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Implementation of a General Financial Transactions Tax

Executive summary of a forthcoming study

A general financial transactions tax (FTT) tracks two main targets: First, mitigating the fluctuations of the most important asset prices like stock prices, exchange rates, and commodity prices, and second, providing substantial revenues for governments.

The essential features of a general FTT are as follows:

- The FTT is levied on all transactions involving buying/selling of spot and derivative assets. These instruments are traded either on organized exchanges or "over the counter" (i. e., bilateral OTC transactions, exclusively carried out by professional market participants).
- The tax base is the value of the asset, in the case of derivatives their notional value (e. g., the value of a futures contract at the current futures price, the notional principle of a swap, the spot value of the underlying asset in the case of options).
- The tax rate should be low so that only very "fast" (= speculative) trading with high leverage ratios will become more costly due to the FTT (in the present study assume a rate of 0.05% is assumed).
- The FTT does not tax "real-world-transactions" like payments related to the goods and labour markets, providing a bank credit, initial public offerings of stocks and bonds as well as foreign exchange transactions which stem from international trade or direct investment.
- The tax burden is divided between the buyer and the seller, hence, each side of a financial transaction would just pay 0.025% of the asset value (2.5 basis points).

This concept ensures the following: The more short-term oriented a transaction is (the faster open positions are changed) and the riskier it is (the higher is the leverage ratio), the more will the FTT increase transactions costs. At the same time, holding a financial asset (including hedging) will not be burdened by the FTT.

There are two fundamentally different ways of how an FTT could be implemented:

- With the centralized approach, the tax is collected at point of settlement, either from the electronic settlement systems at exchanges, or from Central Counterparty Platforms (CCPs) or Central Securities Depositories" (CSDs) in the case of OTC transactions, respectively.
- With the decentralized approach, the tax is deducted by the banks and brokerage firms which transmit an order to an exchange (on behalf of a customer or as part of

proprietary trading) or which carry out an OTC-transaction with another financial institution or with a non-financial customer.

Centralized FTT deduction: The optimal approach

The centralized tax deduction would be the optimal form of an FTT implementation. At the same time, however, this approach is difficult to realize in practice because it necessitates a broad consensus to introduce an FTT and to force all OTC-transactions to be settled via CCPs. Such a consensus has to be achieved at least among all important countries in a trading time zone. Otherwise substantial shifts in market shares of financial centres would occur.

Taking the EU as example: If Germany would introduce an FTT together with some other member countries but the United Kingdom would not, then many transactions would "migrate" from Frankfurt to London.

In addition, there is the issue of how to distribute the FTT receipts. Due to the concentration of trading on the exchanges in London and Frankfurt, roughly three quarters of revenues would stem from transactions on the London market place and one quarter from transactions in Frankfurt. However, the tax will effectively be paid by all counterparties who make use of these exchanges (e. g., 85% of all trades made at Eurex in Frankfurt stem from non-German traders). For this reason it is recommended that one part of the revenues should go to the countries from which the transactions on organized exchanges originate. Of course, for providing the EU as a whole with such efficient market places as London and Frankfurt, the UK and Germany should get some fixed share of tax revenues.

These considerations suggest that the FTT revenues from exchange transactions should be divided into three parts if all EU countries agree to implement a common FTT. One part should go to the home country of the exchange, one part should go to the countries from which the transactions on exchanges originate, and the third part should/could go to supranational institutions like the EU or to supranational projects like development aid.

As regards OTC transactions, a major prerequisite for the centralized solution is the central mandatory clearance of all OTC-transactions (standard and non-standard) through Central Counterparty Platforms (CCPs) or Central Securities Depositories (CSDs). If such a consensus could be reached, then it would be easy to legally force all banks and other financial institutions to centrally clear their OTC transactions. In this case counterparties from countries outside the EU would also be obliged to use the CCPs if they want to do business with financial institutions from EU countries.

However, a central collection through currently wholly private settlement institutions requires a high degree of tax coordination and cooperation as well as the harmonization and further integration of the clearing and settlement processes.

Since the CCPs and CSDs represent just an electronic clearing system, their efficiency does not depend on network externalities of financial centres (as with organized exchanges).

Hence, the FTT proceeds should be divided between the countries from which the transactions originate, and the EU institutions.

