

THE IMPACT OF FINANCIAL SECTOR TAXATION ON FINANCIAL MARKET STABILITY

Małgorzata Twarowska
Maria Curie Skłodowska University, Poland
gosia.twarowska@wp.pl

Jolanta Szolno-Koguc
Maria Curie Skłodowska University, Poland
jszolno@hektor.umcs.lublin.pl

Abstract:

The aim of this paper is to assess the effects of financial sector taxation. The positive arguments of the introduction of such taxes include need to create and financing the funds of the orderly liquidation or recovery under the European Recovery Plan and Resolution Regime. The negative consequences is worsening the conditions of competition and the cost of bank credit and rising prices.

The purpose of this article is also to answer the question whether the empirical analyses confirm the potential of Financial Transaction Tax to reducing the scale of speculations on the financial markets. The article contains characteristic of different Financial Transaction Taxes applied in OECD member states and the impact of the Financial Transaction Tax on the scale of market speculation.

Keywords: financial transaction tax, stability function, financial crisis, financial markets, European Union, globalization

1. THE THEORIES OF FINANCIAL STABILITY

The international financial crisis 'subprime' caused the discussion on the theory of financial stability, the methods to achieve stability, the financial safety system and the role of the state in this regards. In the literature there are different definitions of stability.

A. Crockett defined financial stability based on the criteria of maintaining the stability of the key institutions and markets – recognizing that then they are able to properly play their roles and fulfil certain functions without the need for external intervention (Crockett, 1997, p. 28).

Financial stability can be defined as a condition in which the financial system – comprising of financial intermediaries, markets and market infrastructures – is capable of withstanding shocks, thereby reducing the likelihood of disruptions in the financial intermediation process which are severe enough to significantly impair the allocation of savings to profitable investment opportunities (ECB, 2013, p. 5).

G.J. Schinasi suggested that in broad terms the financial stability could be understand as the ability to:

- effective allocation of resources – both spatial and time – and the effective implementation of other economic processes,
- assessment, valuation and allocation of financial risk and risk management,
- maintain the ability to perform basic tasks mentioned above, even in the event of external shocks or restore the balance – mainly through self-correcting mechanisms (Schinasi, 2004, p. 47).

Financial stability is defined in terms of its ability to facilitate and enhance economic processes, manage risks, and absorb shocks. Moreover, financial stability is considered a continuum: changeable over time and consistent with multiple combinations of the constituent elements of finance (Schinasi, 2004, p. 46).

The financial system can be said to be stable if it displays the following three key characteristics:

1. The financial system should be able to efficiently and smoothly transfer resources from savers to investors.
2. Financial risks should be assessed and priced reasonably accurately and should also be relatively well managed.
3. The financial system should be in such a condition that it can comfortably absorb financial and real economic surprises and shocks.

If anyone or a combination of these characteristics is not being maintained, then it is likely that the financial system is moving in a direction of becoming less stable, and at some point might exhibit instability.

Understood this way, the safeguarding of financial stability requires identifying the main sources of risk and vulnerability such as inefficiencies in the allocation of financial resources from savers to investors and the mis-pricing or mismanagement of financial risks. This identification of risks and vulnerabilities is necessary because the monitoring of financial stability must be forward looking: inefficiencies in the allocation of capital or shortcomings in the pricing and management of risk can, if they lay the foundations for vulnerabilities, compromise future financial system stability and therefore economic stability (ECB, 2013b).

The achievements of the theory of financial stability is closely related to the theory of financial crisis and the theory of the state interventionism. Finding the effective tools to maintain financial stability, including deactivation of crisis, it is not an easy task – not least because of the diversity of conditions and causes of crisis (Dec, Masiukiewicz, 2013, p. 14).

According to D. Schäfer prove that overactive trade in financial instruments results in inefficient price movements is difficult and the relevant price is also difficult to determine. Lack of hard evidence to influence each other transaction volume and price movements, which are detached from fundamental value. Before the crisis, the financial markets have been filled by financial product innovation. The crisis caused that instead of creating a more complete market, most of these products has become unintelligible assets where the risk was difficult to identify (Schäfer, 2012, p. 14).

2. THE FINANCIAL TRANSACTION TAX

The recent financial crisis stressed the need for a more robust financial system, given the cost of financial instability for the real economy. This has prompted to the intensification work on financial sector taxation. One of the propositions - the Financial Transaction Tax is designed to tax the value of single transactions. For a wide coverage, it should be applied to a broad range of financial instruments (i.e. equities, bonds, currencies and derivatives).

