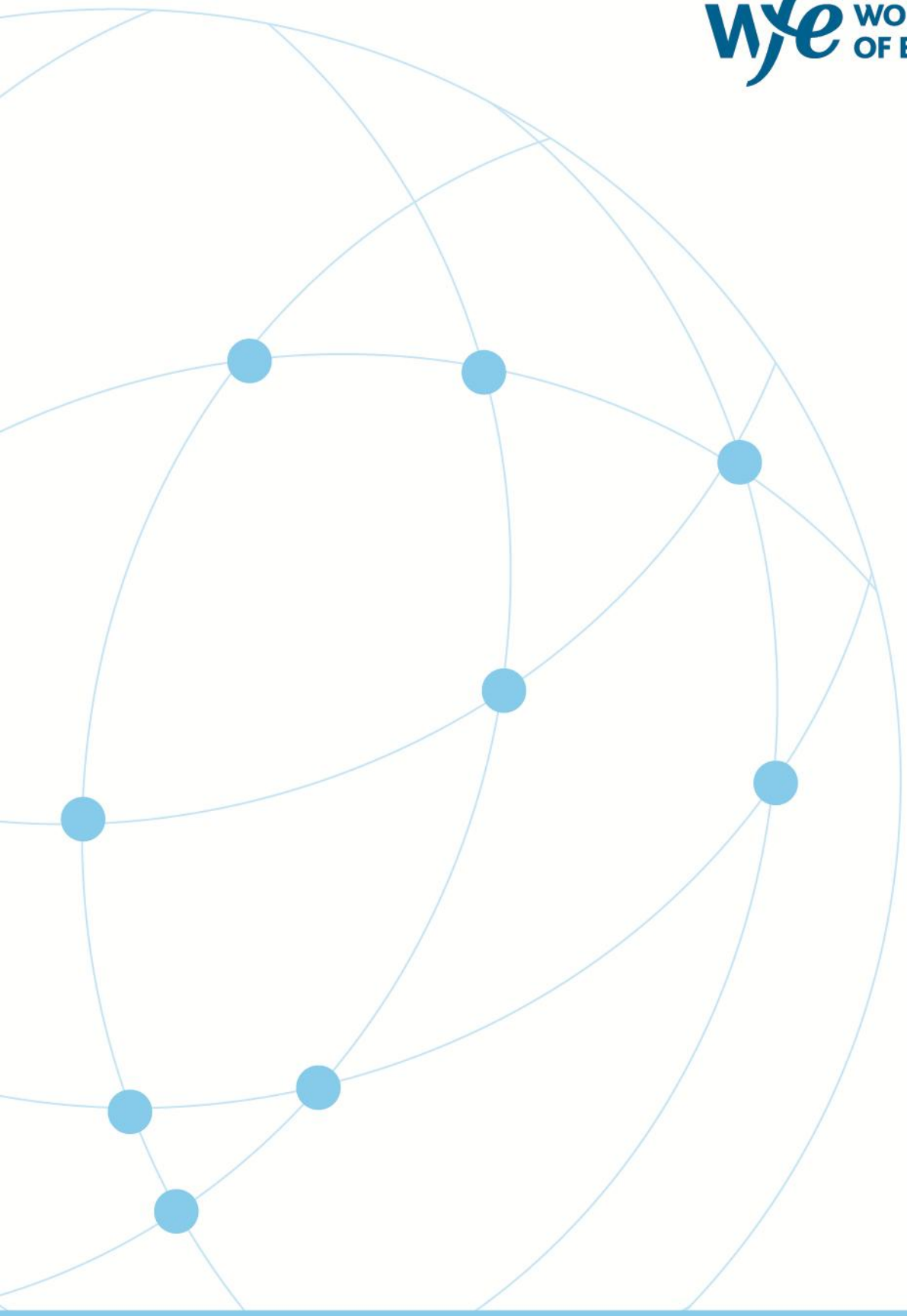
WORLD FEDERATION OF EXCHANGES



Counting Losses – The Adverse Impacts of Financial Transaction Taxes on Companies, Investors and the Market

November 2024

Summary

Financial transaction taxes (FTTs) pose significant challenges for investors, companies, and financial markets, creating a ripple effect that ultimately hinders market efficiency, economic growth and employment.

