



EFFAS – European Bond Commission

RESPONSE

from the EFFAS-European Bond Commission

to the Call for Evidence from the European Commission

**regarding Pre- and post-trade transparency provisions of the
Markets in Financial Instruments Directive (MiFID) in relation
to transactions in classes of financial instruments other than
shares**

15th September 2006



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Introduction

The EFFAS-European Bond Commission

The EFFAS-European Bond Commission is an autonomous body of European fixed-income analysts working under the aegis of [EFFAS \(the European Federation of Financial Analyst Societies\)](#). It consists of fixed-income analysts from all over Europe, consisting of bond market professionals across many business sectors, including investment management, bank treasuries, stock broking, corporate finance and even national debt management, as well as observers from numerous authorities from central Banks to regulators. The Commission can offer a unique insight into the structure, composition and current trends in European fixed income markets.

This report has been agreed by the Executive Committee of the EFFAS-European Bond Commission.

Form

The form of this comment is as suggested in the call for evidence: general remarks followed by answers to the questions contained in the call's appendix. As a result of this structure, there is likely to be some duplication of comments, some of which will have already been stated in the general remarks, before being repeated and often amplified in the answers to the questions. Furthermore, these remarks are essentially written from the point of view of financial analysts.



Review

The history of financial markets has been dominated by invention: both endogenous inventions from within the market, which have radically changed the form and nature of instruments available, and exogenous inventions from without the market, which have fundamentally changed how knowledge and data about the market are analysed and communicated.

Both of these types of changes pose challenges to regulators and practitioners alike, and both have accelerated dramatically in the past 25 years. For example, in that time advances within the market included the rapid development of the swaps market: first in interest rate swaps, and most recently in credit default swaps. And developments from without the market have included the expansion of computing power to include now virtually every household in the West (particularly those of investors), and certainly every dealing room in finance, and which has led to dramatic increases in the increases in the scope and speed of data analysis; and simultaneously the advance of information networks, such as Bloomberg, and more recently the establishment of the world-wide web as a major communication tool for news, data analysis and general information dissemination (such as for research, reporting, compliance etc).

But by far the most momentous development for European financial markets since the end of the Second World War was an exogenous one, with immense endogenous results: the adoption of the single currency by the nations of the Eurozone since 1999. The creation of the Euro may have been a political triumph, and completely without the financial markets (although they had a say in the process, both in extensive consultation and practically, via the Maastricht criteria), but it was nothing short of revolutionary within the markets. The two key effects of EMU on the fixed-income markets were first, to make the financial instruments of all the Eurozone countries strictly homogenous by eliminating foreign exchange risk; and second, and as a result, to encourage the explosive growth of the hitherto insignificant European corporate bond markets by removing this key barrier to cross border investment.

It is easy to underestimate the importance of these events. While it would be arrogant of financial markets to see themselves as a cause in the exogenous events that have helped shape the markets, it is clear that many changes in the market could only seriously be envisaged as a result of major developments outside of it.

Perhaps obviously, developments in the European markets and in global technology each respectively explain both the need and the ability to increase transparency. In other words if either of these types of development were lacking, we could not seriously even contemplate such developments as real-time post-trade transparency.

This preamble may seem to be stating the obvious, yet it is very important to realise the role that developing technology plays in these deliberations; and particularly to appreciate how technology will have to be exploited in implementing any solution adopted as a result of these deliberations¹.

¹ [See Appendix 3](#) for some practical issues involved in potential implementation of any solution.



Before moving on to empirical aspects of the evidence, we should pause to examine the underlying thesis of this exercise: that if it is practically possible to gain transparency to market transactions then this gain must be realized. Over and above any practical reasons why one may wish to do so the (theoretical) thesis underlying this belief is that a gain in transparency in the marketplace is always a good.

The thesis that one can never have too much transparency is compelling, but it is by no means universally accepted. Indeed, there is a common phenomenon which probably exists in all markets, but which can certainly be observed in financial (and particularly bond) markets, which is that most participants intrinsic to the market (i.e. those who earn their living by maintaining the existence of the market, and especially traders) will almost inevitably have objections to adding transparency to their marketplace. The motivation for such objections is obvious: opaque markets are venues in which it is easy for insiders to make profits. The arguments raised in objection are usually couched in terms of public policy objectives: so that projected changes (and particularly reforms) will, for example, usually undoubtedly harm liquidity², to the ultimate detriment of investors, and particularly individual (retail) investors. The fall in liquidity may be attributed to a number of causes, but the most common one is the reallocation of dealer capital to other more profitable activities. Another tack is to claim that the suggested changes would impose onerous burdens and prove costly (which costs seem, inevitably, to be passed on to the final consumer). All of the above will, of course lead to market dislocation. And finally, particularly if all else fails, those proposing a change will be warned with gravitas that it is wise to beware unintended consequences. There are two comments to be added to this realistic, if somewhat cynical, analysis; and both are in mitigation. First is the fact that even if history tends to prove such doomsayers wrong, it does not follow that all changes proposed either are perfect as proposed or will inevitably be free of some of the disadvantages predicted. Second, these types of argument, though usually proved *ex post facto* to have been unfounded, are genuine and sincerely held. They often can reflect market practices which are entirely valid and legitimate, but which may have to be altered if the proposed changes are enacted; and it is assumed that any alteration will have a negative effect on profitability. The main reasons why they fail in practice is that they either overestimate the importance of some tactical behaviours, or underestimate the value that can be derived from the changes, or a combination of both. Ironically, a further reason for failure can result from the effect of unintended (though often predictable) consequences, of which more below.

As far as the reallocation of capital is concerned, the macrostructure of fixed-income markets is such that it is dominated by large banks. Largely fungible promises of fixed payments at specified dates are far more susceptible to being financed at low risk than, say, the much more erratic flows associated with equity instruments. The science of hedging, made all the more efficacious by the plethora of instruments

² E.g. (at the time of writing) a current headline on the Bond Market Association website is "[Bond Market Association Warns Proposal to Disclose Counterparty and Type of Trade Information Will Harm Investors and Liquidity](#)", and the article includes the comment "The additional disclosure does not aid the NASD in its compliance efforts, and can result in significant harm to investors and a decline in liquidity". This is only one example, but it is perfectly illustrative of the standard strategy for market "insiders" responding to proposals for additional transparency in their market(s).



available with which to construct very low risk hedges (compared to other markets such as equities or commodities), together with such sectors of the market as the repo market, the interest rate swaps and credit default swaps markets conspire to make the capitalisation of dealers a rather marginal question. It seems excessively unlikely either that capital for the funding of fixed income market makers is in danger of being rationed, or that existing capital usage will change much, even as a result of a possibly reduced market-making profitability: the ability to trade profitably is only a small part of why banks are involved in the fixed-income secondary markets, and their access to capital with which to finance their operations is hardly limited.

Arguments about the microstructure of markets and their sanctity fail to convince anyone who has observed behaviour in financial markets for any length of time. Such an observer would note two phenomena. One is that market microstructure is being tinkered with almost continuously. Whether the changes are the result of external developments, such as exploiting recent technology to move from (say) open outcry to OTC to electronic platform as the venue for trading, or mandated by authorities, such as the BIS banking risk ratios, or even the result of entrepreneurial invention, such as the development of interdealer brokers (IDBs)³. In addition a second phenomenon is that the creation of a number of markets and instruments has required significant changes and developments of market microstructure, most of them designed to capture the advantages of the innovation: financial futures are a mere thirty years old, IRS are somewhat younger and CDS younger still. All of these major developments in the markets have been accompanied by changes in modus operandi of participants, and some have been heralded by dire warnings, but strangely, markets have proved to be resilient enough to act as any self-organising complex is likely to do in order to survive and prosper. Those who worry about the nefarious effects of market microstructure changes underestimate the markets' they claim to describe, and obviously have little faith in the markets' abilities to cope and evolve.

Finally although on balance we remain unconvinced by most of the arguments made against post-trade transparency, we would want to acknowledge two areas in which some problems could occur: the first is entered into in greater detail below, but in essence it is that there is undoubtedly some loss of exclusive information to a dealer who has just traded, if the fact that a trade has taken place (as well as the price at which it took place and up to a point the size involved) is published soon afterwards. However as we point out, the most important piece of information remains opaque, and that is the identity of the counterparties to the trade. So that for both buyer and seller the advantage gained from their knowledge remains intact even under current proposals (i.e. ones which exclude any mention of the identity of the counterparties), and the winner is not cursed. Our second cause for concern depends on the fact that knowledge that a trade has taken place is itself additional market information (and can therefore itself cause market price movement in a feedback effect). On the basis that all price movement is the result of new information, it may be that added

³ A true anecdote has the head of a major bank's trading desk solemnly warning one of our members in the early 1980s at the time of the introduction of IDBs in London, that such a development would inevitably lead to market breakdown: for if there was no obligation to make two-way prices, there would be no bid in the broker when everyone was selling, nor offer if everyone was buying. Subsequent events seem to belie the warning of catastrophe.



