EPDA Third Party Access Discussion Paper

Table of Contents

I. Introduction and Executive Summary

The European Primary Dealers Association[1] ("EPDA") is pleased to present its discussion paper in relation to the potential practice of third party access to traditional dealer markets on electronic platforms (the "Third Party Access Discussion Paper") in order to foster debate and discussion within the wider market on this important topic.

We aim to examine the implications of each practice: order routing and direct market access and, where possible, offer answers and solutions. We note that this paper examines solely regulated markets where quoting obligations are present while we do not address separate unregulated markets which may be established to exist in parallel. We believe that should such parallel markets be proposed, the marketplace at large ought to be consulted. The impact of such potential markets must be carefully considered. We reserve the right to examine such issues in the future in a separate paper.

In providing this paper, we have had access to the collective knowledge and opinions of our members on the workings of the financial markets, current regulation, the operational specifics of electronic trading platforms and the interaction between the B2B and B2C trading environments. This has allowed us to pose important questions which need to be answered in order to inform any decision making in this regard.

The most relevant role of Primary Dealers is the placement of debt with final investors and secondary activity with customers, which is crucial to the liquidity of government debt. When a Euro zone dealer acquires the status of "Primary Dealer" (or, "PD"), it usually incurs market making obligations within the secondary market, which are mandated by the relevant sovereign (save for Germany). Third parties (*e.g.*, clients) currently do not have comparable market making obligations.

Our research in the course of preparing this paper has lead us to believe that third party participation in the B2B market, whether by direct access (*i.e.* market making) or through order routing, would not necessarily create further depth in such issuer's debt. Indeed, third party participation may undermine the current market structure which has found a balance

[1] The EPDA addresses specific primary and secondary market issues arising across Euro government securities markets and recommends best practices in those markets. The EPDA represents government securities dealers officially recognised in numerous primary, and active in the secondary, markets. The EPDA Members cumulatively trade in excess of 85 per cent of the volume in the government bond market. A list of EPDA Members is provided in Schedule A hereto.

among mandatory quoting obligations, liquidity provision, and a Primary Dealer's overall relationship with a particular debt management office[2].

Allowing third party access, in the form of order routing, would also introduce external commercial pressure to the relationship between dealers and clients, which may upset the delicate balance mentioned above in the Euro zone government market. The Euro government bond market is idiosyncratic because it is the amalgamation of 12 separate sovereign debt markets. Each of these separate issuers seeks to tap liquidity from a fragmented investor base. Primary Dealers endeavour to provide seamless liquidity as they are regulated by the mandatory market making obligations, including during times of market volatility. However, if they were put under commercial pressure to allow (largely unregulated) clients to route orders through, that would introduce risk into the system because unregulated participants would not be incentivised to behave according to the rules in the way that Primary Dealers are. While issuers have influence over their primary dealerships, Primary Dealers may not be in a position to exercise control over third parties as they would be squeezed between the commercial pressure of their prime brokerage business and the inability to regulate the activity of third parties trading in the Primary Dealer's name. Lack of control could give rise to a potential misbehaviour by rogue traders. The corollary to that is market structure risk.

Additional risk could be extremely disruptive to the Euro government bond market where sovereigns strive to issue debt at the lowest cost to their constituencies. Existing quoting obligations are a *de facto* cost of business to Primary Dealers who are willing to bear such cost in an orderly and regulated market, secure in the knowledge that they benefit from access to this liquidity as everyone plays by the same rules and has the same incentives. This dynamic may change if additional regulatory or market structure risk seeped into the market.

If a new type of "hybrid" player were allowed into the market – one which may bear the quoting obligations of Primary Dealers while availing itself of the privileges of seamless liquidity, Primary Dealers may not be in a position to support the depth of liquidity expected by Euro zone issuers. The extent to which such new entrants would have an incentive to provide similar levels of depth is questionable (especially in times of market volatility). This is because the hybrid players would not be compensated in the way that Primary Dealers are for the provision of services such as advice to debt management offices on complex derivative transactions, syndications or privatisations. The ability to provide

[2] Dunne, P., Moore, M., Portes, R., "European Government Bond Markets: transparency, liquidity, efficiency" published by the Centre for Economic Policy Research, May 2006 (the "CEPR Study") examines and describes this relationship more fully.

these services is part of the overall package a dealer considers when undertaking the cost of market marking in order to obtain the status of Primary Dealer. If the access of third parties to traditional dealer markets were only to increase the cost to Primary Dealers, their presence may prompt the latter to leave the markets. This, in turn, would have a negative impact upon liquidity and market depth and cause a reduction in the size of the European government bond markets.

Our conclusion is that any change in the current structure of the dealer markets must be tailored appropriately for the uniqueness of the Euro government bond markets as well as the relationship between Primary Dealers and sovereign issuers. Certainly, we caution against the implementation of third party access without consulting the industry at large and, in particular, the Primary Dealers whose services are crucial to the smooth functioning of the government debt markets. The EPDA fully supports an integrated European financial market that allows capital and financial services to flow freely across Europe so that deep, liquid, and innovative European capital pools may be tapped by all businesses. At the same time, an integrated European financial market must be subject to prudential safeguards and investor protection.

The EPDA has undertaken to study the issue of third party access to traditional dealer markets (as defined in Section III below) in order to inform the decision making process of market participants in relation to this potential practice.

To this end, the EPDA formed a Working Group which was tasked with studying the implications of third party access to traditional dealer markets (whether by virtue of direct market access ("DMA") or order routing via dealers' screens ("order routing"). We aim to study the effects of such potential practices on the current dynamic in the European government bond market. Our objectives for the Third Party Access Discussion Paper are the following:

1. Describe the current structure of the market and electronic platform trading

2. Set the market background and significance of Primary Dealers

3. Define third party access

4. Survey third party access experience across other asset classes and in other markets

5. Consider the impact of third party access implementation on the current market structure in the Euro zone in light of the empirical and anecdotal evidence; discuss the advantages and disadvantages of a potential implementation of third party access.

6. Draw Conclusions

NB: References to "client" or "clients" in this paper are intended as references to customers or clients of dealers/Primary Dealers. Throughout the paper, we use the term "dealer" to mean a bank that makes markets for its clients. A "Primary Dealer" or "PD" is a dealer that is officially recognised by a debt management office ("DMO") as a primary dealer in the relevant Member State. References to "bank" are intended as generic and would include Primary Dealers as well as non-dealer banks which may act as price takers.

The EPDA invites comments to the Third Party Access Discussion Paper. We are keen to engage the industry, other market participants, regulators and issuers in a constructive dialogue. Please send any comments you may have to the EPDA at the following e-mail address: Moakley@sifma.org.

II. Background and Significance of the Primary Dealership

A. Primary Dealerships

There are currently 27 Member States in the European Union, 18 of which have established primary dealerships[3]. The Euro zone currently comprises 13 countries[4], 10 of which use primary dealerships[5]. The role of primary dealer ("PD") entails both incurring certain obligations and the bestowment of certain privileges[6]. Various duties are imposed upon PDs in the primary and secondary markets. In the primary markets, PDs must participate in auctions, which prescribe average minimum participation obligations. In the secondary markets, PDs must undertake quoting obligations, aimed at enhancing liquidity, by quoting firm prices to investors and other dealers as well as displaying indicative prices on electronic systems. The quoting obligations with which PDs comply cover a wide variety of bonds and are, therefore, significant. Furthermore, PDs offer additional benefits to issuers, among which certain advisory services, a deep investor base and the promotion of an issuer's debt abroad[7]. The privileges bestowed upon PDs may include the exclusive right to make non-competitive bids after an auction, participation in exchange and/or reverse offers, the right to strip and reconstitute bonds as well as preferential access to syndications.

The relationship between sovereign issuers and PDs is symbiotic. Issuers allow PDs to enjoy certain exclusivity while PDs provide issuers with underwriting commitment upon issuance as well as with much needed liquidity in the secondary markets.

[3] Primary dealerships have been set up in: Austria, Belgium, Czech Republic, Denmark, Finland, France, Greece, Hungary, Ireland, Italy, Lithuania, The Netherlands, Poland, Portugal, Slovenia, Spain, Sweden and the United Kingdom.

[4] Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, The Netherlands, Portugal, Slovenia and Spain.

[5] Germany uses a bidding group, however, it has not set up a primary dealership. Luxembourg does not issue debt. Slovenia is in the process of establishing a primary dealership.

[6] The World Bank & The International Monetary Fund, Developing Government Bond Markets: A Handbook (hereinafter, "Developing Government Bond Markets") at p. 15.

[7] For the types of investors in the European Government Market, see The Bond Market Association (SIFMA since November 2006) Primary Distribution Survey, September 2006 at Slide No. 4. The high degree of interest from investors from abroad and, in particular, Asia is notable.

B. Secondary Market Trading

Secondary market trading can occur via four media: (1) on inter-dealer electronic trading platforms such as, among others, Brokertec, E-Speed, Eurexbond, HDAT, MTS, SENAF, (2) dealer-to-customer electronic trading platforms such as, among others, BondVision, Bloomberg, Reuters, Tradeweb, (3) over-the-counter inter-dealer trading via voice brokers (OTC broker) and (4) OTC dealer-to-customer voice trading. For purposes of this Third Party Access Discussion Paper, a secondary market ("Secondary Market") includes these four methods of trading.

The market is significant in that "[d]aily secondary market size is estimated at €30-35 billion, of which perhaps two-thirds is on electronic platforms and one-third is voice brokered" by tickets[8]. Voice brokers intermediate "about half the volume of the electronic markets."[9]

1. Order Driven Markets

Certain markets have become concentrated on a single order driven platform (such as €-Bund futures contracts on Eurex) without issuer imposed market making requirements. This has been achieved generally when the platform provides (1) the optimal natural liquidity, (2) narrowest bid-offer spreads, (3) lowest execution and processing costs, and (4) open architecture and superior technology. A concentrated order driven market that fulfils these criteria, independent of mandatory quoting and trading obligations, is efficient and generally not very vulnerable to market interruption and distortion although it is worth noting that all markets are subject to liquidity distortions (for example, when data are released or when stop loss orders are triggered).

