Industry Overview

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19 March 2013

Financial Transaction Tax - toll or roadblock?

Bank of America Merrill Lynch

Philip Middleton >> +44 20 7996 1493
Research Analyst
MLI (UK)
philip.middleton@baml.com

Martin Price >> +44 20 7996 4389
Research Analyst
MLI (UK)
martin.price@baml.com

Jonathan Richards >> +44 20 7995 0460
Research Analyst
MLI (UK)
jonathan.t.richards@baml.com

FTT negative for economy, investment returns

The proposed European FTT is potentially very damaging to the real economy and to investment returns in the eleven target countries and more broadly as we discuss below. It has some key structural features which, in our view, make it unlike other transaction taxes. It would be levied on gross turnover, is extremely broadly based and aims to have global extraterritorial scope.

Broad scope, reach - so no roadmap

The tax is supposed to apply to an unusually wide range of products. We are used to transaction taxes on long duration assets (especially equities). Applying similar techniques to short duration products will, we think, have very significant effects. A tax of 10bp on overnight repo, for example would render the market prohibitively expensive. The FTT is also striking in terms of its extraterritorial reach.

"Cascade effect" multiplies impact

Most taxes (such as VAT, UK stamp duty and corporate income tax) are net. The FTT is gross – it would be charged on each leg of a transaction. This means that its impact is far greater than the rates of taxation themselves may imply. UK and French equity turnover taxes currently have market maker exemptions and allow netting. The FTT does not, and this is a crucial distinction.

Separated at birth - FTT nations disadvantaged compared to neighbours

Because the tax would be applied in a relatively small group of nations, there would be an uneven playing field between, say in-scope Belgium and the out-of-scope Netherlands. A Dutch company will potentially be able to access debt markets and hedging products more cheaply than its neighbour in Belgium.

Time is ticking

On balance, we doubt that the FTT will be implemented in its current form, as its provisions seem to have significant adverse effects. We have recently seen some key industry groups beginning to oppose the FTT.

Investment implications

Our central case remains that the tax is very materially amended. Should this not be the case, we would have to revisit our stance on the market structure stocks we cover. In particular, the FTT would be clearly negative for companies like ICAP and the European exchanges (DB1, BME, LSE Group), as their transaction revenues in European equities and derivatives would be compromised.

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Toll or roadblock?

Our initial approach to the proposed European Financial Transactions Tax ("FTT") was to view it as a low probability event, as the implications of the tax going ahead in its current form appeared counterproductive and, in our view, likely to undermine economic growth and investment returns. This remains our view. However, we think it is important to flesh out this argument. This note, therefore, looks at what we believe would be likely impacts were the current proposals to be enacted although this is far from our central case. Our view is that the FTT may look like a simple toll on financial transactions. However, its structural features, which are very different from existing transaction taxes, make it a significant potential roadblock for the economies of the eleven participant nations.

Should our view of the FTT be proved wrong, all the volume sensitive stocks we cover could see very material hits to earnings. ICAP derives around 40% of its earnings from European operations and most of this is volume related. The European exchanges are clearly more geographically focused on Europe, although they have in general larger non volume related businesses. However, we would think that these would be impacted by the sharply reduced trading volumes which the FTT could prompt. Given our estimates of probabilities, we have changed neither estimates nor recommendations for these stocks. We rate Deutsche Börse and ICAP as Buys, as they offer attractive valuations and an exposure to what we see as cyclically recovering trading volumes. We rate LSEG as Neutral, as valuation is not outstanding although the company has done well to reposition itself away from volume-related business. We rate BME as an Underperform, as we are worried that, even absent FTT, its trading revenues will come under pressure as its market share shrinks.

Un peu d'histoire

Financial transaction taxes of one sort or another have been with us for some time. UK stamp duty has a long history and plenty of other FTTs have been enacted over various times[1]. In spite of their venerable heritage, FTTs are sometimes called "Tobin taxes", after Nobel laureate James Tobin, who proposed a small tax on foreign exchange transactions in 1972, just after the collapse of the Bretton Woods system. His rationale was to try and restore some kind of stability in FX by slowing down transactions whilst allowing some eventual room for manoeuvre between currencies.

The interest in FTTs reappeared following the financial crisis. There appear to be a number of reasons for this. Some people are looking to claw back funds from the financial industry to cover what they view as costs socialised during the credit crisis. Others see it as a way of curbing what they see as undesirable outgrowths of the finance industry (such as high frequency trading ("HFT")). Others view the concept as a way of meeting other social objectives.

The European version has been several years in the making. The European Parliament voted in favour of a pan EU FTT in May 2012. However, this foundered on the vigorous opposition of a number of European countries. Taxation matters have to be decided by consensus among the Council, rather

[1] "Securities Transaction Taxes and Market Quality" Anna Pemeranets and Daniel G. Weaver, Bank of Canada working paper 2011-26 provides an interesting discussion of some of the empirical literature on the topic.

than Parliament. There are 27 members of the EU currently, and without delivering a homily on EU law and decision making, it was apparent that although there was a majority of MEPs in the Parliament who supported the FTT (but who have no formal role in setting taxation policy), a significant number of individual countries were opposed to the proposals. The pan EU FTT proposal therefore had no practical chance of being enacted within the whole EU. At the same time, a number of member states decided to proceed with their own taxes on transactions. The French FTT came into force in August 2012, with the Italian equivalent starting on 1st March 2013.

In parallel, the eleven member states whose Governments favoured a FTT agreed to proceed under the EU's "enhanced cooperation" procedures, whereby a group of member states can agree a set of proposals without these being mandatory among the full EU. These eleven countries, which we hereafter refer to as "the Eleven", are:

- Austria
- Belgium
- Estonia
- France
- Germany
- Greece
- Italy
- Portugal
- Slovakia
- Slovenia
- Spain

The idea of enhanced cooperation is that all member states can discuss a set of proposals but only those who are part of the enhanced cooperation process can vote on them.

Obvious absentees are the UK, the Netherlands, Denmark, Sweden (which had an FTT between 1984 and 1991) and the two largest cross border fund domiciles, Ireland and Luxembourg.

The current timetable suggests that the Eleven will produce local legislation on the FTT by September 2013 (individual member states will have to port the proposals into domestic law), with implementation starting in January 2014.

We understand that there are meetings scheduled for the Council working group on this topic on Tuesday 19th March and then 16th April, but have not seen a more detailed timetable than this.

Relationship with other regulations

We would, finally, note that it is, in our view, important to view the FTT proposals alongside other regulatory initiatives currently in train. These include:

- the Basel process aimed at bank capital requirements;
- Dodd-Frank in the US, a very broad update of financial regulation, including significant reform of the wholesale markets;
- the MiFID/R process in Europe, which is addressing market infrastructure on a pan European basis;
- EMIR, which inter alia incorporates the clearing mandate derived from the G20 agreement in Pittsburgh;
- the European short-selling regulations;
- various regulatory initiatives on HFT.

We think it is important that the FTT proposal is set alongside these when considering its potential impact.

What are the proposals?

This is probably best broken into three – what asset classes are involved, what rates are charged and who will pay.

Asset classes

The scope of the tax is broad. The EC proposals spell this out in its proposals:

The scope of the tax is wide, because it aims at covering transactions relating to all types of financial instruments as they are often close substitutes for each other. Thus, the scope covers instruments which are negotiable on the capital market, money-market instruments (with the exception of instruments of payment), units or shares in collective investment undertakings - which include undertakings for collective investment in transferable securities (UCITS) and alternative investment funds and derivatives contracts. Furthermore, the scope of the tax is not limited to trade in organised markets, such as regulated markets, multilateral trading facilities or systematic internalisers, but also covers other types of trades including over-the-counter trade. It is also not limited to the transfer of ownership but rather represents the obligation entered into, mirroring whether or not the party concerned assumes the risk implied by a given financial instrument ("purchase and sale").

Furthermore, where financial instruments whose purchase and sale is taxable form the object of a transfer between separate entities of a group, this transfer shall be taxable even though it might not be a purchase or sale.

Exchanges of financial instruments and repurchase and reverse repurchase and securities lending and borrowing agreements are explicitly included into the scope of the tax[2].

So, it seems as if the whole gamut of equities and fixed income will be in scope, cash and derivatives, along with all FX derivatives, commodity derivatives and so forth. Repo is also included, although spot FX and physical commodities are not.

Rate to be charged

The proposed directive sets a minimum rate, with countries having the freedom to opt for a higher rate if they so choose. The rate is 10bp for cash instruments and 1bp on notionals for derivatives. This is payable on all transactions apart from CCP deals and primary issuance. The only product where the tax is chargeable on one side only is repo, which as a cash instrument is to be taxed at 10bp but only on one side.

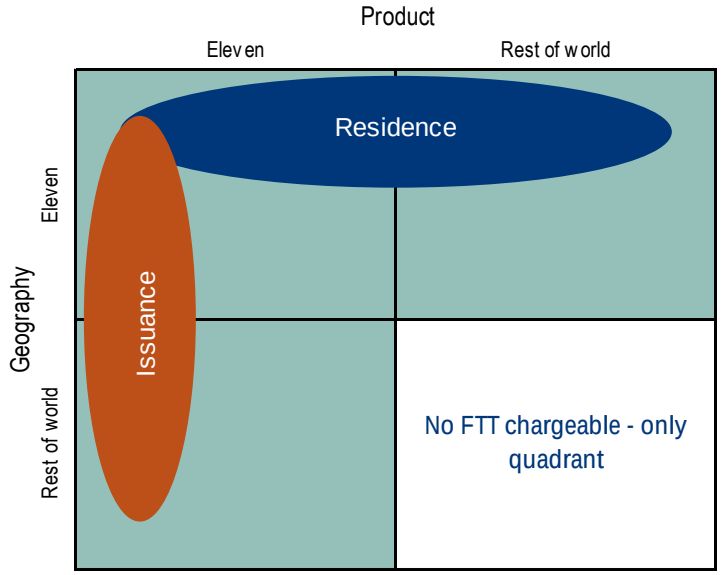
Also, "This FTT aims at taxing gross transactions before any netting off"[3]. This is important and, we think, unusual. By and large, taxes tend to be net. So, VAT is a net tax targeting the final consumer, with people earlier in the supply chain being able to reclaim input tax. Corporate taxation is typically on net profits. Existing taxes on financial transactions are also typically net and have market making and intermediary exemptions. This feature of the FTT leads to the "cascade effect" where a single transaction generates multiple instances of the tax.

[2] European Commission "Proposal for a Council Directive implementing enhanced cooperation in the area of financial transaction tax" 2013/0045, 3.5.2.
[3] Ibid.

Who would pay?

Although the details are a bit uncertain, the overall thrust is relatively clear. There are two prongs to the proposals. We show these schematically below.

Exhibit 1: FTT – scope



Source: BofA Merrill Lynch Global Research

Residence

The first test is residence:

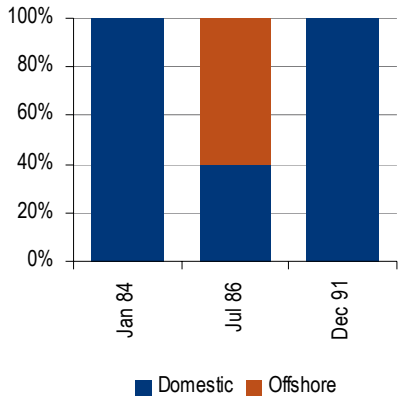
In order for a financial transaction to be taxable in the participating Member States, one of the parties to the transaction needs to be established in the territory of a participating Member State.

So, transactions with one participant being a member of the Eleven would be taxed. The EC's impact assessment has a number of helpful examples which make this clear[4]. For example, if an American bank sells a derivative via a UK investment bank on a French trading platform to a German regional authority, the transaction will be in scope, and two sets of tax will be payable, one by the German party, one by the US investment bank (here, it is assumed that the UK bank is acting in an agency basis)[5]. So, it seems as if an obvious response would be for multi nationals to avoid doing business in Eleven domiciles.

This is a conceptual issue which has dogged FTTs. For example, the Swedish experience shows how powerful the drive to offshore trading could be. Sweden introduced a tax on a range of transactions, starting in January 1984 at 50bp, and being increased to 100bp in July 1986. By this point, 60% of transactions were taking place offshore. The Swedish government abolished the tax in December 1991, mindful of the amount of leakage offshore and the low tax yield. For example, the tax on fixed income raised SEK 50m per annum vs. an expected SEK 1,500m per annum[6].

In response to the threat of business moving offshore, the EC has proposed an additional test for paying the tax.

Chart 1: Swedish Turnover by location (most liquid equities)



Source: EC staff working paper

[4] European Commission staff working document SWD(2013) 28 final.

[5] Ibid, P19 Example 1.

[6] European Commission Staff Working Paper, Impact Assessment P19.

