

**CONDITIONS FOR DIRECT
PARTICIPATION
IN THE ACSS**

Final Report of

THE TRIPARTITE STUDY GROUP*

June 2006

***The Tripartite Study Group is comprised of officers from the Canadian Payments Association, the Bank of Canada and the Department of Finance. The views expressed herein are those of the Tripartite Group and do not necessarily reflect those of the institutions that they represent.**

PREFACE

As part of the follow-up work to the 2001 amendments to the *Canadian Payments Act* (CP Act), an ad hoc study group of representatives from the Canadian Payments Association (CPA), the Bank of Canada and the Department of Finance was formed to review the current conditions and restrictions regarding direct participation of CPA members in the Automated Clearing Settlement System (ACSS). These include volume and technical requirements and institutional restrictions on direct participation (e.g., life insurance and money market mutual fund companies are restricted to indirect clearer status).

The review occurred over a three-year period. It included a technical analysis of system-wide and counterparty efficiencies, costs and risks, survey research conducted with CPA direct clearers, a sampling of indirect clearers and new potential members of the CPA, and a formal consultation process launched in June 2005, which included a consultation version of the report and two sessions convened by the CPA.

The final report benefits from the comments received during the consultation process. Overall, the consultation confirmed that there is support to retain the institutional restrictions and to change the current conditions for direct participation; in particular, to replace the volume criteria with appropriate alternative criteria.

The main issues expressed during the consultation process focused on the status and treatment of group clearers and clearing agents, the usefulness of credit-ratings as a replacement for the volume criterion, the development of comprehensive compliance and enforcement measures should a direct participant fall below the maintenance ratings, permitting foreign bank branches to become direct participants, and potential requirements for annual operation audits for new and existing direct participants.

Where possible, the Study Group has incorporated into its final report the feedback raised by CPA members and stakeholders. With regard to the other issues, the Study Group recognizes that there are certain areas that require further work and specificity on the part of the CPA prior to the CPA Board of Directors approving or implementing any proposed modifications to the conditions for direct participation in the ACSS. The Study Group views its role as providing policy advice to the CPA Board of Directors, in the form of high-level proposals on the direction/parameters for any considered modifications. It will be the task of the CPA and its membership to provide more specificity to the proposals and to develop a work plan to implement any recommendations approved.

The Study Group would like to express its appreciation to the CPA member institutions, committees, eligible non-member organizations and stakeholders that participated in the study over the course of this review. The feedback obtained through this process provided essential contributions to this report.

The review of the conditions for direct participation in the ACSS is the first study effort undertaken jointly by the CPA, Bank of Canada and Department of Finance in over twenty-five years. It highlights the importance of payments systems and, in particular, the need for a sound risk management framework to ensure an effective and stable financial system.

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EXECUTIVE SUMMARY

As part of the follow-up work to the 2001 amendments to the *Canadian Payments Act* (CP Act), the Canadian Payments Association (CPA), the Bank of Canada and the Department of Finance agreed to review the current conditions and restrictions regarding direct participation¹ of CPA members in the Automated Clearing Settlement System (ACSS). An ad hoc Tripartite Study Group (“the Study Group”) was formed to conduct a review and to formulate a report that may include recommendations on the conditions for direct participation in the ACSS.

The primary objective of the study was to analyze conditions for participating directly in the ACSS that would help maintain an efficient, safe and equitable payments system. Since the ACSS is a tiered clearing and settlement network arrangement, there are both bilateral and multilateral benefits, costs and risks for all the participants in the system. Accordingly, the Study Group’s approach to the review was to examine the inter-relationships among the various classes of participants in the ACSS with respect to their efficiency and risk implications. The Study Group also evaluated various conditions for direct participation in the ACSS that might further enhance system-wide efficiency while mitigating system-wide risks.

The study occurred over a three-year period. It included a technical analysis of system-wide and counterparty efficiencies, costs and risks, survey research conducted with CPA direct clearers, a sampling of indirect clearers and new potential members of the CPA, and a formal consultation process launched in June 2005, which included the publication of a consultation paper and two outreach sessions convened by the CPA.

The results of the *technical analysis* and the *survey* provided the Study Group with a number of guiding principles and practical requirements for identifying and evaluating existing and proposed conditions for direct participation in the ACSS. The three main principles guiding the evaluation and the proposed conditions for direct participation in the ACSS were the following:

- (i) the trust relationship among the direct participants in the ACSS must be preserved since settlement risk exposures are uncollateralized;
- (ii) system-wide and counterparty financial and operational risks, as well as costs for managing them, need to be transparent, contained and manageable for both direct and indirect participants in the system; and
- (iii) proposed modifications should have limited impact on existing direct participants while providing opportunities and business-case choices regarding direct participation in the ACSS for other current and potential CPA members.

The Study Group’s final report benefits from the comments received during the consultation process, which suggest that there is support to repeal the current volume requirement, but retain the institutional restrictions.

The Study Group views its role as providing policy advice to the CPA Board of Directors in the form of high-level proposals for consideration, on the direction/parameters for any considered modifications. The Study Group recognizes that there are some areas that require further work and specificity prior to the

¹ For the purposes of this document, direct participation refers to Direct Clearers, Group Clearers and Clearing Agents in the ACSS.

CPA Board of Directors approving or implementing any proposed modifications to the conditions for direct participation in the ACSS. As such, on the basis of its review, the Study Group is setting out high-level proposals for consideration for the direction of change to the conditions for direct participation in the ACSS, which are as follows:

- (i) Retain the current institutional restrictions; in particular, that life insurance companies and money market mutual funds be restricted to Indirect Clearer status.
- (ii) Repeal the volume requirement and replace it with appropriate alternative criteria. Alternate conditions are put forward with a view to maintaining the trust-relationship among direct participants, without unduly constraining any reasonable business case for entry.
- (iii) Require a prime credit rating on short-term paper for entry as a direct participant. A lower prime credit rating would be required for continuing as a direct participant. The required credit ratings would be higher for Clearing Agents than for Direct Clearers and Group Clearers.
- (iv) Require all direct participants in the ACSS to be direct participants in the LVTS. Currently, all Direct Clearers, Clearing Agents and Group Clearers in the ACSS are also direct participants in the LVTS. Under the present arrangements for settlement of ACSS net obligations and access to Bank of Canada liquidity, establishing the existing practice of direct participation in both systems as a requirement for direct participation in the ACSS helps preserve the levels of system-wide efficiency and safety that CPA members desire.
- (v) To demonstrate technical capacity in connectivity to the ACSS, certification testing of production and backup systems must be conducted by direct participants and a complete record of testing results filed with the CPA upon entry and any material/substantial change. The task of determining the criteria for evaluation, the scope of the testing and the work standards for performance should be delegated to the appropriate CPA committee.

It will be the task of the CPA and its membership to provide more specificity to the proposals and to develop a work plan to implement any recommendations that the Board of Directors approves.

1. INTRODUCTION

Canada's clearing and settlement systems have developed historically into hierarchical or tiered arrangements. The tiered arrangement in the ACSS has existed since its inception and includes direct participants -- Direct Clearers (DCs), Group Clearers (GCs) and Clearing Agents (CAs) -- and indirect participants -- referred to as Indirect Clearers (ICs), with rules governing each. To become a direct participant, a CPA member must: (1) be a deposit-taking institution or a securities dealer ("institutional restrictions")²; (2) have a settlement account and standing loan facility at the Bank of Canada; (3) process 0.5% of the total national clearing volumes ("the volume requirement")³; and (4) meet the technical and other requirements outlined in the By-laws and Rules.⁴ Since 2001, the CPA has also had the authority to impose financial conditions on direct participants, but none are currently specified.

Some current and potential CPA members have questioned the relevance of the current eligibility requirements (in particular, the volume requirement and institutional restrictions) for participation as a direct participant in the ACSS. To this end, the Tripartite Study Group (hereinafter, "Study Group"), comprised of officials from the CPA, the Bank of Canada and the Department of Finance was created to examine the membership requirements of these tiered arrangements, including the risks, stability and efficiency benefits achievable through broader participation.⁵

2. OBJECTIVE

The primary objective of the study was to analyze plausible conditions for participating directly in the ACSS, including the current ones that would help maintain an efficient, safe and equitable payments system. More specifically, the study was conducted to: (1) review and assess tiered clearing and settlement relationships in terms of the risks and efficiencies within each tier; (2) identify, consider and assess optional eligibility criteria for direct participation; and (3) make, where appropriate, recommendations to the CPA Board of Directors for the direction of any changes to these conditions.

3. BACKGROUND

The Government of Canada began its review of the payment system in Canada in 1996 as part of its review of the overall structure of the financial services sector. The review produced a policy paper in June 1999 -- *Reforming Canada's Financial Services Sector: A Framework for the Future* -- that, among other things, proposed opening membership to the CPA to life insurance companies, securities dealers and money market mutual funds operating in Canada. The CPA, over the course of this review, made a number of presentations to government in support of expanding the membership criteria.

However, since it was unclear how the current clearing and settlement system could react to a significant change in the criteria for direct participation, it was agreed in 2002 that the volume criteria would remain and further, life insurance companies and money market mutual fund companies would not be able to participate as direct participants. This position was conditional on assessing the risks and considering other, possibly more appropriate criteria in light of changes to CPA membership. In this respect, the Bank of Canada and the Department of Finance indicated that they would work with the CPA to study the

² Section 32 of the *Payment Items and ACSS By-law* provides that "[a] qualified corporation, on behalf of its money market mutual fund, a trustee of a qualified trust and a life insurance company are not eligible to be a direct clearer or group clearer".

