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The Mythical Benefits and Real Dangers of Securities Transaction Taxes

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Introduction

There is a widely known legal maxim that "hard cases make bad law." If there is a political corollary, it is likely to be something to the effect that "backlashes threaten to make bad policy."

By the summer of 2012, there was plenty of fuel driving a popular backlash against the U.S. financial services industry. In 2007-08, some of its largest members required rescue from various federal agencies aiming to prevent a systemic financial meltdown, while others failed altogether. Though a meltdown was avoided, the costs were substantial. The bailouts and rescues fueled deep public resentment of both the financial industry and the government. Critics have accused the banks of taking excessive risks at the expense of taxpayers (even though many banks, including a few large ones, failed, with shareholders of these firms losing much or all their investments), and the government of helping the well-heeled while letting small and mid-sized firms and the millions who lost their jobs essentially fend for themselves (despite receiving extended unemployment insurance benefits). The image of the financial industry wasn't helped much when shortly after the economy began recovering from the crisis, some of the firms that had been rescued showered their executives with large bonuses or stock awards. The multi-billion-dollar trading loss suffered by J.P. Morgan in 2012, until then perhaps the most admired bank in the industry, only seemed to confirm in the public's mind that the largest banks were not to be trusted.

The securities exchanges have had their own share of embarrassments. Putting aside the steep fall in stock prices during the depth of the financial crisis, retail investors seemed to be more scarred by seemingly extreme volatility in stock prices during the long recovery that followed. The "flash crash" of May 2010 heightened these concerns, as did subsequent breakdowns in the

[1] At the time this essay was initially prepared, during the summer of 2012, the author was Vice President for Research and Policy at the Kauffman Foundation, a Senior Fellow in the Economic Studies Program at the Brookings Institution, and a Growth Fellow at the Bush Institute. In August, 2012, he became the Director of Research of B-Gov, a subsidiary of Bloomberg LLP. The views expressed here are his own and not those of his previous or current employers.

computer systems of two of the leading electronic exchanges: BATS (when it tried to go public on its own exchange) and NASDAQ (during the record-setting initial public offering by Facebook). The computerization of securities trading still grows, however, especially reflected in the increasing activity of "high frequency" traders who seek to eke out tiny profits on an extraordinarily large number of trades. Many believe that these traders contribute to speculation, which in turns makes securities prices more volatile.

Independent of these events in the capital markets, federal policymakers are slowly recognizing the need to do something big and sustained to bring down the large and growing structural federal budget deficit. It hasn't been easy. The best that Congress and the President could do, after weeks of political brinksmanship culminating in a short-term extension of the federal debt ceiling during the summer of 2011, was to kick the budget can down the road by triggering $1.5 trillion in budget cuts over 10 years if Congress fails to agree by the end of December 2012 on a 10-year plan of its own that achieves the same goal. But even that plan is insufficient to bring the federal budget under control over the long run, and thus elected officials continue to hunt for the least politically painful ways to close the budget gap.

The combination of these various developments — the growing unpopularity of Wall Street, a growing feeling that there is too much speculation in the capital markets, and the ongoing search to address the unsustainable federal budget deficit — have combined to fuel growing interest in imposing a securities transactions tax (hereafter referred to as "transactions tax"). On its face, supporters of a transactions tax argue it would kill two birds with one stone: It would curb speculation while substantially increasing revenue for the federal government. This was precisely the pitch made by Senator Tom Harkin and Congressman Peter DeFazio when they introduced transaction tax legislation before Congress in 2009. Since that time, interest in the idea only appears to have grown, and not just in Congress, but also among a number of prominent economists and business leaders in Europe. Françoise Hollande even made the introduction of a transactions tax an important part of his platform in winning the French Presidency in May 2012.

My purpose in this essay is simple: to deflate the transactions tax proposal, notwithstanding its apparent allure, for what I believe are several sound and compelling reasons. First, it is not clear that reducing speculation — which would also reduce liquidity — is a good idea. Second, even if

reducing speculation is a good idea, there is no solid evidence that a transactions tax would actually reduce speculation. Third, unless a transactions tax is imposed globally, huge volumes of transactions are likely to migrate to other locales, dramatically reducing the revenue anticipated from the tax. Finally, even in the unlikely event that the tax is implemented widely around the world, the shrinkage in liquidity in the effected markets would also significantly reduce the revenue expected from the tax. Meanwhile, the costs of completing transactions would rise, and thus the costs of raising capital would also increase. For these reasons, transactions taxes are fundamentally inconsistent with the goal of promoting economic growth.

