Alternatives to Cash in Ensuring the Solvency of Defined Benefit Pension Funds

by Peggy Hedges, Ryan Lee and Norma Nielson[1]

Since 2001, even some sound corporate sponsors have faced sudden and severe negative impacts on pension plan solvency due to poor equity market performance, record low interest rates and declining mortality trends. Following an overview of key accounting changes that have occurred internationally, this article reports on legislation and regulations developing in Canada to assist plan sponsors. The authors describe different instruments of financial guarantee that might be employed and identify several areas that require additional work to enhance those instruments' robustness and transparency.

The inherent imprecision in pension costs has long been acknowledged. In the past, this imprecision has been handled by a series of smoothing rules created in accounting standards and, in some jurisdictions, for solvency valuation purposes. These rules constrained the types of smoothing that could occur and managed it in a way that was at least somewhat consistent across firms. However, the advantages of smoothing have been questioned in recent years. Initially this controversy stayed within the accounting community and centered on the impact of smoothing on the accuracy and transparency of financial statements.

In the period since 2001, however, plans experienced poor equity market performance, record low interest rates and declining mortality trends. These trends combined to create sudden and severe negative impacts on the solvency of pension plans. The magnitude of the reported funding inadequacies is sufficient to disrupt the financial plans of even some sound corporate sponsors.

Recognizing that this may not be in the long-term interest of either a pension plan or its membership, the authors have seen some moves among regulators to provide extra time for some sponsors to deal with the shortfall. Following an overview of key accounting changes that have occurred, the subsequent sections of this article describe legislation developing in Canada as well as information on its early implementing regulation. Later sections present information about different instruments of financial guarantee that might be employed in jurisdictions that offer such remediation and observe some basic information about the "cycles" that might be expected in the relative availability and price of those guarantees. The conclusion discusses policy issues that remain unresolved in this area and that would benefit from further research and debate.

CHANGES IN ACCOUNTING AND FINANCE

Conventional actuarial/accounting standards were built upon the expected return on a pension plan's assets. In a nutshell, these standards permitted the full equity premium to be incorporated into the present value of plan liabilities without any risk adjustment. Those rules appear to be changing, however.

- In 2000, the United Kingdom Accounting Standards Board released a new financial reporting standard (FRS17) that specifies a "mark to market" method for assets and liabilities, including immediate recognition of gains and losses (Accounting Standards Board, 2000; Accounting

Standards Board, 2002). This standard became fully effective in 2005.

- In 2004, the Accounting Standards Board (AcSB) of the Canadian Institute of Chartered Accountants released revisions to the disclosure requirements in *Handbook* Section 3461 "Employee Future Benefits" (Estey, 2004). The AcSB strategic plan adopted in January 2006 embraces international financial reporting standards (IFRS). The plan calls for converging Canadian generally accepted accounting principles (GAAP) with IFRS over a transitional period of five years (Middlemiss, 2006).
- In March 2006, the Financial Accounting Standards Board (FASB) in the United States released an exposure draft effective December 15, 2006, requiring that market values be recorded on balance sheets (Employers Accounting for Defined Benefit Pension and Other Postretirement Plans, 2006).
- In late 2004, the International Accounting Standards Board (IASB) amended aspects of IAS19 concerned with pension cost accounting, in particular, giving entities an option to show, in full, pension deficits and available surpluses (IASB, 2004). IASB is developing an approach that is widely anticipated to produce three general categories in the final recommendation: operations, financing and correction of past estimates.

Above and beyond mandatory changes in accounting disclosures, financial analysts and other professionals are becoming increasingly sophisticated in their understanding of and adjustments for the pension obligations of publicly traded firms. For example, a 2005 presentation by a managing director of Moody's Investor Services indicated that Moody's makes adjustments to reported amounts because "GAAP does not reflect reality."[2] Jonas (2006) includes pensions in a list of "typical adjustments," with the primary purpose of eliminating smoothing.