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transparency could, in adding new information into the market, accelerate an existing move. It is even conceivable that the effect of widespread momentum trading (in which, in the common market dictum, “the trend is your friend”) could move prices over a tipping point, where the feedback overwhelms any fundamental resistance to the price movement. Of course such momentum trading takes place all of the time, fed indeed by instantaneous knowledge of price movements. It is usually accompanied by a strong reversal to mean, and seldom spirals out of control. Indeed the fact that this already happens highlights the most important engine in the process, which is the near instantaneous knowledge of price changes. This aspect of current microstructure is not going to change as a result of any proposed change in post-trade transparency. What will change is the knowledge that prices may have moved as a result of a trade, which may add some little weight to a decision to trade in the same direction, thus possibly adding to a feedback effect. While there is no question that such behaviour, if taken too far with no countervailing action by other participants in the markets, would lead to market breakdown, we consider the possibility remote. Existing microstructure is susceptible enough to deliberate manipulation (as per the Citigroup MTS affair) that the market is probably quite aware of the possibility and is thus forearmed. In addition we would highlight that the sheer quasi-fungibility of fixed-income products makes it very unlikely that any exacerbated (and unjustified) momentum based price movement would or could be sustained for very long: near-fungibility allows for easy arbitrage to force prices back into line. Only if a potentially systemic failure were already in place would the mooted exacerbation of momentum moves pose any real problem. We feel confident that experience already teaches us that momentum based “overbought” or “oversold” positions tend to be rapidly self-righting. We would however note that the thrust of this argument applies best to relatively high quality, relatively liquid instruments where quasi-fungibility is most apparent. More esoteric markets are necessarily more hermetic, but for exactly that same reason are much less likely to be prone to the kind of momentum trading described.

In summary we would identify two areas of concern relating transparency to liquidity. They are first, that some significant amount of information that is currently the exclusive possession of a dealer who has traded is obviously lost if post-trade transparency is implemented in close to real time; the second is that the addition of hitherto non-existent endogenous information to the market in close to real time by publishing post-trade data could on occasion be enough to reach a tipping point, in which the momentum trading associated with the release of endogenous information becomes even more prone to overshoot, and that the excess overcomes the internal inertial forces of the market, snowballing into a (probably short-lived) market failure.

We feel that both of these possibilities, while highly deleterious to the market in general, can probably be avoided by a judicious introduction over time of increasing post-trade transparency. In addition we would recommend very close monitoring of market functions during each stage of introduction. Parameters should be set ex ante facto to determine what would be considered an unsatisfactory development in the market (such as measurable increases in bid-offer spreads) and were monitoring to discover that any of these has occurred (in any kind of consistent way) the consequence should be to call a halt in any mooted further addition of transparency (with a possible rollback allowed), pending further investigation into the cause(s) of the negative observations.



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It is by exploiting some predictable but seemingly unintended consequences that one can somewhat mute the protests from the sector of the market whose support would be most helpful in designing and implementing practical solutions for reaching the Commission's goal of additional market transparency. For example, one has only to look at the business model developed and exploited by IIC⁴ and Markit⁵ to realise how new business paradigms can evolve (or be created) in the new environment of instant numerical analysis and data communication. These two enterprises gather, assimilate and disseminate market data provided (at a price) by market participants, and especially traders, and subsequently distribute (again at a price) the results to market participants, who are often also traders. In other words, they pay for the transparency that is provided to them by traders at securities houses, and then disseminate that information, with or without an overlay of analysis, to anyone willing to pay the price for the resulting information. Whilst the transparency desired by the Commission should inevitably incorporate an element of free and relatively easily available information, it is equally the case that any exercise resulting in such publication will almost inevitably simultaneously throw up opportunities to further assimilate and analyse the data gathered into results that market participants will be willing to pay for. The idea that products can take different forms, of which the basic is free but of which premium versions are available subject to a fee, is hardly original, but this idea should nonetheless be highlighted as an aspect of the proposed addition of transparency which may lead to currently non-existent business opportunities. Such a realisation should act as an emollient to some of the sincere and occasionally strongly held beliefs held up as arguments against transparency.

So is the proposed increase in market transparency specifically a good? In order to come up with some clear views here, we shall restrict ourselves to examining those possible policy rationales for mandatory transparency which are considered by the commission in their call for evidence.

These are :

- 1] investor protection
- 2] market efficiency
- 3] response to technological developments.

When examining the first of these potential policy rationales, we will assume that when we talk here of investor protection, we are largely dealing with the protection of so-called "retail" investors. While we do not doubt that all market participants are, on balance, expected to benefit from any measures implemented, we feel that most "institutional" investors do have access to considerably more transparent views of the market than are available to retail investors. In particular, for reasons of cost or of policy, most of the relatively new information systems, whether proprietarily distributed (such as [Bloomberg](#) or [Thompson Financial](#)) or simply available via the web (as indeed the previously named systems can also be reached), are not available to the vast majority of retail customers. It is tempting therefore for most regular market participants, who DO have access to these sources of data and analysis, to believe that the market is already thoroughly transparent. Clearly it is

⁴ IIC is the International Index Company, a data and analysis provider specialising in indexed data, which among other activities publishes [the iBoxx indices](#).

⁵ [Markit](#) is a data and analysis provider in the derivatives and related markets.



much less so for ordinary retail investors⁶. Taking such caveats into consideration, we would generally agree with the comment that greater transparency is likely to alleviate information asymmetries and thus “level the playing field” on which all market participants play. We are less convinced that investor verification of best-execution is necessary in real or close to real time, nor that post-trade transparency will necessarily provide that verification for investors (whether institutional OR retail). The reason, which is discussed in further detail below, is that most bonds simply do not trade, and no amount of post-trade transparency will change that. There are therefore essentially two different types of market trades: one in which a “liquid” (i.e. frequently traded) bond is involved, and another in which the bond involved is illiquid (i.e. rarely if ever traded). In the first case, it is likely that best execution is readily verifiable in any number of ways: for example, the bond, if liquid, is almost certainly among those whose prices are assimilated by IIC in one or more of their iBoxx indices, in which case there will be plenty of corroboration (one way or another) as to whether the price at which the bond traded was correct. In the second case, if the bond traded is illiquid, it is likely that the only trade for which post-trade transparency is available is precisely that trade for which we are seeking best execution corroboration. In other words, in the vast majority of trades, in both liquid and illiquid bonds, post-trade transparency will not add to the practical ability to check best execution. Finally, it is hoped that mandatory transparency will help investors and traders marking-to-market or valuing portfolios. We feel that for exactly the same reason as those given above in discussing best-execution confirmation, post-trade transparency will not add significantly to the ease with which these activities already take place. At best, transparency will occasionally add a degree of real corroboration to a price which has already been determined, but also at best, such occasions will be rare enough to constitute exceptions rather than the effects of a rule. In passing, and in particular, we would note that the comment is made that “periodic revaluation is often required under the terms of offer documents”: such periodic valuations would be the responsibility of the issuer or its agents, who presumably already fulfil their obligations where they exist. We consequently find it hard to understand how investor protection is enhanced by transparency requirements in this particular, and admittedly very narrow, field.

The second of the possible policy rationales is market efficiency. Efficiency, as a term applied to markets, is excessively hard to define: in practice descriptions of market efficiency tend to be empirically apophatic, with an emphasis on failures: such descriptions all start from an observed market inefficiency. In other words the clearest sign of market efficiency is that the market does not breakdown, and it is in the examination of market breakdowns that we most often discover inefficiencies. In particular, market crises which clearly highlight deficiencies or market failures are the most potent source of knowledge of such inefficiencies. One problem for authorities who might otherwise tend towards a laissez-faire attitude is that markets generally believe that “if it ain’t broke don’t fix it”, and that it often takes a market crisis (and one in which market participants are clearly hurt) to galvanise participants into action. As a result it is clear that, on occasion, markets have to be

⁶ In this context it is worth noting two points: 1] that it is likely that sophisticated and/or institutional investors will always have an informational advantage over all but the largest and most active retail investors (who may be considered quasi-institutional), but 2] that technological development is so rapid that it is entirely possible that even the smallest retail investor will have access to web-based complex calculators capable of theoretically valuing even the most sophisticated and intricate financial structures



guided into new structures for the benefit of all, but it is of course impossible to demonstrate that a hypothetical counterfactual would have led to a negative result: i.e. that if new structures had not been imposed, then the result would have been some form of more or less dangerous and costly market breakdown. In addition, the imposition of structures designed to allow a greater informed freedom of choice can never guarantee that such freedom will be exploited: in the words of the dictum “you can lead a horse to water but you cannot make it drink”. Given these provisos, we would agree that “mandatory transparency can lead to more efficient price formation and more realistic prices by ensuring that price signals are more rapidly dispersed and integrated by the market”. But this agreement is coloured by the same comments made about investor protection: where bonds are frequently traded, price signal dispersion and integration already cannot be very distant from optimal. And where bonds are illiquid, there is little reason for, or possibility of, price signals being dispersed or integrated. This is an exaggeration, but it is still broadly true: if a bond seldom trades, then by the time a trading price is once again required, the previous price exposed by post-trade transparency will be otiose. The exaggeration lies in the nature of the bond markets: that closely correlated returns between specific bonds can allow them to act as asset substitutes for each other. So that a price in rarely traded bond A, which has just traded, can, under the right regime of observed correlations, throw a little more light than would already be available on the fair price for rarely traded bond B, which may be about to trade. The light thrown is likely to add little information, but will probably corroborate the price that the trader would be constructing from information available anyway. That being said, the net result is that SOME (but not very much) incremental realism in some prices may be achieved, that SOME efficiency gains are likely to be made in price formation, but this is a far cry from the hope evinced, which we take to be more general. As far as the other two possible rationales for improvement in market efficiency resulting from additional transparency are concerned⁷, we are not fully convinced by either (except by reading the comments as truisms), save for the remark that added transparency may well add to lower transaction costs. In fact we would argue that this likely result of added transparency would be, if one agrees that it is likely, by far the strongest reason for mandating (or strongly encouraging) additional transparency. If the results of a number of research papers⁸ on the effects of TRACE⁹ and RTRS (the municipal bond equivalent of TRACE) are correct¹⁰ (and would be duplicated in

