

Opportunity or Threat? The application of the EU-11 FTT to Sovereign Bonds¹

Ever since the European Commission published its proposal for a European Financial Transactions Tax (FTT) in September 2011, a debate has been raging over its impact on financial markets. The impact on sovereign bonds is particularly important given the debt problems facing several of the States pursuing an FTT. This paper identifies the ways in which an FTT would affect the sovereign bond market and examines how participating Governments' finances might change as a result.

The possible effects can be categorised as follows: (i) raising revenue; (ii) increasing the cost of issuing new sovereign bonds and (iii) altering the structure of sovereign bond markets. Each of these areas is considered in detail below, but in brief the paper finds as follows:

- The high degree of domestic ownership of sovereign debt ensures that issuing governments will receive the majority of revenue generated from trading in their bonds.
- Participating governments may also make sizeable revenues from the trading of non-EU11 debt by institutions tax resident in their countries.
- Demand for sovereign bonds is rather inelastic outside of crises, so that financial institutions absorb the costs of the FTT rather than passing it on to issuers. There are few substitutes for sovereigns, and for banks & other financial institutions resident in the EU-11, substitution would not avoid the tax in any case. Consequently any impact on yields is likely to be small relative to both tax revenues and other drivers of bond yields.
- Applying the FTT to sovereign debt creates incentives that may contribute to a more stable financial system, by making the issuance of longer maturity debt more attractive, and increasing the likelihood that bondholders place sovereigns in their 'hold to maturity' portfolios.

(i) Raising Revenue

The Commission's Proposal envisaged the application of both the residence principle and issuance principle with regard to sovereign bonds, with the first prioritised². Thus, participating governments will collect tax for trades between:

- Two institutions resident in their country [0.1% of the value of the trade to be paid by both purchaser and seller of the bond]
- An institution resident in their country and an institution resident in another EU-11 country [0.1% of the value of the trade to each of the EU-11 exchequers applicable]
- An institution resident in their country and an institution resident outside the EU-11 [0.1% of the value of the trade paid by both purchaser and seller of the bond].
- Two institutions resident outside the EU-11 purchasing an EU-11 issued bond [0.1%, via the issuance principle, to be paid by both purchaser and seller of the bond]

¹ This paper has been written anonymously by a former senior financier, at the request of Stamp Out Poverty.

² See Parts 5 and 6.4.3 of the Commission's Impact Assessment.

The European Commission estimates that the proposed FTT would generate €34bn per year. €6.5bn of this is estimated to arise from trading in sovereign bonds – with total profit to member states, once associated (estimated) higher costs of borrowing are factored in, at €3.85bn.³

Several Member States appear concerned that this high level of profit may not materialise. One concern that is often mentioned is that revenue from the trading of their bonds – Italian or Spanish sovereign bonds for instance – may not flow back to them but will go to the German government instead (if, for example, German investors/institutions trade Spanish securities).

However, the evidence surveyed for this paper strongly suggests otherwise. In reality there is a large ‘home bias’ in the holding and trading of sovereign bonds which means that domestic financial institutions in most countries are responsible for a disproportionate share of holding and trading in that country’s debt.

For example, domestic holdings of both Spanish and Italian sovereign debt stand at around two-thirds of the total⁴, and domestic holdings are even higher in Portugal Ireland and Greece⁵. What’s more, a significant proportion of the remainder is owned outside the EU-11 (40% in the Spanish case⁶), meaning that trades in it would still be captured for the relevant Exchequer via the issuance principle.

Furthermore, evidence suggests that the ‘domestication of debt’ (as it is referred to by *The Economist*⁷), is increasing. This trend predates the financial crisis, but has accelerated as a result of it. For example, a recent study indicated that domestic bank holdings of total bank-held sovereign debt for Portugal, Ireland, Italy, Greece and Spain had increased from 50% to 80% between 2006 and 2012⁸.

This clearly suggests that each Government will receive the vast majority of the revenue generated from taxing trades in its sovereign bonds.

Furthermore, a perhaps under-considered source of revenue is trading of non-EU-11 debt by institutions in the EU-11 countries. US Treasury data indicates that in July 2012, Belgium, Germany, France, Italy and Spain collectively held some \$315bn worth of US government securities.⁹ Participating governments may make sizeable revenues from trading of these bonds between institutions tax resident in their countries.