The first proposal for the taxation of the financial sector have been formulated by J. M. Keynes and J. Tobin. J. M. Keynes in his book *“The General Theory of Employment, Interest and Money”* proposed the introduction of a tax on capital market on the New York Stock Exchange, argued in fact that it will allow the reduction scale of speculation (Keynes, 1964, p. 160). J. Tobin recommended the implementation of a tax on the purchase of foreign currencies and securities in foreign currencies in order to limit currency fluctuations (Tobin, 1974, p. 88-92). Since the presentation of the idea of tax exchange trading and currency trading proposals many other taxes on transactions the financial sector have been applied in practice, such us (Matheson, 2011, p. 5-7):

- currency transaction tax,
- securities transaction tax (STT),
- capital levy, registration tax,
- bank transaction tax,
- insurance premium taxes,
- real estate transaction tax.

Table 1: Security Transaction Taxes in the World

Country	Stocks	Corporate Bonds	Government Bonds	Futures	Detail
Australia	0,3%	0,3%	-	-	Reduced twice in 1990's; currently 0,15% each on buyer and seller
Austria	0,15%	0,15%	-	-	Present
Belgium	0,17%	0,07%	0,07%	-	Present
Chile	18% VAT on trade costs	18% VAT on trade costs	-	-	Present
China	0,5% or 0,8%	[0,1%]	-	-	Tax on bonds eliminatek 2001; high er rate on Stock transactions applied to Shanghai Exchange
Denmark	[0,5%]	[0,5%]	-	-	Reduced in 1995, 1998; abolished effective Oct. 1999
Finland	1,6%	-	-	-	Introduced January 1997; applies only to trades off HEX (main electronic exchange)
France	0,15%	See note	See note	-	Present
Germany	[0,5%]	0,4%	0,2%	-	Removed 1991
Greece	0,3%	-	-	-	Imposed 1998; doubled in 1999; halved in 2001
Hong Kong	0,3%+\$5 stamp fee	[0,1%]	[0,1%]	-	Tax on stock transactions reduced from 0,6% 1993; tax on bonds eliminated Feb. 1999
India	0,5%	0,5%	-	-	Present
Ireland	1%	-	-	-	Present
Italy	[1,12%]	-	-	-	Stamp duties eliminated 1998
Japan	[0,1%], [0,3%]	[0,16%]	-	-	Removed April 1999
Korea	0,3%	-	-	-	Present
Malaysia	0,5%	0,5%	0,015%, [0,03%]	0,0005%	Present
Netherlands	[0,12%]	[0,12%]	-	-	1970-1990
Portugal	[0,08%]	[0,04%]	[0,008%]	-	Removed 1996
Sweden	[1%]	-	-	-	Removed 1991
Switzerland	0,15%	0,15%	0,15%	-	Present; 0,3% on foreign securities; 1% on new issues
Taiwan	0,3%, [0,6%]	0,1%	-	0,05%	Reduced 1993
U.K.	0,5%	-	-	-	Present

Notes: [...] indicates former tax rate. Sources ambiguous as to whether tax applies to bond in France. Austria, Belgium, Finland, Germany, Italy, Japan and Portugal also impose VAT type taxes on commodity future trades. Source: Phylaktis, Aristidou, 2007, p. 23-24.

Security Transaction Taxes have been a common policy tool throughout the world. As Table 1 shows STTs have operated in major financial markets including Japan, the U.K., Germany, Italy and France, as well as in smaller OECD economies including Australia, Austria, Belgium, Denmark, Greece and Ireland, and many emerging economies, such as Chile, China, India and Malaysia.

The European Commission has proposed a common system of Financial Transaction Tax in EU, which aims to prevent future financial crises by reducing the scale of the transaction, which may result in a reduction in the efficiency of financial markets and speculative transactions (Hybka, 2013, p. 62).

3. THE IMPACT OF THE FINANCIAL TRANSACTION TAX ON THE SCALE OF MARKET SPECULATION

3.1. Effect on market efficiency and economic stability

The revenue potential and the intensity of the economic impact of an FTT vary considerably with its product scope and coverage (global, EU-wide or national) and the size of trading in a given jurisdiction. In the absence of international consensus on applying such a tax, revenue would depend on relocation of mobile trading activities. It is also affected by possibilities to circumvent by re-engineering of financial products and the tax rate chosen.

One argument put forward in favour of the FTT is that it could implement the 'polluter pays' principle and therefore would also help internalise potential negative externalities of financial sector activity. It has been argued that the broad-based FTT could help stabilise financial markets by reducing short-term speculative trading by penalising undesirable financial market transactions, mainly high frequency trading.

