

Memo to Robin Hood Tax Coalition

**Thoughts on Tax Rates and Revenue Potential for Financial Transaction
Tax in U.S. Financial Markets**

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(with references added 6/9/12)

Caveat Emptor

You have requested that we come up with our best assessment as to what the appropriate tax rates should be for a Financial Transaction Tax (FTT) for the United States. You have also asked us to give our best estimate as to what the revenue potential would be from setting an FTT at the rates we consider appropriate.

As one of us (Bob) has explained over the phone, in fact, it is very difficult to establish the answers to your questions on the basis of serious analysis and references to evidence and credible research. Nevertheless, we understand the importance of getting some handle on the question beyond what we provided in our December 2011 paper, "Transaction Costs, Trading Elasticities and the Revenue Potential of Financial Transaction Taxes for the United States." This is what we attempt to do in this memo.

To begin with though, again, we emphasize that our conclusions are not based on anything close to the type of solid foundation in research and evidence that one would normally expect in considering such an important question. Unfortunately, to our knowledge, such research and evidence are simply not available, to us or anybody else. At the same time, given what we know about the available evidence and research, as well as on how other organizations have advanced policy recommendations on this question, we think that our conclusions are based on a foundation of evidence and reasoning that is at least as firm, if not firmer, than any other proposals of which we are aware. We include in this judgment both the proposal for the EU FTT as well as the Harkin/DeFazio proposal for the U.S.

Proposed Tax Rates and Revenue Estimates

We will first state our conclusions, then provide some, though not all, of the underlying reasoning behind these conclusions.

Proposed Tax Rates

<i>Financial Instrument</i>	<i>Proposed Tax Rate</i>
Stocks	50 basis points
Bonds	15 basis points
Derivatives	0.5 basis points

Assumption on Trading Volume

We assume that, due to the imposition of the FTT at the rates we propose above, trading volume will fall no more than 50 percent relative to current levels of trading. For purposes of our calculations, we assume that trading volume does fall by 50 percent in all financial markets.

Revenue Generated

<i>Financial Instrument</i>	<i>Revenue Generated</i>
Stocks	\$62 billion
Bonds	\$170 billion
Derivatives	\$120 billion
TOTAL	\$352 BILLION

Analysis and Evidence to Support Conclusions

Evidence tied to the UK Stock FTT

In our view, the single most reliable piece of evidence for assessing the impact of an FTT for U.S. financial markets is the existing FTT that operates on stocks in the United Kingdom. The UK stock FTT is set at 50 basis points. A 50 basis point FTT was also the proposal that was made for the United States in 1987 by then House Speaker Jim Wright. Wright's proposal was

supported by then Treasury Secretary Nicholas Brady and then Budget Director Richard Darman, who were working under Republican President George H.W. Bush.

In our December 2011 paper, we provide evidence showing that transaction costs in U.S. stock markets are almost exactly 50 basis points lower than those in the UK. So the difference between transaction costs in the US and UK markets is basically accounted for in full by the 50 basis point FTT in the UK.

According to current data, the ratio of trading volume to market capitalization in the UK stock market is roughly half the ratio of the United States. The UK ratio is approximately 60 percent volume/capitalization, while for the U.S., including both the NYSE and NASDAQ, the volume/trading ratio is approximately 120 percent.

Based on these findings that 1) the difference in transaction costs on stocks between the U.S. and UK is the difference created by the UK's 50 point basis point tax; and 2) trading volume relative to market size is about half as large in the UK compared with the US, we conclude as a best guess that trading volume in the US would fall by 50 percent after an FTT of 50 basis points were imposed on the U.S. stock market. This amounts to assuming that the trading elasticity of stock trading in the U.S. relative to transaction costs is -0.3.

We should also add that, in the U.S. case, if we establish the FTT on stocks in conjunction with FTTs on bonds and derivatives, that will have the effect of reducing the trading elasticity. This is because traders will not be able to avoid paying the tax by migrating out of stocks and into bonds or derivative trading. As such, we assume that our estimate of a -0.3 elasticity—i.e. a 50 percent fall in trading due to the imposition of the FTT—is a relatively safe estimate.