³ Paragraph 26(c) of the *Payment Items and ACSS By-law* requires the direct clearer have "a payment items volume of no less than 0.5% of the total national volume of payment items giving rise to clearing through the ACSS...".

⁴ CPA's *Payment Items and ACSS By-Law*, section 26.

⁵ The Terms of Reference for the Study Group are attached as Annex 1.

potential impact of altering the eligibility requirements for direct participants in the ACSS to permit broader participation.

4. METHODOLOGY

There were two parts to the study's methodology. The first part was a *technical analysis* of some of the theoretically plausible system-wide and direct counter-party efficiencies, costs and risks in the ACSS tiered arrangement. The second part was an *empirical analysis* of the arrangements and relationships in the system. Since there were inadequate statistical data available to permit quantitative inferential analysis, the empirical analysis adopted a survey procedure to acquire qualitative information. A questionnaire on the participation conditions along with a background paper on the structural risks and benefits of tiered arrangements was prepared for distribution.⁶ The CPA approached all direct participants, as well as ICs and eligible non-members to participate.

The technical analysis was circulated as a background paper⁷ along with the survey questionnaire and the Study Group's Terms of Reference.⁸ The Study Group met individually with the participants in the survey group from late 2003 into early 2004 to obtain responses to the survey questionnaire, discuss related issues and conduct some follow-up calls in June 2004.⁹ The consultations involved senior representatives in risk management, cash management, business products, payments policy and payments operations from the institutions.¹⁰ Ultimately, close to 20 institutions participated, including representatives from 9 of the CPA's direct participants accounting for over 90% of the national clearing volumes, with the remaining institutions consisting of ICs and non-members.

Once the initial consultations were completed, a summary record of the key issues raised (e.g., risk, efficiency, criteria) was prepared by the Study Group and disseminated to those interviewed. Following the completion of the summary record, the Study Group analyzed the survey responses with regard to both the system-wide and the counterparty efficiency, cost and risk factors that respondents believed should be considered in determining participation conditions for direct participation in the ACSS.

In June 2005, the CPA launched a *formal consultation process* on the conditions for direct participation in the ACSS, which included a consultation version of the Study Group's report and two sessions convened by the CPA. The report has benefited from the comments raised at the consultation sessions and through written submissions received during the consultation process.

⁶ See Annex 2.

⁷ O'Connor, S., 2003, *Structural Risks and Benefits of Tiered Arrangements: The ACSS*, Background Paper Prepared for the Ad Hoc Study Group on ACSS Participation, Bank of Canada, March.

⁸ The material was circulated through the Clearing By-law Working Group, Payments Risk Working Group and the National Clearings Committee in an effort to canvass member participation. They were also circulated to industry organizations for non-participating institutions eligible for CPA membership.

⁹ The interviews were conducted via conference call and in person, with representation from the CPA, the Bank of Canada and the Department of Finance present.

¹⁰ To encourage an open dialogue, the participating institutions' comments will be held in strict confidence and are not attributed in the report to any one institution or member.

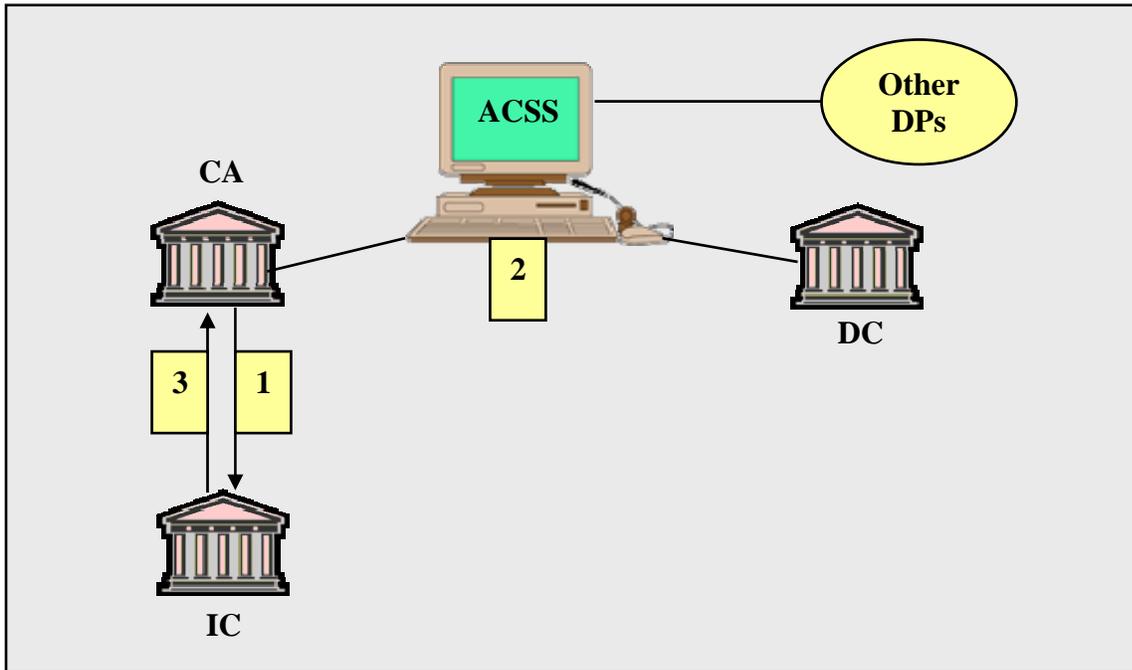
5. ORGANIZATION

The remainder of the report is organized into five sections: (1) an overview of tiered clearing and settlement relationships; (2) the key system-wide efficiency and risk issues arising from tiered relationships; (3) guidelines for evaluating and modifying the direct participation conditions; (4) proposals for consideration; and (5) issues for follow-up work by the CPA.

6. OVERVIEW OF TIERED CLEARING AND SETTLEMENT RELATIONSHIPS

The tiered participation arrangements for the ACSS include ICs, DCs/GCs and CAs in the system (Diagram 1). Direct participants in the ACSS hold their settlement accounts at the Bank of Canada. These direct participants are also Direct Participants in the LVTS and use LVTS payments, and related intra-day credit from the Bank of Canada, to settle their ACSS net positions on the morning following the ACSS clearing cycle.

DIAGRAM 1: ARRANGEMENTS FOR INTER-BANK PAYMENTS IN THE ACSS



Legend: Inter-Bank Arrangements

- (1) Between a CA and its IC
- (2) Between Direct Participants (CAs and DCs) through the ACSS
- (3) Between an IC and other DCs through the CA and the ACSS

The ICs in the ACSS hold a settlement account with each of their CAs. Payments to and from ICs that use the same CA, or between an IC and its CA, are cleared and settled on their accounts at the CA. Payments to and from an IC from a CPA member that does not use the same CA are routed through the IC's CA for clearing and settlement over the ACSS. In this case, the payments would be included in the CA's net settlement position and settled on its account at the Bank of Canada.

The description above is the general framework for the book-entry transfer of commercial banks and central bank funds. However, underlying this process is a set of payment services, contracts governing the purchase and sale of these services between parties and markets for negotiating, pricing, servicing and (if necessary) enforcing these contracts. In tiered participation arrangements, these services, contracts and markets are interrelated so that the conduct and performance of participants in one of these markets can affect the nature of the outcomes not only in that specific market, but in the related markets as well. Understanding these market interrelationships helps determine the economic implications of various conditions proposed for direct participation in the ACSS.¹¹

7. SURVEY ANALYSIS: EFFICIENCIES, COSTS AND RISKS IN THE ACSS TIERED STRUCTURE

The analysis of the survey results indicated that there are three key subject areas with implications for participation conditions in the ACSS:

- system-wide efficiency and risk;
- the efficiencies and risks in the CA – IC relationship; and
- agency risks and costs.

7.1 System-Wide Efficiency and Risk

In November 2003, the settlement process for the ACSS changed substantially.¹² Rather than settle on a retroactive basis through direct transfers on the ACSS settlement accounts held at the Bank of Canada, the ACSS now settles using LVTS payments on a noon next-day basis. Direct participants in a net credit position still have overnight implicit credit exposure to those in a net debit position. In real-time, even under the prior regime, the ACSS still settled at noon next-day but with the settlement account postings back-dated one business day. However, the direct participants in a net debit position can now finance their ACSS net settlement obligations more readily, with greater certainty and more cheaply on the real-time next-day settlement date than through the market-based settlement exchange transactions (SETs) and the Bank's ACSS advances on the prior-day value date.

Efficiency Considerations for Direct Clearers and Clearing Agents

DCs indicated that they need *sufficient volume to achieve the operating economies* necessary to lower their internal per payment costs and choose to outsource processing to lower these costs even more. Those that act as CAs indicated that their ICs' volumes add marginally to volume and their operating economies.

Most DCs indicated that *access to the Bank of Canada's overnight loan facilities* is one of the benefits of their participation. However, when the ACSS settlement shifted to a next-day basis using LVTS payments, the Bank's policy on ACSS credit changed. All direct participants in the ACSS are currently Direct Participants in the LVTS as well and they are expected to draw on their intra-day LVTS credit facility with the Bank or to take overnight LVTS advances if necessary to fund their ACSS net settlement obligations. Direct participants in the ACSS will have access to ACSS overnight advances only in the event that the LVTS is inoperable.

¹¹ Annex 3 provides a more detailed description of these market arrangements.

¹² Tuer, E., 2003, "Technical Note: Elimination of Retroactive Settlement in the ACSS", *Bank of Canada Review*, Autumn.