Securities Transactions Tax Proposals: A Brief Primer

Transactions taxes are not new, and in fact, have been tried in certain forms at certain times in various countries. In the United States, a number of states, initially New York in 1905 and later Massachusetts and Pennsylvania, imposed a very modest stock transfer tax designed to raise revenue. The federal government also maintained a small transfer tax (pennies per share) for a similar reason from 1914 to 1966 (except for a brief period from 1916-17). Elsewhere, transactions taxes have been in place at various times in Hong Kong, Japan, Korea, Sweden, Taiwan, and the United Kingdom.

Transactions taxes also have been supported by several noteworthy economists for an entirely different reason: to curb short-term speculation. John Maynard Keynes (1936) endorsed the idea with respect to stocks in 1936. In 1978, James Tobin (1978) suggested extending the tax to transactions in foreign currency. Both believed by "throwing some sand in the gears" of financial markets, a transactions tax would dampen price volatility. Subsequently, Joseph Stiglitz (1989) and Larry and Victoria Summers (1989) added their support (albeit the latter more cautiously than the former), asserting that a tax would discourage "noise" traders from contributing to "excess" market volatility.

Since the financial crisis of 2007-08, interest in transactions taxes in the United States has resurfaced. In 2009, Senator Tom Harkin and Congressman Peter DeFazio proposed a transactions tax with the seemingly primary aim of cutting the federal deficit — by $150 billion annually they claimed — and the side benefit of limiting speculation. Under the Harkin-DeFazio

proposal, transactions in stocks, futures contracts, partnership interests, swaps, and options would be subject to a tax of 0.25% (each way), or in Wall Street parlance, 25 basis points (long-term non-governmental bond transactions would be taxed at 20 basis points). The bill's authors claim their transactions tax would help make "Wall Street" pay for the financial crisis and would "appropriately disincentivize excessive speculation," while having a "negligible impact on the average investor and pensions," presumably because of its small size and because the proposal would "refund" (or essentially exempt) transactions entered into by mutual funds, pension funds, and other tax-favored savings vehicles.[2]

In what follows, I critique the premises behind transactions taxes in general, but frequently refer to the DeFazio-Harkin legislation as its most recent, comprehensive expression.

Speculation is not the Evil it is Cracked Up to Be

Before discussing the likely impacts of a transactions tax like DeFazio-Harkin, it is important to question one of its key premises: that some measure of government intervention is somehow required to curb "speculation."

While it is undeniable that speculators have had a bad name for centuries, their denigration is largely unwarranted. For one thing, it is difficult to determine who is a speculator. All purchasers who buy stock — or go long — do so because they expect the price to go up. Conversely, short sellers enter into their transactions with the expectation that the price will fall. How does either activity make the individual a "speculator" rather than a mere "investor"?

The conventional answer to this question hinges on the time frame of the investment. Supposedly short-term holding of any position — long or short — is what defines a speculator. But if this is the case, then what about arbitrageurs, who may hold a position for a second or less, buying or selling merely to take advantage of the fact that the price of the same instrument is different in

[2] See generally the House version, H.R. 4191, "Let Wall Street Way for the Restoration of Main Street Act of 2009," http://www.govtrack.us/congress/billtext,exp?bill=h111-4191. (DeFazio bill), or the Senate version, S. 2927, "Wall Street Fair Share Act," http://www.govtrack.us/congress/billtext.expd?bill=s111-2927. (Harkin bill).

two venues? Are we to define as speculators only those who do not engage in arbitrage between two different markets?

If so, is speculation then only to be defined *after-the-fact*, when positions turn out to be losing propositions? What then are we to do with positions that turn a profit but which allegedly contribute to a price bubble (as has been claimed for the oil market)? It takes little time to realize that one question simply leads to another, and thus there is no clear resolution to these questions.