Similarly a study at Credit Suisse projected pension cost, funded status and required contributions for 374 companies by a process that saw them "walk through each and every line in a pension footnote." Their findings after this effort were that "even with relief," many firms still face significant contributions (Zion, 2006).

RECENT LEGISLATIVE DEVELOPMENTS

The province of Québec, with the passage of Bill 102 in 2005, appears to be leading North America[3] in a move to temporarily relax certain rules relating to the funding of defined benefit pension plans, with the regulator of Canada's federally registered pension plans in the process of emulating that same development.[4] Under Québec's law, the sponsor of a provincially registered defined benefit plan may, at the first actuarial valuation of the plan carried out after December 30, 2004: (1) combine any new unfunded solvency liability with unfunded liabilities of the same nature determined in earlier valuations and (2) qualify to pay down the combined unfunded solvency liability over an extended period. The basic provisions of the reform permit municipalities and universities to double the amortization period for most unfunded solvency amounts, from the usual five-year period to an amortization period of ten years. Private plan sponsors may utilize the same extension under the following conditions:

- The employer provides the pension committee with a guarantee, *such as a letter of credit* [emphasis added], established in accordance with the regulations, or
- Less than 30% of active plan members express opposition, and less than 30% of beneficiaries express opposition. Where all active members are represented by a union, the union may consent on their behalf.

Inclusion of the phrase *such as a letter of credit* opens the legislative door for the first time to the use of financial guarantee instruments by pension plans. For purposes of determining plan solvency, the guarantee is a "contingent" value added to the assets of a pension plan; for valuation purposes it is treated as though the instrument's value, i.e., the contingency, would be fully realized, thereby becoming an asset of the plan. At the same time this contingency is creating an asset for the pension plan, it also may be creating a similar liability on the employer's books.[5] Certainly, an actual call on the letter of credit creates actual debt for the sponsoring firm.

REGULATION

The enabling regulations for Québec's Bill 102 appeared in *Gazette Officielle du Québec* (August 24, 2005, Vol. 137, No. 34, p. 3439) with details regarding the now legislatively permissible "guarantee" contained in Division II of that publication. The existing regulations to date provide that the guarantee *must* be provided in the form of an irrevocable *standby letter of credit (SBLC)*. (See the appendix for a primer on the mechanics of SBLCs.) The enabling legislation specifies minimum criteria that must be met by the SBLC and its issuer. In addition to fundamental information about the agreement,[6] the instrument must include: (1) terms that match the statutory rules with respect to automatic

APPENDIX

PRIMER ON THE MECHANICS OF SBLCs

As a matter of good business practice, banks often provide business clients with a letter of credit facility, typically incorporated within the terms of a more broadly based line of credit. For example, a firm with a $50 million line of credit may be offered the ability to issue up to $10 million of that limit in the form of letters of credit. The client has no obligation to use this facility and bears no expense unless a letter of credit is issued. If any letters of credit are issued, the amount the client can draw under the line of credit is reduced by the face value of the letter of credit. Upon expiry or cancellation of the letter of credit, the amount available to draw under the line of credit increases by the face value of the letter of credit. The bank's client receives no flow of funds from cancellation of the letter of credit, but rather adds greater flexibility to draw additional funds under the line of credit (up to the specified limit).

From a bank's perspective, having the facility available allows the client flexibility. If the facility was not available and the client requested a letter of credit be issued, the bank typically would need to add this facility to the lending agreement, potentially increasing underwriting expenses and imposing greater time delays.

In the case of the letters of credit discussed in this article, the legislation requires they be irrevocable. This means that the plan sponsor offering the letter of credit and the issuing bank cannot cancel the obligation. If the beneficiary determines that the letter of credit is no longer required it will return it for cancellation. In terms of automatic renewal, the letter of credit is issued with an expiry date and, within some specified period, the client may request the bank to either reissue a new letter of credit or amend the existing letter of credit to reflect a new expiry date should the letter of credit still be required. If the beneficiary does not receive the new (or amended) letter of credit prior to expiry, he or she may choose to make a draw under the nearly expired letter of credit in order to satisfy his or her claim to funds. If the client decides to move its lines of credit to another bank, the originating issuing bank will typically request the new bank issue a letter of credit to replace the original. If the new bank refuses, the originating bank will retain sufficient collateral and assurances from its old client to ensure it is protected should the letter of credit be drawn upon.

