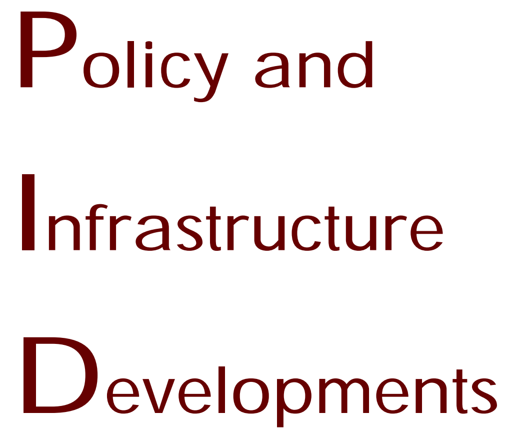
Policy and
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Developments

Introduction

The financial system and all of its various components (institutions, markets, and clearing and settlement systems) are supported by a set of arrangements, including government policies, that influence its structure and facilitate its operation. Taken together, these arrangements form the financial system's infrastructure. Experience has demonstrated that a key determinant of a robust financial system is the extent to which it is underpinned by a solid, well-developed infrastructure. This section of the Review *highlights work in this area, including that related to relevant policy developments.*

A key element in a well-functioning financial system is easy access by market participants to the information they need for making sound financial decisions.

During the past couple of years, a series of revelations regarding questionable corporate accounting and governance practices, primarily in the United States, damaged investor confidence in financial statements and corporate governance. *Restoring Investor Confidence: Background on Recent Developments in Canada* summarizes the initiatives currently underway to enhance domestic governance practices. While improved regulatory and financial reporting structures should be helpful, their effectiveness will have to be assessed over time.

The recent development of alternative (i.e., electronic) trading systems promises to improve transparency within securities markets. *Transparency in the Canadian Fixed-Income Market: Opportunities and Constraints* describes the growing presence of these systems in Canada. Their arrival has necessitated the development of an appropriate set of guidelines, and the Bank of Canada is involved in this process.

Also underpinning financial markets, and indeed all commercial activity in Canada, is the retail payments system. While many types of payment instrument are easily recognized (e.g., cash, cheques, and debit and credit cards), the system that transfers the associated funds between individuals, businesses, and government entities is less well known. *Policy Issues in Retail Payments* examines the pressures for change in this area, arising partly from new information technologies.

Restoring Investor Confidence: Background on Recent Developments in Canada

Jim Armstrong

Business failures caused by inadequate corporate governance and deficiencies in corporate financial reporting are by no means new. However, recent high-profile cases in the United States such as Enron, Worldcom, and others, as well as many lesser cases worldwide, have focused attention on this area. Particularly troubling are indications that the interests of corporate management were, in a number of cases, profoundly misaligned with those of shareholders. This arguably contributed to sharp losses in equity markets and to a more generalized loss of confidence in capital markets globally.

Financial statements have historically been an essential means of providing information to investors. Doubts about the validity of these statements can undermine investor confidence and lead to a higher cost of capital, which reduces the economy's productivity.

As a recent task force committee sponsored by the International Federation of Accountants (IFAC), and chaired by former Bank of Canada Governor John Crow, reported, “Almost all the high-profile failures are the result of failures in business, failures in governance, and failures in reporting. The business issue that should be communicated to users of the financial statements is not properly disclosed, governance structures fail to prevent or detect this, and a reporting failure results. As an entity moves closer to business failure, the incentive to distort reporting increases and, therefore, the chance of reporting failure increases” (IFAC 2003, 5).

It has been noted that during the period of overheated equity markets in the late 1990s, pressures to push share prices ever higher often took precedence over proper governance and disclosure practices. Executive compensation increasingly based on the granting of stock options added to these pressures. This environment created the conditions for the high-profile corporate frauds.

These extreme cases generated tremendous pressures for reform in the United States, which culminated in the passage of the landmark Sarbanes-Oxley Act (July 2002). Among the most far-reaching legislative reforms to affect the U.S. corporate sector, it sets extensive new standards—from governance and accounting practices to reporting deadlines, ethics codes, and penalties for altering corporate documents.

Given Canada's relatively small markets and high degree of integration with U.S. capital markets, Canadian authorities have endeavoured to react in a way that acknowledges U.S. developments while accommodating the unique features of our corporate sector and financial markets—in essence, arriving at a “made in Canada” solution. Complicating this process has been the fact that U.S. regulation has traditionally emphasized the application of detailed rules, whereas in Canada the emphasis has been on the development of overarching principles to which practices should broadly conform.

Recent reform efforts in Canada have involved the co-operation of the federal and provincial governments, regulators, and the private sector. The Department of Finance (2003) has broadly categorized the Canadian reforms to date as

- strengthening corporate governance and ensuring management accountability,
- improving financial reporting and disclosure,
- enhancing the credibility of the audit process, and
- strengthening enforcement.

The proposed changes are aimed at building confidence while keeping compliance costs manageable. In this article, some issues in each category are highlighted.

Strengthening Corporate Governance and Ensuring Management Accountability

Corporate governance can be broadly thought of as the way in which directors and managers handle their responsibilities towards shareholders.

