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Impact of the FTT on the profitability of financial market activities – the assessment of Goldman Sachs Research

Section 4.3 of a forthcoming WIFO study on the implementation of the FTT as proposed by the European Commission

In a recent research report Goldman Sachs tried to assess the impact of the FTT proposal of the European Commission on the profitability of financial market activities (*Goldman Sachs, 2013*)¹⁾. The main results are summarized as follows:

“On a 2012 pro-forma basis, the FTT would amount to €170 bn (or 92% of 2015E PBT, i. e., profits before taxes) for the 42 European banks we have analysed, on our estimates. By affected balance sheet category, the bulk of the impact stems from the European banks' REPO books (€118 bn), followed by derivatives (€32 bn), equities (€11 bn) and government bond books (€4 bn). By bank, the impact extends across business models – investment, universal, global and domestic retail banks. Similarly, by geography, it has a reach well beyond the EU-11. Indeed, we show some of the most affected banks would be those in the UK and Switzerland.

Individually, we show that the most affected banks are the French and German institutions. The six French and German banks show a 2012 pro-forma FTT as a percentage of 2015E PBT ranging from 168% (BNP), up to 362% (DBK) and finally 423% (Natixis). But even pure-play retail lenders – the Italian/Spanish domestic banks for example – stand to be significantly impacted (16%-130% of 2015E PBT).” (*Goldman Sachs, 2013, p. 4*).

Goldman Sachs Research arrives at these figures – five times the EC estimate of 34 bn. € – by using the concept of a “pro-forma-effect”:

“The aim of our analysis is to estimate the 2012 pro-forma effect of the FTT proposal on individual banks under our coverage. Essentially, we attempt to gauge what the 2012 FTT (theoretically) payable by individual banks would be, were they asked to apply FTT retroactively, to 2012 balances. This is a theoretical, “all else equal”, exercise. The results,

1) This study can be regarded the “core component” in a in a unofficial, yet very well organized campaign of financial institutions heavily engaged in short-term trading. Already in April 2013 Citigroup let circulate a study (“A European Financial Transaction Tax – “When good politics make for bad market economics”) warns against the detrimental effects of a FTT. On June 5, 2013, Morgan Stanley added a paper (“Europe’s Proposed Financial Transaction Tax: Opposition Mounts”) proposing alternatives which would in any case leave out exchange traded derivatives (the most important vehicles for short-term speculation of these banks). The president of the German Bundesbank, Jens Weidman, helped the campaign by also warning against neglected consequences of the FTT as proposed by the European Commission.

however, allow us to identify the business areas/product lines where the FTT impact would be most pronounced, and operational mitigation therefore most likely." (*Goldman Sachs*, 2013, p. 16).

Such a procedure is logically flawed because one must not assume "all else equal" if it is clear a priori that such an assumption cannot hold under any circumstance. This is so in the case in question because banks and other market participants must react to the additional transaction costs by reducing trading activities. The report of GS Research stresses repeatedly the effect that transaction volume will be the more reduced the more frequently an instrument is turned over. Yet, GS Research uses the "pro-forma-estimates" (implying no reduction in trading) "to gauge what the 2012 FTT (theoretically) payable by individual banks would be". This procedure blows up the "theoretical" or "pro-forma" FTT payables to 170 bn. €.

The degree of seriousness of this procedure can be illustrated using the following example. Trading volume in UK financial markets amounted to 563 times the British GDP in 2010 (even without REPO transactions which are not covered by the BIS data base).²⁾ On a "pro-forma" base, a general and uniform FTT rate of 0.1% would generate tax revenues of 56.3% of GDP, at a rate of 1% the British government might even receive revenues amounting to 5.6 times the British GDP....

Intellectual flaws of the dimension of the "pro-forma" estimates of FTT revenues usually occur if one is (too much) interested in getting certain results. The report of GS Research is obviously motivated by the interest to let the FTT burden look as big as possible. This "research interest" causes the researchers to directly relate the purely fictitious FTT payments to the bank's profits before taxes. Even though the report states that the "pro-forma-estimation" is a "theoretical exercise" it calculates the respective estimates as % of the profits of the 42 European banks covered by the report. Under the heading "Pro-forma 2012 FTT effect is large and broad, when analysed in the context of European bank profitability", exhibit 3 of the report shows that the total FTT bill would amount to up to 423% of banks' profits (in most cases more than 20%).

