

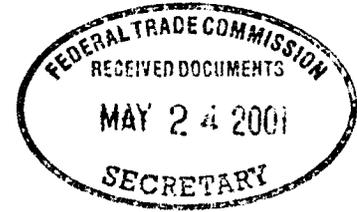
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May 21, 2001

Mr. Donald S. Clark  
Office of the Secretary  
Federal Trade Commission  
600 Pennsylvania Avenue, NW  
Washington, D.C. 20580



Re: Comments Regarding E-Commerce Antitrust Issues

Dear Mr. Clark:

The Bond Market Association<sup>1</sup> (the "Association") is pleased to offer comments and perspective on the evolution of e-commerce and electronic trading in the fixed-income securities markets in the context of the Commission's recent workshop on "Emerging Issues for Competition Policy in the World of E-Commerce" on May 7 and 8, 2001.

Over the past several years, participants in the fixed-income markets in the U.S. and Europe have witnessed the rapid development of electronic platforms designed to facilitate the issuance and trading of bonds and other fixed-income and credit related financial products. Traditional market participants such as dealers and inter-dealer brokers as well as start-up entrepreneurs have invested heavily in the development, deployment and marketing of electronic trading systems. Currently, The Association estimates that over 80 such platforms have been announced or deployed.<sup>2</sup> Electronic trading offers market participants the promise of reducing costs, improving market liquidity and transparency, and attracting new classes of investors to the market. Consequently, while we are still at a very early stage, electronic trading holds the possibility of benefiting consumers of fixed-income products by increasing the overall competitiveness of the bond markets. Thus far, the adoption of electronic trading has been most widespread in the markets for certain commoditized, liquid products such as government securities and in the inter-dealer market. It is likely, however, that investors and others will gradually and eventually employ electronic trading platforms more extensively in the markets for other, less liquid products as well.

In this paper, we will provide an analytical description of the current landscape for the electronic trading of fixed-income products. We will provide some general background

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<sup>1</sup> The Association represents securities firms and banks that underwrite, trade and sell bonds in the international and domestic markets. More information on the Association and its activities is available on our Web site at [www.bondmarkets.com](http://www.bondmarkets.com).

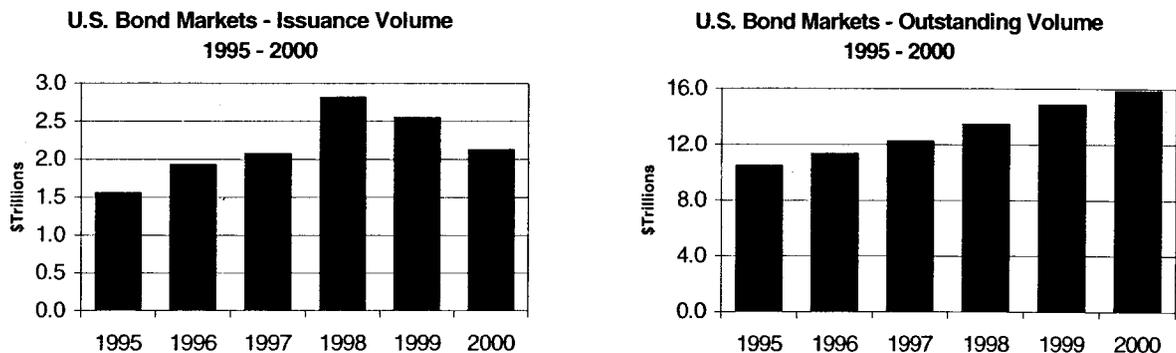
<sup>2</sup> The Association maintains a survey of fixed-income electronic trading systems on our Web site at <http://www.bondmarkets.com/research/ecommerce/ecommercedraft.shtml>.



on how the bond markets operate and describe the evolution of electronic trading in the context of the overall infrastructure of the market. We will outline some trends related to the development and adoption of electronic trading systems, and we will offer our perspective on the outlook for the further development of electronic trading. We hope that Commission members and staff find this information useful in your overall examination of e-commerce. We would be happy to meet with the Commission at your convenience to address any questions.