Concerns about governance come to the fore only when there is a separation of ownership from control, which happens exclusively in the corporate form of business organization.[1] This separation can give rise to what is referred to as the "agency problem," that is, the risk that the managers (the agents) of the firm will make decisions in their own interests rather than in the interests of the shareholders (the principals). In the extreme, such behaviour, if unchecked, can threaten the viability of the firm. To mitigate this problem, shareholders elect directors to the board who, in turn, appoint managers and hold them accountable.

Who sets corporate governance standards in Canada?

In Canada, rules and guidelines related to governance originate from a number of sources. Federally incorporated companies are subject to provisions in the Canada Business Corporations Act (CBCA), and provincial companies are subject to the various provincial business corporation acts. In addition, public corporations are subject to provincial securities laws and stock exchange requirements, if applicable.

Regulated financial institutions may be subject to additional standards. For example, in January 2003, the Office of the Superintendent of Financial Institutions (OSFI) released a new guideline with respect to corporate governance for federal financial institutions. It should also be noted that in 2001, the Canada Deposit Insurance Corporation (CDIC) updated and modernized its *Standards of Sound Business and Financial Practices.*[2]

Over the last decade, there have been several prominent public reviews of the quality of governance in publicly held corporations in Canada. These have generally provided assessments and suggestions for improvement.[3] Most recently, the Senate Standing Committee on Banking, Trade and Commerce released a report (2003) that addresses the various dimensions of the recent crisis of confidence in financial markets (of which corporate governance is one aspect) and makes wide-ranging recommendations. Much useful work was done through this period although, for the most part, proposed reforms have remained voluntary for public corporations.

The thrust of recent board reform

In the aftermath of the recent high-profile corporate scandals, the need for reform in corporate governance has taken on much greater urgency. Not surprisingly, given the number of apparent board failures, considerable focus has been on reforming boards and making them more accountable and more independent.

In the United States, proposed measures introduced by the major stock exchanges (expected to receive final approval from the Securities Exchange Commission for a phased introduction) will lead to a requirement that boards be composed of a majority of independent directors. In addition, board committees that are generally considered to be the most important—audit, compensation, and nominating—are to consist exclusively of independent directors and to be subject to additional rules.[4] Under the proposals, independence is defined strictly and

1. The other major business categories are single proprietorships and partnerships, where there is no distinction between ownership and control.
2. These Standards for CDIC members (which include all federally regulated institutions that take retail deposits) are a codification of practices at the best-run deposit-taking institutions.
3. For example, in 1994, the Toronto Stock Exchange created a committee under Peter Dey (a former head of the Ontario Securities Commission), which made 14 recommendations for best practices, focusing on the board of directors and its relationship with shareholders and management. In 1998, the Senate Standing Committee on Banking, Trade and Commerce produced a report (The Kirby Report) that focused on the governance practices of institutional investors. In 2000, the Joint Committee on Corporate Governance, chaired by Guylaine Saucier, was created. Its final report proposed modifications to the Dey recommendations in light of trends in globalization.
4. For example, for audit committees there would be new rules related to the financial expertise of committee members and how frequently committees must meet.

excludes all those individuals with a material financial relationship to the company, as well as family members and former employees. In terms of prior relationships, an extended "cooling-off period" (likely to be five years) has been established as a condition for achieving independent status.

In Canada, the process of board reform has intensified. Of course, many of Canada's largest corporations are interlisted in the United States and will have to comply with many of the new U.S. standards if they wish to have continued access to U.S. capital markets. Meanwhile, after more than a year of debate and review, many Canadian companies have been carrying out internal reforms in areas such as committee composition, board practices, and compensation policies (McFarland 2003). *The Globe and Mail* recently surveyed 207 of the largest public companies in Canada, assigning scores for a range of factors related to good governance. It found that over the year, scores improved for two-thirds of the companies in the sample (McFarland and Church 2003).

Pressure for governance reform is also coming from other fronts. For example, in June 2002, major Canadian institutional investors established the Canadian Coalition for Corporate Governance, a vehicle for sharing information and working towards better governance practices. In August 2003, the Coalition published guidelines. In September 2002, the Canadian Council of Chief Executives released a statement outlining actions that they felt chief executive officers (CEOs) and boards of directors could take to strengthen corporate governance.

Doubts have been expressed about the appropriateness of the new U.S. standards for all Canadian firms. Canada has a different corporate structure than the United States, with a relatively larger proportion of small public firms and firms controlled more narrowly (by families and others) as opposed to being widely held. It has also been argued that the proposals for independent directors are too onerous for small firms—the argument being that they would not be able to attract enough qualified independent directors—and are not reasonable for narrowly controlled (family) firms. This has led some to advocate the notion of "two tiers" of governance standards in Canada, with less-stringent standards being applied to small firms.

At this point, the reform of governance standards is still a work in progress. One step occurred in June 2003 when 12 of Canada's 13 provincial and territorial securities regulators published new draft rules for public companies that

- prescribed the role and composition of audit committees, and
- required the CEO and chief financial officer (CFO) to certify annual and interim disclosures.

Companies listed on the TSX would be required to have audit committees that are fully independent and financially literate. By contrast, smaller companies listed on the TSX Venture Exchange and unlisted issuers would be required to disclose only those audit committee members who are independent and financially literate.