Nonetheless, supposing the definitional challenge can be met, what is so wrong with speculation, or the holding of a position in a security for some short period of time in expectation of profit? If it were not for "speculators" taking the other side of "hedging transactions" — those entered into by parties seeking to avoid the effects of price volatility, such as when commodities producers sell their products "forward" before they are harvested, or when manufacturers buy futures contracts to lock in the prices of key inputs — then many markets would lack the liquidity to function effectively. And without liquidity, that is the willingness of parties to trade on both sides of a position, there are no markets, or at the very least, the "spreads" between what buyers "ask" and sellers "bid" is wider than it would otherwise be. Viewed this way, which of course is the correct way, speculators (however they are defined), not only make markets but they bring down the cost of trading. This, in turn, makes it easier for parties to protect themselves in volatile times, which enhances investment and thereby facilitates growth.

Transactions Taxes are Not Likely to Curb Undesirable "Speculation"

Again, supposing one can somehow define "undesirable" or "excess" speculation, is a transactions tax a defensible way of reducing it?

In light of the distinguished intellectual origins of the idea, one would think that some evidence would exist to show that transactions taxes reduce speculation. On close inspection of the literature, however, the results are mixed at best, and certainly do not provide the definitive evidence of reduced speculative trading that advocates of a transactions tax assert.

This is the conclusion reached in what I believe is the most comprehensive study of the subject, by Anna Pomerants of the Bank of Canada and Daniel Weaver of Rutgers Business School (2011). Of the nine papers they reviewed that have conducted empirical analyses of the changes in price volatility after transactions taxes were introduced in the United States, only one finds that the taxes reduced volatility; the rest either show that the taxes *aggravated* volatility by reducing liquidity, or had a statistically insignificant impact. Of the five studies of the relationship between transactions taxes and volume of transactions that the authors reviewed, one finds that the taxes have a statistically significant adverse impact on volume, while the rest also find the same directional effect (a negative impact), though it is not statistically significant.

The authors also report their own statistical study based on the transactions tax that New York imposed, at varying rates from 1905 to 1981 (the taxes in Massachusetts and Pennsylvania were too miniscule to have any effect on transactions or revenue). They find, not surprisingly, that increases in the New York transactions tax reduced volumes traded and widened spreads, by raising transactions costs for investors. Furthermore, they find no evidence that higher transactions taxes reduce price volatility, a proxy for speculation.

There is even less evidence from other countries that transactions taxes have reduced price volatility. A comprehensive survey of studies through 2004 by Ishani Tewari indicates that *none of the countries that have instituted transactions taxes have seen volatility decline.*[3] Indeed, in one country, Sweden, volatility actually *increase*d.[4] I have more to say about the failed Swedish experiment in the next section.

There is an inherent limitation, however, to the prior empirical studies reported in the Pomerants/Weaver and Tewari surveys. Specifically, virtually all of these studies were conducted before the huge drop in trading costs over the past decade, driven by major and continuing reductions in computing and communications costs. The revolution in information technology and communications also continues to lower the costs of conducting financial transactions across national borders. In addition, the studies of the U.S. based transactions taxes were carried out

[3] Ishani Tewari, "Securities Transactions Tax: Is it Effective?," *Economic and Political Weekly* (2004): 4406-10.
[4] Stephen R Umlauf, "Transaction Taxes and the Behavior of the Swedish Stock Market," *Journal of Financial Economics* (1993): 227-40.

before the SEC's decimalization mandate — that equity trades be carried out in "decimals" or penny increments — which has dramatically lowered the bid-ask spreads in these markets. In combination, these changes have hugely reduced the costs of transacting in equities, and even in other financial instruments that would be affected by any new transactions tax, whose costs would thus represent much larger incremental costs of trading, magnifying by a considerable margin any impacts on trading volumes. In short, the prior studies of the impacts of transactions taxes on price volatility and trading volume cannot be readily extrapolated to predict the effects of any future transactions taxes, whose negative impacts almost certainly would be greater than anything found in prior studies.

Notwithstanding the paucity of evidence regarding the impact of transactions taxes on speculative activity, the relatively recent increase in "high frequency trading" — which now accounts for over half the trading on U.S. equities exchanges — has prompted a new wave of concern about short-termism in markets, and thus renewed interest in transactions taxes as a way of addressing it. High frequency trading is conducted primarily by hedge funds and other professional traders who move in and out of stocks and other financial instruments in milliseconds principally to arbitrage narrow price differences between markets for like instruments. *But arbitrage is not speculation, and thus should not be penalized by any form of tax.* Furthermore, even high-frequency trading that may take the form of directional bets does not deserve the opprobrium that transactions tax proponents urge. As Professor Burton Malkiel — one of the leading academic scholars on financial markets and author of the widely read *Random Walk Down Wall Street* (multiple editions) — has written with co-author George M. Sauter:

> *Far from destabilizing or creating volatility in the market, their actions [those of high-frequency traders] significantly increase trading volume, reduce spreads, promote price discovery, and ultimately reduce transactions costs for long-term investors.*[5](emphasis added).