A centralized FTT implementation necessitates also the creation of a "Standard Classification of Financial Transactions" (SCFT). Such a classification (similar to the SITC as regards international trade) is also a prerequisite for an efficient supervision and regulation of financial markets (including restrictions to tax fraud as well as to terrorist activities).

The last years have seen a remarkable change in clearing and settlement structure towards centralisation and integration, a process which has been furthered in the course of the financial crisis and the efforts to mitigate systemic risk. However, as outlined above the current infrastructure falls short of the requirements that have to be fulfilled to make a central FTT deduction feasible.

Decentralized FTT deduction: The pragmatic approach

The essential difference between the centralized and the decentralized approach to FTT implementation is as follows (taking transactions on exchanges as example). According to the centralized approach, any exchange situated in a country where an FTT applies ("FTT country") has to deduct the FTT for all transactions ("territorial principle"). According to the decentralized approach, any resident of an FTT country who orders a transaction to be carried out at home or abroad is legally the debtor of the FTT ("personal principle"). The tax is charged to the account of the tax debtor and transferred to the tax authorities by the bank or broker which places the respective order to the exchange ("taxing at the source").

A concrete example: If Germany would introduce a FTT, then only all German residents placing orders for transactions on exchanges - at home or abroad - are liable to pay the FTT, the tax debtor's accounts are debited which are held at the bank or broker dealers who then place the order with an exchange. As regards the derivatives exchange Eurex, e. g., only those 15% of all transactions which stem from German residents would be taxed. At the same time, also all transactions stemming from German residents for execution in a non-FTT country, e. g., on exchanges in London, would be taxed (at the bank or broker which places the order). In this way, German exchanges would not be discriminated relative to exchanges abroad as long as those who place the order would not move from an FTT country to a non-FTT country.

However, some hedge funds and investment banks might shift their (very) short-transactions (even more) from Frankfurt to London. The same might be true for some amateur "day traders" who would process their orders through brokers at London. Given the destabilizing effects of these activities and their negative incentive effects for activities in the "real world", such a move could/would be positive for the German economy as a whole.

To tone down migration, one could restrict the extent of this emigration of short-term trading by introducing a FTT-substitute-levy (FFTSL) in FTT countries. The FTTSL would be charged to any transfer of funds from a bank account in an FTT country to a brokerage firm or hedge fund in

a non-FTT country. The size of the FTTST must be several times higher than the FTT. With an FTT of 0.05% the FTTSL could be 2% or even higher. If it were 2% it would be the equivalent of 40 "round-trip-transactions". The FTTST can be considered some kind of "security deposit" in case the FTT due to the transactions carried out abroad is not paid.

As regards OTC transactions, any bank, other financial institution or non-financial customers of a FTT country is the debtor of an FTT. If both parties of the transaction are residents of an FTT country, then their fiscal authorities receive an FTT payment at the full rate (0,05%), if one partner is resident of a non-FTT country, then the FTT country gets only half of it (0,025%).

In the OTC markets, either banks trade with each other, or a bank trades with other market participants or the latter trade among themselves (other market participants comprise "other financial institutions" like hedge funds and "non-financial customers" like corporations). In executing trading, a bank is always involved. For this reason, in this concept the bank has to charge the tax to debtors account and transfer the FTT to the tax authorities. If the bank is the intermediary of two customers trading with each other, then the bank has to charge the accounts of the two counterparties with the tax. To sum up: The decentralised approach defines the banking system as the point of tax collection.

The decentralized approach takes into account the different political and institutional conditions among the advanced economies. In a pragmatic way, it would enable single countries or a group of countries to start with the implementation of a FTT. Based on the experiences of the "forerunner countries", the introduction of a general FTT could then be enlarged to other countries in a stepwise process.

A numerical example for taxing derivatives traded on exchanges

In order to show how the implementation of an FTT in (some) EU countries would work, I take transactions on derivatives exchanges as example (they comprise almost 50% of all financial transactions in Europe). These types of transactions are almost exclusively carried out at Eurex (Frankfurt) and Euronext (London). The orders executed on these exchanges stem from different countries. Based on data for Eurex, it is assumed that out of the subset of transactions from EU27 countries, 20% stem from Germany, 50% from the UK and 30% from other EU countries (table 1).

