Criteria for Central Bank Assets: Lessons from Pre-ECB Germany

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The Deutsche Bundesbank was formed in July 1957, when the two-tier central bank system set up following World War II was consolidated.[1] That previous system had been established by the Allies in imitation of the Federal Reserve System and consisted of independent regional banks (the Land Central Banks) and a governing body. Under the new system, the Land Central Banks became offices of the Bundesbank. As was true under the previous system, the Bundesbank was made independent of the federal cabinet by law and was particularly proscribed from lending to the public sector except for short terms. Acquisitions of public debt occurred exclusively in the open market.[2]

Before the establishment of the European Central Bank, the operating procedures of the Bundesbank included two lending facilities: the rediscount facility, which provided loans at the discount rate, and Lombard loans, at the Lombard rate, which generally was about 1.5 percentage points above the discount rate. The discount rate was maintained below market rates and discount credit was limited to a "rediscount quota." The discount rate acted as an approximate floor on market interest rates, because banks could reduce their use of the discount facility when market interest rates fell below the discount rate; however, the extent of substitution was limited by the amount of rediscounted bills coming due. The Lombard rate, which was generally above market rates, acted as a ceiling on market rates.

Beginning in 1979–81, and with a marked increase in 1985, the Bundesbank also engaged in repurchase agreements to adjust the level of bank reserves. The frequency with which these repurchase agreements were offered rose over the years, while the maturity of the agreements fell; by the late 1990s, they were offered once a week with a two-week maturity.[3] The Bundesbank engaged in both variable-rate and fixed-rate repos. The variable-rate tender allowed for a market-determined interest rate outcome, while the fixed-rate tender allowed the Bundesbank to provide a clearer signal of its policy stance.[4]

Permissible Assets

Instruments Eligible for Rediscount[5]

The Bundesbank was allowed to rediscount two sorts of instruments: Treasury bills issued by the federal government; and trade bills employed on the basis of deliveries of goods or services, falling due within three months and backed by three parties known to be solvent, or two parties if the bill was insured in some other way. In practice, the Bundesbank did not generally rediscount the Treasury bills of depository institutions; instead, it either discounted the bills directly with the Treasury or it bought them in the open market. Foreign bills were purchased only if they had been drawn on foreign trade transactions of a domestic enterprise.

The rediscount quotas were based on a credit institution's capital, with adjustments for the extent to which the institution held bills available for discount.[6] In addition, the quotas were adjusted up or down by a standard multiplier to achieve the aggregate level of potential rediscounts desired by the Bundesbank. Quotas were reduced if the credit institution was not fully in compliance with supervisory standards for capital and liquidity, or for other misconduct. At least historically, the ability to restrict rediscount quotas was an important regulatory tool of the Bundesbank, perhaps explaining why the formulas for the quotas remained opaque and judgmental.[7] Quotas were generally fixed for one year.

Collateral for Lombard Loans[8]

Lombard loans were made against instruments eligible for rediscount (Treasury bills and trade bills), federal Treasury discount securities, other federal debt securities, other debt securities deemed acceptable by the Bundesbank, and equalization claims (claims on the federal government that were granted to banks and enterprises that experienced losses as a result of the currency reform of 1948 and the monetary union with the former Democratic Republic of Germany in 1990). Although the Bundesbank had earlier applied haircuts, it had stopped doing so by the latter 1990s because the collateral was all readily valued.

Securities Owned Outright[9]

The Bundesbank was allowed to buy and sell in the open market the same securities that were eligible for collateral for Lombard loans. At the end of 1997, however, the Bundesbank owned no securities outright. The limited significance of securities owned outright was due in part to the limited markets for short-term paper. These markets were to some extent inhibited by the availability of rediscount credit from the Bundesbank for such instruments, as well as by both a general aversion to shorter-term financial relationships and the predominance of the universal banking system.[10] The primary short-term instrument bought and sold by the Bundesbank was Treasury bills it itself created, as was its right, for monetary policy purposes. As for longer-term instruments, the Bundesbank was not willing to buy private bonds and was generally averse to buying public bonds. This aversion stemmed in part from a desire to avoid the impression that "its primary aim was to facilitate the financing of public sector budget deficits…" and that "movements of interest rates in [the bond] market were largely the outcome of monetary policy measures and hence the Bundesbank's responsibility."[11]

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[1] Deutsche Bundesbank, *The Monetary Policy of the Bundesbank,* October 1995, pp. 12–14.

[2] *The Monetary Policy of the Bundesbank,* p. 36.

[3] Beginning in November 1988, the Bundesbank also occasionally engaged in "quick-tenders," which allowed for day-to-day management of reserve markets outside of the biweekly repos.

[4] Historically, the Bundesbank usually used fixed-rate tenders during periods of declining interest rates and variable-rate tenders during periods of rising interest rates. From February 1996 through December 1998 the Bundesbank used only fixed-rate tenders, in large part to provide clear guidance to markets in the period leading up to the final stage of the European Monetary Union.

[5] *The Monetary Policy of the Bundesbank,* pp. 99–100.

[6] *The Monetary Policy of the Bundesbank,* p. 101.

[7] Bank for International Settlements, *Eight European Central Banks,* 1963, p. 70.

[8] *The Monetary Policy of the Bundesbank,* p. 101.

[9] *The Monetary Policy of the Bundesbank,* p. 108.

