Monetary Policy, Financial Constraints and Equity Return: Panel Evidence

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ABSTRACT

This paper examines the effects of monetary policy shocks upon the equity returns of financially constrained and less-constrained firms by augmenting the Fama and French (1992, 1996) multifactor model and using a dynamic panel data approach. Monetary policy shocks are generated via a recursive structural VAR (SVAR) identification scheme which allows the monetary authority to set the overnight interbank rate after observing the current value of world oil price, foreign income, foreign monetary policy, domestic output and inflation. The firms are split into two categories namely, financially constrained and financially less-constrained using the cash-flow to income ratio. The results reveal that the equity returns of financially constrained firms are more affected by domestic monetary policy shocks than the returns of less constrained firms. However, international monetary policy shocks significantly influence the equity returns of financially less-constrained firms, but not the financially constrained firms.

Keywords: Monetary policy; financial constraints; Augmented Fama and French; dynamic panel data

INTRODUCTION

This paper examines monetary policy shocks (domestic and international monetary policy) effects upon the equity returns of financially constrained and less-constrained firms in an emerging market economy (i.e. Malaysia). For this purpose, the following research design is employed. First, an identified monetary policy change series is generated via an open economy recursive structural VAR (SVAR) identification scheme. Second, firm stock returns are assumed to follow an augmented Fama and French (1992, 1996) multifactor model, which is then estimated using a dynamic panel technique in generalized method of moment or GMM framework. Third, the firm-level data set is divided into two categories that are financially constrained and less constrained firms using the methodology proposed by Kaplan and Zingales (1997).

Theoretically, the negative response of stock market returns to monetary policy changes can be explained by two theories, namely, the 'financial propagation' mechanism as proposed by Bernanke and Gertler (1989), and the 'credit channel' mechanism as discussed by Bernanke and Gertler (1995). First, according to the 'financial propagation' mechanism, an adverse monetary policy shock raises the information and agency cost associated with external finance, which in general reduces access to bank loans and external finance. Thus, this forces the firm to decrease the investment level, and eventually reduces the cash flow and stock returns. Second, under the 'credit channel' mechanism, the effect of monetary policy on equity return works through the 'balance sheet channel' and the 'bank lending channel'. The mechanism under the 'balance sheet channel' is similar to the 'financial propagation' mechanism. In contrast, under the 'bank lending channel' it is expected that a contraction of monetary policy leads banks to shrink the supply of loans and charge higher interest rates for new loan contracts, subsequently causing a decline in firms' cash flow and real earnings as well as stock returns.

There are two reasons that motivate this study. First, a good understanding of why an individual stock return reacts so differently to monetary policy is crucial for the monetary authority and