⁷These are that 1] it can promote more liquid markets by ensuring that all players have comparable access to information about real market conditions as well as by lowering transaction costs (such as spreads); and 2] it can help to ‘reintegrate’ liquidity that would otherwise be fragmented by allowing free competition between trading venues;

⁸ Goldstein, Hotchkiss and Sirri (March 2006), Edwards, Harris and Piwowar (March 2005) and Bessembinder, Maxwell, and Venkataraman (Jan 2005)

⁹ [See Appendix 1 for a timeline of TRACE](#) and bond market transparency in the US

¹⁰ Without going into too much detail here, since both the bid and the offer of a two-way price are extremely unlikely to lead to trades simultaneously, it is virtually impossible to observe the true bid-offer spread of a trade. This unfortunate fact has led some of the research based on TRACE, as well as other, European, research (e.g. Biais, Declerck, Dow, Portes, and von Thadden (2006) and Dunne, Moore, and Portes (2006)) to impute the other (unobserved) side of a two-way price based on the observed trading price. Quite apart from the possible critiques of any particular methodology for imagining unobservables, anyone who has actually traded bonds or has spent any length of time observing bond traders would realize the intrinsic pitfalls of any methodology applied to derive such bid-offer spreads. This is especially the case when what is being sought is the measurement of a CHANGE in the bid-offer spread. How much of any of the published findings are the results of approximation errors (and thus themselves imaginary), artifacts of the methodology, or even, if real, the results of different external forces, is open to question, but unlikely ever to find an answer.



Europe), then the cost savings from the implementation of post-trade transparency would run into € billions.

Finally among the potential policy rationales there is the response to technological developments. As we have highlighted above, and cannot emphasise too highly, technology is key to the ability to implement any recommendations for increasing pre- and post-trade transparency in European bond markets. As we have already mentioned, this discussion could not take place if the technology had not already achieved its present state. However we find it highly dubious that technological potential should in and of itself be a reason for technological implementation. In other words, the observation that we have the means to achieve something can not compel us to reach that achievement: we don't NEED to do something just because we CAN do it. We do not feel that it should be necessary to emphasise the implications of denying that statement. Ironically, as financial analysts, we in principle, welcome ANY additional data from the markets, and our own view could be summarised (a little simplistically) as "If it's there and available, and we can get it at no or little cost, then give us ALL the available data", which by implications argues that if the technology to gather and disseminate the data is there then it should be implemented. That may be a self-centred but adequate reason for financial analysts, but it does not follow from that that we would consider it a potential policy rationale.

In summary then, we would argue that the most compelling policy rationale given is that added transparency would reduce costs. We also feel that this rationale is the only strongly true one among those given. Studies on the evidence from TRACE and RTRS indicate that the transparency provided by post-trade transparency in those markets does seem to add to the public good (or to the common wealth) because such added transparency variously:

- Increases access to capital markets
(for borrower AND investor)
- Increases liquidity
- Decreases costs
 - Of borrowing (ie absolute yield)
 - Of issuing (ie front-end for borrowing)
 - Of trading (ie bid-offer spreads)
 - Of transaction (ie infrastructural costs).

Of those reasons, we only question what is meant by increasing liquidity: we find that the concept of liquidity is, itself, somewhat liquid¹¹, and that what are in fact described as indications of increased liquidity are precisely those cost reductions listed above.

Notwithstanding the differences between the European and the US corporate bond markets, nor any possible methodological complications (see footnote 8), we find the evidence of the limited amount of research that has taken place in the barely four

¹¹ "Liquidity" is a difficult concept to define, if only because it is a term used in many different ways, even within financial markets. In the context of this report, we would wish to restrict its meaning to "the ability to trade (i.e. buy or sell at one's choice) an instrument in relatively (relative to the size of the issue and/or market) important amounts without significantly affecting the market price (i.e. affecting the market price by moving LESS than the bid to offer spread)". That definition leads immediately to the question at the root of the Commission's efforts: "What is the correct market price?", as well as to a number of others: what is the correct or "fair" bid to offer spread? What would a liquidly tradable amount be?



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years since the adoption of the TRACE system in the US corporate bond market on 1st July 2002 to be compelling.

The results to date of research on TRACE data tend to support the hypothesis that post-trade transparency (as implemented in the TRACE system) significantly reduces transaction (and other) costs.

Possibly of more importance than any actual conclusions from this research is the fact that it can have taken place at all. The publication of post-trade transaction data in the US has allowed researchers (and by extension, regulators) to analyse the structure of dynamic rather than static data describing the market, and the resulting cross-sectional analysis has already thrown light on major dimensions of the market hitherto opaque to researchers essentially as a result of a lack of data¹².

¹² [See Appendix 2](#) for a sample of some cross-sectional data derived from TRACE data in Edwards, Harris and Piwowar (March 2005) and its application to illustrate a key aspect of one of the meanings of liquidity in bond markets.



Discussion

Before entering into more general aspects of a discussion on the topic of trade transparency in the light of a call for evidence, it is important to highlight two commonly misunderstood but key aspects of any proposed transaction reporting requirement.

The first is that even if every trade in every sector of the bond market were reported, there is still no guarantee that every bond issue in the bond market would be priced since there is no guarantee that every bond issue in the market would be traded. Crucially, the link between liquidity and transparency would remain, even if it is weakened: in other words if a bond issue trades rarely for whatever reason, making any trade in it totally transparent will not increase its turnover, nor its liquidity. This conclusion is confirmed in Goldstein, Hotchkiss and Sirri (2006), at least for BBB bonds¹³ in the US. Ironically it is precisely those bond issues that are opaque in pricing which would remain so.

The second is that publishing basic details of a trade (i.e. issue, amount traded, type [buy/sell, dealer/client], trade price and time) especially if that publication is delayed, and if trade sizes above a stated amount (say, € 5 million traded value) are not specified, should not make it possible for “the market” to identify which participants were involved in the trade, and that therefore the so-called “winner’s curse”¹⁴ problem does not apply to this situation: it is hard to curse the winner if no one knows who the winner is.

Lack of Data

Some basic facts :-

There are over 70,000 bond issues

32% of these traded at least once in 2003

24% of these traded at least 9 times in 2003

(i.e. over 2/3 of these bonds did not trade ONCE over a period of one year)

These facts are derived from TRACE, and concern the US corporate bond market.

We derive two key lessons from these facts: 1] that most bonds do not trade, and 2] that basically useful information about the structure and make-up of European bond markets is currently simply not available as it is in the US.

This simple example illustrates just how little is known about the bond markets’ structure in Europe, and how the lack of such basic data as observed liquidity as evidenced by trade data means that such key general liquidity information as that mentioned above, or described more fully in [Appendix 2](#), is totally unavailable for European markets¹⁵. The plain fact is that the only guidance that we can have in

¹³ i.e. lower credit-quality bonds

¹⁴ “The winner’s curse” describes the problem faced by the winner of an auction who pays too much for the good auctioned. In this instance we are using the term in a modified way to describe the phenomenon that can take place if “the market” becomes aware that a particular participant (the winner) is a large buyer or seller: i.e. that the price moves away from its current level, and against the winner.

¹⁵ TRAX system data from the ICMA has been made available for research (e.g. Biais, Declerck, Dow, Portes, and von Thadden (2006)), but is not generally available, and is in any case incomplete, missing, for example, most retail trading.



Europe about basic dimensions of the market such as liquidity, or how well the market may or may not be functioning, is entirely anecdotal and/or highly incomplete. As far as to whether adding transparency to such matters will add or subtract from liquidity and/or efficiency (however one may wish to define these terms) is a matter of conjecture, which can be approached theoretically¹⁶ or mechanically¹⁷, but not empirically. It may sound like a circular argument, but the only way to verify whether the early conclusions derived from US empirical studies of post-TRACE markets in the US are applicable to Europe with any degree of certainty is to follow the same route in Europe: without the transparency of post-trade reporting, we cannot tell whether or not post-trade transparency would be beneficial to liquidity.¹⁸

As we state elsewhere, we do find the evidence from the US to date compelling, but we would not want absolutely to argue from that evidence that the case is necessarily made, even in the US: we have not seen what happens in a crisis; let alone in Europe. But all other things being equal, we can point to the fact that the mechanical arguments made against mandatory post-trade transparency in the US do not seem to have turned out to be true. On the other hand the theoretical ones in favour of transparency have so far seemed to be more accurate in their predictions that added transparency would add to liquidity and would (thereby) lower costs, at least up to a point.

