finance and numerous aspects of the tax code, including personal and corporate rate taxes, investment tax credits, and depreciation deductions. Stock-market fluctuations influence the cost of capital by affecting the expected cost of equity finance. A decline in the stock market implies an increase in the expected cost of equity finance and, thus, in the cost of capital.

Focusing on the cost of capital as the link between the stock market and investment, however, ignores the advantages of the $q$ approach. In theory, stock-market fluctuations occur in response to new information about both future demand and future capital costs. If true, this implies that $q$ should be more informative than the cost of capital.

As a practical matter, however, the advantages of the $q$ approach have yet to be realized. While financial markets seem to respond to a wide variety of economic data, economists have not reached agreement on how to isolate the information contained in market values relevant to investment decisions. If market values are not equal to the present discounted value of future returns to capital, the link between $q$ and the rate of investment is weakened substantially. In addition, measuring the replacement value of the capital stock is complicated by continual technological change and lack of price information for many types of unique physical assets. Measurement of market values of financial liabilities is difficult because many financial liabilities are not widely traded.

Conclusion

In this Economic Commentary, we have focused on the relations between $q$, stock-market fluctuations, and investment. The links between the three are greatest if financial markets correctly incorporate information about future returns from the capital stock. Even then, however, the response of investment to a change in $q$ is not immediate because of costs incurred in adjusting the capital stock and the delay inherent in the appropriations-orders investment process. Another problem that persists even if financial-market values are correct is the difficulty of calculating marginal $q$.

The usefulness of average $q$, which is more easily measured than marginal $q$, is limited in analyzing short-run changes in investment. If stock-market values are not correct, $q$ may have been the case during the recent market rise and plunge, the link between $q$ and investment is weaker still. In that case, movements in the stock market may be expected to influence investment through their effect on the cost of financing investment.

However, recent research emphasizes that some firms may fail to respond to changes in the cost of equity finance because of financial constraints. Of course, a focus on the cost of capital as the mechanism through which stock-market fluctuations influence investment ignores the advantage of $q$ that incorporate information about market values, not just the expected cost of capital. Unfortunately, as a practical matter, the advantages of the $q$ approach have yet to be realized.

References


addition to the capital stock, however, firms need to compare the market value of the returns to be generated by additions to the capital stock and the cost of adding to the capital stock. If the ratio between the market value and the cost for additions (marginal q) exceeds one, net investment (BFI) minus depreciation will be positive. If marginal q falls below one, net investment will be negative.

Even if a change in q reflects a change in the correct valuation of the future returns generated by the capital stock, the response of investment to a change in marginal q will be delayed and drawn out. If the stock market rises, increasing q, firms first have to decide that a larger capital stock is desired before appropriating funds and placing orders for new equipment. If q falls, firms could reduce investment by canceling orders, or could decide to reduce stock and material purchases. Since many orders are actually cancellable, investment expenditures depend on previously placed orders. To further complicate matters, expenditures do not necessarily coincide with the delivery and installation of new capacity. In fact, there is some evidence that payment is spread out over the time that orders are placed and the time of delivery. Because it is costly to change the size of the capital stock rapidly, the response of investment to a change in marginal q will be delayed and drawn out. If the stock market rises, increasing q, firms first have to decide that a larger capital stock is desired before appropriating funds and placing orders for new equipment. If q falls, firms could reduce investment by canceling orders, or could decide to reduce stock and material purchases. Since many orders are actually cancellable, investment expenditures depend on previously placed orders. To further complicate matters, expenditures do not necessarily coincide with the delivery and installation of new capacity. In fact, there is some evidence that payment is spread out over the time that orders are placed and the time of delivery. Because it is costly to change the size of the capital stock rapidly, the response of investment to a change in marginal q will be delayed and drawn out. If the stock market rises, increasing q, firms first have to decide that a larger capital stock is desired before appropriating funds and placing orders for new equipment. If q falls, firms could reduce investment by canceling orders, or could decide to reduce stock and material purchases. Since many orders are actually cancellable, investment expenditures depend on previously placed orders. To further complicate matters, expenditures do not necessarily coincide with the delivery and installation of new capacity. In fact, there is some evidence that payment is spread out over the time that orders are placed and the time of delivery. Because it is costly to change the size of the capital stock rapidly, the response of investment to a change in marginal q will be delayed and drawn out. If the stock market rises, increasing q, firms first have to decide that a larger capital stock is desired before appropriating funds and placing orders for new equipment. If q falls, firms could reduce investment by canceling orders, or could decide to reduce stock and material purchases. Since many orders are actually cancellable, investment expenditures depend on previously placed orders. To further complicate matters, expenditures do not necessarily coincide with the delivery and installation of new capacity. In fact, there is some evidence that payment is spread out over the time that orders are placed and the time of delivery. Because it is costly to change the size of the capital stock rapidly, the response of investment to a change in marginal q will be delayed and drawn out. If the stock market rises, increasing q, firms first have to decide that a larger capital stock is desired before appropriating funds and placing orders for new equipment. If q falls, firms could reduce investment by canceling orders, or could decide to reduce stock and material purchases. Since many orders are actually cancellable, investment expenditures depend on previously placed orders. To further complicate matters, expenditures do not necessarily coincide with the delivery and installation of new capacity. In fact, there is some evidence that payment is spread out over the time that orders are placed and the time of delivery. Because it is costly to change the size of the capital stock rapidly, the response of investment to a change in marginal q will be delayed and drawn out.

