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## US Capital Purchase Program

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# US Capital Purchase Program (CPP)<sup>1</sup>

*Aidan Lawson<sup>2</sup> and Adam Kulam<sup>3, 4</sup>*

Yale Program on Financial Stability Case Study  
February 14, 2019; Revised: November 12, 2021

## Abstract

During the fall of 2008, the US government was faced with a financial crisis of unprecedented scope. Having already exercised the authority to put Fannie Mae and Freddie Mac into conservatorship in September, the stage was set for the US government to intervene more broadly in strained financial markets. This intervention would ultimately come in the form of the Emergency Economic Stabilization Act of 2008 (EESA), which was passed on October 3, 2008. The main provision of EESA was the Troubled Asset Relief Program, or TARP, a \$700 billion program initially designed to purchase troubled assets off the balance sheets of struggling financial institutions. Despite initially campaigning that the program would be used to purchase troubled mortgage-related assets, the worsening stress on the financial system, complexity of creating an asset purchase program, and size of the mortgage market caused the Treasury to announce the Capital Purchase Program (CPP), a program of broad-based capital injections, on October 14, 2008. Initially, the CPP was available to publicly traded US banks, but was expanded shortly after to include privately owned banks, S-corporations, and mutual banks, so long as they were based in the US. At its launch, Treasury also solicited nine of the largest commercial and investment banks to enroll in the program to encourage broad adoption for banks across the country. These institutions would issue either preferred stock (public and private banks) or subordinated debt (S-corps and mutual banks) to the Treasury at rates of five percent, which would then increase to nine percent after five years. As subsequent programs to provide credit to low-income areas and small business, such as the Community Development Capital Initiative (CDCI) and Small Business Lending Fund (SBLF) developed, CPP institutions were also able to refinance CPP investments into lower-cost CDCI and SBLF ones. A total of 707 institutions issued \$204.9 billion in CPP capital to the Treasury, which has recovered \$226.8 billion through repayments; auctions; and income related to dividends, interest, and warrants.

**Keywords:** Global Financial Crisis, Preferred Stock, Subordinated Debt, US Capital Injections, US Department of the Treasury

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<sup>1</sup> This case study is part of the Yale Program on Financial Stability (YPFS) selection of New Bagehot Project modules considering the responses to the Global Financial Crisis that pertain to broad-based capital injections. Cases are available from the *Journal of Financial Crises* at <https://elischolar.library.yale.edu/journal-of-financial-crises/>.

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# US Capital Purchase Program (CPP)

## At a Glance

By the fall of 2008, the US government was faced with a financial crisis of unprecedented scope. Having already exercised the authority to put the mortgage lenders Fannie Mae and Freddie Mac into conservatorship in September, the stage was set for the US government to intervene more broadly. This intervention would ultimately come in the form of the Emergency Economic Stabilization Act of 2008 (EESA), which was passed on October 3, 2008. The main provision of EESA was the Troubled Asset Relief Program, or TARP, a \$700 billion program initially designed to purchase troubled assets off the balance sheets of struggling financial institutions. Despite initially campaigning that the program would be used to purchase troubled mortgage-related assets, the worsening stress on the financial system, complexity of creating an asset purchase program, and size of the mortgage market caused the Treasury to announce the Capital Purchase Program (CPP), a program of broad-based capital injections, on October 14, 2008.

Summary of Key Terms	
Purpose: "To encourage U.S. financial institutions to build capital to increase the flow of financing to U.S. businesses and consumers and to support the U.S. economy."	
Announcement Date	October 14, 2008
Operational Date	October 14, 2008
Sunset Date	October 3, 2010
Program Size	\$250 billion
Usage	\$204.9 billion
Outcomes	\$226.8 billion in revenue
Key Features	Tier-1 and Tier-2 assistance, refinancing into CDCI or SBLF, 9 largest participating

Initially, the CPP was available to publicly traded US banks, but was expanded several times to include privately owned banks (November 2008), S-corporations (January 2009), and mutual banks (April 2009), so long as they were based in the US. Institutions would issue either preferred stock (Public and private banks) or subordinated debt (S-corps and mutual banks) to the Treasury at rates of five percent, which would then increase to nine percent after five years. At its launch, Treasury solicited nine of the largest commercial and investment banks, representing 55 percent of all banking assets, to enroll in the program to encourage broad adoption for banks across the country. All eligible institutions could participate at the same terms as these nine, regardless of size or regulatory status.

Treasury required participating banks to issue warrants to Treasury to purchase additional shares. It also restricted common stock dividends, executive compensation, and non-CPP share repurchases. Initially, Treasury was allowed to make new CPP investments through December 31, 2009. However, Treasury Secretary Tim Geithner extended this authority to

October 3, 2010, the maximum amount allowed by EESA, to “maintain the capacity to respond to unforeseen threats.”

As programs to provide credit to low-income areas and small businesses such as the Community Development Capital Initiative (CDCI) and Small Business Lending Fund (SBLF) developed, CPP institutions were also able to refinance CPP investments into lower-cost CDCI and SBLF ones and receive additional amounts of capital. The largest banks repaid their capital first, with 71 institutions, representing \$1.79 billion in capital, holding onto CPP funds for more than five years. A total of 707 institutions issued \$204.9 billion in CPP capital to the Treasury, which has recovered \$226.8 billion as of February 2020 through repayments; auctions; and income related to dividends, interest, and warrants.

### **Summary Evaluation**

The CPP, as well as other TARP bank investment programs and efforts from the Fed and FDIC, has been universally praised for immediately stabilizing the banking system despite the gravity of the crisis. Proponents attributed the CPP with providing the financial system with a solid foundation of capital and laying the groundwork for recovery. Academics and oversight institutions evaluated the CPP according to its impact on bank lending, market competition, and the treatment of larger institutions versus smaller ones. Despite a later assertion by Paulson that the “whole purpose” of the program was to increase lending, the impact that the CPP had on lending overall was unclear. Other critics have asserted that the injections themselves led to competitive distortions in the marketplace, and that larger institutions, such as Citigroup and Bank of America, were given much more leeway in how they exited the program, whereas smaller banks did not receive enough. Despite this, Treasury exited over 80% of its investments by the end of 2010 and made over \$20 billion in profits from the program. The CPP has been credited in the literature as an effective emergency measure for stabilizing frozen US credit markets.

United States Context 2008 -2009	
<b>GDP</b> (SAAR, nominal GDP in LCU converted to USD)	\$14,560 billion in Q4 2008 \$14,628 billion in Q4 2009
<b>GDP per capita</b> (SAAR, nominal GDP in LCU converted to USD)	\$48,383 in 2008 \$47,100 in 2009
<b>Sovereign credit rating</b> (five-year senior debt)	As of Q4, 2008: Fitch: AAA Moody's: Aaa S&P: AAA  As of Q4, 2009: Fitch: AAA Moody's: Aaa S&P: AAA
<b>Size of banking system</b>	\$9,938 billion in total assets in 2008 \$9,789 billion in total assets in 2009
<b>Size of banking system as a percentage of GDP</b>	68.3% in 2008 66.9% in 2009
<b>Size of banking system as a percentage of financial system</b>	Assets equal to 30.2% of financial system in 2009
<b>Five-bank concentration of banking system</b>	44.3% of total banking assets in 2009
<b>Foreign involvement in banking system</b>	18.0% of total banking assets in 2008 19.0% of total banking assets in 2009
<b>Government ownership of banking system</b>	0% of banks owned by the state in 2008 0% of banks owned by the state in 2009
<b>Existence of deposit insurance</b>	100% insurance on deposits up to \$100,000 for 2007 100% insurance on deposits up to \$250,000 for 2010
<i>Sources: Bloomberg; World Bank Global Financial Development Database; World Bank, Bank Regulation and Supervision Survey; Federal Deposit Insurance Corporation.</i>	

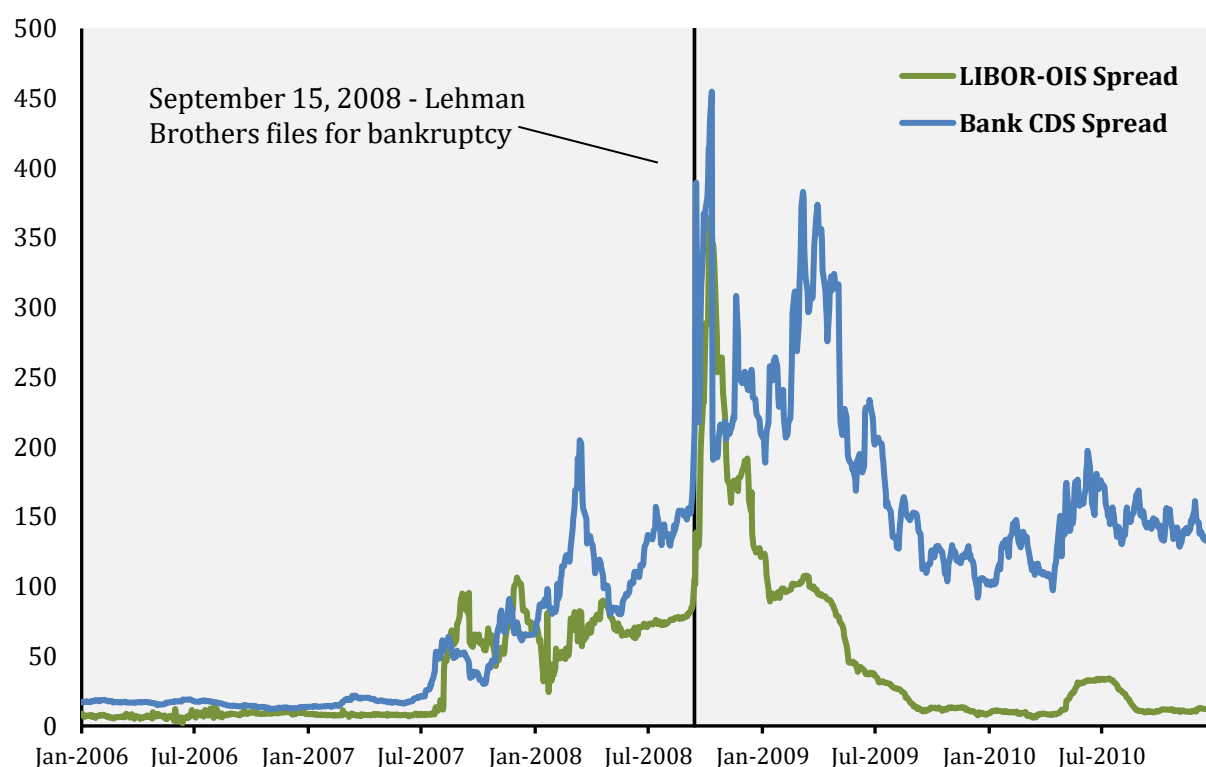
<sup>5</sup> The passage of the Emergency Economic Stabilization Act in October of 2008 authorized a temporary increase of the deposit insurance threshold up to \$250,000 (EESA 2008, 3799). This was made permanent on July 21, 2010, with the passage of the Dodd-Frank Wall Street Reform and Consumer Protection Act (FDIC 2010).

## I. Overview

### Background

Despite substantial official interventions in term funding and mortgage markets, the financial crisis in the US that had begun a year earlier reached a tipping point in September of 2008. Lehman Brothers, the fourth largest investment bank in the US, filed for bankruptcy on September 15, 2008, despite reporting record earnings in just January of that year (Wiggins, Piontek, and Metrick 2014, 2; Valukas 2010, 2). Bank CDS spreads and the Libor-OIS spread shot up dramatically following Lehman's failure, and remained elevated until the middle of October, as shown in Figure 1.<sup>6</sup>

**Figure 1: Three-Month LIBOR-OIS Spread and Bank CDS Spreads (bps)**



Source: Bloomberg.

Lehman's bankruptcy caused the three large remaining investment banks—Goldman Sachs, Morgan Stanley, and Merrill Lynch—to seek further government support to avoid bankruptcy. On the same day that Lehman fell, Merrill Lynch and Bank of America agreed to a \$50 billion merger (BoA 2008). Six days later, both Goldman Sachs and Morgan Stanley

<sup>6</sup> Bank CDS spreads, as shown in Figure 1, are equal-weighted averages of JPMorgan Chase, Citigroup, Wells Fargo, Bank of America, Morgan Stanley, and Goldman Sachs.

became bank holding companies, which allowed them to obtain access to the Fed's emergency lending facilities (Guha 2008).

During this time, the Bush administration released the first iteration of its \$700 billion plan, called the Troubled Asset Relief Program (TARP), to buy troubled assets from financial institutions (Calabresi 2008). Almost immediately, policymakers critiqued the proposal for its lack of detail and the broad authority that it gave Treasury (Senate Banking Committee 2008). These concerns caused TARP to fail its first vote on September 29 (Stolberg 2008; Bensinger 2008; US House 2008b). Stock markets crashed after the vote. The S&P 500 fell 8.8%, its largest decrease since the October 1987 stock market crash (Jester, Nason, and Norton 2020; Davis 2008). After the disastrous market reaction, Congress passed the Emergency Economic Stabilization Act of 2008 (EESA)—which had TARP as its centerpiece—on October 3 (US House 2008a). While administration officials had originally described the legislation as a direct asset purchase program for troubled institutions, the administration ultimately decided to use the funds to inject capital directly into financial institutions. The largest TARP program was the Capital Purchase Program (Andrews and Landler 2008; Paulson 2008f; Kashkari 2008a). Administration officials said they revised their implementation plan for TARP after concluding that they would not have had time to value banks' troubled assets and, even if they had, \$700 billion would not have been sufficient given the severity of the problems in the market (Fed 2009; SIGTARP 2009b, 12).

### **Program Description**

The Treasury announced the Capital Purchase Program (CPP) on October 14, 2008, less than two weeks after the bill passed (Treasury 2008c). In its initial press release, Treasury specified that it would purchase senior preferred equity “on standardized terms” and that interested institutions would have until November 14, 2008, to apply (Treasury 2008c). Of the \$700 billion in TARP funds that Congress appropriated, Treasury planned to use up to \$250 billion for the purchase of equity (Treasury 2008c; EESA 2008, 3780). Treasury required interested institutions to submit applications to their federal banking regulator (the FDIC, Federal Reserve, Office of the Comptroller of the Currency, or Office of Thrift Supervision [OTS]) (Treasury 2008a, 1–2).

As part of the CPP's first press release, Treasury noted that nine large “healthy” institutions had already agreed to participate “to signal the importance of the program for the system” (Treasury 2008c).<sup>7</sup> Together, these nine banks, which represented about 55 percent of all US banking assets, obtained \$125 billion in Treasury capital (GAO 2012, 7–8). These nine were strongly encouraged to accept the initial injections as a group, as administration officials believed that doing so as a group would not only eliminate stigma, but prevent differentiation between “strong” and “weak” banks, which could have “further

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<sup>7</sup> The nine banks were, in order of investment size, Citigroup, JP Morgan, Wells Fargo (\$25 billion); Bank of America (\$15 billion); Goldman Sachs, Morgan Stanley, Merrill Lynch (\$10 billion); Bank of New York Mellon (\$3 billion); and State Street (\$2 billion). Bank of America received the \$10 billion given to Merrill Lynch as a result of a merger, completed on January 1, 2009 (SIGTARP 2009b, 20–21).

destabilize[ed] financial institutions and markets” (SIGTARP 2009b, 18–19). (See KDD No. 7 for more information on this decision.)

Two of the nine initial participants, Citigroup and Bank of America also received \$20 billion each in preferred stock on December 31, 2008, and January 15, 2009, respectively, as part of the Targeted Investment Program (TIP). These preferred shares paid dividends of eight percent, and were given to prevent a loss of confidence that could “result in significant market disruptions that threaten the financial strength of similarly situated financial institutions” (Citigroup 2008; Fed/FDIC/Treasury 2009; Treasury 2009k).

Throughout the course of the program, Treasury broadened the types of institutions that could participate. Initially, they only made funds available to publicly traded banks and trusts. Banks and trusts that were not publicly traded were issued a term sheet on November 17, 2008, while S-corporations and mutual banks received their term sheets on January 14, 2009, and April 14, 2009, respectively (Treasury 2008f; Treasury 2009c; Treasury 2009h).

Every institution was required to issue capital that equaled at least one percent of its risk-weighted assets (Treasury 2008b, 1). They could receive assistance up to either \$25 billion or three percent of its risk-weighted assets, whichever was lesser (Treasury 2008b, 1). All securities issued to Treasury carried a face value of \$1,000.

### ***Dividends and Interest Payments.***

Dividends or interest payments were paid quarterly. Dividends for preferred shares started at five percent, increasing to nine percent if a Qualified Financial Institution (QFI) had Treasury capital still outstanding after five years. S-corporations and mutual banks issued subordinated debt instead of preferred stock because they don’t issue common shares. Treasury set their initial interest payments higher—at 7.7 percent, rising to 13.8 percent after five years—to adjust for the tax-free status of these companies (Treasury 2008b; Treasury 2008b; Treasury 2009a; Treasury 2009b). (See KDD No. 10 for more information.)

Treasury placed additional restrictions on dividends and interest payments. Dividends were cumulative for QFIs that issued preferred shares at the holding-company level: in other words, those QFIs could not pay any dividends to junior or equivalently ranked preferred shares until they had paid dividends (unpaid and currently due) on the Treasury’s preferred shares. Dividends were non-cumulative for QFIs that were not subsidiaries of bank holding companies. CPP recipients that issued subordinated debt faced similar restrictions, and were not allowed to pay dividends on any equity until they had paid all interest payments (Treasury 2008b; Treasury 2008e; Treasury 2009b; Treasury 2009g). Bank holding companies that were S-corporations could defer interest payments on their subordinated debt for up to 20 quarters, though the interest would cumulate and compound (Treasury 2009b, 2).

The term sheets required QFIs to obtain Treasury approval for any increases in dividends in common stock for the first three years the Treasury held QFI shares. After three years,



publicly traded institutions no longer needed any Treasury approval for dividend increases, but private institutions, S-corporations, and mutual banks still needed it to approve increases of over three percent until ten years had passed, or until the Treasury sold its investment (Treasury 2008b; Treasury 2008e; Treasury 2009b; Treasury 2009g).

