

## **Financial transaction tax:**

### **A discussion paper on fiscal and economic implications**

June 2013

The political debate surrounding the financial transaction tax has become fixated on the simplistic common denominator: collecting money, penalising banks, assuaging the markets and establishing justice. These winsome and appealing demands currently enjoy broad support in Germany. With public approval at 82% according to the European Commission's Eurobarometer survey, positive sentiment is highest in Germany ahead of both France and Greece, where approval is at 75%. And so it appears that the political common denominator has been found!

However, from a macroeconomic perspective the crux is whether it would ultimately be possible to satisfy regulatory and fiscal demands by introducing the financial transaction tax. Doubts are not unwarranted in this regard. Is the financial transaction tax capable of fulfilling the necessary functions of financing, distribution and steering? Although the specific embodiment of the financial transaction tax remains nebulous for the time being, if one takes a long-term, holistic view, the direct and indirect costs of introducing such a tax appear to outweigh the benefits.

The following observations summarise the manifest flaws in the concept, as well as the financial and real economic ramifications of those flaws, which have not been given sufficient consideration. In June 2012, the German federal government and the opposition published a green paper, in which they promised "to assess the impact the tax would have on pension assets, retail investors and the real economy, and to avoid negative consequences".<sup>1</sup> It is becoming clear that this promise is untenable. In fact, a financial transaction tax is incapable of sensibly and expediently fulfilling any of the three necessary functions of a tax: financing, distribution and steering. From a macroeconomic perspective, the introduction of this tax is therefore not advisable.

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<sup>1</sup> Green paper published by the German federal government and the opposition concerning the financial transaction tax ("*Eckpunktepapier der Bundesregierung und Opposition zur Einführung der Finanztransaktionssteuer*"), June 2012.

## 1. Financing function

The revenue estimate by the European Commission – having already been reduced from the original EUR 57 billion annually to EUR 30 to 35 billion to reflect the participation of only 11 of the 27 member states – is still overstated.<sup>2</sup> The same goes for the estimate of EUR 10-20 billion arrived at by the German Institute for Economic Research (*Deutsches Institut für Wirtschaftsforschung*, "DIW") for Germany on behalf of the Bundestag SPD group.<sup>3</sup> And it is also likely to apply to the comparably "modest" EUR 2 billion in estimated revenue originally included in the budget from 2014 onward by Finance Minister Schäuble.

By their very nature, steering taxes such as the financial transaction tax or the ecotax must anticipate a tax base that shrinks as the steering function increases in effectiveness. In this light, the implausibility of the European Commission's revenue estimate becomes apparent from its own initial assumptions.<sup>4</sup> On the one hand, the European Commission assumes that while exchange-traded and OTC derivatives will make up more than 98% of the volume of the tax base, they will account for approximately 66% of tax revenues, despite a lower tax rate of 0.01%. At a tax rate of 0.1%, stocks and bonds will only account for approximately 34% of tax revenues. On the other hand, in the same study the European Commission assumes that the evasion factor reducing the tax base through technical and economic means would amount to 75% for derivatives and 15% for stocks and bonds. As demonstrated below, the concern is that the tax base – particularly for derivatives – would shrink to a significantly greater degree as a result of legal avoidance schemes, ultimately resulting in the financial transaction tax "killing the goose that lays the golden eggs".

Above and beyond the lasting direct reduction of the tax base, a financial transaction tax would result in particularly rapid and effective legal avoidance measures on the part of major market participants. They would shift business activities and transactions to jurisdictions which are not subject to the tax, use unregulated or less strictly regulated OTC trading platforms and increasingly seek out product innovations and alternatives which are not taxed. Aside from the use of legal avoidance schemes and the transfer of business activities, the tax would also fuel an exodus. Many market participants are not necessarily obligated to operate in the financial centres of the participating member states. Thus it can be assumed that those locally and nationally constrained market participants and markets would ultimately be among the losers.

