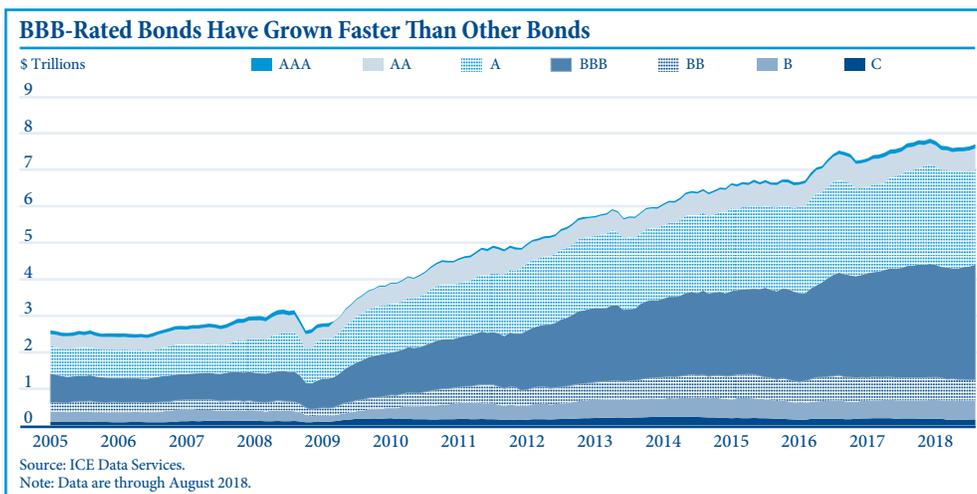
<sup>22</sup> FDIC. This figure is for “other domestic debt securities,” which could include securities other than corporate bonds and does not include U.S. bank holdings of foreign corporate bonds. Total foreign bond holdings (including all foreign bonds, not only corporate) for U.S. commercial banks and savings institutions totaled about \$218 billion in second quarter 2019. Total outstanding bonds are from the Federal Reserve Board, “Financial Accounts of the United States.”

<sup>23</sup> This includes holdings of foreign bonds for all holders except non-U.S. individuals and entities, which cannot be separately determined from bonds issued by U.S. corporations. Total holdings of foreign bond issues by U.S. residents equaled \$3.2 trillion in second quarter 2019.

<sup>24</sup> ICE Data Services. Bond rating data are through August 2018.

<sup>25</sup> Bank for International Settlements, *BIS Quarterly Review*, March 2019, [https://www.bis.org/publ/qtrpdf/r\\_qt1903.htm](https://www.bis.org/publ/qtrpdf/r_qt1903.htm).

Chart 8



**Macroeconomic Effects of Corporate Debt Distress Could Affect Other Types of Bank Loans**

A potentially significant exposure of banks to corporate debt risks is through macroeconomic effects. In the event of corporate debt distress, firms may reduce investment and cut payrolls to continue servicing their debt. This would likely slow economic activity more broadly, potentially affecting noncorporate businesses such as small sole proprietorships and partnerships, as well as households.

Bank exposure to household and noncorporate business debt is more extensive than bank direct exposure to corporate debt. Bank lending to households and small noncorporate businesses include home mortgages, consumer loans, commercial mortgages, and business loans. In second quarter 2019, noncorporate U.S. businesses owed more than \$1.4 trillion in loans from depository institutions, which exceeds the total of corporate bank loans. In addition, noncorporate businesses owed over \$4.1 trillion in commercial mortgages, more than seven times the amount of corporate mortgages.<sup>26</sup> Were an economic slowdown to affect these noncorporate business borrowers' ability to pay their debts, banks could incur losses on those loans. A macroeconomic slowdown would potentially affect the ability of households and other non-business borrowers to service their debt, as distress in the business sector would likely have adverse effects on employment and household income, further increasing potential bank exposure.

