The effect of monetary policy on the supply of credit: a new approach to identifying the firms' balance sheet channel

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Abstract

A new approach is proposed for identifying the firms' balance sheet channel, which directly estimates the effect of monetary policy on the supply of credit by way of its effect on net worth. The approach consists of two stages: In the first, the effect of monetary interest rate surprises on the market value of public companies is estimated for a sample of about 200 public companies in Israel during the period 2007–10. The estimated change in market value as a result of interest rate surprises serves as an approximation for changes in a firm's net worth. In the second stage, the effect of the estimated change in market value on the change in a firm's amount of credit is estimated. The findings of the first stage indicate that an unexpected reduction of 25 basis points in the interest rate leads to an average increase of about 1.25 percent in market value, although there is a high degree of heterogeneity in firms' responses. The findings of the second stage show that the estimated change in market value has a positive effect on the quantity of credit among financially constrained firms. It is found that an increase of 1 percent in estimated market value leads to an increase of about 0.5–0.9 percent in total credit. The estimated change in market value primarily affects long-term credit and is felt primarily among firms in the manufacturing industry, and it is amplified when the criteria for identifying financially constrained firms are more stringent. Combining the results of the two stages leads to the assessment that a 25 basis point reduction in the interest rate leads to an average increase of about 0.6–1.2 percentage points in the quantity of credit among financially constrained firms, beyond the interest rate effect on all firms. The findings support the existence of a balance sheet channel in Israel. As such, the assessment is that the sharp reduction in the interest rate in Israel during the period 2008–9 (by 3.75 percentage points) led to a significant increase in total credit to financially constrained firms by way of the balance sheet channel. The findings of the research, which relate to public companies only, are apparently a lower bound on the balance sheet channel.