Current policy makers, going against the better judgement, ignore the disappointing lessons learnt in Sweden between 1984 and 1991. During that period, Sweden successively introduced transaction taxes on transactions involving equities, fixed income securities and interest rate derivatives. In the end, only 40% of Swedish equities were being traded in Stockholm. Trading volume in Swedish fixed-income securities plummeted by 85% within the first week after the introduction of the taxes, and

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<sup>2</sup> Impact Assessment accompanying the document Proposal for a common system of financial transaction tax, Staff Working Paper, European Commission, 2011.

<sup>3</sup> Financial Transaction Tax – Economic and fiscal impacts for Germany of introducing a financial transaction tax, DIW research report commissioned by the Bundestag SPD group "*Finanztransaktionssteuer – Ökonomische und fiskalische Effekte der Einführung einer Finanztransaktionssteuer für Deutschland*, DIW Forschungsbericht im Auftrag der SPD-Fraktion im Bundestag", July 2012.

<sup>4</sup> Impact Assessment accompanying the document Proposal for a common system of financial transaction tax, Staff Working Paper, European Commission, 2011.

volume in interest rate derivatives dove by 98%. Sweden's capital market has yet to recover from this experiment, which was terminated in 1991.

The degree of policy makers' negligent disregard for the international structures, the high level of interconnectedness and the integration of financial markets – having been demanded by policy makers for decades – is illustrated by France's recent push to introduce a tax on transactions involving the shares of major French companies. Trading volume in these securities has fallen drastically, while volume in non-French securities and alternative products with equity characteristics has risen sharply. As a result of these reactions, the French government was forced to lower its original revenue estimate of EUR 1.6 billion to EUR 300 million annually.

Thus far, policy makers have yet to present a complete calculation of tax revenues and losses to the public relating to the financing function and the fiscal implications. As noted above, the tax would lead to massive declines in trading activity. This would result not only in a decrease in the direct tax base, but also in declining profit and income in the affected areas of the financial industry. The resultant tax losses have so far not been fully quantified. Moreover, there has to date been no consideration of the loss of social security contributions and the costs incurred by the social security system as a result of the cutback in and outflow of highly qualified and highly remunerated employees in these areas.

Finally, the tax losses resulting from a general decrease in economic activity on the whole are not taken into consideration. The European Commission's impact assessment is based on an optimistic estimate of direct revenues from the financial transaction tax amounting to EUR 34 billion, or 0.4% of the gross national product (GNP) of the 11 participating member states. Under an equally optimistic scenario, it estimates that the decrease in GNP caused by the tax would only be 1.76%.<sup>5</sup> Assuming that each percentage point is charged a marginal tax rate of 40% to 50%, this decrease in GNP caused by the financial transaction tax would result in indirect tax losses of EUR 60 to 75 billion, thus reducing tax revenues. Thus, in the 11 participating member states alone, the bottom line would show persistent net tax losses of EUR 26 to 41 billion annually.

***As far as the financing function is concerned, it can be concluded that the financial transaction tax is not capable of achieving the necessary sustainable tax financing. The erosion of the tax base through legal avoidance measures and dramatic decreases in market volume would result in direct tax revenues being far lower than estimated by policy makers. To date no consideration has been given to the likely secondary fiscal effects resulting from shortfalls in income and corporation tax revenue. Given the impact on the real economy and the decelerated growth in gross national product, net tax losses should generally be expected.***

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<sup>5</sup> Impact Assessment accompanying the document Proposal for a common system of financial transaction tax, Staff Working Paper, European Commission, 2011.

## 2. Distributive function

Contrary to the general assertion made by the advocates of a financial transaction tax, that the tax burden would primarily be shouldered by the financial sector, the effective tax burden would largely be passed on to end customers. This is also confirmed by the European Commission in its impact analysis for the financial transaction tax. It states that "a large part of the burden would fall on direct and indirect owners of traded financial instruments".<sup>6</sup> Given this, it is even more perplexing that policy makers would justify the financial transaction tax as "compensation" to be paid by the financial sector for the billions in bailout funds provided by taxpayers during the financial and euro crisis.