Constructing prices 1

There seems to be a misunderstanding at some levels that market prices just “occur”: that somehow dealers “know” what the price of a security is at any time. This seems to us to reflect a key misunderstanding: dealers do not make prices for free. The act of making a price can be compared to that of writing an option¹⁹: when a dealer makes (especially a two-way) price, he/she is offering an option (i.e. writing one) to the counterparty asking for the price. It is an almost instantaneous option (i.e. the option has a very short exercise period, measured in seconds rather than days) in that a dealer’s price is not good indefinitely, but it is still an option: the counterparty has an option either to buy or to sell at the dealer’s price for at least a short period. The “price” of that option is a combination of the bid-offer spread and of information received from the counterparty (in that the counterparty at least has an interest in the security quoted). Part of the information value is maximised if the dealer is successful in that a trade takes place, and is valuable to the trader for the

¹⁶ i.e. by following the implications of market theories such as that of efficient markets (however modified). These would generally bend towards the idea that transparency and liquidity are intimately and positively related, generally with caveats that one can have too much of a good thing: i.e. that at any time there is an optimal level of transparency which is probably somewhere below maximum possible transparency.

¹⁷ i.e. by examining the microstructure of the market and how dealers allocate capital, as well as how prices are constructed, trades settled etc. Examinations of market microstructure may sometimes indicate that there could be a loss of liquidity beyond a certain threshold of transparency. Arguments from the market against added transparency requirements frequently follow this route.

¹⁸ Even under a post-trade transparency regime, we could obviously never fully control for all external factors which could be responsible for any effects noted; but at worst we would at least be able to gain a clearer impression of market mechanics.

¹⁹ See for example Copeland and Galai (1983) where by characterizing the cost of supplying quotes as writing a put and a call option to an information-motivated trader, it is shown that the bid-offer spread is a positive function of the price level among other variables and a negative function of measures of market activity, depth, and continuity, as well as being negatively correlated with the degree of competition.



relatively short time that it takes markets to adjust (in the words of the call to evidence: the time it takes for “price signals .. [to be] .. dispersed and integrated by the market”). During that short period and within the market-making set of dealers, only this particular trader (or traders, if the trade was between two market traders) is in possession of the information that a trade has taken place. It is precisely that advantage which would (in part) disappear if post-trade transparency were to be implemented in real time. As explained elsewhere with regards to the “winner’s curse” (see footnote 7), post-trade transparency is not expected to include knowledge about just WHO has traded, so that the information that the successful dealer still has exclusively is that it is he/she who is the successful dealer: under post-trade transparency it would rapidly become market knowledge that a trade has taken place at a particular price in that particular security, but what would not be known would be who has traded. Thus SOME informational advantage would disappear under post-trade transparency, but by no means all of it. The question becomes whether a market-maker’s option writing would remain profitable enough under a transparency regime for the bid-offer spread to remain intact. Evidence from the US suggests that it would, and that it might remain profitable enough even if spreads tightened.

Constructing prices 2

Absolute prices (such as those at which an actual trade takes place) are seldom the basis for a current trading price, except for highly liquid (and almost invariably government or supranational) issues. In most cases, the price at which a corporate bond trades is actually a derivative: the price will be based on (and often expressed as) a “spread” above or below some benchmark yield. This practice has taken root for two reasons:

first, pricing a corporate bond in yield spread terms makes it easier to decompose the relative value of the bond and how various components of that decomposition have changed over time;

and second, if a bond position is to be hedged against the benchmark, then it is the spread which it is hoped will remain unchanged in a perfect hedge, and NOT the absolute price of the bond hedged.

In other words in the first reason, the spread is an indication of the additional credit risk inherent in the bond (versus the assumed default-risk-free nature of the benchmark); and as the second reason makes clear, the absolute price of the corporate bond may well move for no other reason than that the price of the benchmark has moved, while the spread has remained unchanged. This latter point is why the absolute price of a bond, as observed trading, is of limited use by itself in determining what one might consider to be the “fair” market price soon after the observed trade.

The fact that “spread” precedes price in most cases is important, for it highlights an essential fact about price construction in the bond market, which is that the process of price construction is largely derivative inasmuch as most bonds are priced in relation to another single bond which has similar duration or maturity, but which is more liquid and above all, perceived to be default-risk-free (“the benchmark”). That



is important because it reflects how the market has coped with the fact that many bond prices are never transparent (and never will be) if by “transparent” we mean that the price can be directly checked against similarly timed transactions in the same bond. Since most bonds trade seldom, in almost all cases the trading price of a bond in the market will be “constructed”, usually by reference to a benchmark, but also taking into account any specific features, such as imbedded options (i.e. whether the bond is puttable, callable, exchangeable, convertible etc). From that point of view, two essential requirements of correctly (or “fairly”) pricing a bond are

- 1] knowledge of the current spread for the bond, and
- 2] knowledge as to what other bond (or swap) that spread is being measured against.

These details are important because they highlight how just publishing the price of a trade will only provide a part of the picture: pricing yield spreads tend to be more stable than absolute prices or yields.

Even with full post-trade transparency, it is unlikely that any particular bond has traded recently so that knowledge of the current spread of the bond is seldom available directly (or by even by observation of recent prices). The consequence of that fact is that most spreads used to value bonds against a benchmark are themselves ALSO derivatives: they will themselves be constructed from various data, such as the observed spreads of similar credit bonds of similar maturity (if any), or, if such observed spreads are rare or insufficient, by extrapolating (or interpolating) from other data (such as the trading spreads of bonds which have similar credit, but which have different durations or maturities) by fitting the data to an assumed yield curve for similar credits. There are other methodologies employed, but they all reflect the same basic fact, which is that most bonds do not trade very often.

However, although most bonds do not trade very often, inasmuch as their pricing can be rendered less opaque by the added post-trade transparency of bonds that DO trade, then some additional transparency will undoubtedly evolve in the pricing of rarely traded (i.e. most) bonds. But the overall added transparency of prices for all bonds resulting from an increase in post-trade transparency for some bonds is likely to be less significant. The US experience with TRACE (though one should not expect it to be fully replicated in Europe for structural reasons) is that the costs of trading in TRACE-eligible securities fell by 50% for institutional investors and a 20% reduction for bonds not eligible for TRACE reporting²⁰. In effect therefore the potential spillover from transparently reported bond transactions to those which are not is in the order of 40% (i.e. a reduction in costs of about 40% of that observed in TRACE-eligible securities can be observed in other non-eligible securities.) Assuming that a similar spillover takes place for bonds that rarely trade, we can expect that costs in trading rarely traded bonds would indeed improve, if only by less than half of the improvement associated with bonds traded more frequently.

²⁰ Bessembinder, Maxwell, Venkataraman – (2005)



Retail Investors

A surprising result to have emerged from TRACE is that 2/3 of all bond transactions passing through the system are for sums of under \$100,000 (\approx €75,000), and are considered to be “retail”. This number is impressive, and it emphasizes the importance that retail can have in a bond market. However we should note that using the same TRACE data, we can calculate that this “retail” involvement, though leading to numerous trades, only comprises some 6% of the market turnover in value (and that the average non-retail trade is 15 times larger than the average retail trade). The conclusion together with all of the above is that

1] transparency should not be oversold

2] but it should prove to alleviate some concerns about retail participation in the bond markets, and may indeed encourage its growth.

If retail investors are unlikely to receive significant additional protection from post-trade transparency in prices, that does not mean that they cannot be protected from some of the more opaque products that they may be sold. As repeated in our answers to the Commission’s specific questions separately, we feel that retail investors would be better protected if the purveyors of so-called retail product were mandated to publish a price at which they will transact (or at least bid) on a regular basis, whether or not any transaction in the product in question has taken place recently.

Problems

We have a problem with the use of the word “problem” in part 4.1 of the Commission’s call for evidence. We would welcome some additional information on the criteria that might be adopted by the Commission for determining precisely what a problem might be.



General conclusions

As financial analysts we can but welcome the prospect of post-trade transaction data from the European markets, but we would nevertheless wish to highlight the importance of encouraging the market to provide its own solutions, under clear guidance from the Commission, but with the active participation of elements from all areas of the market. The Commission should actively encourage the creation of such an expert group in order to study and advise on the specifications and implementation of any post-trade transparency reporting. The Commission may wish further to encourage the creation of a market-owned structure that would be charged with designing and implementing a post-trade transaction-report aggregation and publication engine, which could profitably manage the data, subject of course to maintaining public access to relevant data.

We believe that this publication could be achieved at minimal cost, and without perturbing the market if four conditions are initially met:

- 1] that publication be centralised (probably ideally through the clearing systems) if only to avoid the likelihood of double counting, but also to avoid having to aggregate data from disparate sources
- 2] that publication of such trading data only take place after a minimum amount of time has elapsed after the trade has taken place, with a possible timetable for reducing the delay
- 3] that publication initially be no more than daily: i.e. that aggregated data for all trades over the previous 24 hours (excluding days when the market is closed) be published at one single and regular time, with a view over time to increasing the frequency of publication towards real-time
- 4] that the system established to report transactions (whether through clearing systems or otherwise) be created with the active participation of all market players, including retail.