In addition, a "certification rule," applicable to all public companies, will require CEOs and CFOs to attest to the accuracy of their company's financial statements and to disclose the effectiveness of their internal controls.

The TSX has also promoted the adoption of new corporate-governance standards. In September 2002, the TSX proposed changes to its voluntary guidelines and listing requirements to reflect new views on best practices. As a result of the investor-confidence measures proposed by securities regulators, amended proposals are expected.

Similarly, specific proposals are being prepared that would result in revisions to the governance provisions in the federal CBCA and to statutes governing financial institutions.

Financial Reporting and Accounting Standards

A key dimension of proper corporate governance is adequate and sufficient financial reporting. As noted by the recent Report of the Senate Standing Committee on Banking, Trade and Commerce (2003), "A lack of financial transparency is an important issue for every stakeholder, including shareholders, investors, lenders, and auditors."

The standard-setters

In Canada, supervision of financial reporting involves a number of regulatory, self-regulatory, and oversight bodies. In terms of legislation, the federal CBCA, as well as provincial corporation acts and provincial securities acts, requires that companies prepare financial statements in accordance with Generally Accepted Accounting Principles.

The Accounting Standards Board (AcSB) of the accounting industry association, the Canadian Institute of Chartered Accountants (CICA), sets accounting standards. Public oversight of the AcSB is provided by the Accounting Standards Oversight Council, which consists of a mix of individuals from both within and outside the accounting profession.

Accounting standards

Generally Accepted Accounting Principles—or GAAP—are a set of standards intended to bring clarity and uniformity to the financial reporting of corporations.

Traditionally, Canadian GAAP has been more principles based and judgment driven, and U.S. GAAP has been more rules based, although both systems encompass rules and principles. The International Accounting Standards Board is promoting the development of global uniform accounting standards that tend to rely more on principles. The U.S. Financial Accounting Standards Board is participating in this initiative. Canadian standards, while continuing to be strongly influenced by those in the United States, will likely be affected by international efforts aimed at greater harmonization.[5]

Important changes to Canada's accounting standards, designed to improve disclosure, are coming into effect. These include

- guidance on speculative derivatives that was brought into effect for fiscal years starting in July 2002;
- a new guideline requiring the disclosure of financial guarantees, which came into effect on 1 January 2003;
- a new guideline for variable-interest entities, which will come into effect by January 2004; and
- a draft guideline on the expensing of stock options, which is expected to come into effect by January 2004.

Enhancing the Credibility of the Audit Process

The recent failures in corporate governance were often associated with breakdowns in the integrity of the audit process. This, in turn, has triggered a global re-examination of the external audit function. The growing importance of the consulting services that audit firms provide to their corporate clients has come under particular scrutiny. In certain cases, this may have compromised the objectivity of the audit process.

In Canada, the audit firm is appointed, in principle, by the shareholders—often with the guidance of the board's audit committee. Overall, Canadian audit practices follow a self-regulatory framework. Auditing and assurance standards are set by the Assurance Standards Board under the aegis of the CICA. The Board sets Generally Accepted Assurance Standards. In October 2002, the CICA announced the establishment of the Auditing and Assurance Standards Oversight Council, an independent body to oversee the setting of auditing standards; this body began to operate earlier this year.

Standards relating to public practice, such as auditor-independence rules and professional codes of conduct, have been developed by provincial institutes or associations of professional accountants for application to their members.

One important regulatory development has been the creation of The Canadian Public Accountability Board (CPAB), which is chaired by former Bank of Canada Governor, Gordon Thiessen. The mission of the CPAB, which was announced in 2002, is to contribute to public confidence in the integrity of financial reporting of Canadian public companies by promoting high-quality, independent auditing. The new agency, which aims to ensure both independence and transparency, means that auditors of

5. Harmonization does not necessarily imply adopting U.S. or other rules verbatim but rather capturing the essence of their intent using a Canadian format.

Canada's publicly listed companies will be subject to more frequent and rigorous reviews.[6]

With regard to the important issue of auditor independence, the CICA released a draft independence standard in 2002 to apply to Canadian auditors and other assurance providers. According to the CICA, "the core principle of the new standard is that every effort must be made to eliminate any real or perceived threat to the auditor's independence" (CICA 2002). Among the issues addressed in the independence standard are which categories of non-audit services provided by an auditing firm to a corporate client are acceptable, as well as requirements for auditor rotation.

Strengthening Enforcement

Considerable action has been taken to strengthen Canada's enforcement framework. In the 2003 federal budget, the government announced a coordinated national approach to enforcement aimed at strengthening the investigation and prosecution of serious corporate fraud and illegal market activity. Up to $30 million a year has been provided for this coordinated approach, which includes

- Legislative amendments to the Criminal Code to create new offences (e.g., improper insider trading) and evidence-gathering tools to increase penalties, to provide guidance on sentencing, and to establish concurrent jurisdiction with the provinces in the prosecution of serious cases of capital market fraud
- New resources dedicated to investigating serious cases of capital market fraud—special teams of investigators, forensic accountants, and lawyers will be established in key Canadian financial centres
- New resources to support the prosecution of capital market fraud offences under the Criminal Code (including cases generated by the special investigative teams)

At the provincial level, governments have bolstered the enforcement framework for securities laws. For example, Ontario and Quebec have passed legislation to modernize the definition of securities offences, increase penalties, and broaden the investigative powers of their securities commissions.

