NORTH-HOLLAND

The Quarterly Review of Economics and Finance
43 (2003) 133–146

The QUARTERLY REVIEW of ECONOMICS and FINANCE

Monetary policy and fixed income returns

Robert R. Johnson [a,*], Gerald W. Buetow [b,1], Gerald R. Jensen [c,2], Frank K. Reilly [d,3]

[a] *Association for Investment Management and Research, 560 Ray C. Hunt Drive, Charlottesville, VA 22903-0668, USA*
[b] *BFRC Services, LLC, 1705 Owensfield Drive, Charlottesville, VA 22901, USA*
[c] *Department of Finance, School of Business, Northern Illinois University, DeKalb, IL 60115-2854, USA*
[d] *Mendoza College of Business, University of Notre Dame, Notre Dame, IN 46530-9762, USA*

Received 20 February 2001; received in revised form 13 November 2001; accepted 6 December 2001

Abstract

This analysis extends the findings of previous researchers by examining the relationship between Federal Reserve monetary policy and long-term returns to various sectors of the U.S. corporate and governmental bond markets. The results of this analysis show that corporate bond market return patterns are strongly associated with Federal Reserve monetary policy periods. Specifically, bond market indexes exhibit higher returns and lower standard deviations of returns during expansive monetary policy environments. In fact, all of the corporate bond indexes analyzed in this study exhibited negative Sharpe ratios during restrictive monetary policy environments. This would indicate that investors would be better off by investing in T-bills rather than corporate bonds during restrictive monetary policy environments. At minimum, the results suggest that investors in the corporate bond market should closely monitor Federal Reserve monetary policy.

JEL classification: E440, E520, E590

Keywords: Monetary policy; Federal Reserve; Fixed income

* Corresponding author. Tel.: +1-434-951-5255; fax: +1-434-951-5220.
E-mail addresses: bob.johnson@aimr.org (R.R. Johnson), gwb@bfrcservices.com (G.W. Buetow), gjensen@niu.edu (G.R. Jensen), frank.k.reilly.1@nd.edu (F.K. Reilly).

1062-9769/02/$ – see front matter
PII: S1062-9769(01)00134-X

1. Introduction

Market participants closely scrutinize Federal Reserve monetary policy. Announcements (and non-announcements) of modifications to existing monetary policy receive considerable attention in the financial press and national media. Markets seemingly rise and fall in reaction to formal Fed announcements and to the carefully chosen words of Federal Reserve chairman Alan Greenspan (e.g., Wessel & Schlesinger, 1998). Academic researchers have also established the relevance of monetary policy announcements by documenting a prominent "announcement effect" associated with Fed announcements.[4] Several researchers have extended this research and show that monetary policy announcements are also associated with subsequent long-term security return patterns (e.g., Jensen, Mercer, & Johnson, 1996; Thorbecke, 1997; Patelis, 1997).

The purpose of this analysis is to extend the findings of earlier researchers by examining the relationship between Federal Reserve monetary policy and long-term returns to various sectors of the U.S. corporate and government bond markets. Jensen et al. (1996) show that the default and term premiums are significantly related to prior announcements of changes in monetary policy. This evidence indicates that the fixed income return patterns identified in past research may differ based on the default risk of the underlying security and its maturity structure. This issue has important ramifications for fixed income investors since it suggests that monetary policy changes should be considered when choosing the default and maturity structure of a fixed income portfolio.

We examine returns using 30 alternative fixed income indexes developed by Lehman Brothers. The findings indicate that the monetary-policy-related return patterns that have been identified by previous researchers differ based on the credit risk and maturity structure of the underlying instrument. This evidence supports the view that monetary policy should play a prominent role in determining the credit risk and maturity structure of a fixed income portfolio.

The remainder of this study is organized as follows: Section 2 presents a basic model that considers the relationship between monetary policy developments and security returns; Section 3 reviews the literature on the influence of monetary policy on security returns; Section 4 details the characterization of the monetary environment; Section 5 describes the methodology of the study and data employed; Section 6 reviews the results of our analysis; and Section 7 concludes the paper.

2. Security returns and monetary policy changes

Nominal interest rates are a function of the nominal risk-free rate and a risk premium. Fisher (1930) indicates that the nominal risk-free rate is determined as follows:

$$1 + R = (1 + r) \times [1 + E(i)] \tag{1}$$

where, R is the nominal risk-free rate, r is the real risk-free rate, and $E(i)$ is the expected inflation rate. Incorporating the influence of risk to this equation yields,

$$R = r + E(i) + r \times E(i) + \mathrm{RP}. \tag{2}$$