The issuance principle

In the words of the EC proposal:

The residence principle is supplemented also by elements of the "issuance principle" as a last resort, in order to improve the resilience of the system against relocation. Indeed, by complementing the residence principle with the issuance principle, it will be less advantageous to relocate activities and establishments outside the FTT jurisdictions, since trading in the financial instruments subject to taxation under the latter principle and issued in the FTT jurisdictions will be taxable anyway. This applies where none of the parties to the transaction would have been "established" in a participating Member State, on the basis of the criteria set out in the Commission's initial proposal but where such parties are trading in financial instruments issued in that Member State[7].

In other words, the issuance principle is supposed to catch a transaction in an OTC contract on the CAC 40 index, struck by two US investment banks under Singaporean law. Or, a less exotic example, to catch a transaction in Deutsche Bank shares between a UK and a Dutch pension scheme.

Legal challenges?

The issuance principle leads to arguably one of the most striking features of the proposed FTT. For example, a contract over an in-scope instrument entered into between two US entities and governed by US, Singaporean, UK or whatever law would appear to generate a taxable event in Europe. We strongly suspect that were the FTT to be enacted, the issuance principle would be subject to a range of legal challenges, which we believe would have a deleterious impact on markets while the rules were tested.

In this context, we would note that:

A coalition of US business groups – including the US Chamber of Commerce and the Financial Services Forum, the body for the largest US financial groups – have written to the commission objecting to "the unilateral imposition of a global financial transaction tax".

"These novel and unilateral theories of tax jurisdiction are both unprecedented and inconsistent with existing norms of international tax law and longstanding treaty commitments," the groups argue in a letter to Mr Semeta [The EU tax commissioner].

"There is a high risk that their adoption could lead to double and multiple taxation, a deterioration of international tax co-operation and trade protectionism.[8]*"*

SIFMA has already begun arguing that the relatively mild French equity tax violates "a 1994 tax treaty between the U.S. and France"[9] although we are unaware of any case being filed here.

We struggle to see how a long period of legal uncertainty would help the Eleven's economies.

[7] EC 2013/0045 P11.

[8] "Quoted in "Brussels proposes €30bn 'Tobin Tax'" FT 14.2.13.

[9] See "U.S. Slams EU's Tax-on-Trades Plan", WSJ 13.2.13.

What about the Euro?

The other interesting aspect of the issuance principle is that so far, it has not been made clear where the Euro sits within this. The point simply is that although ten of the Eleven are Eurozone members, six Eurozone members (Cyprus, Finland, Ireland, Luxembourg, Malta and the Netherlands) are not part of the Eleven. So, logically, Belgian Euros should be in scope and Cypriot Euros not. However, there is no such thing as a Belgian Euro. There are just Euros. No doubt this issue will be clarified at some point, for it is absolutely pivotal. We have assumed for the sake of this note that Euro instruments are in scope, as it is hard to believe this is not the intention of the Eleven, but this point is moot, and feels likely to be tested were the Eleven to try to capture Euro denominated products. There may be an argument about the underlying reference rate, but here, we would presume an alternative reference rate could be adopted referencing non Eleven instruments.

To be clear, the Euro IRS market is on some measures the largest OTC derivative market in the world. If it is out of scope and say Eurex's Bund, Bobl and Schatz contracts in scope (they are pretty German-seeming), it seems fairly clear how markets will respond, given that there are strong economic similarities between the two.

Key structural issues

So, we think the key issues with the proposed FTT are that it:

- Captures a **vast range of instruments**, rather than simply cash equities and equity-like instruments (the Italian tax also seeks to capture equity derivatives).
- Seeks to tax transactions very broadly between entities wholly **outside the Eleven** countries.
- Aims to tax transactions on a **gross not a net** basis, without **market maker exemptions**.

It is these three factors which make the FTT so hard to model and potentially so negative for financial markets and end users.

Our view

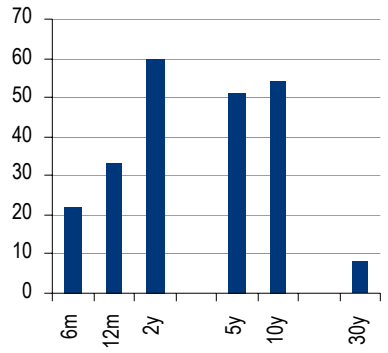
Our view remains that the tax is highly unlikely to be implemented in anything like its current form. This is because the breadth of the tax and the "cascade effects" would have a significant and damaging effect on the real economies of the Eleven countries, and hence also on their trading partners. The next few sections of this note explore the reasons behind this. In essence, though, we think such a tax would increase borrowing costs noticeably, increase financial risks and crimp the availability of finance to the "real economy", as well as damaging monetary policy transmission mechanisms.

Rates

Perhaps the clearest place to start when looking at the impact of the FTT is the rates market[10].

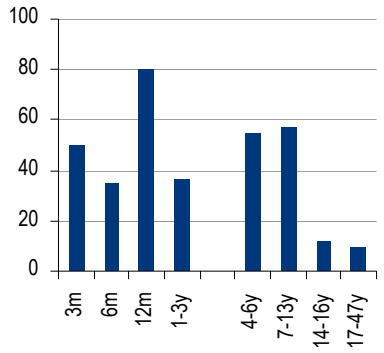
We show below our estimates of issuance of the three largest Eleven countries over the next year, grouped by maturity buckets.

Chart 2: Germany - estimated funding in 2013 (€bn) by maturity



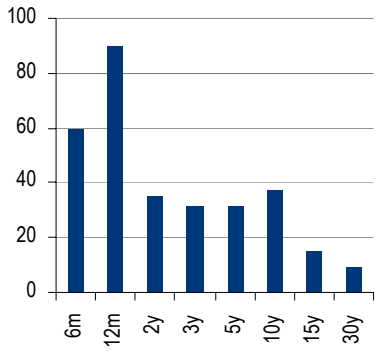
Source: German Finance Agency, BofA Merrill Lynch Global Research estimates

Chart 3: France - estimated funding in 2013 (€bn) by maturity



Source: BofA Merrill Lynch Global Research estimates

Chart 4: Italy - estimated funding in 2013 (€bn) by maturity



Source: BofA Merrill Lynch Global Research estimates

The maturity of likely funding varies from country to country, but overall, 19% of issuance is expected to be for six months or under, 23% six months to one year and 3% for 30 year maturities. If you assume that the impact of the FTT is 80bp for a transaction, the increase in interest rate payable for six month money increases by around 2%.

Why assume 80bp?

This assumes four chargeable transactions, i.e. client to bank to broker to bank to client. This is plausible, but arguably conservative in our view. It ignores issues such as repo costs, intra-bank transfers, collateral costs and so on. We return to some of these issues later.

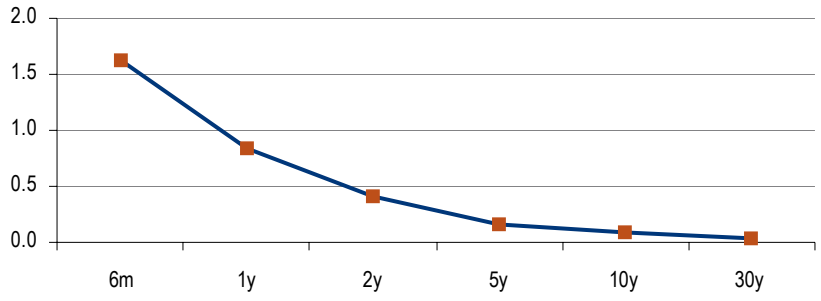
Yield curve impact

We show below how adding 80bp FTT to currently observed German interest rates would impact the yield curve.

The impact decays as the maturity lengthens. This is totally intuitive. Note, though, that this only assumed one transaction, whereas according to our rates research team, overall, German bonds turn over five times, with French bonds turning over somewhat less. So, it would be reasonable to assume that the impact on the longer maturities is greater than we have shown here, as there will be additional iterations of the 80bp cost. We have not modelled this, as it is hard to spread this cost accurately across the various maturities. However, if you assume the 10y and 30y bonds were to turn over five times (the average for German government bonds), you would add 44bp to the ten year and 18bp to the 30 year. In the case of the ten year, this is about a 30% increase in yield.

[10] This section is heavily based on the work of Ralf Preusser and Sphia Salim in our Rates research team.

Chart 5: Germany - estimated increase in yield by maturity (%)



Source: BofA Merrill Lynch Global Research

Mathematically, there would be a similar impact for other countries.

The implication of this is that issuance would, we think, move into longer dated instruments. There are a number of implications of this were it to occur.

Firstly, this would make the current operating model difficult for the banking sector. Banks tend to match assets and liabilities, and have a lot of short dated liabilities (such as deposits). Shrinking the availability of short term assets would force banks either to take more balance sheet risks, to fund outside their domestic markets or to shrink short term activity. None of these options would seem to improve the availability of credit to the real economy.

Secondly it would presumably steepen the yield curve, as issuance would be increased at the long end. This is also not an obvious policy objective. Higher rates would work through to higher corporate borrowing costs. They would also, we suppose, feed through to mortgage rates, thereby reducing disposable income.

Lastly, arguably this could force investors into longer duration assets at the very point where the supply/demand balance is being tilted against them here. Bear in mind that this is not a one year only phenomenon. The shorter dated funding we expect for this year would have to be shunted to the long end of the curve, and find buyers. These buyers would then have to sit holding long dated securities when the same governments fund themselves for next year, and so on.

We would see similar effects elsewhere in fixed income markets, as mathematically the FTT would have a more significant impact the shorter the maturity of an issue. The key message here is that:

10bp may seem manageable for long dated securities, however it becomes uneconomic for shorter dated ones in our view.

The FTT as currently constructed would, in our view, render a whole range of current financial products and practices uneconomic. People borrow and fund across different maturities for a reason, we think. The FTT would skew the behaviour of corporates and investors in the Eleven nations, forcing them to move away from the status quo and placing them at a clear competitive disadvantage to non Eleven competitors.

Monetary policy

Finally, rendering the short end of the curve uneconomic would severely undermine monetary policy. The short end is where, typically, the bulk of monetary policy activity takes place. No short end, no ability to use this as a policy tool.

Costly to issuers, too

Finally, the increased rates which the FTT would imply would ultimately have to be paid by the sovereign, in spite of the sovereign exemptions. On our calculations, this would add just under €6.5bn to the annual interest cost of the three largest issuers in year one[11]. This would also be cumulative, as costs will be elevated in year two and beyond, as well. Also, the €6.5bn will lead to increased funding needs, bringing us back to compound interest.

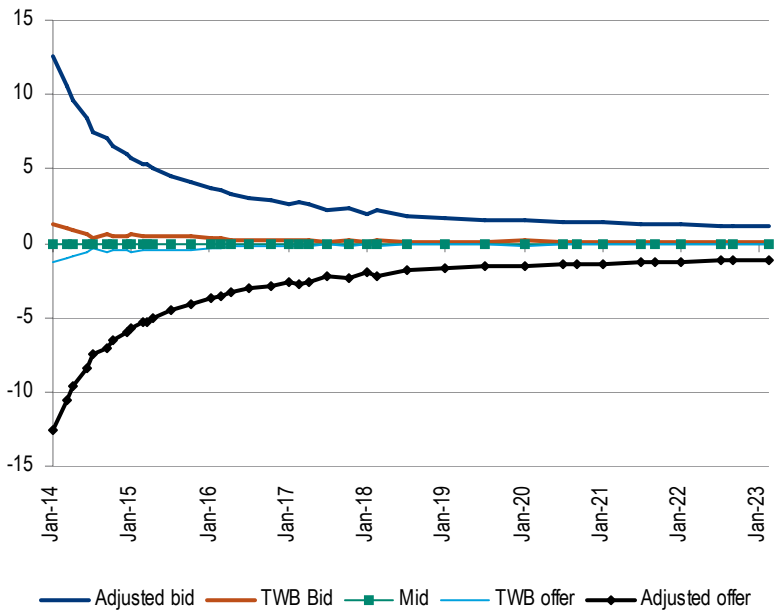
If you were to assume that, as a result of this, trading volumes halved from average levels in maturities of over six months and that shorter maturities did not trade, the added bill would rise to around €8.5bn a year.

Spreads

You can show the same thing in a slightly different way by looking at spreads.

Here, we have looked at what would theoretically happen to spreads on German government bonds, as quoted by TradeWeb, taken at close on 21st February 2013, although we note there is nothing particularly significant about this date. We have only added 10bp to each side, as this makes for a simple example, and one that is consistent with other work cited later (e.g. Oliver Wyman on FX). However, in reality there is likely to be more than one set of 10bp involved, as assumed earlier in our more realistic calculation on rates.

Chart 6: Spreads- hypothetical impact of FTT (bp)



Source: TradeWeb, BofA Merrill Lynch Global Research estimates

[11] This multiplies the estimated issuance by the increased interest rate we have calculated.