[5] Burton Malkiel and George M. Sauter, "A Transactions Tax Would Hurt All Investors: The Unintended Consequences of the 'Let Wall Street Pay for the Restoration of Main Street Act'," *The Wall Street Journal,* December 8, 2009.

Even if "excessive speculation" could be identified, a transactions tax is a blunt instrument for reining it in. That is because the tax cannot discriminate between short-term traders who are speculating or hedging, or between short-term traders who do not contribute to increases in market volatility and those who might. As Craig Hakkio, former chief economist at the Federal Reserve Bank of Kansas City explains:

> Economic theory suggests that transaction taxes could either increase or decrease excess volatility. For example, assume there are two kinds of traders—informed traders and noise traders. Informed traders assess the fundamental value of a security, then buy when the price is low and sell when the price is high. By increasing the cost of trading, a transactions tax reduces the amounts of both noise trading and informed trading… if the tax reduces informed trading more than noise trading, excess volatility could rise.[6]

The Failed Cases of Sweden and Japan

Although markets in financial instruments have long had an international character, today they are more global than ever. The "trading book" of the larger banks, investments banks, hedge funds, and other institutional players in the markets literally moves with the sun, from one market center to another, 24 hours a day.

The global nature of financial markets underscores the fact that any country attempting to impose a transactions tax on its own — even one like the United States, with broad and liquid markets — risks rapidly losing substantial trading business to other venues where no transactions tax is in place. If there is any doubt about this proposition, it should be dispelled by the experience of Sweden, which enacted a transactions tax in 1984 on stocks (50 basis points each way or 100 basis points round-trip) and derivatives (200 basis points on stock options, plus another 100 basis points when the options were exercised).

[6]Craig Hakkio, "Should We Throw Sand in the Gears of Financial Markets?" Federal Reserve Bank of Kansas City, *Economic Review* (1994): 22.

Although markets were international then, they were not as global as they are today. Nonetheless, shortly after the Swedish transactions taxes were put in place, trading in Swedish stocks plunged: 60% of the volume of 11 most frequently traded stocks migrated to the London exchange. These trades represented 30% of all trading volume in Swedish equities. And by 1990, half of all Swedish equities were trading in foreign markets.[7]

The adverse impact of the Swedish transactions tax was even more dramatic outside the equities arena. By the late 1980s, bond transaction volume was down 85%, while options trading disappeared almost entirely.[8]

Not surprisingly, in light of these results, the Swedish government abandoned its transactions tax in December 1991. Largely because of the huge drop in trading volumes, the tax did not reduce market volatility (if anything, as suggested above, it increased it), and it clearly failed to generate the revenue its supporters had expected.

A similar experience led Japan to eliminate its transactions tax, which was introduced in 1953 but was eliminated in 1999. Two scholars who had studied the Japanese experience concluded that the tax was abolished because it "came to be acknowledged as a distortion of securities transactions and thus an impediment to the development of Japan's capital markets."[9]

Much the same result almost certainly would happen if the U.S. were to introduce a transactions tax now. To be sure, the size of the tax embodied in the DeFazio-Harkin bill, about 25 basis points, is much lower than the one implemented in Sweden. But the costs of transacting, both within and across national borders, have also come down greatly since the 1980s. Given the many foreign trading centers that rival the main exchanges in the United States — in London, Frankfurt, Hong Kong, Singapore and Tokyo, and potentially elsewhere — a transactions tax in the range proposed in the DeFazio-Harkin bill, or even much lower, would almost surely have a

[7] Umlauf, "Transaction Taxes," 8-9.
[8] John Y. Campbell and Kenneth Froot, "International Experiences with Securities Transactions Taxes," *NBER Working Paper Series*, Paper No. 4587 (1993): 8-9.
[9] Hiroyuki Ono and Minoru Hayashida, "A Turnover Tax, Transactions Costs and Stock Trading Volume: The Case of Japan," *Journal of Economic Literature* (2005).

similar or potentially even larger negative trading impact on the U.S. today than was the impact generated by the Swedish transactions tax decades ago.