We would like to reiterate in the strongest way that the Commission should not believe that any of these suggested changes (particularly in post-trade transparency) is likely to address the real problems facing retail investors in fixed income instruments: untraded instruments are likely to remain so, though their “fair” price might be marginally easier to construct. What is needed to protect retail investors is some form of requirement that the sellers of specialised retail product should have to post a price at all times, at which they would be willing to repurchase any such product. This kind of approach would better protect retail investors in two ways: it would prevent the marketing of some of the more egregiously mispriced product occasionally still found today, and it would increase retail interest in such product that would still be available by increasing confidence in its liquidity.



Post-Conclusions

Notwithstanding the conclusions highlighted above, we would wish to emphasise some meta-questions raised here. These include (not exclusively!):

- 1] “What is an instrument, in the context of this discussion, and how do we define one so as to include in theory ones that do not yet exist?”
- 2] “What is liquidity and how is it measured?”
- 3] “Does transparency inevitably add to liquidity, or can it sometimes detract from it (even though that may not detract from the desire or need for transparency, but simply be a cost that we are willing to incur for the other benefits stemming from added transparency)?”



APPENDIX 1

A timeline of bond market transparency in the US

From : Commissioner Roel C. Campos, U.S. Securities and Exchange Commission - Hong Kong, June 8, 2006

Originally, there was an active US exchange market in corporate and municipal bonds. With the close of the 1920's, trading in municipal securities migrated to the over-the-counter (OTC) market. Corporate bonds followed suit in the mid-1940s. This shift may have been in response to the changing investor base of institutional investors and the ability to trade in a dealer market. It was not until 1975 that the Municipal Securities Rulemaking Board (MSRB) was created. Then, in 1986, with the enactment of the Government Securities Act, government securities dealers were required to register, the Treasury was given certain rulemaking authority over government securities dealers, and the dealers' associated persons became subject to NASD oversight with respect to sales practices. Regulation had arrived in the bond market but transparency was still noticeably absent.

In 1994, the MSRB committed to implementing trade reporting requirements, with the culmination of real-time reporting for municipal securities in January 2005. The steps to transparency began with daily summary reports of inter-dealer trades in 1995; customer trades were added in 1998; next day transaction information for frequently traded bonds was implemented in 2000, with all bonds following in 2003; and, 15 minute reporting and real-time transparency became effective in January 2005. Currently, the Real-time Transaction Reporting System (RTRS) serves most of the 1.5 million in municipal securities issues, minus a few limited exceptions.

On the corporate side, in 1994, the NASD developed its Fixed Income Pricing System (FIPS) in response to concerns over market abuses in the high-yield market and the urging of former Chairman Breeden after the Drexel Burnham Lambert scandal. Noting that FIPS did not go far enough, in 1998, Former Chairman Levitt urged the NASD to build, and in January 2001 the Commission approved, the Trade Reporting and Compliance Engine (TRACE). TRACE began reporting a subset of corporate bond trade information in July 2002, with a timing requirement of 75 minutes after trade execution. That timeframe was subsequently reduced to 45 and then 30 minutes. On July 1, 2005, the reporting window was narrowed to 15 minutes. This past January (2006), the Commission's approval of the immediate dissemination of TRACE price and transaction data became effective. Accordingly, TRACE now disseminates real-time information on more than 29,000 corporate fixed-income securities, including investment grade and high-yield debt securities, within 15 minutes after execution.



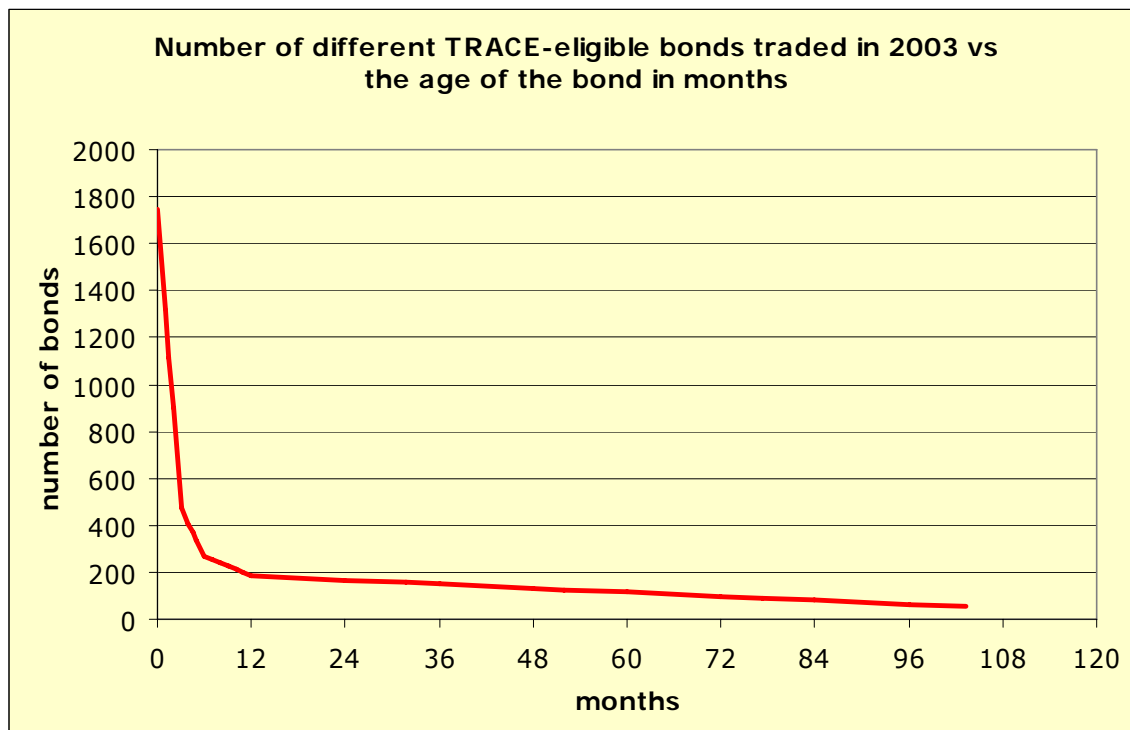
APPENDIX 2

An example of some insights that can be gained from TRACE data

Even though it has not been in place for very long, TRACE has provided researchers with both valuable data and valuable insights. We use a small amount data extracted from Table 3 (Cross-sectional Bond Characteristics) of Edwards, Harris and Piwowar (March 2005), itself extracted from TRACE data for the whole year of 2003 which is laid out below:

| Time since issue | Bonds in sample | | Trades in sample | | Total value traded | |
|--------------------------|-----------------|---------|------------------|---------|--------------------|---------|
| | Number | Percent | Thousands | Percent | \$ Billions | Percent |
| 0-3 months | 3,334 | 19.9% | 696 | 10.5% | 804 | 15.8% |
| 3-6 months | 1,115 | 6.7% | 478 | 7.2% | 620 | 12.2% |
| 6 months- 1 year | 1,350 | 8.1% | 532 | 8.0% | 449 | 8.9% |
| 1 year – one-half life | 6,222 | 37.2% | 3,393 | 51.0% | 2404 | 47.3% |
| one-half life – maturity | 4,725 | 28.2% | 1,551 | 23.3% | 801 | 15.8% |

This table summarises the data from 6.6 million trades over the whole of 2003, totalling just over \$5 trillion. 16,746 bonds which traded at least nine times during the period of one year (254 trading days) are included in the sample.



A quick glance at other parts of Edwards, Harris and Piwowar (March 2005) reveals that the average life at the time of issue of the issues in the sample was 12.1 years, and that the average age of the issues (i.e. the amount of time elapsed since issue



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date) was 3.5 years. For the purposes of analysing the data in aggregate we have therefore taken the remaining average life of the issues as being 8.6 years (= 12.1 years – 3.5 years). The result of mapping the data in column 1 of the table above is illustrated in the graph (where we have simply ensured that the various aggregates summarised in the data are maintained in the integral of the function drawn). We have mapped the results as published, but were one to assume that bond issuance (irrespective of original maturity of issuance) has been stable over the past years, the mapping would be readable in direct proportional terms. In fact the mapping gives a general but powerful impression of the relationship between the age of a bond and its liquidity for at least one meaning of that term.

The conclusion is that liquidity (in the sense here of the number of times a bond trades in a given period) drops off dramatically and rapidly in the first nine months of a bond's life, and then reduces much more gently until maturity.

A small amount of additional analysis allows us to find the results contained in the table below :

| Feature | Mean Trade Size \$ Thousands | Mean Trades per Bond |
|--------------------------|---------------------------------|-------------------------|
| 0-3 months | \$1,155 | 209 |
| 3-6 months | \$1,297 | 429 |
| 6 months- 1 year | \$844 | 394 |
| 1 year – one-half life | \$709 | 545 |
| one-half life – maturity | \$516 | 328 |

These additional details give some colour to the previous results. They indicate that the liquidity in the first three months may largely be about "bedding down" new issues; but that the significantly smaller number of bonds that trade in the following three months trade more often and in greater average size, indicating that it is bonds of that age that are most often used for strategic or tactical positioning. Thereafter, once a bond is more than one year old, it will trade less and less frequently, in smaller and smaller size.

