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Monetary policy and stock market dynamics across monetary regimes☆

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A B S T R A C T

This paper examines the dynamic linkages between monetary policy and the stock market during the three distinct monetary regimes of Burns, Volcker and Greenspan since the 1970s. Some major findings are the following. First, in the 1990s it appears that there was a disconnection between Federal Reserve actions (via the federal funds rate) and responses by the stock market. Second, the impact of inflation on the stock market did not surface as significant in the later parts of 1980s and the 1990s. And third, significant asymmetric effects of monetary policy on the stock markets were observed throughout each monetary regime but these were more pronounced during bear markets than bull markets. These results suggest that there was no consistent dynamic relationship between monetary policy and the stock market and that the nature of such dynamics was different in each of the three monetary regimes.

1. Introduction

The empirical financial literature on the linkages between monetary policy and the stock market is quite extensive. There are several views that describe how monetary policy affects the stock market.

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One view asserts that increases in the money supply lead to increases in stock prices which, in turn, stimulate the stock market and the economy at large. Given that stock prices are determined by expected dividends and interest rates, any surprises in monetary policy are likely to influence stock prices directly via the interest-rate channel or, indirectly, through changes in the determinants of dividends (as well as the equity premium). Another view suggests that an expansionary monetary policy, by raising asset prices, lowers their expected returns and thus depresses the stock market. This occurs because rising equity prices are considered a possible harbinger of future inflation, which would trigger subsequent Federal Reserve (Fed) counter action.

There is also substantial evidence that stock market behavior influences the monetary policy-maker's decisions. First, stock market declines reduce consumption (i.e., the wealth effect) and investment expenditures (the Tobin's (1969) *q* effect) thereby prompting the Fed to intervene and reverse such trends. Second, in light of the fact that equity markets are forward-looking and reflect private sector expectations about the future state of the economy, the monetary authorities are duly monitoring them closely (i.e., Vickers, 2000). Thus, stock market movements aid the Fed in extracting (hopefully, fundamental) information about possible future policies.

Unfortunately, there is no single, consistent and unifying framework that describes the nature of the interaction(s) between monetary policy and the stock market and this is also reflected in the mixed empirical evidence. Specifically, while some authors report a significant linkage between the two magnitudes others either find absence of it or a weak one. Moreover, several authors examined the asymmetric effects of monetary policy on stock prices and its impact on inflation and arrived at different conclusions. Consequently, the purpose of this paper is to cast another look at such dynamics within the context of a macroeconomic framework and across the three monetary regimes since the 1970s. Specifically, the following questions will be addressed.

First, has monetary policy responded to movements in the stock market or has it been mostly indifferent to such movements during the last four decades? In other words, how have the differing views on conducting monetary policy by Burns in the 1970s, Volcker in the 1980s and Greenspan in the 1990s and mid 2000s impacted the stock market? It is commonly believed that in several (past and recent) testimonies by the Federal Open Market Committee (FOMC) the Fed's chairmen have mentioned the impact of rising stock prices on private wealth and/or aggregate spending. In fact, we can cite two examples as evidence that the Fed paid attention to the stock market. First, during the market crash of 1987 when the Fed was concerned about financial market stability it cut interest rates and stated that it would stand ready to ensure an uninterrupted supply of liquidity in the market.[2] Second, if one looks at the FOMC's meetings transcripts in the 1990s one can conclude that the Fed was mainly worried with the potential consequences of sharp declines in the equity market which could lead to reduced consumption and thus wealth. Furthermore, it is now widely accepted that financial markets paid close attention to the (last) Fed chairman's comments who has repeatedly said that soaring equity prices generate imbalances in economic activity and thus create unstable prices which can endanger the sustainability of long-run economic growth. Finally, Orphanides (2001, 2002), in a series of papers, notes that monetary policy in the 1970s was wrongly aimed at stabilizing an 'elusive' full-employment potential instead of concentrating on safeguarding price stability. The monetary policy rules of the 1970s were reversed in the 1980s and 1990s, however.

The second question we address in the paper is whether the effects of monetary policy on equity returns have been asymmetric, that is, whether monetary policies impacted bull and bear markets differently. Although there is good empirical evidence on such effects of monetary policy on real magnitudes like output (Ravn and Sola, 2004) and monetary policy announcements and surprises on the stock market (Lobo, 2002), research on the effects of monetary policy on market advances (bull markets) and declines (bear markets) has been rather limited. In general, the financial literature suggests that when there are informational disadvantages among market participants, firms and other investors behave as if they are financially constrained (e.g., Kiyotaki and Moore, 1997). Such behavior may become more pronounced during bear markets, due to deterioration in the firms' balance sheets,

[2] The Fed did just that again in recent months when the global credit crises 'hammered' equity markets around the world.