Even Global Transactions Taxes Will Not Produce the Results Proponents Seek

The only way to prevent migration of trading activity would be to enact the transactions tax globally. Although there is support for a transactions tax in France and perhaps in other European capitals, there is no evidence of universal support for the idea, especially from Asian markets, or in countries where new markets could easily and quickly arise. Even an internationally agreed on tax would not necessarily have the same effect in each country.

Consider as one example the Basel bank capital standards, now in their third iteration. Even though the numbers and methodologies used in those standards are ostensibly the same for each country adhering to the standards, the *implementation* of those standards (especially in the way national bank examiners classified non-performing loans) has not been identical, nor adequate, as the financial crisis has illustrated. Similarly, the supposedly uniform International Financial Reporting Standards (IFRS) — which have been adopted or are in the process of adoption in most countries in the world — nonetheless permit national variations. It would be a surprise if a transactions tax ended up the same in every country after what surely would be lengthy negotiations to produce a globally accepted transactions tax.

But even if by some miracle a global consensus could be reached on a transactions tax — on the financial instruments covered by the tax and the amount of the tax — the tax will not generate the benefits its supporters claim.

First, a global transactions tax is not likely to generate anything close to the revenue supporters might anticipate. That is because the large and continuing decline in the costs of executing trades implies that even a small bit of "sand in gears" — in the form of a transactions tax at a rate even lower than that proposed in the DeFazio-Harkin bill — would substantially reduce the profitability of short-term trading, especially high-frequency trades that now account for at least half of the trading volume in U.S. equities markets. It is not unreasonable to expect that *all* of the

trading volume that operates on very thin margins would just simply disappear.[10] The disappearance of those trades could thus easily cut in half any revenue projected from a transactions tax based on current transactions volumes.

Indeed even before the growth in high-frequency trading, researchers had concluded that the "stamp tax" in the United Kingdom — that country's transactions tax — had reduced transactions in the financial transactions affected and depressed share prices.[11] Or as Campbell and Froot estimated, "since [the] U.K. stamp duty appears to account for about half total trading costs in U.K. equities, [our] estimates imply turnover *is less than half what it might in absence of the stamp duty"* (emphasis added).[12] And again, this result was estimated *before the advent of high frequency trading.*

Transactions tax supporters, of course, would point to any reduction in short-term trading (but not any associated reduction in share prices) as a benefit, indeed the very reason imposing a transaction tax makes sense. But any such conclusion is short-sighted. As should be clear from the arguments and evidence present thus far, a dramatic drop in trading volume would not only greatly reduce the revenue projections of transactions tax supporters, but the sharp decline in trading volume would also make markets far less liquid, and thus more susceptible to the kinds of price swings, or volatility, that transactions tax supporters claim they want to dampen. The Swedish experiment with transactions taxes certainly proves that. And even the studies of transactions taxes imposed by the states in the United States provide no clear evidence of reducing price volatility, with some studies showing contrary results, as well.

Conclusion

In sum, transactions taxes are a bad idea whose time has not come (to paraphrase a quip by former Senator Phil Gramm about the original Gramm-Rudman budget sequester bill adopted by the Congress in the 1980s). The tax is easily evaded if not implemented globally, a very unlikely prospect. And even if a global consensus were miraculously achieved *and enforced,* even a small

[10] Malkiel and Sauter, "A Transactions Tax."
[11] Steve Bond, Mike Hawkins and Alexander Klemm, "Stamp Duty on Shares and its Effect on Share Prices," *Institute for Fiscal Studies*, Working Paper (2004).
[12] Campbell and Froot, "International Experiences," 14.

transactions tax imposed on today's highly liquid, extremely low cost trading environments, would dry up trading, cutting drastically any revenues expected from the tax while failing to achieve the ostensible objective of transactions tax supporters: reduced price volatility. Indeed, to the extent that any drop in liquidity leads to *greater price volatility* — a possible result given past experiences with the tax — then the tax will not only have added costs for investors, but also increased market uncertainty, which would raise the cost of capital and dampen economic growth.

It's time to shelve the transactions tax idea once and for all.

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