³ See EC Impact Assessment of the 11 nation FTT, February 2013, at

http://ec.europa.eu/taxation_customs/resources/documents/taxation/swd_2013_28_en.pdf

⁴ See *Financial Times*, ‘Spanish Banks Up Sovereign Bond Holdings’, 30 May 2013 via (£)

<http://www.ft.com/cms/s/0/df6fd016-c949-11e2-bb56-00144feab7de.html#axzz2fzseIKIA> and ‘Eurozone weakened by banks’ sovereign debt feast,’ *Reuters*, 16 July 2013: <http://in.reuters.com/article/2013/07/16/idINL4N0FM1QO20130716>

⁵ F. Brutti and P. Sauré, Repatriation of Debt in the Euro Crisis: Evidence for the Secondary Market Theory at http://www.eui.eu/Personal/JMF/PhilipSaure/Repatriation_2013_04_18.pdf

⁶ See the bulletin, ‘Spanish Debt: Some Highlights’ produced by the Spanish Ministry of Finance (2011): http://www.thespanisheconomy.com/SiteCollectionDocuments/en-gb/Public%20Finances%20and%20Public%20Debt/Public%20Debt/111024_Spanish_debt_some_highlights.pdf

⁷ *The Economist*, ‘An Illusory Haven,’ 20 April 2013 at

<http://www.economist.com/news/finance-and-economics/21576391-what-lessons-should-investors-learn-argentine-and-greek-restructurings/print>

⁸ F. Brutti and P. Sauré, Repatriation of Debt in the Euro Crisis: Evidence for the Secondary Market Theory at http://www.eui.eu/Personal/JMF/PhilipSaure/Repatriation_2013_04_18.pdf

⁹ US Treasury, ‘Major Foreign Holders of Treasury Securities,’ (2011): <http://www.treasury.gov/resource-center/data-chart-center/tic/Documents/mfh.txt>

Finally, it is worth noting that the tax revenue generated by an FTT will be available immediately, whilst any negative impact on government borrowing rates (see discussion below) will take several years to phase in. This is because the average maturity of government bonds in the FTT economies is about 6.5 years. The FTT is likely to be introduced in 2014/15 and will apply to trading in the whole stock of outstanding bonds. By definition, the interest rate payable by the government on existing bonds will not change. It may increase marginally only for the roughly 15% of total new bonds that need to be issued every year to repay those that mature.

(ii) Increasing the cost of issuing new Sovereign Bonds

Some governments have expressed a concern that they might end up paying more in additional interest than they will receive in additional FTT revenues. From an economic perspective, this is only possible if two conditions are met. Firstly, demand for sovereign bonds must be highly elastic so that buyers pass all or most of the FTTs cost onto issuers; and secondly, participating Governments must be unable to collect tax revenue on most trading in their sovereign debt (because it occurs between residents of other countries).

The evidence presented above shows that the second condition does not hold: sovereigns are indeed eligible for the vast majority of the tax revenue generated by trading in their bonds whether captured under the residence or issuance principles.

Turning to the first condition, the argument here is that an investor looking to earn a 3% return, who has to pay an FTT of 0.1%, would only buy a sovereign bond that pays 3.1%, not 3%.

This criticism portrays a fundamental misunderstanding of the way that markets for sovereign bonds function.

Many investors in the sovereign bond market are 'buy and hold' investors who are unlikely to sell the bond during its life and will therefore not have to pay a Financial Transaction Tax as it does not apply to the issuance of a sovereign bond. For example, data for Italy shows that only 0.12% of their outstanding debt is traded each day.¹⁰ For long term investors therefore, nothing will change. Furthermore, as discussed below, the introduction of an FTT may actually shift more bonds towards such investors, increasing financial stability.

