Report of the Expert Commission on Pensions

A Fine Balance

Safe Pensions
Affordable Plans
Fair Rules

TECHNICAL ANNEX

Ontario

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NOTES FROM CHAPTERS OF *A FINE BALANCE*

Purpose of the Technical Annex

The Ontario Expert Commission on Pensions submitted its final report entitled *A Fine Balance: Safe Pensions, Affordable Plans, Fair Rules* on October 31, 2008. The report was the product of extensive research and consultation. However, it does not contain references to research, legislation, studies or other sources consulted by the Commission. Those references are included in this Technical Annex. Where the report contains quotations, or refers to research or other sources, the Technical Annex identifies the source and includes limited commentary for further reference. This information is intended to provide the reader with the opportunity to explore issues in more detail and to achieve a better understanding of the report and its reasoning.

Because so much of the analysis and recommendations is based on the excellent research undertaken on the Commission's behalf, this annex also includes summaries of the papers prepared for the Commission's research program.

How to Use This Technical Annex

This is not a "stand alone" document, but must be read in combination with the report of the Commission. The Technical Annex is divided into parts that correspond to chapters and sections of the report, and within each section, by paragraph number and a brief quoted passage. References relevant to that paragraph and passage are provided in the form of a citation to a particular statute, legal case, book, article or study. For statutes and cases, normal legal citations are provided. For books, articles and studies, the author's name and the year in which the relevant work was published are provided; full citations can be found in the bibliography at the end of this Annex.

The bibliography also contains a list of works that the reader may find helpful, but which are not cited in the report.

All references and links provided in this document are current as of October 31, 2008.

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 8, Paragraph 1	
“The Ontario Expert…examine the legislation…pension system in Ontario.”	Ontario Expert Commission on Pensions (2006), “Mandate” in *Terms of Reference*.
Page 8, Paragraph 4	
“The work of the Commission… February 2007.”	Ontario Expert Commission on Pensions (2007).
Page 10, Paragraph 1	
“Reports and studies…as 1889.”	Stewart (1952) describes the importance of the *Report on the Royal Commission on the Relations of Labor and Capital in Canada*, 1889.
“A central theme…unionized employees.”	For a brief overview of these reports and themes see Weitz (1992, Chapter 1).
Page 10, Paragraph 2	
“The Committee’s Reports… pension portability.”	Ontario Committee on Portable Pensions (1961).
“However…from both parties.”	Ontario Committee on Portable Pensions (1961), paragraphs 28–29, 41–43, 49–53.
Page 10, Paragraph 3	
“The Committee’s…in 1963.”	*Ontario Pension Benefits Act 1962–1963*, S.O. 1962–1963 c. 103. The 1963 statute was revised in 1965 in light of the new Canada Pension Plan: *Pension Benefits Act*, 1965, S.O. 1965, c. 96.
Page 10, Paragraph 4	
“The PCO…its mandate.”	Section 97(b), *Pension Benefits Act, 1987,* S.O. 1987, c. 35.
Page 11, Paragraph 1	
“However, it became clear… not accepted.”	Established by Order-in-Council 1098/77, April 20, 1977. See Royal Commission on the Status of Pensions in Ontario (1980).
Page 11, Paragraph 2	
“A revised…amended”	*Pension Benefits Act*, *1987*.
Page 11, Paragraph 3	
“Based on…indexation of pensions.”	See Task Force on Inflation Protection (1988).
“Its recommendations… implementing regulations.”	See Task Force on Inflation Protection (1988, 258–265) and *Pension Benefits Act*, R.S.O. 1990, c. P.8, s. 53(1).

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 11, Paragraph 6	
"In 1998…pension problems."	The PCO was consolidated with other financial sector regulatory agencies by the *Financial Services Commission of Ontario Act, 1997*, S.O. 1997, c. 28.
Page 12, Paragraph 1	
"This occurred…of trusts."	See *Collins* v. *Pension Commission of Ontario, Re:* (1986), 56 O.R. (2d) 274, 31 D.L.R. (4^{th}) 86 (Div. Ct.), ("Dominion Stores" case). Cases discussing the application of trust law in the pension context are cited where applicable throughout this report.
Page 12, Paragraph 4	
"On the one hand…pension plans."	*Income Tax Act*, R.S.C. 1985, c.1 (5^{th} Supp.) Part I, Division G.
"Indeed…savings plans."	See Li (2007, 9).
Page 13, Paragraph 1	
"In 1961…litigation in Canada."	Ontario Committee on Portable Pensions (1961).
Page 13, Paragraph 3	
"From their inception…legislative authority."	*Constitution Act, 1867* (U.K.), 30 & 31 Victoria, c. 3 amended by the *Constitution Act, 1982*, being Schedule B to the *Canada Act 1982* (U.K.), 1982, c. 11, s. 92 (*Constitution Act, 1982*).
"However…supplementary benefits."	*Constitution Act, 1982*.
"The 1951…to any such matter."	*Constitution Act, 1867*, s. 94(a).
Page 13, Paragraph 5	
"The federal…federal statutes."	*Constitution Act, 1867*, s. 91(3), (21) and see ITA; *Bankruptcy and Insolvency Act*, R.S.C. 1985, c. B-3; *Companies' Creditors Arrangements Act*, R.S.C. 1985, c. C-36.
Page 13, Paragraph 6	
"About 10%...resides or works."	Informetrica (2007a, 17).
Page 15, Paragraph 1	
"At present…DC pensions."	Informetrica (2007a, 7–8 Figures 3 and 4, 29–30 Tables 10 and 11).

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 16, Paragraph 3	
"At a rough estimate… domestic partners."	Ontario's population was 12.9 million in July 2008: Statistics Canada (2008). See also Informetrica (2007a, 17 Table 3), which provides an estimate of Ontario active members. According to data based on tax filings reviewed by the Commission, there are approximately 800,000 to 1,000,000 Ontarians in receipt of some form of occupational pension income. It is relevant to note that FSCO does not have an accurate figure of the number of retirees in Ontario. Part of the difficulty in establishing a precise figure is due to the definition of "retiree," and because there is no specific statistical source for measuring "retirees." The Commission's estimates range from about 840,000 to 1,094,000 retirees, depending upon the data source and definition used. The best estimate is that there are between 840,000 and 910,000 retirees who are residents of Ontario and former members of pension plans registered with FSCO.
"Occupational pensions… economic situation."	This figure was derived from data prepared by the Ontario Ministry of Finance for the Commission, based on longitudinal analysis of incomes of Ontarians receiving occupational pensions (Registered Pension Plan and Retirement Income Fund from T1 administration data). Commission staff prepared calculations and analysis of that data.
Page 16, Paragraph 6	
"That said…labour market."	Gunderson (2007).
Page 17, Paragraph 2	
"Pension plans…in Ontario."	Puri (2007).
Page 17, Paragraph 4	
"That, no doubt…in Ontario."	Ontario Expert Commission on Pensions (2006) *Terms of Reference*.
Page, 19, Paragraph 4	
"Fortunately…implementable."	Ontario Expert Commission on Pensions (2006) *Terms of Reference*.
Page 20, Paragraph 1	
"And finally…of interest."	Ontario Expert Commission on Pensions (2006) *Terms of Reference*.

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 28, Paragraph 2	
"The data…relevant data.	House of Commons Committee on Old Age Pensions (1912).
Page 28, Paragraph 3	
"Consequently… social policy framework."	*Pension Benefits Act*, s. 97(1).
Page 28, Paragraph 4	
"For example…and of CRA."	The definition of a MEPP in Ontario is based on wording in the *Pension Benefits Act*, s. 1. Two key features of this definition are that a MEPP be administered by trustees at least 50% of whom are representatives of members of the plan, and that it include employees of two or more employers not "affiliated," as defined in the Ontario *Business Corporations Act*, R.S.O. 1990, c. B.16. MEPPs can include public and private sector plans. The Statistics Canada definition, used in their main pension survey, Pension Plans in Canada, is based on the Canada Revenue Agency definition of MEPPs for the purpose of the ITA. This definition does not include any governance requirements, and in some cases may not include public sector plans.
Page 28, Paragraph 5	
"The latter…in Ontario."	Informetrica (2007a, 17, Table 3).
Page 30, Paragraph 1	
"Pension systems…wages from employment."	"Replacement rate" is a comparison between pre- and post-retirement incomes, namely, the rate at which the latter replaces the former. There is no single optimal rate, but the principle underlying the replacement rate is to maintain a pre-retirement standard of living after retirement. There is debate over the level of post-retirement income required to maintain continuity in living standards.
Page 30, Paragraph 3	
"Relative to many…modest."	Organisation for Economic Co-operation and Development (2001).
Page 30, Paragraph 4	
"In fact…Canadian jurisdictions)."	For a discussion of coverage rates prior to 1986, see Weitz (1992, Chapter 5). For more recent figures, see Informetrica (2007a, Figures 14, 20 and Tables 1, 2 and 3). Some figures in the text are based on calculations by the Commission.
Page 30, Paragraph 5	
"As a result…OECD countries."	Veall (2007, 2, 15). See also Gunderson (2007, 15).