2. Quote Driven Markets

Certain other markets have concentrated most of the inter-dealer flows on either a single platform or two platforms effectively (if indirectly) by the actions taken by a sovereign issuer (*e.g.*, Italy/MTS, Greece/HDAT/EuroMTS, Spain/SENAF/MTS, Portugal/MTS) in an attempt to create an efficient and liquid market where it may not be possible to do so

[8] CEPR Study §5.6 at p. 32. For more detail on electronic trading, please see Annex A, 2nd Annual European Fixed Income e-Trading Survey, Securities Industry and Financial Markets Association (SIFMA) in Association with Concise, 6 February 2007 at 3.2 (Growth by Product) and 3.2 (Trading by Customer Type).
[9] CEPR Study at p. 33.

naturally through an order driven market. This typifies situations where the level of activity is not as great as, for example, U.S. Treasuries or German Bunds/futures. A "quote driven" market, *i.e.* with market makers committed to fulfil price quoting obligations, has provided a high degree of liquidity and transparency by making trading practices uniform and compliant, providing real-time tradable prices to the market, and ensuring continuity in price quoting even in cases of weak demand or supply, or in volatile market conditions which tend to raise market participants' risk aversion. By ensuring a level of liquidity, a quote driven model provides certain advantages to market participants and their end-customers as well as lowering the financing cost to the issuer. It should be noted that the two systems (quote driven and order driven) are not mutually exclusive.

It must be noted that where flows have been concentrated on a single platform by a sovereign issuer, it is questionable whether such a quote driven model provides an enhanced level of liquidity and stability By comparison, in Secondary Markets trading is done primarily on an order driven market that is governed by normal competitive forces, especially given the quality and availability of aggregation technology (please see Point 3, *Aggregation Technology* below).

3. Aggregation Technology

Current trading technology enables Primary Dealers to integrate Secondary Market pricing sources and inquiries from all inter-dealer and dealer-to-customer electronic trading platforms into their proprietary trading systems. This technology allows dealers to see an aggregated picture of the market on their trading screens and is increasingly being used in the market to an extent where traders are often unaware of the pricing source. In essence, this technology provides a level of aggregate price transparency for purposes of an efficient price formation mechanism. Certain sovereign issuers wish to augment and ensure liquidity on the Secondary Market by retaining market making obligations imposed on dealers. The availability of aggregation technology makes this possible. However, in certain markets Primary Dealers are not able to elect the platform(s) where they make markets even though prices (from multiple platforms) can be aggregated from all eligible quote driven markets onto a dealer's trading platform.

C. Current Regulations Pertaining to Designated Secondary Market Platforms

Most Euro zone countries' Primary Dealers are required to make markets in the relevant government bonds on a designated inter-dealer electronic trading venue[10]. Such countries generally do not evaluate the dealers based on their volumes on a single electronic secondary market but take volumes transacted elsewhere into account. However, they attribute more weighting to the volumes transacted on the single designated platform for purposes of the dealers' performance evaluation. Thus, such countries promote trading on their designated single electronic inter-dealer Secondary Market trading platform.

Countries where Primary Dealers are evaluated, in part, based on their performance in the mandatory market making on a particular platform are Belgium, Finland, Ireland, Italy, the Netherlands, Poland and Portugal. It is worth noting that while certain treasuries directly prescribe that market making must occur on a certain platform, others prescribe that it must be done on some type of "authorised" platform. For example, several treasuries include a stipulation that a Primary Dealer must be a market maker on a "designated" electronic market or "authorised" or "regulated" market or that, in a Primary Dealer's performance evaluation, special weight shall be given to trading on such platform and/or "regulated" market. In practice, in many such countries there is only one platform/market which is so "designated", "authorised" or "regulated" although this does not mean that other platforms may not apply for the same distinction.

No platform-specific requirement exists in Germany and the UK, as is the case in the largest and most liquid government bond market, namely, the U.S. Treasury market.

The regulations applicable to the various electronic trading platforms differ. All such platforms are in some form regulated by their home country supervisory authority. In most cases, electronic trading platforms are regulated as alternative trading systems ("ATSs" which under MiFID[11], will be designated as multilateral trading facilities or, "MTFs") save for MTS Italy and MTS Portugal, which are "regulated" markets. In Spain, recognised ATSs have been granted a quasi-regulated status of Organised Trading System. Whether an electronic trading platform is regulated as an ATS or as a regulated market, it provides transaction data reporting to the home country regulator.

[10] For the volumes executed electronically in Europe, see Annex A, 2nd Annual European Fixed Income e-Trading Survey, Securities Industry and Financial Markets Association (SIFMA) in Association with Concise, 6 February 2007 at 3.1 (Growth in eTrading).

[11] Markets in Financial Instruments Directive 2004/39/EC of 21 April 2004 ("MiFID"). MiFID will come into effect in November 2007.

It is worth noting that MiFID establishes minimum standards for regulated markets and for MTFs, which confer investors protection by setting out detailed requirements pertaining to authorisation of regulated markets and MTFs[12].

There is no difference in the execution function of an inter-dealer transaction on any ATS (such as Brokertec, E-Speed, Eurexbonds, SENAF, MTS France, MTS Deutschland, MTS Belgium, etc.) and on regulated markets (such as MTS Italy, MTS Portugal). In this respect, the relative benefits (if any) of a quote driven market should be separated from its regulatory status.

D. Liquidity in the Euro Government Bond Markets

In the current market environment, Primary Dealers supply an important lifeline to liquidity in the Euro zone. Whereas in the United States the cash market is inherently liquid in benchmarks, Euro zone liquidity centres in the futures – particularly, the German futures.

In the United States government bonds are offered by a single issuer which results in a concentrated and, therefore, liquid cash market. Dealers use the cash market as the basis upon which they are able to price futures. Conversely, in the Euro zone issuance is fragmented due to the presence of 12 sovereigns and the process is inverted – *i.e.* dealers look to the futures market and use the hedging instrument as a proxy to determine prices in the cash market. As an example, a dealer may sell Bund futures against 10-year bonds issued by The Netherlands since the ultimate liquidity is in the futures market.[13] Hence, Primary Dealers active in the Euro zone bear "basis risk"[14] in that they have market making obligations in terms of the underlying government bond but the liquidity at their disposal is that in the futures market

[12] The requirements are contained throughout MiFID, viz. particularly Recitals 5,6,34 and 56 as well as Article 4.1(15).
[13] The most popular and deliverable contracts on Eurex are the German ones, namely: the Schatz, Bobl and Bund futures contracts.
[14] "Basis risk" is the risk that the price of a future will vary from the price of the underlying cash instrument as the expiry date approaches; *i.e.* the risk that offsetting investments in a hedging strategy will not experience price changes in entirely opposite directions from each other.

III. Definitions of Third Party Access to Dealer Markets

A. Order Routing

1. What It Would Entail

Synonymous with the Foreign Exchange ("FX") trading model on EBS[15], where a prime brokerage client uses a combination of a bank's technology infrastructure, credit lines and name to trade on an exchange, in return for the bank charging a clearing fee and potentially also an execution fee. In its simplest form, order routing on an electronic trading platform for government bonds would entail a situation where a dealer's client would be able to use the dealer's infrastructure to trade. To other market participants the activity of the client (*e.g.* and most likely, a hedge fund) is not obvious as the dealer's client will clear and settle in the dealer's name rather than its own.

In essence, a dealer would put a price into an electronic trading platform and, if the trade is done, the dealer is able to buy from the counterparty and then sell at the same price or, same price plus commission, to its customer.

This practice would possibly mean that a non-dealer participant and the dealer providing the routing will have signed a bilateral contract. What is noteworthy about order routing is that the counterparty to a transaction would see (*i.e.*, be aware of) only the dealer's name.

The third party would get a terminal and would be able to trade in the name of the dealer. Effectively, the third party would incur no obligations - just the right to go directly to the market *anonymously*. Clients would be able to send orders via a dealer to the relevant B2B platform. In terms of price provision, dealers may show/mirror the prices on B2B platforms to the client. Generally, prices on electronic trading platforms are already available via data providers (*e.g.*, Reuters, Bloomberg).

2. Current Trading Environment

The European government bond market on the majority of B2B electronic trading platforms is currently reserved for market makers and certain price takers (who are typically market makers in another B2B market), the vast majority of which are PDs. Primary Dealers must subscribe to quoting obligations which are used by the DMOs as part of its their assessment criteria – a practice which renders the B2B electronic trading market an orderly,

[15] Launched in September 1993 by a group of foreign exchange market making banks, EBS is the provider of foreign exchange trading and market data solutions to the professional spot foreign exchange community.

professional market with liquidity provided across the full range of European government bonds in issue. The use of quoting obligations is particularly important to the DMOs as it ensures that liquidity of their older ("off-the-run") issues remains sufficient to keep all their debt liquid and, hence, attractive to investors throughout its lifespan. In today's electronic trading environment, third parties and/or clients need to either utilise single dealer streaming prices or the request for quote ("RFQ") functionality in the B2C environment. The former is limited to the pricing of one dealer while the latter uses automated name-give up trading as the client generally would put a maximum of five dealers into competition with each other on RFQ for a particular instrument.

The inter-dealer market is wholly B2B and a dependable environment for dealers to anonymously unwind transactions executed with their clients on B2C platforms or over voice channels. The B2B market operates on "click and trade" functionality. Prices quoted are firm and can be "hit" and "lifted" at any time by any member[16]. The market is open to those acting as principal on trades. Therefore, while quoting during the trading day, these dealers constantly put own capital at risk. On the other hand, third parties do not have comparable market making obligations as Primary Dealers and their participation in the B2B market would not contribute to deeper liquidity in an issuer's debt. However, third party participation could undermine the current market structure which has found a balance between mandatory quoting obligations and liquidity provision.

