

EVIDENCE IN OPPOSITION TO SECURITIES TRANSACTION TAXES: THE CASE OF JAPAN

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In the aftermath of the 2008 U.S. financial crisis, the long debated topic of securities transactions taxes has resurfaced. A securities transaction tax is a tax levied on both the sale and purchase of securities in financial markets. The resurgence of this topic has been fueled through legislation introduced in Congress by Senator Tom Harkin and Congressman Peter DeFazio. Proponents of the tax believe that the tax engenders a number of benefits including the ability to curb speculative trading and therefore volatility in the capital markets as well as the ability to provide significant tax revenue. Robert Litan, in his paper "The Mythical Benefits and Real Dangers of Securities Transaction Taxes," questions the validity of many of the common arguments used in favor of the tax. In so doing, he astutely points to a number of previously failed transaction tax policies in Japan, Sweden, and even the United States as evidence against the benefits of the tax. This paper will further examine Japan's experience with a securities transaction tax.

In 1953, Japan introduced a securities transaction tax on its stock market that lasted until 1999. The transactions tax was initially 0.15% for stock transactions but reached as high as 0.55% in 1981. Beginning in 1989, there were a number of rate reductions, as part of the *Japanese Big Bang*, before the tax's complete elimination in 1999. In 1998, the Japanese Tax Commission stated that it was getting rid of the tax, affirming that "as financial globalization advances ... if ... transaction fees and turnover taxes remain high relative to the international standard, transactions themselves may shift outside Japan." According to Henry Sender of The Wall Street Journal, Japan's ministry of finance felt

¹ Christopher L. Culp, "Financial Transaction Taxes: Benefits and Cost," (2010): 4, Available at *SSRN*: http://ssrn.com/abstract=1572962 or http://dx.doi.org/10.2139/ssrn.1572962.

² Hiroyuki Ono and Minoru Hayashida, "A Turnover Tax, Transactions Costs and Stock Trading Volume: The Case of Japan," *Journal of Economic Literature* (2005): 4.

that by removing the tax on securities transactions, Japan would "attract foreign investors to yen-based securities."³

Ono and Hayashida (2005) quantitatively examine the impact of a transactions tax on trading volume. They focus on the phase-out period of the tax, 1995 to 2000, which includes years before and after the termination of the tax. Using time series regression, the study finds that transaction costs significantly reduced stock trading volume in the Japanese market. Specifically, Ono and Hayashida find a short term trading volume elasticity in the range -0.459 to -0.643 with respect to transaction costs⁴ (including transaction taxes). The term "elasticity," used here, measures the extent to which a change in transaction costs affects trading volume in the stock market. In general, the elasticity of stock market trading volume has been found to range from -0.5 in the short run to -1.7 in the long run. To better quantify what Japan's elasticity means we can look at China as an example. Baltagi et al. (2006) find that the increase in China's transactions tax to 0.5% from 0.3% in 1997 resulted in a one-third reduction in trading volume, implying an elasticity of only -0.5 with respect to the transactions tax.⁵ Ono and Hayashida additionally examine the temporal movement of transactions taxes and conclude that the magnitude of its effect appears to have increased over time.⁶

Liu (2007) provides further support of the specific effects of Japan's transaction tax on trading volume. Liu finds a trading volume elasticity of -1.0 with respect to Japan's transactions tax on stocks. Alternatively, Hu (1998), examining 14 transactions tax rate changes in Hong Kong, Japan, Korea, and Taiwan during the period 1975 to 1994, found that transactions taxes had no impact on trading volume. However, Hu deduces that his findings are most likely the result of tight regulations in Asian markets during the period under study. This, he writes, greatly inhibited trade from moving overseas, away

³ Henry Sender, "Japan Wants Yen to Go Global Government out to Attract Foreign Investors to Yen-based Securities," *The Wall Street Journal*, January 7, 1999, B7.

⁴ Ono and Hayashida, "A Turnover Tax," 24.

⁵ Thornton Matheson, "Taxing Financial Transactions: Issues and Evidence," *IMF Working Papers* (2011): 1-48, available at *SSRN*: http://ssrn.com/abstract=1784582.