All securities issued to Treasury were nonvoting. In the event that dividend or interest payments were not paid for six quarters, Treasury could appoint two directors to the QFI, who would be required to keep the director on until dividends or interest had been repaid for four consecutive periods (for preferred stock), or completely repaid (in the case of subordinated debt) (Treasury 2008b; Treasury 2008e; Treasury 2009b; Treasury 2009g).<sup>8</sup>

### ***Repurchases and Redemptions***

Repurchases of any class of equity required Treasury's approval so long as the QFI still had Treasury stock outstanding. Participants did not need Treasury's consent to repurchase Senior Preferred shares or other capital instruments connected to benefit plans, if the repurchases were consistent with past business practices and relevant income tax laws. Similar to the dividend restrictions above, after three years, public QFIs no longer needed to seek Treasury approval, and for the other types of eligible institutions this restriction was lifted after ten years.

Redemptions of CPP securities during the first three years required a qualified equity (or securities) offering that generated proceeds of at least 25 percent of the initial issue price of the securities. After three years, a QFI could redeem the Treasury's stake with the approval of its primary federal regulator. Mutual banks did not face this restriction, and could redeem the subordinated debt they issued at will, subject to the aforementioned approval (Treasury 2008b; Treasury 2008e; Treasury 2009b; Treasury 2009g). While the initial term sheets prohibited exits for three years, the American Reinvestment and Recovery Act of 2009 (ARRA) allowed institutions that received TARP investments to repay them regardless of whether they had new funds to replace the Treasury capital (ARRA 2009).

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<sup>8</sup> Nonpublic QFIs who paid cumulative dividends on preferred stock were required to pay dividends from all missed quarters, not just the last four consecutive ones (Treasury 2009b, 4).

### ***Executive Compensation and Corporate Governance***

Section 111(b) of EESA described corporate governance and executive compensation standards as they apply to direct purchases or investments in financial institutions. Both EESA and the original CPP contracts contained narrow provisions on executive compensation (Massad and Kashkari 2020, 392). The Bush-era Treasury primarily focused on stabilizing the financial system, and they believed that restricting executive compensation could limit participation and potentially impair its objective (Massad and Kashkari 2020, 392). Treasury later passed several interim final rules that expanded on and provided additional guidance on executive compensation post-EESA (Treasury, n.d.a). ARRA expanded these guidelines in February 2009.

Senior executive officers (SEOs), initially defined by EESA as a the top five highest paid executives of companies that took CPP money, were the primary targets of these restrictions (EESA 2008, 3777). The number of SEOs that were affected gradually increased as the program developed, and the restrictions expanded with the passage of ARRA and as Treasury issued more guidance throughout the first half of 2009 (Treasury 2009i). SEOs at CPP recipients were generally unable to receive “golden parachute” payments, as well as bonuses and additional compensation, except under specific circumstances. Finally, the legislation and subsequent interim final rules required QFI compensation committees to identify features that could “lead SEOs to take unnecessary and excessive risks” and meet with risk officers to discuss these features. Treasury passed its last interim final rule on executive compensation on June 10, 2009 (Treasury 2009i). (See KDD Nos. 13 and 15 for more details.)

### ***CDCI and SBLF Conversion***

The Community Development Capital Initiative (CDCI), which was created on February 3, 2010, allowed CPP institutions that serviced lower-income areas to convert their CPP capital into lower-cost CDCI capital (Treasury 2010; Webel 2013, 15–16). If a QFI was accepted, their current CPP capital would be exchanged, and they could be expected to issue additional shares up to a maximum of five percent of their risk-weighted assets (Treasury 2012b). The CDCI copied the CPP’s architecture while softening key payment factors: the CDCI decreased initial interest/dividend rates from five percent to two percent, delayed the step-up clauses from five years after the original investment to eight years, omitted the requirement on stock warrants, and increased the maximum issuance of government capital from three percent of risk-weighted assets to five percent (GAO 2014, 4–5). (Further information on the CDCI can be found in Kulam [2021].)

The Small Business Lending Fund (SBLF), established on September 27, 2010, as part of the Small Business Jobs Act, encouraged lending to small businesses by providing Tier-1 capital to qualifying community banks with assets of less than \$10 billion (Treasury 2011; Treasury, n.d.b). Through the SBLF, community banks that received capital under the CPP or CDCI could refinance these investments under the SBLF, provided that they had neither been on the FDIC’s “problem bank” list within the last 90 days nor missed more than one dividend payment under the CPP or CDCI (Treasury, n.d.b, 8). Because the SBLF was not

established with TARP funds, participating institutions did not have to abide by the significantly expanded executive compensation requirements established by the ARRA (Treasury, n.d.b, 8). This was an important distinction, as Treasury officials at the time knew that these restrictions prevented smaller banks, which did not have top executive officers and high-level employees compensated as generously as the larger banks, from applying to the CPP (Massad and Kashkari 2020, 393).

The dividend structure of the SBLF was tied to the amount of small-business lending a given SBLF participant did. The more a participant's small-business lending increased after receiving SBLF capital, the lower its dividends would be (Treasury, n.d.b, 4).<sup>9</sup> The program required CPP institutions to pay an annual "lending incentive fee" of two percent of the total amount of preferred stock outstanding after the fifth year of the original CPP investment, if the institution did not increase its small-business lending relative to how much it was lending prior to the SBLF investment (Treasury, n.d.b, 4–5).

### ***Sunset Date and End of Authority***

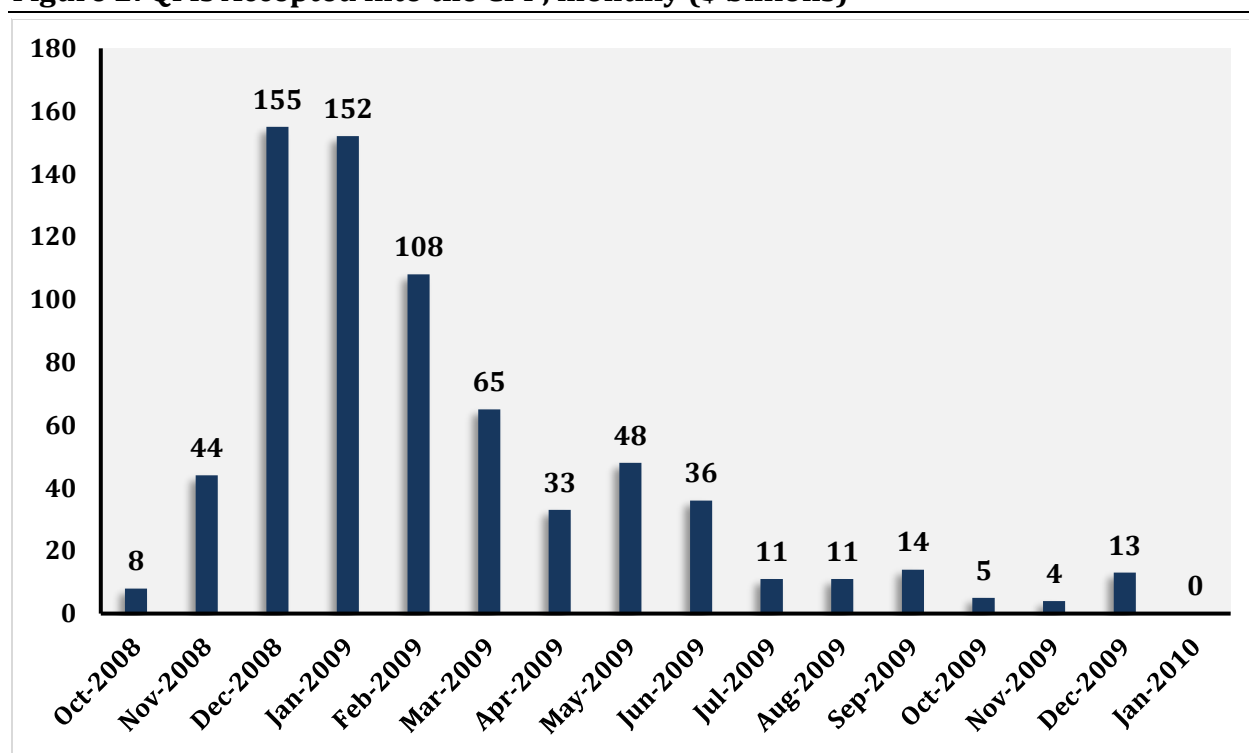
Section 120 of EESA specified that the authority to purchase troubled assets and, by extension, inject capital, would expire on December 31, 2009 (EESA 2008, 3788). However, the section also specified that the Secretary of the Treasury could extend the authority to make new investments through October 3, 2010 (EESA 2008, 3788). Treasury Secretary Geithner invoked this authority in a letter to Speaker of the House Nancy Pelosi on December 9, 2009, to continue to address the ongoing housing crisis and to "maintain the capacity to respond to unforeseen threats" (Geithner 2009b).

### **Outcomes**

Initial participation in the CPP was swift, with 213 institutions receiving approximately \$187.5 billion in aid by the end of 2008 (Treasury, n.d.c). By the end of 2009, 707 institutions had been accepted into the program, and Secretary Geithner had extended the authority to purchase equity through October 3, 2010 (Geithner 2009b).

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<sup>9</sup> See KDD No. 11 for more information about the dividend structure for SBLF institutions. After four-and-a-half years, all dividends, irrespective of lenders' performance, would increase to nine percent (Treasury, n.d.b, 4).

**Figure 2: QFIs Accepted into the CPP, monthly (\$ billions)**

Source: Treasury, n.d.c.

Of the 707 participants, 34 went into bankruptcy or receivership. Treasury, in some cases, “receive[d] cash or other securities, which generally [could] be sold more easily than preferred stock, but Treasury’s investments [were] sometimes sold at a discount” (Treasury, n.d.c; Treasury 2019b, 1; GAO 2016, 6). For a small number of CPP institutions, Treasury made ad-hoc decisions either to restructure or exchange its investment with other securities to help facilitate a merger. Sometimes this meant taking a discount (SIGTARP 2015, 12).

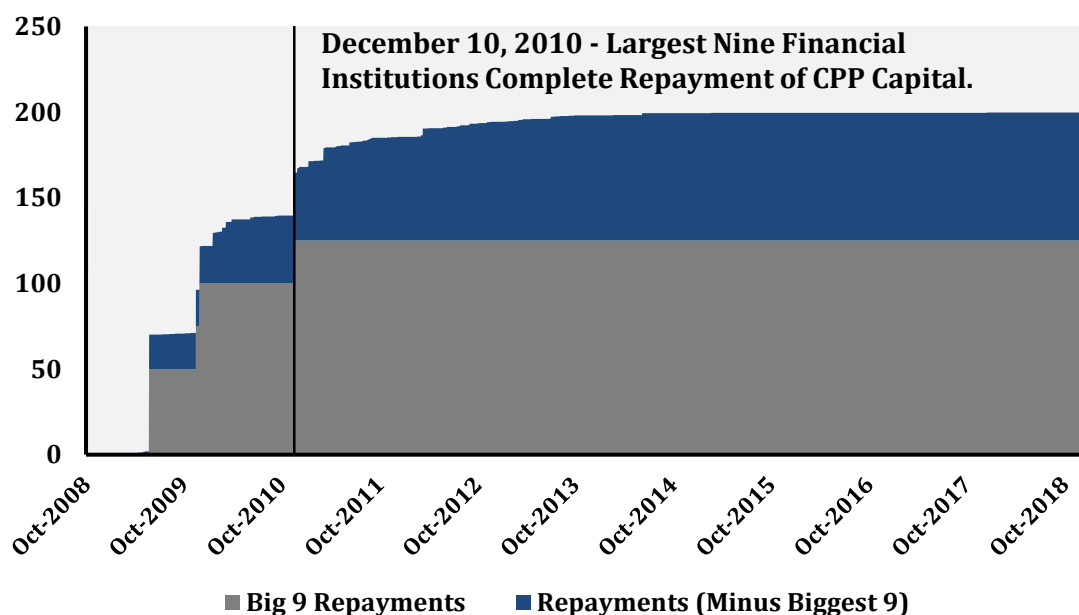
This typically involved banks submitting restructuring (or recapitalization) plans to Treasury, who would then evaluate the plan, including any proposed discounts that Treasury might take. In this evaluation, Treasury received feedback from an external asset manager, who “interviews bank managers, gathers non-public information, and conducts loan loss estimates and capital structure analysis” (SIGTARP 2010, 84). Despite the possibility of losses, Treasury was willing to take part in these transactions because “it believe[d] that inaction may lead to the bank failing, resulting in a total loss to the taxpayer” (SIGTARP 2010, 84).

A total of 28 institutions converted their CPP capital into CDCI capital, representing about \$360 million. Another 137 CPP institutions opted to refinance approximately \$2.21 billion in government capital with the SBLF (Treasury 2019b, 1).

The nine systemically important institutions that received the first \$125 billion in CPP capital repaid the Treasury by December of 2010 (see Figure 3). All of these were subject to

the Fed's 2009 stress test, the Supervisory Capital Assessment Program (SCAP). The program, which "estimated future losses, revenues, and needed reserves" for 19 large institutions, found that five banks—Goldman Sachs, Morgan Stanley, JP Morgan, State Street, and Bank of New York Mellon—met the tests' target capital ratios; this allowed them to repay their CPP capital on June 17, 2009 (SIGTARP 2011, 14). Bank of America and Wells Fargo repaid their CPP capital in December, 2009, and Citigroup repaid its CPP capital in December, 2010 (CPP Transaction Data).

**Figure 3: Repayment of CPP Funds, annually (\$ billions)**



Source: Treasury, n.d.c.

The other CPP institutions repaid their capital at a much slower rate on average, with an average time of repayment of 1,137 days, or over three years. Some institutions paid Treasury back much earlier, with the quickest repayment coming from Centra Financial Holdings, Inc., after just 74 days. However, CPP recipients paid back over 84% of total capital by the end of 2010 (Treasury, n.d.c). As of November 2019, two banks, representing approximately \$17.4 million in Treasury stock, still have investments outstanding (Treasury 2019b, 1).<sup>10</sup>

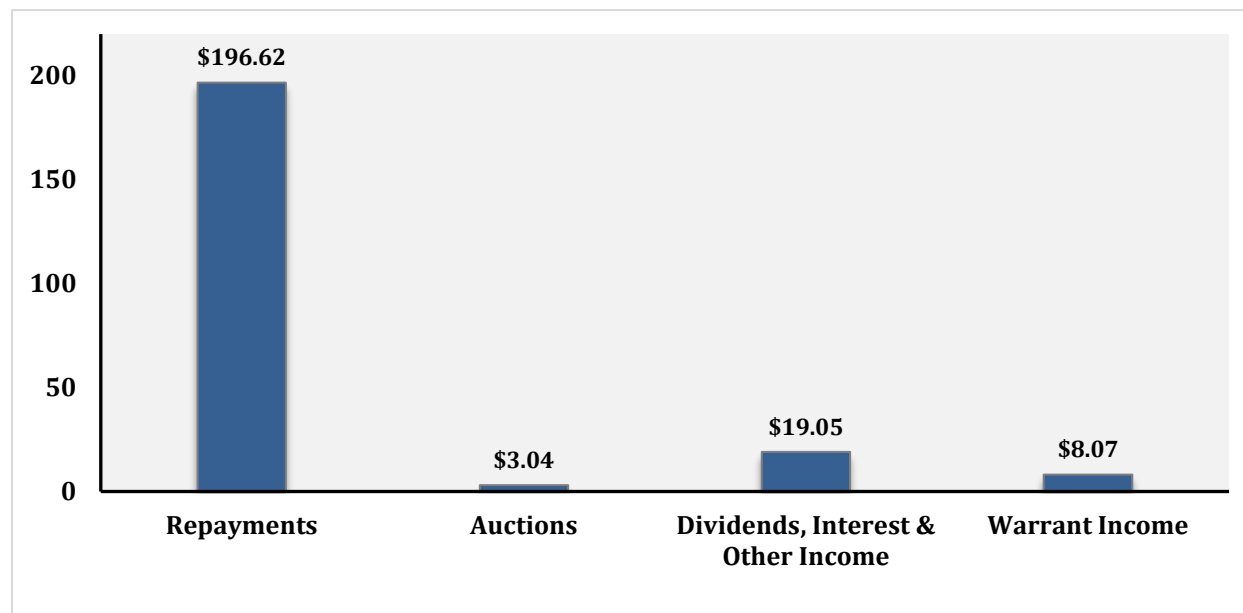
Seventy-one CPP institutions did not repay their CPP capital within five years. As a result, their dividends increased, as outlined in the term sheets. These 71 institutions held onto their capital for an average of 2,265 days, compared to 1,011 days for all other institutions.

<sup>10</sup> As of November 1, 2019, these two institutions were OneUnited Bank (\$12.06 million) and Harbor Bankshares Corporation (\$5.31 million).

These 71 institutions accounted for less than one percent of total CPP capital, however (Treasury, n.d.c).

The Treasury has received \$226.4 billion, as of November 1, 2019 (see Figure 4). That figure includes principal repayments (\$197 billion), dividend and interest payments (\$19 billion), proceeds from the sale and exercising of warrants attached to CPP term sheets (\$8 billion), and auctions (\$3 billion).<sup>11</sup>

**Figure 4: CPP Income Breakdown (as of November 1, 2019, \$ billions)**



Source: Treasury 2019b, 1.

Treasury had a variety of methods to exit its investments. As mentioned above, CPP institutions could refinance the capital into another program, such as the SBLF or CDCI. Treasury also began using auctions in March of 2012. This test auction, which was modelled after the auctions that Treasury had been conducting to sell its CPP warrants, received eight times as many bids as the number of securities offered. It netted over \$360 million in revenue, despite Treasury receiving less than the par value for the stock (Massad 2012). Revenue from these auctions, of which the preferred stock of 190 institutions was offered, was just over \$3 billion (Treasury 2019b, 1). After accounting for the various exchanges and refinancing initiatives, net income from the CPP was about \$27.1 billion (Treasury 2019a).

<sup>11</sup> The total income shown in Figure 4 is actually \$226.78 billion. However, this calculation includes the \$360 million in CPP funds that were exchanged into the CDCI. Since these shares were exchanged into another program, rather than simply having their properties altered by entering another program (SBLF), they were omitted from the profit calculation.

## II. Key Design Decisions

- 1. Part of a Package: The Capital Purchase Program was part of the Troubled Asset Relief Program (TARP), which included capital injections, as well as housing, auto, and credit market relief programs.**

The program was one of the first parts of a series of interventions aimed at stabilizing several sectors of the struggling American economy. TARP funds were disbursed to provide government investment in individual institutions, such as AIG, as well as entire sectors, such as housing and the auto industry. However, the CPP was considered to be the “centerpiece” of TARP (Treasury, n.d.d; FRBSTL 2009, 1).