On B2C platforms, dealers are put into competition with other dealers through the RFQ functionality used by clients. Dealers make firm offers in response to a RFQ on a particular instrument. The price offered may be influenced by a number of factors, including the credit quality of the counterparty, the size of the trade and the availability of the instrument in the market. Clients then have a limited number of seconds to compare the quotes from, normally, up to five dealers, which they have selected. After that, clients may execute against one of the dealers before the prices lapse. The clean segregation of these two segments has fostered good quality liquidity across all government issues in the B2C markets (frequently generating better pricing than available in the B2B markets), achieving the DMOs' aim of well-priced accessible debt to end users.

The availability and increased use of central counterparty clearing[17] in the B2B markets means that counterparties are often not aware of the identity of the particular entity with

[16] Order routing could be restricted to a "hit"/"take" price function. However, quoting prices via the dealer (providing the order routing function) is technically also possible.

[17] A central counterparty (CCP) is a financial institution that acts as an intermediary between security market participants. Its presence helps reduce the amount of counterparty risk to which market participants are exposed. The seller of a security sells to the CCP, which simultaneously sells to the buyer. This means that if one party defaults then the CCP will absorb the loss. This eliminates both the risk of direct financial loss though a default and the risk of indirect loss through having to unwind a trade.

which they trade (*i.e.*, "blind" trading). Order routing would mean that, in addition, participants will not know the *type of entity* with which they trade, *i.e.* whether a hedge fund, dealer, bank or PD – this poses potential counterparty risk. Currently, market participants are able to assume that on the other side stands a bank (PD, which is subject to market making obligations, or a bank which is only a price taker).

3. Significance of Market Makers

There is a major obligation on market makers versus other participants. Market makers send bid-ask "proposals", contrary to other participants which would come to "hit" or "lift" the market. There is a risk that third parties would be able to exploit the possible inefficiencies of a market characterised with quoting obligations. In practice, there is a great probability that third parties would be able to arbitrage the Primary Dealer community since they are not subject to mandatory market making obligations and, hence, can manoeuvre the market with alacrity. The World Bank and International Monetary Fund handbook on developing government bond markets states (hereinafter, "Developing Bond Markets handbook"), "[p]olicymakers should recognize both the importance of market-making intermediaries for secondary market liquidity and the need for this activity to be profitable for the intermediaries."[18] Hence, the relevant query is which players DMOs deem to be appropriate to fulfil the function of market maker intermediaries and then how to regulate the relationships among them.

Given the fact that clients are unlikely to commit capital, do not have issuer relationships (in the manner in which Primary Dealers maintain such relationships) nor have processes in place to manage potential conflicts of interest, it is imperative that DMOs be in a position to assess their level of confidence in such clients. This is particularly important if clients would be able to have greater flexibility in their investment options and adopt more aggressive strategies (such as borrowing funds to take positions in the market). On the other hand, PDs also have a duty to their shareholders and they need to weigh trading decisions to take into account overall reputation concerns.

B. Direct Market Access ("DMA") by Clients (to Electronic Trading Platforms) as Market Makers (or Even Market Takers)

Direct market access would be akin to the futures market, where the exchanges market to clients directly and market participants (here, third parties: clients) connect themselves without the use of an intermediary. In the futures markets, these clients still require a

[18] Developing Government Bond Markets at p. 23.

futures clearing member ("FCM") or general clearing member ("GCM") to clear their business so the market may remain anonymous.

Clients would access B2B platforms directly in their own name. Either a market taker or a market maker function is possible and legal documentation would be executed between a client and a B2B platform. (Some B2B platforms act as principal only, while others act as agents only.) There is a vast difference between a market maker and a market taker status. Currently, DMOs measure the performance of the Primary Dealers on the platforms. Third party access to dealer markets would mean that the mix between PD market makers and clients would disrupt the current balance since, in reality, a client will be in the same marketplace as the PD, which is not the case today.

Without the presence of a central clearer for all transactions, name give-up would still be required for European government bond trading on an electronic trading platform for a significant portion of the activity. A larger balance sheet would be required for PDs' clients to trade on the market in their own name to finance their activity. Certain clients would have large balance sheets, which would enable them to execute trading strategies while at the same time not constrained by performance evaluations based on quoting obligations.

IV. Market Experience

A. Foreign Exchange ("FX") Experience

Foreign Exchange is one of the most commoditized of the major asset classes. Traded volumes are high and there is no shortage of market players seeking involvement. Although the distinction between liquidity providers and liquidity users has become quite blurred in recent years, the market structure still entails the biggest banks standing up as market makers and a broad spectrum of investors (from retail through corporate accounts to financial institutions and, more recently, hedge funds) present as liquidity takers.

Unlike the European government bond space, there is no primary dealership and therefore no obligation to provide liquidity either to the market or on a specific platform. Large banks do, however, compete very aggressively to execute client turnover. The primary drivers are a desire to see flows in general and target specific client volumes. The market surveys are only an overall assessment and not a target *per sé*; the high volume spot business is a lead-in to more lucrative FX derivatives markets.

The trend over recent years has been for a massive migration of voice business to electronic platforms, currently 40 per cent of the client transactions being executed online. The voice broker inter-bank market has been reduced to 10-15 per cent. Until recently, there was a defined B2B environment, with the dominant trading platforms being Reuters and EBS[19]. In the B2C environment, the big platforms are FX All and Currenex.

In this B2C area, the client can put dealers in direct competition with a RFQ type enquiry (utilising multibank platforms). Most banks also have a stand-alone electronic offering. In many ways the FX market looks very much like the European government bond market today but without quoting commitments.

Recently, there been an opening up of the B2B space primarily driven by hedge funds desiring access to direct electronic dealer liquidity. In practice, there was no reason to deny such access. There were also no rules against such players dealing in their own name on the B2B platforms – rather, it was a question of credit lines. Instead of setting up credit facilities with all the dealers (where indeed in some cases lines might have been declined), the hedge funds preferred to deal through a chosen host bank and to route their orders through that bank in return for a dealing commission. The arrangement fitted quite neatly with the broader prime brokerage set-up, run by most banks for their bigger clients. The

[19] EBS used to be owned by a number of large banks but is now wholly owned by the ICAP (the inter-dealer broker).

competitive nature of the business diminished the commission element to a minimum very quickly.

The most recent move by CME/Reuters to combine the Futures exchange model with the global Reuters network is closely followed in the market. This development is mainly targeted at FI client base, *i.e.* hedge funds and banks. FX naturally benefits from this model, however, as the number of highly liquid pairs is small compared to the number of European government bonds.

FX is cheap to finance and the market is highly liquid, meaning very large transactions can be absorbed without unduly moving markets or impacting transparency. High frequency model trading via single bank APIs[20], EBS Artificial Intelligence ("AI") and client/bank platforms (such as Currenex, HotSpot and Lava) has increased volumes considerably over the past couple of years. Lower transaction costs and, at least initially, latency from some liquidity providers have fuelled volumes in this area. It has also concentrated liquidity with the top three banks now having 30 per cent of overall volumes compared to less than 20 per cent a few years ago. The same holds true for banks in the fourth to tenth positions. There has been a steep increase in technology spending, especially in the top tier.

In the current landscape, the B2B space is extremely busy, with total volumes up an estimated 20-30 per cent in the last two years. A large amount of order routing does take place and volumes are high while the number of clients involved is limited. The increased volume has narrowed market making spreads and profitability, but improved liquidity levels which, in turn, can be used to unwind other forms of client flow more profitably. Significantly, there is still a highly competitive and flourishing B2C environment where most clients have chosen to stay.

Anecdotal evidence suggests that the presence of large hedge funds (adding extra liquidity to the market) has reduced the profitability of market making on the platform. Although decreasing profitability alone is not diagnostic of a problem, it is important in the government bond market. This is because quoting obligations are a *de facto* additional cost to the activity of Primary Dealers who are willing to bear such cost due to the regulated nature of the market within which they operate. However, if a new type of player were to be introduced in the market – one which would have a different relationship with the DMOs but enjoy the freedom to tap the liquidity (third party access), Primary Dealers may not be in a position to support the depth of liquidity anticipated by Euro zone issuers.

[20] Abbreviation for application program interface: a set of routines, protocols, and tools for building software applications. A good API makes it easier to develop a program by providing all the building blocks.

B. Equities Experience

There are three main types of stock traded: "small cap" (market capitalization between $300 million and $2 billion); "mid-cap" ($2-10 billion); and "large cap" ($10-$200 billion). In certain markets (*e.g.*, UK), some market making requirements exist for designated securities.[21] Generally, no market making requirements exist for large cap stocks which enjoy an inherently liquid market where trading is entirely order driven. It is noteworthy that there are no issuer-mandated quoting obligations.

In the EU government bond markets, the normal practice is to require dealers to make markets in order to provide liquidity in "on the run" and "off the run" bonds. Bonds become increasingly less liquid from the date of their issuance as they find their way into the hands of investors who buy and hold them (often to maturity). Conversely, with equities the only way for an investor to realise his/her return on investment is to sell the share, which means equities always remain liquid. Moreover, an issuer may only have one class of shares outstanding but hundreds of outstanding issues of bonds, which spreads the liquidity of the bonds thinly across the various issues.

End customers in the equities market do not tend to have direct access to the exchanges as they trade through members (*i.e.* banks do route orders for customers). Trades may be conducted in three different ways: (i) "direct execution" where the order is executed through a platform against a fixed commission and the identity of the customer remains unknown to the market maker who may ultimately trade against it; (ii) "working an order" where a market maker is requested to fulfil an order on certain conditions and receives a commission for the completion of the order while incurring no risk; and (iii) "request for a firm price" by a customer where the market maker takes a position, manages the resulting risk for a commission and participates in an end-of-day auction process during which it can unwind its risk position.