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 31, Paragraph 1	
“By contrast…RRSPs.”	La Rochelle-Côté, Myles and Picot (2007, 16).
“Only about…group had two.”	Morissette and Ostrovsky (2007).
Page 31, Paragraph 2	
“They are also…them had two.”	Morissette and Ostrovsky (2007).
Page 31, Paragraph 3	
“Not surprisingly…been diverging.”	Morissette and Ostrovsky (2007).
Page 31, Paragraph 4	
“Our research shows…is closing.”	Strauss (2007, 10). Pension coverage by gender is discussed further in Chapter Three.
Page 31, Paragraph 5	
“In terms of…their retirement.”	La Rochelle-Côté, Myles and Picot (2007, 12).
“However…rates over time.”	La Rochelle-Côté, Myles and Picot (2007, 12).
Page 31, Paragraph 6	
“Several studies…income security.”	La Rochelle-Côté, Myles and Picot (2007, 9).
“Thus…these private sources.”	Horner (2007).
Page 32, Paragraph 2	
“Defined benefit plans…savings for retirement.”	About 80% of all pension plan coverage in Ontario is in a defined benefit plan: Informetrica (2007a, 29, Table 10).
Page 32, Paragraph 5	
“Study after study…save at all.”	This debate has been thoroughly examined by Mitchell and Utkus (eds.) (2004).
“No doubt that is why…opt-out provisions.”	For further information on jurisdictions with mandatory occupational pension systems see Organisation for Economic Co-operation and Development (2007a) and Tapia and Yermo (2007).
Page 33, Paragraph 1	
“In the United States…in retirement.”	*Pension Protection Act of 2006*, 29 U.S.C. 1001, and for a discussion, Ghilarducci (2007).
Page 33, Paragraph 5	
“In fact…over other workers.”	Frenken and Maser (1992).

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 33, Paragraph 6	
"First, the availability…Canadian provinces."	Gunderson (2007).
"And third…pension benefits."	Morissette et al. (2004).
Page 34, Paragraph 1	
"On the one hand…facilitate portability."	Ontario Committee on Portable Pensions (1961).
"Ironically…turnover rates."	Gunderson (2007, 24).
Page 34, Paragraph 2	
"As he notes…part of firms..."	Gunderson (2007, 12). Gunderson refers to Smith and Ehrenberg (1983) who highlight data problems that make estimates of wage–benefit trade-offs difficult.
"Moreover…non-pension benefits."	Gunderson (2007, 20).
Page 35, Paragraph 1	
"Canadian pension funds…chartered banks."	For figures quoted in this section, refer to Puri (2007).
"At the end of the second quarter…other assets, 17%."	Statistics Canada (2007).
Page 35, Paragraph 3	
"According to…spectrum."	Ambachtsheer (2008).
"While there…jurisdiction."	These five large plans are the major public sector plans.
Page 35, Paragraph 4	
"The Bank of Canada…in such projects."	Tuer and Woodman (2005).
Page 36, Paragraph 1	
"While the data…source of income."	This figure was derived from data prepared by the Ontario Ministry of Finance for the Commission, based on longitudinal analysis of incomes of Ontarians receiving occupational pensions (Registered Pension Plan and Retirement Income Fund) from T1 administration data. Commission staff prepared calculations and analysis of that data.
Page 36, Paragraph 3	
"Studies undertaken…this result."	Richard Shillington and Keith Horner both reviewed data provided and reports produced for the Commission by the Ontario Ministry of Finance, as well as available literature on the interaction between private and public pension systems in Canada. See also Horner (2008).

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 36, Paragraph 4	
“However, …pension coverage.”	Horner (2008).
Page 36, Paragraph 5	
“Horner…non-trivial consequences.”	Horner (2008).
Page 37, Paragraph 1	
“Due to the increased…in recent decades.	For data on the paid work force, see Statistics Canada, Labour Force Survey (LFS). The LFS is a monthly survey involving around 54,000 Canadian households. It is the only Statistics Canada source of current, monthly estimates of total employment (including self-employment) and unemployment.

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 38, Paragraph 1	
"For at least…declining."	Informetrica (2007a, Figure 14).
Page 38, Paragraph 3	
"As Ontario's workforce…pension plans."	For data on the paid work force, refer to the Labour Force Survey and notes to the previous chapter.
"In fact…in 1985."	Informetrica (2007a, 3).
"Figure 1…jurisdiction workers)."	Informetrica (2007a, Figure 14) amended by further calculations of the Commission. Pension coverage figures here and in Chapter Three are based on active members of occupational pension plans regulated by the Financial Services Commission of Ontario (FSCO) as a percentage of the provincially regulated labour force, unless otherwise noted.
Page 39, Figure 1; Page 41, Figure 2	
	Figure 1 is based on data presented in Informetrica (2007a). It shows active pension plan members as a percentage of the paid labour force for Canada and for the Ontario jurisdiction only, between 1985 and 2005, the years for which data was available in both these categories. Figure 2 shows some of the governance characteristics of Ontario defined benefit plans. It shows the proportion of members of defined benefit plans in Ontario that are in a jointly or member-governed plan, a single-employer plan with a collective bargaining agent, or a single-employer plan without a collective bargaining agent. This figure was derived from data presented in the Coverage Report, data provided by FSCO and calculations made by the Commission.
Page 39, Paragraph 1	
"The Commission's…non-union workers."	Informetrica (2007a, 45 Table 17). Unionization rates are drawn from Statistics Canada sources and may use a definition of the Ontario labour force slightly different from the one used to calculate pension coverage. The two are, however, broadly comparable.
"And not only…typically enjoy."	Akyeampong (2002, 9).
Page 39, Paragraph 2	
"In workplaces…rate is 10%."	Informetrica (2007a, 45).
Page 39, Paragraph 3	
"As of 2005…about 20 years."	Informetrica (2007a, 3).
"However…over 700,000 members."	Informetrica (2007a, Figure 16).

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 40, Paragraph 1	
"The coverage rate…78% in 2005."	Informetrica (2007a, Figure 15).
Page 40, Paragraph 2	
"Although…60% of plan members."	Informetrica (2007a, 3, Table 1) calculations by Ontario Expert Commission on Pensions. The private and public sector proportions of the labour force noted here are drawn from Table 3A-4 of Statistics Canada (2000, 54).
"On the other hand…40% of plan members."	Informetrica (2007a, 3, Table 1) and Statistics Canada, 2000. Canada-wide data also indicates that public sector plans are predominantly contributory plans (that is, requiring member contributions), but private sector plans less so.
"And one more…private sector counterparts."	FSCO data and calculations by the Commission. FSCO data currently classify fewer than 100 plans as "public sector" plans, or less than 1% of the 6,280 pension plans regulated by FSCO (excluding individual pension plans). These 100 public sector plans do not include some plans in the broader public sector. However, even a significant increase in the number of plans classified as public sector would be less than 1–2% of all occupational pension plans.
Page 40, Paragraph 4	
"While…almost identical."	Informetrica (2007a, Figure 3).
Page 40, Paragraph 6	
"As of…overall coverage."	In 2007, these 1,800 plans contained 2,262 members, less than 1% of total coverage in Ontario.
"Of the remainder…45% in MEPPs."	Informetrica (2007a, 35, Figure 34) 2007 calculation by the Commission based on March 2007 FSCO data.
Page 41, Paragraph 1	
"A 2005 amendment…of all plan members."	The *Pension Benefits Act*, as amended by S.O. 2005, c. 13, sch. 18, December 15, 2005 (proclaimed into force on April 30, 2006). See also Informetrica (2007a) and calculations by the Commission based on FSCO data. There are currently five large public sector pension plans registered as JSPPs in Ontario.
Page 41, Paragraph 2	
"However, I can…18% by 2005."	Informetrica (2007a, 7, Figure 4). In contrast, in 1985, defined benefit plans accounted for about 92% of all members, but by 2005, just under 78% of members.
"While this represents… United Kingdom."	Strauss (2007, 6).