The Financial Risk Between Direct Clearers

Although the actual LVTS payments used to settle the ACSS net positions are final and irrevocable intra-day, the net positions of the ACSS members can still be unwound until the LVTS settlement payments are made. The direct participants in the ACSS that are due funds are still implicitly providing settlement credit to those that owe funds. This credit is uncollateralized and an insolvency order against a direct participant that is in a net debit position before settlement can leave the surviving direct participant exposed to *credit and liquidity losses*.

While there is still the ultimate risk of unanticipated losses due to counterparty failure among the direct participants, the immediate *cost of financing ACSS settlement is lower* in the event of a counterparty default under the new settlement regime for the ACSS. The settlement of the revised net ACSS positions following an insolvency would still involve LVTS payments among the surviving direct participants and those due to the failed direct participant. The surviving direct participants would no longer need to rely solely on high-cost ACSS advances from the Bank of Canada to finance unanticipated liquidity needs on a back-dated basis. With next-day settlement, they can finance these unanticipated needs through lower cost intra-day credit from the Bank of Canada or overnight credit from the Bank or the open market.¹³ The all-in cost to surviving direct participants of a counterparty failure in the ACSS is, therefore, now marginally lower.

Managing System Risk Efficiently

Because of the limited systemic-risk controls in the ACSS, direct participants are concerned about the credit-worthiness of other direct participants and about *the size of the group as a limiting mechanism* on the costs of counterparty risk monitoring.

Most direct participants indicated that *counterparty credit-worthiness* is critical for cost-efficient risk management in the ACSS. Some proposed that, while the larger institutions are generally more credit-worthy than the smaller ones, many small institutions are equally or even more credit-worthy than some large ones. Thus, the size of the institution may at best be a secondary consideration related more to volume of payments through the system than to their credit-worthiness. All agreed that the large institutions already have an economic incentive to be direct participants.

Some were also concerned with the *institutional class* of the CPA member that could be a direct participant. The concerns were particularly explicit with regard to money market mutual funds and life insurance companies. Differences in the prudential regulatory regime and the opacity of legal responsibility and liability in the organizational structure of money market mutual funds were the principal concerns. Mutual funds do not presently demand the level of overnight credit from CPA members that they would likely require as direct participants in the ACSS. The marginal credit risk due to policy-holder preference in the creditor status under the insolvency regime for life insurance companies was cited as the principal concern.¹⁴

Finally, virtually all direct participants indicated that a *limited number of direct participants* in the tiered clearing and settlement arrangement are preferable on efficiency grounds. Most pointed to the familiarity

¹³ Direct Clearers currently pledge substantial excess collateral to the LVTS and have sufficient excess liquid assets that would typically allow them to finance their unanticipated liquidity needs from a counterparty failure in the ACSS. See Northcott, C. A., 2002, *Estimating Settlement Risk and the Potential for Contagion in Canada's Automated Clearing Settlement System*, Working Paper 2002-41, Bank of Canada, December; and McPhail, K. and A. Vakos, 2003, *Excess Collateral in the LVTS: How Much Is Too Much?*, Working Paper 2003-36, Bank of Canada, November.

¹⁴ The CPA members that presently lend to life insurance companies seem willing to bear and manage this marginal risk, albeit for a level of compensation that they would be unable to obtain for the extension of settlement credit.

that one direct participant has with its counterparts in the ACSS. This familiarity creates the ‘mutual trust’ that is critical to a system that operates on implicit inter-bank credit and provisional credit to clients without ‘holds’ on deposited debit-pull payment instruments like cheques. A few direct participants suggested that their limited number permits more effective cooperation and coordination in the adoption of new initiatives and in addressing issues during abnormal events.

7.2 The Clearing Agent-Indirect Clearer Relationship in the Tiered Arrangement

All direct participants recognized the mutuality of interest that characterizes networks such as the ACSS but implied the positive network effects of the ACSS were best allocated, at least from their perspective, through the tiered network arrangements. With fewer direct participants in the system, they may be able to capture a larger share of the network benefits, especially if they act as CAs. However, they also bear more of the network costs and risks in the ACSS’ tiered arrangement.

Efficiencies for Clearing Agents

Most CAs suggested that the principal benefit from providing clearing and settlement services to ICs is the *return on relationship banking*. The CAs bundle the payment service with other banking services and price the package, not the individual services. Although some components are similar, the service packages are customized to some extent to the IC’s needs. Many of the CAs indicated that they assign low-margin fees to the payment services in the package suggesting that the other components of the package may have the higher-margin user-charges that make the return on relationship banking profitable for them. Contracts between CAs and their ICs are negotiated bilaterally and are not very highly standardized even between ICs using the same CA, let alone between CAs.

Direct participants indicated that they expected CAs to manage their relationships with their ICs in a fashion that would ensure the smooth operation of the ACSS. They referred to both operational efficiency and the provision of settlement liquidity, if necessary, to ICs. All CAs indicated that they managed their IC relationships in this fashion and with this objective in mind. Some stated that this approach *limits their risk management costs* in the ACSS and thus permits them to operate on a ‘mutual trust’ basis rather than through risk controls that would raise costs and client fees.

The Counterparty Risk to Clearing Agents from Indirect Clearers

The CAs indicated that they typically provided their ICs with some form of liquidity facility as part of their overall banking relationship. In addition, they *implicitly guarantee settlement* of their IC’s net inter-bank obligations through the ACSS partly because of operational lags and partly because of the ‘mutual trust’ relationship among direct participants. With processing outsourced, CAs indicated that it is operationally costly to check on an IC’s net ACSS position and the availability of funds in its settlement account before the ACSS settles at noon-time.

When ACSS settlement was back-dated, the CA was the only source of back-dated overdraft credit for its ICs. Since a CA would refuse to lend only if concerned about the imminent insolvency of an IC, which is a rare event, an investment in timely and sophisticated systems to monitor their IC’s positions was seen by the CAs as impractical. CAs thus provided their ICs with an implicit (conditional) settlement guarantee. They mitigated the risk of this settlement guarantee by requiring ICs to hold positive balances or deliver third-party credit (limited) guarantees.

With the ACSS now settling on a next-day noon basis and the net ACSS settlement positions available early that morning, CAs have more operational scope to assess the net inter-bank position of their ICs and

demand collateral delivery for overdraft positions, if necessary, before settlement at noon. To do this, some CAs would need to invest in more timely monitoring systems, which might raise service fees to their ICs. ICs also now have access to other market sources of liquidity, although some may need to enhance their collateral management capability.

Even so, *the settlement risk and the immediate options for the CA are likely not that different* with next-day ACSS settlement in the event that the IC was unwilling or unable to deliver additional collateral or funds. If the IC is declared insolvent before settlement, the CA may be able to unwind some of the IC's payments but, because of the implicit settlement guarantee, would be expected to fund the IC's residual settlement obligations to the ACSS. The CA would still bear this residual counterparty risk.

Efficiencies for Indirect Clearers

Virtually all ICs said that they *save back-office operating costs* by outsourcing their clearing and settlement requirements to CAs rather than operate as a DC. While ICs universally cited the price of CA's service package as the primary factor in selecting a CA, others also indicated that *service reliability and the timeliness of payment flows and information* were principal determinants as well. Some ICs invest very little in developing any in-house expertise in payments and in their relationship management with their CA, relying totally on the CA to take care of their interests in the clearing and settlement of payments. Others have developed significant in-house expertise in payments and some even indicated that, in the absence of a volume restriction, they would consider becoming a DC.

Some ICs noted that they face substantial *switch costs* in changing CAs, partly because their internal systems are programmed to integrate smoothly with those of the CA. Because of these switch costs, a few of these ICs admitted that they did not actually 'shop around' for CAs even when contracts were under re-negotiation, even though they had initially cited price as a principal factor in selecting a CA. Also, they do not invest in back-up arrangements independent of those of their CA.

However, switch costs appear to be a relative issue since some of the larger ICs indicate that their switch costs are not large relative to potential losses. In some cases, this is partly due to their investment in developing in-house expertise and their access to even more expertise through foreign parent banks or other affiliates. Some also have access to back-up CAs and are able to switch over within a short period of time. These ICs also noted that they do shop for clearing agency services on occasion to assess the quality of the services and the competitiveness of the fees charged by their primary CA.

The Counterparty Risk to Indirect Clearers from Clearing Agents

Some may argue that while in practical terms, the probability of an insolvency by a typical IC may be greater at present than that of a CA, the loss exposure may be smaller for a CA. The expected loss would be quite manageable for the surviving counterparty. However, the counterparty risk to the IC from the *unanticipated insolvency of a CA* is much more appreciable.¹⁵

Aside from the operational risks to ICs resulting from the unexpected failure of their CA, there are also *financial risks*. The funds in their settlement accounts with the CA are unavailable to them and their CAs are typically their primary source of liquidity. As a result, even if the ICs could find an alternative agent for clearing and settling their payments immediately, they would incur an unanticipated liquidity cost for settlement financing. While possibly manageable for most ICs, the cost of working through this event would likely be more substantial for an IC relative to its resource base when its CA fails than the reverse.

¹⁵ The argument that such events should always be foreseeable in the market presumes a degree of informational efficiency of markets that is challenged by the reality of survivor losses from counterparty failures.

Moreover, since the failed CA would have been providing these services to a number of ICs, the system-wide negative impact on ICs and their clients could be substantial. Thus, while the probability that a CA will become unexpectedly insolvent is likely quite low, the system-wide cost of such an event for the ICs in its own quasi-system and for others in the ACSS could be substantial.¹⁶

7.3 Agency Costs and Risks and Market Competitiveness

Most ICs are willing to obtain the cost-savings from indirect participation in the ACSS in exchange for the potential agency risks that they may incur by clearing and settling through a CA.¹⁷ Agency risk is the prospect that a CA might take some future action for its own benefit that could impose an additional cost on its ICs through their clearing and settlement arrangement.