Orders may be executed at best price, at limit or at the average price of the day. In addition, algorithm trading has become a large part of overall equities volumes. The rules pertaining to the execution of orders are stringent and prescribe trading limits for clients. Consequently, each order sent on behalf of a client undergoes a compliance filter to be checked against the set limits. A client who chooses the direct execution route signs a contract with the market maker pursuant to which the client is fully accountable for, among others, its errors and any instances of market manipulation[22].

[21] Some London Stock Exchange ("LSE") member firms are registered as committed principals in relation to securities designated by LSE. They have made a commitment to quote prices for a "mandatory period" as assigned by LSE.

[22] The Market Abuse Directive ("MAD") - a key element of the EU Financial Services Action Plan, introduces a common EU approach for preventing and detecting market abuse and ensuring a proper flow of

We further note that while in the equities space market makers generally trade on behalf of clients (*i.e.* do not put own capital at risk), in the fixed income space they trade as principal by putting their own capital at risk. To sum up, the equity market is agency based; whereas the fixed income market is principal based and these differences impact the way trading is done. More specifically, when firms put own capital at risk they are mindful of the playing field within which they operate and, most likely, they would not be willing to engage if other players were allowed to come in under a different and more "lax" set of rules.

C. US Experience

Volumes in U.S. Treasuries in the B2B space are approximately U.S.$200 billion daily.[23] In the fixed income space, there is access to order routing, however, there are no issuer-mandated market making obligations and customers potentially can make markets.

Restrictions in the US are generally within the remit of E-Speed and Brokertec. It is reported that 5 of the top 10 participants on Brokertec are clients (hedge funds, in particular) as are 3 of the top 10 on E-Speed. These clients access the market using trading APIs and, given the sharpness of some of the trading, are believed to use automated models rather than discretionary trading. The brokers behind each platform act as principals on the trades so that the identity of the counterparty is never known. Neither of the platforms publicly acknowledges the presence of clients on its system.

Volumes have doubtless increased since these participants entered the market, but the quality of the liquidity responsible for those volumes is less clear-cut. The U.S. Treasury market has a single issuer for supply, has fewer securities outstanding than Europe and, hence, benefits from greater depth. This liquidity is centred around the on-the-run Treasuries, with liquidity in the off-the-runs secondary. However, in a market which has higher trading volume of Europe, this has limited impact on the overall accessibility of the illiquid issues (and hence market as a whole) to end investors. Therefore, the knock-on impact on the reputation of the U.S. Treasuries market and the perceived "good value" of to end users could be viewed minimal.

The quality and drivers of the liquidity are affected by the different motivations of the participants. Broker-dealers typically seek orderly markets and like-minded counterparties in order to service the needs of their clients to the best possible outcome. Some hedge fund models, on the other hand, are designed to identify market arbitrage opportunities, which

---

information to the market. The FSA has published rules and guidance for implementing MAD. Under the new rules, specific MAD offences of market manipulation will be introduced, replacing the previous offences of "false and misleading information" and "market distortion". The FSA retains an additional offence of more general behaviour that amounts to market manipulation. See www.fsa.gov.uk.

[23] CEPR Study, §5.6 at p. 32.

could also potentially include exploiting market malfunctions, such as mis-pricing, supply issues around key securities, and artificially deep liquidity around intrinsically illiquid issues (a characteristic of many issuer-designated platforms).

Hedge funds typically feature in these markets when they find a favourable opportunity. They trade using similar (to each other) models, which sometimes results in big directional moves. This usually leaves other market participants on the "wrong side" of a trade, for example broker-dealers seeking to work a client interest. During volatility or in times of "thin markets," hedge funds are typically not present in a market making capacity but only as price takers when conditions favour them. By contrast, in a market like the European government bond market, this may act as a deterrent to Primary Dealers when it comes to putting capital at risk above and beyond the minimum expectations of the DMOs, given such minimal return.

D. Futures Experience

The futures market has moved beyond the original members-only model and exchanges now market directly to end users with the dealers dis-intermediated. The entry requirements are such that private individuals can enter the market through a regulated broker.

The largest futures markets in the Euro zone are Eurex[24], Euronext[25] (where derivatives trading is conducted on its "LIFFE CONNECT" IT Platform) and MEFF[26]. The futures market is order-driven and not subject to issuer-mandated market making obligations since liquidity is inherent in the market[27]. Historically, quoting obligations have not fared well in the futures market due to the varying nature and business model of its participants as well as its "natural" liquidity. The participants in the futures market are more diverse than those in the government bond market. Among some of the major players in the futures market are: (i) "hedgers" – participants who seek to hedge risk on a forward basis; (ii) arbitrage traders – participants whose activity is facilitated by basket delivery and the repo market;

[24] The total number of contracts traded on Eurex as at 1 December 2006 was 1.42 billion contracts. Average daily trading volume at Eurex currently stands at 6 million contracts. For further information, please see www.eurexchange.com.

[25] MATIF SA was France's futures exchange, which was absorbed in the merger of the Paris Bourse with Euronext NV to form Euronext Paris. Derivatives formerly traded on the Matif and other members of Euronext are traded on LIFFE CONNECT, the electronic trading platform of the London International Financial Futures Exchange. LIFFE is an affiliate of Euronext.

[26] MEFF is the futures and options official market in Spain. MEFF clears and trades options and futures on bonds, interest rates, and the IBEX-35 index and Futures and Options on the leading Spanish stocks. For further information, please see www.meff.es.

[27] Liquidity in the new 30-year contracts is relatively poor and Eurex have sought market makers.

(iii) basis traders who trade relative value; and (iv) positions traders – *i.e.* the directional[28] players.

Clearing still requires end clients to use a futures clearing member ("FCM") or a general clearing member ("GCM"), which is a large balance-sheet activity (*i.e.*, still in the hands of the banks) but competition has driven fees down dramatically. Eurex Exchange has contemplated introducing order routing. However, any connections to its order routing system must be approved by the Eurex Board of Management and are subjects to stringent requirements.[29]

The futures market could develop into a market employing the exchange model due to the following reasons: (i) it is a *standardized* market since (a) it has only 4 points on the yield curve in terms of maturity (2-year, 5-year, 10-year, 30-year); (b) it is characterised by fixed delivery dates; and (c) it has roll-over facility (*i.e.* can trade one contract versus another if wish to continue selling); (ii) there is no counterparty risk (generally, there is a clearing house with daily margining capabilities); (iii) there are minimal delivery problems (since trading on a forward delivery date). Conversely, in the Euro government bond market (i) there are over 500 instruments; (ii) it works on a 1- to 3-day delivery basis (T+1, T+3); and (iii) it operates on cash-versus-payment delivery, which means that there is some delivery risk and that it is higher than the forward-looking futures market. Therefore, standardization would be a potentially trickier exercise in the government bond market in the Euro zone.

[28] A directional strategy is any trading or investment strategy that entails taking a net long or short position in a market. It is, in essence, a bet on the direction in which the overall market is going to move.

[29] Pursuant to Guideline for Eurex Exchange Participants, §7.3, in order to be approved for order routing connections orders, *inter alia*, must: pass an electronic filter; such filter must be maintained by an admitted trader and be subject to parameters; trader must be able to manually stop order transmission at any time.

V. Euro Zone Implications of Third Party Access

A. Order Routing

1. Issues and Implications of Order Routing

The practice of order routing would enable third parties to implement electronic strategies while enshrined in total anonymity. Dealers providing order routing, on the other hand, cannot leverage the information provided by the relevant third party nor be able to control the behaviour of the third party. In this section, we explore the impact order routing could have on current market structure and, more specifically, the delicate balance between mandatory quoting obligations and liquidity provision by Primary Dealers.

Q1. How would it be monitored? Can it be monitored currently? If not, how would it be monitored in the future?

When order routing is used, the routing Primary Dealer uses its own name and the rest of the participants (also referred to as the "street") do not see behind the screen name. In effect, the street does not know the actual identity of the trading third party. The only market player(s) who may observe the actual activity are the trading platform and/or the routing Primary Dealer. It is difficult to imagine how anyone else could observe and, hence, monitor such activity. If the trading platform, due to the limitations of its technology, is "blind" to the origin of the trades being routed, it will be unable to monitor the activity created on the platform by the third party. In effect, the platform would not be privy to the identity of those accessing its liquidity through a routing dealer. Any such technical limitation must be addressed.

From a technical standpoint, it will be difficult to monitor all potential misbehaviour by Primary Dealers' clients and/or other third parties. For example, issuer specific limits and overall limits should be set as well as controls to prevent targeting a particular bond or segment in an aggressive trading strategy.[30] In addition, even if the activity could be monitored any monitoring would be *ex post*. Therefore, it must be covered by legal contracts between the relevant parties. However, this may be a daunting task since it would entail imagining all the possible "misbehaviour" scenarios and apportioning the responsibility (legally and economically) between the Primary Dealer and its client.

[30] Controls may include "throttles" to prevent high and/or excessive numbers of orders/volumes from a particular counterparty in a set period of time.

Q2. Who would be responsible for the behaviour of the third parties? - Dealer? The third party itself? If the third party, how so if it is not a direct participant in the platform?

If third parties (clients) simply buy and sell, they are able to do so directly on B2C markets such as Bloomberg, BondVision, etc. (which frequently offer better pricing than current B2B markets). The difficulties arise when third parties (*viz.* hedge funds) want to make markets.

Most likely, the Primary Dealer would be responsible for its clients' actions, to its counterparties, if routing an order (we assume there has been an agreement between dealer and customer). Since, in the order routing scenario, the counterparty to any transaction would only be aware of the third party's (client's) participation, it is doubtful that such counterparty would legally be subjected to having to settle disputes with the undisclosed third party (client).