Secondly, many of the largest investors such as pension funds and insurance firms are obliged to hold sovereign bonds. As the OECD note with regard to pensions: "In Austria pension funds are required to invest at least 35% of their assets in mortgage bonds, government bonds, and Euro denominated debentures. French pension funds must invest a minimum of 50% in EU government bonds. In Denmark, pension funds must invest a minimum of 60% of their portfolio in domestic debt."¹¹ Pension funds alone bought 40% of Italy's recent 30-year bond issue.¹² Similar trends can

¹⁰ Calculated via data in IMF, *Sovereigns, Banks and Emerging Markets: Detailed Analysis and Markets*, <http://www.imf.org/External/Pubs/FT/GFSR/2012/01/pdf/c2.pdf> In December 2011 the ten-day daily average volume of Italian sovereign bond trades was 2bn. At the time, their government debt stood at 1.6tn euros. Therefore, 0.12% of total government debt was being traded each day.

and the definition of the European Securities Market Programme at <http://www.ecb.europa.eu/home/glossary/html/act4s.en.html>

¹¹ OECD Secretariat, Survey of Regulation of Pension Funds, <http://www.oecd.org/finance/private-pensions/2401405.pdf>

¹² Wall Street Journal, 'Italy's Cannata: Foreigners Returning to Italian Government Bonds,' 19 September 2013, <http://online.wsj.com/article/BT-CO-20130919-707204.html>

be observed in Spain – where 97% of the Fondo de Reserva de la Seguridad Social’s assets are in domestic sovereign bonds¹³.

Other investors also have strong incentives to hold government bonds. For example, the performance of many fund managers is assessed against the return on holding sovereign debt. They therefore have a strong incentive to hold these bonds in their portfolios so as not to stray too far from their performance benchmark.

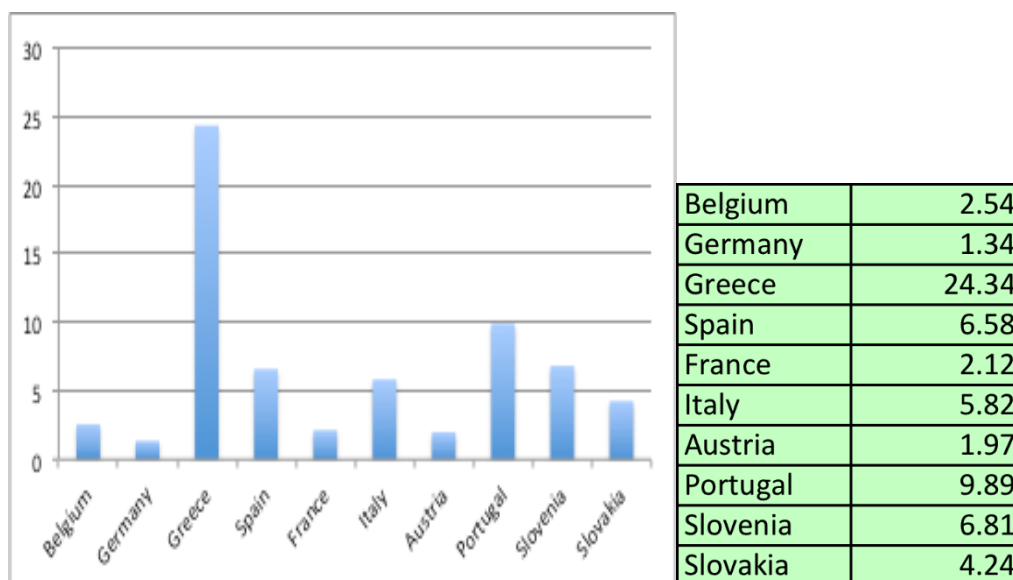
Furthermore, bonds are preferred to equities in a number of areas because of the fixed income stream they provide. For many investors there simply aren’t viable alternatives to government bonds (and in any case, other asset classes are also subject to the FTT).

Consequently, demand for sovereign bonds is relatively inelastic.

In addition, it is worth noting that the FTT will only be levied on transactions in the secondary market, which creates an incentive for buyers to purchase sovereigns in the primary market instead. Greater competition at these auctions could help keep yields low.

As a result of these factors, any pass-through from the FTT to bond yields is likely to be minimal - more like 1 -2 basis points (1bps equals 0.01%) than the 10 bps or more suggested by the critics. This is not large in relation to fluctuations in yields. The following charts and numbers are illustrative.