For a client, using a letter of credit may be cheaper than providing cash, particularly if this cash is raised through a line of credit. The cost for the letter of credit is quite low, typically 0.5-1.0% per annum on the face amount, while an identical loan will require some base plus a spread. For the issuing bank, a letter of credit typically results in a lower income than on a comparable loan (fee versus interest income); therefore, the question is often raised as to why banks offer such facilities. The answer is quite straightforward: It is a cost of doing business. Lastly, from a bank's perspective, letters of credit and lines of credit are treated the same for capital adequacy purposes; therefore, they must be careful not to overextend themselves in offering these types of guarantees, particularly given their relatively low return in comparison to actual loans.

renewal and payment in the event of nonrenewal, and (2) a stipulation that the amount payable[7] under the letter of credit will be paid to the pension fund upon presentation, before expiry of the letter, of a written payment demand signed by the person authorized by the pension committee to make the demand.

The issuer must:

- Be a financial institution that is authorized in Québec (or in another place in Canada where the relevant reciprocity agreement is in place)
- Have an "A" quality rating from Standard & Poor's or an equivalent specified in the regulations.

Bill 30, tabled before the legislature in June 2006, incorporates permanent provisions for the use of a letter of credit by employers to fulfill part of their obligations as to the funding of a pension plan. That change to Section 42.1 of the Supplemental Pension Plans Act, which confirmed provisions for the use of letters of credit, also apparently removed the possibility of using a broader range of financial guarantee instruments, such as surety contracts and guaranteed issue annuities. It will likely become effective in 2010 and now reads as follows:

> Under the conditions prescribed by regulation, an employer may, upon providing the pension committee with a letter of credit established in accordance with the regulations, be relieved of paying all or part of the portion of the employer contribution related to an amortization payment determined for a fiscal year of the plan in relation to the solvency deficiency.

The total amount of such letters of credit may not exceed 15% of the value of the liabilities of the plan (Bill 30, 2006).

LETTERS OF CREDIT

Banks have historically been the financial institutions most directly involved with assessing credit quality and providing legally enforceable instruments of credit quality. It is no surprise, therefore, that standby letters of credit have become the first financial instrument to be approved for funding of pension plan shortfalls. Financial institutions, such as banks,[8] that sell SBLCs that a pension sponsor provides to a pension plan essentially guarantee the beneficiary that the plan sponsor (the purchaser of the SBLC) will fulfill its obligation. Should the sponsor default, the bank that issued the SBLC stands ready to provide the cash to the pension plan and charge that obligation to the sponsor-client. Thus, the SBLC provides an insurance of sorts for the beneficiary against the severity of some particular event. In the context of the low interest rate environment prevalent in the early part of the new millennium, the use of SBLCs provides some cash flow relief to the sponsor while continuing to support solvency objectives in pension plans.

BENEFITS AND COSTS FOR THE PLAN SPONSOR

SBLCs are generally available; however, the applicant must have or establish a line of credit or other similar arrangement with the issuing bank. SBLC availability will depend on the availability of the credit lines and will, once issued, impact on the borrowing capacity of the plan sponsor.

From the sponsor's view, issuance of an SBLC has multiple benefits, with plan sponsors quick to argue that provision of an SBLC or other such guarantee—which costs less than borrowing the funds to make a plan contribution—allows the business to direct its funds to more productive purposes (Canadian Pacific Railway, 2005). This serves to strengthen cash flows and place the company in a better position for both its shareholders and for its ability to provide future cash contributions to the pension plan.