Moreover, it seems unlikely that a third party would have a direct relationship with either the trading platform or the counterparty to any transaction routed to the platform. Therefore, the routing dealer is the obvious party to be held responsible for its client's behaviour. Dealers would likely not agree to be held accountable for all the behaviour of third parties and, as mentioned above, all the possible misbehaviour scenarios and the apportioning of responsibility must be adequately detailed in the legal relationships.

Q3. Can the requisite legal/regulatory framework be put in place to monitor third party activity?

This may be possible at some level. The question is, after a cost-benefit analysis, is third party access worth the cost of drafting, implementing, monitoring and enforcing new regulation? The Developing Bond Markets handbook at p. 35 states that "[e]ffective regulation of the secondary market should include (i) regulation of market intermediaries, (ii) market conduct regulation (including trading rules) and market surveillance, and (iii) transparency requirements, which will vary according to the choice of market structure." To what extent would DMOs/regulators be able and willing to set up a regulatory regime which treats all participants fairly by placing them on an equal footing as opposed to the current circumstances of varying degrees of regulation for the various players? Would the practice of order routing generate enough additional liquidity to justify the DMOs' (and the market's) resources to be expended in establishing regulation? Would issuers be willing to spend the money to ensure the framework is well-tailored to the new model? What is the risk? Any new market model would have to take into consideration the legal relationships, apportion responsibility and implement effective monitoring mechanisms on the basis of a cost-benefit analysis.

Q4. Would dealers be put under commercial pressure to allow order routing, without the ability to control the behaviour of third parties?

Dealers will feel under pressure either to be first in that business or to join the model if they believe they would miss out on or lose market share. Commercial pressure is a characteristic of competitive markets and not necessarily problematic. However, the Euro government bond market is a special case because it is the amalgamation of 12 separate sovereign debt markets. Each of these separate issuers seeks to tap liquidity from a fragmented investor base. Primary Dealers provide seamless liquidity as they are regulated by the mandatory market making obligations. However, if they were put under commercial pressure to allow clients to route orders through, that would introduce risk into the system because unregulated participants would not be incentivised to behave according to the rules in the way that Primary Dealers are. While governments have influence over their Primary Dealers and are able to maintain a level of control over the market, Primary Dealers themselves are not in a position to exercise control over their clients or any other third parties. This lack of control entails risks to the stability of the current market structure. Regulatory and market structure risks could be extremely disruptive to the Euro government bond market where issuers strive to place debt at the lowest cots to their constituent taxpayers.

Some dealers have stated they are already feeling commercial pressure. The recent media noise is creating a divide within Primary Dealers where the prime brokerage groups are being asked by their clients to provide this service, whereas the market making arms of the institutions have reservations.

If trading platforms were to implement order routing, a dealer would be under competitive pressure to allow clients to access liquidity on B2B markets in the respective dealer's name. Therefore, responsibility for any potential misbehaviour ought to be apportioned at the outset and agreed by the market at large. A dealer ought not to be held responsible for the actions of a client accessing the B2B market when it is under great pressure to allow such access. It is imperative that issuers and regulators consider this dynamic in detail. We believe that before lending support for the practice of order routing, issuers and regulators ought to be confident that they have the requisite resources to monitor and police the practice and the behaviour of PDs and clients alike.

Q5. What would the eligibility criteria be? Who would approve third party participation?

Most probably, dealers would have to decide on eligibility based on their respective commercial assessments of the order routing practice. It seems that eligibility would be mainly based on economic criteria and also on whether the dealer is technologically able to facilitate the business. In addition, individual interpretation by the compliance departments

of different dealers is important and impacted by how much risk the dealer is ready to undertake. This could have an impact on the current well-functioning model.

B2B electronic trading platforms traditionally have provided a very orderly marketplace. New eligibility criteria for order routing would need to be robust, be defined by member dealers and, perhaps, disclosed to the other members. Although the current market is orderly, we understand there is a lack of stringent entrance requirements on certain B2B platforms. The potential issue is that if this remains to be the case, then there is a possibility that less sophisticated clients or clients with a differing trading objective would be able to gain access.

In order to assess the eligibility criteria, the market should consider, *inter alia*, the sophistication of players, the regulatory environment within which they function, their net asset size, trading objectives and obligations to issuers.

Q6. Would a dealer "lending" the trading platform screen be able to see the flow beforehand and, if appropriate, act upon it before it hits the screens of other market participants?

Primary Dealers would benefit from seeing generic flows. At the same time, this practice raises the risk that unscrupulous dealers may not observe proper standards of market conduct thus potentially taking improper advantage of clients' flows.

In general, the opportunity to internalise the order before routing to the market would be desirable for dealers as it would allow dealers to differentiate their service without competing solely on prime brokerage fees. Dealers "intercepting" a client order could then choose the execution venue best suited to the customer's need (a best execution requirement of MiFID) rather than solely routing to a particular platform.

Q7. What would be the parameters within which clients would be allowed to participate in order routing? Would such clients only be able to "hit" and "lift" or would they also insert bids and offers?

Currently, it is easy for clients to "hit" and "lift" (they simply request to be price takers, assuming they qualify for entry). However, we query whether the reason the platforms are contemplating order routing is because third parties want to be able to insert bids and offers (they are requesting to be market makers) via order routing. The practice of inserting bids and offers would naturally impact the market's bid-offer spreads to the potential disadvantage of dealers. Therefore, there is a real concern as to how much liquidity would be eventually withdrawn from the market.

Q8. Who would regulate clients (or other third parties) if they do something "wrong"?

At face value this is an ambiguous situation, which is one of the biggest problems in the area of third party access to dealer markets. As noted above, most likely dealers would be legally responsible unless third parties had direct legal relationships with the trading platforms and the relevant counterparties.

The less regulated nature of, for example, the hedge fund industry, would free such players from many of the duties of care of the traditional market participants. How would an event such as a country- or bond-specific event that resulted in a repo-squeeze, be dealt with if a hedge fund were behind it? The burden would fall on the dealer providing the line, thereby creating the risk of an "outsourced rogue-trader" for the Primary Dealer. The dealer may ultimately bear the brunt of the regulatory investigation and any ensuing sanctions even though it did not knowingly participate in the wrongdoing.

Although hedge fund advisors in the UK will be regulated, potential issues would arise if the advisor is in a jurisdiction where there are no regulations or regulation is at best weak. The UK Financial Services Authority ("FSA") is aware that it may need to provide more guidance. Market misconduct may only be deterred by quality intelligence, putting more "teeth" into enforcement and cross border co-operation of regulators – all tasks which are costly and require time to implement.

It has also been suggested that since a Primary Dealer is regulated by the electronic trading platform on which it makes markets (in certain jurisdictions), what happens between the third party and the dealer would be a bilateral issue (possibly overseen by, the relevant platform). We query to what extent that would be a desirable result in such jurisdiction. Other possibilities for apportioning responsibility would include the burden of responsibility falling upon: (i) the router or (ii) the local regulator of the platform.

B. Direct Market Access

1. Issues and Implications of Direct Market Access

Please see our discussion in A above under "Issues and Implications of Order Routing" for more general observations.

Q9. How would the practice be monitored? Can it be monitored currently? If not, how would it be monitored in the future?

The trading platform is the only market stakeholder (other than the regulator) who may follow/observe the trading activity of a participant with direct market access. Consequently,

it would be the only party able to monitor effectively unless regulators/issuers demand access for purposes of monitoring.

Q10. Who would be responsible for the behaviour of the third parties? - The third party itself?

In the DMA scenario, the third party should be responsible for its own behaviour. The burden of policing (mis)behaviour would most likely fall upon the trading platforms, regulators and issuers. However, this begs the question whether different levels of regulation ought to persist since, for example, hedge funds are currently largely unregulated. This is particularly pertinent since, in a scenario permitting third party access, all players (*i.e.*, PDs, banks, hedge funds, other clients) would be similarly situated on the platform. However, all players would not be similarly situated in terms of market making obligations (under the current market structure). Presumably, this uneven playing field would be problematic and regulators/issuers would have to revisit the regulatory landscape. Issuers and regulators have many "sticks" and "carrots" at their disposal by virtue of the primary dealership criteria, which they use to regulate PD behaviour. Would the same hold true for third parties? Would issuers have to reconsider employing mandatory quoting obligations? Would issuers be prepared to do so?

Q11. What would the eligibility criteria be? Who would approve third party participation?

Presumably, trading platforms would be the party responsible for setting out eligibility criteria. We recall our discussion above in relation to the current lack of rigorous "sieving through" of applicants to join trading platforms. We believe that PDs currently active on trading platforms would insist on the introduction of objective criteria for purposes of access to trading platforms which would aim to ensure (and assure all other participants) that a party gaining access satisfies set requirements (*e.g.* sophistication, balance sheet size, acceptance of mandatory quoting obligations, etc.).

Q12. Who would regulate clients (or other third parties) if they do something "wrong"?

The responsibility would be apportioned among the relevant players, *e.g.* (i) the B2B platforms and/or (ii) the local regulator and/or (iii) the relevant issuer of the platform and/or (iv) the market.

2. Client Market Making

Q13. What happens if third parties do not make markets as they have committed to do?

If clients want direct market access, then the playing field needs to be level. Therefore, either the clients themselves must agree to be bound by quoting obligations and bear the capital-at-risk implications (which perversely will fall on their prime brokers to underwrite) or, the quoting obligations need to be removed from the platform for ALL participants, which will remove the use of obligation-compliance as a measurement of performance on the part of the DMOs.

It is important to appreciate that, although generally imposed by a trading platform, the quoting obligations for Primary Dealers are implicitly enforced by the fact that certain DMOs use them as an evaluation tool for their PDs. This typically results in PDs quoting a far larger universe of bonds – and with tighter bid-offer spreads – than the platform-imposed quoting obligations would dictate. Therefore, quoting obligations imposed by a trading platform on third parties would carry far less weight. This raises the question of what punishment can be effectively meted out if unfulfilled – a fine, a suspension? Neither of these punishments would be likely given that the principal stated rationale for order routing is to increase volumes.