Box 1: Yield for ten year sovereign bonds, August 2012



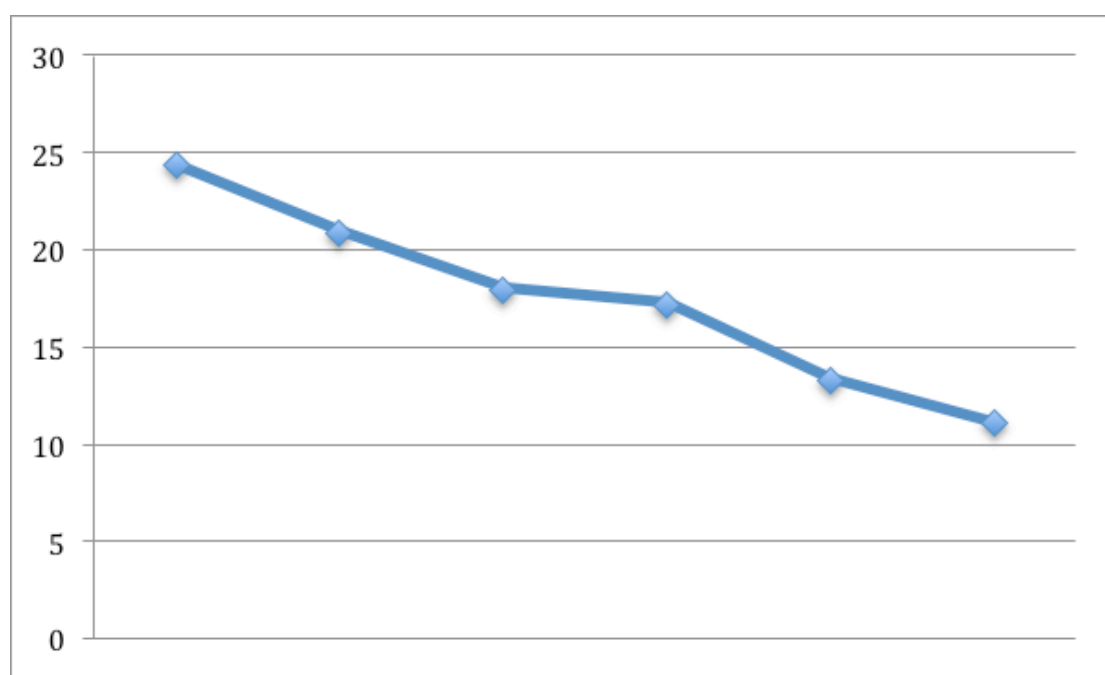
Source: ECB data

¹³ Bloomberg, Spanish Pension Fund Profits From Draghi After Rajoy Raid, 4 April 2013, <http://www.businessweek.com/news/2013-04-04/spanish-pension-fund-profits-from-draghi-after-rajoy-raid>

Box 1 shows the prevailing yield of comparable 10-year outstanding sovereign bonds in August 2012. As is clear from one glance at the data, a 0.1% FTT is overwhelmed by other factors, such as the stock of sovereign debt, the deficit numbers, and ECB policy.

This is borne out by recent evidence. In alternative single days in September 2013, Italian ten year bond yields both grew 0.13% (September 5) and declined by 0.11% (September 19).¹⁴ This was an unspectacular month by recent conditions. Likewise, between 28 August 2013 and 18 September 2013 Portuguese 10 year sovereigns fluctuated an average 0.098% each day.¹⁵