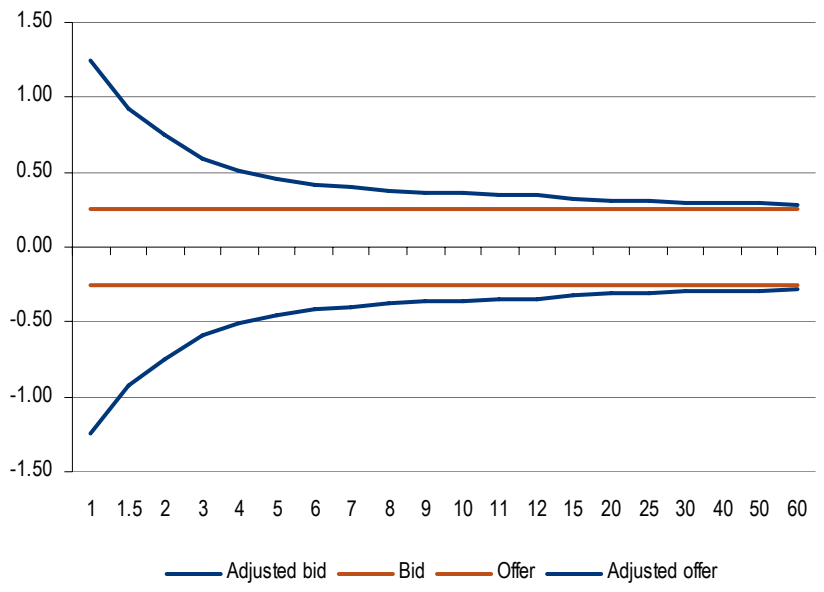
Again, there is a material impact on shorter instruments. It seems prudent to believe that the ability to trade would, therefore, be severely impacted. However, it is important to note that along the curve here, the impact of the tax is broader than spreads. We talk about this effect, which is common, in the section "Who pays the tax?" later. Anecdotally, the market view is that people might reasonably expect to deal at around 3bp at the long end, inside the spread, against a tax of 10bp on one side.

One point this raises, which we return to briefly when we talk about equities, is that there can be feedback loops in trading volumes. If spreads widen, people may be less likely to commit capital, which reduces liquidity, which causes spreads to widen. So, it's worth at least considering that the spread increases being shown here may be understated.

Swap market

The same issues recur in the swap market. The FTT would impact spreads disproportionately at the highly liquid front end of the yield curve. We show below a schematic diagram which mathematically computes what would happen to spreads on a sample curve were you to apply a 1bp tax, again assuming only one leg of a transaction is taxed, whereas in practice there would be multiple taxable legs.

Chart 7: Sterling swap spread - bid offer - before and after FTT (schematic) (bp)



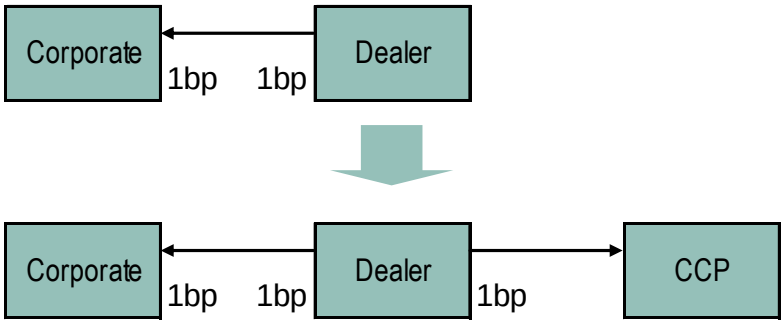
Source: BofA Merrill Lynch Global Research estimates

We think that the increase in spreads alone would cause a decline in liquidity, as is suggested by the equity data we provide later.

However, there are added complexities here.

- The "clearing mandate" to be incorporated in EMIR seems likely to compel clients to clear clearable swaps. The move from bilateral trading to clearing may introduce another leg into the transaction. This would introduce another 1bp charge (one leg of a CCP trade).

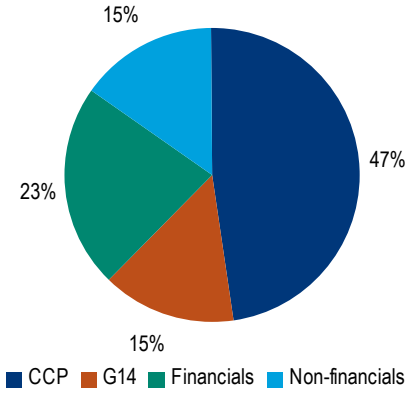
Exhibit 2: Clearing – potentially another leg in a swap trade



Source: BofA Merrill Lynch global research

- The treatment of collateral movements is unclear from reading the proposals but seems only to be taxable if ownership actually changes.
- In addition, we think the demand for added collateral will lead to a "collateral transformation" market developing. Here, managers who have the wrong sort of collateral will post this with a dealer, who will then borrow allowable collateral from another client and provide this. In effect, this is a repo market, and presumably it will be taxable.

Chart 8: Gross notionals - IRS



Source: Bank of England

So, even scratching the surface of swap trading you find a number of charges which are likely to ratchet up the cost of using swaps. Importantly, as we argued in our recent note on derivative reform, the swaps market is a key tool for corporates to manage their risks and their borrowings. We show in the margins how IRS notionals break down between different types of counterparties[12]. CCP at the time this data was compiled would have been almost entirely the large dealers, who have been increasing their use of clearing post the crisis.

In essence, there is 38% of notional exposure representing end client business (the segments marked "financials" and "non-financials"), and we strongly suspect that the vast bulk of the balance is dealers hedging their client exposures. Overall, the dealers' risk levels are a small fraction of their notionals, suggesting that overall they are very well hedged.

End clients use swaps for the following reasons:

- Corporates use IRS as part of their funding strategies – an IRS allows a corporate to issue in one currency and turn it into floating rate, and often also to swap currencies.
- Corporates also use FX futures to manage their FX exposures, ditto commodity contracts.
- Asset managers and asset owners (such as pension schemes) use IRS to manage their interest rates exposures. Pension schemes using LDI strategies are typically very heavy users of swaps.
- Financial companies also use swaps to manage their various risks – interest rate, credit and currency.

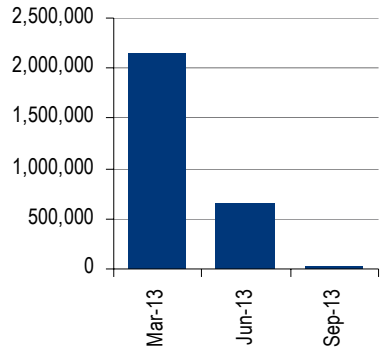
[12] As at 4th November 2011, according to the Bank of England Financial Stability Paper No. 18

In passing, the fact that dealer notionals are around twice the size of client notionals suggests to us that the dealer hedges may be quite complex. Given that these would attract the FTT, once again there will be a "cascade" here. If you assume 3bp for a cleared swap, you would probably assume something like another 6bp of tax on the hedging transactions, as these two would probably be cleared trades. To reiterate, these transactions are usually aimed at managing risk. It seems reasonable to assume that these costs will be reflected in spreads, as otherwise the dealer economics will be impacted. We discussed this topic in our report on derivatives reform.

Listed derivatives

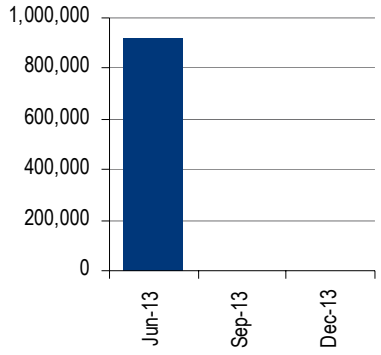
Lastly, the listed derivative market will, in our view, be hard hit by the FTT. The issue here is an old friend; these are short-dated instruments and short dated instruments would suffer egregiously from the FTT. To illustrate this point, we have taken a snapshot of the open interest (showing number of contracts) on three important Eurex products on 12th March.

Chart 9: Euro STOXX futures - open interest



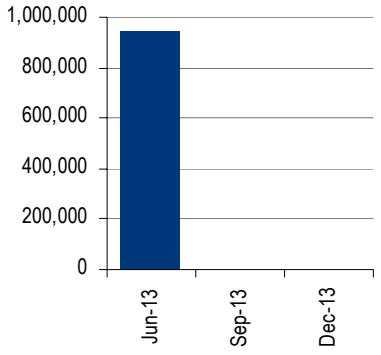
Source: Eurex

Chart 10: Euro-Bobl futures - open interest



Source: Eurex

Chart 11: Euro-Bund futures



Source: Eurex

There is **some** open interest for the fixed income products in the September 2013 maturity, but very little. These charts illustrate the degree to which liquidity in the futures markets tends to be concentrated in the front contracts.

This is why futures are viewed as highly liquid, and one of the reasons why clearers are willing to margin them on relatively favourable terms (with the June futures, for instance, in the very worst case all you have to do is wait until June and they will self liquidate). However, rolling a future on a quarterly basis would attract quarterly FTT, presumably of 6bp a time if a client transacts with a dealer who then clears the transaction, as rolling involves a sale and a purchase. Interestingly, this contrasts with a swap, where a client can enter into a ten year swap and sit on it. This will in theory save 78 instances of FTT, or 234bp in tax, over rolling a three month future. Of course, it is hard to hedge a ten year exposure using futures in any case, but there is a clear cost difference here. In reality, given that there will have to be an offsetting trade, the costs involved here are likely to be higher than 3bp a trade.

So, based on this analysis, the other well established risk transfer market aside from IRS will be more severely impacted by the FTT than the swap market.

Both markets, though, will see a material increase in costs. This is, in our view, a direct tax on risk management. We believe the result would be therefore to force corporates and investors within the Eleven to choose between taking on more risk, having lower returns than their out of scope peers or moving elsewhere.

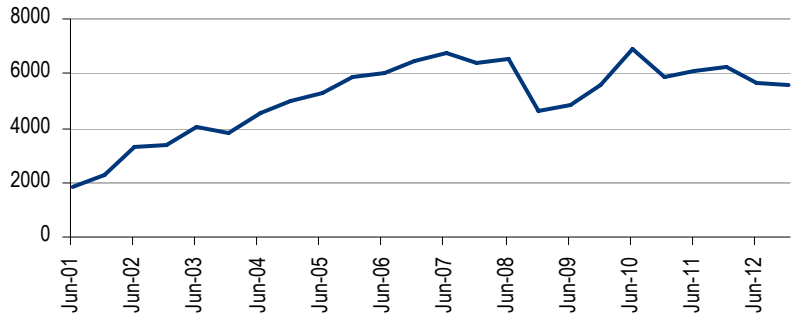
Repo

The repo markets are, we think, a bit like London's water mains. They are usually invisible, but when they are brought into view it becomes clear how vital they are to huge numbers of other enterprises.

Size

We think the ICMA European repo market survey is the best guide here. We show this survey's data for total market size below.

Chart 12: Total repo business (€bn)



Source: ICMA European repo market survey

Weighing in at €5.6tr, the repo market is clearly sizeable. However, what does it do?

To simplify, there are two types of participant in the repo market. The borrowers can include the securities dealers. They use the market as a source of finance. Policy makers may therefore not necessarily cherish the repo market, although this would, we think, be the wrong response for two reasons:

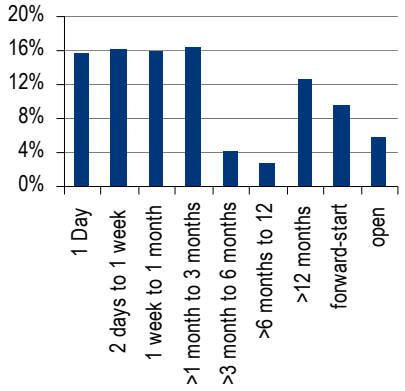
- The dealers often use the market to finance their Government bond holdings, thereby supporting sovereign issuance.
- Reducing bank funding reduces bank lending.

In repo transactions, typically a bank receives cash, secured against bond holdings. This makes it attractive for entities who have cash which they want to earn a return on over a shortish term. It is, in essence, a substitute for bank deposits. It is more attractive because whereas deposits are unsecured, repo is secured. In a bankruptcy, the repo lender would be able to sell the assets they have been pledged to offset the money they have lent.

Typical participants on this side of the equation include corporate treasuries, banks, agencies, EU and non EU Governments and sovereign wealth funds. In passing, there is a subset of the repo market called "tri party repo". This is just where the lender does not physically take title of the collateral, which instead is held by a depository. So, the repo market provides secured short term lending, and so is heavily used by corporates among others.