GS Research justifies the "pro-forma" estimation arguing that "the results allow us to identify the business areas/product lines where the FTT impact would be most pronounced....." However, this statement does not hold true for the following reason. The structure of activities and, hence, the sources of profits differ markedly between European banks (as the report also stresses). Banks which are specialized on short-term trading and REPO financing ("finance alchemy banking") will therefore reduce these activities in reaction to the FTT implementation to a much greater extent than the more traditionally operating banks

²⁾ Based on data from the World Federation of Exchanges (WFE) and the BIS overall transaction volume in 2010 on UK markets is estimated at 1,270,4 tn. \$ (the figure in table 2 – 1,096.4 tn. \$ - excludes foreign exchange spot transactions).

("boring banking"). As a consequence, the ranking of the "pro-forma" FTT payments of the single banks cannot be used as an indicator of the future ranking of the effective tax burden.

For the same reason, also the calculations of the distributions of the "pro-forma" FTT payments by types of banks and by countries cannot serve as indicators of the future distributions of the effective FTT payments. However, the publication of these quantitatively impressive numbers might/should strengthen the resistance of banks against the FTT and might/should deepen (potential) conflicts between EU governments as regards the FTT implementation.

The following statement about the (relative) FTT burden of France and Germany is a good example for this (hidden) intention: "French banks are the largest contributors, at €61 bn (36%). Germany (this includes only DBK and CBK) absorbs the second highest hit with €35 bn, mainly driven by Deutsche Bank (€26 bn)" *Goldman Sachs*, 2013, p. 28). These numbers are not only irrelevant as indicators of the future effective FTT payments due to the "pro-forma" methodology, but they are additionally biased due to the much smaller coverage of German banks as compared to French banks (GS Research alludes to this bias as it repeatedly underlines the "all-else-equal" and "theoretical" nature of its "pro-forma" estimates.....).

The "research interest" of the GS report is also reflected by the introduction of the concept of an "effective annual tax rate". The FTT is tax on certain flows, i. e., trades of financial instruments. As there are no flow data available as regards certain transactions, e. g., REPO transactions, GS Research takes the respective stock data from balance sheets, e. g., outstanding REPO positions and makes assumptions about the annual turnover. If, e. g., a bank uses 1-week REPOs of 1 mn. € every week for short-term financing, the annual turnover would amount to 52 mn. € and the annual FTT payment to 52,000 €. GS Research prefers to relate the *annual* FTT payments to the *average* REPO value and calls this ratio "effective annual tax rate". By this "semantic trick" one can document astronomically high "tax rates" as these rates become the higher the shorter the financing period of the REPO is. For tri-party-REPOs which are turned over 3 to 5 times per day, GS Research arrives at an "effective annual tax rate" of the FTT of 360% (*Goldman Sachs*, 2013, exhibit 12 on p. 19).

By relating the annual tax burden not to the annual transaction volume but to the size of the average transaction, GS Research let the effective tax rate appear much bigger than it actually is – in line with the "research interest" of GS. The problematic of this procedure becomes evident if one considers the following example: An US household spends every day on average 100\$ on consumption for which it has to pay 5\$ in sales tax. What sense does it make to calculate an "annual effective sales tax" of 365 times 5% = 1,825% instead of speaking of a general sales tax rate of 5%?

According to GS research report roughly two thirds of the overall "pro-forma" FTT payments from 42 banks covered in the report would stem from REPO transactions. Irrespective of the problematic of the "pro-forma" estimates, focusing in REPO financing sheds light on markets which have as yet been largely neglected when dealing with introducing a general FTT. The

reason for that is simple: There are no primary statistics on these transactions available as the Triennial Bank Survey of the BIS does not cover REPO transactions. Therefore also the WIFO estimates (*Schulmeister – Schratzenstaller – Picek, 2008; Schulmeister, 2011*) could not take these transactions into account.