On 12 November 2003, the Canadian Securities Administrators (CSA) announced that they had received a report from the Illegal Insider Trading Task Force. The report recommends practices to address illegal insider trading in Canadian capital markets.[7] The recommendations focus on addressing the problem from three directions: prevention, detection, and deterrence. The CSA stated that it will consider the recommendations as it develops an action plan to address the problem of illegal insider trading.

Conclusion

Numerous initiatives have been taken with respect to corporate governance, accounting, and auditing standards in Canada. While more remains to be done, it should be remembered that such regulatory changes are not costless for businesses (which are subject to the increased reporting and governance standards). It is therefore important that the authorities try to achieve the desired goals with minimum effect on efficiency. To ensure that these measures will serve Canada well in the years to come, it will be essential to rigorously assess the reforms implemented.

6. CPAB's five-member Council of Governors is made up of the: Chair of the Canadian Securities Administrators, the Chairs of two provincial securities commissions (the Ontario Securities Commission and the Commission des valeurs mobilières du Québec), the Superintendent of Financial Institutions, and the President and CEO of the Canadian Institute of Chartered Accountants.
It should be noted that a draft rule by 12 of Canada's 13 provincial and territorial securities regulators, published in June 2003, requires auditors of public firms to be members in good standing of the CPAB.

7. The Illegal Insider Trading Task Force was established in September 2002 and included representatives from the Ontario, Quebec, British Columbia, and Alberta securities commissions, the Investment Dealers Association of Canada, the Bourse de Montréal, and Market Regulation Services Inc.

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Transparency in the Canadian Fixed-Income Market: Opportunities and Constraints

Tran-Minh Vu

Market quality is important to policy-makers because it directly affects the level of confidence and the willingness of participants to use markets for transactions. Factors such as informational efficiency, volatility, liquidity, and transparency can all affect market quality (Boisvert and Gaa 2001).

The Bank of Canada has a particular interest in the quality of fixed-income markets because of its roles in promoting a safe and efficient financial system, formulating and implementing monetary policy, and managing the federal government's debt. Liquid, orderly, and resilient markets support the financial system's ability to allocate resources effectively, the Bank's ability to rely on the efficient transmission of changes in the overnight interest rate across the term structure of yields, and the government's ability to achieve stable, low-cost financing.

This article focuses on one aspect of market quality—transparency. The Bank, the Department of Finance, and others have promoted enhanced transparency in fixed-income markets for some time.

Market Structure and Transparency

Market transparency is usually defined as the ability of market participants to observe the information in the trading process (O'Hara 1995).

In general, the level of transparency differs across different market structures. Its evolution has been influenced by the nature of the instruments traded, the interactions between market participants, and, in some instances, by rules established by public authorities. For example, fixed-income markets are distinct from equity markets in a number of ways. Most equity markets are centralized, order-driven markets, whereas fixed-income markets, where dealers intermediate customer transactions by providing quoted prices, are typically decentralized and quote driven. The frequency of transactions is lower in fixed-income markets than in equity markets; however, the average size of each trade is much larger. Fixed-income markets are generally wholesale markets, dominated by sophisticated institutional investors. Retail investors are more active in equity markets. These characteristics have contributed to the decentralized nature of fixed-income markets, where retail participants have less access to price information than they do in centralized markets, such as the equity market. Participants in fixed-income markets generally demand greater immediacy of trade execution than those in equity markets.[1] Dealers undertake the immediate trade and then proceed to manage their inventory through subsequent trades.

In fixed-income markets, transparency refers mainly to information regarding pre-trade quotes and post-trade reporting of prices and volumes. More specifically, pre-trade quotes refer to the availability of information about bids and offers, and post-trade reporting refers to the public and timely transmission of information on past trades, which may include price, volume, and execution time (BIS 2001).[2]

Equity markets have evolved in a heavily regulated environment, and much of the practical and theoretical knowledge of market regulation has developed around these particular

1. Demand for immediacy depends on the volatility of the security and the diversifiability of the risk of an adverse price movement. Therefore, the greater the risks that investors face in delaying their trades, the greater the desire for immediacy of trade execution.
2. Note that price information may also be displayed as a yield or a spread against a benchmark.

markets. A wide body of literature supports the argument that greater transparency in the trading process enhances market liquidity and efficiency by reducing opportunities for taking advantage of less-informed or non-professional participants.[3] This has led regulatory authorities to require that equity-trading information be made immediately available to the general public. However, the type of transparency regulation appropriate for equity markets may not be appropriate for fixed-income markets. While the issue of asymmetric information (where a subset of market participants have private knowledge of an asset's expected value) may apply to equity markets, it may be less of an issue in fixed-income markets for government securities. Gravelle (2002) finds that private information about the expected value of government securities plays only a minor role in the market (if any), since their prices depend on the term structure of yields which, in turn, depend on macroeconomic factors that are public information.