Additional TARP bank investment programs included the Community Development Capital Initiative (CDCI), the Targeted Investment Program (TIP), the Asset Guarantee Program (AGP), and the Supervisory Capital Assessment Program (SCAP) (Treasury 2016). TARP’s credit market programs were the Public-Private Investment Program (PPIP), the Term Asset Backed Loan Facility (TALF), and the SBA 7(a) Securities Purchase Program (Credit Market Programs). TARP’s housing programs were the Making Home Affordable (MHA) and the Hardest Hit Fund (HHF), as well as support for FHA refinancing efforts (Housing Programs). TARP also funded individual restructuring agreements for Chrysler and GM through the Automotive Industry Financing Program (AIFP). Section 136 of TARP also temporarily increased the deposit insurance threshold from \$100,000 to \$250,000; Congress later made the change permanent (EESA 2008, 3799).

In total, Congress appropriated \$700 billion of TARP funds in two tranches of \$350 billion. Congress required Treasury to submit a report to Congress requesting that the second tranche of \$350 billion be released should it be needed (EESA 2008, 3780–81). In total Treasury disbursed about \$442 billion through TARP, with its capital injections through the CPP at almost \$205 billion, and total assistance to banks at \$245 billion (Treasury 2019a).

- 2. Legal Authority (1): Congress passed the Emergency Economic Stabilization Act on October 3, 2008, which gave the Secretary of the Treasury authority to purchase troubled assets “from any financial institution” and served as the legal basis for the CPP.**

Legal Authority for the Capital Purchase Program came from Section 101 of the Emergency Economic Stabilization Act (EESA) of 2008, which was passed on October 3, 2008. Section 101 states that, “The [Secretary of the Treasury] is authorized to establish the Troubled Asset Relief Program (or ‘TARP’) to purchase, and to make and fund commitments to purchase, troubled assets from any financial institution...” (EESA 2008, 3767). Treasury and the Federal Reserve shortly decided to directly invest in the capital structure of banks rather than purchasing assets off their balance sheets (SIGTARP 2009b, 12). Treasury would allocate a total of \$250 billion of the \$700 billion.

- 3. Legal Authority (2): Initially, the Treasury Secretary and the Chairman of the Federal Reserve cited the need for broad, immediate authority to purchase troubled assets in campaigning for the passage of EESA, but they ultimately turned to capital injections as they were the “most timely, effective step to improve credit market conditions.”**

The Bush administration faced considerable difficulty in getting Congress to pass TARP. Its original proposal, which was three pages long and released on September 20, 2008, was met with considerable resistance from Congress and the public (Calabresi 2008). In an attempt to persuade lawmakers and the public, Treasury Secretary Hank Paulson and Federal Reserve Chairman Ben Bernanke testified at the Senate Banking and Finance Committee on September 23 (Senate Banking Committee 2008).

Paulson testified that the proposal would be “the single most effective thing we [could] do to help homeowners, the American people and stimulate our economy” (Paulson 2008a). Bernanke backed the Treasury’s “proposal to buy illiquid assets from financial institutions” (B. S. Bernanke 2008, 4). He said the program would create liquidity, promote price discovery, and restore confidence in the broader system (B. S. Bernanke 2008, 4). Paulson and Bernanke worked in tandem, with Bernanke “provid[ing] the academic gravitas” and Paulson “argu[ing] passionately that [TARP] was the most effective way to recapitalize the banking system” (Jester, Nason, and Norton 2020). The two officials expressed an urgent need for intervention, with Paulson acknowledging the importance of post-crisis regulation (B. S. Bernanke 2008, 4; Paulson 2008a, 2). Paulson described TARP as an asset purchase program rather than a recapitalization program. In his testimony to the House Financial Services Committee the next day, he explicitly stated that the program “is not a spending program. It is an asset purchase program, and the assets which are bought and held will ultimately be resold with the proceeds coming back to the government” (Paulson 2008b).

The initial reaction from lawmakers was negative. Sen. Chris Dodd, who chaired the Senate committee, called the original proposal “stunning and unprecedented in its scope—and lack of detail...” Dodd said the program would not do anything to help homeowners. He articulated mistrust towards having the Treasury hold so much power. “[It] is not just our economy that is at risk but our Constitution as well” (Senate Banking Committee 2008, 3). Much of the criticism from lawmakers centered around the proposal’s lack of detail, its focus on rescuing financial institutions rather than homeowners, and the lack of punishment for the financial institutions that would be receiving TARP aid (Senate Banking Committee 2008).



The original proposal sparked some public outrage, such as over a thousand protestors rallying outside of the New York Stock Exchange (Bensinger 2008). Senators Sherrod Brown, Barbara Boxer, and Diane Feinstein reported that their offices alone received over 60,000 emails, calls, and letters about the proposal, most of which were decidedly against it (Stolberg 2008; Bensinger 2008). A poll by Pew found broad support for a government intervention; Gallup found that a majority of Americans supported Congressional action, but in a form different from Paulson's proposal (Kohut and Parker 2008; Newport 2008).

The House of Representatives failed to pass EESA on September 29, 2008 (US House 2008b). In a public statement following the vote, Paulson expressed his disappointment, stating that the government's toolkit was "substantial but inefficient" to address the continued stress (Paulson 2008c). Financial markets reacted extremely negatively after the vote, with the Dow Jones Industrial Average dropping 777 points and the S&P 500 falling 8.8 percent, with over \$1 trillion in value being lost (Jester, Nason, and Norton 2020; Davis 2008).

In the aftermath of the failed vote, Paulson's aides expressed privately that capital injections would likely be necessary to combat the crisis. Paulson agreed and told President Bush capital injections, not large-scale asset purchases, would be the best way forward (Jester, Nason, and Norton 2020, 213-214).

The Senate passed a revised bill on October 1, and on October 3, Congress passed the Senate version and President Bush signed it into law (US House 2008a). After the successful vote, Paulson reiterated the Treasury would provide "regular updates" in regular press releases and speeches (Paulson 2008d). From October 3 to October 14, the day the CPP was announced, the Treasury published updates chronicling the shift in its thinking on October 6, 8, 11, and 13. Paulson's statements on October 8 are the first place where he mentions verbatim that the authority granted to Treasury under EESA allowed it to inject capital into financial institutions (Paulson 2008e). A day later, it was reported that capital injections "[had emerged] as one of the most favored new options being discussed in Washington and on Wall Street" (Andrews and Landler 2008). The language in the subsequent updates on October 11 and 13 indicate that capital injections were a serious option that Treasury was considering, despite initially campaigning for asset purchases (Paulson 2008f; Kashkari 2008a).<sup>12</sup>

In its first press release on October 14, Treasury specified that the program was "voluntary," but that nine financial institutions had also already agreed to participate, which "signal[ed] the importance of the program for the system." Treasury explicitly stated that these nine were healthy, and that they would participate "on the same terms that will

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<sup>12</sup> Paulson's remarks at the International Monetary and Financial Committee meeting on October 11, 2008, outlined five key areas of Treasury's response, with one of them being strengthening the capital of financial institutions (Paulson 2008f). In his remarks before the Institute of International Bankers, Neel Kashkari specified that Treasury was "designing a standardized program to purchase equity in a broad array of financial institutions," and that the program would be voluntary and attractive to healthy institutions (Kashkari 2008a).

be available to small and medium-sized banks and thrifts across the nation” (Treasury 2008c). (For more detail on these nine banks, see KDD No. 7.)

In an update made to the public on November 12, 2008, Paulson addressed the decision to avoid using TARP funds for asset purchases, stating that, “At the time, we believed that [asset purchases] would be the most effective means of getting credit flowing again” (Paulson 2008g). He described how the continuously deteriorating conditions leading up and subsequent to the passage of EESA made those at Treasury realize that an asset purchase program “would take time to implement and would not be sufficient given the severity of the problem” (Paulson 2008g). Ultimately, Paulson stated, capital injections were the “most timely, effective step to improve credit market conditions” (Paulson 2008g).

**4. Governance/Administration: Section 104 of EESA established the Financial Stability Oversight Board, which oversaw the activities of the CPP and other TARP programs, as well as the Special Inspector General for the Troubled Asset Relief Program, which conducted independent reviews. The Congressional Oversight Panel and the Government Accountability Office also oversaw TARP.**

Section 104 of EESA established the Financial Stability Oversight Board (FSOB) to review the policies implemented under section 101. Those policies included reviewing “the appointment of financial agents, the designation of asset classes to be purchased, and plans for the structure of vehicles used to purchase troubled assets...” (EESA 2008, 3770–71). The FSOB was also responsible for examining the effects that programs made under section 101 had on “assisting American families in preserving home ownership, stabilizing financial markets, and protecting taxpayers” (EESA 2008, 3771).

The Board had the following members:

- The Chairman of the Board of Governors of the Federal Reserve System
- The Secretary of the Treasury
- The Director of the Federal Housing Finance Agency (FHFA)
- The Chairman of the Securities Exchange Commission (SEC), and
- The Secretary of Housing and Urban Development (HUD).

Additionally, the Board was required to report to Congress, as well as the Congressional Oversight Panel at least quarterly to discuss the matters described above. Section 116(a)(2) of EESA also stipulated that GAO would be another oversight authority (EESA 2008, 3784).

The Special Inspector General for the Troubled Asset Relief Program, or SIGTARP, was established through section 121 of EESA. The Special Inspector General was to be appointed by the president and confirmed by the Senate, and was responsible for

“coordinat[ing] audits and investigations of the purchase, management, and sale of assets by the Secretary of the Treasury...” (EESA 2008, 3788). SIGTARP did this by collecting the following information:

- Descriptions of categories of troubled assets purchased
- Listings of assets that fell into the aforementioned categories
- Explanations of the reasons for purchasing said assets from the Secretary of the Treasury
- Listings of the financial institutions that the troubled assets were purchased from
- Listings of, and “detailed biographical information” on the people hired to manage these troubled assets
- Estimates on the total number and value of troubled assets, how much remained with the Treasury, how much had been sold, and the profit or loss incurred from said sales (EESA 2008, 3788–89).

According to its mission statement, SIGTARP “is a federal law enforcement agency and is an independent watchdog protecting taxpayer dollars that fund TARP” (SIGTARP 2018, 3). SIGTARP reported to Congress about its supervisory activities twice a year, audited various TARP programs, and conducted and reported on investigations of misconduct for TARP recipients (SIGTARP, n.d.). SIGTARP’s quarterly reports generally consisted of assessments of various components of the program, such as the CPP, as well auto and housing industry support programs (SIGTARP 2010). SIGTARP reports included detailed recommendation sections, informed by the audits and investigations it conducted, and the reports also provided detailed tables of the implementation status of each of these recommendations (SIGTARP 2014, 313–36).

The Congressional Oversight Panel (COP) was another crucial component of TARP oversight. Created on the same day that TARP was passed, COP’s primary function was to “review the current state of the financial markets and the regulatory system” through the submission of regular and special reports to Congress (EESA 2008). The COP was responsible for drafting reports every 30 days to support its analysis on:

- the general use of authority provided in EESA by the Secretary of the Treasury, including with respect to contracting and administration;
- the impact of purchases made under the EESA on financial markets and financial institutions;
- the extent to which the information available on the transactions made by programs under EESA has contributed to market transparency;

- the effectiveness of foreclosure mitigation efforts, and the effectiveness of the program with respect to minimizing long-term costs to the taxpayer and maximizing taxpayer benefit (EESA 2008, 3791).

Additionally, EESA required that the COP submit a Special Report on Regulatory Reform by January 9, 2009. This report was expected to analyze the effectiveness of the current financial regulatory framework at overseeing its participants and protecting consumers, as well as make recommendations on how to fill any existing regulatory gaps. These gaps may include areas where consumer protection is lacking or those where financial market participants that may be outside of the current regulatory perimeter operate and should become subject to it. In its approximately two and a half years of operation, the COP held hearings and collected testimony from high-level officials, such as Treasury Secretary Tim Geithner, as well as published 29 reports on the impacts of key TARP initiatives. Much of COP's analysis was informed by the functions listed above, with the Panel asking questions about the more immediate, stabilizing effects of TARP, as well as longer-form impacts, such as how TARP recipients were structuring their business and policies after receiving aid (COP 2008, 3). Other reports, such as those about specific firms like GMAC and AIG, as well as Treasury's conduct with smaller CPP banks, were also published (COP, n.d.). In this way, Congress was able to provide another layer of feedback to Treasury in how they managed still-outstanding investments, while providing guidance on what to do for future initiatives.

The COP was disbanded on April 3, 2011, after releasing its final report. In it, the Panel explained that, while TARP alone was not responsible for the economic recovery, "TARP quelled the immediate panic and helped to avert an even more severe crisis" (COP 2011, 152). However, COP did cite concerns about moral hazard, stigma, and a lack of transparency. TARP, and by extension the CPP, was "one of the most thoroughly scrutinized government programs in US history" (COP 2011, 160–61).

#### **5. Individual Participation Limits: The total size of the CPP was \$250 billion, with specified minimums and maximums for participating institutions.**

Despite the varied schedule in announcement dates and capital characteristics, all four classes of institutions had the same individual minimums and maximums for participation. If accepted into the program, all participating institutions were required to issue eligible securities at a minimum of one percent of their risk-weighted assets. However, no institution could issue qualifying capital up to the lesser of 1) \$25 billion and 2) three percent of its risk-weighted assets (Treasury 2008b; Treasury 2008e; Treasury 2009b; Treasury 2009g).

#### **6. Funding: The CPP was funded via Congressional appropriations authorized for Treasury's use under the Troubled Asset Relief Program.**

Congress authorized a total of \$700 billion of TARP funds. However, Treasury could freely disburse only \$350 billion, and the president was required to return to Congress with a

report asking to disburse the remaining \$350 billion in funds, should they be necessary (EESA 2008, 3780).<sup>13</sup> Treasury allocated \$250 billion to the CPP from these appropriations.

This authority lasted until October 3, 2010, or two years after the date of the passage of EESA. After this point, Treasury was not able to make new commitments under TARP (Treasury OFS 2010, 14). The Dodd-Frank Wall Street Reform and Consumer Protection Act, passed on July 21, 2010, reduced this original commitment from \$700 billion to \$475 billion (Dodd-Frank 2010, 2133).

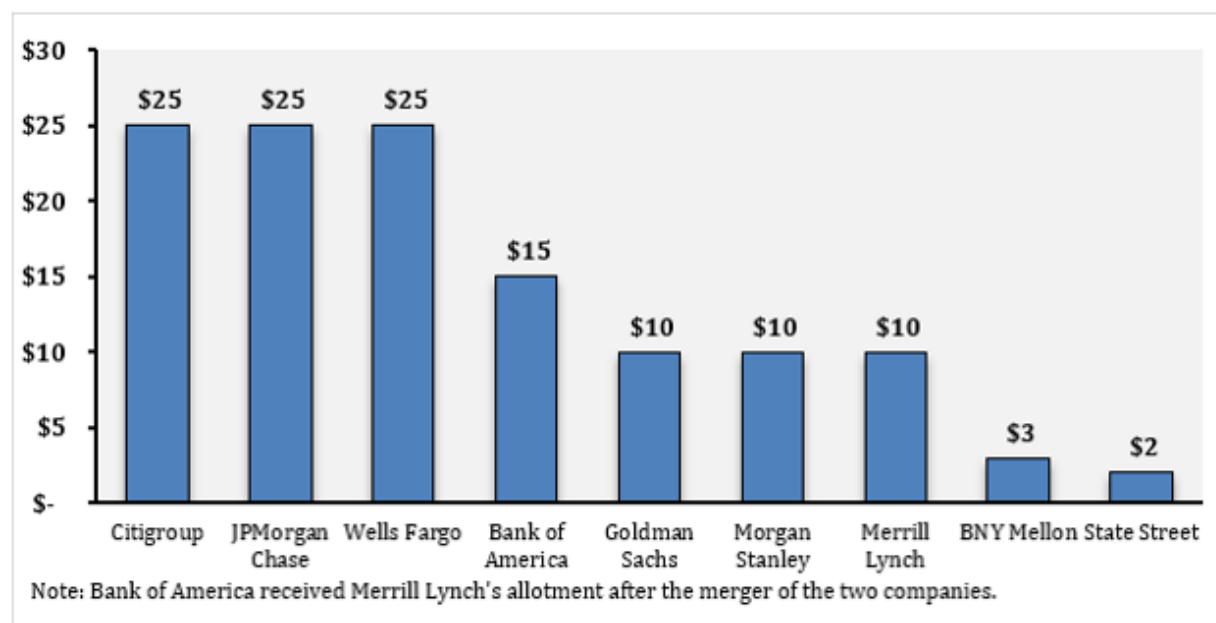
**7. Communication: Participation in the CPP was voluntary, but the Treasury convinced nine of the largest banks to participate in the program to encourage broader participation and stabilize the system.**

Prior to its official release of the details of the CPP, Paulson and a group of high-level government officials arranged a meeting on October 13, 2008, with the heads of nine of the largest US banks.<sup>14</sup> At the time, these institutions held about 55 percent of all US banking assets, and agreed in part to participate “to signal the program’s importance to the stability of the financial system” (GAO 2012, 7). They were selected because government officials viewed them as “systemically important” due to their size, scope of business, and interconnectedness in the broader economy (SIGTARP 2009b, 14–15). Although Treasury claimed in its initial announcement of the CPP that these institutions were healthy, other reports suggest that there were internal concerns about the health of the nine, and that protecting them would help protect a “system that was viewed as being vulnerable to collapse” (SIGTARP 2009b, 17). At the time, Chairman Bernanke even acknowledged that having one of these nine institutions fail “could rapidly cause the failure of others due to the high degree of interconnectedness of the systemically significant institutions” (SIGTARP 2009b, 17). The investments are shown in Figure 5.

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<sup>13</sup> The phrase “outstanding at any one time,” which implicitly allowed the government to re-use TARP funds, was removed with the passage of The Dodd-Frank Wall Street Reform and Consumer Protection Act in July of 2010. (See KDD No. 15 for more details.)

<sup>14</sup> The nine banks were JP Morgan, Wells Fargo, Bank of America, Citigroup, Goldman Sachs, Merrill Lynch, Morgan Stanley, Bank of New York Mellon, and State Street.