This flexibility has great value, particularly if the plan's deficit is considered transitory in nature due to a low interest rate environment. As well, should the shortfall amortization period be extended, the dollar amount of the SBLC to be provided may be less on an annual basis. In either instance, the need to support any shortfall could become unnecessary should long-term interest rates improve. That is, by using SBLCs rather than making cash contributions, any amounts that later prove unnecessary, e.g., when interest rates rise, can be addressed at that point by simply cancelling the SBLC. The sponsor's access to its line of credit returns to a higher level and, interestingly, no thorny issues surrounding ownership of surplus materialize because no "withdrawal" has occurred.

The obvious cost to the plan sponsor is the fee required by the bank to have the SBLC issued. In some cases, the sponsor may find its bank somewhat unwilling to facilitate a sizable SBLC.[9] This reluctance arises from a combination of circumstances that relate to bank management and supervision that are discussed below.

BENEFITS AND COSTS FOR PLAN TRUSTEES

The creditworthiness of the bank is one critical element in the trustees' acceptance of an SBLC in lieu of cash. Pension fund trustees may request that the creditworthiness of the issuing bank be at least as good as that of the plan sponsor (rather than meeting the simple regulatory requirement that the issuing institution have an "A" rating) and may seek assurances that similar strength will persist over the life of the SBLC; trustees should also initiate practices to reassess the creditworthiness of the originating bank periodically after accepting an SBLC in lieu of cash. The expertise required to assess credit risk, both initially and on an ongoing basis, is likely beyond what the typical pension trustee has been required to understand in the past. Still, a learning curve is no reason to reject a sophisticated solution out of hand. The benefits may well be worth it.

While the SBLC is considered as good as cash, as mentioned above, it does have drawbacks. Without cash the trustees are limited in their ability to pursue their investment plans. The resulting reduction of investment income unquestionably increases the pension plan's ultimate costs at some point—either now or in the future—though the availability of deferral strategies for cash contributions means that the time at which that additional cost must be paid remains ambiguous—or extremely flexible—depending on one's perspective. Therefore, accommodations may be needed to compensate the fund for lost opportunities. In light of current financial economic arguments that equity premiums have a present value of zero, and that pension funds generally should abandon such higher risk investment strategies, this concern is generally manageable. Change takes time, however, and some degree of opportunity costs could be incurred. These would be captured and amortized automatically in the actuarial valuations for future years.

BENEFITS AND COSTS FOR ISSUING BANKS

SBLCs are essentially an extension of credit and, as such, requests for them are subjected to the same level of scrutiny as a direct loan or loan commitment. Banks offering SBLCs are subjected, among others, to credit and liquidity (funding) risk. *Credit risk,* the possibility of default on the part of the applicant, is significant under SBLC guarantees to pension plans because the SBLC for this application must be irrevocable; this risk increases as the period for which the SBLC is issued lengthens. The irrevocable nature of the SBLC would not be a problem in normal circumstances; if the beneficiary made a draw under the SBLC, the bank would automatically initiate an offsetting loan to the sponsor-client. If the client's financial standing had deteriorated, collection of the loan could be a problem for the bank (but would pose no direct concern to the pension plan's beneficiaries). Overall, this arrangement is far less flexible for the issuer of the SBLC than would be the terms that might be found in a direct loan or loan commitment where deterioration in the client's financial position would allow the bank to rescind any loan that contains the usual "material adverse change" clause.

While the bank does collect the fee, the face amount of the SBLC counts as a loan for capital adequacy purposes and limits the bank's lending capacity to the same extent as on-balance-sheet loans. The fee income to a bank from issuing an SBLC would be less than the comparable interest income on an identical loan. Indeed, it could perceive a line of credit as cannibalizing its own prospects for the loan and the resulting higher interest income. Lastly, reluctance also could arise because of uncertainty as to whether the SBLC will be drawn and the resulting complications for the bank's business planning.

Liquidity risk arises when the bank is unable to fund a large draw from normal sources. In an unfavorable economic environment, a bank that has overextended SBLC offerings could quickly find itself encountering a funding or liquidity crisis. Although the inability to fund draws by the beneficiary would be no different than if the client were to pay a pension shortfall by drawing on their line of credit, the long-term, irrevocable nature of the SBLC could pose a greater funding risk to a bank than a comparable line of credit.