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 42, Paragraph 3	
"To the contrary…of member-ship of all plans ."	Based on Canada-wide data gathered by Statistics Canada, a large majority (over 70%) of defined benefit plans are contributory. See Statistics Canada (2000, 60).
Page 43, Paragraph 3	
"Others suggest that both workers and employers…plans in particular."	For example, the Ontario Confederaion of University Faculty Association's brief to the Commission noted that some faculty associations led the conversion to defined contribution plans, while other employee groups continued to promote and prefer defined benefit plans.
Page 44, Paragraph 1	
"Figure 4 shows… left-hand axis)."	Note that other studies have shown that, like pension plans membership, union membership in absolute numbers has risen by 43% between 1977 and 2003: Akyeampong (2004). Data drawn from *Corporations and Labour Unions Return Act* and the Labour Force Survey likely includes union coverage in Ontario under federal jurisdiction.
"However … 2005 (right-hand axis)"	For data on the paid work force, see the Labour Force Survey and discussion in Chapter Three.
Page 44, Paragraph 3	
"By contrast…less in tandem."	Morissette and Ostrovsky (2007).
"Another example…closed considerably."	Akyeampong (2004, 7).
"And another…the same rate."	Akyeampong (2004, 6).
Page 44, Paragraph 4	
"Since 1988…2005 to present."	Sonnen et al. (2007, 23). See also TD Economics (2008, 1).
Page 45, Paragraph 1	
"During this…manufacturing jobs."	Sonnen et al. (2007); Martinello (2000).
Page 45, Paragraph 2	
"Ontario has experi-enced…21% in 2006."	Strauss (2007, 54).

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 45, Paragraph 4	
"According to…and young women."	Morissette and Drolet (2001); Morissette and Ostrovsky (2007, 9).
Page 46, Paragraph 1	
"If actuarial…tables are adopted."	Clark and Monk (2007, 10–11) citing Dushi, Freidberg and Webb (2006).
Page 46, Paragraph 2	
"According to recent statistics…visible minority Canadians."	Statistics Canada (2001, 28–29).
"Moreover…Greater Toronto Area."	Statistics Canada (2001).
Page 46, Paragraph 3	
"In fact…visible minorities."	Morissette (2002).
"However, coverage increases…within 10 years."	This finding is indirectly confirmed by data studies undertaken for the Commission. Informetrica (2007a, 47).
Page 47, Paragraph 6	
"Moreover…were most prevalent."	Morissette and Ostrovsky (2007, 5).
Page 48, Paragraph 3	
"Initially…drew their pensions."	Trossman (1989).
"A study…to retirement savings."	Li (2007); Horner (2007).
"However it is less clear…lower contribution levels."	Li (2007, 10–15).
Page 48, Paragraph 4	
"Indeed even self-employed…more limited."	The determination of whether a pension plan is registered by the Canada Revenue Agency in compliance with the *Income Tax Act* is a question of fact for the Minister of Revenue: *Loba Ltd.* v. *Canada (Minister of National Revenue)*, [2004] FCA 342 and *Boudreau* v. *Canada (National Revenue)*, [2007] FCA 32.
Page 48, Paragraph 5	
"Under the ITA…features and circumstances.)"	Section 147.2 of the *Income Tax Act* sets out eligible contributions for registered pension plans, and section 147.2(2)(d) the implied limits on those contributions.
Page 50, Paragraph 1	
"These are not hypothetical…on coverage."	The submissions are online at: www.ontario.ca/pensions. For other examples, White (2008a); Dominion Bond Rating Service (2007); National Union of Public and General Employees (2006).

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 51, Paragraph 1	
"The combination…the perfect storm."	For a review of the "perfect storm" thesis, see Clark and Monk (2007).
Page 51, Paragraph 2	
"Canada and…for three reasons."	Clark and Monk (2007, 18).
"First…research for the Commission."	Pugh (2007).

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 54, Paragraph 5	
"Active member and retiree groups often characterize…the beneficiaries."	Wooten (2007, 6–8 and 50–51).
"Some important court decisions…as supporting their position."	For examples, see *Collins* v. *Pension Commission of Ontario* (1986), 31 D.L.R. (4th) 86 (Ont. Div. Ct) (also known as the "Dominion Stores" case); *Bathgate* v. *National Hockey League Pension Society* (1994), 110 D.L.R. (4th) 609 (Ont. C.A.); *Schmidt* v. *Air Products of Canada Ltd*., [1994] 2 S.C.R. 611, 115 D.L.R. (4th) 631; *Aegon Canada Inc.* v. *ING Canada Inc.* (2003), 34 C.C.P.B. 1 (Ont. S.C.J.), aff'd by (2003), 179 O.A.C. 196; *Monsanto Canada* v. *Ontario*, [2004] 3 S.C.R. 152.
Page 54, Paragraph 6	
"Employers, on the other hand…use of surplus on partial or full wind-up."	Wooten (2007, 10). See also: *Buschau* v. *Rogers Communications Inc.*, [2006] 1 S.C.R. 973; *Kerry (Canada) Inc.* v. *DCA Employees Pension Committee* (2007), 282 D.L.R. (4th) 625; 229 O.A.C. 82.
Page 55, Paragraph 2	
"The deferred wage theory…life of the plan."	Wooten (2007, 51-5).
"At the same time...take contribution holidays."	Wooten (2007, 41-7)
"Wooten draws attention to U.S. tax rules...high invest-ment returns."	Wooten (2007, 47).
Page 56, Paragraph 3	
"But those assets comprise... and special payments."	The definitions of "going concern assets" and "solvency assets" are found in s. 1(1) of the *Pension Benefits Act*, Regulation 909.
Page 56, Paragraph 4	
"However, it is a challenge that must be met at least every three years…and this Regulation'."	The *Pension Benefits Act*, s. 55 is the authority for creating the funding regulations. PBA Regulation 909 sets out the details of funding rules. Section 16 of PBA Regulation 909 requires actuaries who prepare reports to use methods and actuarial assumptions that are "consistent with accepted actuarial practices and with the requirements of the Act and this Regulation."
"These triennial valuations… have been made."	PBA Regulation 909, s. 14(1) requires the administrator to ensure that the plan is reviewed and a report is prepared and certified at regular three-year intervals. Sections 14(2) and 14(3) require plans funded at less than 80% of their liabilities (or under 90% for larger plans) to file annual reports until their funded status improves.

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 57, Paragraph 1	
"Funding valuations…Canadian Institute of Actuaries (CIA)."	The Canadian Institute of Actuaries (CIA) Standards of Practice can be found at: www.actuaries.ca/SOP_Doc/Complete/SOP_e_Complete.pdf (last viewed on August 10, 2008). Further guidance material on CIA standards is found on the CIA website at: www.actuaries.ca/educational_notes/ed_notes_e.cfm (last viewed on August 10, 2008).
"All plans are required…level of funding."	The requirement to submit both going concern and solvency valuations are in PBA Regulation 909, s. 4. The requirements for actuarial reports are found in ss. 13 and 14.
Page 57, Paragraph 2	
"As the name suggests…next three years."	Definitions of "actuarial gain," "actuarial loss," "going concern assets," "going concern liabilities" and "going concern valuation" are in PBA Regulation 909, s. 1(1).
"Unfunded liabilities or losses…(a contribution holiday)."	For these rules refer to PBA Regulation 909, ss. 5(1) and 7.
Page 57, Paragraph 3	
"Because going concern valuations…evolve in the future."	The CIA practice-specific standards for pension plans can be found at: www.actuaries.ca/SOP_Doc/3000_Pension/SOP_e_Pension_3000.pdf (last viewed on August 11, 2008).
Page 57, Paragraph 4	
"Solvency valuations…assume that the plan will be wound up immediately."	Definitions of "solvency assets," "solvency deficiency," and "solvency liabilities" are in PBA Regulation 909, s. 1(1).
"Under existing regulations…receive a pension 'immedi-ately'."	The definition of "solvency liabilities" is found in PBA Regulation 909, s. 1(1). See also the CIA Pension Standards discussed above.
"Further, if a solvency valuation...going concern valuations."	PBA Regulation 909, s. 5(1).
Page 57, Paragraph 5	
"Solvency valuations came into force…be under-funded."	Ontario PBA Regulation 712/92, in force November 26, 1992.
Page 58, Paragraph 2	
"However, a study undertaken for the Commission…early in this decade."	FitzGerald (2008).

