

SUSTAINABILITY OF THE FINANCIAL TRANSACTION TAX: DECISION AND UNCERTAINTY

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Abstract: Opinion leaders and other policymakers want profound changes in rights (such as Medicare and Social Security) and a tax on financial transactions - which would simultaneously raise money and would discourage another crisis - should be part of the discussion.

We explore whether a Financial Transactions Tax (TTF) is likely to correct the market failures that have contributed to the financial crisis, to what extent FTT succeeds in raising revenues, and how the FTT compares to alternative taxes in terms of efficiency. Taxing of transactions is not well targeted at behaviour that leads to excessive risk and systemic risk creation. The empirical evidence does not suggest that the introduction of an FTT reduces volatility or asset price bubbles. When compared to alternative forms of taxation of the financial sector, the FTT is likely less efficient given the amount of revenues. In particular, taxes that more directly address existing distortions, such as the current VAT exemption for banks, and the bias towards debt financing, provide more efficient alternatives.

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1. INTRODUCTION

A few decades ago, when the economist J. Tobin suggested that it might be a good idea to introduce a tax on currency transactions he had in mind to discourage speculative trading in order to reduce market volatility. Therefore, as Tobin wrote, his

proposal was not well received: ‘‘it did not make much a ripple’’. (Ul-Haq et al, 1996). A second goal of Tobin’s proposal was to enhance the effectiveness of macroprudential policy.

Macro-prudential policy is a top-down approach, based on which the central bank determines a minimum aggregate level of capital that banks then distribute according to their attitude towards the systemic risk. In this perspective, what is sought is to prevent financial dynamics leading to a crisis. Specifically, it is establishing a minimum level of capital, required to be imposed to systemically importance financial institutions, based on cumulative overcome of loan's volume given according to the level obtained by maintaining long-term trend. Therefore, it is necessary determining this tendencial evolution of loans given to private sector, which is compatible with economic potential growth. The calculation of cumulative ecart according to the bechmark and calibration of minimum aggregate capital countercyclical imposed on all systemically importance financial institutions, depends on the loan excess made of each of them. In other words, the minimum capital is distributed to financial entities based on their contribution to systemic risk.¹

The controversial debate between proponents and opponents about introducing a FTT gave rise to strong arguments both for and against. Proponents affirmed that on long term, the excessive trading determines the appearance of speculative bubbles, which facilitates price deviation from fundamentals; is worth mentioning that short term deviations increase volatility. Also, the proponents claim that such a tax can reduce systemic risk and help prevent financial crisis due to its ability to stabilise the maket. Even tough the possibility of a crisis cannot be fully eliminated, its magnitude can be attenuated.

Many economists don’t share the idea of introducing a TFF and fully oppose the tax. They consider that it would raise transaction costs and will decrease market efficiency (prices will be less informative, trading volumes will drop and liquidity will decrease). As a result, they consider that the tax would distort investment portfolio, due to the fact that the instruments with long or short maturities would be affected in different ways. Opponents of FTT have more faith in the ability of financial markets to adjust rapidly and without major friction to new information. They also believe that direct intervention of public policy is not necessary in order to efficiently allocate resources.

An important argument brought by the opponents is that in the absence of internationally coordinated action, significant effort would be spend on evading the tax.

2. CORECTING MARKET FAILURES

From another point of view, there are two major motivations according to which introducing the tax makes the balance to tilt in favor of the pros. A first potential motivation for taxation is that FTT may constitute a Pigouvian tax that corrects market failures and would take into account negative externalities. Secondly, it can be an important resource for the government to rise tax revenues.

¹ Cerna, Silviu – ‘‘*Macroprudential policy in post-crisis era*’’, article 2012, p.17

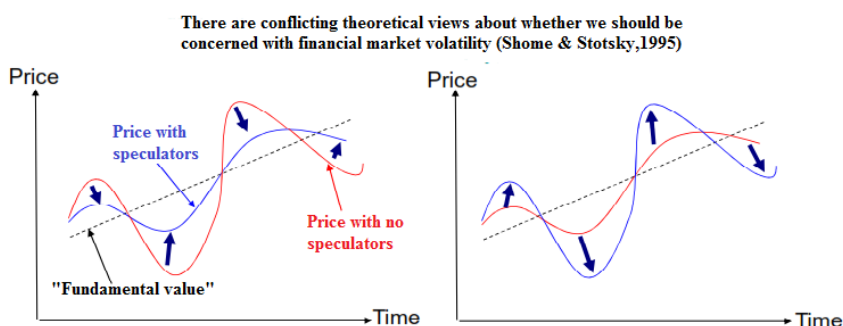
It is worth mentioning that the tax could make market participants more aware about their contribution to systemic risk in case of a financial crisis.