### **Part I. The Bond Markets**

Combined, the U.S. bond markets represent the largest securities market in the world. Currently, there are over \$15.0 trillion of fixed-income securities outstanding, approximately the same as the value of outstanding equities. Annual issuance of fixed-income securities over the past five years has ranged from \$1.9 billion to \$2.1 billion. Daily cash-market trading volume in all U.S. fixed-income securities is probably close to \$400 billion compared with approximately \$125 billion of stock transactions.



Source: U.S. Treasury, Federal Reserve System

The bond markets provide debt capital for a wide variety of borrowers, from corporations and state and local governments to the U.S. Treasury, federal government agencies and government-sponsored enterprises, and—through the mortgage- and asset-backed securities markets—homebuyers and other consumer borrowers. Bonds finance factories, schools, roads, housing and a variety of other capital assets. Bonds are sought-after investments for pension funds, insurance companies, banks, mutual funds, foreign governments and, to a lesser degree, households. The Federal Reserve relies on the bond markets to conduct monetary policy.

The bond markets are often broken down by sectors according to the identity of the issuer of the bonds. These sectors include:

- Government securities—issued by the Treasury Department on behalf of the U.S. government;

- Federal agency securities—issued by agencies of the federal government and by government-sponsored enterprises (GSEs) such as Fannie Mae and Freddie Mac;
- Corporate bonds—issued by private-sector corporations, and includes dollar-denominated bonds issued in the U.S. by foreign corporations or governments or international organizations such as the World Bank (“Yankee” bonds);
- Mortgage-backed securities (MBS)—issued by GSEs or private entities and backed by pools of home mortgage loans;
- Asset-backed securities (ABS)—issued by private entities and backed by pools of consumer or commercial loans or other financial assets; and
- Municipal securities—issued by state and local governments and their agencies and authorities.

Certain characteristics are common to all the market sectors.

**The bond markets are dealer-based, over-the-counter markets.** Although a small volume of corporate bond trades are conducted through the New York Stock Exchange, the overwhelming majority of bond trading takes place through a decentralized network of dealers and brokers. When an investor buys or sells a fixed-income security, they almost invariably buy from or sell to a bond dealer, not another investor. Bonds have not historically traded on centralized exchanges or market systems.

**The markets depend on risk capital.** In general, when bond investors buy or sell securities, they do so with bond dealers serving a market-making function. Trading in the over-the-counter bond markets takes place because dealers are willing to put capital at risk by taking positions in securities. When an investor sells a bond to a dealer and the dealer takes the bond into its inventory, the dealer assumes the risk of price fluctuations or the cost of hedging such risk until the bond can be sold to another investor. The ability and willingness of dealers to readily quote prices and assume trading risk, therefore, contributes significantly to bond market liquidity. It is in the interest of dealers to support the market in this way in order to attract investors to the sales of new bond issues. Without the secondary market liquidity provided by dealers, investors would be less willing to buy bonds in the primary market. Historically, we have observed that buy-side market participants—institutional investors—have been reluctant to commit risk capital to create and sustain market liquidity in the same way that dealers do.

**A large portion of trading activity takes place in government securities.** Although trading volume in the bond markets is large, a significant portion of that trading is in U.S. government securities. Trading volume in other fixed-income products is notably lower. Because the government securities market is so active and liquid, it has served as a pricing benchmark for other fixed-income products. Yields on agency, corporate, mortgage-backed and other non-government securities are most often quoted relative to the yields on relevant Treasury securities, known as the “spread to Treasuries.” These instruments are known as “spread products.” Although the benchmark status of Treasury securities is waning as a result of the market's shrinking size, it is still an important pricing tool. The markets for spread products tend to be less liquid than the Treasury



market, but investors are almost always able to obtain price quotes for securities trading in the secondary market even for issues that rarely trade.



**The bond markets are heavily regulated.** There is an extensive and well-established regulatory scheme for most bond market participants. Bond dealers are regulated by the Securities and Exchange Commission (SEC) and by self-regulatory organizations such as the National Association of Securities Dealers, the Municipal Securities Rulemaking Board and others. Dealers are also often regulated by state securities agencies. Banks that are active in the bond markets are regulated by the Office of the Comptroller of the Currency, the Federal Deposit Insurance Corporation and state regulators. The Federal Reserve Board regulates bank holding companies. Investment advisors and mutual funds are regulated by the SEC. Corporate bond issuers are regulated by the SEC with respect to financial information disclosure. Virtually every aspect of a dealer's business is governed by regulations, from conversations with investors in the context of selling bonds to the amount of capital a dealer must hold against its trading positions.

