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The ECB's Use of Term Refinancing Operations

Summary of the ECB's Operations

Prior to the financial crisis, the ECB conducted regular weekly auctions of 7-day funds at its main refinancing operations (MROs) and regular monthly auctions of 3-month funds at longer-term refinancing operations (LTROs). In addition, the ECB conducted sporadic overnight fine-tuning operations as needed. The ECB set minimum bid rates and offered fixed amounts of funds at these auctions.¹

Soon after the global financial crisis broke in August 2007, the ECB began to change the maturity composition of its operations by increasing the share of its three-month refinancing operations (the green area in panel 1 of the first exhibit) and reducing the share of its main weekly operations (the yellow area). This change was intended to alleviate pressure in term funding markets without increasing the overall supply of liquidity.

In April 2008, the ECB started to further lengthen the maturity of its funding operations by introducing supplementary six-month operations (the purple area). But it was not until after the Lehman bankruptcy that the ECB allowed the overall volume of outstanding refinancing operations to increase. In October 2008, the ECB switched to a fixed-rate tender procedure with *full allotment* for all its refinancing operations, meaning that it would supply all funds demanded at a fixed interest rate.² This caused the volume and maturity structure of its refinancing operations to become fully demand driven. As a result, the combined volume of refinancing operations surged.

The amount outstanding rose again in June 2009 with the introduction of the ECB's first 1-year LTRO (the blue area). The fixed rate of 1 percent was considered extremely attractive, as the 1-year euribor rate was 1.57 percent at the time. Although the size of the operation, at €442 billion, received widespread attention, much of its impact was to displace funding via shorter-term operations, leading to a shift toward a longer maturity structure of borrowing from the ECB. The second one-year operation in September 2009 elicited less interest, with allotments totaling €75 billion. The third and final auction of one-year funds in December 2009, which was offered for full allotment at a rate indexed to the ECB's minimum bid rate at its future weekly MROs, drew €96 billion in demand. Declines in euribor rates and improvements in interbank funding markets may have contributed to the lower demand at the latter auctions.

¹ A much larger number of financial institutions (about 2200) are eligible to participate in MROs than are eligible to participate in LTROs (about 150).

² The ECB took several other steps in October 2008, including lowering the minimum rating on acceptable collateral other than asset-backed securities to BBB- from A- and temporarily narrowing the corridor set by its standing lending and deposit facilities from 200 to 100 basis points around its policy rate.

These operations resulted in a sharp increase in the level of excess reserves in the system; indeed, the second panel shows that the sheer volume of reserves injected by the ECB since last October triggered an extensive use of the ECB's deposit facility (the red line). The very elevated levels of excess reserves also had a significant impact on money market interest rates. As soon as the ECB switched to a full allotment system in October 2008, the EONIA rate, the effective overnight rate in the uncollateralized euro area interbank funding market (shown by the red line in panel 3), began trading below the center of the ECB's policy rate corridor and closer to the rate offered at the ECB's deposit facility (the lower black line). Since the increase in reserves associated with the first 1-year operation in June 2009, the EONIA rate has on average been only 10 basis points above the deposit rate.

Beginning with its decision to hold its final auction of 1-year funds in December 2009 at an indexed rather than a fixed rate, the ECB began to scale back its funding operations, announcing that it would end its 6-month operations in March 2010 and reduce the frequency of 3-month operations. In March, it was announced that the final 6-month operation would be offered at an indexed rate rather than a fixed rate and that the ECB would end its full allotment policy for its 3-month operations, returning to its pre-crisis procedure of auctioning a fixed amount of funds with a minimum bid rate. However, the decisions to end 6-month operations and full allotment for 3-month operations were quickly reversed as the Greek crisis progressed. Even so, the Greek crisis has not stopped the ECB from allowing the overall amount of its refinancing operations to decline. The first 1-year operation matured in July of this year, and with its end overall refinancing operations declined by €240 billion. Following the end of the operation, the overnight rate trended up from around 32 basis points to as high as 55 basis points, but most of this rise has since been reversed.

Effects on term funding, borrowing rates, and credit availability

The substantial lengthening of the maturity of liquidity operations undertaken by the ECB since the start of the global financial crisis appears to have helped offset some of the concerns in money markets about the availability of euro term-funding. Although the twelve-month euro Libor-OIS spread (the red line in the top panel of Exhibit 2) showed little immediate reaction to the start of the full allotment refinancing operations, it did eventually decline sharply, falling below dollar spreads (the blue line) for much of 2009.