[10] Peter Schmidt and Henner Asche, "Monetary Instruments and Procedures in Germany: Evolution, Deployment and Effects," in *Implementation and Tactics of Monetary Policy,* Bank for International Settlements Conference Papers Vol. 3, p. 81 (1997).

Securities Eligible for RPs[12]

Securities that were eligible collateral for Lombard loans and eligible for outright purchase (Treasury bills, bills of exchange, federal securities, and other private securities) were also eligible for repo. The Bundesbank, in theory, engaged in repos with all credit institutions that held reserves, although, as is true in the Eurosystem, many credit institutions likely did not choose to participate. Beginning in 1973 the Bundesbank conducted repurchase agreements against bills of exchange eligible for rediscount, but these were discontinued in 1984 because banks had virtually no bills in their portfolios beyond what was necessary to fill their rediscount quotas. The Bundesbank has engaged in repurchase transactions in debt securities since 1979.

Foreign Assets[13]

As the official repository of the monetary reserve in Germany, the Bundesbank held a large volume of foreign exchange assets, particularly deposits and short-term investments denominated in U.S. dollars, and also gold. The Bundesbank also used the sale and purchase of foreign exchange as an instrument of monetary policy. The Bundesbank bought U.S. dollars and simultaneously sold them forward in a "swap" transaction. Such operations were used like repurchase agreements to fine-tune reserve supply and, after 1979, not to influence foreign exchange rates. The swap transactions were used to control reserve supply at an even higher frequency than repurchase agreements, although they were only rarely used in the 1990s.[14]

Recent Distribution of Assets

At the end of 1997 the Bundesbank had assets of DM 369.5 billion. Of these, the largest single amount was loans to credit institutions, which accounted for 62 percent of assets. The largest category of loans was securities purchased in open market repurchase agreements, which accounted for 45 percent of assets. The next largest item was discounted bills, which equaled 16 percent of assets, while Lombard loans equaled less than 1 percent of assets. Almost all of the Bundesbank's assets other than loans to domestic credit institutions were gold and international reserves, which equaled 33 percent of assets. Among these, deposits at foreign banks and investments in money market investments abroad equaled 20 percent of assets, claims on the European Monetary Institute equaled 6 percent of assets, and claims on the International Monetary Fund and gold both equaled 4 percent of assets.[15]

The percentage of assets that was rediscounted bills declined sharply in the 1980s and 1990s from three-quarters of Bundesbank lending to credit institutions in 1980 to one-third in 1995, with the difference more than made up for by repurchase agreements.[16] Because rediscounting was done at a subsidy rate and was allocated by quotas, it necessarily interfered with competitive neutrality; largely for this reason, the Bundesbank reduced the role of rediscounting. Nevertheless, the Bundesbank continued to see "the purchase of trade bills as being a reasonable means of providing longer-term central bank money…."[17]

The Bundesbank indicated several reasons for its shift toward repurchase agreements: Repos themselves were of short maturity and therefore offered a high degree of operational flexibility for meeting changing conditions in the financial markets, while at the same time they allowed indirect access to German banks' large portfolios of longer-maturity fixed-income securities.[18] At the end of 1997, of the approximately DM 10 trillion on the books of German financial institutions, about 10 percent were securities issued by German banks, 3 percent securities issued by public authorities, and about 3 percent private securities issued by German enterprises other than banks.[19] In addition, repos did not directly affect the prices of the underlying securities. The Bundesbank only engaged in repos against securities that were quoted on a stock exchange for first or second segment trading.[20] Repurchase agreements may therefore have offered the Bundesbank a way to invest indirectly in government debt without any risk of seeming to be facilitating deficit finance, and they also allowed access to the large volume of bank debt without directly holding longer-term private securities.

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[11] Deutsche Bundesbank, *The Deutsche Bundesbank, Its Monetary Policy Instruments and Functions*, 1987, p. 71.

[12] *The Monetary Policy of the Bundesbank*, p. 111.

[13] *The Monetary Policy of the Bundesbank*, p. 32 and pp. 132–33.

[14] Schmidt and Asche, p. 84.

[15] "Bundesbank Monthly Report," February 1998.

[16] Schmidt and Asche, p. 81.

[17] Schmidt and Asche, p. 81.

[18] *The Monetary Policy of the Bundesbank*, p. 112, and Schmidt and Asche, p. 83.

[19] Deutsche Bundesbank, "The Monthly Report of the Deutsche Bundesbank" (Statistical Section), June 2000, p. 20.

[20] *The Monetary Policy of the Bundesbank*, p. 111.

Default Risk

Because the Bundesbank regularly rediscounted private securities, it was subject to default risk. Presumably that risk was significantly reduced by the requirement mentioned above that all paper have multiple signatures. In 1997, 1.1 million domestic bills totaling DM 276 billion were rediscounted. In the absence of payments, 5,616 bills (0.5 percent) totaling DM 142 million (0.05 percent) were returned and charged to the parties presenting them.[21] That is, the Bundesbank first sought payment from the issuer of the paper, but failing that payment, debited the account of the borrowing depository institution. At the end of 1997, the Bundesbank had about DM 8 billion in "provisions for other purposes," which were for "general risks inherent in domestic and international operations and doubtful liabilities…."[22] Nevertheless, the provisions were primarily for foreign exchange rate risks, as the Bundesbank never experienced a failure of payment on a rediscounted bill.

[21] Deutsche Bundesbank, *Annual Report 1997*, p. 134.
[22] *Annual Report 1997*, p. 172.