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The Potential Revenue from Financial Transactions Taxes

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The economic crisis of the last two years has led to serious concerns about the sharp growth in the federal government's fiscal deficit as well as the government's overall debt burden as a share of total U.S. GDP. Many analysts also believe that an excessive share of the economy's resources is being consumed by the financial sector. A financial transactions or trading tax is a policy tool that can address both issues: raising a substantial amount of revenue and also reducing the size of financial trading in the U.S. economy relative to the economy's level of productive activity. This paper calculates the revenue potential from a set of financial trading taxes. It updates an earlier set of calculations, using a similar methodology.[1] The rationale for the tax rates selected is explained more fully in that paper.

Table 1 shows the revenue that can be raised from taxing the trades of each major category of financial assets traded in U.S. markets—i.e. stocks, bonds, foreign exchange, and derivative assets (i.e. options, forwards, futures, and swaps). It shows revenue under alternative assumptions as to the responsiveness of trading volume to the tax. The first scenario assumes that trading volume does not change at all after the tax is implemented, the second scenario assumes a 25 percent reduction in trading volume, and the third scenario assumes a 50 percent reduction in volume. The calculations are based on the level of trading in U.S. financial markets in 2008. (The basis for these calculations is explained in the appendix.)

As Table 1 shows, most of the revenue projected from the tax would come from stock transactions. If there were no reductions in trading from the 2008 level, then a tax of 0.5 percent on each stock transaction would raise almost $220 billion a year. If trading fell back by 50 percent, then the tax would still raise almost $110 billion a year on stock trades. The second largest source of revenue is bond trading. Assuming no reduction in trading volume, a tax that was applied at a rate of 0.01 percent for each year to maturity would raise $52.4 billion annually. Assuming a 50 percent reduction in trading volume the tax would raise $26.2 billion. The third largest source of revenue is a tax on trades in swaps. Assuming no reduction

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in trading volume, a tax applied at the rate of 0.01 percent for each year to maturity would raise $46.3 billion annually. With a 50 percent reduction in trading volume, the revenue would be $23.2 billion.

TABLE 1
Estimated Revenue from Financial Transactions Taxes by Source

	Transactions in 2008 (billions $)	Assumed Reduction in Trading Volume		
		0%	25%	50%
		Revenue (billions $)		
Stocks and Equities	43,325.6	216.6	162.5	108.3
Bonds	262,143.9	52.4	39.3	26.2
Options Premiums	1,680.3	8.4	6.3	4.2
Foreign Exchange Spot Transactions	156,634.5	15.7	11.7	7.8
Futures (notional amount outstanding)	71,449.7	14.3	10.7	7.1
Swaps (Notional amounts outstanding)	115,867.8	46.3	34.8	23.2
Total		**353.8**	**265.3**	**176.9**

Applied across the full range of financial assets listed in Table 1, a set of transactions taxes could raise $353.8 billion annually based on 2008 trading volumes. If trading fell by 50 percent in response to the tax, then the tax would raise $176.9 billion. In the context of a 10-year budget horizon, assuming a 50 percent reduction in trading volume, this set of financial transactions taxes would raise more than $1.7 trillion.

Appendix

Data for transactions are based on 2008 trading volumes. This is both because it is the most recent year for which full year data are available and also because volumes were unusually depressed in 2009 due to the plunge in stock prices and other events associated with the economic crisis. Trading volume in 2008 was down considerably from 2007, so the year does not provide an abnormally high base year for our calculations. The following sections outline the tax rate structure and sources used for the calculations in Table 1. A fuller explanation of the methodology and justification for the rate structure can be found in Pollin et al, 2003.

Equities

The assumed tax rate for equities is 0.5 percent on a transaction, or 0.25 percent on each side. The data on trading volume for equities are taken from the NASDAQ Monthly Market Summary, available at http://www.nasdaqtrader.com/Trader.aspx?id=MonthlyMarketSummary and NYSE Technologies: Market Data, available at http://www.nyxdata.com/nysedata/default.aspx?tabid=115.

Bonds

Data on trading volume in bonds were taken from the Securities Industry and Financial Markets Association's "Average Daily Trading Volume in the U.S. Bond Market," available at http://www.sifma.org/uploadedFiles/Research/Statistics/SIFMA_USBondMarketTradingVolume.pdf. It was assumed that the average transaction involved a bond with 2 years to maturity, implying a 0.02 percent tax rate. (The data available do not give trading volumes by years to maturity.)

Options

Data on options trading were obtained from the Options Clearing Corporation's "Monthly Volume Reports," available at http://www.optionsclearing.com/webapps/monthly-volume-reports. Trading volume was summed over all options. The tax rate applied was 0.5 percent of the premium price, the same as the rate on stock trades.

Foreign Exchange

Data on foreign exchange spot transactions were obtained from the Foreign Exchange Volume Survey done by the New York District Federal Reserve Bank, available at http://www.newyorkfed.org/fxc/2009/fxc012709.pdf. The assumed tax rate is 0.01 percent on each transaction.

Futures and Forwards

Data on the outstanding volume of commodity futures and forwards was obtained from U.S. Commodities Futures Trading Commission's "Quarterly Index Investment Data," available at http://www.cftc.gov/marketreports/IndexInvestment/index.htm. Data on foreign exchange futures and forwards was obtained from CME Group, CME Group FTP Data, available at http://www.cmegroup.com/CmeWeb/ftp.wrap/webmthly. It was assumed that all forwards and future were turned over an average of once a year (the data provide information on the value of outstanding futures and forwards, not turnover). The tax rate applied is 0.02 percent on each transaction.

Swaps

Data on swaps was taken from Bank of International Settlements, available at http://www.bis.org/statistics/derdetailed.htm. Following the pattern with bonds, the tax rate for swaps is assumed to 0.01 percent for each year until maturity. The calculations assume an average life to maturity of 1.5 years and therefore a tax rate of 0.015 percent. The data provide the volume of outstanding swaps. The calculations assume an average turnover of 2 times per year.

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[1] Pollin, Robert, Dean Baker, and Marc Schaberg. "Security Transactions Taxes for U.S. Financial Markets," *Eastern Economic Review*, Vol. 29, No. 4 (Fall 2003): 527-558, http://www.peri.umass.edu/236/hash/aef97d8d65/publication/172/.