These useful conclusions tend to corroborate what market practitioners observe, but they also highlight just how much depth and colour is contained in the TRACE dataset. It is tantalizing to wonder what else could be easily discovered from such data.



APPENDIX 3

Practical issues to be considered in implementing a TRACE-type post-trade transaction reporting engine

While we realise that a committee of experts would obviously discover and highlight the points discussed below, it is as well to point these out here, if only to illustrate that, as is always the case, the devil is in the details.

The first, and somewhat important, distinction to identify is precisely what a trade is, and when does it actually take place (i.e. when would reporting it be reflecting a fact rather than a strong intention). This may seem like a non-question: a trade obviously takes place when two counterparties agree one to buy and the other to sell a given security at a given price. In fact what has just been described is indeed a contract, but as do so many contracts, it has a number of provisos: the trade may have been agreed, but it has not yet settled. For that to take place, the counterparties' settlement departments must send instructions to custodian or bank and clearing systems; the clearing systems must then match the trades to each other (in other words, the clearing systems must ensure that for every buy there is a sell involving the correct counterparties, instrument, amount and settlement date. Once the trade is matched, there has to be confirmation from the two relevant sides that the instruments are ready to be delivered, as is the money to pay for them. All of these activities must be completed for the trade to settle, hopefully before the settlement date. It can however happen that a trade does not settle on the agreed settlement date. In that case the trade is held pending until it settles for a maximum of 45 days, after which a whole set of rules apply (known as a buy-in). Trades can also be cancelled. It seems obvious to us that the intention of post-trade transparency is to capture trade information as soon as the contract has been agreed, on the assumption that the trade will settle correctly (as do the vast majority of trades). However we would want to see some mechanism put in place to nullify data that has been mistakenly reported in the rare cases that mistakes take place.

More importantly, if the trade is to be reported at the time at which it is entered into, it would also be important to highlight if the settlement date is not the market standard: dealers will take financing costs into account if trades are not for regular settlement dates and this would lead to a distortion in the price series unless the settlement date is highlighted if not standard.

While regulators may well need to know relatively immediately what the size is of large trades that take place, for most market transparency purposes the fact that a large trade has taken place is probably enough transparency in real time without having to know the exact size. The amount traded and reported away from regulators should be stated in the form of something like €5million + for immediate release, with exact details released more generally later. The cut-off amount could be better expressed as a percentage of the outstanding issue, but this may be considered an undue complication, involving as it would an additional "look up" in a static data base.

The experience of the TRACE system in the US would encourage us to follow a similar path in introducing post-trade transparency in Europe: as further described in



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Appendix 1, the TRACE system has been gradually introduced, and as mentioned in footnote 1 above, there is currently a proposed rule change for TRACE which would disseminate the type of trade (buy or sell) and type of counterparty (dealer or client), indicating that additional transparency is still being rolled-out a full four years after initial (and partial) implementation.

From a practical point of view, it would seem simplest to centralise data collection and dissemination with the cooperation of the clearing systems: in particular they are best positioned to highlight if and when expected trades do not in fact settle. Informal discussions indicate that designing and initially implementing a reporting system would be the expensive but by no means extravagant part of having such a system: running costs would be minimal. A participant at one clearing system admitted that it had recently been discovered that, at the request of a couple of clients, a reporting system designed to fulfil FSA reporting requirements had been designed. It was implemented, but never used, 13 years ago. This should confirm two assertions above: that designing a reporting system as an add-on to existing settlement systems would be relatively trivial, and that it could run unnoticed for some 13 years!

Since a trader will always be at least one counterparty to a trade, it is important to ensure the publication of clear data: i.e. the type of counterparty (reporting dealer or client) and the type of trade (buy or sell) should be indicated (see footnote 1 for an indication of market reactions to such a proposal in the US). Without such information, it would be easy to double-count trades between reporting dealers.



Responses to specific questions raised by the European Commission

Question 1: Do you have any comment on the proposed scope of the Report?

We note that the scope of the report is not limited to a binary examination of the options that can be considered in addressing ‘the provisions of the Directive concerning pre and post-trade transparency obligations’. The terms of the report do not constrain it to apply a single regime to all relevant instruments, and instead a range of transparency requirements could be applied to a range of instruments. While we welcome the desire to allow flexibility in the design of a transparency regime to apply to the relevant instruments, we would highlight at the outset some very general questions raised by this (entirely desirable) approach

1] We appreciate that the Commission has listed a classification scheme in order “to focus and prioritise ... [the] review”. However, the list deals with general classes with little attempt to define any of these. For example “investment-grade corporate” requires a clearer definition than that given in the explanatory footnote (“Normally, those corporate bonds rated in the top four categories by commercial credit rating companies.”) This taxonomic problem is a root one, and exists from the start: so that a definition of “instrument” may be required.

2] Furthermore, we do not think that such a definition can remain static: it will also need to clarify when and how an ad-hoc financial contract becomes an “instrument”. A concrete example of how this requirement may impact in practice can be drawn from the development of the interest rate swap (IRS) market: over a period of years IRSs evolved from unique, ad-hoc and bespoke transactions with low volume, fairly opaque pricing and no “secondary” market into a very liquid, very transparent market characterized by high turnover volume and narrow bid-to-offer spreads. Our practical question would be “When did an IRS start coming under the scope of this report by becoming an instrument?” It is possible that any definition of “financial instrument other than shares” will require some explicit flexibility in order to deal with the development of hitherto unknown financial structures as if and when the need arises.

3] We feel that the idea that classes of issuer and/or type of issue would be enough to determine what transparency regime should apply to an instrument is incomplete: one dimension that we feel it would be apposite to include in an analysis of the question is “size” (i.e. amount outstanding). Other than merely highlighting the fact that there is likely to be a difference in the level of turnover and the liquidity of very large issues to that of very small issues (even from the same issuer), there are already distinctions drawn between otherwise similar instruments on the basis of denominations size. If such distinction is held to be meaningful in the field of prospectuses, we feel that the absolute size of an issue is even more relevant to the field of transparency.

4] While we agree with the basic approach of not necessarily applying a single regime to all instruments, we would highlight the importance of avoiding an (unintended) creation of artificial regime arbitrage: in other words differences in transparency requirements should not be great enough to encourage a move of



liquidity from one instrument type to another merely on considerations of transparency regime. A corollary of this concern would be that, for example, there be no significant difference between the reporting requirements applied to different classes of cash bond.

5] We would note that the cost of reporting transactions (however low) is likely to be the same whatever instrument is subject of the report. It should go without saying, but should nonetheless be highlighted, that such a cost will have more of an impact on those instruments currently benefiting from the highest liquidity (as reflected by the narrowness of the bid-to-offer spread), than on those whose bid-to-offer spreads (and consequent expected average trading profit) is larger. It would be a perverse effect of any requirements introduced that they should reduce the liquidity of bonds whose liquidity is already considered more than adequate.

6] Although we have already alluded to the importance of size as a dimension to be applied in this analysis, we would highlight that OTC products, particularly including, or consisting entirely of, derivatives, are protean in their nature and can take a (theoretically) infinite number of forms, as well as often being transitory and unique. This can be complicated, particularly in the field of so-called “structured product” by the fact that many structures are proprietary, and may even be subject to non-disclosure agreements. Whilst this need not preclude from an eventual transparency requirement, the very existence of some product may not be publicised.

7] We do not think that it should be assumed that the source of post-trade transparency should necessarily be the dealer community: there are numerous other parties who will be in possession of the information that may need to be published: the counterparty, custodians, clearing houses, to name a few. Indeed it can be argued that putting onus of a reporting requirement on the dealing community may well be a sub-optimal solution to the question. For example: a trade between an institutional or retail investor with a dealer would lead to a single report of the transaction, but an inter-dealer trade would (all other things being equal) to TWO reports of the same transaction, and there would therefore have to be some form of netting system in order to avoid misleading turnover figures. We feel that centralising a reporting requirement in the clearing systems (and making publication of all relevant transactions a single daily event) would lead to economies of scale, as well as avoiding the possibility of double counting mentioned above.

In general we feel that the scope of the report is adequate, and subject to some further clarifications, accurate.

Question 2: Do you consider this classification scheme to be sufficient for the purposes of the review?

There is a basic taxonomic distinction made in the classification scheme that is not further elaborated. As mentioned above, there are some distinctions based on issuer (in Cash Bonds), but further distinctions are based on type of instrument. This seems to us to be incomplete: a single issuer of cash bonds may also issue almost



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every other type of instrument in the proposed classification. In addition we have already noted that the dimension of size may be of use in classifying requirements.

Distinguishing between "Supranationals" and "Governments" seems unnecessary. If the class "Governments" includes central-government guaranteed (either explicitly or by legal implication), as well as non-central government tax-raising entities, then supranationals should be included in the "Government" class.

We note that "High-yield corporate" as a category "is also intended to include distressed debt securities." We feel that there is a gulf of difference between a typical non-investment-grade bond and one that is in some state of default. The latter typically include completely different types of participants, usually specialized in the very technical and legal nature of transactions in the event of default. We do not feel that distressed debt securities should be included in this category. It is questionable whether they should be included at all, since they no longer carry the attributes of standard bonds, and since each issue is likely to have its own idiosyncrasies: at worst, they should be considered as extremely specialised instruments

We see no taxonomic advantage in considering "interest rate swaps" as a sub-set of "Credit Derivatives". In addition bond options and futures most frequently have a government bond as underlying: it is hard to consider these as derivatives of a credit instrument.