A tax of 10bp would assume that the repo market is one where the dealers finance their own positions. Often, a dealer will instead seek out a certain sort of collateral for a lender. This could be from another dealer or an asset owner who is looking to enhance returns on their bond portfolio (i.e. an insurer, pension fund etc). Here, the dealer could easily end up obtaining the bonds to be used as collateral from a custodian acting on behalf of an asset owner. These transactions would end up costing 30bp or 50bp respectively.

Chart 13: Maturity (31st December 2012)



Source: ICMA European repo market survey

A quick look at the margin chart will show the issue with the FTT and repo. It is a short term market (open is where the contract can be terminated at short notice, and so is in reality a short maturity). We have already seen the impact of applying the FTT to short dated Government securities. The same effect occurs with repo. A 10bp charge compounds up to something like 28-29%pa. A 50bp cascade would compound to something around 250%. In this context, it's worth bearing in mind that typically, clients enter into the repo market to earn around 10-15bp extra return per annum. It therefore seems reasonable to assume that the repo market in its current form would cease to exist. This would have the following effects in our opinion:

- force corporates to find another home for their short term cash;
- make it harder for banks to finance their balance sheets, thereby making borrowing from banks more expensive;
- undermine the Government bond market;
- take several trillion Euros out of the money supply.

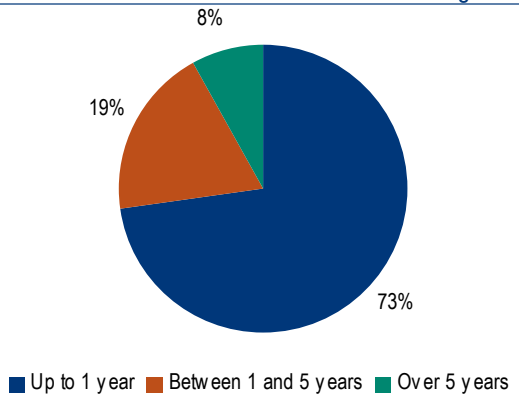
We struggle to see these as sensible policy objectives. Bear in mind that another outcome of applying the FTT to repo would be that, broadly, no tax would be collected because there would be no repo.

As usual, there would be a clear divide between Eleven banks and corporates and the rest. English corporates could continue to use the repo market for managing short term cash, transacting with non Eleven banks, whereas French ones could not. Eleven banks would also be placed at a competitive disadvantage to their competitors in the rest of the world.

FX

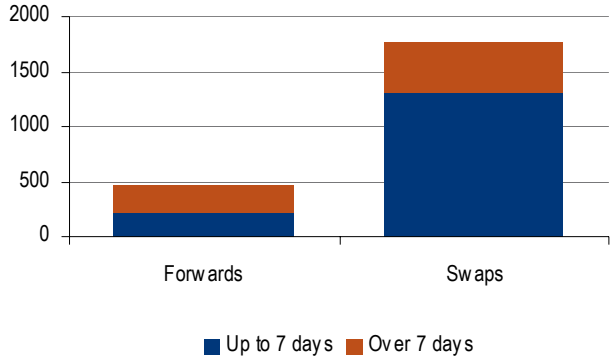
Spot FX is outside the scope of the FTT, paradoxically given the historical origins of the "Tobin tax". However, other FX instruments are in scope. Here, the issues seem similar to other derivatives. Broadly, the FX market is a short maturity one. We show two exhibits from the BIS, one showing notionals, the other turnover.

Chart 14: Global OTC FX derivative notionals outstanding H1 12 ($bn)



Source: BIS

Chart 15: ADV, April 2010 ($bn)



Source: BIS

As we have discussed before, the FTT has significant impacts on shorter dated instruments. So, for example, Oliver Wyman, in a note on the FTT, suggests that the FTT would represent an increase of 1790% on transaction costs for a 1 week EUR/USD swap, a 900% increase for one month and a 270% increase for a 6 month contract[13]. To be clear, this is simply one leg of the FTT, i.e. 1bp.

Oliver Wyman also considered the potential to substitute other products for FX derivatives. In particular, they looked at the effectiveness of using spot FX rather than short dated derivatives, and concluded that self-insuring (for this is what this entails) could be more expensive than using derivatives, even post FTT. In other words, corporates in the Eleven have no realistic choice but to pay materially more for risk mitigation than they currently do, or their near neighbours will in future.

[13] "Proposed EU commission financial transaction tax impact analysis on foreign exchange markets", January 2012

Equities

Although we are strongly of the view that the impacts on non equity products are more significant than the equity impacts, because the numbers involved are so much bigger, equity markets matter; typically, they are higher turnover markets than fixed income. They are also relatively data-rich compared to most of the other markets we've considered.

What are the equity issues?

In the equity market there are some pretty well established transactions taxes, and a couple of newcomers, the Italian and French variants. We set out below a brief comparison of how these compare with the proposed FTT.

Table 1: Indicative summary- various transaction taxes

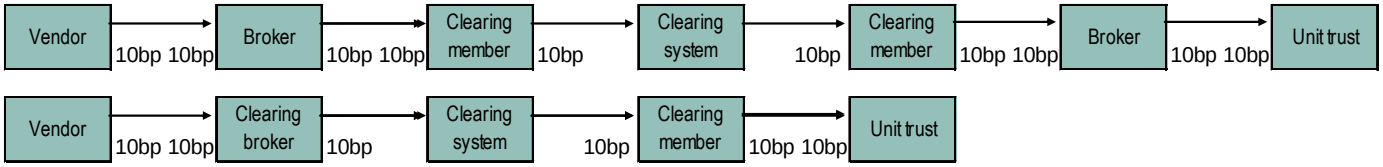
Status	U.K.	France	Italy	Eleven
	Longstanding	Aug-12	Mar-13	Proposed Jan-2014
Indicative scope	Issuance principle	Issuance principle	Issuance principle	Residence & Issuance principles
Indicative coverage	Applies to U.K. equities (1)	Applies to certain French Equities & ADRs	Applies to certain Italian Equities, ADRs & Equity Derivatives (3)	All financial transactions
One- or two-sided?	One-sided – Buys only	One-sided – Buys only	Equities: Buys only; Derivatives: Buys & Sells	Buys & Sells
Rates	0.5% of notional traded	0.2% of notional traded	0.1% (0.2% if OTC)(4); fixed amounts for Derivatives	Cash: min. 0.1% Derivatives: min. 0.01%
Market-making exemption	Yes (2)	Yes	Yes	No
Pension Fund exemption	No	Yes but limited	Yes	No
Netting permitted	Yes	Yes	Yes	No

Source: BofA Merrill Lynch Global Research (1) ADRs are taxable under certain circumstances (2) actually, intermediary relief (3) from 1st July 2013 (4) rate will be 0.12% for equities in 2013, 0.22% if OTC

The key point here is that there are significant structural differences between the types of tax typically levied on equities and the FTT. In particular, existing equities taxes permit netting and have certain marketmaker exemptions. So, although it may seem as if the French 20bp is more onerous than the FTT, this is actually not the case.

Once again, with equities there is a cascade effect. The UK House of Lords Select Committee report on the FTT implied that in a typical trade, these could amount to 100bp. We think that can overstate the impact, as it presupposes a step between a broker and a clearing member, which adds 20bp a side. In fact, brokers can be clearing members, in which case a vanilla purchase of an in scope equity is likely to attract a 60bp tax. The 100bp is the top end of a range, we think, although we know that some would argue it is pro competition for an investor to be able to choose different executing and clearing brokers. We show these two ways of transacting below.

Exhibit 3: Cascade effects – different ways of executing equity business



Source: House of Lords European Union Committee, BofA Merrill Lynch Global Research

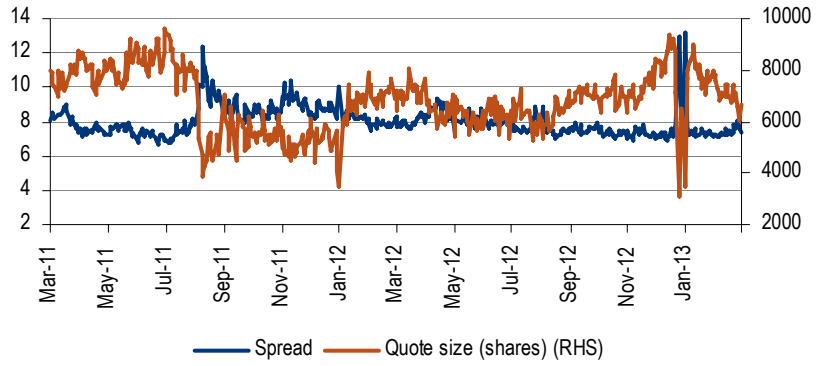
60bp is only a bit higher than the UK rate, but here the netting and marketmaker exemptions come into play. These mean that brokers can buy and sell stock as often as they want to manage their positions. Also, clients pay the tax only on net settlements each day. Leaving HFT aside, it is entirely possible for a large mainstream firm to want to sell, say, shares in a company in the morning and buy them for a different account in the afternoon. Under a UK/French/Italian structure, they can net these off, whereas under the European one, they cannot.

Finally, HFT is not the universal flavour of the month, but it is unarguable that HFT strategies of all types add volume to markets, and tend to narrow spreads. These strategies seem not to be negatively effected by current equity taxes as they tend to finish each day flat, but in our opinion they may well be diminished by an FTT, given their business model of high volumes of turnover and thin profit margins. It is worth considering that HFT currently represents about half the volumes in the U.S equity market, arguably the deepest global market by far. Also, HFT seems a natural outgrowth of the electronification of markets which current regulations are promoting.

Equity markets – spreads, quote size

The equity markets provide a level of detail which tends to be absent elsewhere. Even here, it is difficult to determine the direction of causality, but it is pretty clear from the charts below that quote size and spread on the three most obvious European equity markets are negatively correlated. We show below the FTSE 100.

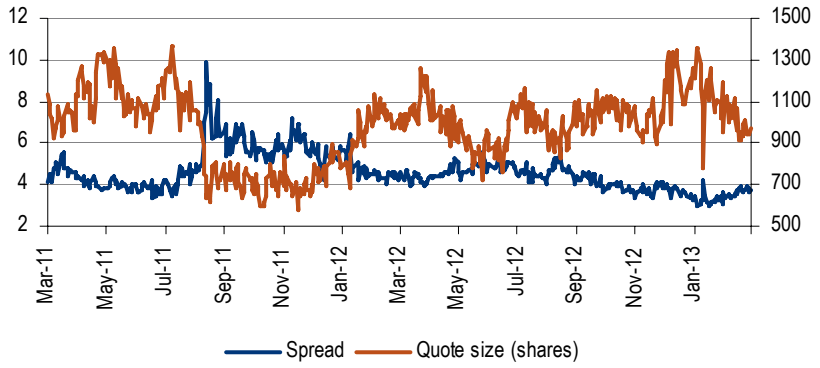
Chart 16: FTSE 100 - quote size and spread (bp)



Source: BofA Merrill Lynch Global Research

The German large cap index.

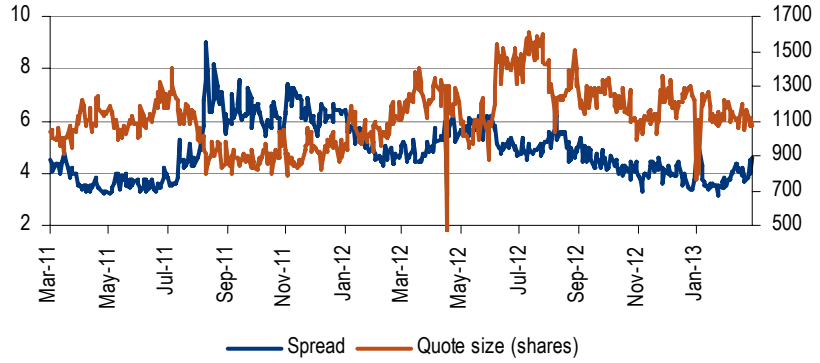
Chart 17: DAX 30 - quote size and spread (bp)



Source: BofA Merrill Lynch Global Research

The French large cap index.

Chart 18: CAC 40 - quote size and spread (bp)



Source: BofA Merrill Lynch Global Research

So, it seems sensible at least to consider that increasing spreads (which is what the FTT would do, considerably in the case of mainstream equity trades) would in itself reduce market participants' willingness to provide liquidity. The problem with this is that lower liquidity tends to reduce the perceived attractiveness of a stock to most international investors. Investors are more willing to commit to a company if they know they have an exit in extremis than if they think a stock suffers from low liquidity. So, we think that a marked reduction in liquidity is likely to deter potential long term investors from buying into a company. Bear in mind here that an increasing number of equity mandates are regional or global, with the ability to allocate capital across domiciles depending on the perceived attractiveness of the opportunities.

Velocity of circulation will hardly be helped by the fact that the FTT will apply to stock lending, which is a significant part of the current market structure.