The World Federation of Exchanges represents the operators of over 250 market infrastructures that see more than $124tr in trading pass through them annually (at end-2023). Our goal is to remind policymakers and stakeholders of the significant economic drawbacks these taxes impose. Namely:

- Increased Transaction Costs: FTTs raise the costs associated with trading financial assets, which can reduce net returns for investors and discourage both short-term and long-term investments.
- Market Liquidity and Efficiency: FTTs reduce trading volumes and market liquidity, leading to wider bid-ask spreads, slower price discovery, and increased market volatility, which negatively impacts overall market efficiency.
- Distorted Investment Behaviour: FTTs incentivise investors to alter their strategies to avoid taxed assets, potentially leading to suboptimal investment choices and a shift towards riskier or less regulated markets.
- Impact on Corporate Financing: FTTs increase the cost of capital for companies, making it more expensive to finance new projects, which can stifle innovation and economic growth.
- Global Investment Shifts: The implementation of FTTs can cause investors to move their capital to jurisdictions with lower or no transaction taxes, reducing investment in regions with higher taxes.
- Reducing Risk**:** Stifling trading is dangerous and counterproductive, allowing uncontrollable pressures to build up, as clearly demonstrated by the failure of fixed exchange rates in the later twentieth century. Encouraging trading, on the other hand, ensures that asset prices remain fresh, thereby reducing the risk of bubble, including those fuelled by cheap credit in the banking system. It also ensures that liquidity is maximised for those who wish to change the composition of their portfolios from time to time.

Financial transaction taxes (FTTs) have long been a subject of debate among policymakers, economists, and financial market participants. This paper explores the adverse impacts of FTTs on companies, investors, and financial markets. By considering a broad range of transaction taxes, this analysis seeks to uncover the true cost of taxation on financial transactions.

FTTs influence economic behaviours, distort investment strategies, and potentially hinder market efficiency. They also harm capital raising, increase the cost of hedging and encourage companies to seek funding outside of public listed markets. Ultimately, FTTs harm economic growth and job creation.

These taxes, levied on trades involving financial assets such as stocks, bonds, derivatives, and currencies (together "Financial Assets"), are often proposed as a means to curb supposedly speculative trading. Proponents claim they reduce, but don't eliminate, market volatility, and generate public revenue. However, the implications of such taxes are complex, multifaceted and counterproductive.

The Impacts of Taxation on the Sale of Products

Taxation influences economic behaviours, an example of such being the impact of the debt/equity bias encouraging the use of debt for capital raising rather than equity. A tax imposed on the sale of a product reduces both supply and demand of that product. Supply of the product is reduced because sale of the product is costly and possibly time consuming so there is a disincentive to sell. Demand for the product is reduced because the product is more expensive. Both buyers and sellers lose out regardless of whether the tax is applied on the seller or the buyer. Moreover, wider society loses out where the product generates positive externalities. On the other hand, wider society benefits if a product generates negative externalities.

The Impacts of Financial Transaction Taxes

Financial transaction taxes impact different stakeholders in different ways. In this section, we will consider how financial transaction taxes affect each of them.