Several aspects need to be taken into account. First, efficiency gains are uncertain as the tax may increase price volatility by reducing liquidity, e.g. in markets that are used for risk hedging. Second, while the value to the economy of high-speed trading is questionable, the extent to which this activity was a main driver of negative externalities in the crisis has still to be studied. Third, the FTT taxes gross transaction values. Since the FTT is levied on transactions rather than on value added it is cumulative. More frequently traded products will face a higher tax burden.

Ideally, to improve efficiency, the FTT should be levied on 'harmful' or highly speculative transactions. It is in practice not possible to distinguish those from 'normal' transactions. Hence, the FTT would have to be levied on the broadest possible base to reach its efficiency goal. A narrow based FTT could lessen the risk of geographical relocation if designed properly. But if only some transactions are taxed, the tax would distort financial intermediation by favouring some activities which would not be subject to an FTT. Furthermore, depending on the design of the FTT it could create options for avoidance due to reengineering and substitution (European Commission, 2010, p. 5).

3.2. Literature review

The Financial Transaction Tax is widely described in the literature. In previous studies have failed to prove that the use of Financial Transaction Tax will lead to the stabilization of the financial markets through reducing the scale of market speculation and reducing the excessive volatility of financial instruments. This is due to the following reasons (Habermeier, Kirilenko, 2001, p. 6-7):

- a difficult task is an unambiguous classification of transaction for financial speculation and investment,
- it is impossible to accurately identify how strong affect on the prices of financial instruments and the volume of transactions the taxes and other factors,
- it is difficult to determine the impact of taxes on the prices and volume of transaction (including indication of their impact on the liquidity of the instruments, expectations and decisions of investors, the cost to replace the taxed instrument by alternative instruments).

Given the lack of a consensus on the theory of effects of Financial Transaction Tax on volatility, there have been attempts to resolve the debate empirically. The studies reviewed below refer to the effects of STTs on security prices and price volatility.

R. Roll was the first to study the effect of STT on stock return volatility. He examined 23 countries from 1987 to 1989 and found no evidence that volatility is reliably related to transaction taxes (Roll, 1989, p. 215). He also responded to J. E. Stiglitz claims that the implementation Financial Transaction Tax may limit the financial fluctuation of shares in connection with a reduction in number of irrational market participants making investment decisions on the basis of information noise (noise traders) (Stiglitz, 1989, p. 106). V. Saporta and K. Kan examined the impact of the U.K. stamp duty on the volatility of securities' prices and found no significant effect (Saporta, Kan, 1997, p. 16). Evidence on Emerging Markets has also not been supportive of the tax. For example, S-Y Hu examined the effects on volatility of changes in transaction taxes that occurred in Hong Kong, Japan, Korea, and Taiwan from 1975 to 1994, and did not find significant effects (Hu, 1998, p. 362).

On the other hand, S.R. Umlauf studied the behaviour of equity returns in Sweden before and during the imposition of transaction taxes on brokerage service providers over the period 1980-1987, and found significant increases in volatility; daily variances were highest during the period of greatest tax (Umlauf, 1993, p. 236). Yongyang S. and L. Zheng studied the impact of changes in tax rates on securities to fluctuations in the stock category A in local markets in China. They concluded, among other things, that an increase of 22 percentage points tax rate securities results a decrease in the volume of taxable transactions by about 28%. The decrease in the volume of transactions at the same time contributes to a reduction in liquidity, growth spread and results in a significant increase in stock price volatility. Thus, raising the securities transaction tax rate increased volatility of the share price (Yongyang, Zheng, 2010, p. 11).

The effects of STTs have also been examined by investigating the effects of types of other regulatory changes, which are equivalent to transaction taxes in terms on their impact on transaction costs. For example, C. M. Jones and P. J. Seguin examined the effect on volatility of the introduction of negotiated commissions on U.S. national stock exchanges in 1975, which resulted in a permanent decline in commissions. They argued that this event is analogous to a one-time reduction of a tax on equity transactions since both are fixed in amount and levied on parties whenever a securities transaction takes place. They did not find that the lowering of commissions increased volatility; instead, they found that market volatility was reduced in the year following the deregulation (Jones, Seguin, 1997, p. 728-737).

The relationship between the Financial Transaction Tax and the fluctuations in the share prices is also the subject of research conducted by H. Hau. This author has analyzed the impact of increased transaction costs, including through the application of the tax on securities trading, the volatility in these courses in France. He proved that increase transaction costs reduces the fluctuations of the share prices. The tax on securities trading, which is an additional cost, could be used only as a complementary instrument to stabilize the market. Its implementation results in a reduction in the scale of market speculation, but this reduction does not ensure the stabilization of the financial markets.