**Figure 5: Initial CPP Investments in Nine Large Financial Institutions (\$ billions)**

Source: Treasury, n.d.c

The chief executives of the nine institutions were brought into a meeting at 3:00PM on October 13 and were told to accept the capital “for the good of the country,” and in less than four hours all nine executives had pledged to take the investment (SIGTARP 2009b, 18–19). According to SIGTARP, while the injections were initially framed as voluntary, Treasury Secretary Paulson later stated that, “if necessary, the government would make clear to the nine executives that they had no choice but to take the money” (SIGTARP 2009b, 18–19). This was done because the government believed that having the institutions all take the capital together would mitigate potential stigmatization issues by eliminating the distinction between “weak” institutions that took the capital and stronger ones that did not need it (SIGTARP 2009b, 18–19). The involvement of these banks was lead a day before the CPP’s official announcement (Landler 2008).

**8. Eligible Institutions (1): Initially, public and non-public banks were eligible for the CPP, but in early 2009 Treasury made S-corporations and mutual banks also eligible.**

Institutions that wished to apply had to do so by applying through their primary federal banking regulator, and bank holding companies were required to apply to their supervisor as well as the regulator that monitored the largest depository institution it controlled. Public institutions had until 5 p.m. on November 14, 2008, to submit applications (Treasury 2008e). The details for privately held institutions (excluding S-corps and mutual banks) were released on November 17, and their application deadline was December 8, 2008 (Treasury 2008f). The names of approved publicly traded institutions would be released publicly unless they could “demonstrate the harm (for example, loss of competitive position, invasion of privacy) that would result from public release of information” (Treasury 2008a, 2–3).

Financial institutions applied to their primary federal regulator by submitting an application form, signed by the institution’s chief executive officer or an authorized designee. The form included the amount of preferred stock the institution requested; high-level financial data, such as the amount of authorized but unissued stock; a commitment that the management had reviewed and agreed with the terms of the investment agreement; a description of any conditions in the investment agreements that the bank could not meet; and a description of any mergers, acquisitions, or other capital raisings that were pending or under negotiation (FDIC/Fed/OCC/OTS, n.d.).

Treasury initially released the term sheet and documentation for publicly traded institutions and later published the details for private financial institutions, S-corporations, and mutual banks after expanding CPP eligibility. While non-public banks had their participation details released about a month after their public counterparts, S-corps and mutual banks did not get the necessary documents to participate until January and April of 2009, respectively (Treasury 2008f; Treasury 2009c; Treasury 2009h).<sup>15</sup> Treasury also released sets of Frequently Asked Questions (FAQs) for each of the types of institutions eligible for the CPP, which primarily addressed concerns around institutional requirements, Tier-1 or Tier-2 eligibility of government capital (depending on whether it was preferred stock or subordinated debt), as well as the publicity of individual participants (Treasury 2008a; Treasury 2008d; Treasury 2009a; Treasury 2009f).

According to the term sheets disseminated by Treasury at the outset of the program, a Qualifying Financial Institution (QFI), could not be a foreign bank, foreign savings association, foreign Bank Holding Company (BHC), or foreign Savings and Loan Holding Company (SHLC). S-corporations and mutual banks were originally not included but would be made eligible in early 2009. Figure 6 describes the legal definitions of QFIs.

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<sup>15</sup> Mutual banks are different from commercial banks in that they do not have common shareholders. They are owned by their members, that is, their depositors, who share in the profits. As of the end of 2018, the largest mutual institution holds just over \$14 billion in assets, and the average mutual institution holds approximately \$593 million in assets (FDIC 2021a).

**Figure 6: Qualified Financial Institution (QFI) definitions**

<b>Institution Type</b>	<b>Qualified Institutions<sup>16</sup></b>	<b>Deadline</b>
Publicly Traded <sup>17</sup>	1) Any US bank or savings association not controlled by a BHC or SLHC. 2) Any “top-tier” US BHC. 3) Any “top-tier” US SLHC that solely or predominantly engages in activities permitted for financial holding companies. 4) Any US bank or savings association US SLHC that does not solely or predominantly engage in activities permitted for financial holding companies.	November 14, 2008
Private/Nonpublic	1) Any “top-tier” BHC or SLHC that solely or predominantly engages in activities permitted for financial holding companies and are not publicly traded. 2) US banks or savings associations that are neither publicly traded nor controlled by a BHC or SLHC. 3) US banks or savings associations that are not publicly traded and controlled by a nonpublic SHLC that that does not solely or predominantly engage in activities permitted for financial holding companies.	December 8, 2008
S-Corporations	1) Any “top-tier” BHC or SLHC that solely or predominantly engages in activities permitted for financial holding companies. 2) US banks or savings associations that are neither publicly traded nor controlled by a BHC or SLHC. 3) A US bank or savings association that is an S-corp subsidiary of an S-corp BHC or SLHC that does not solely or predominantly engage in activities that are permitted for financial holding companies.	February 13, 2009
Mutual Banks	1) Any US bank or savings association “organized in mutual form” and not controlled by a BHC or SLHC.	May 14, 2009

Source: Treasury 2008b; Treasury 2008c; Treasury 2008e; Treasury 2008f; Treasury 2009b; Treasury 2009c; Treasury 2009g; Treasury 2009h.

<sup>16</sup> BHC stands for Bank Holding Company. SLHC stands for Savings and Loan Holding Company.

<sup>17</sup> Publicly traded companies are companies 1) “whose securities are traded on a national securities exchange and 2) required to file, under the federal securities laws, period reports such as the annual (Form 10-K) and quarterly (Form 10-Q) reports with either the Securities and Exchange Commission or its primary federal bank regulator” (Treasury 2008e, 1).



**9. Eligible Institutions (2): Federal regulators determined an institution's eligibility for the CPP and made recommendations to the Treasury, which was responsible for final approval.**

In reviewing applications, primary federal regulators considered supervisory and other information. Treasury worked with the regulators to establish a common and streamlined applications process. Under this process, the primary federal regulator—or, in some cases, a council of representatives from each federal regulator—supervised an institution. If a bank had strong Capital adequacy, Assets, Management capability, Earnings, Liquidity and Sensitivity (CAMELS) ratings and its application was endorsed by the primary federal regulator then its application was sent directly to the TARP Investment Committee (Massad and Kashkari 2020, 399-400). For these banks, the Investment Committee would decide whether to recommend the bank to the Assistant Secretary of financial stability (Massad and Kashkari 2020, 400). Banks that did not receive this “presumptive yes” recommendation would have their applications sent to the CPP Council, which was comprised of representatives of all the bank regulators (Massad and Kashkari 2020, 400). The Council would then review these applications and make recommendations for the TARP Investment Committee, who would then make the final recommendations to the Assistant Secretary (Massad and Kashkari 2020, 400). Applications that were likely to be denied were given back to the primary regulator, who would encourage the bank to withdraw its application (Massad and Kashkari 2020, 400).

On receiving preliminary approval from the Assistant Secretary, applicants had 30 days to submit the investment agreements and related documentation (FSOB 2008, 7–8).

**Figure 7: Federal Banking Agency (FBA) Classification for QFIs participating in the CPP**

<b>QFI Classification</b>	<b>Standards for Classification (one of the following)</b>
Category 1 – Presumptive Federal Banking Agency Approval (“Presumptive Yes”)	1) QFIs with a Composite CAMELS/RFI rating of “1.” 2) QFIs with a Composite CAMELS/RFI rating of “2” and for which the most recent examination rating is not more than six months old. The most recent exam should be conducted or confirmed by the Primary Federal Regulator (PFR). 3) QFIs with a composite rating of “2” or “3” and acceptable performance ratios.
Category 2 – Presumptive CPP Council Review	1) QFIs with a Composite CAMELS/RFI rating of “2” and for which the most recent examination rating (as determined or confirmed by the PFR) is more than six months old and showed overall unacceptable performance ratios. 2) QFIs with a Composite CAMELS/RFI rating of “3” with overall unacceptable performance ratios.
Category 3 – Presumptive FBA Denial	1) QFIs with a Composite CAMELS/RFI rating of “4.” 2) QFIs with a Composite CAMELS/RFI rating of “5”

Source: SIGTARP 2009a, 26.

**10. Capital Characteristics: Initially, institutions would issue perpetual nonvoting senior preferred shares to Treasury, with warrants to purchase additional common stock. S-corporations and mutual banks issued subordinated debt.**

In its first term sheet, released on October 14, 2008, Treasury specified that the capital that it purchased had to have the following characteristics:

**Figure 8: Capital Characteristics for types of QFIs**

<b>Institution Type</b>	<b>Type of Capital</b>	<b>Regulatory Capital Status</b>	<b>Seniority</b>	<b>Dividends</b>
Publicly Traded	Perpetual Preferred Stock	Tier 1	Senior to all common, pari passu with preferred unless specified	5% (<5 years) 9% (>5 years)
Private/ Nonpublic	Perpetual Preferred Stock	Tier 1	Senior to all common, pari passu with preferred unless specified	5% (<5 years) 9% (>5 years)
S-Corporations	30-Year Subordinated Debt	Tier 2, Tier 1 if at a holding company	Senior to all equity, subordinated to other obligations and depositors <sup>18</sup>	7.7% (<5 years) 13.8% (>5 years) <sup>19</sup>
Mutual Banks	30-Year Subordinated Debt	Tier 2	Senior to all equity, subordinated to other obligations and depositors	7.7% (<5 years) 13.8% (>5 years)

*Sources: Treasury 2008b; Treasury 2008e; Treasury 2009b; Treasury 2009g.*

As mentioned in the Evaluation section, CPP's effect on bank lending was a popular method of examining its overall impact. Treasury Secretary Paulson even stated that "The whole reason for designing the program was so many banks would take it, would have the capital, and that would lead to lending. That was the whole purpose" (FCIC 2011, 375). Despite this assertion, Treasury did not, in the term sheet or subsequent regulation, require banks to use this capital for lending purposes. Treasury began publishing a variety of lending reports and data to help track new lending after an institution had received CPP funds. Treasury explained that "lending is clearly one of the most important ways CPP recipients

<sup>18</sup> For holding companies that were issuing subordinated debt to Treasury for itself or a subsidiary, the debt was required to be "subordinated to senior indebtedness of the [institution]" (Treasury 2009b, 2).

<sup>19</sup> For S-corporations that were holding companies and qualified for the CPP, interest could be deferred for up to 20 quarters, but any unpaid interest would cumulate and compound. If the holding company opted to defer interest payments, then they were not allowed to pay dividends on any equity until the deferral ended (Treasury 2009b, 2).

can deploy this additional capital, as it affects Americans directly” (Treasury 2009e, 1). Treasury published individual bank lending reports as well as “monthly lending and intermediation snapshots,” which were targeted at the largest banks and done so Treasury could provide public analysis of the situation by targeting a section of banks that represented the majority (about 75%) of bank holding company assets in the country (Treasury 2009e, 2).

### ***Dividends***

All capital issued to Treasury was sold at \$1,000 per instrument.<sup>20</sup> If necessary, Treasury could agree to purchase the senior preferred shares with higher liquidation preference per share to accommodate the QFI’s available authorized preferred shares; in this scenario, Treasury could make the QFI appoint a depository to hold the senior preferred shares and issue depository receipts (Treasury 2008b; Treasury 2008e). Dividends and interest payments were cumulative, paid quarterly, and at rates varying from 5 to 7.7 percent, depending on the type of institution and how long it had held the capital for. All rates were equal on a normalized tax basis. After five years, step-up clauses in the term sheets would kick in, increasing the dividend or interest rates as high as 13.8 percent, depending on what category the QFI was in.<sup>21</sup> For institutions that took preferred equity and were not controlled by a holding company, their dividends were non-cumulative (Treasury 2008b; Treasury 2008e).

### ***Dividend Restrictions***

For all classes of QFIs, dividends on junior or equivalently ranked equities were prohibited from being paid out or declared while the QFI still had Treasury capital outstanding. QFIs were also subject to certain restrictions on repurchases and redemptions, as well (discussed in KDD No. 11). Additionally, any increases in common dividends were required to be approved by Treasury so long as the government’s investment remained outstanding, or until three years had passed. After the third anniversary of the capital injection, publicly traded QFIs could raise common-stock dividends by any amount without Treasury’s consent, while the other three types of QFIs could only do so to a maximum of three percent. If an institution still had Treasury capital outstanding after 10 years, it was allowed to raise common-stock dividends by any amount without approval (Treasury 2008b).

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<sup>20</sup> Preferred stock had a liquidation preference of \$1,000, and subordinated debt was sold with a par value of \$1,000 (Treasury 2008b; Treasury 2008e; Treasury 2009b; Treasury 2009g).

<sup>21</sup> S-corporations and mutual banks paid 7.7 percent in quarterly interest for the first five years of holding Treasury capital, then 13.8 past five years. However, the after-tax effective rates of their interest payments were five and nine percent, respectively. Thus, they paid the same effective amount in interest as publicly traded and privately owned QFIs (Treasury 2009b, 2).

## **Warrants**

Treasury also received 10-year warrants to purchase common stock, additional preferred shares, or additional subordinated debt depending on the type of QFI it had an agreement with. The terms of these warrants are summarized in Figure 9. The warrants for both publicly traded QFIs and mutual banks included Reduction clauses, which stated that, if the QFI had not paid back Treasury's investment by the end of 2009, then the number of securities underlying the warrants would be reduced to half of the total amount of Treasury's initial investment (Treasury 2008b, 5; Treasury 2009g, 5).

For publicly traded institutions, the warrants could also be exchanged for "senior term debt or another economic instrument or security of the QFI such that [Treasury] is appropriately compensated for the value of the warrant..." (Treasury 2008b, 5). Treasury had the option to make this substitution if the QFI ceased to be publicly traded, or if a shareholder vote to issue enough common stock to cover the exercising of the warrant had not passed within 18 months (Treasury 2008b, 5).

In the fourth quarter of 2008, the Treasury immediately exercised all warrants for preferred shares in each privately-held QFI that received a CPP investment. Treasury did not require banks classified as community development financial institutions to issue warrants as a condition for a CPP investment (FSOB 2008, 9).

**Figure 9: Characteristics of CPP Warrant by Type of QFI**

<b>Institution Type</b>	<b>Stock Obtained</b>	<b>Exercise Price</b>	<b>Voting</b>	<b>Term</b>
Publicly Traded	Purchase common stock equivalent to 15% of the market price of the Preferred stock on the date of investment.	Market price <sup>22</sup> of common stock on date of Preferred investment (20-day trailing avg.).	Nonvoting common stock, if exercised.	10 years.
Private/Nonpublic	Purchase net shares of preferred stock with liquidation preference equal to 5% of the Preferred amount purchased on the date of investment.	\$0.01 per share, "or such greater amount as the charter may require..."	Same terms as original preferred. Nonvoting and ability to elect directors if six dividend payments are missed. 9% dividends per annum.	10 years, but Treasury intended to immediately exercise.
S-Corporations and Mutual Banks	Purchase a "number of additional Senior Securities" equal to 5% of the amount purchased on the date of investment.	\$0.01 per note representing a Warrant Security.	Same terms as original Senior Securities. Nonvoting and ability to elect directors if six dividend payments are missed. 13.8% dividends per annum. <sup>23</sup>	10 years, but Treasury intended to immediately exercise.

Sources: Treasury 2008b; Treasury 2008e; Treasury 2009b; Treasury 2009g.

### ***Voting Rights.***

In both cases of preferred stock or subordinated debt, Treasury would have no voting rights other than those in instances where i) instruments more senior to their own were being issued, ii) the rights of their equity or debt were being amended, or iii) a merger, exchange, or similar transaction took place that would affect the rights of their investment (Treasury 2008b; Treasury 2008e; Treasury 2009b; Treasury 2009g).

<sup>22</sup> Treasury set the initial exercise price of the warrants equal to the market price of the common stock at the date of the original investment (calculated on a 20-trading-day trailing average) (Treasury 2008b, 4). If the QFI failed to achieve its stockholders' consent, then Treasury would reduce the exercise price by 15 percent of the original price every six months following the original investment, with a limit of 45 percent of the original exercise price (Treasury 2008b, 4).

<sup>23</sup> The Senior Securities issued to Treasury had an interest rate of 7.7% for the first five years, then 13.8% after. These rates, while higher than the dividends that public and private banks paid before and after five years, respectively, equated to 5% and 9%, assuming a tax rate of 35% (Treasury 2009g, 2).

**11. Other Conditions: CPP agreements did not specifically outline debt-restructuring agreements. However, outstanding CPP investments were restructured if a participant went into bankruptcy or receivership.**

As of October 2019, 34 institutions that received CPP investments were either undergoing or had gone into bankruptcy or were in receivership. Institutions in receivership would have their assets taken over and subsequently marketed and sold to make their creditors whole (FDIC 2014, 26). When referencing this category of institutions, the GAO reported that, “When [CPP] investments are restructured, Treasury receives cash or other securities, which generally can be sold more easily than preferred stock, but Treasury’s investments are sometimes sold at a discount” (GAO 2016, 6). For a small subset of CPP institutions, Treasury “would determine whether it would exchange or restructure the Government’s shares to facilitate a merger or acquisition of the TARP bank and whether or not it would take a discount,” though this was done on an ad-hoc basis (SIGTARP 2015, 12).

***Repurchases and Redemptions***

In effect, the government’s investment subordinated all other holders of equity, though holders of senior and subordinated debt still ranked senior to the senior preferred equity that the government held. Redemption of Treasury’s investment in all types of QFIs except for mutual banks required a qualified equity offering (or qualified securities offering in the case of subordinated debt) in which the institution raises additional Tier-1 or Tier-2 capital in private markets of at least 25% of the original issue price of Treasury’s investment. For mutual banks, redemptions could be done at any time, provided they obtained approval from their federal banking regulator (Treasury 2008b; Treasury 2008e; Treasury 2009b; Treasury 2009g).

The term sheets also required QFIs that issued preferred equity to obtain Treasury approval for any repurchasing of shares that were either senior or non-government. QFIs that issued subordinated debt had to seek Treasury’s approval for any repurchases of equity. However, if a QFI still had CPP investments outstanding after ten years, then they were no longer required to obtain Treasury approval for repurchases or undergo a qualified equity offering for redemptions (in the cases of publicly traded and nonpublic QFIs). Publicly traded institutions were only required to wait three years before these restrictions were lifted (Treasury 2008b; Treasury 2008e; Treasury 2009b; Treasury 2009g).