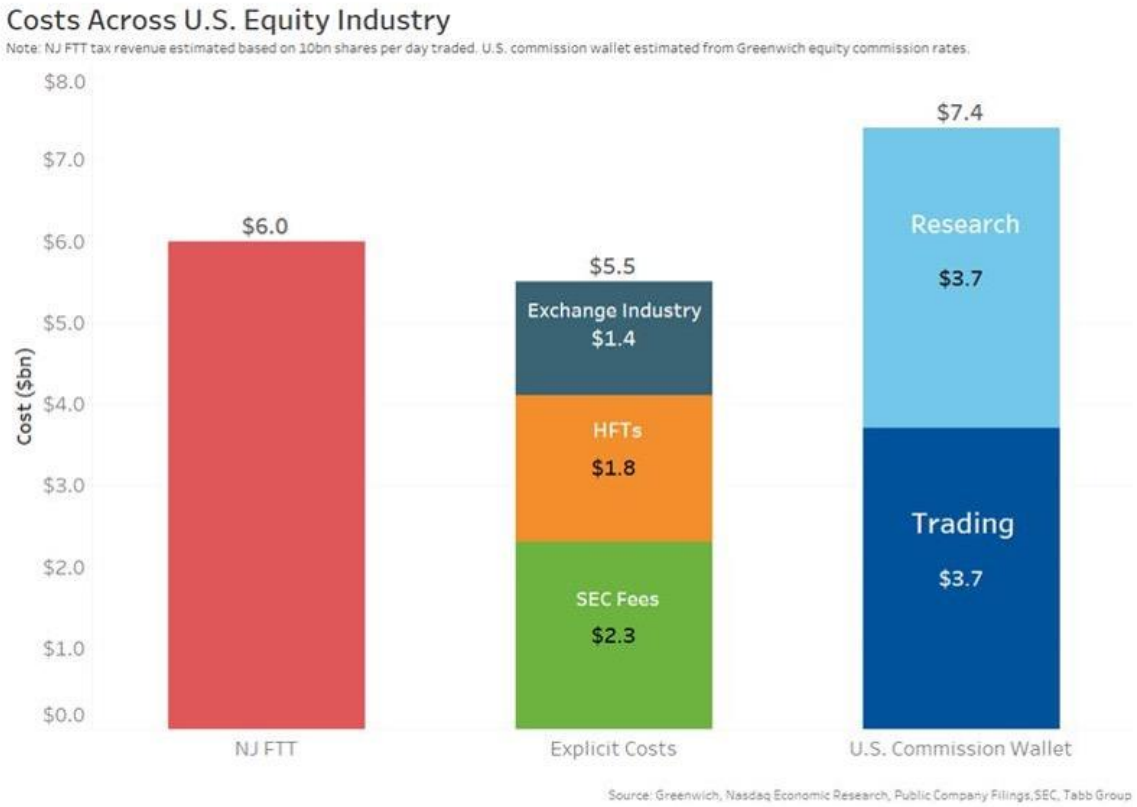
Impacts on Investors

Financial transaction taxes significantly alter the investment landscape for investors in several ways:

1. **Increased Transaction Costs**: FTTs raise the costs associated with buying and selling securities. For direct investors, this impact is immediately visible when they sell assets. Indirect investors, such as those invested through funds or pension plans, may not see the direct tax but will feel its effects through higher fees, increased premiums, or lower returns. Over the past 15 years, policymakers have been discussing ways to reduce transaction costs and this remains a key issue for them. FTTs run completely counter to this drive.

   The chart below shows the overall cost of a $0.0025 tax for each financial transaction that was proposed in the state of New Jersey. Research by NASDAQ showed that the overall cost of

that proposed tax was more than the explicit costs of trading and "roughly equal to what the asset managers spend on research and trading each year."[1]



2. **Widened Bid-Ask Spreads:** As an FTT increases transaction costs it will lead to reduced liquidity and reduced depth. This naturally leads to a wider spread between bid and ask prices.
3. **Lower Return on Investments:** FTTs directly reduce the net return that investors receive from their investments as well as reduce the value of their holdings. This reduction in returns can disincentivise investment, both long-term and short-term.

4. **Distorted Investor Behaviour:** Investors may alter their strategies to investment products that are not subject to FTTs. For example, in the UK, crypto-assets like Bitcoin are exempt from stamp duty whereas shares are not. The tax system incentivises the use of potentially higher risk crypto-assets over ordinary shares. Alternatively, investors might avoid investing altogether, leaving their money in low-interest savings accounts, which would not benefit an investor seeking growth above the base rate, nor the broader economy.
5. **Hindered Portfolio Optimisation:** FTTs can prevent optimal portfolio rebalancing. The cost of adjusting positions due to FTTs may outweigh the benefits of the reallocation, leading to suboptimal investment strategies.