The responses of the CAs and ICs to the survey indicate there are three principal agency concerns that can affect the willingness and ability of ICs to compete in end-user payment service markets. They are related to:

- risk management costs;
- operational risks and costs; and
- end-user market risk.

Risk Management Costs

As noted, CAs accept some financial risk that one of their ICs may fail. To limit their exposure, the CAs impose risk controls on their ICs. Many of these static controls, such as the requirement to maintain a minimum positive daily settlement balances, may involve a higher direct cost for some ICs than they would otherwise incur, such as using collateralized overdrafts or overnight market financing now potentially available to them under next-day settlement.

Some CAs stated that they do not explicitly price the insolvency risk into their contractual arrangements with their ICs, although it may be factored into the overall margin on the full service package. The additional costs to ICs related to their CA's risk controls are either priced into client fees in the end-user market by ICs or absorbed as lower operating returns that could raise the ICs' financing costs. These ICs might, therefore, be at a competitive disadvantage in end-user markets relative to DCs that have access to lower-cost Bank of Canada credit and are not subject to minimum settlement balance requirements.

Operational Risks and Costs

The ICs indicated that they are satisfied with the timeliness of payment flows and information from their CAs under normal operating conditions. The CAs claimed that since most payment processing is outsourced, it is virtually impossible to discriminate against ICs on service levels in a cost-effective manner under normal operating conditions. They would do so only under extraordinary circumstances for a specific IC that poses a clear financial risk to them.

¹⁶ With insufficient data on payments through the CAs' quasi-systems, there are no estimates of the system-wide cost of a CA's failure available for this report.

¹⁷ Risk is not a realized loss. It is the forward-looking prospect that some unanticipated revenue loss or cost could occur as a result of particular events and conditions.

However, some ICs are concerned about the operational risk they face in the event of an outage in their CA's operating systems and the implied reputational risk in their end-user markets.¹⁸ When such events have occurred, the timeliness of the payment flows and information flows on settlement positions and credit positions has been severely disrupted. Even then, some ICs are contractually unable to communicate directly with the third-party payment processors and are limited to communicating through their CA. Although the CAs have sufficiently 'deep pockets' to extend settlement credit to their ICs and to compensate them for losses within or even beyond the liability arrangements in their contractual agreements, the ICs are unsure of their own liability positions with regard to customers and other CPA members. Payment flows typically gridlock as information problems mount.

The ICs indicated that there were different approaches to dealing with this type of event. Those most concerned about reputational loss would continue to credit client accounts for deposits received even though their settlement is delayed and uncertain. In effect, the IC would absorb the operational risks imposed on them by the CA's outage to limit the impact on their clients. Other ICs would freeze payments to and from client accounts, thus shifting the cost and risk of the CAs outage onto clients. All would have significantly higher administrative costs associated with client relations.

End-User Market Risk

Aside from the additional settlement costs and operational risks to which an IC might be exposed, there is also the issue of direct competition between an IC and its CA in end-user markets. Although CAs may impose agency risks and therefore the associated costs quite inadvertently on their ICs, they may also occasionally do so strategically. In such strategic behaviour, the CA would act to impose a cost on its ICs to enhance its own competitive position in end-user markets. Consequently, ICs could be at a competitive disadvantage.

While no rationale was explicitly stated in their survey responses, some ICs indicated that they select end-user market segments and CAs to avoid such head-to-head competition. This suggests an awareness of their exposure to agency risk. By strategically limiting some of their choices in end-user markets, these ICs reduce the likelihood that their CAs would lever off their clearing and settlement services to gain a competitive advantage.

Related to the switch costs and the possibility that their CAs might choose to compete against them more aggressively in end-user markets, a few ICs are concerned about *short notice risk*. The short notice rule¹⁹ allows a CA to withdraw clearing and settlement services from an IC on only one-day notice, which poses an additional agency risk on ICs. Although designed to protect CAs from a 'reasonable' risk or a 'substantial' breach of contract of an IC, there are no explicit statements about what a reasonable risk or substantial breach might be. Some ICs feel that this poses a threat to their ability to continue operations and thus compete in end-user markets. However, some CAs reaffirm that they are reluctant to exercise their right of short notice pre-emptively since it might expose them to civil action or administrative penalties.

¹⁸ Because of switch costs and the rarity of such an event, few ICs have back-up arrangements.

¹⁹ Section 39(1) of the CPA's By-law No. 3 – *Payment Items and Automated Clearing Settlement System* provides that a CA may immediately cease to act for an IC if: (a) the CA reasonably believes that the IC poses a legal, financial or operational risk to the CA; or (b) the IC has breached a substantial term of an agreement entered into with the CA for the purposes of clearing and settlement.

8. GUIDELINES FOR NEW DIRECT CLEARER AND CLEARING AGENT PARTICIPATION CONDITIONS

The survey results suggested *five general policy principles* for the participation conditions in the ACSS. At the most general level, the direct participation conditions should help:

- preserve trust, and thus cooperation, among DCs and CAs and between CAs and ICs;
- contain system-wide and counterparty risk and risk management cost;
- limit agency risks and costs to ICs;
- permit ICs to become appropriately informed about comparative costs, risks and service levels when negotiating with CAs; and
- foster further competition among CAs for the business of ICs.

The survey responses indicated that the *current participation restrictions are neither the only ones feasible nor the universally desirable ones*. They also suggested that, in the absence of these current restrictions, there would be *four important practical requirements for direct participation in the ACSS* consistent with the principles listed above, particularly those related to trust and risk:

- The financial and possibly technical conditions to participate as a CA should be more stringent than those for participating as a DC that settles their own inter-bank payments only.
- There needs to be some mechanism that would have the effect of limiting the size of the group of direct participants in the ACSS to help preserve the ‘mutual trust’ property of the system that currently limits risk management costs and underpins much of the service quality to ICs and clients.
- The conditions must address two scenarios:
 - (i) becoming a direct participant in the ACSS; and
 - (ii) continuing as a direct participant in the ACSS.

Some of the conditions for becoming a direct participant could, therefore, be more onerous than those for continuing as a direct participant. This would help: (i) facilitate a ‘mutual trust’ immediately, given the absence of an experience-based relationship with other direct participants; (ii) better assure the on-going commitment of the new direct participants to meeting its responsibilities to the other network participants; and (iii) allow some reasonably bounded flexibility in the conditions for on-going participation when adverse events temporarily demean a participant’s financial or operational performance.

- If the operating and coordination costs and risks of participating directly are increased unduly, the ACSS tiered arrangement will function less efficiently. All CPA members and their clients will likely face higher costs or lower quality payment services, and possibly even greater payment risks.

There are *also two necessary ‘transition constraints’* for moving from the current set of participation conditions to any alternative set:

- make the minimum changes necessary to the existing participation conditions to address the needs of the CPA members within the current operating realities of the ACSS and its current public policy framework; and
- ensure that the current direct participants in the ACSS are not disenfranchised with the introduction of new participation conditions.

These constraints would help limit both the transition costs for all CPA members and the post-transition uncertainty regarding the on-going efficiency, operational and financial safety of participation in the ACSS.

9. PROPOSALS FOR CONSIDERATION FOR MODIFYING DIRECT PARTICIPATION CONDITIONS

This section sets out the Study Group’s policy advice, in the form of high-level proposals, for consideration on the direction/parameters for any changes to the participation conditions for the ACSS, subject to the CPA addressing the outstanding issues that are set out below. The three current direct participation conditions for the ACSS that have been identified in the CPA participant survey, or in past submissions of the CPA, as items to review are: (1) the volume requirement for DCs; (2) the technical standards for direct participation; and (3) the institutional restriction on direct participation. The volume requirement and the technical standards are the most critical and controversial to adjust in light of the various guidelines discussed in the previous section because of the impact it could have on the current CPA membership.

On the basis of its review, the direction that the Study Group proposes is having multiple access conditions for direct participation that, as a unified set, would serve to increase competition in the ACSS while at the same time maintaining its efficiency and safety. The conditions should be more specific than at present; relating to access to various settlement facilities at the Bank of Canada, direct participation in the CPA’s LVTS, credit ratings and certification testing. These conditions are designed and put forward for consideration to contain settlement risks in the ACSS for both direct and indirect participants and thus preserve the trust relationship at the core of the system and minimize risk management costs within it. The details are discussed in the following sections.

9.1 Retain Institutional Restrictions

Proposal for Consideration

The Study Group proposes that the current institutional restrictions be retained for the present. In particular, that life insurance companies and money market mutual funds continue to be restricted to indirect clearer membership.

Rationale

The legal and regulatory issues that motivated the institutional restrictions in the ACSS on life insurance companies and money market mutual funds have not changed since they became eligible in 2001.²⁰ Moreover, no eligible non-deposit-taking financial institution (life insurance companies, securities dealers and money market mutual funds) has joined the CPA. It is also worth noting that the CPA did not receive any written responses to this recommendation from the eligible non-deposit-taking institutions during the consultation process.

9.2 Repeal Volume Requirement

Proposal for Consideration

The Study Group proposes *repealing the volume requirement* for direct participation in the ACSS and replacing it with appropriate alternative conditions. Alternate conditions are put forward (in sections 9.3 to 9.5) with a view to both minimizing risk and maintaining the trust-relationship among direct participants, without unduly constraining any reasonable business case for entry; and for ICs, to provide comfort in the financial stability of their CAs under a new regime.