Systemic risk can be associated with the probability that a correlated shock would hit the entire financial market system by propagating through contagion. Concerning this, we explored if TFF might have a positive effect in reducing systemic risk, especially by reducing volatility or the asset price bubbles. The most essential aspect of systemic risk which the tax may have an impact on, is the size of the bubbles.

An theoretical model of volatility impact

In Figure 1. the red lines represent price evolution in the market without speculators, while the blue one represents shares prices with speculators. It is difficult to separate this underlying forces into stabile or destabilizing components. The question is whether speculators are rational and bring prices shares market toward the dotted line (fundamentals), to a new equilibrium. Or there are “noisy” traders who only follow their private earnings and destabilize the market.

Figure 1.



Source: P.Shome, Chief Economist HMRC

Thus on the left diagram, when the prices are rising, speculators will sell, resulting a price decrease. In this context, the approaching to the real value and speculation is being stabilizing. In the right diagram, the opposite appears when speculators buy, hoping they will earn a bigger profit.

This type of “noisy” trader ignores market fundamentals and realizes transactions using technical analysis. This analysis tries to understand the markets emotions and determine future market evolutions through the studying process of prices movements based on past observation.

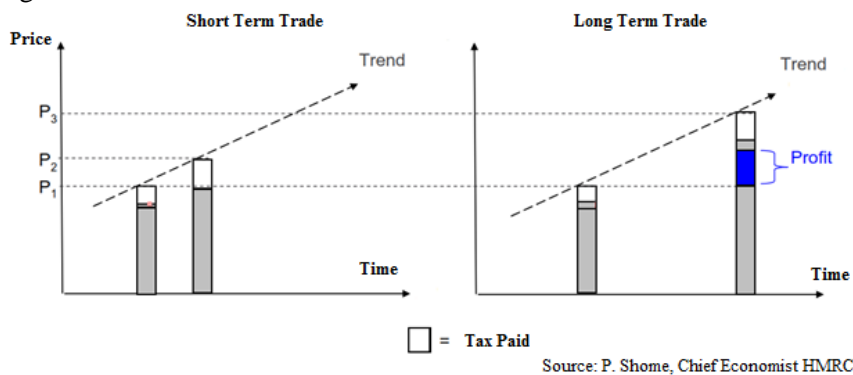
Short term transactions are more sensitive destabilization than the long term ones, based on the market fundamentals.

FTT could rise transaction costs and submit the short run taxation with a much higher tax rate the the long term investments, thus reducing this type of speculation and overall market volatility.

In fig. 2, we assume that both traders buy shares at price P1, but the economic agent who realizes short term transaction will sell the share more quickly at price P2. The time is too short to earn enough gain for the transaction to be profitable after the

tax has been paid. In case the share raise at price P3, the gain is sufficient to make the transaction profitable².

Figure 2.



Extending this argument, FTT may have an important impact for automated trading models based on statistical analysis of ultra high frequency data. This is the most important argument of those who claim the tax would reduce short-term trading. The influence of efficient market hypothesis has disconsidered systemic risk and simplified the perception of reality by distorting it.

Even though there are theoretical and experimental studies that confirm that FTT could reduce the size of the bubbles, this doesn't mean it will reduce systemic risk

The introduction of FTT can lead to the substitution of the taxed financial instruments and it could determine the crossing from a high tax rate to a lower rate of these instruments, e.g. through the introduction of the derivatives which have similar characteristics with the shares.

Another effect of introducing FTT would be the migration phenomena, which takes place in case of market participants prefer to relocate their activity in non-taxable locations. The problem of "fiscal paradise" places like Cayman Island and Lichtenstein is fundamentally misunderstood and presented in public debates. This political issue would be solved if their access to the international banking system is forbidden, these countries would rapidly lose their utility. The fact that they remain "fiscal paradise" is due to political decisions which allows them to exist as such.

3. THE EUROPEAN COMMISSION PROPOSAL

The European Commission wish to adopt a TTF as part of its budget on 2014-2020, following the objectives „to assure that the financial sector makes a fair and substantial contribution to public finances, to recover the costs of the crisis, to alleviate Member States' contributions to the EU budget and to discourage to a certain extent risky market behaviours.” The Commission proposed that „the exchange of shares and bonds would be taxed at a rate of 0,1% and derivative contracts at a rate of 0,01%. This could approximately raise EUR 57 bil every year.”

