

Even when the policy target rate approaches zero, central banks have powerful tools at their disposal. However, the precise effect of these tools on inflation and the real economy is more difficult to anticipate. It also may be more challenging to alter policy quickly and easily than is the case with interest rate targets. Consequently, policymakers usually reserve these tools only for extreme circumstances.

*Credit easing* (CE) is one mechanism to relax the monetary stance when the policy target rate already is low. In contrast to *quantitative easing* (QE), which increases the size of the central bank's balance sheet, CE shifts the composition of the balance sheet away from default-free assets and toward assets with credit risk where the borrower can default.

A simple example of CE would be for the central bank to sell short-term U.S. Treasury Bills and buy commercial paper (CP<sup>1</sup>) of similar maturity. As seen in Figure 1, this shift leaves the size of the balance sheet unchanged. It also leaves the average maturity of central bank assets unchanged. Only the mix of default-free and credit-risk assets is altered.

Figure 1. Changes in the Central Bank's Balance Sheet

<u>Assets</u>	<u>Liabilities</u>
3-month Treasury Bills (-\$1 billion)	
3-month Commercial Paper (+\$1 billion)	

How does CE alter the outlook for the economy and inflation? The central bank's actions can influence both the *cost* and *availability* of credit. When the central bank acquires an asset, such as commercial paper in Figure 1, it lowers the supply of this asset available to private investors. Such scarcity tends to boost its price, while driving its yield down. In the absence of private demand for the risky asset, the central bank's purchase makes credit available where no alternative existed.

The impact of CE is likely to be larger, the bigger the difference between the yield on the asset that the central bank buys and the yield on the asset that the central bank sells. For example, selling a 10-year mortgage-backed security (MBS<sup>2</sup>) to buy an 11-year MBS with an identical credit rating may have little effect on the average price of MBS because these assets have very similar risk characteristics. In economic terms, we say that these two bonds are *close substitutes*. You may recall from Chapter 7 that bonds with similar default risk and credit ratings typically have similar yields.

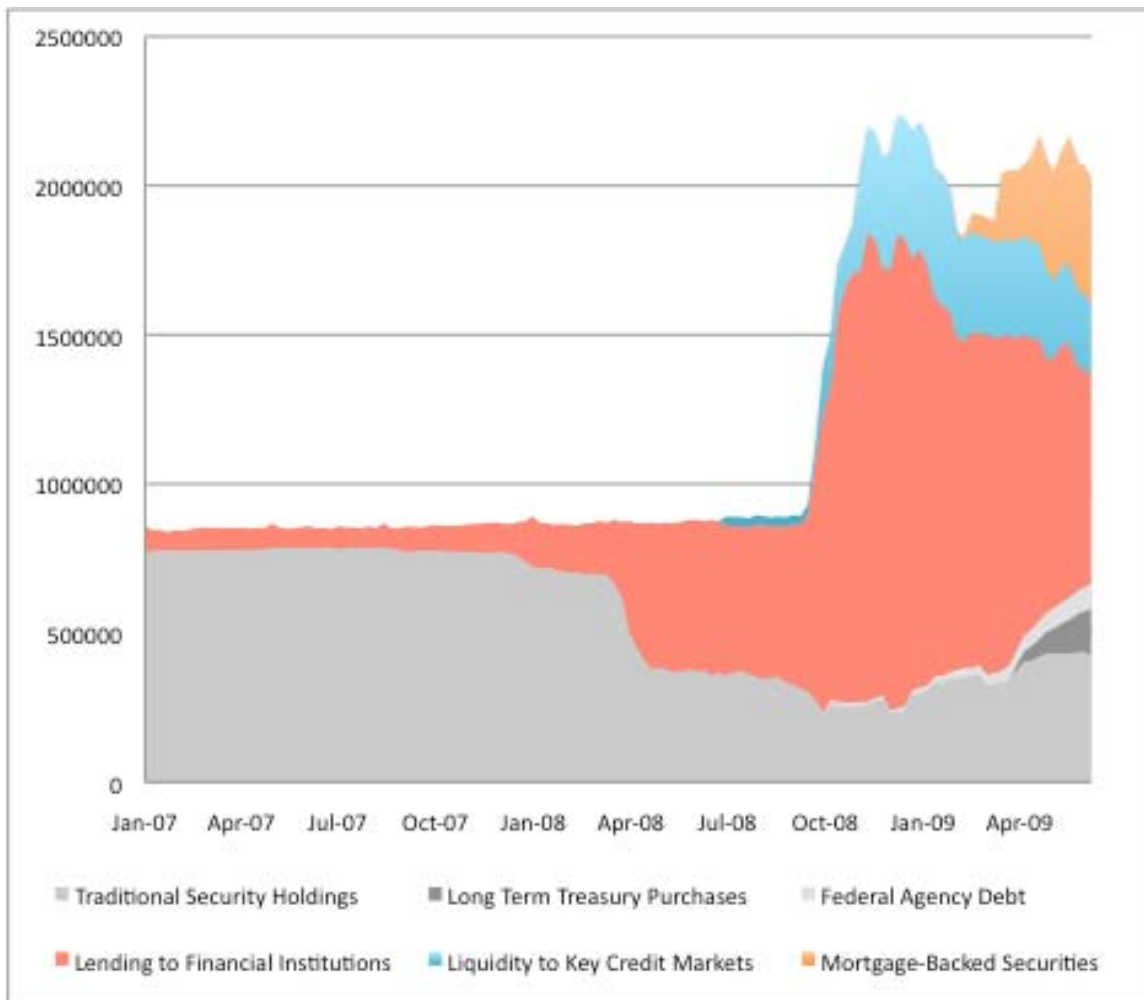
<sup>1</sup> Recall from Chapter 7 and the glossary that CP is short-term, privately issued zero-coupon debt that is low risk, very liquid, and usually has a maturity of less than 270 days.