Changes in expectations about the tax code can also cause marginal and average q to change. The investment tax credit affected the replacement cost of new capital and, thus, marginal q. Tax-code provisions regarding deductions for depreciation affect the replacement value of the existing capital. In figure 4, q is the ratio of the market value of a firm's capital stock to the replacement value of the existing capital stock.

Changes in expectations about the tax code can also cause marginal and average q to change. The investment tax credit affected the replacement cost of new capital and, thus, marginal q. Tax-code provisions regarding deductions for depreciation affect the replacement value of the existing capital. In figure 4, q is the ratio of the market value of a firm's capital stock to the replacement value of the existing capital stock.

Changes in expectations about the tax code can also cause marginal and average q to change. The investment tax credit affected the replacement cost of new capital and, thus, marginal q. Tax-code provisions regarding deductions for depreciation affect the replacement value of the existing capital. In figure 4, q is the ratio of the market value of a firm's capital stock to the replacement value of the existing capital stock.

Changes in expectations about the tax code can also cause marginal and average q to change. The investment tax credit affected the replacement cost of new capital and, thus, marginal q. Tax-code provisions regarding deductions for depreciation affect the replacement value of the existing capital. In figure 4, q is the ratio of the market value of a firm's capital stock to the replacement value of the existing capital stock.

Changes in expectations about the tax code can also cause marginal and average q to change. The investment tax credit affected the replacement cost of new capital and, thus, marginal q. Tax-code provisions regarding deductions for depreciation affect the replacement value of the existing capital. In figure 4, q is the ratio of the market value of a firm's capital stock to the replacement value of the existing capital stock.

Changes in expectations about the tax code can also cause marginal and average q to change. The investment tax credit affected the replacement cost of new capital and, thus, marginal q. Tax-code provisions regarding deductions for depreciation affect the replacement value of the existing capital. In figure 4, q is the ratio of the market value of a firm's capital stock to the replacement value of the existing capital stock.

Changes in expectations about the tax code can also cause marginal and average q to change. The investment tax credit affected the replacement cost of new capital and, thus, marginal q. Tax-code provisions regarding deductions for depreciation affect the replacement value of the existing capital. In figure 4, q is the ratio of the market value of a firm's capital stock to the replacement value of the existing capital stock.

Changes in expectations about the tax code can also cause marginal and average q to change. The investment tax credit affected the replacement cost of new capital and, thus, marginal q. Tax-code provisions regarding deductions for depreciation affect the replacement value of the existing capital. In figure 4, q is the ratio of the market value of a firm's capital stock to the replacement value of the existing capital stock.