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 58, Paragraph 3	
"In recent years…internationally accepted accounting standards have adopted 'mark to market'…solvency valuation."	Accounting standards applying to pension plans are set out in s. 3461 of the *Canadian Institute of Chartered Accountants Handbook*. The shift to more transparent "mark to market" recognition of gains and losses in pension (and other) accounting has been developing over the past 10 years. At present, Canadian public companies are required to adopt the International Financial Reporting Standards by 2011. For details on the transition to international standards, see the Canadian Institute of Chartered Accountant's website at: www.cica.ca/3/9/2/5/9/index1.shtml (last viewed on August 11, 2008).
Page 59, Paragraph 4	
"For example, while indexation paid to present retirees…going concern valuations."	PBA Regulation 909, s. 11(1) lists exclusions from valuation reports.
Page 59, Paragraph 5	
"To take another example… included in a valuation."	The definitions of "solvency liability" and "excluded plant closure benefits" are in PBA Regulation 909, s. 1(2).
Page 59, Paragraph 6	
"Benefit improvements — even expensive improvements…five or 15 years."	There is no provision prohibiting (or providing for) the amortization of benefit improvements commencing at the date of the improvement (as opposed to the most recent valuation date). It is the legislative silence on this issue that permits the amortization of benefit improvements.
Page 60, Paragraph 1	
"Ontario regulations allow limited 'smoothing'…period of time."	The definitions of "solvency liability adjustment" and "solvency asset adjustment" are found in PBA Regulation 909, ss. 1(2) and 1.2(1).
"CIA standards applicable across Canada…going concern valuation."	See CIA pension standards discussed above.
"The 15-year amortization period…solvency deficiencies."	PBA Regulation 909, ss. 4 and 7 contain these amortization periods.
Page 60, Paragraph 3	
"One important matter… contribution schedule."	"Contribution holidays" are generally recommended in an actuarial report when assets exceed liabilities by 10% (or 20% for certain plans). They are typically taken in order to comply with ITA regulation of the eligibility of contributions for preferential tax treatment: ITA, s. 147.2 sets out eligible contributions for registered pension plans, and s. 147.2(2)(d) the implied limits on those contributions.

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 60, Paragraph 4	
"Many reports and calculations under the Act…actuarial practice."	The definition of "fellow of the CIA" is found in ss. 3 and 4 of the CIA by-laws at: www.actuaries.ca/members/publications/2007/207069e.pdf (last viewed on August 11, 2008). The requirement that reports and calculations under the *Pension Benefits Act* and PBA Regulation 909 be prepared by a "fellow of the CIA" and in accordance with standards of good actuarial practice is pursuant to the definition of actuary in PBA Regulation 909, ss. 1(2) and 16.
Page 60, Paragraph 5	
"Happily, the CIA has recently changed…as at present."	Actuarial Standards Board, 2008 and *Memorandum* dated December 27, 2007, on reporting, available at: www.actuaries.ca/consultation/index_e.cfm (last viewed on August 12, 2008).
Page 61, Paragraph 3	
"The Commission's research and a report recently published…addressing the issue."	See Financial Services Commission of Ontario (2007a); Informetrica (2007b).
"Discount rates used in going concern…going concern valuations."	Actuarial Standards Board (2007).
Page 62, Paragraph 3	
"The current reporting rules require…regulator consents."	The requirement for full actuarial valuations is found in PBA Regulation 909, s. 14(1).
"An additional nine months…regulator consents."	PBA Regulation 909, s. 14(10).
"Annual valuations are required…set out in the regulations."	PBA Regulation 909, ss. 14(2) and 14(3).
"All plans are also required to file…current level of funding."	PBA Regulation 909, s. 76.
Page 63, Paragraph 1	
"While most European countries…full valuations every year."	The requirements for mini-valuations in the United Kingdom are found in ss. 224 and 225 of the *Pensions Act, 2004* (U.K.) and Regulation 7 of *The Occupational Pension Schemes (Scheme Funding) Regulation 2005*. The power to order a mini-valuation is provided for in s. 231. The explanatory note of the *Regulation* requires trustees to maintain a policy statement for securing funding and various technical and actuarial aspects.

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 63, Paragraph 1 *(cont'd)*	
	The *Supplemental Pension Plans Act*, R.S.Q., c. R-15.1, s. 118 sets the timing of actuarial valuations, which require partial valuations upon certain events, such as changes to plan benefit structures: see s. 130 of that Act. Bill 30, *An Act to amend the Supplemental Pension Plans Act, particularly with respect to the funding and administration of pension plans*, S.Q. 2006, c. 42 provides that as of January 1, 2010, pension plans will be required to file annual actuarial valuations. The *Pension Protection Act of 2006* (U.S.), Public Law 109-280 requires an annual "funding notice" and Form 5500 to be filed with the Department of Labor setting out a wide variety of plan valuation and funding information. Similar provisions apply to multi-employer pension plans.
Page 64, Paragraph 3	
"First, while DB…any kind of pension coverage.)"	The breakdown of this coverage is discussed in Chapter Three, particularly Figures 2 and 3, in Informetrica (2007a).
Page 66, Paragraph 2	
"If one of the purposes…in the case of MEPPs and JSPPs."	*Pension Benefits Act*, s. 8(1) defines the administrator of a pension plan.
Page 66, Paragraph 3	
"By definition, SEPPS…on sponsor contributions."	The definitions of "pension plan," "multi-employer pension plan" (MEPP) and "jointly sponsored pension plan" (JSPP) are in the *Pension Benefits Act*, s. 1(2). Section 39(3) requires that member contributions to the funding of benefits not exceed 50%.
"MEPP sponsors, however, cannot be required…even if the fund is in deficiency."	MEPP sponsor contributions are fixed typically by a collective agreement or funding agreement: they are not obligated to increase contributions to meet unfunded liabilities. The *Pension Benefits Act*, s. 14(2) permits the reduction of accrued benefits in a MEPP. Single-employer pension plans may not reduce accrued benefits except in specific circumstances in which contributions are fixed by agreement with the members. The Commission was advised of certain Ontario "cooperative MEPPs" that contained provisions prohibiting the reduction of accrued benefits.
Page 66, Paragraph 4	
"Moreover, once accrued…cannot be reduced."	*Pension Benefits Act*, s. 14(1) prohibits amendments to pension plans that have the effect of reducing accrued benefits except in the circumstances described above.
"If the plan has insufficient assets… number of years."	Regulations determining special payments are set out in PBA Regulation 909, s. 5(1). For liability of sponsors on wind up, see the *Pension Benefits Act*, s. 75 and s. 14(2) permitting MEPPs to reduce benefits.
"JSPPs are somewhere between the two…under-funded."	The *Pension Benefits Act*, s. 75.1 describes conditions applying to JSPP funding on wind up.