Rationale

Although an important criterion from the perspective of achieving the economies and efficiencies necessary to justify a business case for direct participation in the ACSS, payment item volume is not indicative of the operational or financial capability to clear and settle payment transactions. Accordingly, it has been argued that it should not be used to restrict direct access to the ACSS. The repeal of the volume requirement would allow ICs that currently do not meet the volume requirement the opportunity to become direct participants in the ACSS, if they meet the other criteria. This could help limit the exposure of ICs to agency risk and cost and enhance their opportunities in bargaining with CAs for acquisition of clearing and settlement through the CAs' quasi-systems.

The Study Group does recognize that, although the volume criterion was not a proxy for financial capacity, it did serve as a convenient mechanism to limit size of the group,²¹ which is important in terms of managing system risk efficiently and building trust among direct participants. The conditions set forth in the remainder of the report attempt to address concerns regarding the implications on the trust-relationship and financial stability of CAs.

Additional Issues to Consider

- *Foreign Bank Branches:* Repealing the volume requirement would allow branches of foreign banks, which at present participate indirectly in the ACSS, to be direct participants in the ACSS, if they meet the other eligibility requirements. This raises concerns about the possible effect of

²⁰The rationale for this restriction was set out by the Department of Finance in its June 25, 1999 policy paper -- *Reforming Canada's Financial Services Sector -- A Framework for the Future* and in its July 1998 *Payments System Review Discussion Paper*.

²¹There are no explicit conditions proposed that would limit the entry, exit or number of direct participants. Instead, the limiting factor is implicitly the business case for direct participation. Anecdotal evidence suggests that the direct set-up cost of becoming a Direct Participant in the LVTS is not that large (around \$1 million, including CPA, Bank of Canada and internal technology costs). The direct set-up costs of becoming a DP in the ACSS may be somewhat higher. It is the human resource and day-to-day operating costs for direct participation in the ACSS and LVTS that are significant.

foreign laws on the risk containment mechanisms in the ACSS by-laws and rules (e.g., default provisions) and on the enforceability of CPA's by-laws and rules in the foreign bank's home jurisdiction.

Potential course of action: Require branches of foreign banks that wish to become a direct participant in the ACSS to supply a legal opinion verifying:

- (1) the affirmative applicability of their home country law to the CPA's by-laws, rules and procedures regarding their ACSS participation and any related contractual agreements in which they enter (e.g., clearing and settlement contracts with ICs or service contracts with third-party processors); and
- (2) the enforceability of ACSS-based claims against the branch's head office.

Consideration should also be given to subsidiaries of foreign banks who wish to support their application for direct participation by way of a guarantee by their parent bank.

Proposal: The Study Group proposes that the CPA evaluate the specific needs for legal opinions from branches of foreign banks regarding the enforceability of CPA by-laws, rules and agreements in their home jurisdiction and requiring from the bank guarantees of liquidity and other forms of surety. In doing so, the CPA could examine what other similar organizations²² have required in this regard.

9.3 Credit-Rating Conditions for Direct Participation

Proposal for Consideration

The Study Group proposes *prime credit ratings on short-term paper* as an objective measure for credit-worthiness and thus as a proposed condition for direct participation – as a DC, GC and CA -- in the ACSS.

There are five main elements to the proposed credit-rating conditions:

- All DCs and CAs in the ACSS would be required to have and maintain prime credit ratings on their paper. All the existing DCs and CAs presently meet such a requirement and all new participants would be required to meet the same requirements.
- **GCs** in the ACSS would be required to either:
 - (i) have their own prime credit-rating directly; or
 - (ii) for those not rated, provide explicit settlement guarantees from its participating institutions and have prime credit ratings from at least two of its participants whose assets represent a minimum of 50% of the combined assets in the GC.

All existing GCs presently meet this requirement.

²²For the Bank of Canada to grant an authorized foreign bank branch a settlement account, it would require a legal opinion regarding the enforceability of its settlement account, credit and collateral security agreements, and of the relevant ACSS By-law and rules regarding its own account and counterparty relationships with foreign branches, as it now does for their LVTS participation. However, this opinion has no reference to other CPA by-laws, rules and conditions.

- Because of their counterparty and service provider roles to both direct and indirect clearers in the ACSS, *CAs* would be required to have higher credit ratings than *DCs and GCs*.
- The minimum ‘maintenance’ credit ratings for continuing as a direct participant in the ACSS, while still a relatively high investment grade rating, would be lower than those required for approval as a new direct participant to: (i) help assure the existing participants that have little credit experience with the new participant of the latter’s high-degree of credit-worthiness; (ii) allow sufficient flexibility to individual participants for cyclical or other transitory credit-rating reductions; and (iii) provide the CPA a ‘signal’ for monitoring participation quality.
- Upon entry as a direct participant, the eligible CPA member would need an entry-level prime paper rating from at least one of the four recognized rating agencies – Dominion Bond Rating Service (DBRS), Fitch, Moody’s or Standard & Poors. To continue as a direct participant, an institution would need a minimum maintenance rating from one of the specified rating agencies.
- The proposed ratings for the specified rating agencies are as follows:

	Rating	DBRS	Fitch	Moody’s	S&P
Clearing Agent	entry	R-1 (mid)	F-1	P-1	A-1 (mid)
	continuing	R-2 (mid)	F-2	P-2	A-2 (mid)
Group Clearer	entry	R-1 (low)	F-1	P-1	A-1 (low)
	continuing	R-2 (low)	F-2	P-2	A-2 (low)
Direct Clearer	entry	R-1 (low)	F-1	P-1	A-1 (low)
	continuing	R-2 (low)	F-2	P-2	A-2 (low)

Rationale

Credit ratings are an objective, transparent and reasonably current measure of trust worthiness among institutions involved in mutual credit relationships as they are in the case of the ACSS. Since market access to short-term credit is a critical requirement for participation in a payment settlement system, credit-ratings on short-term paper signal the credit worthiness of an institution and, thus, their ability to access credit on short notice. Short-term credit ratings, which are quite stable relative to benchmark ratings and highly correlated with the issuer’s long-term credit ratings, are consistent with the guidelines for an effective condition for direct participation in the ACSS in the absence of a volume requirement. Annex 4 provides some detail on these credit ratings relevant to their use as a condition for direct participation in the ACSS.

By proposing a range for acceptable variation in the credit ratings, the Study Group is attempting to address the concern about an increased probability of exit from direct participation in the ACSS if the rating requirements were too narrow. The transparency of these credit ratings to all CPA members, and the variation range in them, allow individual direct participants in the ACSS to recognize early the adverse consequences of on-going rating reductions on their payments business related to the reduction in ready access to low-cost liquidity in the market. This should add further incentives for these institutions to take prompt action to remedy any problems associated with declining ratings for their own benefit, which will also benefit the ACSS and its participants. Access conditions that set out appropriate incentives would enhance the trust worthiness among direct participants and stability within the ACSS.

Additional Issues to Consider

- *Direct Clearers that act as Clearing Agents for Related Companies:* The Study Group is proposing that DCs acting as CAs would be subject to a higher ‘entrance’ and ‘maintenance’ credit rating. The CPA may also want to consider (from a policy and legal perspective) distinguishing between DCs that act on behalf of their subsidiaries in an “arms-length” versus a “non-arms-length” relationship for credit rating purposes – a suggestion put forward during the consultation process.
- *Hybrid Approach:* The Study Group does not object to considering a hybrid approach as proposed by some of the respondents during the consultation process (i.e., long-term and short-term paper) under the condition that short-term paper receives a heavy/primary weighting – although it should be noted that short-term credit ratings have been reported to be highly correlated long-term credit ratings. The Study Group would also note for consideration that should the CPA explore a more hybrid approach, layers of complexity and perhaps subjectivity (e.g., indeterminacy gaps between long-term/short-term, judgment calls) may be added to the process.

The Study Group does not support capital requirements as a condition for direct participation. Capital adequacy is already a strong element in credit assessments; also deposit-taking financial institutions are subject to OSFI capital adequacy requirements or the provincial equivalents and the CPA should not impose any additional ones in this area.

- *Dropping below Minimum ‘Maintenance’ Credit Rating:* The CPA must develop a thorough and transparent approach to dealing with direct participants that fall below the ‘maintenance’ credit ratings, not only from the perspective of compliance and enforcement, but also in terms of what action(s) will be required by the CPA member to continue to participate as a direct participant in the ACSS, if it falls below the rating. The Study Group concurs with the recommendations of a number of respondents that the CPA needs to develop a comprehensive set of guidelines, policies or escalation procedures to deal with direct participants that fall below the ‘maintenance’ credit ratings.

9.4 Direct Participation in LVTS

Proposal for Consideration

The Study Group proposes that all DCs, CAs and GCs in the ACSS also must be direct participants in the LVTS.

Rationale

Under the current next-day settlement arrangements, the settlement of ACSS positions among the direct participants in the ACSS are facilitated by LVTS payments to and from their ACSS settlement accounts at the Bank of Canada. In current practice, the efficiency of this process relies on two factors: (i) all direct participants in the ACSS having LVTS accounts at the Bank of Canada; and (ii) all direct participants in the ACSS having access to immediate intra-day credit from the Bank of Canada. Direct participants in the ACSS have direct access to Bank of Canada settlement accounts and intra-day credit, as well as to Bank of Canada overnight credit in all but abnormal circumstances, only if they are also direct participants in the LVTS.