² The after-tax profit is shown by the blue area

The European Commission already explored the idea of implementing a FTT (Communication from 7.10.2010 on Taxation of the Financial Sector³). In view of the analysis carried out by the Commission, and in response to the calls of the European Council⁴, the European Parliament⁵ presented the proposal as a first step:

- to avoid fragmentation in the internal market for financial services, considering the increasing number of uncoordinated national tax measures being put in place;
- to ensure that financial institutions make a fair contribution to covering the costs of the recent crisis and to ensure a level playing field with order sectors from a taxation point of view;
- to create appropriate disincentives for transactions that do not enhance the efficiency of financial markets thereby complementing regulatory measures aimed at avoiding future crisis.

The Commission's economic impact assessment tries to estimate the macroeconomic costs of an FTT and evaluate the impact on annual GDP of EU. In addition, Commission developed a DSGE⁶ model with a banking sector in a closed economy, which analyses a transaction tax at a rate of 0,1%, assuming that all investment are realised with shares and bonds.

In its impact assessment the potential revenue for an FTT is calculated using the following formula:

$$Revenue = Tax \cdot Volume \cdot Evasion \cdot \left(1 + \frac{Tax}{Transaction\ Cost}\right)^{Elasticity}$$

The trading volume elasticity to transaction costs ranges broadly -0.4 and -2.6 depending on the market structure. The average transaction costs for exchange of corporate securities vary around 0.25%, although a bid-ask spread could lead to higher total costs (Matheson, 2011). In their empirical research, McCulloch and Pacillo (2011) find an average estimate for the elasticity of trading volume with respect to transaction costs of -0.8%.

³ COM (2010) 549 final – <http://eur.lex.europa.eu>

⁴ In particular, at the European Council meeting on 11th March 2011, the heads of state or government of the Euro area agreed that “the introduction of a financial tax should be explored and developed further at the Euro area, EU and international levels”. The subsequent European Council of 24th and 25th March 2011 reiterated its earlier conclusion that the introduction of a global financial transaction tax should be explored and developed further.

⁵ On the 10th and 25th March 2010 and on the 8th March 2011 the European Parliament adopted resolutions calling the Commission to carry out an impact assessment of a FTT exploring its advantages and drawbacks. Further, it was asked to assess the potential of FTT options to contribute to the EU budget and to be used as innovative financing mechanisms to provide support for adaptation to and mitigate of climate change for developing countries, as well as for financing development cooperation.

⁶ Dynamic stochastic general equilibrium – model based on general equilibrium theory that attempts to explain aggregate economic phenomena such as growth, business cycles, and the effects of monetary and fiscal policy, based on macroeconomic models derived from microeconomic principles.

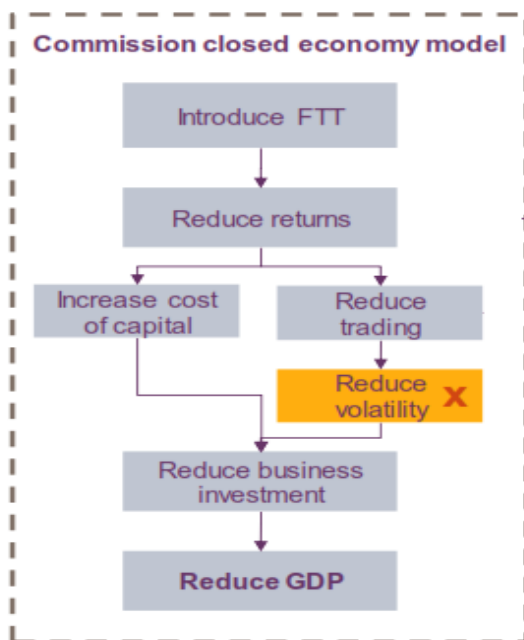
The European Commission believes that the variety of different scenarios depends on reallocation and the rate of tax evasion and on the elasticity and tax rate. For stocks and bonds, reducing outcome is set to 10-15% and for derivatives is 70-90%, depending on the assumptions.

The Association for Financial Markets in Europe, ASSOSIM (Italian Association of Financial Intermediaries) and Nordic Securities Association (NSA) asked Oxera to review the Commission's impact assessment of the proposals and present in a report if the conclusion about the potential impact on GDP is appropriate.

The primary transmission canal through which FTT is propagating to have an impact on GDP is through the cost of capital. The round trip tax increase by 0,2% the transaction cost for trading financial assets, which reduce the expected net return to investor. They will require a higher rate of return to compensate their investments, which raise the cost of capital for firms. In this situation, firms are discouraged to invest in the real economy, leading to a decrease of economic growth and implicit a lower GDP. This logic is presented in Figure 3.

Figure 3.

Conceptual basis of the Commission's closed economy model



Source: Oxera

The model also assumes that 50% of market participants are „noise traders” who increase the price volatility. Discouraged by the introduction of an FTT, speculative transactions will decrease, resulting in a reduction in volatility which stimulates investments and also GDP. This economic growth will be achieved, but in a much lower percentage than the diminution in investments and GDP due to the rise in the cost of capital. These uncertain assumptions surrounding the volatility effect appear to be non-considerable.