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 67, Paragraph 2	
"SEPPs are obliged to pay annual premiums…insufficient assets."	The *Pension Benefits Act*, s. 84 and PBA Regulation 909 ss. 5.1 and 37 contain details on premiums payable to the Pension Benefits Guarantee Fund (PBGF). Note that s. 85 of the Act exempts the application of the PBGF to MEPPs, and JSPPs are exempted from the PBGF by PBA Regulation 909, s. 47(2.1).
Page 67, Paragraph 3	
"Most MEPP and JSPP members…other representative body."	See the discussion of the distribution of pension membership in Chapter Three, especially Figures 2 and 3. See also Strauss, 2007.
Page 67, Paragraph 4	
"SEPPs are characteristically… potentially, JSPPs."	These observations are drawn from the Commission reviews of data provided by FSCO. All existing JSPPs are in the public sector though they may also be established in the private sector. MEPPs and SEPPs occur in both sectors, but predominate in the private sector.
Page 68, Paragraph 1	
"The 'too big to fail' regulation…brink of failure."	Ontario Regulation 712/92 (PBA Regulation 909, s. 5.1) came into force November 26, 1992. A small number of plans made an election under this Regulation. However, no further plans will be allowed to make such an election.
Page 68, Paragraph 2	
"Alberta and Ontario have recently excused…three-year period 2007–2010."	The SOMEPP (Specified Ontario Multi-employer Pension Plan) regulations were introduced by Ontario Regulation 489/07 (s. 6.0.1–6.0.4 of PBA Regulation 909). The Alberta MEPP regulations were made in 2005 amendments to the *Alberta Employment Pension Plans Act*, R.S.A. 2000, c. E-8.
Page 68, Paragraph 3	
"MEPPs can adjust benefits… must represent plan members."	*Pension Benefits Act*, s. 14(2) permits MEPPs to reduce benefits; see the definition of MEPP in s. 1 of the Act and s. 8(1) of the Act.
Page 69, Paragraph 1	
"The SOMEPP Regulation addresses this issue…over eight years."	PBA Regulation 909, s. 6.04(4).
Page 69, Paragraph 3	
"Moreover, since MEPPs…look to the PBGF for compensation."	*Pension Benefits Act*, s. 85 exempts MEPPs from the PBGF. According to FSCO's risk-based reporting, MEPPs are often significantly under-funded: Financial Services Commission of Ontario, 2005, 2006, 2007a.
Page 69, Paragraph 5	
"For example, the SOMEPP Regulation…gain the benefit."	PBA Regulation 909, s. 6.02(1).

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 70, Paragraph 3	
"First, whereas JSPPs… through sponsor contributions."	*Pension Benefits Act*, s. 1(2) defines the conditions for becoming a JSPP.
"Second, whereas MEPPs may reduce…being wound up."	*Pension Benefits Act*, s. 14 of the Act and PBA Regulation 909, s. 3.1.
"Third, whereas MEPPs are presently…JSPPs are not."	PBA Regulation 909, s. 6.0.1–6.0.4.
Page 73, Paragraph 2	
"Most countries…information purposes."	Pugh (2007).
Page 73, Paragraph 3	
"Thus the requirement for dual…in other countries."	See the discussion in Chapter Three on the factors in Ontario that affected funding levels over the long term. This conclusion was suggested by Clark and Monk (2007).
Page 74, Paragraph 4	
"Instead, I am attracted… Netherlands and Switzerland."	See Régie des Rentes (2007); see also Pugh (2007) for an outline of the funding regimes in several jurisdictions including the Netherlands and Switzerland.
Page 75, Paragraph 3	
"The federal jurisdiction and Quebec…somewhat different strategies."	Pugh (2007) for a discussion of Ireland and the United Kingdom. For the federal jurisdiction, see *Solvency Funding Relief Regulations*, S.O.R./2006-275 under the *Pension Benefits Standards Act*, R.S.C. 1985, c. 32 (2nd Supp.). For Quebec see *An Act to amend the Supplemental Pension Plans Act, particularly with respect to the funding and administration of pension plans*, S.Q. 2006, c. 42.
Page 76, Paragraph 1	
"And it has been framed… resolve it."	In 2002, the Ontario government introduced Bill 198, *Keeping the Promise for a Strong Economy Act (Budget Measures), 2002*, which contained amendments to the Pension Benefits Act and regulation. These amendments were eventually withdrawn from the bill.
Page 76, Paragraph 2	
"By way of context...of the plan documents."	*Pension Benefits Act*, s. 79.
"Subsequent regulations enacted…proportion of retirees"	PBA Regulation 909, s. 8.
However, as a result… surplus-sharing agreement.	*Kent et al. v Tecsyn International Inc*. (2000), 1 C.C.E.L. (3d) 243 (Ont. Div. Ct.).

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 78, Paragraph 3	
"Contribution holidays, which are…of the pension fund."	PBA Regulation 909, s. 7. Contribution holidays are also allowed according to accepted actuarial practice. The legality of contribution holidays was explicitly confirmed in *Schmidt* v. *Air Products of Canada Ltd*., [1994] 2 S.C.R. 611, 115 D.L.R. (4th) 631. See also *Maurer* v. *McMaster University* (1995), 23 O.R. (3d) 577. See Pugh (2007) for a discussion of U.S. and U.K. rules on contribution holidays, and see the Ontario Bar Association (2007).
Page 78, Paragraph 5	
"Controversy over…pay plan expenses."	*Pension Benefits Act*, s. 7(4) permits payment of PBGF premiums out of the pension fund. Some of these issues are being litigated in *Kerry (Canada) Inc*. v. *DCA Employees Pension Committee* (2007), 282 D.L.R. (4th) 625; 229 O.A.C. 82 which is under appeal to the Supreme Court of Canada.
Page 79, Paragraph 2	
"Finally, the sponsor's right to simply…particularly high."	PBA Regulation 909, s. 10 and *Pension Benefits Act*, s. 79(1).
Page 80, Paragraph 2	
"Moreover they are kept…Canadian insurance companies."	See the definition of "insurance company" in the *Pension Benefits Act*, s. 1(1) and restrictions on transfer in PBA Regulation 909, s. 21(2).
Page 81, Paragraph 2	
"This issue of indexation…and early 1980s."	Task Force on Inflation Protection (1988). Provision for inflation protection was provided in s. 53 of the *Pension Benefits Act*, but this provision has never been activated.
Page 82, Paragraph 4	
"The federal jurisdiction…different periods of time."	Ontario Bar Association Pension and Benefits Law Section (2007, 8). Alberta's provisions are summarized in Alberta Ministry of Finance's *Policy Bulletin No. 39* (2007) on Letters of Credit. Quebec's provisions are summarized in the Régie des Rentes *Supplemental Pension Plans Newsletter*, February 7, 2007. A summary of the changes in British Columbia is in Mercer (2008).
"The United Kingdom imposes…with the security provided."	The U.K. Pensions Regulator has issued guidance on the use of "contingent assets" including letters of credit: see Pensions Regulator (2006).
Page 84, Paragraph 3	
"The contribution limits are…previously afforded to DB pension plans."	Contribution limits are discussed previously in this chapter and in the *Income Tax Act* (ITA), s. 147.2. In June of 1990, significant changes to the ITA were proclaimed, and supporting regulations added January 15, 1992. These made significant changes to the taxation of pension benefits with the objectives of integrating the tax treatment of registered pension plans, registered retirement savings plans and deferred profit-sharing plans to create a "level playing field" and eliminate the tax advantage of defined benefit plans. Li (2007).

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 84, Paragraph 4	
"While such proposals involve…on goods and services."	Li (2007); Gunderson (2007).
Page 85, Paragraph 1	
"The investments of registered pension plans…provincial pension regulation."	The *Pension Benefits Act*, s. 62 and PBA Regulation 909, ss. 78 and 79 incorporate by reference the *Pension Benefit Standards Act's Benefits Standards Regulations, 1985*, S.O.R./87-19, in particular Schedule III. Schedule III contains qualitative and quantitative restrictions on pension fund investment. These rules prohibit pension funds from: investing more than 10% of the book value of the plan's assets in any one "person" or group of affiliates (with some limited exceptions); owning more than 30% of the voting securities of an issuer, except certain resource, real estate and investment corporation issuers; owning 5% of the book value of a real estate or Canadian resource property; and investing more than an aggregate 15% of the book value of the pension fund in Canadian resource properties and 25% of the book value of the fund in real estate and Canadian resource properties combined. The investment rules also prohibit other forms of transaction by the pension fund including self-dealing. Related party transactions (with some exceptions) require registration of investments to clearly show they are held in trust for a pension fund, and provide rules about record-keeping.
"These rules…operation of the plan."	Regulation to the *Pension Benefits Standards Act, 1985*, R.S.C. 1985, c. 32 (2d Supp.) Schedule III, ss. 9–17.
Page 85, Paragraph 2	
"By contrast…investment of the pension fund."	*Pension Benefits Act*, s. 22 contains the requirement to exercise "care, skill and diligence."