Most REPO transactions stem from financing short-term trading activities, in particular also from proprietary trading of banks.³⁾ Intraday trading is financed by so called tri-party REPOs where purchasing and repurchasing takes place within hours. At the same time, REPOs facilitate leveraged trading to the extreme in the sense that one can purchase an asset without cash by borrowing money to buy the asset and simultaneously posting the asset as collateral. Also short-selling is fostered by the REPO market. One lends money in the repo market, takes the security one intends to short as collateral, and then sells the security.

The GS report provides indirect evidence for the presumption that REPOs finance in particular short-term and highly leveraged trading: According to the GS Research those banks would have to pay the by far highest amount of “pro-forma” FTT which are known for their specialization in this type of asset trading as Natixis, Commerzbank, Deutsche Bank, Credit Agricole, Societe Generale, BNP Paribas (*Goldman Sachs, 2013, exhibit 3 on p. 5f*).⁴⁾

It is therefore no surprise that the increasingly short-term REPOs transactions developed in tandem with the increasingly short-term proprietary trading of (certain) banks. This type of trading (the most important component of “finance alchemy”) is mostly unrelated to market fundamentals (in particular because it is to a large extent driven by trading systems). It aims at exploiting (very) short-term asset price trends (“runs”) and by doing so reinforces the trending pattern of asset price dynamics.

The GS Research rightly expects (very) short-term REPO financing to become unprofitable due to the implementation of a FTT. This, however, might not be a disadvantage but an advantage to the economy as a whole insofar as these transactions finance predominantly short-term and destabilizing asset speculation (*Schulmeister, 2011, documents how “finance alchemy trading” increases asset price volatility over the short run as well as over the long run*). This result just reflects the general impact of a FTT: It dampens trading activities the stronger the more short-term oriented they are and the higher is their leverage.

To put it differently: If banks were focused on financing activities in the real economy like real investment, production and trade of enterprises as well as housing and durables of private households, there would be no need to shortly raise millions or even billions through overnight REPOs. It is one objective of a FTT to change the incentive conditions in favor of real world activities at the expense of the profitability of “finance alchemy”.

³⁾ According to survey studies of the Bank of England two thirds of REPO turnover concern overnight deals (*Hördahl – King, 2008*).

⁴⁾ Goldman Sachs International would probably also belong to those banks which should make the highest “pro-forma” FTT payments. However, Goldman Sachs Research does not include the own house into their FTT report.

This hypothesis gets support from studies which analyze the role of short-term REPOs in the recent financial crisis (e. g., *Hördahl – King, 2008; Gorton – Metrick, 2010; Tuckman, 2010*). Before the outbreak of the crisis, banks and their “special purpose vehicles” created securities from loans which often were backed by subprime mortgages. These securities were then used as collateral for REPOs. At the same time also the main segment of the REPO market where government securities serve as collateral, boomed. In this way “securitized banking” created liquidity which further fuelled the bubbles in the stock markets, housing markets and in the commodity (futures) markets.

When the confidence in the real value of mortgage backed securities became weaker and weaker and house prices started to decline (this process started in early 2007) the confidence crisis spilled over to the REPO market as a whole. The subsequent run on REPO caused interbank interest rates to shoot up, the bankruptcy of Lehman Brothers in September then accelerated the simultaneous fall of stock prices, house prices and commodity prices dramatically, turning the liquidity crisis into a solvency crisis of the banking system. The strong and simultaneous devaluation of the three types of wealth in turn was a main factor for the spill-over of the financial crisis to the real economy.

The “fastest” type of REPO transactions, the “tri-party REPOS” which finance intraday trading of dealers, represents a specific source of systemic risk. Already in 2010 a paper published by the Center for Financial Stability concluded that “the poor design of the tri-party repo system has the potential to wreck the financial health of a large clearing bank or to contribute to the demise of yet another broker-dealer.” (*Tuckman, 2010, p. 1.*). As a consequence, the paper recommended: “Imposing capital requirements and risk charges on intra-day risk would force the industry to address the systemic risk of the system and would level the playing field in the provision of services to the secured funding market (*Tuckman, 2010, p. 7*). However, this problem has not been tackled in the meantime, also the Frank-Dodd Act does not contain provisions against chain reactions in the REPO system triggered by some confidence shocks.⁵⁾

The FTT as proposed by the European Commission would make the ultra-fast REPO transactions unprofitable (as the GS report shows) and would therefore contribute to mitigating the systemic risk linked to this market segment.

