
Notes by Charles Freedman
Deputy Governor of the Bank of Canada
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International Branches and the Canadian Payments System—LVTS and Other Key Issues ¹

When the conference organizers asked me to speak about the approach that the Bank of Canada is taking to the participation of foreign bank branches in the LVTS, I emphasized the need to put this subject into the broader context of the attributes of the LVTS and the objectives of the Bank in regulating the LVTS under the Payment Clearing and Settlement Act (PCSA). Accordingly, I will begin my presentation with general remarks about the LVTS and the PCSA and then turn to specific issues regarding foreign branch participation in the LVTS.

During the past decade, there have been significant efforts around the world to develop and improve electronic clearing and settlement systems that handle large-value payments, as well as those that handle securities and foreign exchange transactions. In part, these efforts have been driven by the need to process efficiently the sharp increases in the volume and value of such transactions. These new systems can speed up the settlement of financial transactions and reduce the costs of these transactions. The other principal factor behind the pressure for change has been the increased understanding of, and concern about, the various risks associated with the concentration of a large number of transactions within a very limited number of clearing and settlement systems that handle large-value transactions, and the recognition of the need to contain such risks.

Canada has also seen similar developments. The Debt Clearing Service (DCS) of Canadian Depository for Securities Limited (CDS) has been developed and refined, and the DCS now holds about \$530 billion in Government of Canada bonds and treasury bills and corporate money market securities. Multinet, which ceased operations after it and Echo were taken over by Continuous Limited Settlement Service (CLSS), was a well risk-proofed clearing and settlement system for foreign exchange transactions involving the Canadian and U.S. dollars. The world banking community, through CLSS, is currently building a multi-currency clearing and settlement system for foreign exchange transactions that is planned to include the Canadian dollar. And, as of February 4, 1999 the Large-Value Transfer System, or LVTS, is in full operation, giving Canada an efficient and well risk-proofed real-time electronic large-value payment system, with characteristics that are becoming the standard in major industrial countries and in many emerging economies.

I. The LVTS

While the Canadian LVTS is structured differently from the RTGS systems that have been built in most countries, it is identical to an RTGS in its fundamental attributes. More precisely, like an RTGS the LVTS provides the following benefits to participants in, and ultimate users of, the system:

participating institutions can be certain that once a transaction has been accepted by the system, that transaction has settled or will settle no matter what else happens;

given this certainty of settlement, the participating institutions are able to provide customers with unconditional and irrevocable intra-day use of any funds received through such a system.

In developing the LVTS, the CPA and its members worked closely with the authorities to risk-proof the system and to contain the costs of running it, particularly the cost of collateral. From the Bank of Canada's standpoint, the key safety element that was essential in the LVTS was the avoidance of systemic risk. Systemic risk refers to domino or spillover effects, whereby the inability of one financial institution to fulfil

its payment obligations in a timely fashion results in the inability of other financial institutions to fulfil their obligations in that clearing and settlement system or in other systems, or in the failure of that clearing house or other clearing houses. Systemic risk can arise through either liquidity or credit risk; i.e., liquidity problems at one institution can lead to liquidity problems for other institutions or for clearing houses, or the failure of one institution can lead to the failure of other institutions or to the failure of clearing houses. At the same time, the Bank has provided certain facilities and agreed to certain arrangements that significantly reduce the cost of operating the LVTS.

Let me go into more detail on how the LVTS controls systemic risk to give you a basis for understanding the potential difficulties that could arise from the entry of foreign branches into the system.

There are two streams of payments in the LVTS, Tranche 1 payments and Tranche 2 payments, and all payment messages are processed in real time. Under Tranche 2, each participating institution begins the day by granting a bilateral line of credit to every other institution (including zero, if it does not wish to have any credit exposure to a particular institution), and this establishes the maximum intra-day net amount that the latter can owe to the former. The sum of all the bilateral lines of credit extended to an institution, multiplied by a specific fraction (currently 0.28), establishes the maximum Tranche 2 net debit cap of the sender (i.e., the maximum exposure that can be generated in the system) for each financial institution during the day. Each participating financial institution pledges to the Bank of Canada collateral equal to the largest bilateral line of credit it has extended to any other institution multiplied by this fraction. A participant that wishes to send a payment using the intra-day credit provided by other participants (i.e. a tranche 2 payment message) has to pass both the bilateral cap and the sender net debit cap tests associated with Tranche 2 before it is accepted. If a participating institution fails, the loss-allocation procedures provide for the division of any losses associated with a Tranche 2 payment on the basis of the bilateral lines of credit established by survivors vis-à-vis the failed institution (and not on the actual intra-day credit used on the day of failure). The collateral pledged by the participants is sufficient to deal with the failure of the institution with the largest possible amount owing to the system (i.e., the institution with the largest sender net debit cap). This part of the system has been described as "survivors-pay" since surviving financial institutions largely absorb the losses associated with a failure.