**The bond markets are "institutional."** The vast majority of outstanding bonds are held by institutional investors, not individuals. These institutions include pension funds, mutual funds, insurance companies, banks, hedge funds, foreign central banks, and state and local governments, among others. For the most part, bond portfolios are managed by sophisticated, professional investors. The only notable exception is the municipal securities market where there is significant "retail" participation.

**Inter-dealer trading is usually conducted through brokers.** A significant portion of secondary market trading volume in fixed-income securities is conducted through inter-dealer brokers (IDBs). Unlike bond dealers, IDBs generally do not take principal positions in the securities they broker. Rather, they act in an agency capacity to match buyers and sellers of securities. Using IDBs offers market participants several advantages. First, it allows dealers to trade anonymously with their competitors without revealing trading positions or strategies. Second, it offers a venue for dealers to market securities in their inventories to other dealers and, indirectly, to other dealers' customers. Finally, IDBs allow market participants to compare price quotes quickly and easily and to efficiently monitor market activity.

**The clearance and settlement process is highly automated.** Clearance and settlement refers to the process that takes place after a transaction is executed where the two sides of a trade are compared and where securities and cash are transferred between a buyer and seller. This process is conducted by clearing organizations, banks, depositories and the Federal Reserve and is highly automated. Settlement entails risk for market participants because if a traded bond does not compare—the buyer and seller report different terms—or if a counterparty fails to deliver cash or securities, parties to the trade can find themselves with unhedged market exposure. Currently, most bond transactions except for government securities settle three days after the transaction is executed. This is known as "T+3" settlement. The industry has undertaken a major initiative to reduce the settlement cycle to one day after the trade, or "T+1." This change will entail a major shift in the way automated systems process securities transactions. Currently, trades generally

are processed on a batch basis at the end of the trading day. In order to implement T+1, the market will need to transition to real-time, or "straight-through" trade processing. The move to straight-through processing and T+1 settlement should significantly reduce risk for all market participants.



**The bond markets are global.** The international bond markets are all closely linked. Active trading in Treasury and other U.S. debt securities takes place in Europe and Asia as well as in the U.S. Many large corporate bond issuers regularly sell bonds in foreign markets, and many foreign government and corporate issuers regularly sell bonds in the U.S. Many of the largest participants in the U.S. markets also have a very active presence in Europe and Asia. Even some developing countries have active and growing bond markets that attract international attention.

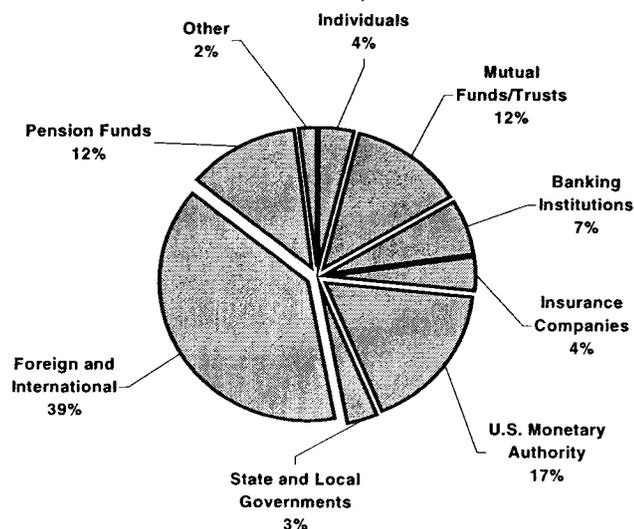
#### A. Government securities

The government securities market has been widely characterized as the most liquid and efficient securities market in the world. Bid-ask spreads represent the difference between the price at which an investor can buy a bond and the price at which he or she can sell the same bond. Bid-ask spreads can be a good indicator of liquidity and efficiency, since small bid-ask spreads suggest that differences between buy and sell prices are rapidly arbitrated away through very active trading and efficient pricing. Bid-ask spreads in the most active segment of the government securities market are exceedingly low, often on the order of fractions of a basis point. This liquidity and efficiency is attributable to several factors. First, U.S. government securities are considered to be free from the risk of default. Second, the market is very large, with over \$3.0 trillion outstanding. New issues of government securities are sold at least weekly, sometimes several times per week. Third, Treasury securities are homogenous. There is only one well-known issuer and only a few simple cash flow structures. Finally, Treasury securities are very widely held by a diverse group of investors. The liquidity and efficiency of the market makes Treasuries popular for speculative trading and for hedging, which also contributes to the market's liquidity. Treasury securities are also used by the Federal Reserve in conducting monetary policy, although the Fed is now expanding beyond Treasuries the types of securities it buys and sells in open market operations.