At a tax rate of 0.05%, revenues would amount to 21bn € from Eurex transactions and to 69bn € from Euronext transactions, respectively (even if trading volume declines by roughly 65% in reaction to an FTT introduction – these estimates are based on 2007 data; according to the preliminary results of the Triennial Central Bank Survey organized by the Bank of International Settlements, overall financial transactions have increase by roughly 28% since then. This remarkable result implies that FTT revenues would be at least by 20% higher than estimated based on 2007 data). These revenues would be earned by the fiscal authorities of Germany and the UK, if both counties would implement an FTT but would not want to share the revenues (table 1, case 1 of centralized FTT implementation).

However, in this case other EU countries might attempt to attract a relocation of the electronic derivatives exchange by not introducing an FTT. An EU-wide consensus to prevent such a development could be as follows (case 2):

- Germany and the UK get 25% of the revenues stemming from the transactions at Eurex and Euronext, respectively.
- The remaining 75% of revenues are divided among EU countries according to their share in transactions (i. e., as regards the origin of the orders). Hence, Germany would get 20%, the UK 50% and the other EU countries 30% of the remaining 75%.

In this case 2 of a centralized FTT implementation, total revenues from taxing transactions on derivatives exchanges would amount to 18.8bn € for Germany, 51.0bn. € for the UK, and 20.3bn. € for the other EU countries (table 1).

Table 1: Hypothetical FTT revenues from derivatives trading on organized exchanges at a tax rate of 0.05%
Based on 2007 data (rounded), bill. €

	Germany	United Kingdom	Other EU countries	Other euro countries	EU institutions
Share in transactions in %					
EU 27 = 100	20	50	30	-	-
Euro15 = 100	40	-	-	60	
Share in FTT revenues[1]) including EU institutions in % when FTT is implemented in					
EU 27 = 100	15	37	23		25
Euro area	30	-	-	45	25
Centralized tax deduction					
In EU 27					
No revenue-sharing (case 1)	21	69			
With revenue-sharing					
Among member countries (case 2)	18.8	51.0	20.3	-	-
Among member countries plus EU (case 3)	15.4	42.2	15.5	-	16.9
In Euro area					
No revenue-sharing (case 1)	14.7 [2])	-	-	-	-
With revenue-sharing					
Among member countries (case 2)	8.1 [2])	-	-	6.6	-
Among member countries plus EU (case 3)	7.0 [2])	-	-	5.0	2.8
Decentralized tax deduction (no revenue sharing)					
Euro countries	4.2 [3])	-	-	6.3 [4])	
Germany	4.2 [3])				

[1]) After Germany (UK) got 25% of the revenues stemming from transactions at Eurex (Euronext). - [2]) Assumption: 30% of transactions emigrate. - [3]) Plus FTT revenues from German trades abroad (mainly UK). - [4]) Plus FTT from trades abroad (mainly UK).

In case 3, the EU institutions would get 25% of the remaining 75% (after Germany and the UK got their "special" share as provider of the market place), i. e., 16.9bn. €, the EU countries would get proportionately less (table 1).

If only the Euro countries would implement an FTT but the UK (and the other EU countries) would not, then the overall revenues are much smaller (14.7bn €), mainly because the UK is not included, but also because it is assumed that 30% of trading volume "emigrates" from Frankfurt to London. These revenues could be divided among the Euro countries (and the EU institutions) according to the same rules as described above (cases 1 to 3). E. g., Germany would get between 14.7bn € (case 1) and 7.0bn € (case 3). Note, that these revenues would also stem from transactions carried out by UK traders at Eurex.

All the cases described above concern a centralized FTT implementation. If only few EU countries would be willing to introduce an FTT or only just one then the decentralized approach is easier to implement. E. g., if only Germany would implement an FTT, then the transactions of German traders would constitute the tax base, i. e., 20% of Eurex transactions as well as transactions at foreign derivatives exchanges (for simplicity, I disregard here the transactions from traders outside the EU at Eurex – if these were included the share of German trades is only 15%). Hence, the German government would raise 4.2bn FTT from Eurex transactions by German traders (table 1).

If all Euro countries would gradually introduce an FTT (according to the decentralized approach) then they would raise 10.5bn € from Eurex transactions plus additional revenues from transactions at foreign derivatives exchanges (table 1). Most of the additional FTT revenues would stem from trading at Euronext in the UK.