Introduction

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How is monetary policy determined in Japan and what role did the policies of the Bank of Japan (BOJ) have in shaping the rapid economic expansion in Japan during the past twenty years? The authors of the papers collected in this book address these questions, with particular emphasis given to how monetary policy has evolved since the early 1980s in light of changing domestic and foreign markets for goods and assets.

The institutional context within which monetary policy has been conducted has evolved substantially over the past two decades. For instance, prior to the early 1970s there was a limited market for long-term national debt. The sizes of the capital markets have grown substantially, though the Japanese treasury-bill market still remains relatively undeveloped. Furthermore, there has been a marked disintermediation of Japanese financial markets: in 1970 approximately 97% of all corporate debt was held by banks and insurance companies, while by 1990 they held only 60% of this debt. In the Japanese money markets, markets for uncollateralized debt (e.g., commercial paper) did not develop until 1989. The maturity structure of all of these markets has also been expanded over time. Not surprisingly, the operating procedures adopted by the BOJ in the postwar period and the subsequent evolution of its operating procedures reflect this history, and differ from those of, say, the United States. Indeed, in some cases, the liberalization of markets in Japan was initiated by the BOJ in order to facilitate the implementation of monetary policy within the increasingly integrated global financial arena.

The central importance of bank credit in financing real investment in Japan and the influence that the BOJ has over the extension of bank credit suggest that monetary policy may have been an important determinant of the flow of...
funds to corporations and, hence, real growth in Japan during recent decades. The following chapters explore this issue in detail, beginning with a comprehensive discussion of the daily operating procedures of the BOJ. This discussion is followed by an exploration of the effects of the instruments of monetary policy on interest rates and bank lending, as well as the effects of changing credit conditions on the investment decisions of firms. Finally, further evidence is presented on the relationship between monetary policy and aggregate fluctuation in Japan during the postwar period.

In the first two chapters, Kazuo Ueda and Kunio Okina discuss how special features of financial institutions and markets in Japan shape the formulation of policy. They stress several important characteristics of the BOJ's operating procedures: the BOJ has always attempted to control a short-term interest rate and not a monetary aggregate; the reserve accounting system in Japan is a hybrid of lagged and contemporaneous reserve accounting systems; and the discount window is the primary instrument for monetary control over short periods of time, not open-market operations. The latter feature arose in part because the short-term money markets were not sufficiently developed to absorb sufficiently large transactions by the BOJ for daily monetary policy activity. Furthermore, the settlement procedures and legal structure of gensaki (re-purchase) agreements is very different than that, say, of the United States in ways that also hinder the use of money markets for open-market operations over short horizons.

While the BOJ's focus on interest rates has been widely discussed (e.g., Suzuki 1987), the BOJ's perceptions about the mechanisms by which it controls interbank call rates has been less extensively debated in the literature. Ueda and Okina provide complementary, though somewhat conflicting, interpretations of the control mechanism, and interesting insights into how the policy-setting process might be expected to evolve in the future. Okina stresses various institutional features of the reserve accounting system and the signaling of the BOJ's target levels of rates in characterizing the BOJ's control of call rates. Specifically, the BOJ signals a target rate for the end of a reserve maintenance period through public announcements and by the way it adjusts the actual relative to required reserves over the maintenance period. Okina argues that the BOJ can effectively achieve its target rate at the end of the period and hence that banks, in seeking to maximize their profits, will behave as if interest rates will converge to this target rate during the maintenance period. Ueda acknowledges the importance of market interventions during the maintenance period by the BOJ in controlling interest rates, but also raises the possibility that direct control of the call rate combined with moral suasion that discourages the flow of funds to other, higher-yielding markets may have been important, especially prior to 1988.

During the summer of 1988, market interest rates (e.g., the Euroyen rates) increased in the expectation of a future tightening of monetary policy. At the
same time, the BOJ kept interbank rates at a relatively low level, so private transactions shifted to the higher-yielding markets. Subsequently, the gap between the call market and Euroyen markets did not narrow appreciably, because of constraints on the access of some institutions to both markets and differences in the maturity structures of the call and unrestricted markets. Consequently, the BOJ's control over market rates was weakened substantially. Accordingly, in November 1988 the BOJ announced major changes in the contract specifications for money markets, including the interbank market, in order to increase the degree of arbitrage between markets.

Ueda also addresses the transmission mechanism by which monetary policy affects real output in Japan. In particular, he provides some evidence on the relative importance of the credit view versus money view of the transmission of policy recently discussed, for instance, by Bernanke and Blinder (1990) and Romer and Romer (1990) for the U.S. economy. Japan is an interesting environment in which to explore this question, because a unique policy instrument is available to the BOJ; namely, it has at times directly controlled the amount of loans that financial institutions can write through "window guidance." Overall, the results suggest a more important role for changes in bank lending than for changes in the money stock in the transmission mechanism in Japan.

The role of BOJ guidance of commercial bank lending in the investment decisions of Japanese corporations is explored more extensively in the chapter by Takeo Hoshi, David Scharfstein, and Kenneth J. Singleton. Previous discussions of the effects of window guidance have often concluded that guidance typically does not change the availability of credit in the economy, but only the source. As such it should be neutral in its effects on real economic activity. Hoshi, Scharfstein, and Singleton argue that, when there are informational asymmetries and capital market imperfections, alternative financing sources may not be perfect substitutes and, consequently, window guidance can have real effects. The empirical evidence using macrodata is consistent with this hypothesis. Moreover, the authors argue that guidance may have distributional effects depending on the relationship between firms and their many sources of credit. Consistent with their thesis, the analysis of firm-level data indicates that firms that are members of an industrial group (keiretsu) tend to invest more than independent firms during periods of tight window guidance.