### ***CDCI and SBLF Conversion***

The Community Development Capital Initiative (CDCI), which was created on February 3, 2010, allowed certain CPP institutions to convert their CPP capital into lower-cost CDCI capital (Treasury 2010; Webel 2013, 15–16). In order to be eligible for this conversion, CPP institutions needed Community Development Financial Institution (CDFI) certification. CDFIs are financial institutions that seek to generally expand economic opportunities in underserved and low-income areas (Treasury 2012b; CDFI Fund, n.d.). If a QFI was accepted, their current CPP capital would be exchanged, and they would be expected to issue additional shares up to a maximum of five percent of their risk-weighted assets (Treasury 2012b). 28 institutions had \$362 million in CPP investments refinanced through the CDCI.

The Small Business Lending Fund (SBLF), established on September 27, 2010, as part of the Small Business Jobs Act, was a program that “encourage[d] lending to small businesses by providing Tier-1 capital to qualifying community banks with assets of less than \$10 billion (Treasury 2011; Treasury, n.d.b). CPP institutions that met that requirement could apply to the SBLF to have their Treasury capital refinanced provided that they were 1) not on the FDIC’s problem-bank list and had not been on that list for the last 90 days, and 2) had missed a maximum of one dividend payment for CPP or CDCI preferred shares (Treasury, n.d.b, 8).

While the terms of the SBLF in many ways mirrored the CPP and CDCI, the dividend structure was tied to the amount of small business lending a given SBLF participant did. The more a participant’s small business lending increased after receiving SBLF capital, the lower its dividends would be (Treasury, n.d.b, 4).<sup>24</sup> This incentive structure was amplified by an annual “lending incentive fee” of two percent of the total amount of preferred stock outstanding that would trigger if the institution did not increase its small business lending relative to its baseline amount after two and a half years in the program. The fee would apply starting on the fifth anniversary of the original CPP investment and each subsequent quarter (Treasury, n.d.b, 4–5). Because the SBLF was not a TARP program, many TARP restrictions, such as those on executive compensation, did not apply (Massad and Kashkari 2020, 392–393). This was particularly appealing to institutions eligible for the SBLF, as these restrictions did not vary based on the size of the bank and thus disproportionately impacted smaller banks with senior executives and officers who were not as generously paid (Massad and Kashkari 2020, 392–393). For these firms, the expanded restrictions “reached well down the organizational chart” and may have contributed to a lack of participation in the program or quicker repayment of the funds by smaller institutions (Massad and Kashkari 2020, 392–393). The SBLF was an alternative with less onerous restrictions, provided that a bank could continue to increase its lending (Massad and Kashkari 2020, 393). SBLF conversions were quite popular, with a total of 137 QFIs

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<sup>24</sup> There were still step-up clauses present in the CPP/CDCI to SBLF term sheet, however. After the first nine quarters, dividend rates would increase to a maximum of seven percent (from five percent for the first nine quarters). After four-and-a-half years, all dividends, irrespective of lenders’ performance, would increase to nine percent (Treasury, n.d.b, 4).

refinancing approximately \$2.2 billion in Treasury capital through the SBLF through November 1, 2019 (Treasury 2019b, 1).

**12. Fate of the Board of Directors: Treasury had the ability to appoint two directors to institutions that did not pay interest or dividends for six quarters.**

If dividends were not paid for six quarters (consecutive or not) then Treasury would have the option to elect two directors, with this right expiring after dividends had been paid for four consecutive quarters (Treasury 2008b, 3).<sup>25</sup> After Treasury had received these backlogged payments, institutions were under no obligation to keep the government-appointed directors, but could choose to do so (Treasury 2012a). If five dividend payments were missed, however, Treasury would request permission from the institution to send observers “to help determine how to best exercise its contractual rights to nominate up to two directors” (Treasury 2012a). If multiple institutions required directors to be nominated, Treasury prioritized them based on the size of its investment, with large institutions receiving attention first. Specifically, they stated that, “Treasury [would] focus first on institutions where [its] investment exceeds \$25 million” (Treasury 2012a).

**13. Executive Compensation: Treasury included executive compensation and corporation governance restrictions modeled after those originally passed in EESA in its agreements with applicants.**

Section 111 of EESA outlines executive compensation restrictions and corporate governance standards. Specifically, Section 111(b) describes these standards as they apply to direct purchases or investments in financial institutions. Section 111(b)(2) specified that there would be:

- “limits on compensation that exclude incentives for senior executive officers of a financial institution to take unnecessary and excessive risks that threaten the value of the financial institution during the period that the Secretary holds an equity or debt position in the financial institution;
- a provision for the recovery by the financial institution of any bonus or incentive compensation paid to a senior executive officer based on statements of earnings, gains, or other criteria that are later proven to be materially inaccurate; and
- a prohibition on the financial institution making any golden parachute payment to its senior executive officer during the period that the Secretary holds an equity or debt position in the financial institution” (EESA 2008, 3777).

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<sup>25</sup> For non-publicly traded applicants, the right to elect directors ended when dividends had been paid for four consecutive periods (for non-cumulative preferred) or when all prior dividends had been paid (for cumulative preferred) (Treasury 2008e, 4). For S-corps and mutual banks, the right to elect directors ended when interest was paid for all prior missed quarters (Treasury 2009b, 4; Treasury 2009g, 3).



Senior executive officers (SEOs) were defined by EESA as the top-five highest paid executives of companies that took TARP money (EESA 2008, 3777). Treasury passed several interim final rules that provided additional guidance on executive compensation post-EESA, as well (Treasury, n.d.a). Treasury passed one of these rules on October 20, 2008, which gave additional clarification to the three rules outlined in Section 111 of EESA with respect to CPP investments.

The rule required that a financial institution accepting CPP funds had to identify features that may “lead SEOs to take unnecessary and excessive risks that threaten the value of the financial institution” and ensure that they are not encouraged to take these risks. Compensation committees had a maximum of 90 days to make these reviews, and were required to meet at least once a year with senior risk officers to discuss these policies (Kashkari 2008b, 7–8). The regulation also required that any bonuses and incentive compensation paid to SEOs were subject to a clawback if they were earned through inaccurate financial statements or “any other materially inaccurate performance metric criteria” (Kashkari 2008b, 9). For the third and final provision under Section 111(b)(2), golden parachutes were defined as “any payment in the nature of compensation to (or for the benefit of) a SEO made on account of an applicable severance from employment to the extent that the aggregate present value...equals or exceeds an amount equal to three times the SEO’s base amount” (Kashkari 2008b, 9). The restrictions were narrow, as the Bush-era Treasury team believed that additional restrictions might have discouraged participation, and they were not the purpose of the program (Massad and Kashkari 2020, 392). Treasury officials Neel Kashkari and Tim Massad later recounted, “We viewed our highest priority as preventing a financial collapse, even if that meant we would take substantial criticism for our actions” (Massad and Kashkari 2020, 392-393).

Treasury announced significantly harsher restrictions on executive compensation on February 4, 2009, by distinguishing between institutions that required “exceptional assistance,” such as AIG, and Bank of America and Citigroup, and institutions participating in “generally available capital access program[s],” such as the CPP (Treasury 2009d). Institutions that received exceptional assistance faced even greater restrictions, such as a significant increase in golden parachute prohibitions (top 10 SEOs) and restrictions (one-year salary for next 25 highest-paid employees), as well as more restrictive limits to SEO compensation.

For generally available capital access programs, SEO compensation was further limited to \$500,000 in total yearly compensation, though this could be waived with “full public disclosure and [a] shareholder vote” (Treasury 2009d). The clawback provisions also applied to the next twenty highest paid employees, in addition to the top five. Golden parachutes were further restricted to one year’s compensation, instead of three. The “exceptional assistance” distinction was the only one that Treasury made, which meant that the restrictions applied to all banks participating in the CPP regardless of size (Treasury 2009d). ARRA further expanded the restrictions and required the Secretary of the Treasury to retroactively analyze the bonuses and retention awards paid to each TARP recipient’s top-25 most highly compensated employees to determine whether the payments were inconsistent with the purpose of EESA and TARP or were contrary to the public interest

(ARRA 2009). If a TARP recipient was found to be in violation of this standard, then the Secretary would negotiate with them “for appropriate reimbursements to the federal government” (ARRA 2009). The Treasury Secretary delegated the responsibility for this “Look Back” review to the Special Master for TARP executive compensation (Feinberg 2010, 2). The decision to significantly increase these restrictions across the board may have contributed to both a lack of participation at smaller banks and quicker repayment of TARP investments—regardless of whether the institution had replacement investments lined up (Massad and Kashkari 2020, 392-393).

Treasury published their last Interim Final Rule on June 10, 2009. The final rule limited bonuses paid to CEOs to one-third of total compensation, with the number of CEOs affected by this limit increasing based on the amount of CPP aid given.<sup>26</sup> The \$500,000 limit specified in the February guidance would be amended to “link compensation to long-term firm value” by allowing additional compensation over \$500,000, providing that this was in the form of long-term, restricted stock (Treasury 2009i). The final rule also included the creation of a Special Master for TARP Executive Compensation, and further accountability for the Board of Directors of TARP recipients (Treasury 2009i).<sup>27</sup>

Kenneth Feinberg, who was appointed as the Special Master, was responsible for reviewing compensation plans at firms receiving “exceptional” assistance in such a way that “maximize(s) long-term shareholder value and protect(s) taxpayer interests” (Treasury 2009i).<sup>28</sup> This review was done with six factors in mind:

- **Risk.** Compensation plans generally should not encourage CEOs to take unnecessary risks. This includes incentives that reward employees for short-term or temporary increases in value or performance.
- **Taxpayer return.** Compensation structures should reflect the need for the entity to remain competitive and repay TARP obligations.
- **Appropriate allocation.** The *composition* of the compensation should be appropriately allocated with respect to the amount that is provided in salary, equity, executive pensions, et cetera.
- **Performance-based compensation.** An “appropriate portion” of compensation should be performance-based. This should be determined through specific

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<sup>26</sup> Institutions that received over \$500 million in assistance had their top-five highest paid executives, as well as the 20 next highest paid, affected by the one-third of total compensation limit.

<sup>27</sup> A number of the provisions laid out in the June 10 Interim Final Rule, such as the one-third limit on total compensation, as well as the number of CEOs and employees affected by executive compensation restrictions based on total TARP aid received, were originally passed via Section 111 of the American Recovery and Reinvestment Act of 2009 (ARRA). The June 10 Interim Final Rule implemented and clarified these restrictions.

<sup>28</sup> In addition to approving compensation agreements, the Special Master was also responsible for reviewing compensation that was paid prior to the passage of ARRA, as well as negotiating reimbursements for these where relevant (Treasury 2009i).

metrics that encompass individual performance as well as company-wide or specific business unit performance.

- **Comparable structures and payments.** Compensation structures should generally be consistent with structures for persons in similar roles at similar entities, including those that are similarly financially distressed.
- **Employee contribution to TARP recipient value.** The compensation plan should reflect the value that the current or prospective contributions of the employee is providing to the TARP recipient (Feinberg 2010, 4-5).

To the extent that two or more of these principles may be inconsistent with one another when evaluating a specific compensation plan, the Special Master was afforded discretion in determining the relevant weight of these conflicting principles (Feinberg 2010, 5).

Treasury specified that institutions that received exceptional assistance included AIG, Citigroup, Bank of America, as well as automakers such as GM and Chrysler (Treasury 2009i). Institutions that participated in the CPP did not fall under this category (Treasury 2009i).

**14. Exit Strategy (1): The original CPP terms included three-year prohibitions on repayments, which were removed by ARRA in 2009, but Treasury did not have an explicit exit strategy. Later, Treasury began using auctions to exit its investment under CPP in May of 2012.**

The preferred stock issued to Treasury by banks (both public and non-public) was perpetual life, whereas the subordinated debt issued to them from S-corps and mutual banks had a 30-year term (Treasury 2008b, 2; Treasury 2008e, 2; Treasury 2009b, 2; Treasury 2009g, 1). However, the initial terms for CPP preferred stock only allowed repayment for the first three years if CPP capital was replaced by private capital, as the Bush-era Treasury wanted the financial system to fully recover before banks began repaying the loans (Massad and Kashkari 2020, 408).

Ultimately, these restrictions were removed with the passage of ARRA. The Obama-era Treasury team, led by Tim Geithner, believed that making institutions “investable” again by convincing private investors that it was safe to return to the market, was the correct approach (Clark, Kabaker, and Sachs 2020, 257). Simply put, the Geithner-era Treasury focused on restoring confidence (Clark, Kabaker, and Sachs 2020, 257). To do this, the Treasury released a Financial Stability Plan on February 10, 2009, designed to “address the uncertainty, troubled assets and capital constraints of our financial institutions as well as the frozen secondary markets that have been the source of around half of our lending for everything from small business loans to auto loans” (Geithner 2009a). The most significant component was a comprehensive, public stress test for banking institutions (including holding companies) with over \$100 billion in assets. The Plan also outlined a comprehensive government capital backstop—called the Capital Assistance Program (CAP)—to increase confidence and act as a bridge to private capital (Geithner 2009a;

Treasury 2009l). (Further details on the SCAP and CAP programs can be found in Lawson [2021].<sup>29</sup>)

Though Treasury did not specify a timeline for CPP, the American Reinvestment and Recovery Act (ARRA), passed on February 17, 2009, enabled TARP recipients to repay their CPP funds earlier than what was permitted by the CPP's original terms. Initially, recipients could not repay Treasury without first completing a qualified equity offering within a specified minimum period (Treasury 2012a). In contrast, ARRA section 7001 required Treasury<sup>30</sup> to permit a recipient to repay the CPP funds: (1) upon the participant's request and (2) subject to primary regulator's consultation and approval—irrespective of a completed qualified equity offering or the waiting period. Otherwise, all the previous terms and conditions for redemption still applied, as described in KDD No. 11.

In a letter written to Congress in December 2009, Treasury Secretary Geithner stated that the CPP “is effectively closed,” and that the only commitments for capital injections would be “to provide capital to small and community banks, which are important sources of credit for small business” (Geithner 2009b). At the same time, Geithner reiterated that, despite limiting its new commitments, the government should maintain an “adequate financial stability reserve” in case conditions further worsened (Geithner 2009b). In terms of CPP investments, Geithner stated that they would be managing them, “in a commercial manner and [would] dispose of them as soon as practicable” (Geithner 2009b).

Section 120 of EESA stated that the authority to purchase troubled assets (and by extension, inject capital), would expire on December 31, 2009 (EESA 2008, 3788). However, the Secretary of the Treasury could extend this authority up through two years from the enactment of EESA (EESA 2008, 3788). On December 9, 2009, Treasury Secretary Tim Geithner made this extension to “enable us to continue to implement programs that address housing markets and the needs of small businesses, and to maintain the capacity to respond to unforeseen threats...” (Geithner 2009b). This authority expired on October 3, 2010, at which point Treasury began the wind-down of its TARP investment programs (Treasury OFS 2013, 4).

From this point on, CPP was largely in a wind-down phase, with 649 of 707 institutions remaining in the program at the end of 2009, and the vast majority of these were institutions with less than \$100 million in assets (SIGTARP 2015, 11). At the beginning of 2010, 74 CPP institutions had already missed dividend or interest payments. This number

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<sup>29</sup> See “The U.S. Supervisory Capital Assessment Program (SCAP) and Capital Assistance Program (CAP)” in *The Journal of Financial Crises*, Volume 3, Issue 3.

<sup>30</sup> This portion of the ARRA amended section 111 of EESA. Subsection (g), titled “No Impediment to Withdrawal by TARP Recipients,” read thereafter: “Subject to consultation with the appropriate Federal banking agency... the Secretary shall permit a TARP recipient to repay any assistance previously provided under the TARP to such financial institution, without regard to whether the financial institution has replaced such funds from any other source or to any waiting period, and when such assistance is repaid, the Secretary shall liquidate warrants associated with such assistance at the current market price.”

would continue to grow as the program went on, despite the program approaching profitability (SIGTARP 2015, 11).

Generally, the Treasury wished to exit its TARP investments as quickly as possible, subject to the following principles:

- “Promote taxpayer investments and maximize overall investment returns within competing constraints;
- Promote financial stability and prevent disruption of financial markets and the economy;
- Bolster market confidence to increase private capital investments; and
- Dispose of the investments as soon as practicable, in a timely and orderly manner that minimizes the impact on the market and economy” (Massad and Kashkari 2020, 409-410).

On May 3, 2012, Treasury announced a strategy to more quickly exit its investment from the 343 remaining banks (Massad 2012). Despite nearly half of the total number of institutions still involved in the program, Assistant Secretary for Financial Stability Tim Massad stated that, of the \$245 billion that they had invested in the capital structure of the banking system, Treasury had recovered \$264 billion.<sup>31</sup> Most of the remaining institutions were “smaller, community lenders” that were having a more difficult time attracting private capital. Massad discussed three options that Treasury was planning to exit its involvement:

- Repayments. This was the most common method in which institutions exited the CPP (Treasury 2013, 7). According to Treasury, the majority of the remaining CPP institutions were unlikely to exit the program in this way. Treasury even stated, “In order for the investment to be considered high-quality capital for regulatory purposes, we could not require a bank to repay Treasury on a specific timeline” (Massad 2012).
- Restructurings. As discussed above, a “handful” of participants had already approached Treasury about restructuring their investment, usually within the context of a merger or plan to raise private capital. Treasury only agreed to these if “the terms represent[ed] the best deal for taxpayers under the circumstances.”
- Auctions and sales. Treasury had already auctioned off some of the warrants associated with its investments for a profit and had conducted a test auction of preferred stock in March of 2012. The auction, which received “eight times as many bids as the number of securities offered,” suggested that this was a

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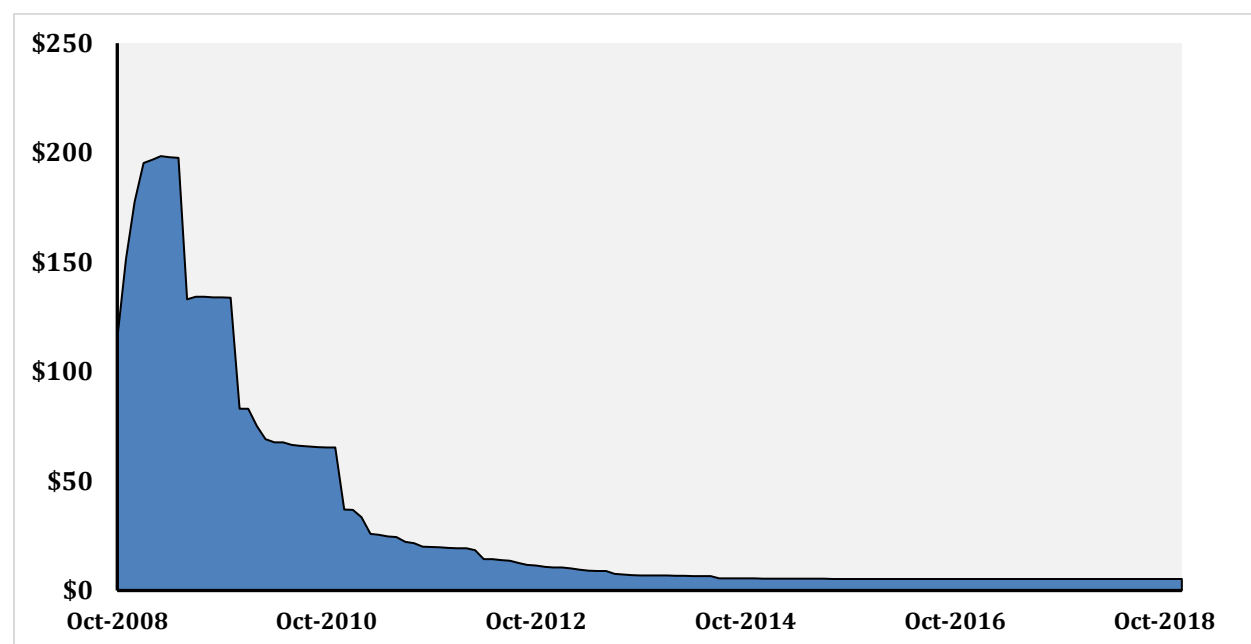
<sup>31</sup> The \$245 billion figure includes \$40 billion invested into both Citigroup (\$20 billion) and Bank of America (\$20 billion) as part of the Targeted Investment Program (TIP).

beneficial way for the government to exit as it would attract private capital to replace their investment (Massad 2012).