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 87, Paragraph 2	
"As noted in…manufacturing sector has been transformed…or gone out of business."	Sonnen et al. (2007). See also discussion of factors affecting pension coverage in Chapter Three, and reports prepared for the Commission by Strauss (2007) and Clark and Monk (2007).
"The service sector…experienced significant restructuring...from one level of government to another."	Macdonald (2007); Fenton et al. (2001).
Page 87, Paragraph 4	
"The hospital, school board, community college and municipal segments…interests of their members, at risk."	The major pension plans in the public and broader public sector include several major Ontario MEPPs: Ontario Teachers' Pension Plan, Ontario Municipal Employees Retirement System, Hospitals of Ontario Pension Plan, Colleges of Applied Arts and Technologies Pension Plan, and two major SEPPs: the Ontario Pension Board of the Public Sector Pension Plan and the Ontario Public Service Employees Union Pension Trust. There are several other MEPPs in the broader public sector, such as the Multi-Sector Pension Plan and the Nursing Homes and Related Industries Pension Plan. Many of these plans have entered into reciprocal transfer agreements providing for the transfer of individual members between employers (such as the Major Ontario Pension Plans agreement). Others have been active participants in facilitating restructuring to ensure interests are protected.
Page 88, Paragraph 5	
"Over the last five years…days for asset transfers."	Sossin (2007, s. 2.8).
Page 89, Paragraph 4	
"Essentially when they move…pension entitlement must be annuitized."	*Pension Benefits Act*, s. 42 and Financial Services Commission of Ontario (2007b).
Page 90, Paragraph 1	
"In the early 1960s the Ontario Committee on Portable Pensions…disbursing pension benefits."	Ontario Committee on Portable Pensions (1961, 59).
"The Committee's recommendation was in fact adopted…such an agency."	*Ontario Pension Benefits Act 1962–1963*. This provision has survived as *Pension Benefits Act*, s. 103: "The Lieutenant Governor in Council may establish or designate an agency for the purposes, among others, of receiving, holding and disbursing pension benefits under this Act."

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 90, Paragraph 3	
“Upon retirement…Canada Pension Plan.”	Reference to the Canada Pension Plan (CPP) method for determining benefit levels is suggested only by way of a general indication of how the proposed Agency might operate. The normal CPP benefit structure is set out in s. 44–54 of the *Canada Pension Plan*, R.S.C. 1985, c. C-8.
Page 91, Paragraph 3	
“On the other hand…pension law already imposes… minimum standards...to maintain plans.”	The *Pension Benefits Act* contains a series of minimum standards relating to registration, administration, benefits, vesting, contributions, membership, disclosure of information and several other aspects of the administration of a plan. The *Income Tax Act* (ITA) also contains several important minimum standards particular to the funding of pension plans, including maximum contribution and benefit levels required to obtain preferred tax treatment. The federal *Pension Benefits Standards Act* (PBSA) contains rules on the investment of pension funds that are adopted by reference in the *Pension Benefits Act*.
Page 92, Paragraph 1	
“Such an arrangement is indeed possible…benefits to the latter.”	See the discussion of public sector pension plan transfer agreements on page 87 above. The *Pension Benefits Act*, s. 42 permits transfers of commuted value of a pension into another plan, another “locked in” savings vehicle or an annuity.
Page 92, Paragraph 2	
“Instead group transfers are governed by regulations… those of the old.”	Group transfers are addressed in the *Pension Benefit Act*, ss. 80 and 81. In effect, the Superintendent is able to consent to group transfers only when the importing plan’s terms are equal to or better than the exporting plan’s terms.
“However, experience has shown that if aggregate value transfers are not allowed… asset transfers will seldom occur.”	Several stakeholders made this claim in their submissions. While group transfers do happen from time to time, they are very difficult to effect especially in public sector plans, which differ among themselves and are hard to amend in a manner that would meet the Superintendent’s criteria for the approval of a group transfer.
Page 93, Paragraph 2	
“During the late 1990s…to the private sector.”	Several public sector stakeholders noted the effects of this restructuring in their submissions. The submission of the Ministry of Government and Consumer Services indicated that there are 13,000 deferred vested members of the core public sector plans who will likely have “split” pensions from two or more pension plans.

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 94, Paragraph 1	
"Some groups of divested public sector employees…to their current plans."	Bill 187, *An Act Respecting Budget Measures, Interim Appropriations And Other Matters*, received assent on May 17, 2007. Schedule 32 to the Bill amends the *Police Services Act*, R.S.O. 1990, c. P.15 and the *Pension Benefits Act* to facilitate the transfer of pension assets between the Public Service Pension Plan and the Ontario Municipal Employees Retirement System on the transfer of certain police force employees.
Page 95, Paragraph 2	
"All active plan members are entitled to early retirement… date in the plan."	The *Pension Benefits Act*, s. 41 sets out the standards applying to early retirement. Members are entitled to an actuarially reduced pension benefit when they are within 10 years of achieving the normal retirement date.
"Now for the point of contention: …add up to 55 'points.'"	The *Pension Benefits Act*, s. 74 sets out grow-in rights.
Page 96, Paragraph 1	
"In his study…not be able to claim them."	FitzGerald (2008).
"It is evident to Nova Scotia… to be pre-funded."	Bill 62, the *Financial Measures (2004) Act*, introduced by the Nova Scotia Government on April 26, 2004, provided that grow-in benefits provided under s. 79 of the *Nova Scotia Pension Benefits Act*, R.S.N.S. 1989, c. 340, were permitted to be excluded from solvency valuation liabilities. In effect, this permitted the benefits not to be pre-funded. Ontario and Nova Scotia are the only provinces in Canada to have legislative provisions related to grow-in benefits.
Page 96, Paragraph 3	
"This might be accomplished… redundancy or otherwise."	*Employment Standards Act, 2000*, S.O. 2000, c. 41, s. 58.
Page 98, Paragraph 1	
"Moreover while recent amendments to the Ontario Human Rights Code…may have to be re-thought."	These amendments were introduced by Bill 211, the *Ending Mandatory Retirement Statute Law Amendment Act, 2005*. Section 5(1) of the *Human Rights Code*, R.S.O. 1990 c. H.19 (OHRC) prohibits discrimination on the basis of age (among other grounds). Section 25 of the OHRC permits the provision of pension and other benefits to employees aged 65 and older at the discretion of employers, and not subject to challenge under the OHRC, where they comply with the *Employment Standards Act*, *2000* and Regulations. See the Ontario Human Rights Commission fact sheet on the end of mandatory retirement at: www.ohrc.on.ca/en/resources/factsheets/endmandatoryretirement/view (last viewed on August 11, 2008).

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 98, Paragraph 2	
"Currently the ITA…but the PBA does not."	In 2007 the federal budget Bill C-28 amended the *Income Tax Act* (ITA) Regulations (s. 8503) to allow an employee to receive pension benefits from a defined benefit (DB) registered pension plan and simultaneously accrue further benefits. This practice had previously been prohibited. The ITA Regulations permit employees to receive up to 60% of their accrued DB benefits while they accrue additional pension benefits on a current service basis in respect of their re-employment or continued employment. Qualifying employees must be at least 55 years of age and otherwise eligible to receive a pension without an early retirement reduction. Consequential amendments to provincial legislation are being made across Canada.
Page 98, Paragraph 4	
"Pension plans…fewer than two years service."	General vesting provisions are found in ss. 31 and 37 of the *Pension Benefits Act*. They provide that members must become eligible for participation no later than 24 months after commencing employment, and that a member who has participated in a plan for 24 months and is terminated is entitled to a deferred pension under the plan. These create in effect a maximum four-year vesting period.
Page 99, Paragraph 1	
"However, the PBA…wind-up of the plan."	Section 73 of the *Pension Benefits Act* provides that upon wind-up, affected members' benefits should be "determined as if the member had satisfied all eligibility conditions for a deferred pension." See also Financial Services Commission of Ontario Memorandum in the (1992) *Bulletin* 3:2, Index No. W100-225.
Page 99, Paragraph 2	
"Quebec has adopted this approach…sum of its parts."	The Quebec National Assembly passed Bill 102, *Act to Amend the Supplemental Pension Plans Act* S.Q. 2000 c. 41, which amended the *Supplemental Pension Plans Act*, R.S.Q. 1990 c. R-15.1 providing that employees become members of plans upon commencing employment and contributions to the plan, and thereby entitling them to benefits under the plan.
Page 99, Paragraph 3	
"Following the Supreme Court of Canada's *Monsanto* decision…also be distributed."	See *Monsanto Canada Inc.* v. *Ontario (Superintendent of Financial Services)*, [2004] 3 S.C.R. 152, 242 D.L.R. (4th) 193, and the *Pension Benefits Act*, ss. 70(6) and 79. FSCO has also developed a policy on surplus distribution in partial wind-ups in response to the *Monsanto* case. See: www.fsco.gov.on.ca/english/PENSIONS/policies/active/W100-102.pdf (last viewed on August 10, 2008).