The key point is that a trading platform is not a regulator or an issuer. – So what is the incentive to penalise? What is the penalty? PDs have reputation considerations vis-à-vis clients and issuers and are, therefore, less likely to quote sporadically or shirk obligations.

Q14. Are clients under the same constraints as the dealers? If not, why not?

No, and that is the main issue and not acceptable to dealers that have a global relationship with EU Members States and DMOs.

Clients must be under the same constraints as the Primary Dealers from the perspective of having uniform market rules. However, a client would have no true obligation to support the secondary government bond market, particularly during adverse market conditions. This arrangement is in contrast with the dealers' situation where the quoting obligations form part of wider PD responsibilities to the issuer (which also include investor education, promotion of government debt and advice).

Dealers also typically consider the longer term view and impact of their activities and are willing to undertake less than profitable transactions, or refrain from exploiting every profitable market opportunity. These seemingly counter-intuitive actions are motivated by a desire not to jeopardise PDs' long term relationship with the issuers. Clients, by comparison, are more short term in focus and may be more willing to invest in

opportunistic activities than a dealer. Having two divergent market models on the same platform raises a set of issues which must be addressed before a change in the model would/could be endorsed by the dealers.

The concern is that the net implication of the situation described above would entail more disparate liquidity in the market, patchy and disorderly secondary market quoting, and, ultimately, the potential drying up of smaller markets.

C. Issues and Implications Common to Order Routing and Direct Market Access

1. Impact on Market Structure

Q15. The risks to issuers and the market?

The most obvious risk is that PDs would not know with whom they are trading if order routing were implemented.

The majority of concerns stem from the practices, or potential trading practices, of clients. For example, some clients' short-term goals may conflict with dealers' commitments to Primary Dealer status. This may be exhibited particularly in times of market disruption when the short-term views of clients may run counter to the PDs' long-term views and attendant efforts to stabilize the market.

More generally, dealers could lose interest in making markets or put the compulsory market making of issuers into question. There is doubt in the market that clients would be able to provide the same level of liquidity if dealers would retreat from active market making on B2B platforms. The upside to allowing clients on the electronic trading platforms would be potential increased volumes on the B2B end. However, the corollary to that is that dealers and B2C platforms will retract such clients' access on B2C platforms and the volume may be lost on that side.

If we accept that the principal driver behind clients' desire to enter electronic trading platforms is to gain access to an efficient algorithmic-trading venue, then we can be quite certain that the activity of these new market participants will most likely centre around the highly liquid issues, *i.e.* benchmarks in the main issuers (*e.g.* Germany, Italy).

If quoting obligations remain but a dealer's market making profitability suffers (*i.e.*, returns vs. capital-at-risk requirements make it unprofitable), then dealers will only be willing to meet the minimum obligations as their desire to be aggressive will be diminished – resulting in a catastrophic loss of liquidity in the off-the-runs and smaller markets.

Part of a PD's duty to a DMO is to support the liquidity of all issues, old and new, and this model change will undermine that set-up regardless of any change in obligations. Order routing/DMA to third parties will have the most serious impact on markets such as Italy, which have relatively high proportions of off-the-run debt. Therefore, DMOs should be aware of the potential liquidity implications for such securities.

In the liquid on-the-runs, where most activity will pool, the instruments may turn into pseudo-futures contracts where the bid-offer becomes so tight as to have a considerable impact on the market making revenues of the PDs, thereby making it undesirable to put as much capital at risk as under the current arrangements. This could have the perverse effect of causing Primary Dealers to withdraw from the market. As a result, liquidity of "on-the-run" bonds will be negatively impacted. Subsequently, clients may withdraw from the market and a once-liquid market for on-the-run bonds would become a less liquid market over time.

Depending upon how the practice evolves, there may be a situation where some clients become competitors or semi - competitors of the dealers in respect of one asset class (*i.e.*, government bonds) while continuing to be clients in other asset classes. Such circumstances will have a dramatic impact on market structure which, in turn, will require rethinking the model of existing relationships.

The impact of a client having the unique ability to aggregate both the B2B and B2C liquidity pools is worth due consideration. Despite, B2C platforms' current commitment that they would enforce existing "no Primary Dealer as a client" rules, it is uncertain whether such platforms will turn away a very large client which is an active participant on a given platform simply because such client joined a B2B electronic trading platform. This is especially true given that the client would not be a PD and thus not technically subject to such platforms' "no PD as a client" rules.

The often-cited Winner's Curse[31] which is a symptom of the B2C multi-dealer RFQ model takes on a new dimension when the client can also participate in the inter-dealer space. This allows the client to exploit (or even create) an arbitrage opportunity between the B2B and B2C markets, for example, by putting an inquiry through a B2C and simultaneously moving on a B2B platform in preparation for the dealer's imminent attempt to hedge. In this potential case, the B2B platform's value as a pure inter-dealer space that can be used

[31]. According to the CEPR Study, §2.3 at p.10, the "Winner's curse" is a term used to describe a situation in which the highest bidder, in a request for quote situation, in the B2C market wins. Subsequently, the winner needs to hedge his risk in the B2B market. However, due to the transparency of the B2C market, facilitated by electronic trading platforms, the other dealers have been made aware that someone will need to hedge or unwind a position later. Therefore, they move against the winner in the B2B market by taking "contrarian positions". CEPR Study at p. 10 (The winner's curse).

for hedging of client trades diminishes and the liquidity will naturally migrate to platforms where these abuses cannot happen (*e.g.*, other inter-dealer broker ("IDB") platforms that have not allowed order routing).

In the context of managing conflicts of interest, many dealers are aware of this issue and have addressed it by erecting "Chinese walls", by ensuring segregation of duties, etc. There may not be a requirement to have such procedures/controls in place on less regulated firms or smaller firms, which would allow a "crack" in the system for abuses to trickle in.

In a nutshell, the various risks highlighted above would have to be taken into consideration by any platform allowing clients to access traditional dealer markets. Otherwise, the impact on liquidity in the government bond markets may be negatively impacted. This is not to suggest that all these possibilities will arise but only that a detailed impact assessment should be undertaken before such a radical shift in the current market model could be adopted.

Q16. If clients were allowed on an electronic trading platform, would dealers continue to be subject to secondary market quoting obligations? Would the PDs be prepared to support order routing on platforms which do not have quoting obligations?

PDs may be prepared to quote voluntarily or on a "when suits only basis". This would imply that the current market structure of mandatory quoting obligations will be disrupted.

Q17. If the answer to the last question above is affirmative, how would the resultant transition toward an exchange model impact the current dynamic of being a PD?

The answer hinges on the direction which issuers would take. Changes may be implemented in parallel – if mandatory quoting obligations on the secondary markets are lifted, then PD may not be opposed to third party access since all market participants having access to the trading platforms would be placed on an equal footing. We believe that it would be advisable for DMOs to survey their PDs on this particular issue. If order routing were to proceed, the B2B electronic trading platform rules would need to be amended. We query when this would happen and to what extent the rules would change. Furthermore, the nature of the rule changes needs to be considered carefully.

Historically, changes innocuous at first glance, have been cascaded down through the local markets. Since the potential effect of making a short-sighted change in this instance could be damaging, consultation with the PDs on changes relating to client order routing is paramount if B2B electronic trading platforms wish to maintain any credibility with the current participants.

Given the importance of the issues raised, it is crucial that no action be taken before a thorough discussion amongst all relevant stakeholders has taken place, and the issues and concerns considered and negotiated.

Q18. How would the virtual introduction of a new category of large client, not bound by any of a dealer's obligations to the issuers (but maintaining a potentially larger balance sheet) impact the trading environment?

See Q15 discussion above.

2. Exchange Model vs. Quote-Driven Model

Q19. Is this a set -up in the direction of an exchange model? If so, what impact do you think it would have?

An exchange model entails a large customer flow and customers now get better prices from dealers than they would from a platform. At the same time, some dealers will re-examine their commitment to provide liquidity and allocate risk capital to the government bond business if clients enjoy the ability to both access the market directly and benefit from PDs' firm prices via B2C platforms.

On the other hand, the coalescence of (i) the potential admission of clients into the inter-dealer liquidity pool, (ii) the possible attendant removal of quoting obligations and (iii) the "firm market" nature of most B2B electronic trading platforms means that such platforms will become *de facto* exchanges. As the market makers' liquidity inevitably withdraws and the number of clients inserting orders increases, the platform will cross client orders before a market making price reaches the top of the book. Dealers will start using B2B electronic trading platforms in the same manner as clients rather than posting a bid-offer. This behaviour could cause peaks and troughs in liquidity and subsequently change the orderly and homogeneous nature of the current platform. The sheer number of issues in the European government bond markets (compared to FX and futures) means that liquidity will consolidate around the benchmarks at the expense of the off-the-runs and smaller markets, resulting in exchange-style activity around a handful of issues and a highly-illiquid OTC market around the remainder.

As a result of this, there is actually no guarantee that an exchange model in European government bonds would enjoy the same level of overall liquidity as at the moment. Some bonds will doubtless benefit but many others would trade extremely rarely, making the new model a net loss for investors and issuers. No evidence or study has thus far shown that the new model would be any better in terms of available liquidity than the one in which the market currently operates.

3. Impact on Liquidity

Q20. On larger markets?

Larger markets and, in particular, benchmark issues benefit from a natural liquidity: *i.e.* on-going interest in the product by a large number of participants. Therefore, they may be less affected by PDs pulling out of market making. Nevertheless, volatility could increase if the general risk commitment from current market makers disappears and trading becomes more opportunistic. Also, liquidity would likely be impacted in the "off the run" issues, which means clients would have greater costs when rebalancing their portfolios or changing their investing strategies mid-cycle.

Q21. On smaller markets?

Implications are more drastic if the interest in these markets or products is rather on a demand-basis only. Moreover, in difficult or volatile market conditions, liquidity (by increased bid-offer spreads) or the ability to trade larger amounts could suffer.