There is also provision in the LVTS for a Tranche 1 payment. The Tranche 1 stream of payments will in the main rely on intra-day credit based on collateral pledged by the sender of the payment. More precisely, this type of payment will be accepted by the system if the payment being sent is less than the sum of any balances a participant had in its account at the Bank of Canada at the beginning of the day, the net of all payments received and sent in Tranche 1 during the day, and any collateral that the sending participant has pledged to the Bank of Canada to support payments in this stream. Thus, the use of intra-day credit to make a Tranche 1 payment requires a participant to pledge its own collateral to the Bank of Canada. Tranche 1 facilitates payments above the maximum level permitted by the risk-control procedures under Tranche 2 and ensures that institutions that are extended small or zero bilateral lines of credit, or that wish to make large payments in excess of the usual Tranche 2 credit granted to them by other participants, can still make payments through the system. An advantage of this arrangement is that institutions that are denied Tranche 2 credit by the other participants are not forced out of the LVTS, since they will always be able to make Tranche 1 payments (assuming that they have sufficient collateral). This tranche can be described as "defaulter-pays", since, in the event of failure, it is the defaulter's collateral that ensures settlement.

The LVTS payment messages are netted multilaterally throughout the day and settlement takes place on the books of the Bank of Canada at the end of the day.²

To ensure the safety of the LVTS and to reduce its costs of operation, the Bank of Canada took a number of initiatives and agreed to a number of requests by the participating financial institutions. First, the Bank provides a guarantee that the LVTS will settle under all circumstances. This resolves the problem raised by the extremely unlikely possibility of the *unanticipated* failure, during the operating hours of the LVTS, of more than one participating institution with the total amount owing to the system at the time of failure

greater than the available collateral. This guarantee by the Bank to the LVTS is akin to the provision of an insurance policy against a catastrophic event that is highly unlikely to occur, and on which there is an extremely large deductible (in this case the collateral put up by the institutions to cope with the failure of the participant with the single largest possible net debit to the system).³

The second initiative taken by the Bank was to establish a new form of collateral for use in the LVTS, which should be considerably less costly for the participating financial institutions than pledging treasury bills. This collateral takes the form of "Special Deposit Accounts" (SDAs) at the Bank of Canada, which will pay a rate of interest slightly less than the market cost of one-day funds to the largest banks. For financial institutions that raise one-day funds in the market and invest them in the SDAs, the overall cost will be, at most, a few basis points. However, it may involve them in borrowing and rolling over large amounts of funds in the overnight market. At least initially, the participating financial institutions made considerable use of this new type of account.

Another initiative was aimed at reducing the cost of collateral needed to make end-of-day LVTS payments to settle amounts owing in the securities clearing and settlement system. With the advent of the LVTS, certain participants in the securities clearing and settlement system (the Debt Clearing Service, or DCS) make final and irrevocable payment to the clearing house (the Canadian Depository for Securities, or CDS) via the LVTS to discharge payment obligations that have arisen from their purchases of securities (either for themselves or their clients) or those of other DCS participants. The risk containment arrangements in the DCS require the DCS participants that have to make payments to CDS to fully collateralize their payment obligations to CDS during the day, until their payment obligations have been discharged. These DCS participants were concerned that there would be some "doubling up" of collateral requirements when payment was being made to CDS, since the Government of Canada securities purchased on their own behalf and used to collateralize part of their payment obligation to CDS during the day could not also be used in the LVTS to support payment to CDS.