These risks that arise from the extension of irrevocable SBLCs for a lengthy term can be managed to an extent through participation agreements and syndication.[10] In the case of a participation agreement, the originating bank would not see its total contingent liability diminished as the name of the originating bank is the only one appearing on the actual letter of credit document. As such, it would be committed to honour all drafts (or draws) whether or not the participants were willing or able to disburse their pro-rata share. On the other hand, syndication would allow each member of the syndicate to apportion its liability accordingly.

In situations where pension fund shortfalls are widespread, demand might expand beyond SBLC availability in the marketplace. Alternatively, should market conditions deteriorate, and banks find their strategy for fee income enhancement turning into capital adequacy burdens and actual on-balance-sheet credit risks, the market could see the supply of SBLC offerings contract.

ADDITIONAL TYPES OF FINANCIAL GUARANTEE INSTRUMENTS

The public policy discussion appears to be determining that it is beneficial to plan sponsors, pension plans and plan members to have the flexibility to use financial market guarantees to achieve the objective of maximizing the flexibility available to plan sponsors without jeopardizing plan participants. Once that determination has been made, it is relatively easy to argue that the same groups benefit from as deep a market as possible for these guarantees; that competition will breed the best quality of guarantee at the lowest possible price; and that any guarantee that provides a comparable protection at a comparable risk should be permitted.

Advancements in the realm of credit risk over the last decade have resulted in a growing range of products from different parts of the financial services industry that can provide financial guarantees. In this section, the authors discuss the potential to use some of these additional instruments as a source of guarantee to pension plans as permitted under the type of Québec legislation described above.

The principal alternative financial instruments are those offered by the insurance industry. The insurance industry product that allows a plan sponsor to smooth the funding of its pension shortfall over a period of time is the finite risk contract. *Finite risk contracts* are typically multi-year contracts where only a measurable—or finite—amount of risk is being transferred by the purchasing company. The terms of the contract involve the use of an experience account that is credited with interest on any balances unused for losses. Despite recent regulatory scrutiny, if properly organized, the fairly generic forms that would be needed to address pension funding concerns are viable risk transfer mechanisms.

In theory, a finite risk contract written for the perceived duration of an entire economic cycle would allow a plan sponsor to survive cash shortfalls through the low interest rate environment. These contracts would shift the risk of funding shortfalls, while still being cost-effective. Further, they could potentially be profitable to the insurer because the longer term nature of these contracts would allow for the earning of excess investment income on the premium amounts not used for the payment of losses. The shifting of timing risk is a large part of what makes these instruments attractive as, indeed, an unexpected shift in the timing of pension contributions is precisely the risk for which the plan sponsor is seeking protection. However, just as with SBLCs, there is significant risk being accepted on the part of the insurer that financial deterioration of the firm could produce additional losses under the contract.

Insurance industry products are likely to be most readily available (and least expensive) during the "soft" part of the insurance market cycle. This tends to occur when hazard losses have been lower than average and when interest rates are higher than the insurance company had assumed in its pricing. Interestingly, the insurance market cycle, or underwriting cycle, tends to follow economic cycles quite closely, albeit with a short lag period. While it is axiomatic that the low interest rate environment that will expand pension liabilities cannot coincide with the high interest rate environment that tends to expand the supply offered by the insurance industry, the product should not be eliminated as a possible source of financial guarantees for that reason. An insurer may choose to offer the needed financial guarantee product during the lag period within its business cycle, to assist in diversifying its portfolio of risks, or to solidify the relationship with an important client. Because of the cyclical nature of the insurance industry's capacity for this type of business, any firm interested in these contracts must consciously decide to mitigate risks for the long term, ideally during a prosperous period when a funding shortfall is not present. By buying a finite risk contract when it is not needed, the plan sponsor avoids the issue of purchasing the coverage at the worst part of the market.

