

Monetary policy, stock returns and inflation

Ding Du*

*Department of Economics, Box 504, Scobey Hall, South Dakota State University,
Brookings, SD 57007-0895, USA*

Received 21 June 2002; received in revised form 26 April 2005; accepted 2 June 2005

Abstract

The relationship between stock returns and inflation depends on both the monetary policy regime and the relative importance of demand and supply shocks. A simple analytical framework by which to empirically examine the relative importance of these two factors is developed in this paper. Our findings indicate that the positive relationship between stock returns and inflation in the 1930s is mainly due to strongly pro-cyclical monetary policy, while the strong negative relationship of stock returns and inflation during the period of 1952–1974 is largely caused by supply shocks that were relatively more important in that period. Our results are broadly consistent with the general economic literature on monetary policy and stagflation.

© 2005 Elsevier Inc. All rights reserved.

JEL classification: G12; E52

Keywords: Stock returns; Inflation

1. Introduction

Contrary to the Fisher (1930) view that stocks should be good hedges against inflation, empirical research as early as Lintner (1975) and as recently as Aarstol (2000), document that common stock returns and inflation are negatively correlated in the post World War II period.¹ Two contrasting explanations have been offered to explain this relationship.

* Tel.: +1 605 688 4844; fax: +1 605 688 6386.

E-mail address: ding.du@sdstate.edu.

¹ For more US evidence, see Bodie (1976), Jaffe and Mandelker (1976), Nelson (1976), Fama and Schwert (1977), Schwert (1981), Kaul (1990), Kaul and Seyhun (1990), Wei and Wong (1992), Boudoukh, Richardson and Whitelaw (1994), Domian, Gilster and Louton (1996), Graham (1996), Lee and Ni (1996), and Groenewold, O’Bourke and Thomas (1997). The evidence regarding the relationship between stock returns and inflation in other countries is mixed. Cohn and Lessard (1981), Gultekin (1983), Solnik (1983), Amihud (1996), and Khil and Lee (2000) find a negative relationship in some countries, while Firth (1979), Gultekin (1983), Barnes, Boyd and Smith (1999), Khil and Lee (2000), Crosby

One explanation emphasizes the role of monetary policy.² It suggests that the relationship between stock returns and inflation can be either negative or positive depending on whether monetary policy is counter or pro-cyclical. Kaul (1987) supports this explanation. He provides evidence of a positive relationship between stock returns and inflation during the period of the Great Depression when monetary policy was pro-cyclical, and evidence of a negative relationship in the post World War II period when monetary policy was counter-cyclical.

The second explanation stresses the relative importance of demand and supply shocks in determining the relationship between stock returns and inflation.³ In these models, supply shocks generate a negative relationship between stock returns and inflation, while demand shocks result in a positive one. The actual relationship between stock returns and inflation thus depends on the relative importance of demand and supply shocks. This explanation is substantiated by Hess and Lee (1999), who find evidence that the postwar negative relationship between stock returns and inflation is consistent with the relative importance of postwar supply shocks, while the prewar positive relationship is consistent with the relative importance of prewar demand shocks.

On the basis of these studies, a rational expectations model of stock returns and inflation is presented and serves two functions. First, it illustrates the idea that the relationship between stock returns and inflation depends on both the monetary policy regime and the relative importance of demand and supply shocks. Accordingly, both changes in the monetary policy regime and changes in the relative importance of demand and supply shocks can, in principle, cause changes in the relationship between stock returns and inflation. Second, it provides an analytical framework in which to empirically estimate the relative impact of these two factors in determining the actual changes in the relationship between stock returns and inflation.

Using a new econometric technique developed by Bai and Perron (1998, 2001, 2003), we then search for structural breaks in the relationship between stock returns and inflation. Motivating the use of this new technique is the lack of consensus in the literature regarding the identification of the structural break date(s)⁴ and the problematic approaches used by other researchers in their identification. Kaul (1987) chooses a structural break based on a change in the monetary policy regime without consideration of changes in the relative importance of demand and supply shocks. Our own investigation using the new technique demonstrates that Kaul then fails to identify two structural breaks due to the changes in the relative importance of demand and supply shocks.⁵ In fact, structural breaks in the relationship between stock returns and inflation are difficult to determine in such an analytical way, because changes in this relationship may be caused by changes in the monetary policy regime, changes in the relative importance of supply and demand shocks, or both. To avoid such problems, this study uses the econometric procedure developed by Bai and Perron (1998, 2001, 2003) that allows us to search endogenously for structural breaks.

(2001), and Choudhry (2001) find a positive relationship in other countries, especially those with high inflation rates. Long horizon empirical evidence tends to support the Fisherian view. Gultekin (1983), Boudoukh and Richardson (1993), and Solnik and Solnik (1997) all find a positive correlation between the expected nominal stock returns and expected inflation.

² See Fama (1981), Geske and Roll (1983), Boyle and Young (1988), and Boyle and Peterson (1995).

³ See Danthine and Donaldson (1986) and Marshall (1992).

⁴ Kaul (1987) identifies 1940 as the single break in this relationship, while Hess and Lee (1999) suggest 1944 is the appropriate date.

⁵ This explains why he finds that the relationship between stock returns and inflation depends only on the monetary policy regime. Hess and Lee (1999) indicate that their choice of the structural break is based on the empirical evidence in Kaul (1987).

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات