

Bank of Canada Workshop on Regulation, Transparency, and the Quality of Fixed-Income Markets

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In February 2004, the Bank of Canada hosted a two-day workshop, *Regulation, Transparency, and the Quality of Fixed-Income Markets*. The event brought together international academics, regulators, and market participants to discuss changes in fixed-income markets and how the regulatory environment, particularly with respect to the dissemination of trade-related information, might evolve in the context of rapid technological change. This article presents the highlights of this workshop.

Background

Technological innovation in securities trading has presented opportunities for enhancing the quality of financial markets, partly by facilitating increased transparency. In this context, transparency refers to the ability of market participants to observe information regarding quotes, prices, and volumes. Technological changes have also provided challenges for the evolution of a regulatory regime that supports the liquidity and price-discovery aspects of market quality, while fostering innovation, competition, and market integrity.

Although the finance literature broadly supports the view that greater transparency leads to greater market liquidity and efficiency, regulators around the world have found that the application of theories to actual markets is complex. In the case of fixed-income markets, this is further complicated by the dearth of data and research on securities traded over-the-counter (OTC). Most studies have been based on exchange-traded equities. More recent research and market participants themselves have suggested that, at a certain point, a trade-off exists between greater transparency and the liquidity of fixed-income markets.

Workshop Themes

To examine these issues and to facilitate the discussion, workshop participants were directed to consider three fundamental questions:

- **How has technological innovation affected transparency and market quality?** To support well-functioning financial markets, it is important to understand the effects of technological change on factors such as transparency, liquidity, and efficiency. Because these factors are interrelated, any discussion of one cannot be undertaken without also considering the others.
- **What is the role of financial market regulation in light of these developments?** Advances in trading technologies may not result in enhanced market quality overall. An assessment is needed of whether regulatory intervention is required and whether certain aspects of market quality and certain sectors of the marketplace require particular attention.
- **How can the regulatory framework support market quality and, at the same time, foster continued innovation?** Trade-offs exist not only in improving certain aspects of market quality, but also in addressing the differing needs of various markets and market structures. The regulatory framework should recognize and accommodate these differences.

The workshop presentations and discussions highlighted several key issues that should be considered in the near-term development of financial market regulation. These include the advantage of evolutionary change; ownership rights with respect to trade-related information; the relationship between market structure and

market quality; accessibility by the retail investor; the definition of best execution; and lessons drawn from the experience of other jurisdictions.

The opinions of workshop participants on these issues and, more generally, with respect to the underlying workshop themes, are outlined in this article. First, there is a brief overview of how electronic trading has evolved, particularly in the government bond markets of the United States, Europe, and Canada. This is followed by the key issues in fixed-income regulation raised at the workshop. Finally, suggestions are presented for the role of financial market regulation in the current environment.

The Evolution of Electronic Trading in Fixed-Income Markets

Electronic trading systems have advanced more rapidly in the United States and Europe than they have in Canada. Presentations by workshop participants suggest that innovations in fixed-income trading have improved market quality. Although trading technologies have not significantly altered the traditional dealer-based structure of fixed-income markets, they have enhanced it.

The Bond Market Association (BMA) estimates that there are 77 electronic trading platforms in the United States and Europe, and these are most popular in the interdealer sector. Although electronic trading accounts for a sizable number of customer-dealer trades in government bond markets—i.e., the highly liquid issues of U.S. Treasuries and European government bonds—it does not represent the majority of trading by dollar value. For large trades and during times of market stress, clients still value the liquidity and the “market colour” that they can receive directly through an investment dealer.

Electronic interdealer broker (IDB) screens have been available to U.S. dealers since the mid-1970s. But it was not until the creation of GovPX in 1990 that IDB trade information became more broadly accessible. Over the subsequent ten years, electronic trading systems proliferated in the United States, enabling traders to access prices electronically and in many cases execute trades on-line.