By way of example of the impact on the operating business of private companies, passing on the tax to end customers would significantly raise the cost incurred by companies using derivatives for the purpose of hedging exchange rates, commodity prices and interest rates, and would drastically curtail the use of short-term financing instruments. The cascade effects and multipliers, which would lead to effective tax rates that are significantly higher than the nominal rates of 0.1% for securities and 0.01% for derivatives due to the typical multi-stage nature of transaction chains, are of particular consequence.

For example, a typical tax cascade for an instrument used to hedge exchange rates comprises not only the original transaction between the company and its bank, but also the hedging transactions of the company's bank and the transactions and hedges entered into by the financial institutions which the bank may use to gain access to international markets and neutralise risk exposures. Owing to such cascade effects, the effective tax burden is generally three to seven times higher than the nominal tax rate. Obviously in this case, the tax creates a clear incentive to shorten the transaction chains, ultimately resulting in a concentration within the financial sector and squeezing out smaller regional institutions.

Yet even without such cascade effects, the financial transaction tax would lead to considerable costs imposed on individual transactions. Absent the tax, the entirety of transaction costs is determined solely by the bid/ask spread. The tax rate of 0.01% on the notional amount of an exchange rate hedge using derivatives, which appears low at first blush, can, for example, increase the aggregate transaction costs by up to 580% for companies which are not themselves subject to the tax, and by up to 1790% for financial institutions which are taxable.<sup>7</sup> This massive relative increase affects in particular highly liquid, short-term instruments, for which in some cases the bid/ask spread is only 0.00005%. Ultimately, this massive increase in costs would result in hedging instruments designed to effectively manage operational risks no longer being used or being used to an insufficient extent, with the negative impacts on the company's investing and financing opportunities being taken as a given. It would also result in relevant company functions being relocated to jurisdictions where the tax is not levied. However, the latter measure is likely to be an option only for large global companies, with smaller and medium-sized companies suffering a disadvantage as a result.

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<sup>6</sup> Executive Summary of Impact Analysis, Staff Working Paper, European Commission, June 2011, p. 11.

<sup>7</sup> Proposed EU Commission Transaction Tax. Impact Analysis on Foreign Exchange Markets, Wagner, Michael et al., Oliver Wyman, January 2012, p. 7-8.

The collateralised money market illustrates the extent to which the introduction of the tax would result in the virtual elimination of efficient and functioning market segments and which in certain respects may completely negate regulatory and fiscal objectives. The financial transaction tax so heavily burdens the underlying collateral of repo instruments, which are preferred by financial market regulators over non-collateralised money market instruments, so that market segments in maturities under one year are completely "drying out". For example, with the transaction tax the bid/ask spread of 0.05% offered to companies today would increase prohibitively to 72.15% for overnight transactions and 10.44% for one-week transactions.<sup>8</sup> The spread for one-year repo transactions would also increase fivefold due to the tax.

Passing the effective tax burden to savings account holders and pensioners would also result in considerable negative implications for private pensions and capital accumulation. In this respect, too, advocates of the tax fail to consider cascade effects, portfolio reallocations and derivatives-based hedging strategies. It would appear that advocates assume an unrealistic, simplistic and completely passive fund management model under which investments are held from issuance to maturity.

The considerable burden on private pension systems and fund-based investments goes far beyond a marginal reduction in returns. The same goes for investment funds, pension funds, life insurance companies, foundations, government funds and similar investments. Professor Kaserer of the Technical University of Munich points out in an empirical study that given observed average asset turnovers between 40% and 80% of fund assets, the introduction of the tax would result in decreases in distributable pensions of 2.5% to 5%. He concludes that "for life insurers alone [...] the losses are likely to be greater than the distributions paid out by the government under the Riester pension scheme".<sup>9</sup>

The tax would have a particularly strong impact on funds invested in growth markets and small-caps, since fund managers need to pursue highly transaction-intensive strategies in order to diversify in a dynamic environment. The introduction of the tax would place a heavy burden on this vehicle which is crucial to financing mid-cap growth. The tax would also have a strong impact on bond funds, particularly money market funds, which must regularly and frequently reallocate their portfolios.