With the creation of a federal budget surplus, the government securities market recently began shrinking for the first time in decades. By some projections, the Treasury Department will stop issuing new securities by as early as 2006. If these projections come to pass, government securities will rapidly begin to lose their liquidity and their position as the capital markets' predominant trading instrument.



**Holdings of Treasury Securities\* by Investor Class  
December 31, 2000**



\* Excludes savings bonds and state and local government series  
Source: Federal Reserve System. U.S. Treasury Bulletin

## B. Government agency securities

Agency securities are issued by federal government agencies and GSEs. Issuers include Fannie Mae, Freddie Mac, the Federal Home Loan Banks, the Farm Credit System, the Tennessee Valley Authority and others. In general, agency securities are not backed by the full faith and credit of the federal government. However, they are perceived by many market participants as having an implicit federal guarantee and are considered to be nearly free of credit risk. The agency securities market is liquid and actively traded, although not as much so as the Treasury market. In recent years, some agency issuers have undertaken financing strategies designed to position their securities as alternative benchmarks to Treasuries. Still, most agency securities are not priced on an absolute basis, as Treasuries are, but on a spread to Treasuries or some other benchmark.

## C. Corporate bonds

Unlike the government and agency markets, the market for corporate bonds is very heterogeneous. Currently, there are over 500,000 corporate bond issues outstanding (as measured by the quantity of outstanding CUSIP numbers), each with its own cash flow and credit characteristics. Trading activity in corporate bonds is much thinner than for government or agency securities. New corporate bond issues tend to trade actively for a few weeks or months following issuance. Then, as securities find their way into long-term portfolios, they trade much less frequently. Many corporate bonds go months or even years without being bought or sold. As in the agency market, some large corporate issuers are attempting to establish their securities as alternatives to Treasuries as pricing benchmarks.



#### D. Mortgage-backed securities

Mortgage-backed securities (MBS) are backed by pools of home mortgage loans assembled by loan originators, by Fannie Mae or Freddie Mac or by securities firms or other loan poolers. There are two general types of mortgage-backed securities. "Pass-throughs" are unstructured securities where payments made on pooled loans are passed straight through on a *pro rata* basis to MBS holders. Collateralized mortgage obligations (CMOs) are structured MBS where various classes of securities holders receive specific cash flows from the pooled loans according to formulas. In some cases, CMOs can be quite complex with 10, 20 or more classes of securities holders. CMOs allow issuers of MBS to tailor cash flows to the needs of specific investors. Most issuance and trading activity is related to MBS issued or guaranteed by Fannie Mae, Freddie Mac or Ginnie Mae, although "private-label" MBS is a significant segment of the market as well. There are approximately 2.5 million classes of MBS currently outstanding. Many of these have been issued or guaranteed by one of the three federally sponsored agencies.

Liquidity in the MBS market varies widely. The most liquid sector is the "to-be-announced" (TBA) market where securities are pledged for delivery on a forward basis before they are issued. TBA trading allows originators and others to plan for the distribution of pools of loans before the loans are closed and delivered. The least liquid sector of the market is for seasoned, highly structured MBS. In general, the market for seasoned MBS is less liquid than for recent issues in part because trading older issues is more labor intensive and because MBS tend to follow the pattern for most spread products where once placed in long-term investment portfolios, securities trade infrequently.

#### E. Asset-backed securities

Like MBS, asset-backed securities (ABS) are backed by pools of loans or other financial assets. Pooled assets can include credit-card receivables, auto loans, home-equity loans, equipment leases, commercial real estate mortgages or practically any sound financial assets. ABS are one of the newest sectors of the fixed-income markets. Issues are often structured so as to provide internal credit support. Often, such a structure includes a large, highly-rated senior class of securities and one or more lower-rated, subordinate classes. Securities, especially highly rated senior classes, tend to trade somewhat actively when first issued. As they age, trading activity falls off. Some subordinate classes are highly illiquid.