Covered Bonds are a significant and growing sector of the European corporate bond market. Within Europe they have been issued in far greater volume than mortgage-backed securities or CDOs. In addition, they represent a distinguishably different form of credit exposure, and are not merely asset-backed. As a result we feel that they should have their own subsection.

For the sake of clarity and completeness, we would wish to include in the classification scheme what are known as cross-currency swaps. Although their name might indicate a connection to FX derivatives, these are essentially actually interest rate swaps.

Finally, while it is sensible to construct a developed taxonomy of possible products covered by any transparency requirements, we do feel that the regulatory environment should be made as simple as possible and that consequently any transparency requirements should be applied as homogenously as possible. We are concerned lest the welcome flexibility in the Commission's approach leads to an equally flexible set of requirements. In particular we would re-emphasise the recommendation that cash bonds all receive the same treatment. Homogeneity of approach is practically important: the knowledge that all market participants are subject to the same reporting rules and see the same price information, creates certainty, fosters investor confidence and promotes participation in the markets.



Question 3: Do you consider there are possible policy rationales for mandatory transparency we have not listed?

Investor Protection

We note that the justification for including investor protection as a rationale for mandatory transparency all describe possibilities. Thus it is possible that mandatory transparency could alleviate information asymmetries, could enable investors to verify best execution prices, and could help in portfolio valuation.²¹

The problem with such assertions is precisely that they describe possibilities, not effects: indeed if a particular instrument never trades (which is not at all unlikely) there will NO enhanced investor protection with regards to that instrument issuing from any mandatory transparency requirement. This is as true regarding information asymmetries as it is for best execution verification or portfolio valuation. We feel strongly that those investors most in need of protection (i.e. retail investors) are most likely to need such protection when they are dealing in so-called “retail targeted” issues, as opposed to issues including a significant institutional participation. It is precisely in those issues that there is likely to be a minimum of market activity: as a result no amount of transparency requirements will shed any light on how a particular “retail-targeted” instrument should be priced. The question then becomes whether the benefits to retail investors (of those occasions on which a bond they wish to trade has in fact been traded recently enough for the price information still to be valid) is adequate to justify the cost of additional reporting (which will of course in the end be borne by all investors). While strongly supporting the underlying premise that some form of additional post-trade reporting would be beneficial to the market as whole and is strongly desirable, and that the welfare of individual or retail investors is a strong and realistic policy rationale, we equally strongly question whether perceived potential abuse of retail investors in the bond markets is best addressed by the mandating of pre- or post-trade transparency. We would be much happier to justify additional transparency on other grounds, and we equally feel that retail investors would be better protected if the purveyors of so-called retail product were mandated to publish a price at which they will transact on a regular basis, whether or not any transaction in the product in question has taken place recently. It would be a source of greater protection for retail investors if the sponsors of bond or bond-based products (whether specifically designed for retail investors or not) were to publish at least daily prices at which (or close to which) they were willing to repurchase products sold to investors. At the very least a declaration at the time of issue, and incorporated into the prospectus or offering document for the product, as to whether such a pricing service would be available in a given product throughout the product’s life would allow retail investors to choose product with a guaranteed secondary market if they envisage requiring such a service.

While we feel that the advantage of increasing pre- and post-trade transparency in bond markets would only improve the lot of retail investors in the bond market by a

²¹ In passing we would note that the comment is made that “periodic revaluation is often required under the terms of offer documents”: such periodic valuations would be the responsibility of the issuer or its agents, who presumably already fulfil their obligations where they exist. We consequently find it hard to understand how investor protection is enhanced by transparency requirements in this particular, and admittedly very narrow, field



very limited amount and that this limited improvement alone might not be reason enough to mandate additional transparency requirements²², we do believe that this perception is open to question. In particular we note that since the introduction of the TRACE system in the US it has been possible to ascertain that approximately 2/3 of all reported trades in corporate bonds are retail investors (ie., trades of less than \$100,000). In addition, one large US broker-dealer has announced improved retail access to market data, a simplified retail pricing schedule, and 50% discounts for online bond trades²³. This finding is surprising, and may not be reflected in the European experience, but it highlights two important possibilities: first, that if this is not the case in Europe today, then the prospect that it might be should provide a significant incentive to “the market” to enact whatever provisions (including enhancements of transparency) might lead to such a state, particularly if it is felt that retail investors add heterogeneity to what is a largely homogenous market (at least compared to the equity markets); second, and in the context of this discussion, more important, it highlights the fact that only through post-trade transparency can such a finding be discovered in the first place. If nothing else, post-trade transparency would allow both the market and its regulators the opportunity to track the importance of retail in the marketplace, and any trend in retail participation.

Market Efficiency

We strongly question the all too frequent pairing of liquidity and transparency. While it is unquestionably the case that when some transparency is added to an otherwise opaque transaction there will be an increase in liquidity, we find it impossible to posit that this is always and inevitably the case as transactions become less opaque. Indeed, some theoretical analyses predict that less transparent markets might improve liquidity²⁴.

We would agree that “mandatory transparency can lead to more efficient price formation and more realistic prices by ensuring that price signals are more rapidly dispersed and integrated by the market”. But this agreement is coloured by the same comments made about investor protection: where bonds are frequently traded, price signal dispersion and integration cannot be very distant from optimal. And where bonds are illiquid, there is little reason or possibility of price signals being dispersed or integrated. This is an exaggeration, but it is still broadly true: if a bond seldom trades, then by the time a trading price is once again required, the previous price exposed by post-trade transparency will be otiose. The exaggeration lies in the nature of the bond markets: that closely correlated returns between specific bonds can allow them to act as asset substitutes for each other: so that a price in rarely traded bond A, which has just traded, can, under the right regime of observed correlations, throw a little more light than would already be available on the fair price for bond B, which may be about to trade. The light thrown is likely to add little information, but will probably corroborate the price that the trader would be constructing from information available anyway. That being said, the net result is that some (but not very much) incremental realism in some prices may be achieved, that some efficiency gains are likely to be made in price formation, but this is a far

²² “Whatever the impetus, regulators have to balance the costs of the obligations associated with the transparency requirements with the benefits that such transparency will produce.” - Campos (2006)

²³ Campos (2006)

²⁴ Bloomfield and O’Hara (1999), (2000)



cry from the hope evinced, which we take to be more general. We are not fully convinced by either of the other two possible rationales given, save for the remark that added transparency is likely to add to lower transaction costs. In fact we would argue that this likely result of added transparency would be, if one agrees, by far the strongest reason for mandating (or strongly encouraging) additional transparency. If the results of a number of research papers²⁵ on the effects of TRACE²⁶ and RTRS (the municipal bond equivalent of TRACE) are correct (and would be duplicated in Europe), then the cost savings from the implementation of post-trade transparency would run into billions.

Response to Technological Developments

As we have highlighted above, and cannot emphasise too highly, technology is key to the ability to implement any recommendations for increasing pre- and post-trade transparency in European bond markets. As we have already mentioned, this discussion could not take place if the technology had not already achieved its present state. However we find it highly dubious that technological potential should in and of itself be a reason for technological implementation. In other words, the observation that we have the means to achieve something can not compel us to reach that achievement: we don't NEED to do something just because we CAN do it. We do not feel that it should be necessary to emphasise the implications of denying that statement. Ironically, as financial analysts we in principle welcome ANY additional data from the markets, and our own view could be summarised (at little simplistically) as "If it's there and available, and we can get it at no or little cost, then give us ALL the data), which by implications argues that if the technology to gather and disseminate the data is there then it should be implemented. That may be a self-centred but adequate reason for financial analysts, but it does not follow from that that we would consider it a potential policy rationale.

Question 4: Do you agree with our proposals for prioritisation of the review?

We cannot agree with the prioritisation suggested: the highest priority is attached to the most liquid and transparent market (cash government bonds) and the lowest to the least transparent (especially credit default swaps).

There are numerous parts of the bond markets which are relatively opaque. Some clearly fall within the proposed scope of the report, such as credit default swaps, but others such as repos are not included at all. Given that the repo market is a vitally important aspect of today's bond markets, and one which is almost totally opaque, we would strongly urge that it be included for examination, with a high priority.

²⁵ Goldstein, Hotchkiss and Sirri (March 2006), Edwards, Harris and Piwowar (March 2005) and Bessembinder, Maxwell, and Venkataraman (Jan 2005)

²⁶ See Appendix 1 for a timeline of TRACE and bond market transparency in the US



Question 5: To what extent do you consider there to be:

a. observable or demonstrable problems with respect to the possible policy rationales for mandatory transparency identified above in relation to one or more of the instrument markets under review?

b. evidence that mandatory pre- or post-trade transparency would solve any of those problems?

As mentioned in our general remarks we have a problem with the use of the word "problem" in part 4.1 of the Commission's call for evidence. We would welcome some additional information on the criteria that might be adopted by the Commission for determining precisely what a problem might be.

Question 6: To what extent could recent and upcoming technological and market developments in relation to the instrument markets under review:

a. contribute to a relatively inexpensive extension of mandatory transparency?

b. render mandatory transparency unnecessary?

