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Securities Transaction Tax: Costs May Outweigh Benefits

Daniel Weaver

Finance Professor Dan Weaver revisits his paper on the effects of a security transaction tax. The research from two years ago shows that a security transaction tax deteriorates market quality, increases volatility, widens spreads, reduces trading volume and brings a related increase in price impact.



For decades politicians have proposed taxing security transactions as a way to increase government revenues. While increases in personal and corporate taxes would also increase revenue, proponents argue that a security transaction tax (STT), unlike income taxes, would also discourage speculative trading and reduce volatility by, as James Tobin stated, “throw[ing] sand in the wheels of financial markets.”

In contrast, opponents of an STT argue that the tax harms market quality by reducing volume, increasing volatility, and adversely impacting price discovery. Recently, Greenwich Associates conducted a survey of Wall Street professionals as to their opinion of the impact of a Security Transaction Tax on market quality. The responders expressed fear that the imposition of a STT would do just that and harm market quality.

Academic Paper on Transaction Tax

Two years ago, I published and coauthored a paper with Anna Pomeranets of Florida Atlantic University. “Securities Transaction Taxes and Market Quality” empirically examines STTs, and thus serves as a complement to the Greenwich Associates report. In particular we examine nine changes in the level of an STT imposed by New York State from 1932 to 1981 and three changes to a US federal STT from 1932 to 1966.

We also compare our results with 11 previous empirical papers on the subject. Those papers examined STT changes in the US, Europe, and Asia. The previous empirical literature does not reach a consensus, perhaps in part because of the statistical constraints imposed by each paper’s STT event. For example, previous papers examining the relationship between STTs and market share were only able to observe post STT changes in market share between countries.

In contrast we are able to examine 9 New York and 3 federal STT changes in the same market, as well as the market share between markets using the same currency (e.g. the NYSE v. the Chicago Stock Exchange). We are able to exploit other anomalies. For example, the July 1, 1945 reduction in STT was only on stocks selling for less than \$10 a share. This allows us to compare stocks over the same market conditions but with tax changes based on share price.

Market Quality Issues

We examine a broad range of market quality measures, including: volatility; spreads; volume; market share; price impact; and price efficiency. We calculate changes in each measure of market quality before and after the change in STT. We control for variables known to be associated with each market quality measure.

We find that an increase in an STT is associated with an increase in average stock volatility (at least for larger STT levels). So rather than reducing volatility as proponents of an STT claim, STTs are directly related to volatility. STTs actually appear to cause the wheels of financial markets to slip and slide instead of slowing them down.

Our results further suggest that STTs are associated with changes in effective bid–ask spreads in the same direction. Proponents of STTs claim that STTs will make trading more expensive for speculators causing them to trade less often. We find that STTs raise costs for *all* traders as liquidity suppliers widen spreads by the amount of their increased cost of trading.

Although we find mixed results regarding the relationship between STTs and market share, we find that volume moves in the opposite direction of STT changes. As STTs go up, traders stop trading. Trading volume acts as a shock absorber for price impacts, thus reductions in volume should be

associated with higher price impact. That is exactly what we found. Higher price impact raises the cost of trading for larger trades. Those measures not discussed yielded mixed results.

Harms Market Quality

Our findings largely come down on the side of opponents of the tax, who suggest that an STT will harm market quality. Imposing an STT will result in an increase in volatility, a widening of spreads, a reduction in volume and a related increase in price impact. Because a firm's cost of capital has been shown to be proportional to its spread, imposing an STT may hinder economic growth by reducing the number of positive net present value projects.

In short the fears of traders expressed in the Greenwich report will be realized. There *are* economic costs to an STT.

Daniel G. Weaver (<https://www.business.rutgers.edu/faculty/dan-weaver>) is a professor of Finance at the Rutgers University Business School. His research and teaching focus is on security design, security market structure, and e-commerce. He has over 35 published articles in finance journals. Recent papers include an examination of the value of liquidity providers, the impact of internalization on market quality, and market microstructure effects of security transaction taxes. He has served as a consultant to the American Stock Exchange, New York Stock Exchange, Stockholm Stock Exchange, Toronto Stock Exchange, and the Securities Industry Association.