The proposed requirement for direct participation in both the ACSS and LVTS: (i) limits the risk that individual direct participants in ACSS might otherwise not have immediate and on-going access to sufficient market liquidity from direct participants in the LVTS acting as their clearing agent or other sources; and, (ii) limits the prospect of delays in ACSS settlement due to liquidity problems, which affects all participants in the ACSS. Furthermore, this proposal is supported by planned initiatives for intra-day settlement points for some classes of payments.

This proposed requirement would likely have an impact on the number of participants in the ACSS. The set-up and operating costs of becoming a direct participant in the ACSS – those related to internal account management systems, treasury operations, and outsource relationship management as well as those related to ACSS connectivity and operational systems – reflect a significant investment. As long as CAs continue to provide ICs with acceptable payment services at a reasonable fee, these costs are enough to limit the business case for direct participation to a few CPA members that are not currently DCs in the ACSS. The additional cost of LVTS participation, relative to the benefits of direct access to Bank of Canada settlement accounts and credit, would not significantly reduce the business case further for those CPA members with sufficient payment volume to be effective direct participants in the ACSS. The proposed requirement would therefore help preserve counterparty trust and low counterparty monitoring costs critical for the efficient operation of the ACSS.

9.5 Certification Testing Upon Entry and Material Change

Proposal for Consideration

The direction the Study Group proposes is that, to demonstrate technical capacity in connectivity to the ACSS, ***certification testing of production and backup systems²³ be conducted and a complete record of testing results filed with the CPA upon entry and any material/substantial change.*** The CPA may also want to consider best practices in connectivity to deal with the agency risk between CAs and ICs. In all cases, appropriate privacy and confidentiality conditions would be followed.

The Study Group proposes that the task of determining the criteria for evaluation, the scope of the testing and the work standards for performance be delegated to the appropriate CPA committee.

Rationale

Operational capability is critical to trust worthiness and certification testing is evidence of that capability, but only if the results of the testing are accessible to, and monitored by, the CPA.

Another main element in the trust relationship among direct participants in the ACSS is their individual ability to meet their payment service obligations to the system from a technical and operational standpoint.²⁴ There are cost-and-time efficiency requirements related to technical standards as well as

²³This recommendation was altered from that set out in the Study Group's consultation paper on the basis of the feedback received by the CPA during the consultation process. Although there was no support expressed by the respondents for audit requirements for existing members, there appeared to be support for operational readiness or certification testing to provide the operational certainty.

²⁴The CPA has devised a set of minimum technical and operational requirements for direct participation in the ACSS that the participants (and their third-party service providers) need to meet. These requirements are summarized in Annex 6 and include: Minimum and Recommended Configurations for ACSS System Terminals (Rule B1, Appendix 1); Direct/Group Clearer Requirements (Rule D1); and CA Requirements (Rule D2, Part III – General Requirements and Obligations).

operational risk management requirements to limit, within acceptable bounds, the prospect of such risks and to manage through operational events that might occur.

10. SUMMARY OF ISSUES REFERRED TO CPA

Where possible, the Study Group has incorporated into the final report the feedback raised by CPA members and stakeholders. The Study Group recognizes that there are some areas that require further work and specificity on the part of the CPA prior to the CPA Board of Directors approving or implementing any proposed modifications to the conditions for direct participation in the ACSS. Some of these areas, which were previously noted in this report as being referred to the CPA for further action, are summarized below for ease of reference. The Study Group emphasizes that these issues be resolved prior to the Board of Directors considering or approving any final modifications to the criterion for direct participation in the ACSS.

- *Foreign Bank Branches:* Examine the specific needs for legal opinions from branches of foreign banks regarding the enforceability of CPA by-laws, rules and agreements in their home jurisdiction and the need for guarantees or other forms of surety.
- *Direct Clearers that act as Clearing Agents for Related Companies:* Assess from a policy and legal perspective distinguishing between Clearing Agents that act on behalf of their subsidiaries in an “arms-length” versus a “non-arms-length” relationship.
- *Falling below Minimum ‘Maintenance’ Credit Rating:* Develop a comprehensive set of guidelines, policies or escalation procedures to deal with direct participants that fall below the ‘maintenance’ credit ratings.
- *Operational Capacity/Connectivity – Certification Testing:* Determine the criteria for evaluation, the scope of the testing and the work standards for performance.

TERMS OF REFERENCE

BACKGROUND

The Government began a review of the payments system in Canada in 1996 as part of its review of the overall structure of the financial services sector. The review produced a policy paper in June 1999 - *Reforming Canada's Financial Services Sector: A Framework for the Future* - that among other things proposed opening membership in the CPA to life insurance companies, securities dealers and money market mutual funds operating in Canada. Because of issues related to the regulatory and bankruptcy regimes of life insurance companies and money market mutual funds, the government announced that these institutions would participate only as ICs in the CPA's ACSS.

Since that time, discussions with the CPA and other stakeholders leading up to the amended CP Act (2001) and Clearing By-law raised questions as to the relevance of the current conditions and restrictions on eligibility for participation as a DC in the ACSS.

Following the CPA May 2002 Board meeting, the Department of Finance and the Bank of Canada requested that the CPA Board approve a new definition of DC that includes an explicit restriction for life insurance companies and money market mutual funds and retains the current minimum volume requirement. This would implement an important part of the government's 1999 policy paper regarding increased access to the payments system.

The Department of Finance and the Bank of Canada also indicated that they would work with the CPA to study the potential impact of altering the eligibility requirements for DCs in the ACSS to permit broader participation. This study will consider what criteria could be used in the ACSS By-law to replace the current minimum volume requirement (0.5 per cent of national clearing volumes) and the requirement to restrict money market mutual fund and life insurance companies from being DCs in the ACSS.

This work will be undertaken by an ad hoc study group of representatives from the Department of Finance, the Bank of Canada and the CPA management and include the identification of potential alternative eligibility conditions for DCs for inclusion in the ACSS By-law or rules.

ISSUES FOR STUDY

Before recommending the elimination of the institutional restrictions, minimum volume requirement or other conditions defining a CPA member's eligibility for participating as a DC in the ACSS, the Tripartite Group will consider the impact on the efficiency and safety of the payments system as well as users of the payments system, including:

- concerns resulting from the participation of a potentially larger number and more diverse range of institutions as DCs and CAs that are related to:
 - (a) the nature, allocation and control of financial and operational risks among DCs and between ICs and DCs in the ACSS and the implications for the provision of payment services by CPA members to end-users; and

- (b) the level and allocation of costs among CPA members and the likely impact on the costs and quality of payment services to end-users;
- the desirability of some of these potential changes in the context of the public policy objectives; and
- the pros and cons of various feasible, credible and enforceable requirements proposed for participation as a DC in the ACSS that might effectively replace the current restrictions.

PROCESS OF STUDY

The Tripartite Group will meet at least quarterly over the next 2 years and will consult with senior risk management and payments policy representatives from the current DC members, three of four IC members and relevant stakeholders (i.e., potential new member associations). Once the initial consultations are completed, a discussion paper will be prepared by the Bank of Canada for a further round of consultation. A final report will then be prepared by the Tripartite Group for presentation to the CPA Board. Secretariat services will be provided by the CPA.

PROCESS FOR RECOMMENDATIONS

Upon completion of its study, the Tripartite Group may propose recommendations for consideration by the CPA Board and, subsequently, for consideration by the Minister of Finance.

QUESTIONNAIRE ON PARTICIPATION CONDITIONS FOR ACSS

The CPA, the Department of Finance and the Bank of Canada are undertaking a review of the existing conditions for participation in the Automated Clearing Settlement System (ACSS) as a DC. The objective of the study is to analyze plausible conditions, including the current volume requirement and institutional restrictions, that ACSS participants believe would help maintain an efficient, safe and equitable payments system. Once the study has been completed, the study group, which is comprised of senior officials from each of the organizations, plans to circulate a consultation document for comment and then finalize a report, with recommendations, for consideration by the CPA Board of Directors and the CPA's oversight authorities.

The study group will consider the following issues:

- the need for specific requirements for participation as a DC that settle payments only for its own account and as a CA that settle payments both for their own accounts and for those of ICs;
- efficiency, risk and equity concerns of all types of participants in the ACSS with regard to:
 - (a) the participation of a larger number and more diverse classes of institutions as DCs and CAs; and
 - (b) the clearing and settlement services that they obtain and to the payment services that they can offer to their clients;
- the pros and cons of alternative conditions for participation as a DC and CA in ACSS in terms of efficiency and risk effects and equity considerations.

As part of the review, the study group would like direct feedback through interviews from CPA members in the ACSS on these issues. The plan is to obtain comments and suggestions from a broad sample of DCs, ICs and representatives of potential new participants in the ACSS. Only general observations drawn from the questionnaires and the interviews will be used in the report and without attribution to particular institutions.

The institution-specific information provided by individual institutions will be strictly confidential and will be treated as commercially confidential under the *Access to Information Act* by the Department of Finance and the Bank of Canada.

A set of questions follow along with definitions in the appendix at the end of the document. While we would find the responses to the questions particularly helpful to the study, we hope that the responding parties feel free to add any comments and suggestions that they believe are relevant to the objectives of the study (i.e., appropriate conditions for participation as a DC and CA in the ACSS).