Longer-term interest rates (not shown) may have also been depressed by the ECB's liquidity programs; however, this is more difficult to identify than the impacts of the large scale asset programs implemented by the Federal Reserve and Bank of England, where longer-term rates quickly and clearly declined when the programs were announced. Longer-term German interest rates fell by roughly 30 basis points in the week following the ECB's switch to full allotment, but this was also a period in which the ECB was actively cutting its policy rate and the global financial crisis was at its worst. The settlement of the first 1-year LTRO had a sharp impact on overnight rates, but two- and five-year German bund yields fell only 15 basis points after the operation,

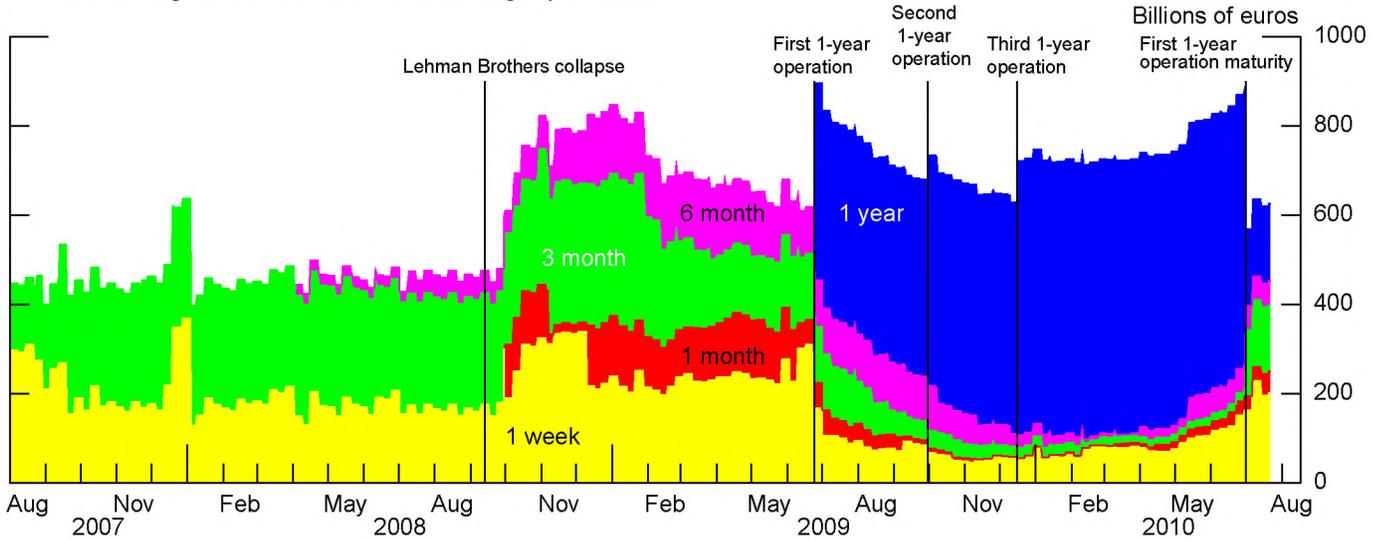
though they did fall by a further 10 basis points over the following week. Similarly, the maturation of the first 1-year operation in early July may have had some modest impact on longer-term rates. Two-year rates increased about 8 basis points on the day that the first 1-year operation matured and by a further 5 basis points over the following week; movements in five-year rates were more muted.

It is unclear whether this additional liquidity has had any appreciable effect on credit availability, and at times some euro-area officials have criticized the ECB's counterparties for holding funds as excess reserves in the ECB's deposit facility rather than increasing lending to support economic activity. However, as shown in the middle and bottom panels of exhibit 2, loans to households and non-financial corporations have expanded more in the euro area (the red lines) than in the United Kingdom and the United States. Of course, it is difficult to know how much of this relatively favorable loan performance can be attributed to the ECB's policies rather than to other factors, such as the fact that the euro area as a whole did not experience a sharp drop in housing prices.