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 100, Paragraph 6	
"Finally, several…plan wind up."	In a partial wind-up, affected members may be terminated from the plan (s. 73 and 74) or given the options of remaining in the pension plan as a deferred vested member, taking an immediate pension if the plan permits, or transferring the commuted value of their pension benefits to another pension plan (if applicable) or a locked-in retirement savings vehicle (see s. 42 of the *Pension Benefits Act*, and s. 29 of PBA Regulation 909). Where members fail to make an election, they are deemed to have elected to remain as a deferred vested member of the plan (s. 73). All immediate and deferred pensions in the wound up portion of the pension plan must be provided through the purchase of life annuities from an insurance company licensed in Canada to provide such annuities (s. 43). See Financial Services Commission of Ontario (2007b).
Page 101, Paragraph 3	
"For example…distribution of surplus."	The main consequences of a wind-up currently include entitlement to grow-in benefits (*Pension Benefits Act*, s. 74) and to distribution of a share of the surplus, if any, in the plan (ss. 70(6) and 79(3)).
Page 101, Paragraph 5	
"However, the PBA does not clearly identify…to make that decision."	The *Pension Benefits Act*, ss. 68 and 69 set out the conditions under which a plan winds up in whole or in part. In particular, ss. 69(d)–(f) were the subject of commentary in the submissions. These provisions state that the Superintendent may order the partial or full wind-up of a plan when: "… (d) a significant number of members of the pension plan cease to be employed by the employer as a result of the discontinuance of all or part of the business of the employer or as a result of the reorganization of the business of the employer; (e) all or a significant portion of the business carried on by the employer at a specific location is discontinued; (f) all or part of the employer's business or all or part of the assets of the employer's business are sold, assigned or otherwise disposed of and the person who acquires the business or assets does not provide a pension plan for the members of the employer's pension plan who become employees of the person …"
Page 102, Paragraph 5	
"In addition…serious downturn in the industry."	The *Pension Benefits Act*, s. 69(h) provides that if there is a "significant reduction" in the number of members a plan may be wound up.

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 103, Paragraph 3	
"However, the fact is that numerous…treatment of pension transactions."	For examples, see *Transamerica Life Canada Inc.* v. *ING Canada Inc.* (2003), 68 O.R. (3d) 457 (C.A.); 234 D.L.R. (4th) 367; *Buschau* v. *Rogers Cablesystems Inc.* (2001), 195 D.L.R. (4th) 257 (B.C.C.A.); *Baxter* v. *Ontario (Superintendent of Financial Services) and National Steel Car Limited* (2004), 43 C.C.P.B. 1 (Ont. Div. Ct.); *Michael Lennon* v. *Superintendent of Financial Services* (20 February 2006), File No. P0051-1999 (Ont. FST).
Page 104, Paragraph 1	
"FSCO policy currently prevents…ratio further reduced."	FSCO has several policies relating to plan mergers, splits and asset transfers, Index Nos. A700-100 (assets on purchase and sale reorganizations), 126 (successor plans), 150 (change of carriers), 152 (types of asset transfers), 153 (types of transfers), 175 ("interim" transfers not permitted), 200 (general rules on asset transfers), 226 (general rules on asset transfers), 251 (general rules on partial asset transfers) and 301 (withdrawal of consent to transfer), all available online at www.fsco.gov.on.ca/english/PENSIONS/policies/active (last viewed on July 30, 2008). See in particular, Financial Services Commission of Ontario (1997), "Full asset transfers under section 81 – Superintendent's consent required" and "Partial asset transfers under section 81 – Superintendent's consent required" in *Bulletin* 6:4 (Fall–Winter), Index nos. A700-251 and A-700-226; also available at: www.fsco.gov.on.ca/english/PENSIONS/policies/active/A700-251.pdf and www.fsco.gov.on.ca/English/pensions/policies/active/A700-226.pdf (last viewed on August 1, 2008).
Page 104, Paragraph 2	
"However, as a result of recent litigation…approve a transfer."	See *Transamerica* and *Lennon* discussed above. The FSCO policy in response is found at: www.fsco.gov.on.ca/english/pensions/transamerica/default.asp (last viewed on July 30, 2008). This information includes FSCO's interpretation of the litigation and its "checklist" intended to assist those involved in transactions with regulatory compliance.
Page 106, Paragraph 2	
"In Chapter Three…(DC) plans."	The research conducted for the Commission supported the observation that there has been a lower rate of defined benefit plan conversions to defined contribution in Canada as compared to the United States and perhaps the United Kingdom, although no definitive comparison of the experience in these three jurisdictions has been undertaken. See Strauss, 2007.
Page 107, Paragraph 1	
"The recent *Kerry* case…under Ontario law."	See *Kerry (Canada) Inc.* v. *DCA Employees Pension Committee* (2007), 86 O.R. (3d) 1 (C.A.); 282 D.L.R. (4th) 227. Leave to appeal to the Supreme Court of Canada was granted January 31, 2008 (see *DCA Employees Pension Committee* v. *Kerry (Canada) Inc., Superintendent of Financial Services*, [2008] CanLII 3189 (S.C.C.).

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 108, Paragraph 1	
"For example, the United Kingdom… reverse such transactions."	The Pensions Regulator of the United Kingdom has the powers to issue "contribution notices" (s. 38 of the *Pensions Act, 2004* (U.K.) 2004 c. 35) or "financial support directions" (s. 43) to sponsors to pay under-funded amounts (called "employer debts" as defined in s. 75) into schemes. These powers may be used when there is evidence that a sponsor acted or failed to act in a manner that evades payment of the employer debts or would prevent recovery of that employer debt, or, in the case of financial support directions, where the regulator believes the scheme to be "insufficiently resourced."

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 110, Paragraph 4	
"That is why pension legislation…their creditors."	The *Pension Benefits Act*, s. 55 sets out various duties on employers and administrators to contribute to a segregated pension fund, and s. 57 creates a statutory trust and a lien and charge in favour of the administrator of a pension fund for amounts owed to the fund.
Page 110, Paragraph 5	
"Indeed, the balance…on the other."	Financial Services Commission of Ontario (2007a). See also Informetrica (2007b).
"However, regardless… to make good all deficiencies."	The *Pension Benefits Act*, s. 75 creates liability for some plan sponsors for all unfunded liabilities upon wind-up. Sponsors whose contributions are fixed by an agreement (such as a collective agreement) are exempt from this liability on wind-up.
"In practice, though…claims by the pension plan."	The *Pension Benefits Act*, s. 57 creates a charge on the assets of the employer or sponsor in favour of the administrator of a pension plan. When the sponsor enters a bankruptcy proceeding, the priorities under Part IV of the *Bankruptcy and Insolvency Act* (BIA) operate to prioritize claims made against the assets of the bankrupt. In the case of claims of administrators of pension funds, the BIA provides that current service costs have a super-priority, but solvency payments or "special payments" are unsecured. For a general discussion on insolvency law as it applies to pension funds, see Sarra and Davis (2007).
Page 111, Paragraph 1	
"In the case of both MEPPs and JSPPs,…being wound up."	The definition of JSPPs in the *Pension Benefits Act*, s. 1(2) sets out the joint responsibility for funding shortfalls, and s. 75.1 provides for the reduction of benefits on wind-up if there are insufficient funds. Section 14 contains provisions allowing reduction of benefits for MEPPs, whether ongoing or on wind-up.
"Finally, neither MEPPs nor JSPPs pay into…the PBGF."	The *Pension Benefits Act*, s. 84 lists which benefits are protected by the Pension Benefits Guarantee Fund (PBGF), and s. 85 lists the exclusions of benefits protected by the PBGF (including MEPPs). There are some specific plan exemptions in PBA Regulation 909, s. 47, and JSPPs are exempted by s. 47(2.1) of PBA Regulation 909.
Page 111, Paragraph 3	
"Such arrangements… high-profile situations."	Such interventions resulted in special regulation: see *Algoma Steel Inc. Pension Plans, Pension Benefits Act* – Ontario PBA Regulation 202/02 and *Stelco Inc. Pension Plans, Pension Benefits Act* – Ontario Regulation 99/06.