According to Euro MTS, a major interdealer electronic trading system, technological changes in the past decade have had a greater impact on European government bond markets, because these markets were initially more fragmented across individual countries and were less transparent than those in the United States. Electronic trading systems have allowed quote information to be more broadly available and have also permitted the costs of trading and settlement to decline, which significantly increased turnover and liquidity.

Technological innovation in electronic trading has been comparatively slower to develop in Canada. While the four Canadian IDBs have electronic capabilities, trading still occurs via telephone. Since March 2001, CanPX has enabled subscribers to access some IDB trade data initially on government bond trades and later for trades in selected corporate debt. This system has the potential to significantly enhance the transparency of Canadian fixed-income markets. Three alternative trading systems (ATs) have been launched in Canada in the past few years. The volume of electronic trades is growing, but it is still too early to conclude whether or not these systems will be profitable or will be adopted by market participants.

Overall, the experience, particularly from the United States and Europe, indicates that technological changes have had positive effects on price discovery because of the greater availability and centralization of information. It was also suggested that the liquidity of fixed-income markets in benchmark issues of government bonds has benefited from these changes. Nevertheless, electronic trading platforms have not diminished the need for dealer services. Fixed-income markets are still largely decentralized, relying on dealers to provide a market-making function.

Highlighted Issues in the Regulation of Fixed-Income Markets

Evolution versus revolution

In the development of electronic trading systems and in the regulation of financial markets, it was suggested that success is linked to making

small, gradual changes, so that market participants can easily adapt.

In fixed-income trading, evidence suggests that those enterprises that have leveraged existing practices tend to be successful. Trading on electronic platforms has flourished on systems that have automated and electronically linked different stages of a trade, from the search for a counterparty through to clearing and settlement. Industry-driven improvements, such as the ongoing development of a common communications protocol and straight-through processing, have been built on existing practices. Although these changes have generally evolved by degrees, their qualitative impact on financial markets has been positive and significant.

In securities regulation, those changes that have incorporated extensive consultations with market participants and have allowed gradual modifications in requirements seem to have been successful. For example, the TRACE¹ project in the United States was implemented in three distinct stages over a two-year period. The preliminary evaluation of the program, from both regulators and market participants, is that it has improved market quality.

Ownership rights with respect to information

A question implicit in examining the regulation of transparency is, Who should benefit from trade-related information? Although there was a general sense that more information is usually better for those who are uninformed, how to protect the interests of those who generate that information was unclear.

One view from the IDB perspective is that those outside a trading sphere should not be allowed to free ride. For example, interdealer brokers supply the quote and trade information published on CanPX, but they don't receive any direct benefits. It was suggested that the level of transparency should be appropriate to the

function and to the market served. It was also suggested that institutions servicing a market group should find their own solutions to meeting the information needs of that group. This implies that the dealers, not the IDBs, should develop ways to better inform their customers.

It was also established that trader identity is valuable information and that its publication could damage the ability of traders to manage risk. The general view at the workshop was that trader anonymity should be upheld.

Liquidity, transparency, and market structure

Fixed-income markets rely on market-makers to provide liquidity. The appropriate level of transparency must therefore balance the desire for more information with the dealers' motivation to limit information so that they can continue to conduct market-making services profitably. This trade-off depends on how trading is structured. Two perspectives regarding the relationship between transparency, liquidity, and market structure emerged at the workshop:

i) At one extreme, in a traditional, quote-driven fixed-income market, dealers compete for customer order flow. The information that dealers receive in conducting their business affects their ability to make a profit. And their ability to conduct business profitably, in turn, affects the supply of market liquidity. If forced to give up all trade-related information, their incentive to compete to make markets will decline, and higher prices could result. This in turn affects the ability of customers to manage their investment needs. One view from workshop participants is that limits on the dissemination of trade-related information in the OTC fixed-income marketplace benefits market liquidity and overall market quality.

ii) At the other extreme, based on evidence from more centralized, order-driven marketplaces with higher transparency, the view is that the widespread availability of trade information motivates market-makers to be more competitive. It was suggested at the workshop that this type of trading structure can provide better price discovery and more efficient execution in terms of low cost and best price, resulting in improved liquidity overall. It was implied that this is particularly true for commoditized financial assets, such as government securities. As such, the

1. The Trade Reporting and Compliance System is a post-trade transparency system launched in July 2002. All National Association of Securities Dealers dealers and IDBs are required to submit the results of their trades in corporate bonds within a specified time. The information is then entered into a database used for market surveillance. Results with respect to the most liquid securities are publicly redistributed via TRACE in order to enhance transparency.

enhanced transparency offered by fixed-income ATSs could contribute to improved market quality.

In Canada, a large portion of trading in the secondary market is conducted through the major bank-owned dealers. CanDeal, a fixed-income ATS in Canada, has automated the traditional dealer-based trading structure and has increased transparency for institutional investors. It has also offered a new source of liquidity to smaller institutional investors by enhancing their access to the dealers. However, it is not currently available to the retail sector. The trading platforms under CollectiveBid (BondMatch) and Bloomberg (BondTrader) have also provided institutional investors with greater access to information. Moreover, these systems offer an alternative trading model that could potentially provide a new source of market liquidity, since clients are able to trade with each other. In practical terms, only BondMatch offers retail investors access, via a broker, to a broader number of dealer counterparties.

Retail access

During the workshop, it became apparent that the retail sector has played a smaller role in the transparency debate than the wholesale sector. Retail investors typically represent a small proportion of the volume of fixed-income trading, but changing demographics may bring an increase in retail participation and focus more interest in retail issues. Accessibility to information and investment expertise is one such issue.

To date, fixed-income trading activity has been relatively concentrated, dominated by a small number of high-value transactions undertaken by a few highly skilled participants. These are usually large institutional customers, such as pension funds. Retail customers constitute a very small percentage of the volume of fixed-income trading. In contrast, retail transactions account for a much larger volume of equity market trading. Because the retail trading volume is relatively small in fixed-income markets, retail investors are relatively less informed than institutional investors.

One opinion echoed by many workshop participants was that fair markets require access to both information and to comparable levels of investment expertise. For the retail investor, this refers not only to price, but also to other market-

moving information. Sources of information accessible to the retail investor are limited, and it was suggested that, in some cases, even retail brokers do not have access to all available information. In terms of expertise, retail investors are usually considered to be less sophisticated, having limited experience and limited resources for analysis relative to institutional investors.

Because of this lack of sophistication and resources, retail investors appear to be price-takers in fixed-income markets and will likely pay more to transact than their institutional counterparts. A study of the U.S. municipal bond market, for example, indicated that not only are transactions costs higher for retail versus institutional customers, but that they are high considering the minimal level of credit risk. Government securities are on the opposite end of the credit spectrum from common equities, but despite their lower credit risk, retail costs are greater for bonds than for equities. It was suggested that the broader dissemination of trade-related information for equities might contribute to this discrepancy.

This would suggest that transparency in fixed-income markets could be increased. As some institutional investors acknowledge, they can afford to share information as long as the supply of liquidity from the dealers is not affected. With more information, there can be more confidence in valuing trades, and trading by the retail public would likely increase. In particular, as the aging baby-boomer population becomes more conservative in its portfolio management, it has the potential to increase its participation in the fixed-income market. However, many workshop participants conceded that any increase in trade-related information should also be accompanied by more education, if the retail investor is to become more sophisticated and more active in fixed-income markets.

Best execution

Given the diverse needs of investors, many workshop participants were of the opinion that the term “best execution” should refer to the process surrounding a trade. However, best execution is most often considered in the context of a client receiving the best price in a transaction. In centralized equity markets, where transparency is fairly high, there is less risk of price misjudgment than in fixed-income markets, where

most of the market is decentralized and transparency is limited.

Best execution does not appear to be an issue for the experienced and informed institutional investor, particularly the larger ones. These market participants can threaten to withdraw business from a dealer if they perceive that they have been treated unfairly. Market forces will therefore likely ensure that these institutional investors receive best execution.