The effects of increased transparency

Generally, a market becomes more transparent when there is an increase in trade information available to the public. It is assumed that greater transparency would likely increase market liquidity by building up the confidence of participants. Moreover, a higher level of pre-trade transparency would encourage customers to manage their portfolios more actively and would attract new investors to the market. A higher level of customer participation would not only increase the level of liquidity, but would also add to the ability of dealers to provide liquidity to the markets by reducing their market-making cost.[4]

In Canada, because of the decentralized nature of the fixed-income market, customers typically contact several dealers to obtain the best price.[5] Increasing pre-trade transparency would not only contribute to more efficient price discovery, but would also help customers obtain the best execution of their transactions.

It is increasingly recognized by participants and researchers that, at some level, a trade-off exists between increased transparency and liquidity. For example, participants who responded to the Investment Dealers Association of Canada (IDA) and the Canadian Securities Administrators (CSA) *Market Survey on Regulation of Fixed Income Markets* (Deloitte & Touche 2002) agreed that steps taken to increase transparency should also consider the impact of such steps on liquidity. On balance, however, the literature is still inconclusive about the effect of greater transparency on overall market quality (Allen, Hawkins, and Sato 2001).

While increased transparency benefits the market as a whole, full transparency may not always be optimal. This is particularly true if dealers are required to display information on large-volume trades in real time (i.e., full post-trade transparency) to the market. For example, such a dealer will incur greater costs for managing inventory risk, since other dealers, who have been informed about the direction and size of the trade in real time, will strategically adjust their quotes in the interdealer market.[6] Full post-trade transparency would hinder the ability of dealers to manage their inventory risk, thereby reducing their incentive to provide liquidity to the market. Ultimately, dealers might pass on these higher risk-management costs to their customers by widening the bid/ask spread and providing less depth to the market.

How transparent are Canadian fixed-income markets?

The IDA/CSA *Market Survey on Regulation of Fixed Income Markets* (Deloitte & Touche 2002) states that "price transparency varies depending on the type of security and on the type of market participant." Respondents to the survey indicated that government securities have good price transparency, while illiquid securities are less transparent. However, the survey

3. A liquid market is generally defined as a market where participants can rapidly execute large-volume transactions with only a small impact on prices (BIS 1999).
4. Increased customer participation could help dealers to manage part of their inventory risk by increasing the frequency of their trading with their own customers.
5. Because they are primarily institutional investors, customers usually have a fiduciary duty to obtain at least three quotes from different dealers.
6. Dealers use the interdealer fixed-income market not only as a price-discovery mechanism, but also as a means of sharing with other dealers the position risks that they have taken on while trading with customers.

shows that customers in the *retail* sector have very little access to price information.

Market participants (i.e., institutional, wholesale investors) can currently obtain information on debt securities via CanPX.[7] CanPX is a system for reporting quotations and trades and is designed to provide a consolidation of interdealer prices to all interested market participants. By logging on to CanPX, participants can have access to the best bids and offers in the interdealer market.

Moreover, participants have access to price information by calling dealers for quotes and also to indicative quotes via service providers (e.g., Bloomberg). The recent development of alternative trading systems (ATSs) in Canada gives participants access to quotes from a number of dealers through these systems. Therefore, ATSs have the potential to increase transparency in fixed-income markets.

Changing Technology: An Opportunity for Increased Transparency

While the last few years have seen the rapid emergence of electronic trading systems in securities markets, their penetration has been uneven. Distinctive market structures have led to slower development of electronic trading in fixed-income markets than in equity or foreign exchange markets.[8] On a cross-country comparison basis, electronic trading has been slower to develop in the Canadian fixed-income market than in U.S. or European markets. This may be partly explained by the varied needs and incentives of market participants, as well as by the regulatory and competitive factors present in each country. The relatively smaller size of Canadian markets and the degree of concentration, coupled with the high cost of technological infrastructure, may also be factors behind the slower development of electronic trading in Canada.

7. CanPX was developed by IDA member firms and interdealer brokers. It began operating in Canada in 1999 and is similar to the GovPX system in the United States.

8. Asset type is also an important element in the development of electronic trading, since standardized, homogeneous products have proved the easiest to migrate to electronic trading platforms.

The impact of electronic trading systems

Electronic trading systems have already affected the functioning of fixed-income markets in many ways, particularly in the United States and Europe. First, they can facilitate greater pre-trade and post-trade transparency. In fact, the most commonly cited benefit of electronic trading systems is that they can enhance the price-discovery process and help establish best prices. Second, electronic trading can be more cost-efficient, especially with its capability for straight-through processing. Third, these systems alter the relationship between dealers and customers. For example, customers can obtain quotes from several dealers almost instantaneously without having to contact each dealer. The introduction of a customer-to-customer system (bypassing the intermediary role of dealers) could affect the structure of the fixed-income market by removing the current separation that exists between the interdealer sphere and the dealer-customer sphere.

Reporting quotations and trades

The CanPX system provides further price transparency for the Canadian fixed-income market by consolidating price information. At this stage in its development, its coverage is limited to benchmark government securities and a relatively narrow number of corporate securities traded in the domestic marketplace. The Deloitte Report (2002) indicates that responses to CanPX have been mixed. On one hand, institutional investors and issuers commend CanPX for increasing the level of price transparency in the markets. On the other hand, large dealers are skeptical about the quality of the information displayed on CanPX because it is limited to a minimum trade size, whereas prices usually vary with the size of the order.