The Bank of Canada, along with LVTS and DCS participants, worked out arrangements whereby such Government of Canada securities held in participants' accounts in the DCS can be earmarked in the LVTS to support an LVTS payment to CDS via Tranche 1. The legal arrangements permit those securities (used as collateral in the DCS) to be pledged to the Bank of Canada in anticipation of an LVTS payment to CDS. The securities, however, remain subject to the priority security interest of CDS and the DCS participants. If the LVTS payment made by a participant to discharge its obligation to CDS requires the use of intra-day credit, the securities pledged to the Bank can be used to support that payment, and CDS and the other DCS participants surrender all claims to the collateral. If the DCS participant fails to make the LVTS payment to CDS, the securities are returned by the Bank to CDS for use in support of its risk-containment mechanisms (i.e., to generate liquidity to allow the DCS system to settle), and the Bank of Canada surrenders all claims to the collateral. The legal arrangements are carefully crafted to ensure that the collateral in question is supporting only one payment obligation at any point in time and to ensure, in the case of a participant failure, that the appropriate parties are entitled to use the collateral to generate the needed liquidity to settle the relevant system. The payment obligations of individual participants in DCS can amount to several billion dollars on a given day, and this arrangement, by reducing potential collateral needs in the LVTS, can result in a significant reduction in costs. It also helps to reduce concerns that time-critical payments to CDS might be held up in the LVTS. The participants have been making appreciable use of this provision in the first few weeks of operation of the LVTS.

The Bank has also agreed to accept as collateral in the LVTS NHA-mortgage backed securities (MBS) above a certain size. Because the cost to participants of this type of collateral is considerably less than the cost of pledging Government of Canada treasury bills, this development should also appreciably reduce the overall costs of running the system.

Another innovation facilitated by the Bank concerns the transfer of funds between the LVTS and DCS systems. Transfers of surplus balances can go both ways, but consider the case where an LVTS participant has sold securities in the DCS system, resulting in a positive funds position in that system, and it wishes to

use these funds to make a time-sensitive payment in the LVTS. Given that the DCS system does not settle participant payment obligations until late in the afternoon, this institution could be faced with having to use collateralized Tranche 1 intra-day credit to make the LVTS payment, even though it has surplus balances in the DCS system that could be used to fund that payment. To deal with this type of situation, the Bank has agreed to provide a mechanism whereby it would purchase the financial institution's funds receivable position in the DCS and pay for this receivable by making it an LVTS payment. The advantage for the financial institution is that it can now make an LVTS payment without having to resort to the use of intra-day credit (thereby saving collateral costs).

For the Bank to agree to engage in these transactions, it had to be satisfied that it was not exposed to any credit risk associated with the DCS funds receivable position, since it will pay for this position with LVTS funds. Since the Bank was closely involved in the risk-proofing of the DCS system, it was able to work with the DCS participants to establish risk-containment arrangements that would make this type of transaction feasible.

To summarize, the combination of real time processing, collateralized intra-day credit, a robust domestic legal structure, the various initiatives taken to reduce the amount of collateral and the Bank of Canada guarantee to deal with the remote possibility of multiple intra-day participant failures ensures that the overall multilateral net amounts to be paid and received will be settled among the participants on the books of the Bank of Canada at the end of the day and in a cost-effective manner.

I would emphasize two elements in this structure that will be crucial in the discussion of foreign branch entry—that there is multilateral netting through the day of the LVTS flows among financial institutions and that pledging of collateral plays a central role in the use of intra-day credit under both the tranche 2 and tranche 1 components of the system.

II. The Bank of Canada's Role Vis-A-Vis Large-Value Clearing and Settlement Systems

The Payment Clearing and Settlement Act (PCSA) and the Role of the Bank

The Bank of Canada has taken the lead in working with the private sector to develop appropriate risk containment mechanisms in the LVTS and other major clearing and settlement systems in Canada. It became involved in risk-proofing these systems for a number of reasons (i) Final settlement of payment obligations among participants in these systems takes place through the transfer of funds in accounts at the Bank of Canada. (ii) The Bank has strong links to the Canadian Payments Association (CPA), which operates the Automated Clearing Settlement System (ACSS) for paper-based payments and built and operates the LVTS. (iii) The Bank is the ultimate source of liquid funds to the financial system and is naturally concerned about the safety and soundness of these systems. Poorly designed systems could generate significant liquidity risks for participants and would likely involve the Bank in helping to resolve any disruptions. (iv) The Bank implements monetary policy, and poorly designed clearing and settlement systems could seriously impact this responsibility. (v) The Bank participates in international groups, particularly the Group of Ten (G-10) countries, which have attempted to identify the types of risks in clearing and settlement systems and to establish minimum standards for the management and control of these risks.