Applying the “pro-forma” estimation method, GS Research arrives at (hypothetical) FTT payments of 32 bn. € for interest rate swaps, 11 bn. € for trading stocks and 4 bn. € for trading government bonds. When calculating the respective “effective annual tax rate”, it is, however, concluded that short-term transactions in these instruments would become too expensive would therefore disappear (so that the “pro-form” FTT payments would never materialize).

⁵⁾ For a documentation of the dangers stemming from the still widely unregulated (intraday) REPO system see the website www.repowatch.org

As regards interest rate swaps (this type of derivatives transactions exhibits the by far highest volume), the GS report calculates that the (annual) "of a 1-month swap would ...rise from 0.005% currently to 0.485%, or by a factor of 97x." (*GS Report*, p. 22). However, it would hardly be a disadvantage for the European economy if short-term interest rate swaps become prohibitively expensive due to the implementation of a FTT since these instruments are predominantly used for speculation and not for hedging as the Goldman Sachs report asserts.⁶⁾

There are two other examples for how the "research interest" of Goldman Sachs shaped the results of its FTT report. The first example is the following. When discussing how the FTT might reduce the profits of European exchanges the report does not stick to its "pro-forma" estimation but applied the assumption of the ECP about the reduction of trading volume due to the FTT implementation. In this way, the GS reports arrives at the following conclusion: "Based on the Commission's volume expectations, we estimate that the average European Exchange & IDB (i. e., interdealer brokers) under our coverage would see pre-tax profits decline by 22% as a result of the tax.....Our analysis suggests that Deutsche Börse would see the largest impact to earnings, with a potential 51% reduction in our forecast pre-tax profits for 2014." *GS Report*, p. 44).

The second example concerns the estimation of the impact of the FTT on retail investors, in other words, you and me. Under the heading "The tax burden would fall most heavily on retail investors" the GS report states: "Our analysis suggests that much of the burden of the FTT would fall on retail investors rather than institutional investors..... we estimate that a typical retail investor from the Euro-11 area could expect to incur an annual FTT charge of 33 bp, while a similar institutional fund manager would incur 11 bp in tax. On this basis, a 30 year-old retail investor in the Euro-11 area who invested €1,000 a year until retirement at 65 could expect to see 14% of the principal investment consumed by the FTT." (*GS Report*, p. 54).

These calculations as well as the conclusions are biased in three respects. First, it is assumed that investors will not take into account the FTT and, hence, would not reduce the turnover of their portfolio (in line with the "pro-forma" approach of GS Research). Second, it is - unrealistically - assumed that the retail portfolio returns over 35 years 6% p. a. on average. This assumption together with the assumption that the portfolio is turned over 3,5 times per year

⁶⁾ An opportunity to carry out a swap arises if two parties have different expectations about the future development of two types of interest, e. g. long-term and short-term (the yield curve). Depending on the subsequent development, one party wins and one party loses. If somebody holds a long-term swap position, e. g., speculating, on a rise of the yield curve over the long run, and covers this position by a short-term "counter swap" as he expects the yield curve to fall over the short run, one would call the short-term swap a hedge. In any case, hedging with interest rate swaps almost never covers an open position originating from activities in the real economy (in contrast to hedging future (export) earnings or (import) payments in the foreign exchange or in the commodity derivatives markets. Some examples of interest rate swaps carried out between banks like Goldman Sachs or Deutsche Bank and many European municipalities but also with academic institutions like Harvard University, are summarized in <http://www.bloomberg.com/news/2010-04-14/saint-etienne-swaps-explode-as-towns-in-europe-reel-from-financial-weapons.html>.

yields a high sum of cumulative tax payments (4,875 €). Third, this sum is then related to the cumulative cash invested (35,000 €), leaving out the interest-compound effect. In exhibit 34 the value of the total portfolio in year 35 is documented which is more than three times higher than the cumulative investment due to the assumption of an annual return of 6% (118,121 €). If one takes into account the interest-compound effect in the nominator as well as in the denominator then the cumulative tax burdens amounts to only 4.1% of the closing portfolio (this ratio is documented in exhibit 34 but not mentioned in the main text).