RISK FACTORS AFFECTING PARTICIPATION CONDITIONS

1. What are the risks and benefits in terms of risk containment for DCs from another DC that acts as a CA compared to one that settles only its own obligations?
2. From the perspective of an IC, what are the principal risks of settling through a CA? Are there risks to ICs imposed on them by DCs other than their own CA? Are the risks imposed by other DCs shared by the IC and its CA or are they borne fully by the IC?
3. From a DC's perspective, what are the principal risks and benefits in providing settlement services for ICs? What risk mitigants are currently used to manage the risks between CAs and ICs (e.g., CA requirements for minimum settlement balances, credit limits, pre-paid settlement using LVTS payments, delays in the pass-through of payment items drawn on or payable to ICs and posting debits and credits to IC's settlement accounts after the ACSS settles)?
4. Would the risks to DCs and ICs, or their customers, be notably affected by a greater number (i.e., one and a half as many, twice as many or three times as many) of CAs? If so, why and what types of risk mitigants might arise? For example, would holds on provisional credit to customers likely be used as a common risk mitigant?
5. Would these risks be notably affected if more diverse types of institutions (i.e., life insurance companies, securities dealers and money market mutual funds) participated as CAs? If so, why and what type of risk mitigants might arise?
6. What risks does an IC impose on DCs other than its own CA? How do the DCs subject to these risks mitigate and manage them?
7. If a greater number and more diverse types of institutions were to become DCs, but not CAs, could this impose other risks on DCs or ICs and on their clients? If so, why and what other types of risk mitigants might be used?

EFFICIENCY FACTORS AFFECTING PARTICIPATION CONDITIONS

1. From your perspective, what are the key business determinants in the decision to (i) operate as a DC settling only for your own account; (ii) act as a CA; or (iii) participate as an IC in the ACSS?
2. What are the most important efficiency aspects (e.g., timeliness and accuracy of services, cost of services) required of a CA by its ICs and by other DCs in the ACSS? Would these be different for an institution that was a DC for only its own payments?
3. Would these efficiency factors for other DCs and ICs be affected by a greater number or more diverse types of institutions acting as DCs and CAs? For example, would DCs be required to monitor their net settlement obligations and overall credit positions with other DCs more closely than at present, and if so, would this affect their operating costs?

4. What other system-wide efficiency considerations for the ACSS (e.g., innovation, cooperation in clearing and settlement) would be affected by a greater number or more diverse types of institutions participating as DCs or CAs? Would there be any particular effects on the efficiency of payment services provided to customers of DCs or ICs in this event (e.g., elimination of provisional credit and longer settlement lags)?

PARTICIPATION CONDITIONS

1. What do you believe are the principal system-wide advantages and disadvantages to the tiered settlement arrangement (i.e., ICs and DCs) in the ACSS? What factors among these, other than those noted in the previous sections, might influence most of the cases for a tiered structure and what are the principal considerations that lead to this conclusion? Would these change with a greater number of more diverse types of institutions participating as a DC (or as a CA) and why?
2. Should there be conditions placed on institutions that wish to participate as DCs in the ACSS and why do you believe this? Should there be additional, more stringent or otherwise different conditions for participation as a CA rather than as a DC for one's own payments and why?
3. Should the conditions be based on the institutional class of the CPA member and/or on its capacity to perform as a DC or CA? If the former, what types of institutional restrictions should be considered and how would you motivate them? If the latter, what types of performance measures might be most appropriate and why?
4. What kinds of conditions might be placed on institutions acting as DCs or CAs that would help mitigate the current counterparty and system risks discussed in the previous sections, and those that might arise from broader participation, to a level acceptable to your institution as a CPA member? How might these conditions affect the efficiency and equity of payment settlement and of provision of payment services to customers?
5. What kinds of conditions might be placed on institutions acting as DCs or CAs that would help preserve or increase the efficiency of payment settlement in the ACSS for its participants and their customers? How might these conditions affect the risks and equity of payment settlement and of provision of payment services to customers?

OTHER ISSUES

1. Are there objectives other than efficiency, risk and equity that should be considered in defining participation conditions for DCs and CAs, and what motivates their consideration?
2. Do these objectives raise issues that are affected significantly by a greater number or more diverse range of institutions acting as DCs or CAs?
3. What conditions for participating as a DC or CA might be considered to deal with these issues and how would they affect the efficiency, risk and equity considerations for participation?

4. How might consolidation among institutions participating in the ACSS, especially as DCs and CAs, affect your views on the issues and conditions for participation in the ACSS? How likely are these consolidation issues to arise over the next 5-10 years in your estimation?
5. Would further expansion of the outsourced processing of payment items and data by DCs to existing or new non-member service providers affect your views on the issues and conditions for participating as a DC or CA in the ACSS and, if so, why and how? How likely are these outsourcing issues to arise over the next 5-10 years in your estimation?
6. Are there any other issues to consider regarding participation in the ACSS as an IC, DC or CA that would affect the efficiency, risk, equity or other objectives of the system and, if so, how might they be addressed?

MARKET ARRANGEMENTS FOR CLEARING AND SETTLEMENT SERVICES

There are four sets of integrated market arrangements considered in this study:

- the market for settlement services provided by the Bank of Canada to the direct participants in the ACSS;
- the ACSS clearing and settlement services provided by the CPA to its members, principally its direct participants;
- the clearing and settlement services provided by CAs for the ICs through the CAs' quasi-systems; and, lastly
- the retail payment services provided to end-users by the direct participants and ICs in the ACSS.

BANK OF CANADA SETTLEMENT SERVICES

The Bank of Canada provides settlement accounts, Standing Loan Facilities (SLF) and account transfer and administration services to direct participants in the ACSS. The terms and conditions of the settlement account and SLF agreements – the service contracts – are highly standardized with regard to the daily service levels, emergency services and the costs and conditions for accessing credit. Aside from interest costs for credit, the Bank does not charge for providing its settlement services. The Bank perceives this to be a public service and absorbs the cost, which it funds through seigniorage and net interest revenues. To help limit the demand for this service, so as to control service production costs, negotiating costs and lending costs, the Bank relies on the CPA's participation conditions for direct participants and on its own conditions on access to settlement facilities to help restrict the number of CPA members using the Bank's settlement services as well as the frequency of turnover among the members of the group.

CPA CLEARING AND SETTLEMENT SERVICES

The CPA, which operates the ACSS, provides to its members the inter-bank clearing services and network settlement services that are linked into the Bank's settlement service arrangements. While all the CPA members benefit from this service, it is only the direct participants in the ACSS that are directly linked into the ACSS clearing and settlement networks. The CPA sets various types of conditions (volume, institutional and operational conditions) for participating directly in the network along with multilateral rules and procedures for using the network systems. These formulate the standardized contractual arrangements between them as the provider of these services and their network participants as the users of the services. In effect, these are 'closed' market arrangements; the services are provided only to the members of the CPA and, while the contracts may be revised with the consent of the user-members, they are perpetually in force. The CPA finances its service provision through a cost-recovery pricing methodology. Because of the positive network benefits that accrue to all CPA members, it is a two-part pricing scheme – a minimum fixed fee for all CPA members and a volume-based fee charged to the direct participants that covers the development, capital and operating costs of the ACSS.

CLEARING AGENTS' QUASI-SYSTEM SERVICES

The ICs in the ACSS participate directly in the clearing and settlement network operated internally by their CA for within-system payments – the quasi-system - and indirectly in the ACSS through the access or connector services provided by their CA in the ACSS. The CA negotiates service contracts bilaterally with each of the ICs to cover the provision and administration of settlement accounts, credit facilities and funds transfer services both within the CA's internal network and through the CPA's ACSS. These CPA-related payment services to ICs are typically bundled together with other banking services provided by the CA to the IC into a joint contractual arrangement. The pricing of the contract is negotiated typically on the bundle of services with a joint profit margin negotiated into the fee structure. The service level agreements, pricing methodology and fee structure are not highly standardized, even across ICs using the same CA.

In effect, the IC outsources its clearing and settlement requirements for the payment instruments and services it offers in end-user markets to the CA. In turn, the CA typically outsources all its payment processing and clearing functions to a third-party processor, in which it may have an ownership interest (e.g., Symcor and Intria-HP). The CA retains only the settlement account administration and credit functions. The private wholesale payment service market in which the CAs operate as service providers to ICs is also closed and highly concentrated. Only CPA members can access this service market and, including GCs, only about half of the twelve direct participants in the ACSS operate as CAs, of which two specialize in providing services only to cooperative institutions.

END-USER PAYMENT SERVICES

An interesting property of the end-user market for retail payment instruments and services is that the CAs compete with their own ICs as providers. Buying wholesale payment services from their competitors in retail payment service markets raises a number of interesting questions regarding the market efficiency of this arrangement for ICs in terms of payment services and other financial services that are related to them. Indeed, some estimates suggest that almost one-half of banking revenues are from services in which payments are part of the service package, indicating the breadth of the links between payment and other financial service for providers. Many of the end-user service packages that include retail payment services are commoditized by providers with the bundled package priced as a unit using a multi-part-pricing methodology around interest rates, administrative charges and transaction fees. The user-cost of these various packages differ within and among all providers, making it difficult to empirically assess the effect of this tiered payment system arrangement on relative real user-costs, even if sufficient data were available which is not presently the case.

CREDIT RATINGS FOR SHORT-TERM PAPER

Corporate credit ratings, which reflect an issuer's fundamental credit quality, are a credit rating agency's opinion of an obligator's capacity and willingness to meet its financial commitments as they come due. Current credit quality is important as it indicates the likelihood of the issuer losing access to funding in the commercial paper market and the time frame necessary to arrange funding should the company lose access. There are a number of agencies that assign credit ratings to issuers that range from higher prime to default. These rating agencies and their respective credit rating categories are set out in Table 1.

