

Practitioner Roundups

sfi:knowledge
www.sfi.ch/knowledge

October 2015 | No 4

Do Margin Regulation Measures Limit Excessive Leverage?

In the aftermath of the latest financial crisis, top-level calls were being made for margin regulation measures to limit excessive leverage on financial markets. Have such measures been effective in the past, and how should they be designed to have the desired impacts on the markets?

Following the US stock-market bubble of 1927–29 the Federal Reserve Board (FRB) was granted the power to set initial margin requirements for margin trading—that is to say, investors building a leveraged position in securities using loans that are collateralized by the securities that are purchased. The margin requirement dictates how much investors can borrow against these securities. The FRB established Regulation T to set minimum margin requirements for such partially loan-financed transactions of exchange-traded securities.

“The vast majority of a sizeable empirical literature does not find substantial evidence that regulating margin requirements in stock markets had an economically significant impact on market volatility.”

Eighty years later, as margins and haircuts, with a possible countercyclical add-on, are again being recommended at the highest levels of policy-making, the question whether Regulation T was or was not an effective policy tool is more pertinent than ever. An effective response to current calls for the regulation of margin requirements needs a better understanding of the economic mechanism underlying margin regulation. With this as their goal, four authors including SFI's Felix Kübler and Karl Schmedders have revisited Regulation T, providing a model-based explanation for the inconclusive findings regarding its effectiveness, and exploring how the successful regulation of margin requirements may be designed.

The authors' model considers two broad classes of financial assets that can be used as collateral for short-term loans. For the first class of assets the margin requirement is exogenously regulated by a regulator while the requirement for the second asset class is chosen endogenously by market participants. As—in this model economy—the ability of investors to borrow against collateral leads to a large increase in market volatility as

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compared to markets in which such borrowing is prohibited, it is natural to think that regulating margin requirements will have a stabilizing effect on financial markets.

However, in line with the empirical Regulation T-related evidence on margin regulation in US stock markets that the paper reviews, the authors show that if investors have access to another (unregulated) class of collateralizable assets to take up leverage, changes in the regulation of one class of assets may have only small effects on those assets' return volatility. In fact, regulatory changes in the regulated market have much stronger effects on the return volatility of the unregulated class of assets because investors become much more active in the unregulated market.

“Raising the margin requirement for one asset class may barely affect its volatility if investors have access to another, unregulated class of collateralizable assets.”

While one may regard Regulation T as a regulatory fossil, margin requirements and haircuts remain popular regulatory policy tools on modern financial markets. Low margin requirements or haircuts are believed to have contributed to the buildup of leverage in repo and securities lending markets, as well as derivative markets, before the most recent financial crisis, thus contributing to the onset of the crisis and creating new dangers for financial stability. Naturally the question arises how regulation of margins and haircuts should be designed to have the desired impacts on financial markets.

To answer this question, the research paper examines a slightly adjusted form of margin regulation: countercyclical margin requirements. With constant margins, the same minimum margin requirements apply over the whole business cycle. For countercyclical margin regulation, the regulator has the power to impose additional margins in boom times.

“A very strong dampening effect on all assets' return volatilities can be achieved by countercyclical regulation of all markets.”

The authors demonstrate, in the context of their model, that countercyclical margin regulation of all asset classes in the economy has a very strong dampening effect on asset return volatility. In such a setting, agents are prohibited from excessively leveraging in unregulated markets, thereby lowering asset price volatility in all financial markets.

Thus, as the authors argue, if measures currently being proposed allow regulators to set countercyclical margins, a quantitatively significant reduction in volatility can be achieved. Margin regulation has a much stronger impact on asset return volatility if all financial assets in the economy are regulated. In such an economy, countercyclical regulation that imposes sufficiently large macroprudential add-ons on margin levels in high-growth states can lead to significant reductions in asset return volatility. The authors' paper was referred in recent speeches on policy implications made by European Central Bank Vice-President Vítor Constâncio.

“While our model is designed for the analysis of stock market margin regulation, we believe that our theoretical findings may also be relevant for the current debate on the regulation of margin requirements in repo and securities lending markets. Moreover, our findings also suggest that such a framework should have a broad scope to maximize the quantitative impact on financial markets.”

The full paper can be found at <http://bit.ly/1LRV2tX>.

Key Words

Collateral constraints
Margin requirements
Regulation T
General equilibrium

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