[1] https://www.nasdaq.com/articles/econ-101-and-the-damage-of-financial-transaction-taxes-ftts-2020-09-18

Negative impacts on investors should be of serious concern to policymakers. Building up savings through long-term investing is a huge benefit to retail investors. For developing countries, this wealth creation can help lift living standards; and for developed countries, it is essential to grow retirement savings.

Impacts on Companies

It is not only investors and the financial sector that bear the brunt of FTTs. Companies also suffer in a number of ways:

1. **Increased Cost of Capital**: FTTs raise the cost of capital for companies, making it more expensive to finance new projects or expansions. Academic studies suggest that an FTT would raise the cost of capital. Matheson explains that a 0.5 percent FTT will raise the cost of capital by 5 percentage points for an asset held for just 0.1 years and by 0.5 percentage points for an asset held for a year.[2] Similarly, in a paper written for the European Commission, Lendvai, Rasborski and Vogel find that "a transaction tax generating tax revenue of 0.1% of GDP would increase capital costs by 4-5 basis points, implying a long-term 0.4% decline in the capital stock and a 0.2% decline in real GDP."[3]
2. **Distorted Investment Flows:** FTTs can also distort the flow of funding away from companies who list to those who do not list.
3. **Reduced Hedging and Increased Risk:** Companies often hedge against risks such as fluctuating commodity prices or exchange rates using derivatives. If FTTs apply to these financial

The Worst-Case Scenario: Sweden's Security Transactions Tax (STT)

In January 1984, Sweden introduced a 0.5% tax on the purchase or sale of equities and bonds. The tax applied to all transactions that were executed domestically which made it relatively easy to avoid. Equity trading volume declined by about 60% within a year, and bond trading volumes dropped by 85%.

Three fifths (60%) of the volume of the 11 most actively traded Swedish equities moved to London in 1986 when Sweden raised its transaction tax to 2%. In 1988, just 27% of the trading volume in the most actively traded Swedish company, Ericsson, occurred in Stockholm. Over this period, was there also a migration of Swedish companies listing outside Sweden (in addition to the migration of trading).

By 1991, Sweden repealed its STT and trade volumes grew significantly. Today, Sweden's markets are amongst the most competitive and efficient in Europe.

Sources:
Umlauf, S., 1993, "Transaction Taxes and the Behavior of the Swedish Stock Market," Journal of Financial Economics 33: pp. 227–40.
Campbell, J., and K. Froot, 1993, "International Experience with Securities Transaction Taxes," NBER Working Paper 4587.

[2] Matheson, Thornton, 2012. "Security Transaction Taxes: Issues and Evidence." International Tax and Public Finance 19 (6), 884–912.
[3] Lendvai, Julia, Raciborski, Rafal & Vogel, Lukas, 2012. "Securities Transaction Taxes: Macroeconomic Implications in a General-Equilibrium Model" Economic Papers 450. European Commission.

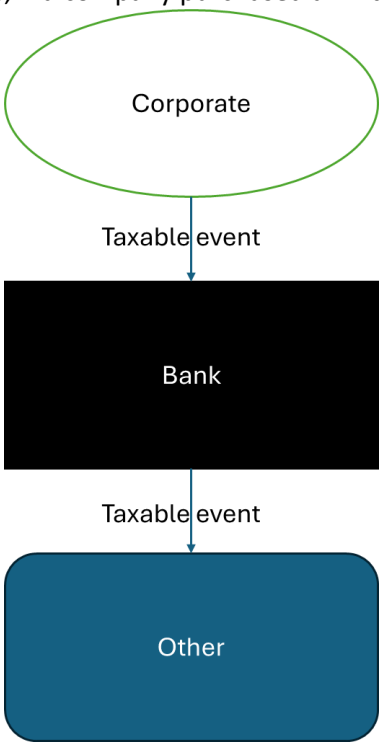
instruments, companies might reduce their hedging activities, exposing themselves and the broader economy to greater financial risk. This could have a real effect on the rest of the economy. Should, for example, an energy supplier not hedge against the risk of falling oil prices, smaller or less experienced users, such as farmers hedging against the risk of falling crop prices, might withdraw from the market as they are not prepared to pay the extra cost to hedge the risk.