Window guidance is a secondary instrument of monetary policy. The primary instruments are discount window lending and open-market operations. The effects of the primary instruments of monetary policy on real economic activity are typically viewed as arising from the BOJ's influence on the term structure of interest rates. Though in Japan the BOJ has a direct influence only on short-term interest rates, monetary policy may affect the entire yield curve and, thereby, the costs of capital and investment decisions of firms. Thus, as
in many countries, there is considerable interest in Japan on the relationship between short- and long-term interest rates. John Y. Campbell and Yasushi Hamao investigate whether the expectations theory of the term structure of interest rates explains the comovements of the short and long ends of the yield curve. Given limitations on intermaturity "arbitrage" trading due to restrictions imposed historically by the Ministry of Finance, there are a priori reasons for doubting that the long rates are set as weighted averages of expected short rates in Japan. As Campbell and Hamao note, however, the bond markets have developed rapidly during the past decade, and therefore it is of interest to determine the proportion of variation in long-term rates that is explained by expected changes in short-term rates.

The expectations theory is rejected by the data on Japanese bond yields for both the short and long ends of the yield curve. However, Campbell and Hamao find a significant increase from the early half to the latter half of the 1980s in the correlation between the long-short yield spread and an unrestricted forecast from a vector autoregression of future short rate changes over the life of long-term bonds. Thus, while the long-short yield spread is consistently more variable than what is implied by rational forecasts of future changes in short-term rates, there has been an increase in the forecasting power of the term structure for long-term interest rate movements.

In the last two chapters, Hiroshi Yoshikawa and Kenneth D. West examine the relative importance of various aggregate shocks on real economic activity. Yoshikawa associates monetary policy disturbances with changes in the call rate, while West associates policy disturbances with the residual in an equation describing a monetary aggregate. Both studies find that monetary policy responded endogenously to economic developments in Japan, but that there was also a significant exogenous component as well to the BOJ's actions. Furthermore, they both find that foreign economic disturbances explain a substantial fraction of the variation in real output in Japan.

These studies reach opposite conclusions with regard to the importance of the contribution of monetary policy actions to real economic activity. Yoshikawa finds that monetary policy has had a substantial impact on real output, primarily through its effect on fixed investments and imports. In contrast, West finds that monetary policy has had a negligible effect on real output fluctuation. Reconciliation of these conflicting results may lie in their alternative interpretations of the BOJ's policy variables. As noted earlier, the BOJ has focused primarily on controlling short-term interest rates in Japan, which is consistent with Yoshikawa's use of the call rate as the policy variable. As West notes, if smoothing interest rates is an important objective of the BOJ, then some of the policy disturbances will be attributed to his aggregate demand shock, which is an important determinant of output fluctuation in Japan.

Taken together, the research presented in this book suggests that the institutional setting in which monetary policy has been set in Japan over the past
twenty years has permitted an influence, perhaps a substantial one, by the BOJ on real economic activity in Japan. At the same time the authors catalogue important economic and political pressures both from within and outside Japan for changes in the legal and regulatory environments in which policy is set. As the liberalization of private financial markets has proceeded, there seems to have been a concurrent increase in the BOJ's reliance on market mechanisms, rather than moral suasion, for influencing bank lending activities and interest rates. This evolution has been especially notable over the past few years. In particular, there were substantial changes to money markets introduced in 1988, and many further changes are currently under discussion. One might expect a further weakening of the influence through moral suasion, and increasing reliance on market mechanisms, by the BOJ and Ministry of Finance, as corporations increasingly gain access to overseas markets and the accounting standards for Japanese companies change. Consistent with this view, the BOJ announced in June 1991 that it will no longer use window guidance in the conduct of monetary policy. If this change in policy is maintained, it would constitute another example of a shift from direct administrative guidance of bank behavior to reliance on market mechanisms for controlling loans.

The forms of future liberalization (e.g., the development of a domestic secondary market for corporate bonds) may well have important implications for the degree and channels by which monetary policy affects real economic activity in Japan and, therefore, warrant close observation. In this regard, Japan provides a very interesting and potentially revealing economic environment in which to study the way various "frictions" in credit and other financial markets influence the effects of monetary policy.

There are some very important issues related to monetary policy that are not addressed in these studies. One of the most intriguing of these is the role of monetary policy in the relatively rapid inflation of real asset values (land and common stock) in Japan, and the subsequent rapid decline in their values. Others include the implications of increased coordination among monetary authorities of different countries for the formulation and implementation of policy, and the relationship between the political process and monetary-policy setting in Japan. It is hoped the papers in this book will provide a useful background for addressing these and other important issues related to Japanese monetary policy.

This book is the culmination of a research project on Japanese monetary policy initiated by the National Bureau of Economic Research in 1990. As part of this project, the papers were presented to a small research forum comprising academics from Japan and the United States and several authorities from Japanese financial institutions in Tokyo during April 1991. The authors benefited from the comments of formal discussants as well as discussion with other participants.
References