Improving market quality

Electronic trading systems and systems for reporting quotations and trades are welcome additions to the Canadian fixed-income market. Although some of these systems are still in their early developmental stages, they have the potential to enhance current levels of transparency. By enhancing transparency, electronic trading systems will add to market quality, because trading transparency contributes to reliable

price discovery and efficient risk-allocation between market participants.

The Canadian Public Policy Response

Canadian provincial securities regulators are actively involved in regulating electronic trading systems. In December 2001, the ATS Rules came into effect in Canada.[9] The primary purpose of the ATS Rules is to establish a new framework that allows ATSs to compete with more traditional exchanges. The regulatory objectives are to provide investors with more choices, decrease trading costs, and improve price discovery and market integrity. The ATS Rules are divided into three parts: (1) a framework for the regulation of marketplaces, (2) requirements for data transparency and market integration, and (3) rules for market regulation.[10] The requirements for data transparency are divided into two categories: (a) exchange-traded securities and foreign-exchange-traded securities, and (b) debt securities.

According to the current ATS Rules, transparency requirements for debt securities have been separated into two subcategories: government debt securities and corporate debt securities. For government securities, marketplaces and interdealer brokers (IDBs) must provide real-time order and trade information on designated benchmarks to an information processor (full pre-trade and post-trade transparency).[11] For corporate securities, marketplaces are required to provide real-time order information to an information processor. The reporting of trade information for corporate securities is, however, subject to volume caps and a time delay.[12]

9. The CSA's ATS Rules consist of National Instrument 21-101 Marketplace Operation (NI 21-101), National Instrument 23-101 Trading Rules (NI 23-101), and the related companion policies (21-101CP and 23-101CP).
10. Marketplaces are exchanges, as well as systems for reporting quotations and trades, including ATSs. They do not include interdealer brokers.
11. The ATS Rules define an information processor as any person or company that receives and provides information under the NI 21-101 and has filed Form 21-101F5.
12. More specifically, marketplaces, IDBs, and dealers executing trades outside of a marketplace must provide trade details within one hour after the trade, subject to volume caps of $2 million and $200,000 for investment-grade corporate securities and non-investment-grade corporate securities, respectively.

The CSA granted fixed-income ATSs an exemption from transparency requirements until 31 December 2003. In October 2003, the CSA released a notice of amendments to the ATS Rules. Under the amendments, all transactions in government securities would be granted a three-year exemption from the transparency requirements, while transparency requirements for corporate securities would be implemented as planned. The CSA indicated that the three-year period will allow market participants to determine the appropriate level of transparency for government fixed-income markets. The CSA have also recommended CanPX as an information processor for corporate debt securities.[13]

Views on the ATS Rules

The Bank, together with the Department of Finance, has been participating in the development of the ATS Rules since 1999, and has provided comments on the potential repercussions of the Rules on the maintenance of well-functioning fixed-income markets. While greater transparency is generally supported, our perspective has been that transparency requirements be designed so as to not adversely affect the price-discovery mechanism or market liquidity.

Throughout this period, in interactions with the CSA and the Bond Market Transparency Committee (BMTC), the importance of developing appropriate levels of transparency on a consultative basis has been stressed.[14] While transparency should increase, especially in the retail sector, measured steps should be taken when increasing transparency so as not to disrupt the efficient functioning of the wholesale fixed-income market. This sentiment is shared by the market participants who responded to the Deloitte & Touche survey.

One consideration is the need for an equitable, but appropriately differentiated, regulatory framework, recognizing similarities and differences in market structures. More specifically, it

13. CanPX was named information processor for corporate securities by the provincial securities commissions in September 2003.
14. The BMTC was established by the CSA to examine the levels of transparency appropriate for Canadian debt securities. The BMTC was designed to include, as much as possible, representatives from all segments of the fixed-income market.

has been suggested that fixed-income ATSs and marketplaces that are similar in nature should be subject to the same transparency requirements. As such, systems displaying executable prices should have the same level of transparency as IDBs, which are also characterized by this feature. Furthermore, the Bank and the Department of Finance have expressed confidence that IDBs and systems displaying executable prices should be able to support a higher level of transparency than systems displaying indicative prices.

When the amendments come into effect in early 2004, transactions in *corporate debt securities* will be regulated by the ATS Rules. But the CSA have indicated that it is premature to impose transparency requirements in the *government debt* market. One would expect that government securities, which are the most liquid of Canadian fixed-income securities, could support a higher level of transparency than corporate debt securities and support it sooner rather than later.

What's Next?

The Bank will continue to work in collaboration with the Department of Finance, the CSA, and the BMTC to promote increased transparency in a way that recognizes the unique characteristics of fixed-income markets.

In February 2004, the Bank will host a workshop on regulation and transparency in fixed-income markets. The workshop will bring together academics, regulators, and market participants to examine and analyze issues related to transparency and market quality. This will further inform our work to enhance the efficiency of the Canadian fixed-income market.