Workshop participants felt that on the retail side, investors are not as sophisticated, nor as powerful. Although wealth-management professionals realize their obligation to provide best execution to their customers, this service is not accessible to all. This implies that trade data are critical in order for regulators to assess market integrity and to protect all retail investors.

In the United States, both investors and brokers feel that the TRACE project has helped them to gauge whether they are getting fair prices and quality service. The data from this project have also made U.S. regulators aware that perceptions in the marketplace are not always accurate; i.e., individuals may know less about the marketplace than they think they do. This applies not only to investors, but also to brokers, dealers, and regulators.

Lessons from the international perspective

Four key lessons can be drawn from the experiences of non-Canadian regulators participating at the workshop:

- i) Regulators need to work with market participants to manage change in a gradual and thoughtful manner. Crisis-driven change is not desirable. Regulators should focus on the net long-term benefits, while being aware of the potential damages that may occur in the process.
- ii) Canadian regulators can benefit from the experiences of other regulators. Although markets differ, there are similarities on which Canadian regulators should focus. The U.K. Financial Services Authority (FSA) has supported a functional approach to transparency, where information requirements are microstructure specific. However, the FSA is now also considering requirements for fixed-income markets that differ from those for equity markets. In contrast, the U.S. approach is that transparency requirements

should be imposed uniformly across a market, regardless of the trading mechanism.

iii) Thorough study and evaluation are key. The information requirements of the marketplace should be assessed before mandating change, and the impact of change should be studied before further changes are implemented. In addition, because certain potential users of this information may not be aware of its availability or applicability, it was suggested that enhanced transparency initiatives should be supported by investor education.

iv) Consideration should be given to the costs of transparency reporting. Ideally, those who receive the value from the information should pay, but often this is not practical. Under the TRACE system, the National Association of Securities Dealers collects fees from those who report and from those to whom the data are sold. In Canada, it was suggested that the small number of market-makers might be unduly burdened by such a system.

The Role of Financial Market Regulation

Workshop participants seemed to agree that for well-functioning markets regulators need to focus on two key objectives: promoting fairness and protecting the interests of investors.

The balance of opinion would suggest that fairness in the marketplace refers to investor access to information and trading opportunities, as well as to fairness in terms of competition. While investors should not be allowed to free ride on the information of other traders, they should have better decision-making ability. Regulation should support an increase in transparency, with special consideration for retail investors. At the same time, regulation needs to recognize the property rights of traders, the value of trade information, and the importance of trader anonymity. Regulation could also facilitate customers' ability to trade without a dealer.

In terms of fairness in competition, it was suggested that regulators allow specialization to occur, even if it appears as fragmentation of the marketplace. To level the playing field, similar rules should be established for competitors performing the same activities. Support of one group may be justified, however, in order to better develop the market.

It was generally agreed that investor protection should be aimed mainly at the retail investor. Large institutional investors are able to look after their own interests, and market forces will generally guide the best outcomes for this market segment. Retail investors do not have the same level of resources or knowledge, and best-execution rules are not always sufficient. Some investors will place more importance on factors other than price, such as the speed of execution. Regulators should bolster the “know-thy-client” requirements for retail brokers and monitor this aspect of intermediary activity.

Insights for the Canadian Fixed-Income Market

Evidence from foreign jurisdictions and limited academic research, plus acknowledgement from institutional investors themselves, suggests not only that enhanced transparency is required, but also that the market will adapt to it, support it, and ultimately benefit from it in the longer term. But every market has unique characteristics, which determine the amount and kind of information that is needed. The optimal level of transparency is not necessarily full transparency.

Although the participants agreed that the status quo does function well overall, particularly for the dealers and their large institutional clients, it would appear that improvements can be made to benefit smaller institutional investors and retail investors. Competitive forces might eventually bring about these required changes, but, given the characteristics of the Canadian fixed-income market, change will occur more quickly if supported by regulatory action.

The best results are likely to occur when regulatory changes are well thought out, implemented in measured steps, and when effects are evaluated thoroughly before proceeding further. It is the responsibility of all stakeholders to take a more active role in transparency issues going forward in order to help protect their interests and shape desirable outcomes.