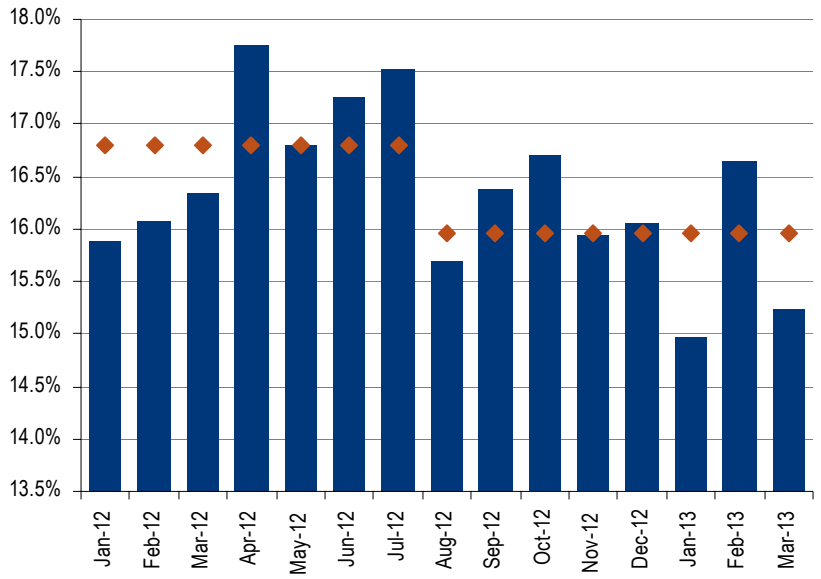
The key issue we see for the Eleven is that their equity markets would become, by policy fiat, less liquid than competitor markets. All other things being equal, a Dutch stock will be more attractive to an international investor than a Belgian one because they can move in and out of it more cheaply. Deterring equity finance from a market would, by simple supply/demand, increase the cost of equity

capital in a market. Given that the FTT would also raise the cost of debt capital for Eleven companies, it seems as if the cost of capital overall would rise.

The French experience

It is, we think, never easy to determine what the impact of a particular event has been on capital markets, as there isn't a control case to use. However, we think it is reasonable to argue that the introduction of the French equities tax has reduced volumes somewhat. We show below France as a percentage of pan European liquidity from the start of 2012 to the latest available data. This provides a better measure than looking at YoY growth, because volume trends in 2011 were relatively erratic.

Chart 19: France % of pan-Euro value traded (pre and post averages ochre diamonds)



Source: BATS Chi-X Europe, BofA Merrill Lynch Global Research

It looks as if France's percentage of European turnover has fallen by something like 0.8 percentage points following the introduction of the French tax. ADR liquidity appears to have fallen somewhat more despite the staggered introduction. This presumably is because any potential arbitrage between ADRs and the underlying may incur FTT, and because of the reliance on the creation/cancellation mechanism which can lead to further taxable events.

NYSE Euronext has estimated the impact of the FTT as "about a 10% to 15% impact in volumes", which is roughly consistent with the data we have shown[14].

Clearly, this is material, and is likely to have a negative impact on French equity markets over time, but we think that it in no way provides a gauge for the potential impact of the FTT. Not only does the French tax avoid cascades, but it also does not prevent synthetic access to the market.

[14] Duncan Niederauer, NYX CEO, on the Q4 12 conference call, 5.2.13.

Italy?

It seems too early to judge the impact of the Italian equity tax, as it has only just come into force. It seems, though, to have had a more marked impact on equity volumes than the French equivalent. This may reflect a settling down period at the start of implementation (apparently, we saw this in France), or potentially the greater difficulties with synthetic access. Italy also has a broader explicit levy on HFT although this does not apply to "offshore" venues such as many of the MTFs.

Listings – likely to move away from Eleven markets

Because of the lower likely liquidity in Eleven markets, we would assume that a company considering where to list would think twice about listing on an Eleven equity market. The new issue market in, say, France, Germany and Italy, is likely to be significantly disadvantaged compared to other European marketplaces, such as the Netherlands and the UK. The issue here is whether the anti avoidance elements of the FTT would prevent, say, an Italian company listing in Singapore. This sort of issue will need clarification, and we suspect could lead to legal challenge, before anyone can say with certainty what the impact of the FTT would be.

Asset management impacts

These are potentially severe. We break things down between active strategies and ETFs.

Impact on mainstream strategies

It is interesting to look at the impact of the FTT on the theoretical fortunes of investors in two proximate towns in Europe. How would a retail investor in Krusa, Southern Denmark and their near neighbour in Nordstadt, Northern Germany, fare with the FTT?

This calculation requires a pretty detailed level of knowledge of the trading patterns of individual funds, which we lack. However, BlackRock, in a helpful submission to the House of Lords committee, has provided some interesting data. We reproduce this below. It should be noted that this related to the 2011 European Commission proposals which included all 27 member states but did not have an issuance principle.

Table 2: Impact on representative fixed income and equity products

		Annual cost of an FTT in basis points		
Fund Type	Active return expectation (bp)	Total	Cash securities	Derivatives
Fixed Income Euro ETF	0	8	8	-
Fixed Income Euro Index	0	6	6	-
Fixed Income Euro Active	50	25	21	4
Equity UK Index	0	1	1	0
Equity UK Active	100	6	6	0
Equity Global Active	150	33	33	0
Equity European Active	300	257	252	5

Source: BlackRock submission to House of Lords committee, 7th October 2011

Here, the Krusa/Nordstadt divide is quite extreme. The Krusa-dweller would be rewarded with an extra €6,266 for taking on the added risk of the active BlackRock European fund, whereas the same fund in Nordstadt would, if all went according to BlackRock's plan, garner €804 ahead of the benchmark[15].

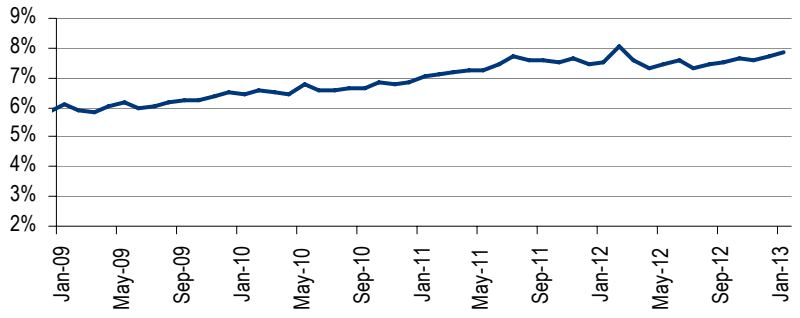
You can change the inputs and come to a range of scenarios. The basic point, though, is that the FTT would depress investors' returns. It is entirely possible, then, to argue that it is a tax on savings, and double taxation to boot in the case of people saving after tax pay into funds.

ETFs

ETFs are an interesting subset of the FTT impact on equity transactions. ETFs tend to minimise costs, and are highly transparent. We show below the percentage of European equity funds represented by ETFs according to Strategic Insight. This is just under half the total amount of index products.

[15] The difference between 10% p.a. for ten years and 7.43% p.a. for ten years.

Chart 20: ETF AUM as a %age of equity AUM



Source: Strategic Insight Simfund GL/BofA Merrill Lynch Global Research

Citizens of the Eleven would find that the cost advantage of ETFs is severely compromised by the FTT. Yet again, it is the gross, cumulative nature of the tax that lies at the core of the negative impact the FTT would have on ETFs.

There is a cascade effect at the heart of creating physical ETFs. Essentially, the investor transacts with the "Authorised Participant", usually a broker who undertakes the creation, who transacts with the issuer who buys assets in the market. This adds an estimated 60bp to the cost of creation[16].

The situation with a synthetic ETF is even worse, as there is a swap dealer interposed between the issuer and the market. This, and some collateral passing between the issuer and swap dealer, would bring the estimated cost up to 84bp. These are likely to be the minimum impacts, as suggested later.

In an era of low nominal returns, these sums are non trivial. If you assume that an investor's portfolio turns over each year, for instance, with a pretax return of 7%, after ten years returns will be reduced by 5.5% and 7.5% respectively. A retail investor in Krusa, Southern Denmark who invested €10,000 would have €1,490 more in savings after ten years invested in a synthetic ETF than would their near neighbour in Nordstadt, Northern Germany[17]. To reiterate, this is the product of what seems to be a plain vanilla retail investment.

Some would argue that the impact of the FTT actually goes beyond this. A lot of ETFs generate returns from stock lending, which would become more difficult post FTT. This may enable ETFs to outperform their benchmarks.

Finally, we think that an obstacle to European ETF growth is a lack of secondary market liquidity. The FTT is likely to make this worse, by taxing secondary liquidity.

[16] ETFs work by a combination of secondary market trading where there is inventory and creation and redemption of shares where there is not. The ability to create and redeem shares pegs the price of the ETF to the NAV.

[17] 7% pa over 10 years would turn €10,000 into €19,671; reducing the return by 84bp pa leaves you with €18,181.

SRI

Interestingly, the Italian equity tax excludes “Transactions in relation to products and services classed as "ethical" or "socially responsible". This may include both trading in ethical/socially responsible instruments and transactions entered into by ethical/socially responsible portfolio management”. We do not think this has been ported into the FTT.

Money market funds

There is around €1tr of UCITS money market funds, according to EFAMA[18]. These invest in short dated instruments. Enough said. This would represent another source of finance lost to Eleven corporates, in our view.

Pension funds, insurers

There are many reasons why asset owners would object to the FTT.

Firstly, their returns would fall because of the cost of the FTT on their assets. This is pretty clear. It should be noted that pension schemes typically rebalance their portfolios to take account of market movements, changes in perceived riskiness and/or attractiveness of different asset classes and so forth. They may well look for outperformance of benchmarks, which typically brings with it active management. Even index exposures are subject to the FTT, as we have discussed earlier. Lastly, pension schemes are adopting an increasingly sophisticated set of strategies to try to generate performance. They are tending to invest increased amounts in diversifying instruments (hedge funds, private equity and the like).

On top of this, an increasing number of pension schemes are seeking to control their risk by hedging their liabilities. This “LDI” approach involves entering into long dated hedges of interest rate and inflation risks, amongst other things. Typically, it is matched with some sort of multi asset investment strategy. The costs of this sort of approach would be increased by the FTT.

Finally, the insurance industry has very significant invested capital, and is a heavy user of both cash and derivative instruments. Again, the FTT would reduce investment returns, which presumably would increase the insurance costs of individuals and companies within the Eleven (assuming Eleven insurers cannot arrange their businesses to mitigate this).

[18] As at 31.12.2012, source quarterly fact sheet.

Who pays the tax?

One interesting issue with the FTT is who will pay. Supporters tend to position it as a tax on the financial sector. Thus, according to the Financial News, "Anni Podimata, a Greek socialist MEP, who has spent the past three years leading the negotiations to introduce a financial transaction tax, dismisses the argument that the end-investor will ultimately pick up the bill. 'Only the financial actors will pay.'"[19] Similarly, the EU impact assessment cites as an objective of the FTT "The tax revenues collected should constitute a fair and substantial contribution from the financial sector for covering the cost of the financial crisis"[20]. The problem with this is that the FTT as currently constructed cannot, in our view, meet these objectives.

Cash equities

Cash equity transactions provide a clear case in point. As we have argued already, under the FTT a typical (i.e. uncomplicated) cash equity transaction could attract a cost of between 60bp and 100bp, i.e. 30bp and 50bp a side. However, according to Greenwich Associates, in 2012 the average blended commission rate paid by European institutions is 10.8bp[21]. In other words, the commission paid by clients is significantly lower than the FTT rate. Even if cash equity trading was costless for the dealer community, there would be almost 20bp a side of FTT to be found.

Of course, no commercial activity is costless. Out of the commission, dealers have to fund capital requirements (overall, bank capital requirements are going up not down), infrastructure (which is increasingly costly with the current market structure and regulatory system) and staff. In addition, anecdotally, dealers have to fund the "loss ratio" – overall, it is believed that the dealers lose money facilitating business for clients, eating into commissions. So, it seems clear that clients, not dealers would end up paying most or all of the cost of an FTT.

Rates

We have earlier shown a chart of the impact which even one side of an FTT would have on spreads in the Government bond market. It is clear from this that the FTT exceeds the spread (10bp per leg versus 3bp at the long end). Once again, therefore, it seems as if end clients could bear the brunt of the FTT.

FX

The Oliver Wyman data we cited showed clearly that the FTT vastly increases execution costs. Again, this seems likely to be a client cost.

Repo

To state the obvious, dealers do not earn 10bp a repo trade, or anything close to this, let alone the 30bp to 50bp which many trades may attract.

So, the cost of the FTT is typically a multiple, often a large multiple, of the gross revenue earned by the financial sector from transactions. Dealers will not voluntarily opt to pay 20bp plus costs, loss ratios etc for the privilege of trading cash equities. These costs will sit with the end users, because there is nowhere else they can realistically sit.