#### F. Municipal securities

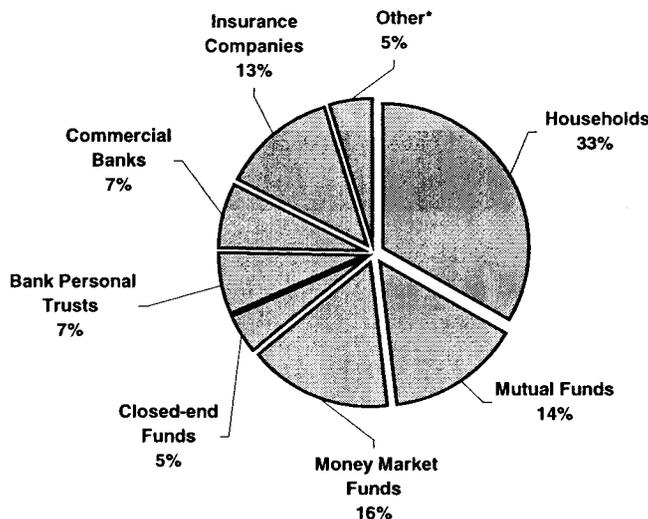
Municipal securities are issued by state and local governments. They are backed either by the general taxing power or "full faith and credit" of the issuer—general obligation bonds—or by some specific, dedicated revenue source—revenue bonds. The municipal market is perhaps the most diverse and heterogeneous of all the fixed-income markets. There are approximately 50,000 issuers of municipal bonds in the U.S. and

approximately three trillion distinct issues and maturities outstanding. Daily trading volume in the municipal bond market averages over \$8 billion. The vast majority of outstanding issues trade very infrequently.

Unlike the other fixed-income markets, interest earned on most municipal securities is exempt from federal income taxation for most investors. As a result, nominal yields on municipal securities are significantly lower than for taxable securities, and state and local bond issuers receive a lower cost of financing than they otherwise would. Because of the tax-exemption, tax preferred investors who are active in the other fixed-income markets such as foreigners, pension funds and life insurance companies generally do not invest in municipal securities. Bond investors who pay income tax such as households and some corporations, however, can often earn a higher after-tax return on municipal securities than on comparable taxable securities. As a result, there is significant retail participation in the municipal bond market.



Holdings of Municipal Securities as of December 31, 2000



Source: Federal Reserve Board

## ***II. Electronic trading and e-commerce in the fixed-income markets***

Until the mid-1970s, business in the bond markets was conducted exclusively via telephone. Beginning in about 1975, IDBs offered to their customers the ability to view executable price quotes on electronic screens, updated in real time. For the first time, it became no longer necessary for bond traders to constantly monitor market movements via telephone conversations with other market participants. It was still necessary to converse via telephone with a broker to execute a trade. However, dealers could now track price movements in real time on a screen.

Beginning in the mid-1990s, dealers began to offer to their customers the ability to buy bonds from dealers' inventories via electronic interfaces. By late 1997, there were seven

such "single-dealer" systems online. In addition, other trading platform vendors had begun developing or offering electronic systems that incorporated the offerings of several dealers or that facilitated trading directly between investors. In addition, IDBs began to offer the ability to execute transactions electronically without the need to phone a broker.

As of today, we have identified over 80 electronic systems designed to facilitate trading in fixed-income securities and related products announced or operating in the U.S. and Europe. These include a variety of trading platforms that cover the full range of fixed-income products. They employ wide-ranging technologies and are owned by a diverse group of investors. Some are owned by a single dealer or broker, some are consortia of dealers and other traditional market participants, and some are Internet start-ups.

Even though electronic trading in the fixed-income markets is still at its very early stages, several trends are quickly becoming apparent. First, electronic trading encompasses only a small portion of total fixed-income transaction volume. Although we have not yet developed comprehensive statistics, it is clear that the vast majority of bond trading still takes place over the telephone. Electronic trading platforms have established a foothold in certain market sectors, but are still only in their infancy.