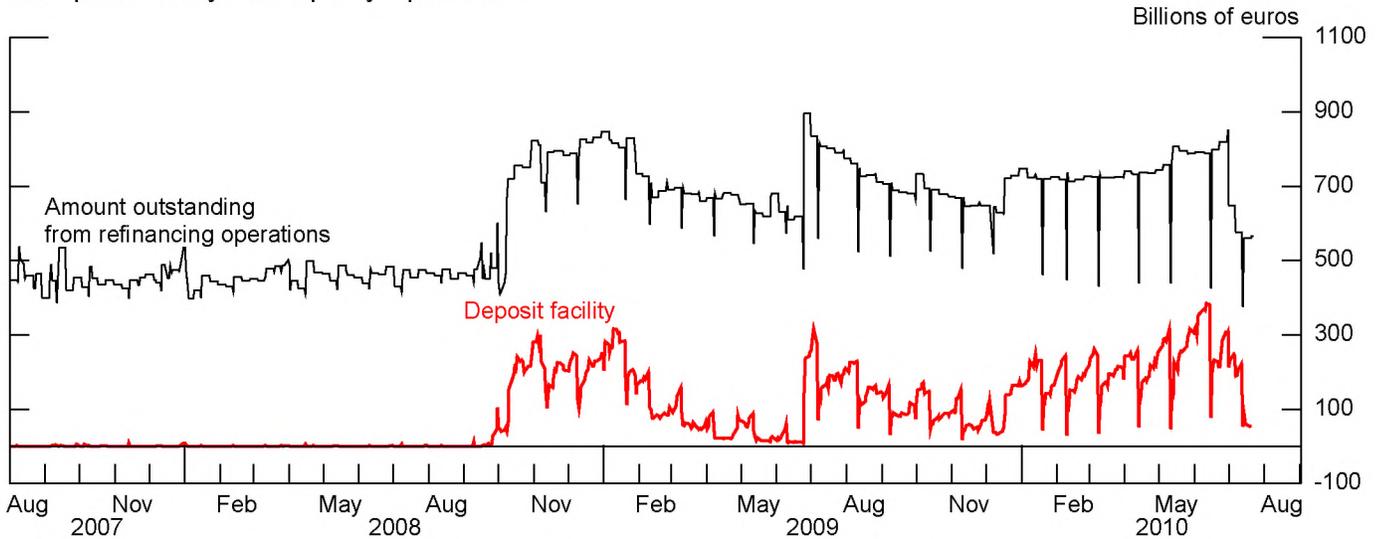
Finally, it should be noted that the ECB's emphasis on term liquidity operations relative to security purchases may be appropriate given the more bank-centered system in the euro area. In addition, the very wide range of collateral accepted and the large numbers of counterparties eligible to participate in credit operations have made it easier for the ECB to provide liquidity directly to the financial system using its standard refinancing operations.