Box 2: Greek 10-year sovereign bond yields August 2012-January 2013

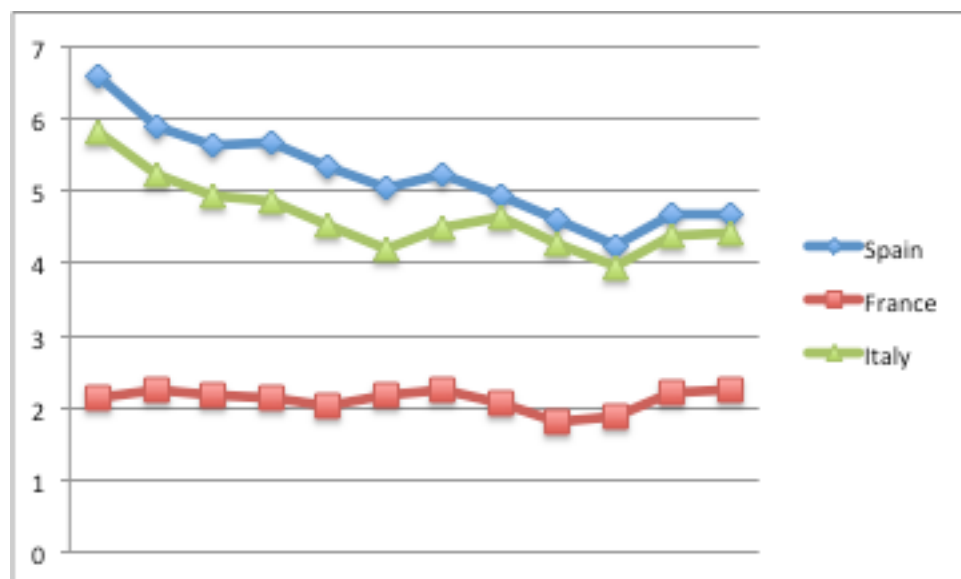


As Box 2 shows, bond yields for countries can also vary drastically month to month. Admittedly, Greece is a special case but the same line of argument applies to other countries too. Box 3 shows yields on Spanish, Italian and French 10-year bonds in the year from August 2012. While the variability is not so drastic as in the case of Greece, the magnitude of fluctuations is still of an extent that a 0.1% FTT is little more than noise in the bigger scheme of things.

¹⁴ <http://www.bloomberg.com/quote/GBTPGR10:IND>

¹⁵ Calculated via Bloomberg.com

Box 3: Average 10 year bond yield fluctuations, August 2012-July 2013¹⁶



	Aug. 12	Sep. 12	Oct. 12	Nov. 12	Dec. 12	Jan. 13	Feb. 13	Mar. 13	Apr. 13	May-13	Jun-13	Jul-13
Spain	6.58	5.91	5.64	5.69	5.34	5.05	5.22	4.92	4.59	4.25	4.67	4.67
France	2.12	2.24	2.19	2.14	2.01	2.17	2.24	2.07	1.8	1.87	2.21	2.25
Italy	5.82	5.25	4.95	4.85	4.54	4.21	4.49	4.64	4.28	3.96	4.38	4.42

Yet another concern expressed by critics is that taxing the trading of Credit Default Swaps involving sovereign bonds will increase the interest rates payable by sovereigns. There are a number of reasons why this is not the case.

First, there is no evidence that the interest rates payable by sovereigns has fallen systematically because of the expansion of the CDS market. Second, the CDS market will only be taxed at 1 bps, 1/10 the rate of the trading of sovereign bonds so most of the arguments showing why the FTT will not drastically effect the sovereign bond market apply even more strongly to the CDS market. Third, as the costs of trading CDSs has fallen in recent years, it has not systematically reduced the interest rates payable on sovereign bonds so it is unclear why a marginal increase in the cost of CDS trading will increase interest rates.

(iii) Altering the structure of sovereign bond markets

The Eurozone FTT economies have roughly Euro 8,200 billion of outstanding sovereign debt at present. The average maturity of this outstanding debt is between six and seven years and the average interest rate payable on this stock of debt is about 4% with German and French interest rates below 4% and Spanish and Italian rates higher than 4%. This means that these governments spend roughly Euro 320 billion in annual interest payments on their outstanding debt at present.

¹⁶ See ECB, ‘Long-term interest rates for EU Member States,’ <http://www.ecb.europa.eu/stats/money/long/html/index.en.html>

With an average maturity of 6.5 years, the Eurozone FTT governments rollover about 15% or 1,200 billion of debt every year assuming that the total debt stock stabilizes soon.

One of the lessons of this crisis was that having a longer maturity profile for sovereign debt, which reduces the amount of debt that has to be rolled over in any given year, is prudent. This reduces the sovereign's exposure to the vagaries of the market and means that it will only need to borrow limited amounts in any year that market conditions may be turbulent as was the case in the Eurozone in 2012. One of the reasons that there was not much concern about the cost of sovereign borrowing in the UK rising, despite it facing huge direct costs from the crisis, was that the UK has the highest average maturity of sovereign debt – 14 years or double the Eurozone average. This meant that only 7% of its outstanding debt stock had to be rolled over in the year that saw the worst panic in financial markets in living memory.

