# Trading

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## Market Liquidity and Funding Liquidity

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The funding of traders affects — and is affected by — market liquidity in a profound way. Traders provide market liquidity, and their ability to do so depends on their availability of funding. Conversely, traders' funding depends on the assets' market liquidity.

In this paper, we provide a model that links an asset's market liquidity (i.e., the ease with which it is traded) and traders' funding liquidity (i.e., the ease with which they can obtain funding). Based on these links, we provide a unified explanation for the main empirical features of market liquidity.

We show that, under certain conditions, margins are destabilizing and market liquidity and funding liquidity are mutually reinforcing, leading to liquidity spirals. The model explains how market liquidity (i) can suddenly dry up, (ii) has commonality across securities, (iii) is related to volatility, (iv) is subject to "flight to quality" and (v) co-moves with the market. The model provides new testable predictions, including that speculators' capital is a driver of market liquidity and risk premiums.

Whereas earlier research used a fixed- or decreasing-margin constraint — say, $5,000 per contract — we study how market conditions lead to changes in the margin requirement itself (e.g., an increase from $5,000 to $15,000 per futures contract, as happened in October 1987) and the resulting feedback effects between margins and market conditions as speculators are forced to de-lever.

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