Negative impacts on companies are also problematic for policymakers who are seriously concerned with the lack of listings activity in their home economy, which is a trend seen in most of the developed world. Where companies cannot raise capital, they cannot innovate or employ more people. However, it is more likely that companies will seek funding from banks, which carries a prudential risk, or private equity, where risks can be and are less transparent. Moreover, a lack of protection from hedging, or more costly hedging, would increase risks or increase costs further down the supply chain.

Impacts on Financial Markets

FTTs can have several negative impacts on the broader financial market, affecting liquidity, market efficiency, and capital allocation.

1. **Reduced Trading Volume, Liquidity and Price Discovery:** FTTs reduce trading volume and therefore liquidity. Lower liquidity slows price discovery which is fundamentally important to efficient markets.
2. **Migration of Investment:** FTTs could lead to migration of investment to different jurisdictions. Investors may seek to avoid the tax by simply investing in different jurisdictions with lower or no FTTs.
3. **Cascading Tax Effects:** FTTs can result in a cascading effect which would apply multiple layers of tax on some transactions so that even a low-rate FTT might result in a high tax burden on some activities. For example, if a company purchased an interest rate swap to hedge against



interest rate risk, the bank it bought the swap from would undertake another transaction to manage its risk and further transactions could be triggered. In circumstances like these, it is likely that the end user would pay the full cost of all the taxes imposed as tax costs are generally passed on to the end user. The diagram above shows this in action.

Debunking the Myths of Financial Transactions Taxes

Proponents of FTTs argue that they curb perceived negative externalities in financial markets. The argument goes that by raising transaction costs, an FTT curbs speculative trading and reduces volatility and asset mispricing. However, the theoretical and empirical evidence for this is acutely lacking.

In terms of short-term volatility, the impact of FTTs is far from clear. Whilst FTTs might discourage short-term or misinformed trades, they might also discourage informed traders too. By reducing trading volumes and therefore liquidity, volatility is likely to increase. This is because it is more difficult for buyers and sellers to find orders to match their own which increases the price impact of trades trading away from the 'ideal price' at which they would like to buy or sell. Evidence for this can be found with the US stock commission deregulation (which led to a decline in transaction costs, so similar to the removal of an FTT) led to decreased price volatility.[4] This relationship also held true for the French equities market as well, where tick-size reduction led to a fall in volatility.[5]

There is no proven effect of transaction costs on long-term volatility or bubbles and crashes. However, bubbles and crashes are particularly common in real estate markets where transaction costs are very high. It may be true that taxes might slow the upswing of an asset cycle, the opposite is also true that it may slow the downswing. The ultimate result being that the asset can be mispriced compared to the fundamental value. The 2008 financial crisis, the most severe since the great depression, began in these real estate markets. The great depression also followed an intense period of stock market speculation which occurred in the United States despite the existence of an FTT from 1914 to 1965.

Another common argument for FTTs is that those undertaking "speculative" trades, such as high-frequency traders (HFTs), would bear the brunt of the cost. Nevertheless, other investors would still suffer significant costs. For example, pension funds are not particularly active traders, but when they do trade, they trade significant sizes.

It is also worth noting that HFTs, who are often the target of FTTs, can contribute significantly in terms of market liquidity. In contrast to FTTs, this means that they narrow bid-ask spreads. They can also contribute to market stability by absorbing large buy and sell orders. Moreover, the potential negative impacts of HFTs are mitigated through other measures that are proven to be effective, such as market maker obligations.

While the intention of an FTT to curb harmful and speculative activities and therefore risk in the financial system is understandable, it inadvertently hampers all forms of activity. This includes productive and unproductive activities. This broad suppression of activities ultimately undermines the

[4] Jones, C., and P. Seguin, 1997, "Transactions Costs and Price Volatility: Evidence from Commission Deregulation," American Economic Review 87(4): pp. 728–37.
[5] Hau, H, 2006,. "The Role of Transaction Costs for Financial Volatility: Evidence from the Paris Bourse, Journal of the European Economic Association, 4(4): pp. 862–90.

effectiveness of FTTs as a means to reduce risk. Furthermore, as less risky activities attract lower rewards, an FTT makes some less risky investments unviable or less valuable. So, an FTT can be completely counterproductive to its goals.

