Asset Mispricing

Overview

The law of one price states that assets with the same payoff have the same price. Although this no arbitrage condition appears to be satisfied most of the time, a growing literature reveals cases whereby this condition has been violated, thus potentially resulting in arbitrage opportunities. In this paper, the authors use a unique data set of corporate bonds explicitly guaranteed by the full faith and credit of the U.S. to explore the law of one price in the corporate bond market. They find significant and persistent mispricing of the guaranteed corporate bonds over time and across bonds. The authors then use this data set to explore a number of practical theories about why prices might diverge from their fundamental values.

Investigation

A central tenet of modern financial theory is that the price of a security should equal the present value of its cash flows; that is, its fundamental value. This means that assets with the same fundamental value should trade at the same price within or across markets. However, the law of one price concept has been challenged by examples of assets prices that seemingly diverge from their fundamental value, especially during, but not limited to, financial crises and major market events. Such deviations are important because they may lead to arbitrage opportunities, but equally important is that they provide researchers with an opportunity to better understand the conditions that may give rise to them. Asset mispricing could be a reflection of broader macro issues, for instance, or funding or capital constraints faced by the institutions that own or trade the assets. Or perhaps there are some micro issues related to specific characteristics of the assets in question that are driving mispricing.

Seeking to gain such insights into the reasons for market mispricing, the authors explore a unique dataset that focuses on corporate bonds that were issued under an explicit debt guarantee program administered by the Federal Deposit Insurance Corporation (FDIC). They then compare the yields on these U.S. government guaranteed corporate bonds with those of comparable U.S. Treasury bonds, which of course are also guaranteed by the full faith and credit of the U.S. This then facilitates an accurate price comparison between two types of bonds with the same cash flows (identical coupon and maturity date) and credit risk. Any price deviations from Treasury bonds (the yield spread does not equal to zero) means the law of one price has been violated. Over the sample period 2008-2012, they document significant and persistent mispricing averaging 20 basis points with dramatic variation in the amount of mispricing over time and across bonds.

The literature points to several possible drivers of deviations from fundamental value including intermediary capital, funding liquidity, slow-moving capital, and liquidity effects. To understand whether these drivers may be behind any observed mispricings, the authors' database also provides information on intermediary funding costs and haircuts, dealer networks and inventory positions, trading and positions of non-dealer financial institutions, and various liquidity measures. A number of important lessons about asset pricing are drawn from exploring these potential drivers.

- The evidence suggests that their observed deviations from fundamental values may represent an important source of systematic risk in the financial markets as evidenced by a high degree of commonality in the observed mispricings. Furthermore, these deviations may actually have toxic effects on markets through a destabilizing impact on margins and dealer funding costs.
- There is a positive relation between mispricing and dealer funding costs, meaning that capital constraints may play an important role in asset pricing.
- Results suggest that asset prices may be driven by forces that are unrelated to either cash flows or discount rates, a finding at odds with the law of one price that dictates asset prices should be equal to the present value of their cash flows.

Conclusion

Using a unique data set of corporate bonds explicitly backed by the U.S., the authors add to the growing roster of cases whereby asset prices diverge from fundamental value. Their results provide practical evidence for theoretical models that suggest disruptions to intermediary funding costs and capacity lead to violations of the law of one price in markets. Asset prices can therefore be driven by common factors such as margin constraints unrelated to cash flows and discount rates may be destabilizing and thus represent an important source of systematic market risk to investors. For instance, increases in market mispricing may lead to margin and funding spirals.