We feel that it is technological development within the market and its infrastructure that makes the current discussion even possible. The possibility gathering transaction-related data has existed for some time now (vide the existence of the TRAX system), but its publication and dissemination would have been relatively difficult until recently. While we recognise that ANY significant changes to what are now extremely robust (and consequently complex) reporting systems in order to allow the aggregation and dissemination of transaction data would necessarily be costly and time consuming to implement in practice, we believe that this difficulty and cost would occur in the implementation phase: in practice the cost of reporting and dissemination once the initial required system changes have been elaborated and implemented should be minimal.

We would note that the wide availability of the world-wide web is allowing increasing numbers of investors, including retail ones, access to ever more complex server-based calculators. It is entirely possible that, in the not too distant future, retail investors will be able to use sophisticated valuation tools to ascertain a "fair" price for even the most intricate financial structures, using real-time observed prices as a base.

In all cases we would prefer to see a non-mandatory transparency requirement implemented.

Question 7: To what extent are non-equity financial instruments different from equities so that lower levels of mandatory transparency in those markets may be justified?

By far the biggest difference between bonds (specifically) and equities is that the correlation of returns between bonds is greater than that between equities. This allows for a greater substitutability of assets, but it also means that prices in the bond market can be constructed with great accuracy (as discussed in our general remarks). Indeed pricing engines can accurately price existing bonds parametrically



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(so that the accuracy of their predicted fair value prices can be checked). In fact one way of calibrating such parametric pricing engines is precisely to compare expected prices with observed ones. It is doubtful whether anyone would be confident enough in any equity model to do the same.

In addition, equities are 1] inherently more volatile than bonds, 2] have unpredictable cash flows and 3] trade in sizes more suitable for retail investors than those in which bonds typically trade. This makes the bond markets much easier to finance and hedge. Indeed these basic facts are reflected in the different regime applied by the BIS risk ratios to equities versus almost all bonds.

A result of the above is that lower levels of mandatory transparency can indeed be justified. But that does not mean that lower levels of realised transparency would be desirable.

Question 8: What data sources do you consider relevant to the issues you have raised (if appropriate, cross-refer to your answers below)? Would you or your organisation be prepared to provide any relevant data if necessary?

iBoxx data provided by IIC is useful though prices are not traded prices and data series are relatively short. Available prices are limited to more liquid instruments.

TRAX is the trade reporting system run by [ICMA](#). All the London based members of ICMA (i.e., the great majority of the dealers in the European corporate bond market) and all members of the Council of Reporting dealers, irrespective of their location, have to report their trades to TRAX. Currently used by some 200 participants to match trades conducted in the over-the-counter market for international securities, 2.5 million trade entries are input into TRAX every month.

Question 9: Are there academic or institutional papers or ongoing work that should be considered in preparing the Report not included in our bibliography?

[ECB Occasional Paper Number 50 "Implications for liquidity from innovation and transparency in the European Corporate bond market" - August 2006](#)

Question 10: What conclusions do you draw from the existing academic debate and the work being conducted by other interested parties?

The most obvious conclusion to be drawn from the academic debate and from work being conducted elsewhere is clear: it is that the European marketplace is sorely lacking any data upon which to base any significant conclusions about trading patterns, liquidity, market efficiency or costs.

Highlighted in Laganá, Periña, von Köppen-Mertes and Persaud (2006) is the absence of any market indicators on speculative positions. We believe that European regulatory bodies working together with trade associations and individual market players should review how data could be consolidated and published. It occurs to us



that the publication of post-trade transaction data should enable analysts to design and engineer such a set of indicators.

Question 11: In your view, how applicable is the academic or institutional literature concerning transparency in the cash equities markets to the present discussion?

There is a relative lack of academic research based on European market data compared to what is available in the US. As a result there is a temptation to apply results obtained in equity research to the bond markets. While there are many prima facie similarities between the two, there are also important differences.

One major difference between the two markets is that most bond issues very seldom trade in the secondary market for very long after the initial issue. This is in sharp contrast to what happens after equity IPOs. A major reason for this difference is that bonds (generally, but especially those with similar maturities or durations) have a much higher level of correlation of returns with one another than do equities. This implies a much higher level of potential asset substitution in bonds than is available in equities, which reduces the need that all issues be liquid: the market functions perfectly adequately most of the time (in the sense that liquidity in bonds is provided in a timely and fair fashion on the vast majority of occasions when it is required) even though a majority of bonds is unlikely to trade even once in any given year, let alone on any single day. Most bonds never trade; numerous bonds trade occasionally; some bonds trade regularly; few bonds trade often.

A second major difference lies in the different market structures. For any number of reasons (of which the ability for market makers to hedge risk easily and cheaply is a significant one) bond markets are based more on principal dealers who take positions onto their books, as opposed to equity markets which are more broker-based (where buyer and seller are matched).

Finally we will repeat what we have said elsewhere: by far the biggest difference between bonds (specifically) and equities is that the correlation of returns between bonds is greater than that between equities. This allows for a greater substitutability of assets, but it also means that prices in the bond market can be constructed with great accuracy (as discussed in our general remarks). Indeed pricing engines can accurately price existing bonds parametrically (so that the accuracy of their predicted fair value prices can be checked). In fact one way of calibrating such parametric pricing engines is precisely to compare expected prices with observed ones. It is doubtful whether anyone would be confident enough in any equity model to do the same.

Question 12: What similarities, and what differences, are there between US and EU markets that should be borne in mind when seeking to draw inferences from the TRACE experience in the US?

It should be noted that the introduction of TRACE in the US brought forth dire predictions of possible losses in liquidity, essentially from a change in the allocation of capital by dealers away from TRACE-eligible securities. As the reporting delay has slowly been reduced from 75 minutes to real time, it is noted that large sophisticated



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investors found a 50% reduction in trade execution costs, and that research results suggest that customer transaction costs decreased by roughly 5 basis points. It may be that in general the US market is less competitive than the European markets, since there are significantly fewer dealers in the US market (probably because of greater regulatory intervention leading to barriers to entry). But the US experience in trade reporting remains significant (if possibly less relevant in Europe) on two counts: first, that dealers have NOT reallocated capital away from TRACE-eligible securities (although these are early days, and we would want to see how or if that situation changes in the event of a major market crisis such as that surrounding the collapse of LTCM); and second, that costs HAVE reduced. In addition, market share of the largest dealers has decreased, suggesting that the corporate bond market has become more competitive following the initiation of TRACE and RTRS (the municipal bond equivalent of TRACE).

Question 13: To the extent that you have identified problems or believe that others might do so, do you agree that only EU-level action would be appropriate in the present case?

We have always held that increased integration of the EU capital markets would be the strongest driver towards higher liquidity, more efficient markets, lower cost of capital throughout the EU and a more efficient allocation of capital resources. While the co-operation of all local authorities can only help this process, it must be driven essentially by the EU. We do not feel that the process of integration can be assisted by individual action from local regulators unless these are coordinated. One of the most commonly cited reasons for the continuing disparity of costs between intra- and cross-border trades within the EU is precisely the differences between reporting requirements in different jurisdictions.

Question 14: If you have identified problems or believe that others might do so, to what extent do you consider those problems would disappear as a natural product of market evolution in the short-to-medium term?

Notwithstanding the problem that we have with the Commission's use of the word "problem" in this context, we feel confident that European bond markets are sophisticated enough to be able to identify and solve problems in a relatively short time period. The development of financial futures, interest rate swaps and more recently credit default swaps are all examples of market initiatives which have been developed to deal with and simplify various dimensions of markets.

Question 15: In respect of both pre- and post-trade transparency, are the four options the right ones to consider, and in particular should other options be considered?

We consider that the four options are the right ones to consider. We would however wish to comment that we would strongly favour option 2.

We are concerned that pre-trade transparency is limited: not in the price discovery process, which is generally transparent, but in the availability of detailed terms and conditions of bonds, particularly in the secondary market. The basic terms and conditions of bonds are, of course, easily available; but what is generally much more



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difficult to obtain, especially if the bond issue is older than a few months, are the prospectus, the trust indenture (if any) and details of the covenants governing the bond. It is difficult to argue, as used to be the case, that wide dissemination of these documents involves a large and expensive effort: posting a .pdf or other "safe" and easily printed electronic format on the web should be a trivial task, but it would alleviate a significant problem of "documentary" pre-trade transparency.

Question 16: Would you, in light of your answers to the other questions, favour any of the four options in relation to pre- and post-trade transparency (or another option you might propose for consideration) in respect of transactions in any of:

cash government bonds;

cash investment-grade corporate bonds;

cash high-yield corporate bonds;

asset-backed securities;

credit default swaps, interest rate swaps and bond futures; or

any other financial instrument you consider relevant?

We believe that of the four options offered option 2 is the best.

We feel strongly post-trade transparency should take one form only, to be adopted in whole or not at all by different sectors of the market. We do not feel that any purpose would be served by having different levels of transparency for different market segments: it should be all or nothing in each segment.

We would most favour a course in which the market is encouraged (strongly) to create its own transparency, under the guidance of the Commission, but essentially in a self-regulated manner. The development of TRACE under pressure from Congress but developed by the NASD and mandated by them rather than by law is an encouraging template.



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