Proposed Way Forward

FTTs create numerous distortions and harm investor outcomes. They also prevent companies from raising capital, particularly from listing, and make hedging against risk more costly. Finally, FTTs are poor methods of regulating financial markets as their effect on speculation is, at best, unproven and, at worst, completely counterproductive, most likely because little thought is given to whether speculation is a meaningful. Existing taxes (notably on income and capital gains) already raise revenue from financial businesses, on the same basis as other economic activity, with large financial centres already generating significant amounts for the public purse while allowing the economy to continuously price assets and risks, to the benefit of business managers and investors.

Additional Empirical Studies for consideration

Securities Transaction Taxes and Financial Markets (IMF Staff Papers)	Jan-03	Karl Habermeier
Transaction Costs and Price Volatility: Evidence from Commission Deregulation (Columbia University)	Oct-98	Charles M. Jones Paul J. Seguin
Securities Transaction Taxes: An Overview of Costs, Benefits and Unresolved Questions (Financial Analysts Journal)	Sep-93	G. William Schwert Paul J. Seguin
Securities Transaction Taxes: What about International Experiences and Migrating Markets? (Midamerica Institute Research Project)	Jul-93	Kenneth A.Froot John Y. Campbell
Using an artificial financial market for assessing the impact of Tobin-like transaction taxes (Journal of Economic Behavior & Organization)	Aug-08	Katiuscia Mannaro Michele Marchesi
The Economic Consequences of a Tobin Tax – An Experimental Analysis (University of Innsbruck)	Aug-07	Michael Hanke Jurgen Huber Michael Kirchler Matthias Sutter
The Role of Transaction Costs for Financial Volatility: Evidence from the Paris Bourse (Journal of the European Economic Association)	Jun-06	Hau, Harald
Transaction tax and stock market behavior: Evidence from an emerging market (Empirical Economics)	Feb-06	Li Zhang
Transaction Tax and Market Quality of the Taiwan Stock Index Futures (Wiley Periodicals)	Dec-05	Robin K. Chou George H. K. Wang
Taxing Financial Transactions: Issues and Evidence (IMF)	Mar-11	Thornton Matheson
Rethinking the Taxation of the Financial Sector (CESifo Economic Studies)	Jan-11	Michael Keen
The impact of the securities transaction tax on the Chinese stock market (Munich Personal RePEc Archive)	May-10	Su Yongyang Lan Zheng
Financial transaction tax and market quality: Evidence from France	Jan-21	Jerry Parwada Yixuan Rui Jianfeng Shen
The impact of the French financial transaction tax on HFT activities and market quality (Université Côte d'Azur)	Dec-17	Iryna Veryzhenko Etienne Harb Waël Louhichi Nathalie Oriol