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Policy Issues in Retail Payments

Sean O'Connor

The retail payments system is critical to commercial activity in Canada. Broadly defined, it has many components, including payment instruments, information technologies, and funds-transfer processes that involve a range of institutions. Each institution specializes in particular services required to initiate or settle a retail payment obligation. Retail payments are obligations arising from retail commercial and financial transactions between individuals and businesses and from transfers between them and governments.

Everyone is familiar with the various retail payment instruments, such as cash, cheques, and credit cards. The infrastructure arrangements for processing these instruments and for transferring the associated funds are less well known, but their efficient and reliable operation drives the retail payments system.

This note highlights some of the policy issues and initiatives that are emerging in retail payments systems, especially those affecting the infrastructure arrangements.[1] Some of these issues are being addressed by private and public sector organizations, while others are just beginning to emerge. To provide some context for discussing these issues, a brief overview of the organization of the retail payments system in Canada and of key developments that have given rise to these issues is necessary.

Retail Payment Infrastructure

The principal system for clearing and settling retail payments in Canada is the Automated Clearing Settlement System (ACSS) operated by the Canadian Payments Association (CPA). CPA members are the financial institutions that provide payment accounts, instruments, and services to individuals and businesses. The CPA

1. For a more detailed description, see O'Connor (2003).

Infrastructure Systems

The infrastructure systems for payments provide transaction, clearing, and settlement services to their participating members.

Transaction systems use information and communication technology to deliver payment instructions between the parties to a transaction and their financial institutions. Their services include

- verifying the identity of the parties and their ability to pay;
- validating the payment instructions; and
- communicating information between the parties and their financial institutions.

Clearing systems exchange payment information between the financial institutions that settle their customers' payment obligations. They also calculate each institution's (clearing member's) settlement claim or obligation. Clearing services include

- sorting and matching transactions between member institutions;
- calculating members' settlement positions; and,
- transmitting the data to the individual member institutions and to the settlement bank.

Settlement systems transfer funds between deposit accounts that the clearing members hold at the central bank or at another depository. Settlement services include

- verifying interbank funds-transfer positions and the funds available in the paying institution's settlement account;
- settling obligations by posting the funds transfers to the institutions' settlement accounts; and
- confirming the completed settlement with the account holders.

clears a variety of retail payment instruments through the ACSS daily. It nets the value of all these payment instruments, multilaterally across all direct participants, into a single settlement payable or receivable for each participant. These settlement positions are discharged through transfers across the settlement accounts held at the Bank of Canada by the direct participants in the ACSS.

There are also other clearing and settlement systems for retail payments in Canada. The major credit card organizations and some Internet payment schemes operate their own clearing systems and settle their payment obligations through accounts held at commercial banks. Most are associated with a shared or common-use transaction system. Some are operated by non-bank Internet payment providers.

The most established transaction systems are ATM, debit-card, Internet, and tele-banking systems owned and operated by the major Canadian financial institutions. The proprietary ATM and debit-card systems are typically linked nationwide through Interac into the largest of the common network arrangements. Payments made through Interac are cleared and settled through the ACSS.

Developments in Retail Payments

Two principal factors underlie the changes in retail payments in recent years:

- Innovations in information technology that involve new payment applications, and
- Changes in financial sector policy aimed at improving competition and efficiency in financial services, including payment services.

The most noteworthy effects of these developments on retail payments have been:

- A shift towards electronic payments and away from cheques. This has been most pronounced with respect to card payments and reflects the relatively low costs and risks associated with these instruments, as well as the immediacy of payment.
- A trend towards outsourcing of payment processing and transaction services. This allows financial institutions to tap into common, shared networks and systems to reduce costs for payment service and improve the quality of service.
- The separation of clearing and settlement systems for wholesale (large-value) and retail payments. This has permitted the CPA to initiate changes that will make the ACSS more cost-efficient for its participants.
- A relaxation of regulatory constraints on access to infrastructure systems and the provision of service in retail payment markets.

These developments present challenges to existing public and private sector policies regarding the operations and services of infrastructure systems for retail payments.[2]

Issues and Initiatives

The key issues that have begun to emerge in retail payments systems as a result of these changes can be grouped into

- infrastructure arrangements and services,
- payment technologies and applications, and
- market access and competition.[3]

Infrastructure arrangements

Direct participation in the ACSS

Two issues have emerged with respect to the structure of the ACSS. The first deals with the conditions for direct participation in the system. The Canadian Payments Act of 2001 extended access to include life insurance companies, securities dealers, and money market mutual funds. Direct participation is, however, subject to conditions regarding the minimum volume of payments cleared through the system, the type of institutional class to which a member belongs, and access to ACSS settlement facilities at the Bank of Canada. CPA members are concerned that these conditions may no longer be the most appropriate for direct participation in the ACSS, although some members are concerned that eliminating all conditions could impose significant costs and risks on the system.

2. For a more comprehensive description of retail payments systems, see Committee on Payment and Settlement Systems (1999 and 2000).
3. Some issues are shared by other countries. See Committee on Payment and Settlement Systems (2003).