The auctions ultimately had mixed results, with the vast majority (70%) of auctioned CPP investments being bought by large, private fund investors that were “unknown to the banks and not from the banks’ communities” (SIGTARP 2015, 14–15). SIGTARP raised some concerns about how some buyers may have bought these shares at steep discounts ranking from 1% to 90%, accusing others of flipping shares back to the banks at a premium to what Treasury received and citing a few cases where smaller institutions were apparently unable to, or unsuccessful at, repurchasing their own shares at auction (SIGTARP 2015, 17). However, one former Treasury official highlighted that the fact there was flipping does not necessarily undermine the results of the auction. The same commentator emphasized that Treasury recovered \$3 billion from auctions—a small portion of the total \$227 billion recovered from all CPP investments. Treasury officials at the time kept non-public information tightly concealed, worked to not prematurely disclose a sale or auction to avoid market participants “front running,” or trading against them, and worked with bank regulators to ensure that regulatory ownership restrictions were observed (Massad and Kashkari 2020, 410-414).

As of October 2019, only two institutions have about \$17.4 million in CPP investments outstanding (Treasury 2019b, 1). Of the \$204.9 billion that Treasury invested, they obtained approximately \$226.4 billion in repayments, dividend payments, and interest income for a profit of about \$27.1 billion (Treasury 2019a). See Figure 4 for a complete breakdown of this calculation.

**Figure 10: CPP Funds Outstanding (\$ billions)**



Source: Treasury, n.d.c.

### **15. Exit Strategy (2): Treasury disposed of CPP warrants through exercise (non-public QFIs) or independent valuation and sale (public QFIs).**

For privately-held QFIs, Treasury received warrants to purchase preferred shares or debt and had exercised all of them upon closing the initial investment by the fourth quarter of 2008 (Treasury 2009j). For publicly traded QFIs, Treasury received warrants to purchase their common stock; when publicly traded QFIs exited the CPP by repurchasing their shares, they also had the contractual right<sup>32</sup> to repurchase the warrants at fair market value. According to a former Treasury official, Treasury's sale of CPP warrants was important for returning profits to taxpayers because the derivative securities offered long-term equity upside exposure on the public's CPP investments. Balancing taxpayers' interests with the need to exit its CPP positions "as quickly as practicable," Treasury followed specific protocol for the valuation, negotiation, and sale of its CPP warrants (Treasury 2009j).

Broadly, the disposition process went as follows: (1) within 15 days of full repayment, the bank communicated its estimate of fair market value to Treasury; (2) within 10 days of receipt, Treasury separately estimated fair market value and accepted or objected to the bank's estimation; (3) if Treasury objected and could not agree with the bank's estimation, each party hired an independent appraiser to conduct separate valuations of fair market value, and the appraisers attempted to agree on fair market value; (4) if the appraisers did not agree, a third appraiser would be hired, and fair market value would be a "composite valuation" of the three independent appraisals (Treasury 2009j).

To determine the fair market value of the options contracts, Treasury officials relied on three valuation approaches: market prices, internal financial modeling, and independent assessments from external financial agents (Treasury 2009j; Jarrow 2009). A former Treasury official described the valuation process as occasionally difficult because some of the warrant markets were opaque and illiquid, given their unusually long term (10 years) and lack of comparable securities. Additionally, options-pricing models rely on inputs (ex: interest rates and volatility) that are challenging to forecast one decade into the future. (See Jarrow [2009] for more discussion of Treasury's models, inputs, modifications, and justification.)

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<sup>32</sup> If the publicly traded QFI did not request to repurchase its warrants after repurchasing the CPP securities, Treasury sold the warrants via auctions over the course of several months (Treasury 2009k).

**16. Funding/Executive Compensation: The American Reinvestment and Recovery Act, as well as the Dodd-Frank Wall Street Reform and Consumer Protection Act, decreased TARP's total size and broadened its restrictions on executive compensation.**

The American Reinvestment and Recovery Act (ARRA) passed on February 17, 2009, amended EESA in several key ways, though it primarily broadened EESA's executive compensation and corporate governance restrictions. Title VII of ARRA further restricted bonus payments made to CEOs based on information that was "materially inaccurate" from the five highest paid executives to 20, as well as increasing the number of employees that golden parachute payment prohibitions applied to (ARRA 2009, 517–18).

ARRA also restricted, "any bonus[es], retention award[s], or incentive compensation during the period in which any obligation arising from financial assistance provided under the TARP remains outstanding" (ARRA 2009, 518). CEOs were prohibited from receiving these bonuses based on the size of Treasury's investment. Despite these substantial restrictions on *any* bonuses and awards, they did not apply retroactively. Specifically, ARRA said that these prohibitions "shall not be construed to prohibit any bonus payment required to be paid pursuant to a written employment contract executed on or before February 11, 2009" (ARRA 2009, 404). This portion of the legislation was highly controversial and was what allowed the controversial decision by AIG to pay out \$165 million in bonuses to its executives (Thatcher 2009, 25).

**Figure 11: Summary of ARRA CPP Thresholds for Executive Compensation Restrictions**

<b>TARP Aid Amount</b>	<b>Number of CEOs Restricted (ARRA)</b>
Less than \$25,000,000	Only the most highly compensated employee.
Between \$25,000,000 and \$250,000,000	Five most highly compensated employees, or more at the discretion of the Secretary of the Treasury.
Between \$250,000,000 and \$500,000,000	All senior executive officers and the 10 next most highly compensated employees, or more at the discretion of the Secretary of the Treasury.
More than \$500,000,000	All senior executive officers and the 20 next most highly compensated employees, or more at the discretion of the Secretary of the Treasury.

*Source: ARRA 2009, 517-518.*

In June of 2009, Treasury released a final rule on executive compensation that codified and implemented these provisions from ARRA, as well as earlier guidance issued on the subject of executive compensation and corporate governance (Treasury 2009i). (See KDD No. 13 for details on Treasury's earlier guidance.)



The Dodd-Frank Wall Street Reform and Consumer Protection Act, passed on July 21, 2010, included the “Pay It Back Act.” This act had three key features that affected TARP:

- A decrease in the amount authorized under TARP from \$700 billion to \$475 billion (Dodd-Frank 2010, 2133).
- A removal of the phrase, “outstanding at any one time” from all subsections of Section 115(a), which removed the implicit authority that the Secretary of the Treasury to reuse TARP funds after assets were sold (EESA 2008, 3780; Dodd-Frank 2010, 2133; Webel 2013, 10).
- A limitation on the usage of TARP funds for programs that were initiated subsequent to June 25, 2010 (Dodd-Frank 2010, 2133).

The temporary increase in the maximum deposit insurance amount to \$250,000 was made permanent in Section 355 of Dodd-Frank, as well (Dodd-Frank 2010, 1540). The decrease in the maximum TARP authorization in the act was only relevant for a couple of months, as Treasury’s authority to make new investments under TARP expired on October 3, 2010.

### III. Evaluation

#### **SIGTARP**

SIGTARP's analysis, while broadly congratulating the Treasury on how well it did on recovering the hundreds of billions that it had invested into the banking system, outlined three key problems. SIGTARP first noted that, despite owning shares in hundreds of banks, Treasury's role changed dramatically from a "very public and active" one to that of a "passive, private investor" in how it managed its investments in smaller banks. In particular, Treasury's "extraordinary" assistance to Citigroup, such as offering it additional capital through the TIP and the large ringfence loss-sharing agreement, as well as the "careful and orderly" way in which it liquidated its holdings, contrasted starkly with some of the methods it used to exit its investment in smaller banks (SIGTARP 2015, 1–2).

This asymmetric treatment was echoed in criticism of TARP's mandate—to protect and promote stability in the financial system. Treasury was also required to fulfill goals such as "protect[ing] home values, life savings, retirement [and college] funds, preserv[ing] homeownership, and promot[ing] jobs and economic growth" (SIGTARP 2015, 2–3). SIGTARP felt that, unlike the extensive aid provided to larger institutions, Treasury could have acted more aggressively to support the constituents who funded TARP rather than "forcing smaller community banks out of the program owing money to private parties" (SIGTARP 2015, 3). These acquisitions by private parties would be a centerpiece of its final criticism: Treasury's exit strategy for the CPP banks that remained after 2009.

SIGTARP reported that, after the largest banks had exited the program, "Treasury stopped working hand-in-hand with Federal Banking regulators and receiving confidential information related to the health of the banks" despite there still being a large amount of bank failures and having done so with the larger CPP banks (SIGTARP 2015, 13–14). Per the report, Treasury did very little to monitor the health of these smaller institutions, and instead "only relied on the decision of the Federal banking regulator as to whether it could exit the banks and then auctioned the bank off immediately" (SIGTARP 2015, 13). This specific point may have been a deliberate choice by Treasury. Treasury staff would notify other bank regulators when they planned to sell one of their investments, but they did not engage in any sort of information sharing even if it would have been beneficial because "the principle of keeping supervisory information confidential was more important" (Massad and Kashkari 2020, 413).

Additionally, accounts from Treasury officials themselves show that transparency and accountability were central to their operations. They retained two accounting firms—one to "establish and document internal controls for each program as it was built" and another to serve as an internal auditor for all the transactions (Massad and Kashkari 2020, 414). They also provided "extensive additional reporting and information beyond what was required by law," such as all program documentation forms, executed program contracts (including those with third parties), as well as daily TARP updates breaking down the amounts disbursed and recovered for each program (Massad and Kashkari 2020, 416).

These auctions were a particularly prominent point of criticism by SIGTARP, as the body felt as though Treasury “gave up oversight of the financial health of these institutions and of being able to impact most of the communities in which these banks play important roles to ensure that the other purposes of TARP are met...” (SIGTARP 2015, 14). In many cases, Treasury would auction off its investments in banks that were struggling to make dividend payments or attempting to negotiate restructurings, repurchases, or suspensions of step-up clauses with them. These smaller banks attempted to negotiate with Treasury in the same way that larger banks had successfully done, but with worse results.

70% of auctioned CPP banks had their shares acquired by Private Funds, while only 7% of these shares were repurchased by 45 banks that had issued them (SIGTARP 2015, 14–15). These banks often purchased them at discounts of up to 40%. The banks that now had large, private funds as some of their principal investors often tried to buy the shares back quickly because the new stakeholders “[were] not generally the typical investor in a community bank such as an individual or entity from that community who has a vested economic interest in the economic health of that community” (SIGTARP 2015, 17). Finally, SIGTARP reported that, in some cases, banks were able to repurchase these shares after Treasury had sold them at a loss just months later (SIGTARP 2015, 18). Total proceeds from the auctions totaled about \$3 billion, compared to nearly \$227 billion recovered.

SIGTARP’s criticisms generally focused on the disparate treatment of Treasury’s towards smaller, non-systemic banks. However, the nonvoting characteristics present in all CPP investments indicates that Treasury did not intend to be a “public and active” investor, as it only had voting rights when it exercised warrants attached to the preferred stock investments (SIGTARP 2015, 1). One of the core reasons that the Treasury wanted to use preferred stock was because it was nonvoting and would mitigate concerns that the government would be a controlling or significant shareholder in several large banks (Jester, Nason, and Norton 2020, 216–217). Treasury’s decision to publicly announce the participation of the “Big 9” was designed to encourage smaller banks to participate on the same terms on which the larger banks were participating. (See KDD No. 7 for more discussion of their participation in the CPP.)

## **GAO**

The US Government Accountability Office (GAO), which “examines how taxpayer dollars are spent and provides Congress and federal agencies with objective, reliable information to help the government save money and work more efficiently, authored a number of reports on both the CPP and TARP more generally (GAO, n.d.). In a report released in March of 2012, GAO expressed concerns about the institutions that remained in the CPP. Despite Treasury only having \$16.7 billion in CPP investments outstanding at that point, “a growing number of the remaining institutions have missed scheduled dividend or interest payments or appeared on the FDIC’s problem bank list” (GAO 2012, 13). GAO reported that “the number of institutions missing dividend or interest payments increased steadily from 8 in February 2009 to 158 in November 2011 (GAO 2012, 14). This analysis was corroborated by the fact that, in general, these remaining institutions were financially weaker, less profitable, and held riskier assets, even compared to those that had not participated in the

program at all (GAO 2012, 19–29). In order to better assess these weaknesses, GAO recommended that Treasury conduct additional analysis on remaining CPP participants rather than lump their performance together with those that had already exited (GAO 2012, 30).

Similarly to SIGTARP’s analysis, GAO also criticized Treasury’s use of auctions to help exit its CPP investments. CPP institutions were notified by Treasury that they would be part of an upcoming auction and were required to submit documents ranging from prospectus settlements and underwriting agreements (for publicly traded banks) to additional disclosures. To bid on their own shares, these institutions also had to obtain permission from their federal banking regulator. However, these institutions had “a number of concerns with the process,” which included rushed and expensive documentation preparation, as well as heavier burdens placed on them by Treasury if they wished to repurchase their own shares.<sup>33</sup>

Treasury had its fair share of issues with TARP’s oversight bodies: the COP, SIGTARP, the GAO, and the Financial Stability Oversight Board (FinSOB) (Massad and Kashkari 2020, 418). These four bodies had very similar responsibilities that “created layers of duplication and put enormous demands on our staff. At times, it made implementation of the program more difficult” (Massad and Kashkari 2020, 418). The oversight bodies rarely coordinated their efforts, which led them to produce duplicate or highly similar reports and analysis and then propose “different and conflicting” recommendations (Massad and Kashkari 2020, 419). Furthermore, SIGTARP alone had more full-time equivalent employees than the Office of Financial Stability had from 2012 onwards. These factors led key figures—such as Timothy Massad and Neel Kashkari to conclude that TARP had been the subject of excessive oversight.

### ***Bank Lending and Risk-Taking***

CPP’s effect on bank lending was a popular method of examining its overall impact. Black and Hazelwood (2013) examine the lending behavior of 81 banks, 37 of which received TARP funds. Larger and medium-sized TARP banks after receiving funds showed an increase in the risk profile of their Commercial and Industrial (C&I) loans compared to those of non-TARP banks (Black and Hazelwood 2012, 10–13). Smaller banks (<\$2.5 billion

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<sup>33</sup> These burdens included unclear guidance from Treasury on how the opt-out bid, which was a bid that could be submitted by the institution to opt-out of pooled auctions and immediately repurchase their own shares, was used. The opt-out bid was used as a floor price for many pooled auctions, which frustrated institutions who reported that they “would have submitted a higher bid in order to win the auction and retain ownership if they had known that the opt-out bid would be used this way” (GAO 12-301, 14). Institutions wishing to repurchase their own shares were required to disclose their intent to bid, as well as the amount of capital they were raising to bid on their shares, to the SEC, which raised the prices of the shares and gave other bidders additional information (GAO 2012, 14–15). Finally, institutions wishing to repurchase their own shares were often not able to match the highest bid to repurchase their own shares, as Treasury felt that doing so “would make other bidders less competitive, and could, in turn, discourage potential bidders from participating” (GAO 2012, 15).

in assets), however, appeared to reduce their risk profile after receiving funds. In addition to this, the authors found no evidence to suggest that TARP banks of any size increased their C&I lending volume, and in fact decreased it immediately following the injections, though these levels would return to normal after about a year (Black and Hazelwood 2012, 15–16).

Li (2014) discussed both the lending and riskiness channels as well, but found that CPP injections increased bank loan supply by 6.36%, or just over \$400 billion (Li 2013, 2). The quality of these loans after receiving CPP capital and increasing lending did not decrease in a meaningful way, unlike what was found in the Black and Hazelwood paper (Li 2013, 24). Banks that were more politically connected, such as those that had executives as Federal Reserve Bank (FRB) directors or were located in states that had representatives on the House Subcommittee on Financial Institutions and Consumer Credit, were significantly more likely to receive TARP funds (Li 2013, 17–20). Accounts from officials that ran the program, however, say that they made efforts to ensure decision-making processes were free from political influence, so much so that “all congressional calls and input were directed to the assistant secretary and kept away from those reviewing applications” (Massad and Kashkari 2020, 401).

Duchin and Sosyura (2014) corroborated similar results to those found in Black and Hazelwood, finding “no significant effect of [the] CPP on the volume of credit origination at approved banks, compared to their denied peers” (Duchin and Sosyura 2013, 2). Despite there being no significant effect on the volume of loans, the riskiness of loans made by CPP banks increased by 5.4 percent relative to banks that did not receive assistance. However, the authors also found that this behavior translated to smaller banks as well, although the relationship was much stronger at larger banks (Duchin and Sosyura 2013, 12). This difference was negligible prior to the capital injections. However, these differences did not show up in approved banks’ regulatory ratios, as both low-yield and high-yield mortgages carried the same risk weight, despite the former being less risky than the latter (Duchin and Sosyura 2013, 11).