MARKET-BASED EXTENSIONS OF GUARANTEE INSTRUMENTS

Market-based solutions may arise eventually to improve the efficient allocation of capital for the purpose of strengthening pensions. Such a solution would be yet another example of the trend toward securitization that originated in the mortgage markets in the United States[11] and expanded in 1975 to include Sperry Corporation's securitization of its computer lease receivables. The trend continued in the mid-1980s and grew to encompass the world of alternative risk transfer with the introduction of catastrophe (CAT) bonds. That market in 2005 saw a record total issuance of $1.99 billion followed by another record of $4.69 billion in 2006, while also experiencing the first total principal loss by a publicly disclosed CAT bond when Zurich Financial Service's Kamp Re 2005 was triggered by Hurricane Katrina losses (*The Catastrophe Bond Market at Year-End 2005,* 2006).

In practice any securitization that would allow the market to share and diversify, the risks faced by pension plans, especially across industries, likely could not occur with today's instruments. Today's SBLCs are themselves contingent instruments that cannot be transferred. A securitization instrument to pass off some of the risk borne by an expansion of SBLCs or other financial guarantees would likely be a form of contingent capital with a multi-event trigger that would improve the cash flow of the guarantor at a time that capital is needed to offset payouts on SBLCs or similar guarantees to pension plans.

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ISSUES TO BE RESOLVED

Several aspects of this emerging opportunity to use financial guarantees to buttress sponsor promises to pension plans require additional work to enhance their robustness and transparency. For example, those developing the idea for implementation should consider expanding the list of agencies qualified to assess credit quality of guarantee institutions beyond Standard & Poor's. A careful review of firms that assess credit unions or insurance companies and incorporating them into the legislation or implementing regulation would be one step to ensure the widest possible range of writers would be eligible.

Second, some cross-border issues could be clarified. An example of this would be the eligibility of out-of-jurisdiction guarantors. Suppose Canadian banks lack a sufficiently high credit rating (or there is insufficient depth in the Canadian market) and foreign banks with good ratings are willing to enter into the market. From the perspective of the pension plan sponsor, it might be possible to find a lower cost SBLC at the higher rated foreign bank. The legislative proscription allows some regulatory oversight of the transaction, but serves little other purpose than possibly preventing some highly rated banks from entering the market simply due to various provincial regulations and raising the cost of the transaction. This occurs because a similar result could be achieved if the lower-rated bank were to have its SBLC confirmed (to the beneficiary) through a higher-rated foreign bank (called a confirming bank). The confirming bank assumes responsibility for payment of the SBLC should the issuing bank be unable to honour the SBLC. The confirming bank's name must be specified in the SBLC contract along with the issuing bank.

CONCLUSION

An increase in pension deficits during 2005-2006, driven largely by interest rates holding at historically low levels, caused some pressure on governments to expand the range of possible options that a plan sponsor can use to ensure its financial obligations to the plan. Recent legislation emerging from Québec and proposals from Canada's Office of the Superintendent of Financial Institutions provide some interesting ideas for new ways in which public policy can balance the needs of creditworthy but cash-strapped firms with the needs of current and future retirees. These opportunities are not a substitute for cash contributions on the part of a financially impaired firm, but they do offer some additional flexibility to firms with high creditworthiness in managing their finances. The opportunity presented by this new approach could be made more robust, however, by expanding the opportunity to include financial institutions other than banks, financial instruments other than traditional letters of credit, and institutions outside the jurisdiction that oversees the pension plan. ◀