As part of its ACSS settlement facility, the Bank of Canada provides overnight credit to direct participants. The Bank is concerned that it may be difficult to cover its credit exposures with a valid, first-priority, security interest for some of the classes of institutions newly eligible to participate in the ACSS. Some institutions are governed by pledging restrictions and bankruptcy regimes that could expose the Bank's security interest to stays on execution. Consequently, the Bank has been examining workable options for providing access to settlement facilities to all classes of institutions in the CPA. The fact that the net obligations of the ACSS are now settled through the Large Value Transfer System (LVTS) could help resolve this issue. With this method of settlement, the Bank will no longer need to extend overnight credit to settle positions in the ACSS. A legally valid security interest in collateral pledged to the Bank for these LVTS payments will be protected from stays on execution under the Payment Clearing and Settlement Act.[4]

The second issue is related to tiered participation in the ACSS. Only a few direct participants in the ACSS act as clearing agents for the indirect participants in the system. In doing so, they effectively operate their own clearing and settlement systems (called quasi-systems) within the ACSS. There is some concentration of settlement risk within these quasi-systems, but their risk-management controls are not transparent. The untimely failure of one of the principal clearing agents, or of a major indirect clearer, could disrupt settlement in the ACSS and cause repercussions for participants and their clients.

The CPA, the Bank of Canada, and the Department of Finance have established a joint study group to examine these issues and report their findings by next year.

Retail payments and the LVTS

Although the LVTS handles the majority of large-value payments cleared through the CPA, some large-value retail payments are still cleared and settled through the ACSS. Even though these payments are extremely unlikely to create systemic risk in the ACSS, the individual payments themselves are still open to settlement risks that are not present in the LVTS. Recently, the CPA established a maximum limit of $25 million for individual cheques eligible for clearing and settlement through the ACSS. This initiative is expected to reduce financial risk for ACSS participants and their clients.

There has been a proposal to impose the same limit on electronic payments that clear and settle through the ACSS. At issue is whether the risk reduction would be cost-effective for the participants in the ACSS and their clients.

Cross-border retail payments systems

With projections that the volume and value of cross-border retail payments will continue to grow, the development of centralized clearing systems that specialize in cross-border retail payments is again under review in some countries. Earlier proposals and programs for multilateral cross-border systems failed because of a weak business case related to relatively low values and volumes and the investments already made in well-established, decentralized bilateral correspondent banking arrangements. Some small multilateral systems do still exist, however. There has also been a recent initiative to develop a new multilateral system for clearing cross-border retail payments in the euro system. A proposal to link it with non-euro systems for clearing cross-currency payments, might encourage Canadian financial institutions to reexamine their business case for participation.

New payment technologies

The development of low-cost Internet communications has increased the commercial incentives for remote transactions and for making payments over multiple-user, open-network systems, such as the World Wide Web. Two key issues here are the security of payment information in these systems and authentication of the identity of the transacting parties. Private and public entities, such as the major credit card companies, the Canadian Payments Association, and Industry Canada, are spearheading the development of secure electronic information and storage technologies to resolve these issues. Legislation to protect privacy and to validate electronic documents and signatures has also recently been enacted.

As these technological and legal initiatives continue to build, related commercial issues still need to be resolved. Among these are the questions of interoperability of equipment, software, and operating standards for the

4. See Tuer (2003) for details on the settlement process.

infrastructure arrangements of rival Internet payment schemes. Also at issue is their compatibility with complementary services such as payment, clearing, and settlement.

There are also issues regarding the legal foundation for new forms of electronic payment applications. Principal among these is cheque truncation. Paper cheques would become digitized at the receiving institution so that the physical cheque would no longer need to be transferred back to the paying institution. Hence, the cost of clearing and settlement would decline. The technologies are now well developed and available; the CPA is working on drafting procedures and standards for digitized cheques; and the Department of Finance has begun a review of legislative requirements.

Market access and competition

Many recent legislative changes and regulatory efforts have been aimed at enhancing competition and efficiency in retail payments. The pressure for increasingly open access to infrastructure organizations raises questions about differential regulation among similar infrastructure systems and remote access to them.

While the operators and systems of some infrastructure arrangements, such as the CPA and Interac, are regulated in various ways, many emerging Internet payment schemes and credit card systems are not regulated in Canada. Consequently, there is a question concerning the ability of regulated and unregulated entities to compete evenly in the same service markets. There is also the issue of what objectives and criteria are appropriate for regulation of retail payments systems.

Because of legal and regulatory concerns about conflicts of law and regulatory authority across sovereign jurisdictions, remote participation—access to domestic infrastructure systems for institutions located outside Canada—is prohibited. However, financial institutions in Canada already acquire some transaction and clearing services for card payments from organizations located elsewhere. Also, the emergence of Internet banking provides a platform by which institutions located elsewhere could provide retail payment accounts, instruments, and services to Canadian residents. With the resolution of the legal and regulatory concerns, remote participation in the infrastructure systems for retail payments could become more likely.

Conclusions

To lower costs and avoid costly disruptions in retail commercial and financial transactions, retail payments systems are required to operate efficiently and reliably. Innovations and policy changes aimed at achieving this goal are underway, but they raise a number of policy issues for both the public and private sectors. Initiatives to resolve some of the significant issues described above are already underway, and some consideration of others by both private and public sector organizations is beginning. All organizations involved in retail payments share the same objective: to find the right balance between the need for efficiency, necessary risk controls, and consumer interests that best serves the evolving retail payments system.

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