Another lesson from the crisis was that it matters who holds your debt and how long they hold it for. Ideally, a country would like a large long-term investor, such as a pension fund or a sovereign wealth fund, to buy its bonds and hold them to maturity. From the country's perspective investors should have pockets deep enough so that it is not forced to sell bonds at the first sign of market disturbance or volatility. It is also desirable that the investor has a long horizon so that it does not want to sell bonds before they mature. And when banks also hold significant amount of sovereign debt, as they do particularly in the Eurozone, it is more desirable that this is held in their HTM (Hold to Maturity) portfolio not in their AFS (Available for Sale) portfolio. This is good both from the perspective of the country because it provides stability but is also good for the bank. Securities held by banks until maturity do not have to be marked to market on a daily basis so having them in the HTM Portfolio reduces earnings volatility for the bank.

Levying a financial transaction tax of 0.1% on the trading of sovereign bonds in the secondary market will have a number of effects. Let's look at these in turn.

As markets work presently, shorter-term bonds are traded more frequently per year of maturity than longer-term bonds. For example, a 1-year bond may be traded 3 times in its life but a 5-year bond may only be traded 4 times. This is partly because shorter-term bonds, those with less than 1-year maturity, are often held by different sets of investors and used more for treasury and liquidity management than as an instrument of savings. The more frequently traded an instrument is, the larger the impact of an FTT will be; so the FTT, if applied at a uniform rate across bond maturities, would have a higher impact on bonds with shorter maturities. This may, at the margin, mean that there is a greater incentive to issue bonds with a somewhat longer maturity. If this happens, then issuers would have to roll over less debt during any given period of market turbulence, i.e. its overall effect would be stabilizing.

Having an FTT on sovereign bonds may also mean that, at the margin, a greater proportion of sovereigns will end up with 'buy and hold' investors such as large pension funds. This, as discussed above, is also stabilizing. It will also mean that within banks, a greater proportion of sovereign bonds will move from the Available for Sale (AFS) portfolio towards the Hold to Maturity (HTM) portfolio, which is also stabilizing. The incentive that will drive these shifts will be that holding sovereign bonds will be somewhat more attractive for those investors who seek to hold the bonds to maturity over those who intend to sell them off quickly. The more frequently a buyer of these bonds transacts, the higher the total FTT costs, and the less attractive the returns.

Conclusion

The evidence suggests that

- (i) Participating governments will be the recipients of the vast majority of the revenue generated by taxing trades in their sovereign bonds. This is because of a very strong home bias in holdings of sovereigns, which ensures that for each country, the majority of government bonds are held by institutions within their own country. This phenomenon has grown even more prevalent in recent years, although it is a trend that predates the financial crisis.
- (ii) Participating governments may also make sizeable revenues from trading of non-EU-11 debt (e.g. US Treasuries) that occurs between institutions tax resident in their countries.
- (iii) Demand for sovereigns is unlikely to be significantly affected by the introduction of an FTT, such that financial institutions will have to absorb the cost of the tax rather than pass it on to government by demanding higher yields. This is because there are few viable alternatives to government bonds for many purposes.
- (iv) Taxing sovereigns creates incentives that contribute to a more stable financial system, by making the issuance of longer maturity debt more attractive, and increasing the desirability of bondholders placing these bonds in their 'hold to maturity' rather than 'available for sale' portfolios.

Nevertheless, in the event that this explanation does not fully allay concerns expressed by FTT states, there are several options.

Firstly, governments could *initially* apply a lower rate for sovereign bonds (of say 0.05%) increasing the rate each year up to the target 0.1%, taking note of the impact on the market.

Secondly, if there is a strong desire by governments to avoid an asymmetric impact between short and long term bonds, they could always agree to reduce the rate on bonds with a maturity of less than 1 year.

Thirdly, to ensure that all revenue from trading in sovereigns is fully repatriated, the EU could introduce a memorandum of understanding between participating governments so that each sovereign agrees to pass all the FTT revenues collected on the trading of sovereign bonds of another FTT sovereign to that country. Participating nations are likely to produce several memoranda outlining where revenue will accrue in potentially ambiguous cases where two or more member states have a claim on FTT monies – sovereign bonds could be built into these negotiations.

These are possible tweaks that could be made to the way sovereign bonds are taxed, but they are not a necessary precondition to the inclusion of sovereigns within the scope of the FTT. Ultimately, the importance of sovereign bonds to European economies does not undermine the case for an FTT. If anything it reinforces it.