Endnotes

1. The authors would like to thank Serge Charbonneau, FSA, FCIA, a partner in the Montréal office of Morneau Sobeco, for his tremendous assistance in translating, understanding and keeping pace with the developments occurring in Québec.
2. GAAP refers to generally accepted accounting principles.
3. Alberta made similar rules permanent in November 2007.
4. Specifically, a consultation paper was issued in May 2005 by the Office of the Superintendent of Financial Institutions asking whether letters of credit might allow for greater funding flexibility to resolve solvency deficiencies. Since that time, this issue has been subsumed in the larger review of Ontario's *Pension Benefits Act* undertaken by the Ontario Expert Pension Commission.
5. A significant difference exists among jurisdictions on this point. For plans subject to federal jurisdiction, as well as any of about five provinces, employers can wind up a defined benefit plan and not pay for the deficit. Those employers subject to laws in the other five jurisdictions, including Québec and Ontario, that wind up a defined benefit plan are still responsible to pay any deficit. This difference was highlighted in recent years when Ontario employer Stelco would have seen its pension deficit as part of a bankruptcy's unsecured debts. This was in stark contrast to federal employer Air Canada whose pension plan deficit, had bankruptcy occurred, would not even have been part of the unsecured debts in the proceedings.
6. Examples of this fundamental information include: (1) the name and address of the financial institution that issues the SBLC and the name and address of the employer that is the originator; (2) the name of the beneficiary pension fund and the address of the pension committee that administers it; (3) the amount, in Canadian dollars, for which it is issued; (4) the date of its issue and of its expiry; (5) a statement that it is governed by the laws of Québec, and that the standards provided for in the Rules on International Standby Practices, 1998 (publication number 590 of the International Chamber of Commerce) apply to it insofar as those standards are compatible with the provisions of this regulation; and (6) the address, in Québec, where the payment demand can be made.
7. The governmental regulations permit a reduction in the amount of the SBLC if a new valuation shows that it is no longer required. In practice, the plan sponsor, with the consent of the pension fund trustees, would likely request the issuing institution to reissue the SBLC in a lower amount.
8. The authors acknowledge that not all financial institutions issuing letters of credit are licensed as banks. However, in order to avoid any confusion with other types of financial institutions that are discussed later, this article will simply use the word "bank" to refer to an issuer of any standby letter of credit.
9. Furthermore, while the plan sponsor could turn to another bank to provide an SBLC, it would still need to disclose that such an instrument was outstanding; this could have essentially the same impact on other lines of credit.
10. The concepts of "participation" and "syndication" are similar, with the primary difference being the individual identification of additional players under the SBLC contract. With a participated contract any draw on the SBLC is honored by the originating bank, which then seeks indemnification from the partners. In terms of reporting, the originating bank would show the full amount of the SBLC in its notes; the participation agreement would not be "public" knowledge.

11. The U.S. Government National Mortgage Association (GNMA) in 1970 was the first entity to buy mortgages from mortgage companies and to convert them into pass-through securities.

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EXECUTIVE SUMMARIES

ALTERNATIVES TO CASH IN ENSURING THE SOLVENCY OF DEFINED BENEFIT PENSION FUNDS

by Peggy Hedges, Ryan Lee and Norma Nielson[1]

Since 2001, even some sound corporate sponsors have faced sudden and severe negative impacts on pension plan solvency due to poor equity market performance, record low interest rates and declining mortality trends. Following an overview of key accounting changes that have occurred internationally, this article reports on legislation and regulations developing in Canada to assist plan sponsors. The authors describe different instruments of financial guarantee that might be employed and identify several areas that require additional work to enhance those instruments' robustness and transparency.

LESSONS FROM PENSION REFORM IN THE AMERICAS

by Stephen Kay and Tapen Sinha

Policy makers continue to struggle to address changing demographics and aging populations amid much disagreement regarding the best path for pension reform. This article describes the social security reform efforts of several nations in the Americas, which, since Chile's pension reform, have become a global laboratory for pension reform. The authors review the many lessons of this new "postprivatization" era of pension policy, in which the euphoria of the initial phase of reform is clearly over and a decade or more of experience has proven pension reform to be an ongoing project.

THE FUTURE OF RETIREMENT: AN EXPLORATION AND COMPARISON OF DIFFERENT SCENARIOS

by Anna Rappaport

As the population is living longer, periods of retirement have been lengthening. At the same time, more people are leaving the workforce gradually rather than in one step. By building on research and data from a variety of sources and combining this information with intuition, the author of this article explores the context for retirement in the future; sets forth alternative scenarios for retirement; and discusses the public policy, individual and family implications of these scenarios. In doing so, she considers the perspectives of the individual, the employer sponsoring retirement plans and society as a whole. ◀