The effect of financial transaction tax on market liquidity and volatility: An Italian perspective (University of Essex)	May-16	Lyudmyla Hvozdyk, Serik Rustanov
Securities Transaction Taxes: Macroeconomic Implications in a General-Equilibrium Model (European Commission)	Mar-12	Julia Lendvai Rafal Raciborski Lukas Vogel
Securities Transaction Taxes for U.S. Financial Markets (Eastern Economic Journal)	2003	Robert Pollin Dean Baker Marc Schaberg
Transaction Costs and Price Volatility: New Evidence from the Tokyo Stock Exchange (Journal of Financial Services Research)	2009	Shinhua Liu Zhen Zhu
A General Financial Transaction Tax – Motives, Revenues, Feasibility and Effects (Austrian Institute of Economic Research)	Mar-08	Stephan Schulmeister Margit Schratzenstaller Oliver Picek
Taxing Financial Transactions: Issues and Evidence (IMF)	Mar-11	Thornton Matheson
The societal benefit of a financial transaction tax (University of Zurich)	Oct-16	Aleksander Berentsen Samuel Huber
A Global Financial Transaction Tax - Theory, Practice and Potential Revenues (Austrian Institute of Economic Research)	Jul-19	Atanas Pekanov Margit Schratzenstaller
Navigating China's financial markets (JP Morgan)	Sep-23	Haibin Zhu, Tingting Ge, and more…
Growth Stabilization Policies -What to Focus on (Huatai Financial Holdings (Hong Kong) Limited)	Sep-23	Eva Yi, Chunag Huili
Stamp duty cut on equity trades (Maybank)	Jun-23	Suhaimi Ilias, Chua Hak Bin and more…
China's Stamp Tax Cut May Boost ETF Flows (Bloomberg Intelligence)	Sep-23	Rebecca Sin, Sharnie Wong
Further policy step-ups highlight baijiu's allocation value (CITIC Securities)	Aug-23	Jiang Yi, Jiang Ya, Jiang Xudong
China Securities Monthly bulletin – August was full of policy announcements, but market reaction was lukewarm (JP Morgan)	Sep-23	Jemmy S Huang, Peter Zhang, Haomin Chen, Amanda Chang, Katherine Lei
Transaction Tax and Market Quality of the Taiwan Stock Index Futures (The Journal of Futures Market)	Dec-05	Robin Chou, George Wang
Securities Transaction Tax and Market Efficiency: Evidence from the Japanese Experience (Journal of Financial Services Research)	Sep-07	Shinhua Liu
Stamp Duty on Shares and Its Effect on Share Prices (FinanzArchiv)	Jul-05	Steve Bond

The Effects of Transaction Costs on Stock Prices and Trading Volume (IRFA)	Feb-97	Michael J. Barclay Eugene Kandel Leslie M. Marx
Stamp duty cut and polices to follow (SooChow Securities)	Aug-23	Tao Chuan Shao Xiang
How are A-Shares affected by “four dimension” policies? (Pacific Securities)	Aug-23	Cheung Tong Tong
Econ 101 and the Damage of Financial Transaction Taxes (Nasdaq)	Sep-2020	Phil Mackintosh
The Revenue Potential of a Financial Transaction Tax for U.S. Financial Markets (Political Economy Research Institute)	Jul-2017	Robert Pollin, James Heintz, and Thomas Herndon,

Background

Established in 1961, the WFE is the global industry association for exchanges and clearing houses. Headquartered in London, it represents the providers of over 250 pieces of market infrastructure, including standalone CCPs that are not part of exchange groups. Of our members, 36% are in Asia-Pacific, 43% in EMEA and 21% in the Americas. The WFE's 87 member CCPs and clearing services collectively ensure that risk takers post some $1.3 trillion (equivalent) of resources to back their positions, in the form of initial margin and default fund requirements. The exchanges covered by WFE data are home to over 55,000 listed companies, and the market capitalization of these entities is over $111tr; around $124tr in trading annually passes through WFE members (at end-2023).

The WFE is the definitive source for exchange-traded statistics and publishes over 350 market data indicators. Its free statistics database stretches back more than 40 years and provides information and insight into developments on global exchanges. The WFE works with standard-setters, policy makers, regulators and government organisations around the world to support and promote the development of fair, transparent, stable and efficient markets. The WFE shares regulatory authorities' goals of ensuring the safety and soundness of the global financial system.

With extensive experience of developing and enforcing high standards of conduct, the WFE and its members support an orderly, secure, fair and transparent environment for investors; for companies that raise capital; and for all who deal with financial risk. We seek outcomes that maximise the common good, consumer confidence and economic growth. And we engage with policy makers and regulators in an open, collaborative way, reflecting the central, public role that exchanges and CCPs play in a globally integrated financial system.

If you have any further questions, or wish to follow-up on our contribution, the WFE remains at your disposal. Please contact:

James Auliffe, Manager, Regulatory Affairs: jauliffe@world-exchanges.org

Richard Metcalfe, Head of Regulatory Affairs: rmetcalfe@world-exchanges.org

or

Nandini Sukumar, Chief Executive Officer: nsukumar@world-exchanges.org.