Until July 1996, the involvement of the Bank of Canada in the oversight of these systems was largely informal. With the passage of the PCSA, in July 1996, the Parliament of Canada gave the Bank regulatory responsibility for the oversight of clearing and settlement systems for the purpose of controlling systemic risk. This legislation resulted from the recognition by the federal government of the essential role of major clearing and settlement systems in the Canadian economy and the conclusion that these systems require regulatory oversight. Because the central bank is naturally concerned about systemic risks in clearing and settlement systems, it was the obvious choice to carry out this oversight responsibility. In essence, the Act requires systems that have the potential to be operated in such a manner as to pose systemic risk to satisfy the Bank that appropriate arrangements are in place to manage and control such risk. In addition, the Act provides greater legal certainty to the enforceability of netting, and to the enforceability of the settlement rules of certain systems, and also provides new powers to the Bank that it can exercise in its dealings with clearing and settlement systems (e.g., the provision of SDAs and the guarantee discussed above).

Implementation of the Oversight Responsibility Under Payment Clearing and Settlement Act

Under the PCSA, the Bank will: (i) review all eligible clearing and settlement systems for their potential to pose systemic risk; (ii) designate those systems with the potential to create systemic risk as being subject to the Act; and (iii) regulate designated systems on a continuing basis for the appropriate control of systemic risk.

A system which clears or settles payment obligations is eligible for review by the Bank if:

- i. it has three or more participants, at least one of which is a bank;
- ii. it clears or settles Canadian dollar payment obligations; and
- iii. the payment obligations are ultimately settled through accounts at the Bank of Canada.

Systems having these characteristics will be examined by the Bank to determine whether they have the potential to pose systemic risk. The Act provides a definition of systemic risk that is consistent with the definition used in many international reports. If the Governor of the Bank forms the opinion that a system has the potential to pose systemic risk, he may designate the system as being subject to the Act, provided that the Minister of Finance is of the opinion that it is in the public interest to do so. Once designated, the Bank will have to be satisfied that the system has risk-control mechanisms in place to appropriately control systemic risk. Under the Act, the Bank can enter into agreements with the operators of clearing and settlement systems concerning the control of systemic risk, the Governor may issue directives to the system operators or participants in extreme situations where he judges that systemic risk is being inadequately controlled, and the Bank may conduct audits of any designated clearing and settlement system.

It is clear that systems handling small-value payments (either as individual payments or aggregate payment obligations) are unlikely to be designated since these systems typically do not pose systemic risk.

Nevertheless, the Bank will continue to monitor such systems for changes in their situation. By contrast, systems which handle large-value payment obligations are much more likely to generate systemic risk, and hence are much more likely to be designated.

While not the only factors that will be considered when deciding if a clearing and settlement system should be designated under the PCSA, the Bank will pay particularly close attention to:

- i. the size of individual payment obligations and the size of the aggregate value of payment obligations on any given day;
- ii. the size of payment obligations owed to and by participants in the system relative to each participant's capital;
- iii. the role played by the system in supporting transactions in the financial markets or in the economy more generally.

The Bank has identified all clearing and settlement systems operating in Canada and has reviewed all eligible systems for their potential to cause systemic risk. Only two systems have thus far been designated under the Act—the Debt Clearing Service operated by CDS and the LVTS. The Bank has issued a Guideline outlining how it intends to operate under the Act, particularly in gathering information to identify eligible systems and in determining whether eligible systems will be designated under the Act. The Guideline also indicates the minimum standards that the Bank intends to apply to designated systems. While these minimum standards incorporate the standards set out in the Lamfalussy Report issued by the B.I.S., they have been modified slightly so that they can be applied to all designated systems, whether or not these systems use multilateral netting.