Puddu and Waelchli (2015) analyzed the bank lending channel of CPP assistance with respect to small business lending at the county level. The authors found that participation in the CPP increased small business loan originations by 19 percent (Puddu and Walchli 2014, 17). The authors then examined the county-level effect of this lending, specifically using unemployment and poverty rates as proxies for temporary and chronic economic distress, respectively. The positive effect on small business loan origination was only significant in counties that had high unemployment, which the authors explain intuitively makes sense, as a program like the CPP “[was] useless in counties that suffer from more persistent economic issues (high poverty)” (Puddu and Walchli 2014, 18–19).

Harris, Huerta, and Ngo (2013) examined the operating efficiency of CPP banks versus those that did not receive capital using a variety of “bank soundness variables” such as Tier-1 capital ratios, return on assets, funding costs, and others (Harris, Huerta, and Ngo 2013, 89–90). According to their models, CPP banks became less efficient after the capital injection compared to non-CPP banks, which the authors attribute to the intervention

“reduc[ing] the incentives of bank managers to adopt best practices that improve asset quality” (Harris, Huerta, and Ngo 2013, 98, 102). The authors largely believed that the CPP exacerbated behaviors consistent with moral hazard, as evidenced by the behavior of participating banks prior to and after the capital injections (Harris, Huerta, and Ngo 2013, 102).

Thus, there is a mixed consensus on the CPP’s effects on bank lending, as well as loan riskiness after receiving capital. Scholars that found a negligible effect on bank lending suggested that the banks that received assistance merely originated riskier loans, without increasing the volume. In a discussion with the Financial Crisis Inquiry Commission (FCIC), Paulson even stated that “The whole reason for designing the program was so many banks would take it, would have the capital, and that would lead to lending. That was the whole purpose” (FCIC 2011, 375).

### ***Bank Competition***

In addition to the conclusions drawn about bank risk-taking as a result of receiving CPP aid, there was also literature that centered on potential competitive advantages by CPP recipient banks. In a July 2010 report, the Congressional Oversight Panel (COP) cited the concern for consolidation in the “generally unhealthy” small bank sector. The COP reported that “the question of concentration was, however, a side issue in late 2008 when TARP was first developed,” though Paulson’s and Neel Kashkari’s remarks at the time indicate that they did not believe that this was a problem (COP 2010, 44–45). The Panel noted that, at the time of the report, there had been 860 bank-to-bank purchases and mergers since 2006, with the concentration in the financial system increasing and giving the remaining banks “a freer hand in setting terms for their depositors, possibly resulting in higher fees and more restrictions on account holders” (COP 2010, 46, 48).

Koetter and Noth (2014) explored these concerns by analyzing the likelihood of government intervention (in this case, the CPP) on interest rates as a measure of price competition. Specifically, they look at the expectations of receiving a bailout on the behavior of banks that were sound but did not receive capital. These unsupported banks could be at a competitive disadvantage in relation to those that received funding, and thus may be required to pay out “higher risk premiums....which reduced margins at given loan rates or could encourage higher risk taking by the banks in an attempt to increase expected returns and thus margins” (Koetter and Noth 2014, 995). By analyzing the probability of a bailout through political factors such as “the voting behavior on TARP, party membership, and membership on the financial subcommittee,” they were able to determine that, while bailout expectations were correlated with pricing behavior, the effect on loan rates was only about 4.5 basis points (Koetter and Noth 2014, 1018). Additionally, these small effects became insignificant after 2010, suggesting that potential of capital injections for sound banks did not have any lasting competitive effects (Koetter and Noth 2014, 1018–20).

Berger and Roman (2014a) explored the potentially distortionary effects that the CPP had on recipient banks, rather than on the behavioral changes that unassisted-but-sound banks made due to bailout expectations. In their analysis, the authors found that both market

share and market power, defined as local market share of assets and Lerner Index value, increased significantly for recipients of CPP capital. This effect was most pronounced for banks that repaid their capital quickly (Berger and Roman 2013, 19–20). The authors concluded by saying that, to encourage lending, future CPP-like interventions should be targeted more to smaller banks to avoid distortionary effects. However, from a financial-stability perspective, they cautioned, larger banks would presumably see a larger benefit (Berger and Roman 2013, 30).

### ***Bank and Borrower Stock Market Valuations***

Equity market valuations of participating banks were also affected by their participation in TARP, as evidenced by the findings in Ng, Vasvari, and Wittenberg-Moerman (2015). The authors analyzed the amount of negative media coverage that the program got throughout its inception to the end of 2009 to determine how media sentiment affected bank stock valuations. While both non-CPP and CPP banks were affected by the negative coverage, the effect was more pronounced for CPP banks, despite them performing better during the program (Ng, Vasvari, and Wittenberg-Moerman 2015, 3–5).

Veronesi and Zingales (2009) analyzed the overall economic impact of the program on the original \$125 billion investment to the largest financial institutions and found that the total enterprise value increase was approximately \$132 billion (Veronesi and Zingales 2009, 3, 22). The cost of the plan, as estimated by the authors, was approximately \$25 billion to \$47 billion, depending on if the FDIC's debt guarantee program and deadweight losses are included (Veronesi and Zingales 2009, 3). The authors, through DCF analysis, determined that the cost of government intervention was 2.5% of enterprise value, compared to that of going through a potential bankruptcy, at 22% (Veronesi and Zingales 2009, 25–28).

Norden, Roosenboom and Wang (2013) looked at market performance of borrowers that had significant relationships with participants in the CPP. According to the authors, firms that had lenders that obtained CPP capital “significantly benefit[ted] from the CPP infusions in their banks” (Norden, Roosenboom, and Wang 2013, 1636). They found that firms that were more leveraged, bank dependent, and more vulnerable to the effects of the crisis benefitted even more from having a bank that received government capital (Norden, Roosenboom, and Wang 2013, 1636–37). Finally, the authors showed that firms that were more financially distressed (measured by factors such as leverage ratio, profitability, etc.) and bank-dependent experienced significant positive increases in stock market valuations as a result of the CPP (Norden, Roosenboom, and Wang 2013, 1654–55).

### ***Recovery***

Berger and Roman (2014b) conducted an analysis on the influence of CPP on the performance of local market conditions, defined using variables such as net job creation per capita, bankruptcies (business and personal) per capita, and net hiring establishments per capita. The authors found that job creation and hiring establishments increased, while personal bankruptcies decreased after the injections had taken place (Berger and Roman 2014, 20). In the four years after TARP was established (Q1 2009 to Q4 2012), the authors

found that, “for every 1,000 people, 19.48 jobs were created, 3.57 more establishments created jobs, and 1.29 personal bankruptcies were eliminated due to TARP” (Berger and Roman 2014, 20).

Calomiris and Khan (2015) discussed alternative implementation strategies to TARP, especially with respect to its more controversial elements, such as the use of warrants, use of common dividends for users of the CPP, and executive compensation limits (Calomiris and Khan 2015, 73–74). The use of warrants, the authors felt, was counterproductive to TARP’s primary role of stabilizing the banking system, as warrants “discouraged private stock issuance by taking away some of the upside available to stockholders.” A reward system that benefitted banks that raised new private capital would have been more suitable (Calomiris and Khan 2015, 73). Additionally, the authors explained that common stock dividends should have been completely restricted, despite Treasury assertions that, had they done so, the largest banks (such as JP Morgan and Citigroup) might not have participated (Calomiris and Khan 2015, 73–74). Finally, executive compensation restrictions, despite being incorporated into TARP to help it pass, were associated with both less willingness on the part of banks to accept TARP funds as well as lower likelihood of acceptance into the CPP if a bank had a higher number of highly paid CEOs (Calomiris and Khan 2015, 74).

Liu et al. (2014) discussed the impact of the CPP on the recovery participant banks through their change in common stock prices. In the period where they held CPP capital, participating banks that repaid the government’s investment by the end of 2010 obtained “significant abnormal returns of about 4.7 percent...” In the quarter after repayment, these institutions experienced significant wealth increases of \$329 billion (Liu et al. 2013, 5049). Additionally, the authors found that increasing executive compensation restrictions played a significant role in increasing the probability of repayment (Liu et al. 2013, 5059). The authors linked these results with those from a dynamic recovery model which stated that “recovering CPP banks that repaid TARP obligations tended to have stronger overall financial condition, as reflected in higher capital, asset quality, dividends, liquidity, and size, than non-recovering CPP banks,” leading the authors to conclude that “TARP was instrumental in fostering the financial and stock price recoveries of CPP banks” (Liu et al. 2013, 5049).

The overall impact of the Capital Purchase Program, after analyzing the literature, suggests that the immediate stabilizing impact of the program was clear. In a report published a year after TARP was passed, SIGTARP explained that after reaching its highest point of 341 basis points on October 13, 2008, “the LIBOR-OIS spread [fell] sharply, indicating that credit markets, although still not at normal levels, are now working better than before the government capital injections” (SIGTARP 2009b, 10). The decision to use capital injections was informed by the fact that the government would not have had time to value the troubled assets and, even if they did, \$700 billion would not have been enough to stabilize the market (SIGTARP 2009b, 12). In a retrospective analysis on the CPP, some of its key architects said that, while the CPP alone did not fully recapitalize or stabilize the financial system, it provided “a key and necessary cornerstone to restore the banking system—and the broader economy—to normal functioning” (Jester, Nason, and Norton 2020, 224).



Without the CPP, hey said, the Fed's stress tests and the subsequent private recapitalization would not have been successful.

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## V. Key Program Documents

### Program Summary

(FCIC 2011) Financial Crisis Inquiry Commission. 2011. “The Financial Crisis Inquiry Report: Final Report of the National Commission on the Causes of the Financial and Economic Crisis in the United States.” January 2011.

*Describes the causes and consequences of the financial crisis from the perspective of the US public, markets, and regulators. Chapter 20 offers an overview of TARP and explains the CPP in broad terms.*

<https://ypfs.som.yale.edu/node/16809>.

(FDIC/Fed/OCC/OTS, n.d.) Federal Deposit Insurance Corporation, Federal Reserve System, U.S. Department of the Treasury: Office of the Comptroller of the Currency, and U.S. Department of the Treasury: Office of Thrift Supervision (FDIC/Fed/OCC/OTS). no date. “Application Guidelines for TARP Capital Purchase Program.” U.S. Department of the Treasury. Accessed June 25, 2021.

*Covers the CPP's major program details, including application requirements, capital characteristics, and associated terms and conditions.*

<https://ypfs.som.yale.edu/node/18070>.

(Jester, Nason, and Norton 2020) Jester, Dan, David Nason, and Jeremiah Norton. 2020. "Chapter 8: Recapitalizing the Banking System." In *First Responders: Inside the U.S. Strategy for Fighting the 2007-2009 Global Financial Crisis*, by Ben Bernanke, Timothy Geithner, Henry M. Paulson, Jr., and J. Nellie Liang, 208–25. Yale University Press.

*Describes Treasury's strategic aims and justification for directly injecting capital into the banking system by purchasing preferred shares, related derivative securities, and subordinated debt.*

<https://ypfs.som.yale.edu/library/first-responders-inside-us-strategy-fighting-2007-2009-global-financial-crisis>.

(Treasury 2016) U.S. Department of the Treasury (Treasury). 2016. "Bank Investment Programs: Program Purpose and Overview." Webpage. November 15, 2016.

*Exhibits the broad composition of TARP investments according to the recipient industry.*

<https://ypfs.som.yale.edu/node/15246>.

(Treasury, n.d.c) U.S. Department of the Treasury (Treasury). no date. "TARP Investment Program Transaction Reports." Webpage. Accessed June 10, 2021.

*Contains links to CPP transaction reports, which identify the CPP participants and headline statistics associated with the program.*

<https://ypfs.som.yale.edu/node/17887>.

## **Implementation Documents**

(Treasury 2008b) U.S. Department of the Treasury (Treasury). 2008b. "TARP Capital Purchase Program Summary of Preferred Terms: Public Institutions." October 14, 2008.

*Describes the capital characteristics, terms, and conditions for CPP senior preferred stock and warrants issued by publicly traded institutions.*

<https://ypfs.som.yale.edu/library/tarp-capital-purchase-program-summary-preferred-terms-public-institutions>.

(Treasury 2008e) U.S. Department of the Treasury (Treasury). 2008e. "TARP Capital Purchase Program Summary of Preferred Terms: Privately Held Institutions." November 17, 2008.

*Describes the capital characteristics, terms, and conditions for CPP senior preferred stock and warrants issued by privately held institutions (excluding subchapter S-corporations and mutual banks and savings associations).*

<https://ypfs.som.yale.edu/node/18011>.

(Treasury 2009b) U.S. Department of the Treasury (Treasury). 2009b. "TARP Capital Purchase Program Summary of Senior Securities Terms: Subchapter S Corporations." January 14, 2009.

*Describes the capital characteristics, terms, and conditions for CPP subordinated debt issued*

*by subchapter S-corporations.*

<https://ypfs.som.yale.edu/node/18010>.

(Treasury 2009g) U.S. Department of the Treasury (Treasury). 2009g. "TARP Capital Purchase Program Summary of Senior Securities Terms: Mutual Banks and Savings Associations." April 14, 2009.

*Describes the capital characteristics, terms, and conditions for CPP subordinated debt issued by mutual banks and savings associations.*

<https://ypfs.som.yale.edu/node/18006>.

(Treasury 2009k) U.S. Department of the Treasury (Treasury). 2009k. "Guidelines for Targeted Investment Program." November 20, 2009.

*Summarizes the Targeted Investment Program and describes eligibility considerations for interested applicants.*

<https://ypfs.som.yale.edu/index.php/node/18038>.

(Treasury, n.d.b) U.S. Department of the Treasury (Treasury). no date. "Small Business Lending Fund Summary of Preferred Terms: Current CPP and CDCI Participants." Accessed June 22, 2021.

*Describes the capital characteristics, terms, and conditions for Small Business Lending Fund senior preferred stock.*

<https://ypfs.som.yale.edu/node/18004>.

## **Legal/Regulatory Guidance**

(ARRA 2009) American Recovery and Reinvestment Act of 2009 (ARRA). Public Law 111-5. February 17, 2009.

*Contains the first full-length version of the ARRA signed into law in early 2009. In addition to large amounts of stimulus spending and tax cuts, ARRA broadened the original executive compensation restrictions for TARP recipients that came with EESA.*

<https://ypfs.som.yale.edu/node/17466>.

(Dodd-Frank 2010) Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank). 2010. Public Law 111-203. July 21, 2010.

*Contains the original text of the first full-length version of Dodd-Frank signed into law. Reduced TARP's original funding commitment from \$700 billion to \$475 billion and permanently increased the FDIC's deposit insurance coverage to \$250,000 per account.*

<https://ypfs.som.yale.edu/node/2521>.

(EESA 2008) Emergency Economic Stabilization Act of 2008 (EESA). Public Law 110-343. October 3, 2008.

*Contains the original text of the first full-length version of EESA signed into law. EESA was an emergency relief package. Its main provision was the Troubled Asset Relief Program, or TARP, a \$700 billion program initially designed to purchase troubled assets off the balance sheets of struggling financial institutions.*

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(Treasury 2008a) U.S. Department of the Treasury (Treasury). 2008a. "Process Related FAQs for the Capital Purchase Program." October 14, 2008.

*Answers frequently asked questions about CPP eligibility, the application process, and participatory requirements for publicly traded institutions.*

<https://ypfs.som.yale.edu/node/17892>.

(Treasury 2008d) U.S. Department of the Treasury (Treasury). 2008d. "Private Bank Program Q&A." November 17, 2008.

*Answers frequently asked questions about CPP eligibility, the application process, and participatory requirements for privately held institutions.*

<https://ypfs.som.yale.edu/node/17890>.

(Treasury 2009a) U.S. Department of the Treasury (Treasury). 2009a. "S-Corporation FAQs." January 14, 2009.

*Answers frequently asked questions about CPP eligibility, the application process, and participatory requirements for subchapter S-corporations.*

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(Treasury 2009f) U.S. Department of the Treasury (Treasury). 2009f. "Process-Related FAQs for the Capital Purchase Program - Mutual Bank FAQs." April 14, 2009.

*Answers frequently asked questions about CPP eligibility, the application process, and participatory requirements for mutual banks and savings associations.*

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(Treasury 2009i) U.S. Department of the Treasury (Treasury). 2009i. "Interim Final Rule on TARP Standards for Compensation and Corporate Governance." June 10, 2009.

*Describes executive compensation restrictions for executives receiving TARP funds, the appointment of a Special Master to review compensation plans at firms receiving exceptional assistance, the implementation and expansion of key recovery act provisions consistent with proposals on February 4, 2009, and additional compensation and governance standards meant to improve accountability and disclosure.*

<https://ypfs.som.yale.edu/node/11098>.

## Media Stories

(Andrews and Landler 2008) Andrews, Edmund L., and Mark Landler. 2008. "U.S. Considers Cash Injections Into Banks." *The New York Times*, October 9, 2008.

*Describes the Bush administration's interventions to rescue the banking system. The authors preview the policy design of bank capital injections and outline the terms and conditions associated with participation in the program.*

<https://ypfs.som.yale.edu/library/us-considers-cash-injections-banks>.

(Bensinger 2008) Bensinger, Ken. 2008. "Masses Aren't Buying Bailout." *Los Angeles Times*, September 26, 2008.

*Describes voters' displeasure with the government's rescue of the financial system.*

<https://ypfs.som.yale.edu/node/17859>.

(Calabresi 2008) Calabresi, Massimo. 2008. "Congress and the Bailout Plan: Business as Usual." *Time*, September 23, 2008.

*Describes the political atmosphere and the recent market events in the weeks before the first attempt to pass EESA (and TARP) through Congress.*

<https://ypfs.som.yale.edu/index.php/node/18050>.

(Davis 2008) Davis, Julie Hirschfeld. 2008. "Bailout Bill Slapped Aside; Record Stock Plunge." *Associated Press*. September 29, 2008.

*Describes the negative market reaction to Congress's inability to pass the first iteration of EESA during the weekend of September 27-28.*

<https://ypfs.som.yale.edu/node/17883>.

(Guha 2008) Guha, Krishna. 2008. "Fed Moves to Protect Goldman and Morgan Stanley." *Financial Times*, September 22, 2008.

*Describes the U.S. Federal Reserve's creation of an emergency liquidity facility for investment banks Goldman Sachs and Morgan Stanley, to cushion the collapse of funding markets via short-term collateralized loans known as "repos." The investment banks qualified for support, in part, by quickly re-organizing themselves into bank holding companies.*

<https://ypfs.som.yale.edu/library/fed-moves-protect-goldman-and-morgan-stanley>.