The model doesn't take in consideration the mobile nature of capital in an open economy and therefore, this would be the case of a global FTT. The limitations of the model, such as the exclusion of derivatives, do not mean that additional tax revenue can be collected without increasing the impact on GDP.

The commission chose not to accept the output of the model in terms of impact on GDP. Instead, it applied a number of downward adjustments to the estimated impact, since it believed that the model overstated the impact, for the following reasons:⁷

- exclusion of primary markets from the tax;
- exclusion of transactions that do not involve financial institutions;
- the assumed zero value of high frequency trade activity;
- the assumption that the tax would have less of an effect on the cost of financing investment through retained earnings and bank lending;

CONCLUSIONS

Introduction of a financial transaction tax is likely to be perceived on the basis that it corrects market failures and takes into account negative externalities. FTT might have a significant and highly uncertain impact on volatility. Raising the level of transaction costs does not reflect a reduction of market volatility, the tax will affect more informed traders than could reduce speculative trading. In the long term, the customers of the financial sector will support the tax burden and the tax will have a negative impact on economic growth. The impact on asset price bubbles appears to be unclear, this must not be received that the tax will suppress financial innovation, because not all innovations are malignants. A more efficient tax for correcting market failures, because it targets better the systemic risk, would be the proposed maturity mismatch⁸ in banks' funding structure, which reduces the liquidity risk exposure.

As regarding the substitution of tax financial instruments with similar derivatives, a considerable care needs to be taken, for a better monitor the tax avoidance (i.e. the UK's introduction of the Stamp Duty Reserve Tax to prevent avoidance of UK Stamp Duty on share transactions). A coordinated international agreement would be necessary to ensure and to prevent relocation and flight of capital, else a significant effort would be spent on evading the tax.

The European Commission's impact assessment is likely to have additional unintended consequences which are difficult to quantify and from a public policy point of view could be seen as unfavourable for the EU economy. Given these risks, the impact assessment would need to be significantly more elaborate and based on more solid evidence before a well-informed decision could be made about the proposed FTT.

Both sides, the proponents and the opponents of a financial transaction tax, have a common view on the actual crisis which generates high volatility, instability and rejects the market efficiency. Even though, an FTT is not a viable solution, new

⁷ - "What would be the economic impact of the proposed financial transactions tax on the EU?" December 22, 2011.

⁸ - this disagreement comes from the collective illusion that financial markets are not fully efficient and always perfectly liquid, this justifies highly debt leverage operations and maturity distortions.

regulations and supervision mechanisms are necessary to limit collateral damages, offer more transparency and lead to an increase in public goods production.

REFERENCES

1. CERNA, S., 2012, "Monetary policy in post-era crisis", working paper; p.17
2. De Mooij, R.A. and M. Keen, 2011, „Debt, taxes and banks, mimeo”.
3. De Mooij, R.A., 2011, „The tax elasticity of corporate debt: A synthesis of size and variations”, IMF Working paper WP/11/95.
4. European Commission: „Proposal for a Council Directive on a common system of financial transaction tax and amending Directive 2008/7/EC”, “ Commission staff working paper executive summary of the impact assessment” , Consulted: <http://ec.europa.eu> (2012).
5. Keen, M., 2011, „Rethinking the taxation of the financial sector”, CESifo Economic Studies, 57, 1, 2011.
6. McCulloch, N. and G. Pacillo, 2011, „The Tobin Tax: A Review of the Evidence”, working paper.
7. Oxera, 2007, „Stam Duty: Its Impact and the Benefits of Its Abolition”, Prepared for ABI, City of London Corporation, IMA and London Stock Exchange, Oxford: Oxera Consulting Limited.
8. Oxera, 2011, “What would be the economic impact of the proposed financial transactions tax on the EU?”, Oxera Consulting Limited
9. Shome, P., 2011, „Financial Transaction Taxes”, ICRIER, working paper.
10. Summers, L.H. and V.P. Summers, 1989, „When Financial Markets Work Too Well: A Cautious Case for a Securities Transactions Tax”, Journal of Financial Services, Vol. 3, pp. 261-286.
11. Stiglitz, J.E., 1989, „Using Tax Policy to Curb Speculative Short-Term Trading”, Journal of Financial Services, Vol. 3,2&3, pp. 101–113.
12. Worstall, Tim, november 2011, „The case against a financial transactions tax” , IEA Current Controversies Paper No. 33
13. „Tobin Tax: A review of the evidence”, Economics Department Working Paper Series, Institute of Development Studies.