An important feature of the Bank's regulatory role is that the Act directs the Bank to be concerned only with the regulatory oversight of systems for systemic risk purposes, and not with the regulation of any financial market or the supervision of the affairs of individual financial institutions that may be members of these systems. Any matter that is not directly related to an institution's participation in a designated clearing and settlement system is not subject to the Bank's oversight under the Act. For example, the PCSA specifically precludes the Governor from issuing a directive in respect of a participant's capital adequacy, the management of its investments, or its relations with its own customers.

Greater legal protection is provided to netting arrangements and settlement rules

The PCSA contains provisions, which, when combined with recent amendments to federal insolvency legislation, recognize the legal enforceability of netting both for transactions handled by clearing and settlement systems and for certain other transactions among financial institutions. The Act also contains provisions to ensure that the settlement rules of designated systems (including the rules related to the pledging and possible realization of collateral and the processing of entries to settle payment obligations) are immune to legal stays or other legal challenges, even in cases where a participant in one of these systems has failed. Increasing the certainty that the legal arrangements governing the operation of a clearing and settlement system will produce the expected outcome in periods of financial stress is an important objective of the PCSA and has been an important means of dealing with legal risks. When this is combined with appropriate risk-containment mechanisms, the participants and other users of a designated clearing and settlement system can be assured that once a payment message has been processed and accepted by these systems, the funds received will be unconditional and irrevocable, i.e., final. Although the value of finality is often underestimated in periods of financial calm, it can be extremely important in times of financial stress.

III. Foreign Bank Branch Entry

Introduction of New Legislation

In mid-February, the government of Canada introduced new legislation to allow foreign banks to branch directly into Canada. The proposed legislation will give foreign banks the option of establishing one of two types of branches: a full-service branch or a lending branch. Full-service branches will not be allowed to accept deposits of less than \$150,000 from Canadians, while lending branches will not be able to accept any deposits or borrow in Canada, except from other financial institutions. Foreign banks will be permitted to operate both a bank subsidiary and a full-service branch, but those that choose to operate a lending branch will not be permitted to also operate a bank subsidiary or full-service branch.

It is currently expected that the legislation will be passed by June of this year.

Concerns about direct participation of foreign branches in the LVTS

As I noted earlier, a major objective in designing clearing and settlement systems is to ensure that systemic risk concerns are appropriately addressed. This objective is now recognized in the Payment Clearing and Settlement Act (PCSA). Among the measures that have been adopted to reduce and contain systemic risk are the use of netting and exposure limits, and collateral to ensure that systems can settle in the event of a participant failure without imposing undue costs on other participants or on the taxpayer (via losses at the Bank of Canada). Legislative changes have been made in Canada (PCSA and insolvency statutes) to ensure that netting arrangements cannot be challenged by liquidators or creditors of failed participants. In addition, the PCSA provides legal protections to the settlement rules and to the finality of entries to settlement accounts held at the Bank of Canada by participants or clearing houses.

The direct participation of foreign bank branches in Canadian clearing and settlement systems raises potential choice of law and conflict of law problems in the event of the insolvency of a foreign bank with a branch that is a direct participant in a Canadian clearing and settlement system. The courts of the home jurisdiction of a foreign branch participant in a clearing and settlement system may claim bankruptcy jurisdiction over the assets and liabilities of the Canadian branch and apply the home country's laws. Canadian courts may claim bankruptcy jurisdiction over the same assets and liabilities or Canadian courts may recognize foreign jurisdiction over these assets and liabilities—in either case, the potential application of foreign law and the possibility that foreign courts may exert jurisdiction can create uncertainty as to the outcome within a clearing and settlement system following a participant failure, even when participants had originally chosen Canadian law as the governing law.