TABLE 1: RATING AGENCIES AND COMMERCIAL PAPER SHORT-TERM RATINGS

	Higher Prime	Lower Prime	Speculative Below Prime	Default
Moody's	P-1	P-2, P-3	NP	NP
Standard & Poor's	A-1	A-2, A-3	B, C	R, SD, D
Fitch	F-1	F-2, F-3	B, C	D
DBRS²⁵	R-1	R-2	R-3	D

According to one credit rating agency, the analytical approach for short-term credit ratings is virtually identical to the one followed in assigning a long-term credit rating. Moreover, short-term credit ratings correspond to long-term credit ratings. Therefore, a credit rating threshold could be based on short-term credit ratings and also provide valuable information about the longer-term credit quality of the institution.

Transition rates or rating migration analysis compares company credit ratings at the beginning of a time period, such as January 1, with ratings at the end of the period, such as December 31. Standard & Poor's rating transition and default studies have found a correlation between credit quality and default remoteness: the higher the rating the lower the probability of default, and vice versa. In addition, it generally takes longer for highly rated entities to default because highly rated companies are less vulnerable and have a greater ability to withstand a changing business environment or adverse economic shocks compared with low-rated entities. As a result, a lengthier period of credit quality erosion typically occurs before highly rated issuers default on their financial commitments.

For the same reasons that there is a relationship between credit quality and default remoteness, one would also expect highly rated entities to exhibit greater stability compared with lower-rated entities. Indeed, Standard & Poor's research also illustrates a correlation between credit quality and ratings stability, which is evidenced by the data in Table 2. In the period covered by Standard & Poor's, which was based on long-term credit ratings, 80 per cent of 'AAA' rated companies in Canada typically retained their 'AAA' rating within a one-year period, whereas 20 per cent of these companies experienced a downgrade to the

²⁵ Dominion Bond Rating Service.

‘AA’ category. In contrast, only 33.33 per cent of companies rated ‘CCC’ or lower were likely to retain the same rating within a one-year time horizon.

TABLE 2: CANADIAN AVERAGE ONE-YEAR TRANSITION RATES, 1981-2003 (%)

Rating	AAA	AA	A	BBB	BB	B	CCC/C	D	N.R.²⁶
AAA	80.00	20.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA	0.88	90.27	6.49	0.29	0.29	0.00	0.00	0.00	1.77
A	0.00	0.84	88.80	6.16	0.00	0.00	0.00	0.28	3.92
BBB	0.00	0.19	1.70	88.87	5.09	0.19	0.00	0.75	3.21
BB	0.00	0.00	0.00	3.75	82.04	5.63	0.27	0.80	7.51
B	0.00	0.00	0.00	0.49	5.37	71.22	1.95	9.76	11.22
CCC/C	0.00	0.00	0.00	0.00	0.00	11.11	33.33	55.56	0.00

Source: Standard & Poor’s Research: Canadian Defaults and Rating Transitions 2003

²⁶ N.R. – Rating withdrawn.

ACCESS TO BANK OF CANADA SETTLEMENT FACILITIES

Direct participants in the LVTS are required under CPA By-laws to have Bank of Canada settlement accounts and access to SLF. Since November 2003, the net settlement obligations in the ACSS settle through LVTS payments (on a next-day basis). As a result, all routine SLF is provided only in connection with the LVTS (SLF would be provided directly for ACSS accounts only in the event of an LVTS outage).

Therefore, the Bank provides a settlement and loan facility to any institution in the CPA as long as it:

- participates directly in the LVTS or the ACSS;
- in the case of ACSS DPs (CAs, GCs, DCs), settles all net ACSS positions with LVTS payments credited to its ACSS settlement account at the Bank of Canada; and
- is able to provide the Bank with valid and enforceable first priority security in collateral of a type acceptable to the Bank.

The Bank has additional requirements for access to its lending facility. These are motivated largely by the need for the Bank to have a legally well-founded security interest in collateral pledged by an institution to support SLF. As well, the various classes of financial institutions eligible for CPA membership, and therefore settlement accounts at the Bank, are subject to different bankruptcy laws and regulatory regimes. Accordingly, for some classes of institution, the Bank probably would not be able to recover funds from any unsecured portion of a loan. The Bank, therefore, may allow for haircuts on collateral that vary for different classes of borrowing institution, or may set different restrictions on the quantities of corporate securities that can be pledged by different classes of institutions.

As a result of these considerations, the Bank requires that an institution wishing to establish an SLF settlement and loan facility:

- provides acceptable legal documentation to support the Bank's security interest in pledged collateral, and
- accepts the collateral terms and conditions that may be set by the Bank, which take into account varying credit risk exposure across different types of institutions.

The required legal documentation includes:

- signed Bank of Canada account agreements, and loan and security agreements;
- favourable legal opinions regarding participants' ability to meet the terms and conditions of these agreements; and
- favourable legal opinions from foreign branches regarding the applicability of their home country's laws to these agreements.

In addition, upon application for a settlement facility the Bank would notify the institution's regulator that the institution intends to open a settlement account. For a federally-regulated financial institution, it is expected that such notification would be provided as a matter of course through the Financial Institutions Supervisory Committee.

CURRENT TECHNICAL AND OPERATIONAL CONDITIONS

Following an examination of CPA Rules, it was identified that the following Rules apply to specific technical/operational requirements for operating in the ACSS (also see CPA Rule excerpts for additional information):

- Rule B1 – outlines minimum technical/operational requirements for inter-member clearing at regional settlement points which is applicable to both CAs and DCs. Requirements include: hardware (e.g., CPU, modem) and software (e.g., operating system, virus detection) configurations.
- Rule D1 – outlines minimum technical/operational requirements for DCs, but is also applicable to CAs. Requirements include: ability to MICR-encode payment items, maintain tracing facilities, to receive and deliver AFT files.
- Rule D2 – outlines general requirements and obligations for CAs only (however, they are not technical in nature). Requirements include: maintain the settlement account of its IC, ensure items of an IC comply with CPA By-laws and Rules as if it were a member, ensure it gives proper notice when ceasing to act as a CA.
- ACSS User Guide – also provides operating instructions for both DCs and CAs. However, it does not detail any difference between the operating instructions for CAs versus DCs. Based on “in-house” discussions and indications by several member institutions also indicated that the technical and operational requirements do not differ between those of CAs and DCs.

AUDITS/BUSINESS CONTINUITY PLANS:

ACSS

- According to Rule D1, Section 12, each DC and GC shall have back-up arrangements in place to accommodate contingency situations, in accordance with Rules B1 and K4.
- According to Rule B1 Section 4, each DC is responsible for the provision of dedicated ACSS/USBE terminals and the maintenance of these terminals. In addition, hardware back-up arrangements shall be in place to accommodate contingency situations which may arise.
- Rule B1, Section 7 (d), states that the on-line entry of clearing data shall be made within one hour of the exchange containing the off-line logs. This shall be achieved by entering the data from the home ACSS terminal, if it has reacquired on-line access, or, by migrating to a backup terminal which will act on behalf of, and as if it is, the down terminal/region. The backup terminal may be in another region, or based on a prearranged contingency plan, be an ACSS terminal of another DC in the same region. Completion of on-line updates shall be notified to receiving DCs.

- Rule E3, Section 18, deals with back-up arrangements for EDI processes. It states that each Direct Participant shall have adequate EDI backup and contingency facilities and procedures in the event of major calamities.
- Rule F6, Section 14, deals with back-up arrangements for AFT processes. It states that each DC must have adequate back-up to protect against major calamities. The Originating DC and the Processing DC must mutually agree as to the option employed.
- Rule B9 provides for simulation testing within the ACSS. According to the Rule, each Regional Clearing Association is expected to undertake a simulation of the manual system in parallel with the ACSS on a quarterly basis.
- Although not an official CPA policy statement, a response/view of members of the Multiple Clearing Agent and Default (MCAD) Sub-Group regarding back-up arrangements suggests that ICs could establish contingency clearing arrangements with CAs other than their designated CA. It was agreed as long as it pertained to items exchanged at the point of the disruption in clearing onwards. However, it was mentioned that it would be difficult to "switch" over to another CA quickly during a disruption.

LVTS

- Deloitte & Touche conducts the CPA's LVTS 5900 audit on a semi-annual basis. In turn, members are also expected to complete their own audits semi-annually. It is the responsibility of LVTS participants and their auditors to ensure that appropriate review procedures and controls are in place at the LVTS participant level to complement the system of controls being performed by the CPA.
- The CPA does not have any specific audit requirements for Indirect Participants (IPs) or Direct Participants (DPs). For an IP, it would be the responsibility of its DP to establish any audit-type requirements. Although there are no operational audits required for an IP, an IP could request a Section 5900 audit from their DP as a condition of getting its business. However, this is not common in practice.
- LVTS Rules stipulate that CPA's General Manager/CEO may request a copy of member audits. The CPA does not designate specific firms to be used to conduct the audits. The financial institution audits are generally performed internally; however, an independent third party may also be used. In particular, LVTS Rule # 3 states that the Association may request confirmation of the completion of any procedure or step by an applicant for participation in the LVTS. Such confirmation shall be by way of a current (completed within the previous eighteen months) audit report, pertinent extract, or management attestation statement dealing with any such steps or procedures, filed with the Association by the participant's internal audit group, inspection group or management representative executed by a duly authorized officer of the applicant.
- LVTS Rule 11 stipulates that Business Continuity Planning (BCP) testing is to be completed semi-annually by the CPA and its financial institutions. Unlike operational audits noted above, attestation of the completion of the BCP test must be received by the CPA. The financial institution must provide the CPA with a complete record of test results, including a record of its monitoring activities for the "test day" including evidence of payment reconciliation.