Second, the two areas where electronic trading has had the most influence are in the markets for more homogenous, commoditized products and in the inter-dealer markets. Commoditized products such as government and agency securities and certain corporate and mortgage-backed securities best lend themselves to electronic trading. They have relatively simple cash flow and credit structures and hence are relatively easy to price efficiently. Moreover, the most commoditized sectors of the fixed-income markets have traditionally accounted for the majority of trading volume before the establishment of electronic platforms, so it stands to reason that these sectors would account for the most electronic trading as well. As for inter-dealer transactions, virtually all traditional IDBs, as well as several new start-up IDBs, now offer click-through trading for their dealer customers. Electronic inter-dealer trading is being rapidly adopted by bond dealers because it closely mirrors the screen-based quote systems that dealers have been using for 25 years with the added advantage that trades can be executed via the screen rather than the telephone.

Third, for large transactions and in times of market stress, dealers and investors tend to shun electronic trading platforms in favor of executing transactions via the telephone. Thus far, at least, electronic trading is more popular for small- to medium-sized transactions executed under relatively stable market conditions.

Fourth, at this stage, electronic trading has not drawn substantial new retail interest in the taxable (non-municipal) fixed-income markets. Fundamentally, many retail bond investors continue to earn better after-tax rates of return on municipal securities than on comparable taxable bonds regardless of whether the transactions are executed on electronic platforms or over the telephone. This will be a major factor influencing the level of retail participation in electronic bond trading. Nevertheless, electronic trading for municipals and for the limited volume of taxable securities that draws retail interest





could benefit from more widespread adoption of electronic trading by lowering transaction costs, improving price transparency and broadening the market overall. Retail transaction costs in particular can benefit from electronic transaction systems. It is relatively expensive for some bond dealers to service retail accounts and process small, odd-lot, retail-sized transactions. In these cases, electronic systems could significantly reduce those costs for dealers and investors. In cases where the cost of servicing retail accounts is lower, of course, the savings will be less pronounced.

Finally, the broader adoption of electronic trading has been hampered by the lack of a common communication protocol for trading platforms. Currently, the various trading platforms employ a variety of different software interfaces in transmitting data. This makes it difficult at best for end-users to integrate data from various platform providers, and also makes it difficult and costly to integrate external electronic trading systems with internal trade management and securities processing systems. The Bond Market Association, in partnership with other market participants, has undertaken a major initiative to develop and publish a voluntary, common communication protocol for electronic trading platforms. When finalized, if the protocol is widely adopted, it will significantly enhance the usefulness and efficiency of electronic trading platforms for all market participants.

### ***III. Conclusions***

Numerous market participants have undertaken substantial investments in electronic trading platforms. While to the best of our understanding no one particular platform has reached a critical mass of liquidity, these investments are likely to benefit the market significantly. Most important, the broader adoption of electronic trading would make it possible to reduce costs for all market participants by allowing integration of external trading with internal trade management and securities processing systems. If realized, these cost savings could be substantial and would benefit a broad group of market participants. This effect will be especially pronounced as market participants move to straight-through trade processing and T+1 settlement. The more widespread automation of trade execution—the broader adoption of electronic trading—will enhance the benefits of and ease the transition to straight-through processing.

In addition, we believe that electronic trading has not and probably will not alter the basic over-the-counter structure of the fixed-income markets, at least in the short- to medium-term. Although the market may become somewhat more centralized with the broader adoption of electronic platforms, trading will continue to take place over the counter. The principal reason is that buy-side market participants by their nature have not historically committed capital to risk trading for the purpose of supporting market liquidity. Dealers will continue to carry inventories of securities and to perform market-making functions. Dealer risk capital will remain the principal source of market liquidity.

Mr. Donald S. Clark  
Federal Trade Commission  
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Notwithstanding the foregoing view, many observers believe electronic trading offers the promise of greater price transparency, broader market access and enhanced liquidity. Participants across all market sectors will likely benefit by being able to better view and compare live, executable quotes in real time as is possible through electronic trading platforms, enhancing and making more efficient the price discovery process. Although we cannot predict with certainty whether electronic trading will overtake the telephone-based market as the predominant way that bonds are bought and sold, electronic platforms will nonetheless represent supplemental, enabling technology that will offer market participants a choice as to how they want to trade.

We appreciate the opportunity to present our views in the context of the Commission's recent workshop. We would welcome the opportunity to work with Commission members and staff as your examination of the e-commerce landscape continues.

Sincerely,



Michael Decker  
Vice President  
Research and Policy Analysis