Reduced returns and charges on investors resulting from the financial transaction tax – whether on direct investments in equities and fixed-income securities or in fund-based formats – have a negative impact on liquidity and prices in the equity and fixed income markets. Consequently, financing costs would increase for the private and public sector. This would hamper growth in internal and external capital market financing. However, this ultimately impacts the taxpayer as well, since the government's refinancing conditions would deteriorate. A study prepared by the International Regulatory Strategy Group in April 2013 uses the example of the British government's sovereign debt management, calculating a GBP 4 billion burden on the British exchequer due to the

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<sup>8</sup> Collateral Damage: the impact of the Financial Transaction Tax on the European repo market and its consequences for the financial markets and the real economy, ICMA – European Repo Council, April 2013, p. 14 *et seq.*

<sup>9</sup> Financial transaction tax and pensions – Effects and side effects "*Finanztransaktionssteuer und Altersvorsorge – Wirkungen und Nebenwirkungen*", Christoph Kaserer, Commissioned by the Initiative for a New Social Market Economy (*Initiative Neue Soziale Marktwirtschaft*, "INSM"), January 2013.

transaction tax and given an issue volume of GBP 128 billion.<sup>10</sup> The British government thus would do well to oppose the introduction of this tax!

***With respect to the distributive function, it can be concluded that the effective tax burden would be significantly higher than the nominal tax rate due to cascade effects and multipliers and that although the tax would be levied on financial enterprises, the effective tax burden would largely be passed on to private households and businesses. The direct burdens on pension systems, corporate finance and, ultimately, the taxpayer due to increasing government financing costs are particularly critical in this connection. Finally, the completely underestimated high effective tax burden will result in considerable distortions and market disruptions for short-term financing forms and hedging instruments, with unintended macroeconomic implications.***

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<sup>10</sup> The Impact of a Financial Transaction Tax on Corporate and Sovereign Debt, Report prepared for the International Regulatory Strategy Group prepared by London Economics, April 2013.

### 3. Steering function

The idea of a financial transaction tax was conceived in 1972 by the later Nobel laureate James Tobin.<sup>11</sup> According to his theory, the taxation of each individual transaction would result in a decrease in short-term trading strategies since the tax would be considerably more noticeable with speculative strategies involving high transaction volumes than with long-term strategies. Unfortunately, the current superficial political debate ignores the context and the scope of application of the "Tobin Tax".

The speculative excesses which were to be targeted by Tobin's transaction tax were the result of a rigid exchange rate regime. Exchange rate changes were not caused by market mechanisms involving continuous price discovery, but rather were more or less the result of political decisions made under pressure in highly fragmented national markets. The expediency of the financial transaction tax as a steering instrument to reduce market volatility, prevent speculative excesses resulting from high frequency trading and even to reduce systemic risks appears exceedingly questionable against the backdrop of the present, completely different, situation.

Short-term trading activities – particularly the use of high frequency trading technology (HFT) – are often equated with purely speculative, destabilising trading strategies. However, HFT is merely a general description for technology-based trading, which should be judged in the context of the technological and structural evolution of exchanges and over-the-counter trading platforms. The majority of HFT-based trading volume is attributable to the provision of liquidity and arbitrage between trading platforms and markets. Both of these represent elementary functions of efficient price discovery that without the use of HFT would not be possible in today's trading infrastructure, which is characterised by fully electronic trading platforms and global networks. HFT is a risk management tool and a significant competitive factor where these "desirable" short-term trading strategies are concerned. These strategies play a large part in increasing liquidity and reducing volatility.