Exhibit 1

1. Outstanding Stock of ECB's Refinancing Operations



2. Deposit Facility and Liquidity Operations



3. Overnight Interest Rate

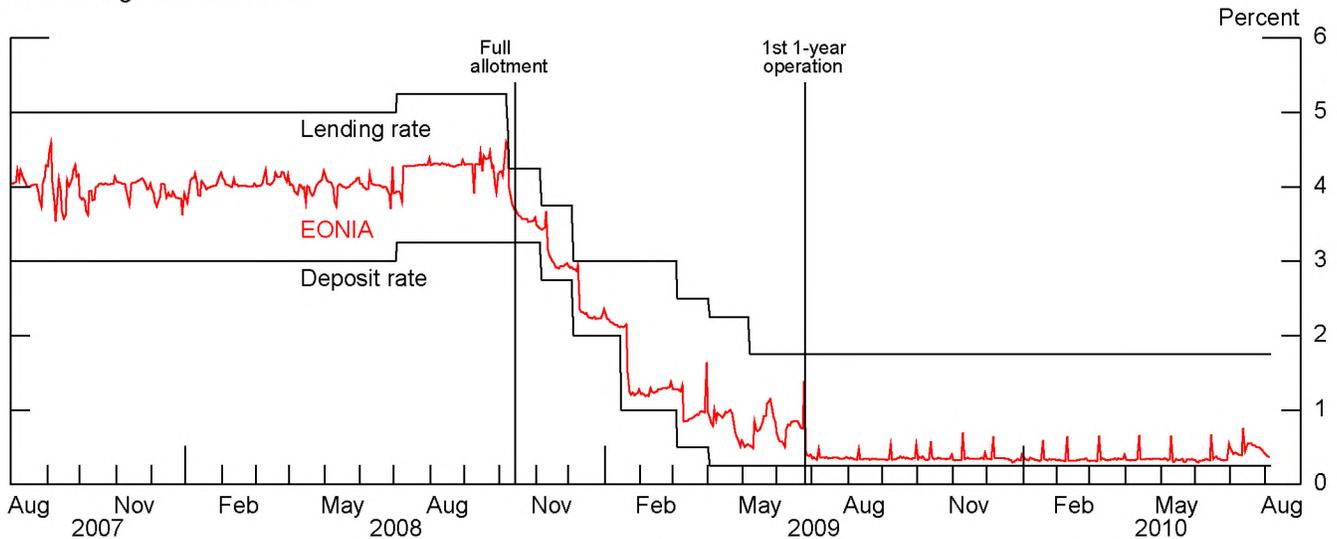
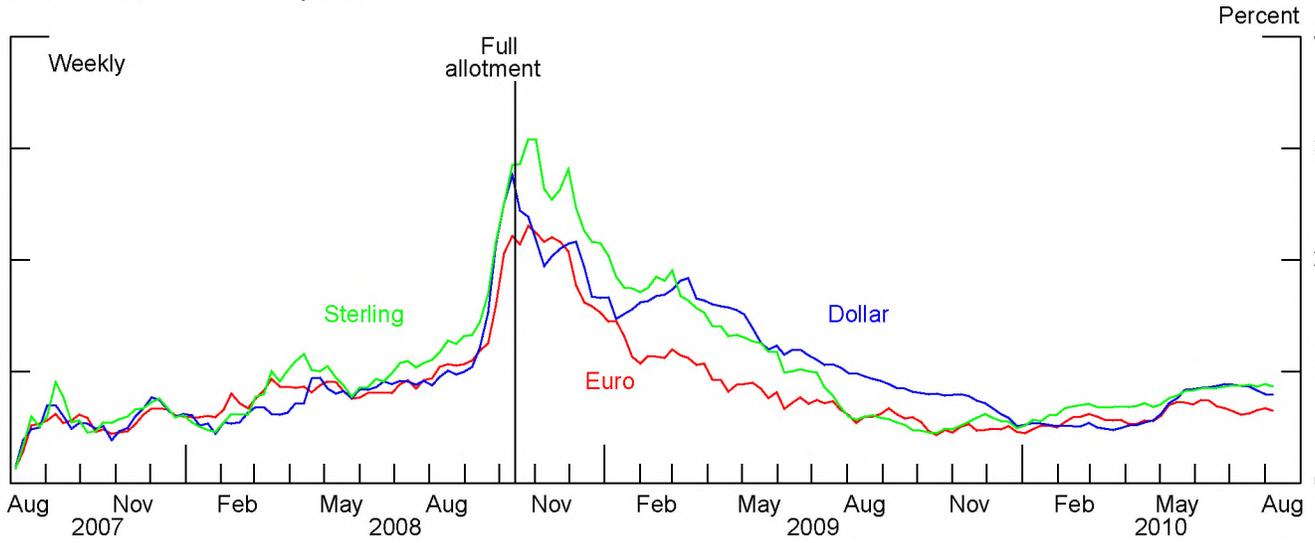
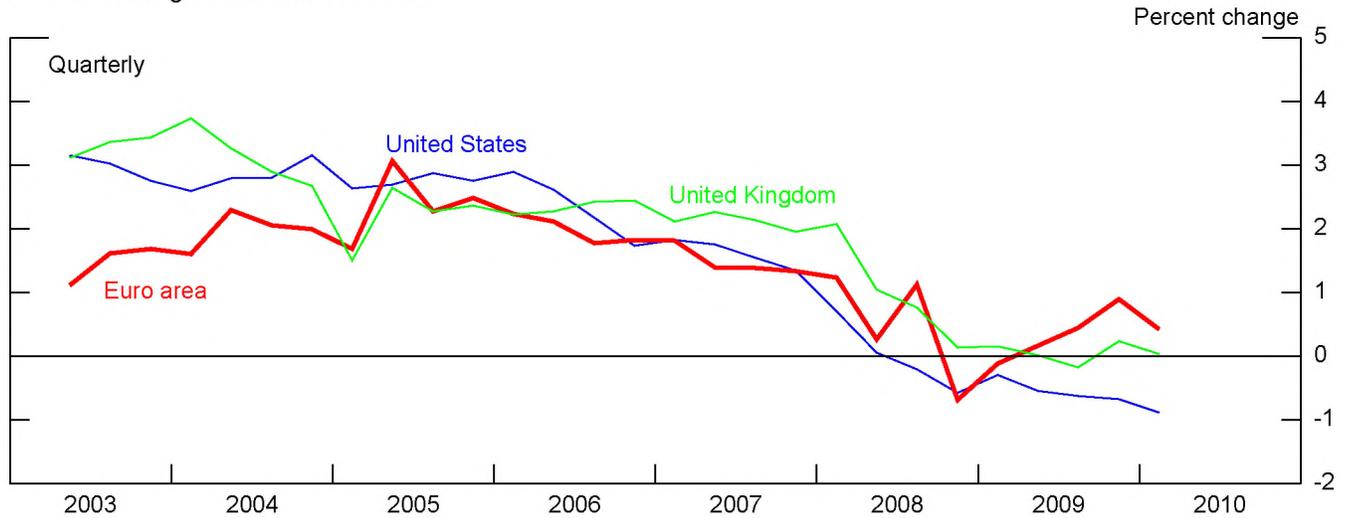


Exhibit 2

1. 12-Month Libor-OIS Spreads



2. Outstanding Loans to Households



3. Outstanding Loans to Non-Financial Corporations