Q22. Would dealers who created liquidity on electronic trading platforms risk splitting the liquidity or moving it elsewhere?

PDs would probably move to another platform which adheres to the current arrangements, especially if such move is condoned by the respective DMOs for purposes of PD evaluations.

It must be noted that split liquidity may not be problematic, so long as the liquidity is genuine. Most Primary Dealers (and clients) have the technical ability to aggregate liquidity internally from multiple pools as well as to link their own liquidity across markets in order to prevent multiplication of exposure. (See also our discussion in Section II, *Aggregation Technology* above.) The optimal number of pools needs to be a relatively low number (*e.g.*, 3-4). However, a single venue to which the participants are bound due to quoting obligations is, in fact, a generator of artificial liquidity compared to a handful of pools of genuine liquidity. Furthermore, a single venue providing liquidity means that the usual benefits of competition (advancements in technology, cost reduction, etc.) are lost.

Q23. Has an impact assessment study been done? Will one be done?

We are not aware of an impact assessment study to date. No indication of the number of participants, impact on obligations, issues under consideration, etc. has been given by the market participants contemplating third party access. Therefore, it is almost impossible to size such impact. In addition, any assertions with regard to the amount of "new liquidity"

that third party/client participants will bring must be offset by the retraction of liquidity by the incumbents.

The market must consider how DMOs would view such a move. Are DMOs comfortable with such a potential change? An answer to this query must take into account a client's constitution, objectives, trading strategy as well as its ability to serve the needs of a DMO and contribute to an orderly (and predictable) issuance market.

Q24. How would this change PD trading practices? Would PDs consider moving markets if DMOs permitted it?

The market making commitment on B2B electronic trading platforms may have to be reviewed. More economic and business factors may have to be taken into consideration to move to other markets.

If the DMOs were happy to consider volumes traded on other markets as part of their assessment of PDs, the latter would trade on the platform that offered the most cost-effective and technologically robust venue (*viz.* best execution as per MiFID).

Q25. Is it possible that PDs would withdraw from the market?

Dealers could withdraw from the particular platform which allowed third party access under the current regime of mandatory quoting obligations. Furthermore, one possibility is that dealers would only be willing to meet the minimum quoting obligations and not go the extra mile. Why would one put capital at risk unnecessarily? If the quoting obligations were removed completely then banks would look to trade in environments they see as more conducive to their respective business models, which may include broker platforms.

VI. Questions for Further Consideration and Conclusions

Throughout our work on the Third Party Access Discussion Paper, we posed questions in order to take the pulse of the market with regard to the issue of DMA and order routing. We have surveyed EPDA Member firms and have presented our answers. However, certain questions remain outstanding because answers at this early stage may not be fully satisfactory. We believe it would be in the market's interest to study these issues further in order to inform any potential changes in structure be they contemplated by trading platforms, dealers or issuers.

We note that the structure of European government bond markets is fundamentally different from that of the equity markets. The latter are agency-based markets where dealers trade from their inventory on a commission basis. Conversely, European government bond markets are principal-based where dealers put own capital at risk and undertake quoting obligations in order to provide liquidity on otherwise illiquid issues in exchange for the opportunity to pitch and receive other business from the issuers and to enhance their reputation. Any change, even if based on proposals that have been successful in other markets, must take into account the essential features of the European government bond market.

With respect to third party access to traditional dealer markets, there is a concern as to the manner is which clients allowed to trade in a dealer's name would behave. This raises the question as to who would be responsible for their behaviour. PDs should not be put in a position where there are commercial pressures to allow order routing, while at the same time there is a possibility that they will be held responsible for the actions of participants over whom they are not able to exercise effective control. Hence, we wonder what eligibility criteria would be implemented for such clients and whose approval would be required to allow them to take advantage of order routing. We also query whether regulators and issuers are in a position to establish the requisite institutions and legal infrastructure to deal with the potential new regulation of such clients.

Would third party access apply to all types of instruments or only to benchmarks, for example? Depending upon how the practice evolves, there may be a situation where some such clients become competitors or semi-competitors of the dealers in respect of one asset class (*i.e.* government bonds) while continuing to be clients in other asset classes. Such circumstances will have a dramatic impact on market structure which, in turn, will require rethinking the model of existing relationships.

What would be the parameters within which clients would be allowed to participate on B2B electronic trading platforms? Would such clients only be able to "hit" and "lift" or would they also insert bids and offers?

If clients were allowed on an electronic platform, would dealers continue to be subject to secondary market quoting obligations?

If third party access were to proceed, the electronic trading platform rules would need to be amended. We query when this would happen and to what extent the rules would change. In principle, it is arguable that any quoting and Secondary Market trading volume on any EU trading platform (at least if it is a quote-driven market and the prices can be aggregated so that the market making commitment is not compromised) should be regarded equally for the purposes of qualifying as, and weighting the performance of, PDs in a particular Member State. The current regulations applicable to the Secondary Market in certain government bonds provide incentives for dealers to concentrate liquidity on a single platform. Thus, it could be argued that it would be more efficient for the primary and secondary markets if PDs were selected based on all prices quoted and volumes traded by them on all inter-dealer trading platforms (regardless of whether regulated or ATS) and inter-dealer OTC voice transactions. This could maximise inter-dealer participation, although possibly at the expense of extra protection accorded to market participants trading on a regulated market.

DMOs have authority to define the market making requirements and requirements for PD status. In certain countries, the definition of the market making requirements has been delegated to trading platforms under the supervision of the relevant treasury. Therefore, a trading platform may have effective control over changes in quoting obligations and trading volumes. This is particularly worrisome in a situation where certain market participants may have the ability to glean volumes and trading on both the B2B and B2C markets without any restrictions on their activities or any of the burdens of the traditional PD market making obligations.

Market makers in government securities provide liquidity and make markets through the multiple channels described above. The natural depth of liquidity depends on the breadth of dealer and investor participation and size and age of the individual discreet securities. Electronic quote-driven markets force dealers to make markets in every security and changes in the access structure would compromise the current balance between quoting and sufficient liquidity.

The most relevant role of Primary Dealers is the placement of debt with final investors and the secondary activity with customers, which is crucial to the liquidity of government debt. In this vein, we note that the role of Primary Dealer should not entail mandatory quoting

obligations while the right to trade on electronic trading platforms is extended to market players not bound by the obligations to provide much needed liquidity in government bonds – a service most needed in difficult off-the-run issues or during volatile times.

Schedule A – List of EPDA Executive Members


ABN Amro


Banc of America Securities Limited


Barclays Capital


BNP Paribas


Calyon


IXIS CIB


Citigroup


Credit Suisse


Deutsche Bank


Dresdner Bank


Goldman Sachs


HSBC


ING Bank


J.P. Morgan


Lehman Brothers


Merrill Lynch


Morgan Stanley


Nomura Securities


RBS


Société Générale


UBS

3.1 Growth in eTrading

Our assumption from the data collected is that the buy-side firms surveyed are expecting between 15% and 25% growth and there is now a significant number (55%) who trade over 60% of their total volume electronically. This number of buy-side firms is set to rise to 62% next year. This not only shows that there is a large percentage who are undertaking their trading electronically but also shows the potential upside in the moving the remaining 45% of firms up the eTrading curve.

It is also interesting to note that by 2007 less than 1% of the buy-side surveyed will not trade electronically. Electronic trading is not only mainstream as it is being undertaken by all bar a tiny percentage, but is becoming the dominant trading method for increasing numbers of firms.

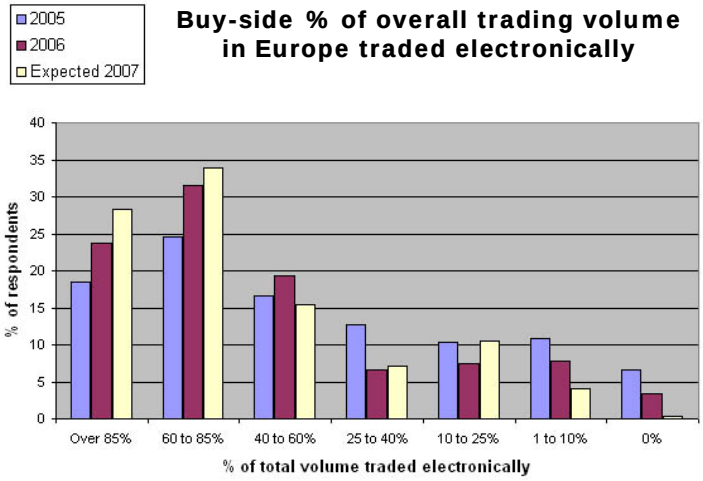
The sell-side is more bullish with anticipated growth in eTrading as a percentage of overall volumes increasing by 38% from last year.

This follows the sell-side reporting a 32% growth in volumes of eTrading as a percentage of the total from 2005 to 2006.

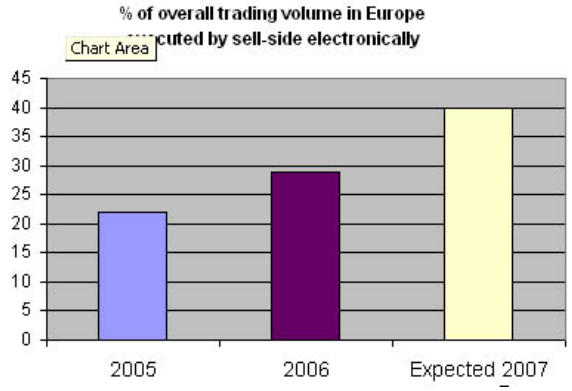
"This year's survey clearly shows that electronic trading continues to grow year-on-year as a percentage of overall volume. I see no reason why this should not continue to accelerate as platforms become more sophisticated and customers more comfortable."