[19] "FTT lawmaker seeks unity" Financial News, 7.3.13.

[20] P11.

[21] Greenwich Associates 2012 European Cash Commission rates report, P2.

Fund management, industry responses

The FTT would be negative for investment returns within the Eleven. This point has not been lost on the asset management industry. We have seen three interesting industry responses to the FTT.

EFAMA

EFAMA, the European fund management association, issued a trenchant response to a potential FTT in December 2012. The response falls under six broad headings.

- Jeopardising long term savings.
- Endangering the Single Market.
- Incidence of the tax: the "cascading effect".
- Availability of savings products to EU citizens.
- Impact on growth and investment.
- A tax on EU citizens.

EFAMA states "any estimate of the tax-take is likely to underestimate the effect of relocation. Evidence from other FTTs (including the one recently implemented in France) is that FTTs raise only a fraction of what governments have expected in revenue, are costly and difficult to implement and enforce".

EFAMA have also published an interesting quantitative analysis of the new proposals[22]. They calculate that in a full year, it would cost the fund industry (or its clients) around €13bn. Around a third of this would come from FTT on the redemption of units (issuance is excluded), the rest for portfolio transactions. We summarise their findings below.

Table 3: Estimation of impact of FTT on UCITS

	AUM (€m)	FTT on redemptions (€m)	FTT on portfolio t'actions (€m)	%age of assets
Equity	1,998,619	384	1,467	0.09%
Bond	1,453,185	388	1,989	0.16%
Balanced	903,655	225	1,076	0.14%
Money Market	1,111,301	3,121	3,719	0.62%
Other	346,506	170	486	0.19%
Total	5,813,268	4,289	8,738	0.22%

Source: EFAMA

In our view, this makes clear exactly why money market funds would be so badly hit, especially with yields where they are.

Interestingly, the EFAMA estimates only take account of one instance of the tax, and ignore any tax payable on derivative transactions. Given the cascade effect, we think it would be reasonable to triple the component of their calculations relating to portfolio turnover.

[22] "Potential impact of the new version of the FTT on the UCITS industry", available on the EFAMA website. The exercise relates to 2011 data.

EFAMA is also totally explicit that this is a tax on the end consumer:

A person investing EUR 100 per month during 40 years in a UCITS would see the value of their savings reduced by EUR 7,216, or 15% of the person's total contributions. Taking into account the so‐called "cascade effect", the effective impact would be significantly higher.

It is also worth pointing out that according to the EFAMA 2012 factbook, UCITS funds represent around half of European managed assets, with the balance in discretionary mandates. So, the total cost of the proposals would, in our view, be significantly higher than the EFAMA calculations imply.

AFG

The French asset management association also doesn't support the proposals. They say of the tax[23]:

- it addresses saving not speculation
- it will not meet its budgetary objectives and will destroy jobs
- it forces offshoring (i.e. the French industry will have to move fund domiciles to states which don't adopt the tax).

IMA

On the other side of the channel, the UK's IMA has said "UK investors, pensions and funds will suffer the effects of the tax if they invest in securities from those countries, or if they undertake transactions with counterparts in those countries"[24].

Other types of commentator have weighted in with their views on the FTT.

Edhec

Noel Amenc, professor of finance at Edhec Business School, the French academic institution, said: "The theoretical arguments in support of FTT as a measure to reduce volatility are, at best, mixed."[25]

He added that the tax would lead to an increase in the cost of capital "with, a consequential negative impact on economic growth in Europe."

Amenc said:

The Commission should draw lessons from the recent failed introduction of the FTT in France. The taxed French stocks have recorded an average fall of 15% in volume. Some investors have decided to modify their equity portfolio by underweighting French stocks in favour of non-taxed European firms.

PensionsEurope

PensionsEurope, the European pension fund lobby group, has also come out in opposition to the FTT measure, saying its members would end up being taxed to recover the cost of a financial crisis for which it has not been responsible.

Its legal adviser Floriana Cimmarusti added: "We express deep concern about

[23] Press release on the AFG website dated 19.2.13, our translation.

[24] Press release on IMA website, dated 14.2.13.

[25] Quoted in eFinancial News "Opposition to FTT grows in Europe", 1.2.13

this directive proposal which would severely impact pension beneficiaries. Current and future pensioners would be requested to pay even more costs. The FTT would make transactions more expensive and net returns even lower. Even the investment strategy would be negatively impacted.[26]"

Debt management agencies

The heads of both the French and Italian debt management agencies have expressed doubts about the tax[27]. Maya Atig, acting chief of the French agency, said the French government is looking for ways of making sure the tax does not "perturb" the bond market. "This is something still to be discussed", Maria Cannata, her Italian equivalent, has pointed out that the Italian tax excluded sovereign debt, adding that policy makers must bear in mind the "importance of not damaging the government bond markets".

BUSINESSEUROPE

This organisation, a portmanteau group of 41 business associations in 35 countries (including, for instance, the UK's CBI), has also commented on the proposals.

"We continue to be concerned that this tax, by raising the cost of capital and encouraging business relocation, will damage growth and jobs", according to BUSINESSEUROPE Director General Markus Beyrer.

"The Commission's latest proposals are a missed opportunity to add limitations and exemptions to the scope of the tax that could minimise its negative impact on growth and jobs.

Those EU countries which have chosen not to adopt the FTT should not suffer a negative externality from the tax." [28]

Swedish FSA

Finally, the Swedish FSA has also expressed views on the proposals. They question whether high trading volumes lead to negative externalities, think it difficult to separate speculative from non-speculative transactions, do not see HFT as inherently worrisome and see very limited likelihood of global agreement. The FSA also points out that the FTT's effects would spread beyond the borders of the Eleven.

Two costs that result from a financial transaction tax, also in countries that do not take part, are 1) lower availability of capital for corporates in participating countries, and 2) lower diversification possibilities for asset management, life and pension funds. It is not unlikely that some Eurozone investors will be dissuaded because of the financial transaction tax. Instead of investing in, for example, a German equity fund investors may concentrate their savings in countries outside of the financial transaction tax area. As a result German corporates would face higher capital costs while Swedish savers get financial asset portfolios that are less diversified and therefore more volatile and risky than desired.[29]

[26] Ibid.

[27] "French and Italian debt chiefs warn on EU Tobin Tax", Daily Telegraph 6.3.13.

[28] Press release date 14.2.13 available on its website.

[29] Available on its website, dated 12,3,13 (translated by Johan Ekblom).

Extraterritoriality

One of the thorniest issues with the FTT is that of the ability of the Eleven to act extraterritorially.

Eurobonds an example to the Eleven?

It seems, from the appearance of the issuance principle, that the EC is aiming to fend off liquidity moving outside the Eleven. We have already talked about the Swedish experience, which is certainly a warning about the mobility of capital. Paradoxically, though, perhaps the most obvious example of mobility of finance worked to Europe's benefit.

The Eurobond market was, arguably, the product of three US regulations[30]. Firstly, Regulation Q set a maximum rate of interest on US onshore deposits. This allowed foreign banks to attract deposits by offering higher rates of interest. Then in 1963 the US introduced the Interest Equalisation Tax, which was designed to raise by 1% the effective annual cost to foreigners of borrowing in the United States. In 1965 the Voluntary Restraint Program established voluntary limits on outward direct investment unless matching balance-of-payments earnings accrued. The guidelines were replaced by mandatory restrictions on outward direct investments in 1968. As a result, many US multinational companies found the Euro-bond market to be the only available source of long-term finance for their overseas operations[31]. The Eurobond market arose largely as a result of all this. Although there is "some disagreement" about the first Eurobond, "it is accepted that the market's origins are in the early 1960s". By 1990, the market accounted for "more than three quarters of all outstanding international bonds"[32].

In other words, an offshore market developed in response to regulations which increased the cost of borrowing in a specific domicile, in this case the US.

Our argument earlier in this note is that the FTT will increase the borrowing costs for firms borrowing in the Eleven. History, therefore, suggests that people will seek to borrow outside this region. Ultimately, the question boils down to how possible this is. Again, this comes down to the anti avoidance provisions. If these prove severe (and on paper they look extensive) it might make sense for businesses to redomicile and to relocate operations away from the Eleven.

Oliver Wyman – FX study

Oliver Wyman has undertaken an interesting study of the FX markets, in which they have provided estimates of portability of business[33]. Their methodology is to start from the BIS data on FX derivative volumes (the 2010 triennial survey), and work out from this. They arrived at the following estimate for FX volumes post the FTT.

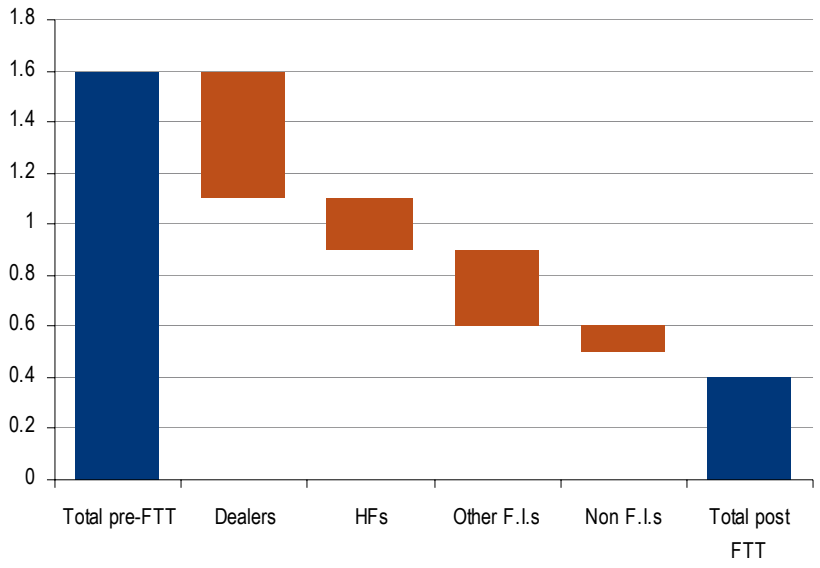
[30] This account derives from "The development of the international bond market", Richard Benzie, BIS economic papers No. 32, January 1992.

[31] Ibid P12.

[32] Ibid, P11. Many people cite the 1963 issue for Autostrade, led by SG Warburg, as the first Eurobond issue.

[33] Cited already in section on FX.

Chart 21: Post FTT relocation and reduction of ADV of FX products by counterparty type ($tn)



Source: Oliver Wyman

Their key assumptions were[34]:

- 60% relocation and reduction of EU dealer to dealer business, 100% relocation of EU dealer to non-EU dealer business. 80% relocation and reduction of non-EU dealer to EU dealer, 165% increase in non-EU dealer to non-EU dealer;
- very significant relocation of hedge fund business;
- 65% relocation of transactions involving at least one EU counterparty in dealer to financial institution transactions, with 100% relocation in EU-dealer to non-EU FI;
- 60% relocation of dealer to corporate transactions involving at least one EU counterparty, with 100% relocation of EU dealer to non-EU corporate.

These numbers were based on a mixture of common sense (anything that can relocate will relocate), proprietary data and a study of the corporate structures of EU corporates (i.e., who does and does not have non EU subsidiaries).

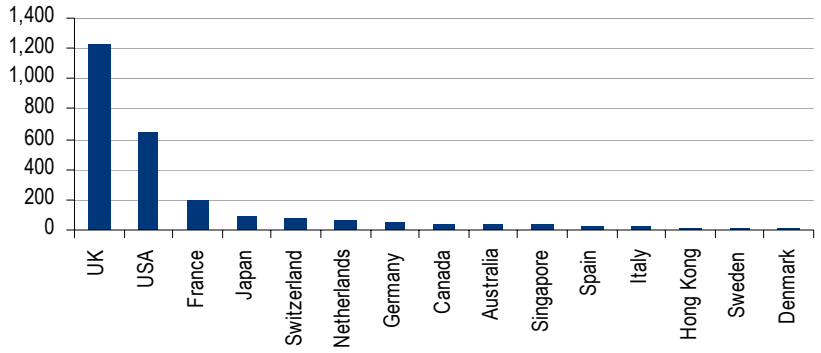
This study was concluded based on the 2011 Commission proposals. Therefore, there is no differentiation between the Eleven and the rest, nor does the study deal with the issuance principle. However we believe the overall framework is very helpful in understanding the potential implications of the FTT.

[34] Oliver Wyman, P13-14.

Interest rate derivative market

Turning to the interest rate derivative market, the same BIS data shows that turnover is fairly concentrated by geography.

Chart 22: Interest rate market turnover activity in 2010 - ADVs ($bn)



Source: BIS

Interestingly, France is the third largest venue for IR derivative trading, according to the BIS.

We show below some more detailed data for the Eleven, and the rest of the world.