<sup>2</sup> MBS are shares in the returns or payments arising from a pool of mortgages.

By contrast, selling a U.S. Treasury bond that is free of default risk and using the proceeds to acquire an equivalent-maturity MBS could have a greater impact on market prices, because these two assets are less substitutable. By altering the relative supply of these assets available to private investors, CE tends to narrow the *interest-rate spread* of MBS over Treasuries, making it less costly to obtain a mortgage. The impact of CE may be further magnified because the central bank intervention also will improve market liquidity (making it easier to buy and sell – see the Chapter 2 module: Liquidity and the Crisis of 2007-09).

The Federal Reserve’s shift to CE in the financial crisis has been virtually unprecedented in scale. Figure 1 provides some detail on the evolution of the credit-risk assets that the Fed holds. While the gray-shaded portions of the chart do not involve default risk, the portions shaded in other colors typically do. The chart shows that assets with default risk now predominate for the first time.

Figure 2. United States – Composition of Fed Assets (Millions of U.S. Dollars), Jan 07-Jun 09



Source: Federal Reserve Bank of Cleveland.

The impact of various Fed CE interventions has been significant. One early example is the Fed's Commercial Paper Funding Facility (CPFF), which purchases three-month CP directly from borrowers (these purchases make up the largest portion of "liquidity to key credit markets" in Figure 2). When private CP lending collapsed temporarily during the crisis, the CPFF made credit available to high-quality borrowers who otherwise might have been unable to finance their inventories and payrolls. As conditions in the CP market improved, the need for Fed intervention declined and its CP holdings peaked early in 2009.

Aside from direct lending to financial institutions, the largest example of Fed CE during the crisis is the acquisition of MBS. The early 2009 announcement of the Fed's MBS plans already helped narrow MBS interest rate spreads and lower mortgage yields. As of mid-2009, the Fed had purchased more than \$425 billion of MBS. As a result, the volume of MBS surpassed that of traditional securities on the Fed's balance sheet (see Figure 1). And the Fed has offered to purchase a sizable additional volume of MBS in the remainder of 2009.

Like QE, CE is significantly more unwieldy for central bankers than conventional policy that targets an overnight interest rate. Lacking experience, a central bank cannot reliably anticipate the impact of CE on the cost of credit. Instead, policymakers are in the delicate position where they are forced to learn by experiment: the central bank acts and observes the effect on financial conditions and the economy. This lack of predictability makes policymakers uncomfortable, as they are not used to treating the economy as a laboratory. In doing so, they run the risk that their experiments will trigger nasty side effects, like a sharp increase in inflation.

CE poses concerns that need not arise with QE. Unlike QE, CE has characteristics that are usually associated with fiscal policy. For example, CE almost inevitably favors some users of credit over others. The special access that the Fed provided to CP borrowers during the crisis is one example. In normal times, using conventional policy techniques, a central bank typically avoids such direct allocation of credit, promoting market competition, rather than picking winners.

Exiting from CE probably also is more difficult than unwinding QE. Risky assets are generally harder to sell – they are less liquid – than Treasuries, so the central bank may not be able to get rid of them exactly when it wants. Similarly, within the class of risky assets, complex, customized assets are more difficult to sell than simple, standardized ones. Finally, political influences can become important, if powerful users of credit and their government representatives seek to hinder the Fed from selling specific assets in to markets for fear of raising the costs of a particular class of borrowers.