As has been noted in a number of BIS reports, where netting arrangements involve participants incorporated in different jurisdictions, including where participants are foreign bank branches, the bankruptcy and liquidation of foreign banks and their branches becomes very complex and the outcomes become very

uncertain, since both host and home country bankruptcy regimes may apply. The risk is that a foreign branch's home jurisdiction will find that the netting arrangements are not legally valid under its laws, and thus render the netting measures adopted by the Canadian clearing and settlement system ineffective in dealing with the bankruptcy and liquidation of the foreign bank. This could result in foreign liquidators attempting to unwind or "cherry pick" netted transactions. Thus, according to the BIS, in systems that use netting, an assessment of the legal validity of the arrangement requires an "examination of every law that could possibly apply to the arrangement (i.e., system) or its participants".⁴

Another major source of uncertainty regarding the ability of clearing and settlement systems to settle without undue costs in the event of a participant failure relates to the enforceability of the pledge of collateral by participants to support their loss sharing commitments to such systems. Clearing and settlement systems typically rely upon collateral arrangements among participants to cover losses associated with the failure of any single participant. Thus, the defaulting participant may have pledged collateral to cover some, or in some cases all, of the loss exposure created in the system. When a participant defaults, the manner in which the system covers the losses depends critically on the ability to realize on the collateral pledged by the defaulting institution. Depending on the type of collateral involved, there is the possibility that the law of a non-Canadian jurisdiction could be applied to determine the rights of the Bank of Canada, a Canadian clearing house or survivors in collateral pledged by a branch. Where the ultimate disposition of the losses is not in accord with the system design, significant unanticipated costs may be imposed on surviving participants, including the Bank of Canada. This could in turn jeopardize the attainment of the objectives of these systems.

A third concern is that, if the laws of the home jurisdiction were to apply in a bankruptcy proceeding affecting the assets of the Canadian branch of a foreign bank, then the protections in the PCSA to ensure settlement finality in Canadian clearing and settlement systems may not apply. These protections are designed to ensure that the settlement rules of domestic clearing and settlement systems will operate as planned, free from legal challenge and that the accounts used to settle positions in these systems will be free from any stay order and can be used to settle obligations of participants even if a participant has failed.

The Bank of Canada would have a direct financial exposure to these risks in the LVTS because of the uncollateralized guarantee provided by the Bank to ensure settlement of the LVTS in the event of multiple participant failures on the same day. This guarantee was based on the view that the private sector participants would provide sufficient collateral to deal with the failure of a single participant regardless of size, and that the netting arrangements in the LVTS were legally immune to challenges. If a foreign bank branch failed while it was a direct participant in the LVTS, and its netted position was eventually unwound or its pledged collateral ultimately was unavailable to cover losses, the Bank might well be required to make up any shortfall, becoming an unsecured creditor of the foreign bank parent. Thus, the Bank could become an unsecured guarantor even in the case of the failure of a single participant, although this is a situation that the uncollateralized guarantee was not intended to cover.

Possible responses

The simplest and most effective approach would have been to prohibit foreign bank branches from direct participation in clearing and settlement systems in Canada. These branches could then have accessed these systems indirectly through other direct participants, including a related subsidiary. This approach was judged to be unnecessarily constraining. Instead, it was decided that branches would be permitted direct participation in Canadian clearing and settlement systems if they were able to provide *satisfactory* legal opinions as to the application of foreign law, including: (i) the enforceability of the netting and finality features of Canadian clearing and settlement systems; and (ii) the validity and enforceability of grants of collateral security in clearing and settlement systems. This approach to controlling risk is consistent with that taken in other G-10 countries vis-à-vis foreign bank participants.

Proposed legislative action

Under the proposed legislation, foreign banks that carry on business in Canada through a full-service branch will be members of the Canadian Payments Association (CPA). Lending branches, which will not take

deposits, will not be eligible to be CPA members. However, foreign banks which operate through lending branches will be eligible to participate in non-CPA systems so long as they meet the participation criteria of those systems.

The proposed legislation also amends the PCSA to provide that the Governor of the Bank of Canada may prohibit, or impose conditions on, the participation of a full-service branch or a lending branch of a foreign bank in a payment clearing and settlement system designated by the Governor under the *Payment Clearing and Settlement Act* if the Governor is of the opinion that its participation would pose, or would likely pose, a systemic risk or an unacceptable risk to the Bank of Canada. If the Governor does not prohibit their participation, both types of branches would be permitted under the legislation to participate in designated clearing and settlement systems (provided that they meet the requirements of those systems). To enable the Governor to make this assessment, the proposed amendments empower the Governor to require foreign banks to provide certain information about the application of foreign laws to the bank.