Table 4: BIS survey of derivative transactions April 2010 - ADV- ($m)

	Total	Reporting dealers		Other financial		Non financial	
		Local	Cross Border	Local	Cross Border	Local	Cross Border
Austria	4,826	40	2,455	75	2,184	34	38
Belgium	9,990	397	6,493	107	2,805	60	127
Estonia	3	0	1	0	0	1	0
France	192,330	25,329	86,596	4,031	73,913	1,223	1,266
Germany	48,472	5,540	33,119	1,661	6,929	680	543
Greece	198	0	59	0	28	0	111
Italy	27,271	5,670	16,327	763	4,343	131	37
Portugal	739	6	505	0	184	41	3
Slovakia	2	0	2	0	0	0	0
Slovenia	0	0	0	0	0	0	0
Spain	30,741	639	19,248	212	2,443	856	7,344
Total eleven	314,571	37,622	164,804	6,849	92,828	3,028	9,469
Rest of market	2,337,756	263,625	1,027,984	374,345	464,589	71,464	136,748

Source: BIS, BofA Merrill Lynch Global Research

Setting issuance aside (here, the debates are whether the Euro is in scope, and how robust this will prove to be in the face of international players regardless), we think you could easily see 90% of Eleven dealer business moving to outside the Eleven zone. This is based on an assumption that cross border flows are split between other Eleven members and the rest in line with overall turnover. This figure could move up to 100%, assuming that local dealers all have non Eleven subsidiaries, although hedge effectiveness will provide a ceiling to the amount of relocation which can be achieved.

The other two buckets are harder to get to grips with, we think. Aside from anything else, it is reasonable to expect that a portion of non Eleven cross border business is with Eleven corporates. We share Oliver Wyman's central assumptions, though. These are that anything that can move will move, and that

the larger and more complex a counterparty is, the more likely it will be able to move transactions to non Eleven domiciles. One constraint here is that balance sheet and capital requirements may require certain transactions to be grouped together in the same domicile.

Simply applying the same ratios which Oliver Wyman derived for FX, shown in the chart above, would suggest that turnover falls by 75% within the Eleven, with the vast bulk of this relocating. Oliver Wyman, interestingly but reasonably in our view, assume that non EU dealer volumes with EU zone entities fall to nil.

Cash

We think one reason why transaction taxes have tended to focus on cash instruments previously is that cash is easier to pin down. Some derivative markets have grown up in response to what some see as problematic cash markets. For example, some argue that the CDS market was partly a response to issues in the corporate bond market post TRACE. Overall, though, the scope for migration here seems much smaller. For example, UK equity trades conducted via MTFs are also subject to Stamp Duty[35], as these are settled through Euroclear. Transactions in UK issued cash equities have to go through Euroclear, so this amounts to a fairly un-avoidable collection mechanism.

However, the issue with the FTT, which appears so much more stringent than existing taxes, is that it is likely to have a significant impact in issuance patterns. The Eurobond market grew up because it was better value to issue debt in Europe than in the US. Similarly, post FTT, a Belgian company would look well advised to issue either debt or equity instruments in the Netherlands rather than its home country. Even the UK, with its SDRT on equities, would appear a more attractive domicile than its home terrain. So, it seems as if cash markets in Eleven domiciles would over time wither away by a financial equivalent of “natural wastage”. The good news for the Eleven, then, is that although the FTT would clearly harm domestic business, over time the harm would be reduced by offshore issuance. We could easily see the modern equivalent of the Eurobond market arise. As we have mentioned already, the key issue here is whether the Eleven find legally robust ways of preventing companies based there from issuing debt and equity elsewhere. If they do, we think they will also have found legally robust ways of inflating the cost of capital for their economies on a long term basis.

Asset owners

None of this, of course, would be positive for asset owners in the Eleven. Under the residence principle, they would pay full, cascaded, FTT on Dutch as well as Belgian equities, bonds and derivatives. Even more detrimental to them, were they to invest in the UK, they would presumably pay UK stamp duty on top of the FTT. We would presume that the French and Italian taxes would lapse were the FTT to be introduced but if not, these too would be taxed twice.

[35] Stamp Duty Reserve Tax.

Investment implications

We still regard the FTT as a tail risk for our universe, as we think it is a low probability event. However, we would like to see clear signs that the tectonic plates are shifting here over the next month or two to underpin this view.

BME

The BME's core business is trading in Spanish equity and fixed income, including some derivatives. It seems a reasonable assumption that all its products will be in-scope for the tax. Transaction revenue amounts to 49.5% of FY 13E revenues. In addition, other revenue sources such as market data and clearing would be impacted by falling trading volumes. Hence, it seem reasonable to see at lest 50% of the company's revenues under a cloud from the FTT. To be fair, the bulk of its revenue is in cash instruments, which arguably are somewhat less under threat than derivatives, as the threat of relocation is less. However, the FTT would in our view, if implemented in its current form, add significant pressure to what we see as an already pressured top line.

Deutsche Börse

Deutsche Börse is a more complex company. Around 8% of revenues come form its US options business, which should be relatively unaffected by the FTT. Clearstream, the custody and settlement business, also should be relatively defensive, although settlement volumes would likely fall due to the FTT. Clearstream is round 36% of our FY 13e revenues. 40% of revenues come from Xetra (cash equity) trading and from Eurex, the derivative business. Within Eurex there are clearing as well as trading revenues but it is hard to disaggregate these from trading revenues, In any case, as Eurex's derivatives are relatively short dated, we think that the rapid erosion of volumes which the FTT would likely bring about would feed through quickly to clearing revenues. Market data, which represents around 10% of revenues, would also be put under indirect pressure. So, we believe Deutsche Börse, too, would see its revenues put under significant pressure by the FTT.

LSE Group

The LSE is perhaps the hardest of the exchanges to model here. The UK businesses would, we think, suffer from the general setbacks which we think trading volumes would experience even outside the FTT zone, but we think the impact here would be much less marked than for the in-scope exchanges. The company's Italian revenues, though, would likely come under pressure. Including net treasury income these represent 13% of estimated FY 14 earnings of the current group (we have chosen FY 14 as this represents the first full year of estimates, as the LSE has a March year end). The Group has a material data business, of which we would assume that the FTSE group would be relatively unaffected. The rest of the business would be somewhat effected by the general impact the FTT would have on financial activity. Finally, the Group is currently negotiating to acquire a 58% stake in LCH. Some of LCH's businesses are European – for example, the Euro IRS clearing, but we have not seen a segmental breakdown. On our estimates, if the acquisition is completed, LCH would represent around 10% of LSEG's FY 15 profits.

ICAP

ICAP has stopped showing revenues segmentally. However, typically, Europe used to represent around 40% of revenues and somewhat more of profits, as the Asian business was low margin. We would be surprised if this figure had changed materially. The bulk of ICAP's revenues are from directly volume related activities, although some of its post trade revenues come from licence fees. ICAP is a very large player in the Euro IRS market (as argued before, it is unclear whether this is in-scope or not, but on a worst case view, would be), Euro repo, European Government and corporate bonds and European CDS. Against that, also within the European segment would be non-Eleven volumes, with the largest amount relating to Sterling instruments. As a rule of thumb, we would imagine these account for somewhere between a fifth and a third of European revenues. So, ICAP's revenues would potentially be under pressure from the FTT.

Potential mitigation

We would imagine that a significant amount of derivative business would seek to move offshore from the Eleven were the FTT to be introduced. As we have argued in our section on extraterritoriality, this whole topic is moot. Assuming it does prove possible to move offshore, ICAP and Deutsche Börse would have the greatest potential remedial action, we think, as they are much more exposed to derivatives than the other companies.

Overall

We think FTT implementation is a classic tail risk – a low probability, high impact event which the market would find hard to price in. At present, we are not according this a significant role in setting our recommendations. However, if we do not see signs of clear progress to a less damaging regime, we will over the medium term have to reconsider this view.

Conclusion

To conclude, then, we think that the FTT as currently proposed would have clear and far reaching implications for the economies of the Eleven, and by extension other countries with significant trading relationships with them.

We struggle to see any winners in the implementation of the FTT. We think it will be negative for the economies of the Eleven and therefore their trading partners. However, there are shades of grey here. In this note, we have set up a couple of contrasts, between corporates in Belgium and the Netherlands, and between retail investors in Krusa and Nordstadt. Basically, we think the potential impact is as follows:

Table 5: FTT - Eleven vs the rest

	Netherlands and Krusa	Belgium and Nordstadt
Cost of equity	Probably increased	Up
Cost of debt	Probably increased	Up
Government cost of funding	Probably increased	Up
Hedging costs	Probably increased	Up
Asset management returns	Probably decreased	Down

Source: BofA Merrill Lynch Global Research

To be clear; we think that the effects of the FTT will spill over into other domiciles, but they will be felt most keenly within the Eleven. We think, when considering the FTT, that it is important to keep returning to the structural features which differentiate it from other, apparently similar, taxes. Plenty of people think the UK stamp duty should be abolished – the LSE's Xavier Rolet has often made this claim, for example[36]. No doubt, there is similar opposition to the French transaction tax. However, the proposed European FTT is structurally very different to these taxes. In particular;

- it is gross and/or cumulative;
- it has a hugely broad scope; and
- it appears extremely extraterritorial.

The gross and cumulative nature of the tax generates the "cascades" we have talked about. This is what transforms something which looks on the face of it to be modest compared to UK stamp and even the French equity tax into something which would, we think, cause companies to list offshore.

The scope is important in two dimensions. Firstly, duration. Equities, where we have the most experience of tax, are the longest duration asset out there. Applying a similar structure to systemically important products with one day maturities (such as repo) is something of a lurch, to put it mildly. We see why the FTT's designers did not exempt contracts of under a certain length from the tax – you would find this had a clear impact on product design, and could potentially lead to products being created which can just get under the wire but which mimic a longer dated exposure. However, this decision has left the FTT posing an existential threat to repo, a large chunk of the FX market and the short end of the Government yield curve. Secondly, the FTT ventures out of the relatively safe territory of equities into other asset classes, where its impact is likely to be much

[36] Recently, for example see "Stock exchange demands shares' stamp duty boost" Times, 11.3.13, arguing for abolishing stamp duty on AIM.

less well understood, and into the very difficult terrain of derivatives. Here, the threat of substitution and relocation is severe in our view (the issuance principle will have a lot of work to do), and the duration can also be very short.

The extraterritoriality is a consequence of the scope, but will, we think, be problematical. A contract struck under Dubai law and entered into by two Cayman funds does not feel prima facie likely to generate a taxable event in Germany.

We have noticed recently an uptick in vocal opposition to the FTT, after a quiet start. Investors and end users should be concerned, though, whether a lot of entities are thinking “this can’t happen – we don’t need to bother about lobbying when we’ve got so many other issues to deal with”. We can understand this – the regulatory and economic agendas are both pretty full – but we think it would have a detrimental effect on markets and our coverage universe. Our central case remains that the FTT is not implemented in anything like its current form, simply because the consequences of implementation are so stark. However, if we do not see concrete signs that policy formation is moving towards a more accommodating stance, we would have to reconsider our approach here, and our stock recommendations.

Price objective basis & risk

Bolsas y Mercado (SOHMF; EUR19.40; B-3-7)

We value BME using a DCF model which incorporates our explicit forecasts until 2015 and a long term growth assumption of 2.0% thereafter. We assume a cost of equity of 12.2% derived from a risk free rate of 5.2%, 7.4% equity risk premium and 2.0% terminal growth rate. Adjusting for estimated net cash results in a valuation of EUR19.09 which we round down to derive our price objective of EUR19.00. Our price objective implies a 2013 P/E multiple of 11.4x, a modest premium to the IBEX35 (10.0x).

Upside risks to our price objective are material variation from our volume growth assumptions, rapidly rising or falling markets, greater than expected fee declines across all business lines, delistings and new regulation. Downside risks are greater than expected loss of market share to alternative platforms and more acute pricing pressure than currently forecast.

Deutsche Borse (DBOEF; EUR51.12; B-1-7)

Our Deutsche Boerse price objective of EUR51.00 is derived from a DCF model which uses our explicit forecasts until 2013 and a medium term growth assumption of 2.5% thereafter. We assume a WACC of 9.9% derived from a cost of equity of 11.7%, cost of debt of 6.0% and 2.5% terminal growth rate. This results in a valuation of EUR51.07 which we round down to derive our price objective of EUR51.00. Our price objective implies a 2013 P/E multiple of 12.7x, broadly in line with the historical average consensus forward rating since mid 2007 (12.5x).

Risks to our price objective are material variation from our volume growth assumptions, rapidly rising or falling markets, changes in the competitive environment resulting in fee changes, new regulation and M&A.