The way how the GS report presents the results of their assessment fits perfectly the (hidden) intention to strengthen the resistance of European banks, exchanges, asset managers and individual investors against the FTT. The tone of the report is sober, even modest (formulations like "we believe", "in our view" etc. are used in an almost inflationary manner). In contrast to this semantic modesty is the content of the single messages. The "pro-forma" burden of the FTT is several times higher than estimated by the EC, the burden is not only specified for each group of agents but even for each of the 42 biggest banks in Europe, differentiated by types of business (repos and trading by instruments). It is impressive to get to know that the "pro-forma" FTT payments of Deutsche Bank amount to 362% of their profit, whereas they amount to only 30% in the case of the much smaller Raiffeisen bank.

Exactly because the GS report addresses the single banks, its messages will receive the intended reactions - in spite of the fact that all these figures are completely irrelevant as concerns the actual future FTT payments. It is part of the intellectual flexibility of GS Research that it openly stresses this irrelevance. Even against the objection of a conflict of interest does Goldman Sachs Research a take precautionary measure: The report mentions on page 1 "Goldman Sachs does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report.....".

Not surprisingly, the GS report does not deal with the long-term effects of implementing a general FTT as a first step in changing the incentive conditions from short-term speculation in the financial sphere of the economy to (comparatively) long-term speculation in the real sphere, i. e., innovation and real investment. A sketchy recapitulation of post-war economic history suggests the following.

The remarkable overall performance until the 1970s - high and stable growth, absence of financial crises, full employment, building-up the welfare state, continuous decline in public debt - was achieved mainly because the incentive conditions directed the "core energy" in capitalism, striving for profits, to activities in the real economy. "Real-capitalistic" incentive conditions like stable exchange rates, stable interest rates below the rate of economic growth, (relatively) stable commodity prices and "calm" stock markets, favoured entrepreneurial activities and rendered financial speculation unattractive at the same time.

Over the past decades, by contrast, the incentive conditions changed fundamentally, the system transformed itself from a "real-capitalistic" into a "finance-capitalistic" regime.

Unstable exchange rates, commodity prices, interest rates above the rate of growth, booms and busts in the stock market together with financial innovations – in particular the emergence of financial derivatives - progressively fostered “finance alchemy” at the expense of entrepreneurial activities. These systemic changes have strongly contributed to the decline of economic growth from decade to decade, and to the related increase in unemployment as well as in the public debt. This process has caused (many) banks and hedge funds to transform themselves from institutions serving the real economy to specialists in “finance alchemy” (some aspects of this transformation process is discussed in *Boot – Ratnovski, 2012*).

During the boom phase of finance capitalism, market places which are specialized in providing financial services like the City or the Wall Street, strongly profit from the interest of investors from all over the world to participate in the process of self-referential wealth creation (“Let your money work!”). However, economic history shows that this type of profit-seeking is self-destructing since it produces progressively more financial assets which are not backed by real values – in the first place government debt.⁷⁾

In this context, one can interpret the development in industrial countries over the past 6 years as part of this process of self-destruction of a finance-capitalistic regime which leads – sooner or later – to changes in the incentive conditions which favour again profit-seeking in the real economy. The implementation of a FTT in the most important economies of continental Europe will be one component in this process towards real-capitalistic incentive conditions.

In this transition period, the UK might profit from the relocation of short-term trading from EU11 Member States. However, one should keep in mind that the emigration of activities which are detrimental for the real economy as a whole is not per se a negative development (even though some financial institutions might suffer and have to change their business towards servicing the real economy).

The extreme specialization of the British economy on services facilitating short-term asset trading - with an overall volume of almost 600 times its GDP - might turn out to be a disadvantage over the long run, in particular during periods when striving for profits in other parts of Europe and the world shifts towards activities in the real economy. In the end, it is the creation of real values which provides the basis for the wealth of nations.

⁷⁾ *Arighi, 2010*, analyses the changes between real-capitalistic and finance-capitalistic regimes since the 15th century in the context of the rise and fall of economic and political hegemonies (from the Genovese Republic to the Dutch Republics, to the United Kingdom, then to the USA and – most probably – to China in the - relatively - near future). Note that the Chinese economic system is characterized by real-capitalistic incentive conditions.