**High Corporate Profits and Low Interest Rates Should Aid Corporate Debt Servicing**

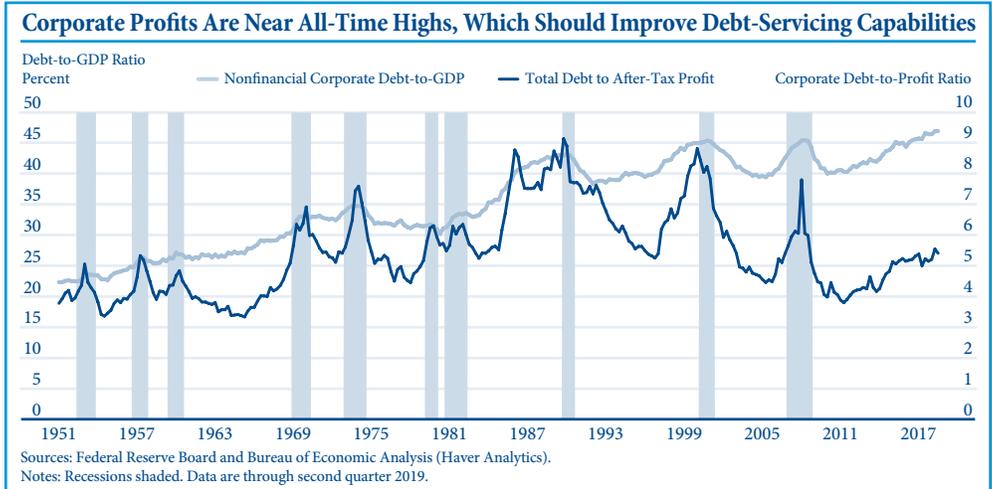
While corporate debt levels are at an all-time high, the ability of corporations to service that debt is stronger than in the past. The extended period of historically low interest rates since the 2008 financial crisis has meant that from 2010 through at least early 2019, the rates corporations paid on their debt remained well below any other point between 1980 and the financial crisis.<sup>27</sup> These lower interest rates reduce corporate debt servicing costs. Additionally, the profits corporations have available to service their debt loads have increased substantially over the past two decades. Since the 1990–1991 recession, U.S. corporate after-tax profits as a share of GDP have reached a higher peak during each economic cycle than they reached in the previous one.

<sup>26</sup> Federal Reserve Board.

<sup>27</sup> U.S. Department of the Treasury, "The Treasury High Quality Market Corporate Bond Yield Curve," [treasury.gov/resource-center/economic-policy/corp-bond-yield/Pages/Corp-Yield-Bond-Curve-Papers.aspx](https://treasury.gov/resource-center/economic-policy/corp-bond-yield/Pages/Corp-Yield-Bond-Curve-Papers.aspx).

Corporate debt relative to profits has reached new lows during each expansion since 1990 (Chart 9).<sup>28</sup> In the 1990s, the corporate debt-to-profit ratio reached a low of 5.2. In the 2002–2007 economic expansion the corporate debt-to-profit ratio fell to 4.4. So far in the current economic cycle, which began after the 2008 financial crisis, the corporate debt-to-profit ratio has reached a new low of 3.8 and has averaged well below the average level from previous economic expansions, although it increased to 5.4 in second quarter 2019.<sup>29</sup> These higher profits can potentially support the higher debt loads corporations have accumulated since the financial crisis.

**Chart 9**



**Conclusion**

Corporations have increased their debt significantly since the end of the financial crisis. Most of this lending has come not from banks but from capital markets in the form of corporate bonds and syndicated leveraged loans. This pattern of corporations receiving debt funding primarily through nonbank capital markets continues a long-term trend in corporate borrowing. Corporate debt has become riskier as lower-rated bonds have grown substantially and lender protections in leveraged loan markets have been reduced. Despite the concentration of corporate debt in nonbank credit markets, banks still face both direct and indirect exposure to corporate debt risks. Direct bank holdings of leveraged loans, pipeline risks in bond and leveraged loan issuance, and lending to nonbank financial firms expose banks to risks from corporate debt. Macroeconomic effects of corporate debt distress create indirect risks. As this distress affects the broader economy it can reduce the ability of noncorporate businesses and consumers to service their debt, a higher proportion of which is held by banks.

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<sup>28</sup> A lower debt-to-profit ratio means corporations have more profits available to service their debt.  
<sup>29</sup> Federal Reserve Board and Bureau of Economic Analysis.