ICAP (IAPLF; 326.9p; B-1-7)

Our price objective is 425p. This is based on a DCF analysis, using three years explicit estimates, followed by seven years where we model revenue growth of around 7.4%, somewhat below the company's guidance on long term industry revenues, and costs growing modestly in electronic broking, but with much less operating leverage in voice broking. Our cost of capital is around 12.4%, representing the UK interest rates, plus a 390bps credit spread, plus a beta of 1.75 applied to a risk premium of 3.5%.

The risks to our PO are slower volumes and increased staff costs, due to an increased competition for staff. In addition, the company earns a significant proportion of its profits in US$, so Sterling profits would be increased by a stronger dollar, and vice versa. The regulatory regime for the company's US and European operations is in a state of flux and this also represents a risk factor. Other risks are an accretive acquisition or continued strong volume growth.

LSE (LDNXF; 1372p; B-2-7)

Our LSE price objective of 1,400p is derived from a DCF model which uses our explicit forecasts until FY15 and a long term growth assumption of 3.0% thereafter. We assume a WACC of 9.4% derived from a cost of equity of 10.9%, long term cost of debt of 6.0% and 3.0% terminal growth rate. This results in a valuation of 1,400p adjusting for net debt. Our price objective implies a CY14 P/E multiple of 13.7x pro forma for LCH, a modest premium to the FTSE 250 (13.0x).

Upside risks to our price objective are material variation from our volume growth assumptions, new regulation negatively impacting competitors, faster than expected growth in new issuance and M&A. Downside risks are greater than expected loss of market share to alternative platforms, more acute pricing pressure than currently forecast and adverse regulatory change.

Link to Definitions

Financials

Click here for definitions of commonly used terms.

Macro

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Analyst Certification

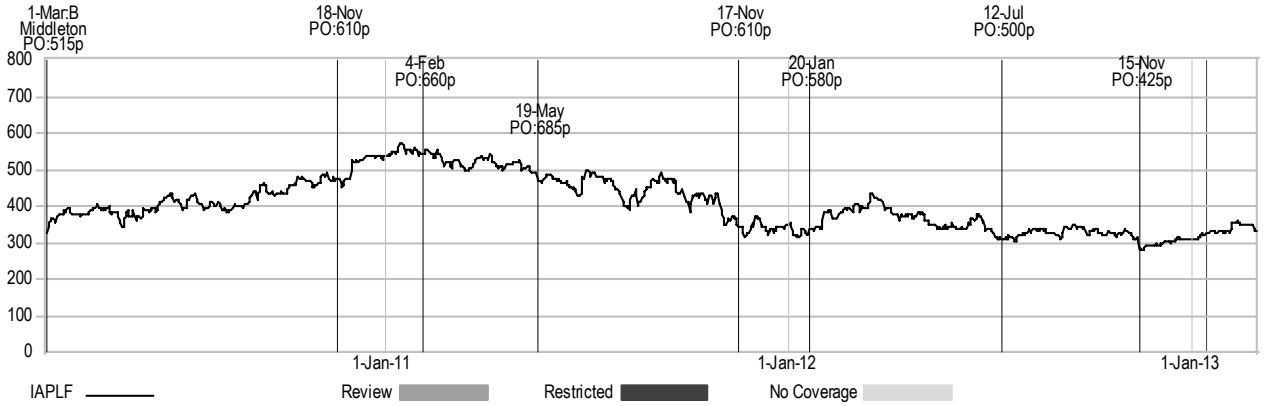
We, Philip Middleton and Martin Price, hereby certify that the views each of us has expressed in this research report accurately reflect each of our respective personal views about the subject securities and issuers. We also certify that no part of our respective compensation was, is, or will be, directly or indirectly, related to the specific recommendations or view expressed in this research report.

EMEA - Other Financials Coverage Cluster

Investment rating	Company	BofA Merrill Lynch ticker	Bloomberg symbol	Analyst
BUY				
	3i	TGOPF	III LN	Philip Middleton
	Deutsche Borse	DBOEF	DB1 GR	Martin Price
	Henderson Group PLC	HGRRF	HGG AU	Jonathan Richards
	Henderson Group PLC	HNDGF	HGG LN	Jonathan Richards
	ICAP	IAPLF	IAP LN	Philip Middleton
	Interm. Capital	ICGUF	ICP LN	Philip Middleton
	Man Group	MNGPF	EMG LN	Philip Middleton
	Mediolanum	MDLAF	MED IM	Jonathan Richards
	Schroders	SHNWF	SDR LN	Jonathan Richards
NEUTRAL				
	Aberdeen Asset Management PLC	ABDNF	ADN LN	Jonathan Richards
	Azimut	AZIHF	AZM IM	Jonathan Richards
	IG Group Holding	XGPJF	IGG LN	Martin Price
	International Personal Finance	IPFPF	IPF LN	Martin Price
	Jupiter Fund Management	XUJTF	JUP LN	Jonathan Richards
	LSE	LDNXF	LSE LN	Martin Price
	Partners Group	PGPHF	PGHN SW	Philip Middleton
UNDERPERFORM				
	Bolsas y Mercado	SOHMF	BME SM	Martin Price
	Close Bros	CBGPF	CBG LN	Philip Middleton
	Provident Fincl	FPLPF	PFG LN	Martin Price

Important Disclosures

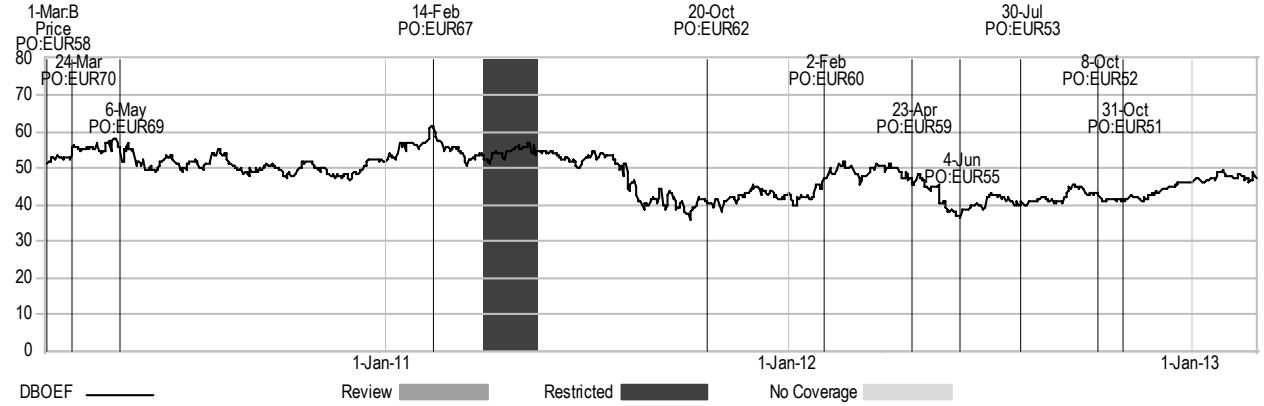
IAPLF Price Chart



B : Buy, N : Neutral, U : Underperform, PO : Price objective, NA : No longer valid, NR: No Rating

The Investment Opinion System is contained at the end of the report under the heading "Fundamental Equity Opinion Key". Dark grey shading indicates the security is restricted with the opinion suspended. Medium grey shading indicates the security is under review with the opinion withdrawn. Light grey shading indicates the security is not covered. Chart is current as of February 28, 2013 or such later date as indicated.

DBOEF Price Chart



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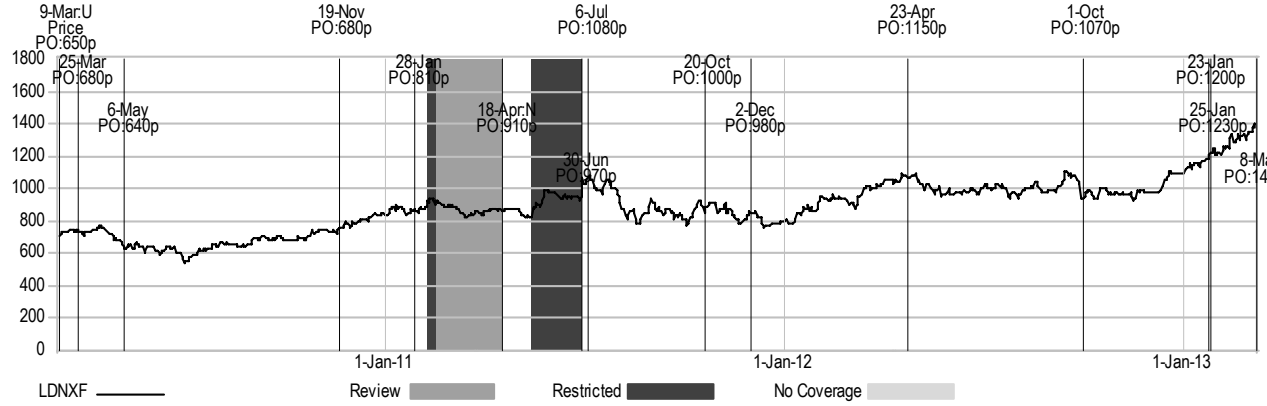
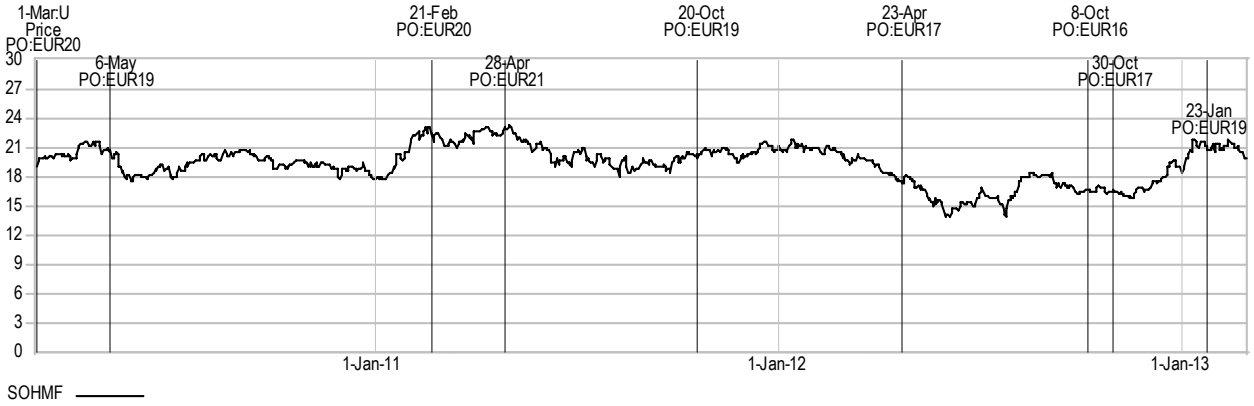
LDNXF Price Chart



B : Buy, N : Neutral, U : Underperform, PO : Price objective, NA : No longer valid, NR: No Rating

The Investment Opinion System is contained at the end of the report under the heading "Fundamental Equity Opinion Key". Dark grey shading indicates the security is restricted with the opinion suspended. Medium grey shading indicates the security is under review with the opinion withdrawn. Light grey shading indicates the security is not covered. Chart is current as of February 28, 2013 or such later date as indicated.

SOHMF Price Chart



B : Buy, N : Neutral, U : Underperform, PO : Price objective, NA : No longer valid, NR: No Rating

The Investment Opinion System is contained at the end of the report under the heading "Fundamental Equity Opinion Key". Dark grey shading indicates the security is restricted with the opinion suspended. Medium grey shading indicates the security is under review with the opinion withdrawn. Light grey shading indicates the security is not covered. Chart is current as of February 28, 2013 or such later date as indicated.

Investment Rating Distribution: Banks Group (as of 01 Jan 2013)

Coverage Universe	Count	Percent	Inv. Banking Relationships*	Count	Percent
Buy	122	46.92%	Buy	89	88.12%
Neutral	65	25.00%	Neutral	48	87.27%
Sell	73	28.08%	Sell	54	83.08%

Investment Rating Distribution: Financial Services Group (as of 01 Jan 2013)

Coverage Universe	Count	Percent	Inv. Banking Relationships*	Count	Percent
Buy	172	47.78%	Buy	123	73.65%
Neutral	112	31.11%	Neutral	62	57.41%
Sell	76	21.11%	Sell	30	40.00%

Investment Rating Distribution: Global Group (as of 01 Jan 2013)

Coverage Universe	Count	Percent	Inv. Banking Relationships*	Count	Percent
Buy	1961	49.47%	Buy	1299	71.85%
Neutral	1013	25.55%	Neutral	640	70.18%
Sell	990	24.97%	Sell	543	59.15%

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Investment rating	Total return expectation (within 12-month period of date of initial rating)	Ratings dispersion guidelines for coverage cluster*
Buy	≥ 10%	≤ 70%
Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

* Ratings dispersions may vary from time to time where BofA Merrill Lynch Research believes it better reflects the investment prospects of stocks in a Coverage Cluster.

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