(Newport 2008) Newport, Frank. 2008. "Americans Favor Congressional Action on Crisis." Gallup.Com. Webpage. September 26, 2008.

*Describes the American public's desire for Congressional action on the financial crisis, but constituents wanted action different from the Bush administration's initial \$700 billion EESA proposal. The article contains poll data.*

<https://ypfs.som.yale.edu/node/17985>.

(Stolberg 2008) Stolberg, Sheryl Gay. 2008. "Constituents Make Their Bailout Views Known." *The New York Times*, September 24, 2008.

*Describes the average American voter's anger at the possibility of Congressional approval of the \$700 billion TARP package. It was a deeply unpopular piece of legislation across the political spectrum.*

<https://ypfs.som.yale.edu/index.php/node/18037>.

## **Press Releases/Announcements**

(Geithner 2009b) Geithner, Timothy F. 2009. "Treasury Department Releases Text of Letter from Secretary Geithner to Hill Leadership on Administration's Exit Strategy for TARP." U.S. Department of the Treasury. December 9, 2009.

*Describes Treasury Secretary Geithner's four-pronged plan for a TARP exit strategy.*

<https://ypfs.som.yale.edu/node/11086>.

(Kashkari 2008a) Kashkari, Neel T. 2008a. "Interim Assistant Secretary for Financial Stability Neel Kashkari Remarks Before the Institute of International Bankers." U.S. Department of the Treasury. October 13, 2008.

*Provides a comprehensive update on the Treasury Department's progress in TARP strategy,*

*implementation, recruitment, procurement, operations, and compliance.*  
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(Massad 2012) Massad, Timothy G. 2012. "Winding Down TARP's Bank Programs." *Treasury Notes* (blog). May 3, 2012.  
*Describes three modes of Treasury's exit from bank investment programs: repayments, restructurings, and sales.*  
<https://ypfs.som.yale.edu/node/18002>.

(Paulson 2008b) Paulson, Jr., Henry M. 2008b. "Testimony by Secretary Henry M. Paulson, Jr. before the Senate Banking Committee on Turmoil in U.S. Credit Markets: Recent Actions Regarding Government Sponsored Entities, Investment Banks, and Other Financial Institutions." U.S. Department of the Treasury. September 23, 2008.  
*Contains Treasury Secretary Paulson's remarks to the Senate Banking Committee on the ongoing financial turmoil and requests for congressional support.*  
<https://ypfs.som.yale.edu/node/18013>.

(Paulson 2008c) Paulson, Jr., Henry M. 2008c. "Testimony by Secretary Henry M. Paulson, Jr. before the House Committee on Financial Services Hearing on Turmoil in U.S. Credit Markets: Recent Actions Regarding Government Sponsored Entities, Investment Banks and Other Financial Institutions." U.S. Department of the Treasury. September 24, 2008.  
*Contains Treasury Secretary Paulson's remarks to the House Committee on Financial Services on the ongoing financial turmoil and requests for congressional support.*  
<https://ypfs.som.yale.edu/node/18001>.

(Paulson 2008g) Paulson, Jr., Henry M. (Paulson). 2008g. "Statement by Secretary Henry M. Paulson, Jr. at the International Monetary and Financial Committee Meeting." U.S. Department of the Treasury. October 11, 2008.  
*Outlines the major steps taken by US and European regulators to stabilize the global financial system.*  
<https://ypfs.som.yale.edu/node/10782>.

(Paulson 2008h) Paulson, Jr., Henry M. 2008h. "Remarks by Secretary Henry M. Paulson, Jr. on Financial Rescue Package and Economic Update." U.S. Department of the Treasury. November 12, 2008.  
*Outlines the current state of the global financial system, housing and mortgage finance, the ongoing financial rescue package, the Capital Purchase Plan, the priorities for remaining TARP funds, and further crisis strategies.*  
<https://ypfs.som.yale.edu/node/8300>.

(Treasury 2008c) U.S. Department of the Treasury (Treasury). 2008c. "Treasury Announces TARP Capital Purchase Program Description." Press Release, October 14, 2008.  
*Announces the release of application requirements for publicly traded financial institutions interested in participating in Treasury's CPP.*  
<https://ypfs.som.yale.edu/node/10771>.



(Treasury 2008f) U.S. Department of the Treasury (Treasury). 2008f. "Treasury Releases Capital Purchase Program Term Sheet for Privately Held Financial Institutions." Press Release, November 17, 2008.

*Announces the release of application requirements for privately held financial institutions interested in participating in Treasury's CPP.*

<https://ypfs.som.yale.edu/node/10726>.

(Treasury 2009c) U.S. Department of the Treasury (Treasury). 2009c. "Treasury Releases Capital Purchase Program Term." Press Release, January 14, 2009.

*Announces the release of application requirements for subchapter S-corporations interested in participating in Treasury's CPP.*

<https://ypfs.som.yale.edu/node/11058>.

(Treasury 2009d) U.S. Department of the Treasury (Treasury). 2009d. "Treasury Announces New Restrictions On Executive Compensation." Press Release, February 4, 2009.

*Describes Treasury's restrictions on executive compensation for firms that had received emergency assistance from the US government in relation to the financial crisis.*

<https://ypfs.som.yale.edu/node/11047>.

(Treasury 2009h) U.S. Department of the Treasury (Treasury). 2009h. "Treasury Releases Capital Purchase Program Term Sheet for Mutual Banks." Press Release, April 14, 2009.

*Announces the release of application requirements for mutual banks and savings associations interested in participating in Treasury's CPP.*

<https://ypfs.som.yale.edu/library/treasury-releases-capital-purchase-program-term-sheet-mutual-banks>.

(Treasury 2010) U.S. Department of the Treasury (Treasury). 2010. "Obama Administration Announces Enhancements for TARP Initiative for Community Development Financial Institutions." Press Release, February 3, 2010.

*Announces Treasury's Community Development Capital Initiative—a TARP supplement intended to support community development financial institutions.*

<https://ypfs.som.yale.edu/library/obama-administration-announces-enhancements-tarp-initiative-community-development-financial>.

## Reports/Assessments

(SIGTARP 2009b) Office of the Special Inspector General for the Troubled Asset Relief Program (SIGTARP). 2009b. "Emergency Capital Injections Provided to Support the Viability of Bank of America, Other Major Banks, and the U.S. Financial System." October 5, 2009.

*Examines the basis for the selection of Bank of America and eight other financial institutions for TARP funds. Specifically, this report addresses (1) the significant economic events in September 2008 that led Treasury to inject capital into the financial system; (2) the rationale and criteria used to select these institutions compared to those used to select subsequent institutions for CPP participation; and (3) the basis for the decision by*

*Treasury and federal regulators to provide Bank of America with additional assistance following the acquisition of Merrill Lynch, and federal efforts to forestall Bank of America from terminating the planned acquisition.*

<https://ypfs.som.yale.edu/index.php/node/17467>.

(SIGTARP 2011) Office of the Special Inspector General for the Troubled Asset Relief Program (SIGTARP). 2011. "Exiting TARP: Repayments by the Largest Financial Institutions." September 29, 2011.

*Reviews the repayments by the first 13 of the 17 SCAP institutions that participated in CPP to repay Treasury's TARP investment. SIGTARP's reporting objectives for this audit were to determine to what extent: (1) Treasury maintained a consistent and transparent role in the TARP repayment process; and (2) Federal banking regulators consistently coordinated and evaluated the TARP repayment request.*

<https://ypfs.som.yale.edu/index.php/node/18036>.

(SIGTARP 2015) Office of the Special Inspector General for the Troubled Asset Relief Program (SIGTARP). 2015. "The Legacy of TARP's Bank Bailout Known as the Capital Purchase Program." Office of the Special Inspector General for the TARP. January 27, 2015.

*Criticizes Treasury's CPP on three fronts: (1) heterogenous treatment of large and small banks, (2) financial system stability was not the only purpose of TARP, (3) Treasury's support for community banks began to falter several years into the program.*

<https://ypfs.som.yale.edu/index.php/node/18035>.

(Treasury OFS 2010) U.S. Department of the Treasury: Office of Financial Stability (Treasury OFS). 2010. "Troubled Asset Relief Program: Two Year Retrospective." October 2010.

*Summarizes TARP's design, progress, effects, and implications for similar programs.*

<https://ypfs.som.yale.edu/node/14488>.

(Treasury OFS 2013) U.S. Department of the Treasury: Office of Financial Stability (Treasury OFS). 2013. "Troubled Asset Relief Program: Four Year Retrospective Report." March 2013.

*Describes the results of Treasury's efforts to wind down its TARP investments.*

<https://ypfs.som.yale.edu/index.php/node/15403>.

## **Key Academic Papers**

(Berger and Roman 2013) Berger, Allen N., and Raluca A. Roman. 2013. "Did TARP Banks Get Competitive Advantages?" Federal Deposit Insurance Corporation. November 1, 2013.

*Investigates whether the Troubled Assets Relief Program (TARP) gave TARP banks competitive advantages.*

<https://ypfs.som.yale.edu/node/17861>.

(Berger and Roman 2014) Berger, Allen N., and Raluca A. Roman. 2014. "Did Saving Wall Street Really Save Main Street? The Real Effects of TARP on Local Economic Conditions." Federal Deposit Insurance Corporation. September 2014.

*Investigates whether saving Wall Street through the Troubled Assets Relief Program (TARP) really saved Main Street during the recent financial crisis.*  
<https://ypfs.som.yale.edu/node/17862>.

(Black and Hazelwood 2012) Black, Lamont, and Lieu Hazelwood. 2012. "The Effect of TARP on Bank Risk-Taking." *Board of Governors of the Federal Reserve System, International Finance Discussion Paper*, March 2012.  
*Considers the effect of the TARP capital injections on bank risk-taking by analyzing the risk ratings of banks' commercial loan originations during the crisis.*  
<https://ypfs.som.yale.edu/node/17872>.

(Calomiris and Khan 2015) Calomiris, Charles W., and Urooj Khan. 2015. "An Assessment of TARP Assistance to Financial Institutions." *Journal of Economic Perspectives* 29 (2): 53–80. May 1, 2015.  
*Assesses TARP along five questions: (1) What did policymakers do? (2) What are the proper objectives of interventions like TARP assistance to financial institutions? (3) Did TARP succeed in those economic objectives? (4) Were TARP funds allocated purely on an economic basis, or did political favoritism play a role? (5) Would alternative policies, either alongside or instead of TARP, and alternative design features of TARP, have worked better?*  
<https://ypfs.som.yale.edu/node/4420>.

(Duchin and Sosyura 2013) Duchin, Ran, and Denis Sosyura. 2013. "Safer Ratios, Riskier Portfolios: Banks' Response to Government Aid." *Journal of Financial Economics*, September 12, 2013.  
*Studies the effect of government assistance on bank risk-taking.*  
<https://ypfs.som.yale.edu/node/17884>.

(Harris, Huerta, and Ngo 2013) Harris, Oneil, Daniel Huerta, and Thanh Ngo. April 2013. "The Impact of TARP on Bank Efficiency." *Journal of International Financial Markets, Institutions and Money* 24 (April): 85–104.  
*Examines the impact of TARP capital injections on the operational efficiency on commercial banks.*  
<https://ypfs.som.yale.edu/node/17991>.

(Koetter and Noth 2014) Koetter, Michael, and Felix Noth. 2014. "Did TARP Distort Competition Among Sound Unsupported Banks?" *Economic Inquiry*, April.  
*Investigates if the Troubled Asset Relief Program (TARP) distorted price competition in U.S. banking.*  
<https://ypfs.som.yale.edu/node/17993>.

(Li 2013) Li, Lei. 2013. "TARP Funds Distribution and Bank Loan Supply." *Journal of Banking & Finance* 37 (12): 4777–92. September 23, 2008.  
*Investigates the determinants of the TARP funds distribution to banks and the stimulus effects of TARP investment on credit supply in the economy.*  
<https://ypfs.som.yale.edu/node/17994>.

(Liu, Kolari, Tippens, and Fraser 2013) Liu, Wei, James W. Kolari, T. Kyle Tippens, and Donald R. Fraser. 2013. "Did Capital Infusions Enhance Bank Recovery from the Great Recession?" *Journal of Banking & Finance* 37 (12): 5048–61. September 23, 2013.

*Investigates the long-run recovery experience of US banks that received capital infusions under the CPP.*

<https://ypfs.som.yale.edu/node/17996>.

(Ng, Vasvari, and Wittenberg-Moerman 2015) Ng, Tee Yong Jeffrey, Florin P. Vasvari, and Regina Wittenberg-Moerman. 2015. "Media Coverage and the Stock Market Valuation of TARP Participating Banks." Singapore Management University. March 2015.

*Examines the impact of media coverage of the CPP under TARP on the equity market valuation of participating banks' holding companies.*

<https://ypfs.som.yale.edu/node/17997>.

(Norden, Roosenboom, and Wang 2013) Norden, Lars, Peter Roosenboom, and Teng Wang. 2013. "The Impact of Government Intervention in Banks on Corporate Borrowers' Stock Returns." *Journal of Financial and Quantitative Analysis* 48 (5): 1635–62. October 2013.

*Investigates whether and how government interventions in the U.S. banking sector influenced the stock market performance of corporate borrowers during the financial crisis of 2007-09.*

<https://ypfs.som.yale.edu/node/17998>.

(Puddu and Walchli 2014) Puddu, Stefano, and Andreas Walchli. 2014. "TARP Effect on Bank Lending Behaviour: Evidence from the Last Financial Crisis." *University of Neuchatel: Institute of Economic Research Working Paper*, April.

*Measures whether banks that benefited from TARP increased small business loan originations.*

<https://ypfs.som.yale.edu/node/18014>.

(Veronesi and Zingales 2009) Veronesi, Pietro, and Luigi Zingales. 2009. "Paulson's Gift." *National Bureau of Economic Research, Working Paper Series*, October.

*Calculates the costs and benefits of the largest ever US government intervention in the financial sector announced on the 2008 Columbus Day weekend.*

<https://ypfs.som.yale.edu/node/18000>.

## VI. Appendix

### Appendix A: Timeline of events

July 30, 2008:	The Housing and Economic Recovery Act of 2008 (HERA) is passed, which established the Federal Housing Finance Agency (FHFA) and gave Treasury the authority to place the government-sponsored enterprises Fannie Mae and Freddie Mac into conservatorship.
September 7, 2008:	Fannie Mae and Freddie Mac are placed into conservatorship. Treasury announces 1) preferred stock purchase agreements to ensure that the GSEs “maintain a positive net worth” and to support market stability, 2) a secured lending facility for the GSE’s and Federal Home Loan Banks to act as a liquidity backstop, and 3) a program to temporarily purchase mortgage-backed securities issued by GSEs.
September 15, 2008:	Lehman Brothers files for bankruptcy. Bank of America purchases Merrill Lynch for \$50 billion.
September 21, 2008:	The Federal Reserve Board approves the applications of investment banks Goldman Sachs and Morgan Stanley to become bank holding companies, allowing them to access Federal Reserve liquidity facilities.
September 29, 2008:	The first vote on the Emergency Economic Stabilization Act (EESA) fails in the House of Representatives, with a vote of 205-228.
October 3, 2008:	EESA is signed into law. Work on the Troubled Assets Relief Program (TARP) begins, with the government having access to the first of two \$350 billion tranches of appropriated funds. Wells Fargo announces proposal to acquire Wachovia.
October 14, 2008:	Treasury announces proposal to use TARP funds to purchase preferred equity in financial institutions through the \$250 billion Capital Purchase Program (CPP). Nine large, systemically significant financial institutions pledged to subscribe to the program for \$125 billion. The deadline to apply was November 14, 2008.

- November 17, 2008: Treasury announces CPP terms for non-publicly traded banks and trusts. The deadline to apply was December 8, 2008.
- January 12, 2009: President Bush submits report to Congress requesting disbursement of the remaining \$350 billion in TARP funds to be used by the incoming Obama administration.
- January 14, 2009: Treasury announces CPP terms for S-corporations. The deadline to apply was February 13, 2009.
- February 17, 2009: The American Recovery and Reinvestment Act of 2009 (ARRA) is passed. In addition to large amounts of stimulus spending and tax cuts, ARRA also broadened the original executive compensation restrictions for TARP recipients that came with EESA.
- February 25, 2009: Federal bank regulators, such as the FDIC, OCC, and Federal Reserve Board announce their intent to begin stress testing U.S. bank holding companies with assets exceeding \$100 billion.
- April 14, 2009: Treasury announces CPP terms for mutual banks. The deadline to apply was April 7, 2009.
- May 7, 2009: Results of the series of stress tests for 19 large financial institutions announced on February 25, called the Supervisory Capital Assessment Program (SCAP), are released, which show a \$75 billion capital shortfall in 10 institutions. The nine SCAP institutions that did not need more capital and also participated in the CPP repaid the government's investment.
- June 10, 2009: Treasury releases its Interim Final Rule on TARP Standards for Compensation and Corporate Governance. The rule implemented and further expanded the restrictions laid out in ARRA, as well as appointed a Special Master for TARP Executive Compensation, who was responsible for reviewing compensation plans for institutions receiving "exceptional assistance," among other things.
- December 9, 2009: In a letter to Congress, Treasury Secretary Tim Geithner outlines Treasury's exit strategy for TARP, as well as its areas of focus for the following year. Additionally, the program's authority would be extended from December 31, 2009, to October 3, 2010.

- February 3, 2010: Community Development Capital Initiative (CDCI) is created with the goal of providing financing to institutions that service low-income, minority, and underserved communities. CPP institutions were able to refinance their investment into CDCI capital.
- July 21, 2010: The Dodd Frank Wall Street Reform and Consumer Protection Act of 2010 is passed. The Act included the “Pay it Back Act,” which decreased the maximum TARP authorization, removed Treasury’s ability to reuse TARP funds, and prevented TARP funds from being used on programs that were created after June 25, 2010.
- September 27, 2010: The Small Business Jobs Act of 2010 is passed, establishing the Small Business Lending Fund (SBLF), which provided capital injections to financial institutions with assets of less than \$10 billion to increase the availability of credit to small businesses.
- October 3, 2010: Purchasing authority under TARP officially expires, signaling the beginning of the wind-down phase of the program.
- December 10, 2010: Citigroup repays its \$25 billion in CPP capital, making it the last of the nine systemically important financial institutions that received \$125 billion in CPP capital to repay the government’s investment.

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