The main tool for obtaining information about the application of foreign laws to a foreign bank wishing to participate directly in a designated system will be a legal opinion from counsel in the bank's home jurisdiction. The Bank of Canada has developed a draft form of legal opinion and has provided it to foreign banks currently operating in Canada as well as to CDS and the CPA for comment. The form requires counsel in the home jurisdiction to give an opinion on, among other things: which laws would govern the foreign bank's activities in the designated system; the enforceability of netting in the home jurisdiction; and the validity and enforceability in the home jurisdiction of collateral pledged to support obligations in the system. It is intended that the opinion will be provided to both the Bank of Canada and to the designated system in which the foreign bank wishes to participate.

Based on the legal opinions provided as well as on any other relevant information, the Governor will make a judgment on whether direct access to a designated system of banks in a given country (or of a given jurisdiction in a country where relevant) would pose systemic risk or a risk to the Bank of Canada in guaranteeing settlement. Where the judgment is that the foreign bank's participation would pose systemic risk or unacceptable risk to the Bank of Canada, the Governor will have the power to prohibit, or place conditions on, the bank's participation.

To give you a flavour of the kinds of outcomes that are possible, I would note that it is likely that foreign banks of a country with a zero-hour rule (which involves the unwinding of all transactions that occurred on the day of failure) would not be permitted to participate in either of the currently designated systems since the absence of protection for netting would put the systems at risk of unwinding in the case of a failure of the foreign bank. To give another example, the conflict of law rules of Canadian provinces provide that a security interest in a bank account is governed by the laws of the debtor's home jurisdiction. The assignment to the Bank of Canada of Special Deposit Accounts at the Bank held by LVTS participants can be an important form of collateral in the LVTS. If this type of collateral is subjected to foreign law under the conflict of law rules, it may be rendered invalid or unenforceable where it does not comply with the requirements of that law. One way of addressing the concern raised by this situation would be to permit the foreign bank to participate directly in the LVTS but without access to this form of collateral.

So, as you can see, there will be a lot of work to do both on the part of those preparing legal opinions for foreign banks wishing to participate in designated systems and on the part of the Bank of Canada and clearing houses in assessing them. The outcome in any particular case might be full access to the system in the same way Canadian incorporated participants have access, a restricted or conditional form of access (e.g. without ability to use certain kinds of collateral or perhaps without access to intra-day credit), or no access (e.g. if netting were put at risk).

Concluding Remarks

Many policy proposals involving the financial sector are designed to achieve greater competition or to improve the safety in the sector, and there is often a tension between the achievement of these goals. The consideration of foreign bank branch entry in Canada is no different in this regard. The delivery of financial services and products to Canadians via foreign bank branches is intended to promote vigorous competition

in the Canadian financial market place. At the same time, the possible entry of foreign banks (via their branches) into large-value clearing and settlement systems could raise important safety issues for the financial sector. The foreign bank branch legislation currently before parliament reflects the trade-off between the goals of greater competition and safety in the financial sector. Foreign bank branches will be permitted to operate in Canada, promoting competition. But reflecting the concerns about the risks that could be posed by the direct participation of foreign bank branches in large-value clearing and settlement systems, the legislation provides a means for these risks to be considered and addressed.

Footnotes

1. The early parts of this paper draw heavily on previous work at the Bank of Canada, particularly C. Freedman and C. Goodlet, *The Canadian payments system: recent developments in structure and regulation*, in *Federal Reserve Bank of Chicago, Proceedings of the conference on Payments Systems in the Global Economy: Risks and Opportunities*, May 1998, pp. 48-62, and C. Goodlet, *Clearing and settlement systems and the Bank of Canada*, *Bank of Canada Review*, Autumn 1997, pp. 49-64.
2. For a more detailed account of the operation of the LVTS see J. Dingle, *The LVTS—Canada's large-value transfer system*, *Bank of Canada Review*, Fall 1998. The monetary policy implications are discussed in D. Howard, *A primer on the implementation of monetary policy in the LVTS environment*, *Bank of Canada Review*, Fall 1998.
3. Furthermore, there is no moral hazard in these arrangements, since the loss arrangements under Tranche 2 ensure that the participating institutions have the incentive to continue to behave prudently in monitoring each others risk because so much of their own collateral is at stake before the Bank suffers any loss.
4. BIS Working Group on the Legal Aspects of Netting Arrangements, September 1995.