⁶ Ono and Hayashida, "A Turnover Tax," 29.

from the Asian markets that were being taxed.⁷ In addition, it has been suggested by some, including Ono & Hayashida (2005), that the methodology used by Hu may not be appropriate or complete.⁸ Regardless, people currently trading in the U.S. financial market would much more easily be able to migrate toward (untaxed) overseas markets.

It has also been found that transaction costs, such as transactions taxes, can have a negative effect on the price discovery process (the price discovery process refers to the process by which buyers and sellers interact in the marketplace to determine an asset's price). In general, we observe the market immediately reacting to new information, which, according to efficient price discovery, would result in very low or even zero autocorrelation between returns (the existence of autocorrelation would signify that there is correlation between the returns for different periods). However, because transactions taxes reduce trading volume, new information will not be as quickly incorporated into market pricing and will result in greater autocorrelation between returns. In fact, Liu (2007) finds that in 1989 when Japan first lowered its transactions tax, the first order autocorrelation between Japanese stock price changes reduced to a comparable level with that of the autocorrelation found between the untaxed American Depository Receipts ("ADRs") for the same stocks that were being traded in the U.S. stock market.9

There is also evidence that even modest transactions taxes can greatly decrease asset prices, making it more costly for corporate security issuers to raise capital.¹⁰ For example, Hu (1998) finds, for the Asian markets that he examined, on average there will be a 1% decline in daily market returns for every 23% rise in transaction costs (including the tax rate).¹¹ Liu (2007) had a similar finding for Japan alone, concluding that the April 1989 reduction in Japan's tax rate led to an increase in Japanese stock prices but had no

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⁷ Thornton Matheson, "Taxing Financial Transactions," 16.

⁸ Ono and Hayshida, "A Turnover Tax," 14.

⁹ Thornton Matheson, "Taxing Financial Transactions," 18.

¹⁰ Christopher L. Culp, "Financial Transaction Taxes," iii.

¹¹ Thornton Matheson, "Taxing Financial Transactions," 15.

impact on the prices of the corresponding ADRs for the same stocks traded in the U.S.¹² Hu's findings, however, do not lend support to the hypothesis that transactions taxes affect return volatility in any clear direction. Hu finds that volatility is higher during the high tax period than during the low tax one, but that finding is not statistically significant.¹³ Hu finds that "the evidence is not consistent with the hypothesis that stock transaction tax can reduce noise trading and volatility."¹⁴

The evidence supports what the Japanese government began to realize from the start of its elimination of the tax in 1989: Japan's transactions tax was shifting trading outside of Japan, decreasing asset prices, creating greater autocorrelation, and was showing little if any evidence of reducing market volatility. In other words, the case study of Japan's experience with a securities transaction tax supports Robert Litan's arguments against the purported benefits of the tax.

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¹² Christopher L. Culp, "Financial Transaction Taxes," 11-12.

¹³ Ishani Tewari, "Securities Transactions Tax: Is It Effective?" *Economic and Political Weekly* (2004): 4407.

¹⁴ Christopher L. Culp, "Financial Transaction Taxes," 24.

References

- Culp, Christopher L. "Financial Transaction Taxes: Benefits and Cost." (March 16, 2010). Available at *SSRN*: http://ssrn.com/abstract=1572962 or http://dx.doi.org/10.2139/ssrn.1572962.
- Matheson, Thornton. "Taxing Financial Transactions: Issues and Evidence." *IMF Working Papers* (2011): 1-48. Available at SSRN: http://ssrn.com/abstract=1784582.
- Ono, Hiroyuki and Minoru Hayashida. "A Turnover Tax, Transactions Costs and Stock Trading Volume: The Case of Japan." *Journal of Economic Literature* (2005):1-50.
- Sender, Henry. "Japan Wants Yen to Go Global Government out to Attract Foreign Investors to Yen-based Securities." *The Wall Street Journal*, January 7, 1999, B7.
- Tewari, Ishani. "Securities Transactions Tax: Is It Effective?" *Economic and Political Weekly* (2004): 4406-10.