Table 2: Volatility Effects of Transaction Taxes

Author	Market	Sign of Effect
Roll (1989)	23 countries	Zero
Umlauf (1993)	Sweden	Positive
Saporta and Kan (1997)	U.S.	Positive
Jones and Seguin (1997)	U.K.	Zero
Hu (1998)	Hong Kong, Japan, Korea, Taiwan	Zero
Green, Maggioni and Murinde (2000)	U.K.	Positive
Hau (2003)	France	Positive

Source: Phylaktis, Aristidou, 2007, p. 25.

Table 2 compares the results of a selection of papers that have considered the effects of transaction taxes on volatility. In all of these cases, the authors have either found a statistically insignificant or a positive effect of transaction taxes on volatility, i.e., an increase in STT increases volatility.

4. CONCLUSION

The hypothesis that the Financial Transaction Tax reduces the scale of market speculation, is not confirmed by the results of empirical studies. To prove this hypothesis the proponents of this tax carry out simulation studies based on econometric models. Regardless of the test method, the analytical results are inconclusive. The doubts concern not only whether a Financial Transaction Tax affects the scale of market speculation and price volatility of financial instruments, but also whether the impact is positive or negative.

The diversity of the results of empirical research, descriptive and explanatory theory and conclusions from simulation studies is due on the one hand a multitude of non-tax factors affecting the decisions of financial market participants, on the other hand - the lack of sufficient knowledge about the impact of financial transactions taxes on the financial markets. These taxes - compared to other – have been relatively rarely used in some countries for selected instruments and their implementation was primarily designed to increase budget revenues.

While further research of the impact of the financial transactions tax on financial markets seems to be a necessity, it does not fully reasonable indicate by authors of the Directive on a common system of Financial Transaction Tax in the EU as the aim of the directive implementation, pursuit to reduce the scale of speculation in the financial market and increasing its effectiveness. The objectives of the preparation of the proposal of the Directive are in fact two kinds - first it should harmonize the taxes of this kind are already in force in some EU Member States, and secondly - to provide the European Union budget powerful new source of income.

To effectively reduce activities with a potential negative externality at global level and to avoid relocation of trading, the tax should be applied in all financial centres. These global centres are widely interconnected and companies face low costs when shifting trade between them. In addition, many financial companies operate with worldwide subsidiaries. Therefore, the fact that the FTT needs a broad base to reach its efficiency and revenue goals also implies that it would need a considerable amount of global coordination to reduce the risk of relocation and avoidance (European Commission, 2010, p. 6).

REFERENCE LIST

1. Baltagi, B, Li D., Li Q., (2006). *Transaction Tax and Stock Market Behavior: Evidence from an Emerging Market*, Empirical Economics 31/2006.
2. Baran A.-K., Eckhardt P., (2011). *Financial Transaction Tax*, CEP. Retrieved from http://www.cep.eu/fileadmin/user_upload/Kurzanalysen/Finanztransaktionssteuer/PB_Financial_Transaction_Tax.pdf.
3. Beck T., Losse-Mueller T., (2010). *Financial Sector Taxation: Balancing Fairness, Efficiency and Stability*, VOX.
4. Brondolo J., (2011). *Taxing Financial Transactions: An Assessment of Administrative Feasibility*, IMF Working Paper.
5. Buckley R., "A Financial Transaction Tax: The One Essential Reform", *Intereconomics*, no. 2, 2012.
6. Chou R., Wang G., (2006). *Transaction Tax and Market Quality of the Taiwan Stock Index Futures*, *Journal of Futures Markets* 26(12)/2006.
7. Crockett A., (1997). *Why Is Financial Stability a Goal of Public Policy?*, Federal Reserve Bank of Kansas Proceedings.
8. Dec P., Masiukiewicz P., (2013). *Podatek bankowy*, Warszawa.
9. Dec P., Masiukiewicz P., (2012). *Special Taxes in Banking*, *Perspectives of Innovations, Economics and Business*, vol. 11, no. 2.
10. European Central Bank, (2013a). *Financial Stability Report*, Frankfurt.
11. European Central Bank, (2013b). *What is financial stability*. Retrieved from <http://www.ecb.europa.eu/pub/fsr/html/index.en.html>.
12. European Commission, (2010). *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. Taxation of the Financial Sector*. Brussels COM(2010) 549, SEC(2010) 1166.
13. Habermeier K., Kirilenko A., (2001). *Securities Transaction Taxes and Financial Markets*. International Monetary Fund, Washington.