Assumption of a -0.3 Trading Elasticity for Bonds and Derivatives

Having established that a -0.3 trading elasticity is a supportable figure for a stock FTT at 50 basis points, we are going to assume that this same elasticity will prevail in both the US bond and derivative markets. We do not have direct evidence on whether this is appropriate. But it is broadly consistent with the findings we reviewed in our December 2011 paper.

Setting FTT Tax Rates for Bonds and Derivatives

Bonds. The evidence we report in our December 2011 paper shows that transaction costs in U.S. bond markets are approximately one-third those in the U.S. stock market (see Table 1). These results then suggest that the FTT for the bond market should be about 1/3 that for the stock market. Thus, if we set the stock market FTT at 50 basis points, the bond market FTT should be 16.7 basis points. We round that figure down to 15 basis points. Thus, we are assuming a 15 basis point FTT for bonds, and that bond trading will fall by 50 percent when this tax is operating in the U.S. bond market.

Derivatives. Derivatives are valued according to two metrics, their notional value and their market value. For example, with a Credit Default Swap that is an instrument insuring the payment on a \$1,000 bond, the notional value of that CDS is \$1,000. However, this CDS is an insurance policy covering payments on the underlying bond, so its market value is not equal to the value of the bond itself. According to the Bank of International Settlements, the most reliable international source of data on the global derivative market, the average ratio of the market value of derivatives relative to their notional value is about 3-4 percent. For the purposes of our discussion, we assume market values are the lower figure, i.e. 3 percent of notional values.

Most derivative instruments are written for the purpose of guaranteeing loans of various sorts, such as bonds or mortgages. As such, we should set the FTT rate on derivatives based on the transaction costs for bonds rather than for stocks. Hence, if the FTT on bonds is 15 basis points, we should set the FTT for derivatives at 3 percent of that bond rate, i.e. at 0.5 basis points, or 0.005 percent. This means that the FTT on derivatives will be 0.5 basis points relative to the notional value of the derivative instrument. With the CDS example above, if a \$1,000 CDS is traded, then the FTT on that trade will be 5 cents.

Total Trading Volume and Calculation of FTT for U.S. Financial Markets

The table below pulls together the evidence and analysis presented above. We show here how we reach the conclusion that, with the FTT rates set at 50 basis points for stocks, 15 basis points for bonds, and 0.5 basis points for derivatives, and assuming a 50 percent fall in all financial market trading volume, the FTT would generate about \$350 billion in revenue.

<i>Financial Instrument</i>	<i>2011 Trading Volume</i>	<i>FTT Tax Rate</i>	<i>FTT Revenues Assuming no trading reduction</i>	<i>FTT Revenues assuming 50% fall in trading</i>
Stocks	\$25 billion	50 basis points	\$125 billion	\$62.5 billion
Bonds	\$225 billion	15 basis points	\$340 billion	\$170 billion
Derivatives	\$4 trillion	0.5 basis points	\$240 billion	\$120 billion
TOTALS	---	---	\$705 billion	\$352.5 billion

Data Sources and Assumptions for Figures on Trading Volume (added 6/9/12)

Equities. Data on the daily dollar value of trades for the NYSE and the NASDAQ are from SIFMA (Securities Industry and Financial Markets Association) on-line statistics (<http://www.sifma.org/research/statistics.aspx>). The monthly average for January 2012 was used to calculate total annual trading volume in dollars.

Bonds. Data on the daily dollar volume for all U.S. bonds are from SIFMA (Securities Industry and Financial Markets Association) on-line statistics (<http://www.sifma.org/research/statistics.aspx>). The monthly average for January 2012 was used to calculate total annual trading volume in dollars.

Derivatives. Data on notional amounts outstanding for over the counter (OTC) and exchange traded derivatives from the Bank for International Settlement's (BIS) database of derivative statistics (<http://www.bis.org/statistics/derstats.htm>) were used to estimate trading volume for the United States. Estimates were calculated using the North American market share for exchange traded derivatives, as indicated in the BIS data. To keep estimates of trading volume conservative, we assumed an annual turnover of 1 (i.e. annual trading volume was assumed to be equal to notional amounts outstanding). Data were based on June 2011 estimates accessed in March 2012.