The financial transaction tax is not an instrument that is capable of distinguishing between "desirable" short-term trading strategies and the less significant share of "undesirable" ones. It would effectively toss the baby out with the bathwater. Recklessly accepting the particularly heavy burden, especially on those market participants which function as providers of liquidity and market makers, whose business model depends to a great degree on a large number of transactions, would result in considerably higher transaction costs and price markdowns due to tighter liquidity and more volatile price fluctuations. An extremely broad variety of empirical studies demonstrate the fundamental connection between rising transaction costs, falling liquidity and increasing volatility, as well as the resultant increases in financing costs.

Finally, this raises the question as to whether a financial transaction tax would have functioned as a steering tool, preventing undesired developments on the financial markets which ultimately culminated in the financial crisis, thus averting the crisis. The markets most heavily impacted by the financial transaction tax are those with high turnover and low trading margins, i.e., exchanges where stocks, bonds, options and futures are traded. However, these markets have proven their integrity

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<sup>11</sup> Tobin received the Nobel Prize in Economics for his work in modern portfolio theory.

and ability to function through the crisis – despite, or perhaps thanks to, the relatively high share of HFT.

The crisis worsened due to complex securitisation techniques, intransparent and fragmented OTC derivatives markets and an over-leveraged banking system. Not a single one of these areas would have been steered onto the right track by the financial transaction tax. The financial transaction tax also appears to be less than helpful in resolving the European debt crisis, because demand is most urgent for liquidity and efficient price discovery. A financial transaction tax offers little help in this regard, because it removes liquidity from the markets, thus increasing the costs of financing and risk hedging.

***With respect to the steering function, it can be concluded that the financial transaction tax is a highly imprecise, inefficient and highly distortionary tool which by its very nature is not capable of fulfilling the demands of policy makers for a sustainable steering function to avoid speculative excesses and systemic risks. Rather, the one-sided and disproportionate burden on short-term trading activities would result in considerable disruptions of market functioning due to fragmentation and market participants fleeing to non-regulated markets. This would place heavy burdens on the private and public sector where it comes to accessing efficient financing, investing and hedging instruments.***



## 4. Conclusion

Following the failure of a "pan-European" solution, due primarily to resistance by the United Kingdom and Sweden – countries which have had experience with transaction taxes – the European Commission has proposed a Directive on the introduction of a financial transaction tax on the basis of enhanced cooperation to be implemented in 11 member states. The financial transaction tax is intended to achieve a range of objectives: it aims to shore up government budgets, stabilise financial markets and involve the financial sector in the costs of the financial market crisis. It is not surprising that such noble financing, distribution and steering objectives are highly popular among large portions of the population. It is therefore no wonder that in spring 2012 France's then-president Sarkozy, and at the close of 2012 the Italian government, played this card in the face of upcoming elections, precipitously implementing national financial transaction taxes. The results of these experiments thus far offer initial proof of the fundamental conceptual flaws of the financial transaction tax.

The statements and suppositions in this paper on the financing, distribution and steering function illustrate that the planned introduction of the financial transaction tax is a risky and costly experiment. Over the long term, the financial transaction tax will not achieve any of the intended objectives. Rather, it can be expected that

- the erosion of the tax base through legal avoidance techniques and the inclusion of secondary real economic and fiscal effects will result not in the prophesied tax revenues, but rather in net tax losses,
- the effective tax burden will be significantly higher than the nominal tax rate due to cascade effects and will largely be passed on to private households and businesses, thus resulting in a considerable burden on private pension systems, corporate finance and taxpayers due to increasing costs to finance the government, and
- the one-sided and disproportionate burden on short-term trading activities will result in tighter liquidity, greater fragmentation and a massive flight to non-regulated markets, thus rendering access to efficient financing, investing and hedging instruments considerably more costly.

It can therefore be assumed that the macroeconomic costs of introducing the transaction tax will exceed the benefits of doing so.

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