14. Hau, H., (2003). *The role of transaction costs for financial volatility: Evidence from the Paris Bourse*, Working Paper, INSEAD.
15. Hu, S-Y, (1998). *The effects of the stock transaction tax on the stock market – Experiences from Asian markets*, Pacific- Basin Finance Journal 6.
16. Hybka M., (2013). *Podatek od transakcji finansowych – dyskusyjny instrument przeciwdziałania spekulacjom rynkowym*, „Zeszyty Naukowe Uniwersytetu Szczecińskiego No. 766 Finanse, Rynki Finansowe, Ubezpieczenia No. 62, Szczecin.
17. Jones, C.M., Seguin, P.J., (1997). *Transaction costs and price volatility: Evidence from commission deregulation*, American Economic Review 87.
18. Keynes J. M., (1964). *The General Theory of Employment, Interest and Money*, Harcourt Brace Jovanovich Publisher, San Diego.
19. Masiukiewicz P., (2012). *Nowa opłata bankowa*, Bank i Rolnictwo, no. 5.
20. Masiukiewicz P., (2013) *Podatki kryzysowe – korzyści i straty*, Bank i Rolnictwo, no. 5.
21. Matheson T., (2011). *Taxing Financial Transactions: Issues and Evidence*, International Monetary Fund, Washington.
22. Millar A., (2012). *A Financial Transaction Tax – Review of Impact Assessments*. Report prepared for the International Regulatory Strategy Group by Anita Millar, March 2012, Retrieved from http://217.154.230.218/NR/rdonlyres/743F5841-15EA-462E-A639-4806EAA89A5D/0/BC_RS_FinancialTransactionTax_ForWeb.pdf
23. Pollin R., Baker D., Schaberg M., (2001). *Securities Transaction Taxes for U.S. Financial Markets*, Amherst: Political Economy Research Institute, University of Massachusetts, Working Paper 20/2001.
24. Phylaktis K., Aristidou A., (2007). *Security Transaction Taxes and Financial Volatility: Athens Stock Exchange*, “Applied Financial Economics”, Vol. 17, No. 18.
25. Roll R., (1989). *Price Volatility, International Market Links, and Their Implications for Regulatory Policies*, “Journal of Financial Services Research”, Vol. 3, No. 2/3.
26. Saporta, V., and Kan, K., (1997). *The effects of stamp duty on the level and volatility of UK equity prices*, Working Paper, Bank of England.
27. Schinasi G.J., (2004). *Defining Financial Stability*, IMF Working Paper, No. 187/04, Washington.
28. Schulmeister S., (2012). *A General Financial Transactions Tax: Strong Pros, Weak Cons*, Intereconomics, vol.47/2012, no. 2.
29. Schulmeister S., Schratzenstaller M., Picek O., (2008). *A General Financial Transaction Tax: Motives, Revenues, Feasibility and Effects*, Oesterreichisches Institut fuer Wirtschaftsforschung Working Paper, Vienna.
30. Stanisławszyn P., (2011) *Podatek bankowy w Polsce – dodatkowe bezpieczeństwo czy dodatkowe obciążenie?*, Ekonomiczne i prawne uwarunkowania i bariery redukcji deficytu i długu publicznego, J. Szolno-Koguc, A. Pomorska (Ed.), a Wolters Kluwer business, Warszawa.
31. Stiglitz J. E., (1989). *Using Tax Policy to Curb Speculative Short-Term Trading*, Journal of Financial Services Research, Vol. 3, No. 2/3.
32. Tobin J., (1974). *New Economics One Decade Older*, The Eliot Janeway Lectures on Historical Economics in Honour Of Joseph Schumpeter, Princeton University Press, Princeton.
33. Umlauf, S.R., (1993). *Transaction taxes and the behaviour of the Swedish stock market*, Journal of Financial Economics 33.
34. Vella J., (2012). *The Financial Transaction Tax Debate: Some Questionable Claims*, Intereconomics, no. 2.
35. Xu J., (2010). *Noise Traders, Exchange Rate Disconnect Puzzle and the Tobin Tax*, Journal of International Money and Finance, no. 2.
36. Yongyang S., Zheng L., (2010). *The Impact of the Securities Transaction Tax on the Chinese Stock Market*, Universität München.
37. Zygierewicz M., (2012). *Specjalny podatek od instytucji finansowych – próba poszukiwania najlepszego rozwiązania*, Bezpieczny bank, no. 3.