Lee Olesky, President, TradeWeb Group

Buy-side % of overall trading volume in Europe traded electronically



Volume traded electronically	2005	2006	Expected 2007
Over 85%	18.5	23.8	28.3
60 to 85%	24.6	31.6	34.0
40 to 60%	16.5	19.3	15.5
25 to 40%	12.7	6.7	7.2
10 to 25%	10.4	7.4	10.6
1 to 10%	10.8	7.8	4.2
0%	6.5	3.4	0.4



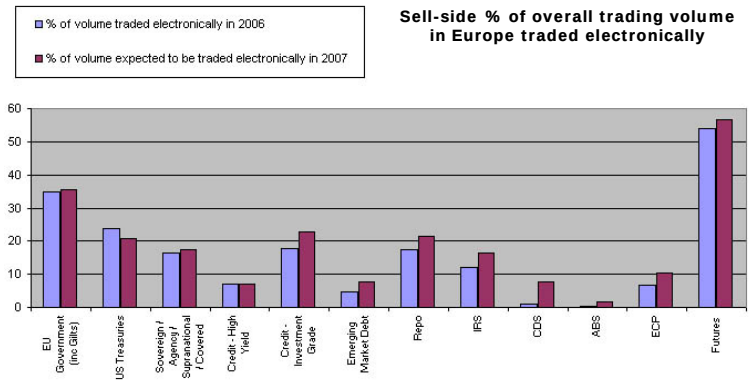
	2005	2006	Expected 2007
% of overall trading volume executed	22	29	40
Seen as a % increase from		32%	38%

3.2 Growth by product

When looking product by product at where the growth in volumes is predicted to come from, it is apparent that the less established products such as Interest Rate Swaps (IRS) and Credit Default Swaps (CDS) will be driving the growth. Newer to eTrading platforms, these products typically have much higher ticket sizes than traditional products so even a modest 4-6% increase in will have a significant impact on overall volumes.

Sell-side volumes by product

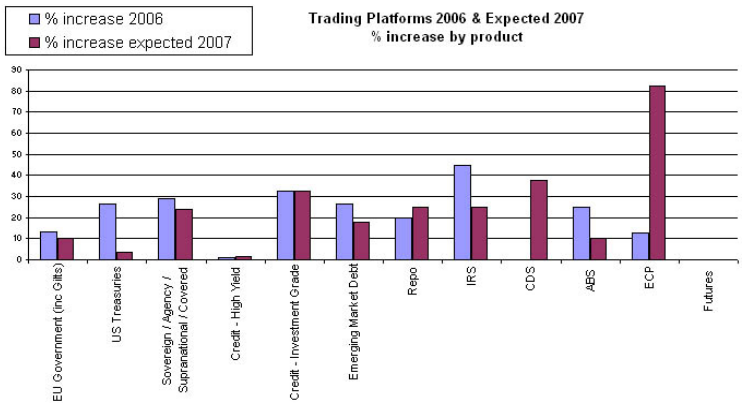
	2006	2007	Difference
EU Government (inc Gilts)	34.75	35.6	0.85
US Treasuries	23.9	20.9	-3.00
Sovereign / Agency / Supranational / Covered	16.59	17.5	0.91
Credit - High Yield	7	7.13	0.13
Credit - Investment Grade	17.64	22.8	5.16
Emerging Market Debt	4.78	7.58	2.80
Repo	17.57	21.6	4.03
IRS	11.92	16.4	4.48
CDS	1.14	7.58	6.44
ABS	0.5	1.51	1.01
ECP	6.75	10.3	3.55
Futures	53.89	56.7	2.81



If we compare the sell-side's view of which products will grow most (CDS, Credit - Investment Grade then IRS) there is some correlation with the trading platform's view which rates ECP for highest growth, then CDS, Credit - Investment Grade, then IRS and Repo equally)

Trading Platforms increase per product

	% increase 2006	% increase expected 2007
EU Government (inc Gilts)	13.3	10.0
US Treasuries	26.3	3.8
Sovereign / Agency / Supranational / Covered	28.8	24.0
Credit - High Yield	1.3	1.5
Credit - Investment Grade	32.5	32.5
Emerging Market Debt	26.5	17.8
Repo	20.0	25.0
IRS	45.0	25.0
CDS	0.3	37.5
ABS	25.0	10.0
ECP	12.5	82.5
Futures	0.0	0.0



This is also borne out by the buy side who determine that CDS and IRS will see the biggest growth (albeit from a very small base), while Credit- Investment Grade saw next largest followed by ECP and US Treasuries. Caution does need to be applied to the Trading Platform statistics, given the relatively small number of respondents and the fact that their relative weighting & liquidity in different markets and products is not reflected in the results.

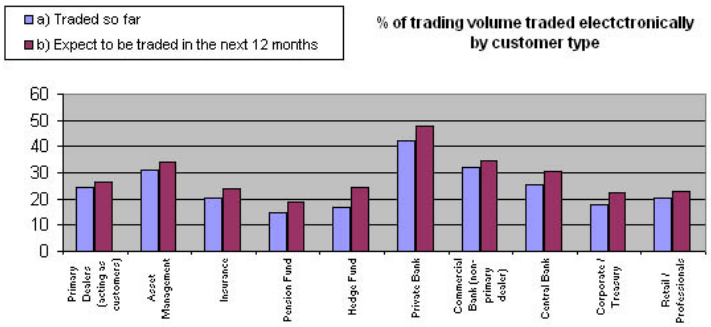
Buy-side current % traded electronically and expected next year

	IRS		CDS		Credit - Inv Grade	
% eTraded	2006	Expected 2007	2006	Expected 2007	2006	Expected 2007
Over 85%	4.0	6.1	0.0	0.0	10.2	13.3
60 to 85%	5.0	5.1	0.0	0.0	14.6	16.0
40 to 60%	6.0	5.1	3.1	3.0	20.4	16.0
25 to 40%	5.0	10.2	0.0	7.6	7.0	14.7
10 to 25%	3.0	14.3	1.6	15.2	14.6	18.0
1 to 10%	16.0	15.3	10.9	19.7	19.1	10.0
0%	61.0	43.9	84.4	54.5	14.0	12.0

It is difficult to directly compare the sell-side and trading platforms, given that the sell-side is looking at the % of electronic trading by customer as a % of how that customer trades….

Sell-side % of volume traded electronically by each customer type

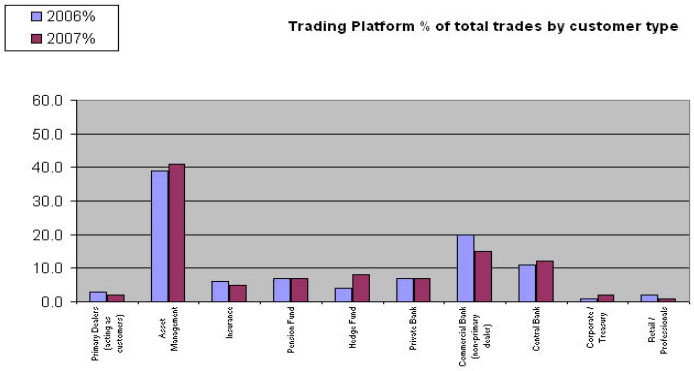
	% traded 2006	% exp 2007	Difference
Primary Dealers (acting as customers)	24.3	26.3	2.0
Asset Management	30.9	34.0	3.1
Insurance	20.4	24.0	3.6
Pension Fund	14.9	18.6	3.8
Hedge Fund	16.6	24.4	7.8
Private Bank	42.0	47.8	5.8
Commercial Bank (non-primary dealer)	31.9	34.4	2.5
Central Bank	25.4	30.8	5.3
Corporate / Treasury	18.0	22.1	4.1
Retail / Professionals	20.5	22.9	2.4



….whereas the trading platforms are showing the % volume traded per customer type as a 5 of the total volume.

Trading Platforms % of volume traded electronically by each customer type

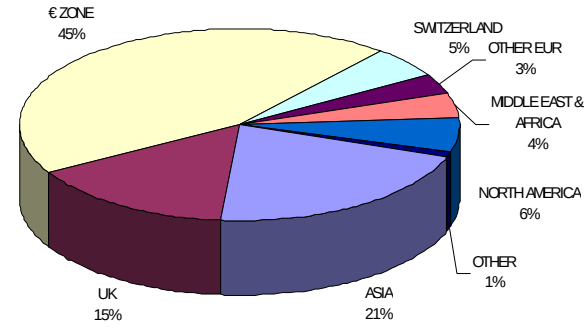
	2006%	2007%	Difference
Primary Dealers (acting as customers)	3.0	2.0	-1.0
Asset Management	39.0	41.0	2.0
Insurance	6.0	5.0	-1.0
Pension Fund	7.0	7.0	0.0
Hedge Fund	4.0	8.0	4.0
Private Bank	7.0	7.0	0.0
Commercial Bank (non-primary dealer)	20.0	15.0	-5.0
Central Bank	11.0	12.0	1.0
Corporate / Treasury	1.0	2.0	1.0
Retail / Professionals	2.0	1.0	-1.0



What is interesting is that both highlight significant growth in hedge funds volumes.

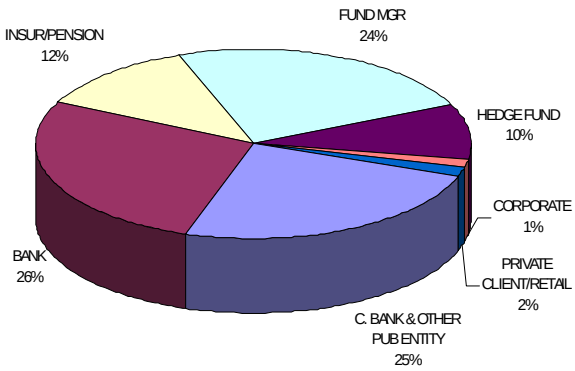
Investors in the European Government Market

By Region



BMA top 20 EU bookrunners primary distribution survey, September 2006

By Investor Type



BMA top 20 EU bookrunners primary distribution survey, September 2006