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 112, Paragraph 2	
"Further, plan administrators… unpaid contributions."	Under the *Pension Benefits Act* s. 56, an administrator has a duty to ensure contributions are paid to the pension fund.
"If they decline…presumably including litigation."	The *Pension Benefits Act*, s. 87 empowers the Superintendent to "require an administrator or any other person to take or to refrain from taking any action in respect of a pension plan or a pension fund" if: (a) the pension plan or pension fund is not being administered in accordance with the Act, the regulations or the pension plan; (b) the pension plan does not comply with the Act and the regulations; or (c) the administrator of the pension plan, the employer or the other person is contravening a requirement of the Act or the regulations.
"The Superintendent also has power…not submitted to the pension fund."	The *Pension Benefits Act*, s. 110(2) specifies that officers, directors, officials and agents of corporations or unincorporated associations can be prosecuted by the Superintendent, and ss. 110(3) and (4) authorize the convicting judge to impose penalties and order payment of sums owing following conviction of an offence under the Act.
Page 113, Paragraph 1	
"At the moment…legal enforcement strategies."	The scope and frequency of enforcement activities are discussed in more detail in Chapter Seven: see also Sossin (2007).
Page 114, Paragraph 1	
"Under the federal *Companies' Creditors Arrangements Act*… supervising court."	The *Companies' Creditors Arrangements Act* (CCAA), s. 3(1) sets the minimum value of companies to which the CCAA applies.
"Restructuring typically involves permanent forgiveness by creditors of some or all debt."	Creditors may also put private remedies in place prior to a CCAA or BIA process. For a discussion see Sarra and Davis (2007).
Page 114, Paragraph 2	
"If the CCAA…ordered by the court."	During restructuring proceedings the court will often order a "stay" of payments to creditors, including the pension fund. These stays can be lifted by application to the court, and from time to time courts have ordered the payment (or ordered cessation of payment) of current service costs, for example, during a restructuring.
Page 114, Paragraph 3	
"Secured creditors must be… pro rata basis."	The priorities for distribution of a bankrupt's assets are set out in Part IV of the BIA. Before 2008, debts owed to pension funds ranked as unsecured debts. However, recent amendments to the BIA have created a priority for some debts to pension funds, namely current service costs or "normal costs." Other debts — unfunded liabilities or "special payments" — are not accorded a priority and still rank as unsecured debts.
"However, the new federation …deficiencies are not."	These amendments were introduced in 2007 in Bill C-12, (formerly Bill C-62 in 2005) amending the BIA, CCAA and other legislation.

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 115, Paragraph 2	
"The recent federal…approved the arrangement."	CCAA, s. 6(7) and BIA, s. 60(1.6) (not in force at time of writing).
Page 115, Paragraph 3	
"Indeed the PBA deems… actually made."	The *Pension Benefits Act*, s. 57 created this statutory or "deemed" trust.
"However, provisions of the BIA …PBA provisions."	The interaction of the *Pension Benefits Act and Bankruptcy Insolvency Act* (BIA) in this respect has been the subject of litigation. Any property held "in trust" by a bankrupt person or corporation is not counted as "property" of that person or corporation available to be distributed to creditors under s. 67 of the BIA. However, such trusts have been judicially interpreted not to include "deemed" trusts created by statute: *GMAC Commercial Credit Corp. Canada* v. *TCT Logistics* (2005), 74 O.R. (3d) 54 (C.A.); *In Re: Ivaco Inc.* (2006), CanLII 34551 (Ont.C.A.); *Re: Graphic-shoppe Ltd.*, [2005] O.J. No. 5184 (C.A.). An earlier case establishing the principles applied in these cases was *British Columbia* v. *Henfrey Samson Belair Ltd.*, [1989] 2 S.C.R. 24.
Page 115, Paragraph 4	
"Current PBA regulations require *pro rata* distribution… these circumstances."	PBA Regulation 909, s. 29(9) provides that upon wind-up, where assets are insufficient to pay liabilities of the plan, all pension benefits must be reduced proportionately to the funded status of the plan.
"For example in the United Kingdom, retirees' claims are given priority…funded ratio."	See the provisions applying to wind-up and priorities on wind-up where assets are insufficient as set out in s. 270 of the *Pensions Act, 2004* (U.K.).
Page 116, Paragraph 3	
"However, only when… insolvency or bankruptcy proceedings."	The *Pension Benefits Act*, ss. 86(1) and (4) provide the Superintendent with a lien and charge against the assets of an insolvent sponsor, and a right to be subrogated to the rights of the plan administrator.
Page 117, Paragraph 2	
"The Superintendent…plan being wound up."	The *Pension Benefits Act*, s. 71 empowers the Superintendent to appoint an administrator to wind-up a pension plan.
Page 118, Paragraph 2	
"In Ontario…in the creation of the PBGF in 1980."	In 1980 the Ontario Ministry of Labour created a task force to examine issues involved in insolvencies and pension plans: for a discussion see Weitz (1992, 97–99). The PBGF was created by Bill 214, *An Act to Amend the Pension Benefits Act*, S.O. 1980, c. 373.

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 118, Paragraph 2	
"The PBGF ensures…last revised in 1992."	Section 84 of the *Pension Benefits Act* sets out the benefits that are protected by the PBGF, and s. 85 the exclusions. Section 85 "caps" the protected pension benefits at $1,000 per month, subject to any increases in that cap in PBA Regulation 909 (there are no increases under PBA Regulation 909). Section 5.2 of PBA Regulation 909 sets out the formula for calculating the annual fee payable to the PBGF, which includes a nominal fee per plan member and a percentage (e.g., 0.5–2.0%) of the solvency deficit of the plan that would be guaranteed by the PBGF in the event of wind-up. There is a $4 million cap on contributions, except for those plans that elected to be exempt from the PBGF under the now-defunct s. 5.1 of PBA Regulation 909. These fee schedules were last amended in 1992.
Page 118, Paragraph 3	
"Not all plans are covered by the PBGF."	Plans that are excluded from PBGF coverage are set out in s. 85 of the *Pension Benefits Act* and in s. 47 of PBA Regulation 909.
"And finally…maximum of $4 million."	The "too big to fail" election is set out in s. 5.1 of PBA Regulation 909.
Page 119, Paragraph 1	
"The PBGF has been the subject of considerable criticism."	The PBGF was a contested institution from its very inception. The Pension Commission of Ontario did not originally support its creation, nor did the Canadian Association of Pension Supervisory Authorities: see the discussion in Weitz (1992). For a discussion of it and some of the criticisms, see Nielson (2007).
Page 119, Paragraph 2	
"In fact, for the first 20…plan failures per year."	For a discussion of the PBGF claims, see Sarra and Davis (2007, 49–65). The Commission's analysis of industry and sector breakdowns of PBGF data provided by FSCO suggest that manufacturing, and particularly the steel and auto sectors, have accounted for a very significant proportion of PBGF payouts since 2003. This finding is consistent with the analysis of similar data by Sarra and Davis (2007).
Page 119, Paragraph 5	
"Finally, comparisons with…very stringent funding requirements."	See Nielson (2007, Part II). See also Stewart (2007) and the discussion of insolvency regimes in a comparative context in Sarra and Davis (2007).
Page 120, Paragraph 3	
"Indeed, FSCO data shows…'too big to fail' regulation."	These estimates are derived from Commission analysis of PBGF filings and plan data provided by FSCO for the period 2007–2008. Approximately 2,155 plans filed assessments over this period, 90% of which had assessments of less than $25,000, and 90% of which had assessments of less than 4% of the PBGF assessment base amortized over five years. For a discussion of the "too big to fail" regulation see section 6.4.1 and notes above.

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 120, Paragraph 4	
"As they correctly note…in today's dollars."	This figure was provided in submissions to the Commission. The Commission applied standard inflation indices to the benefit cap set out in s. 85 ($1,000), such as Consumer Price Index. In 1980, $1,000 indexed to inflation is approximately $2,500 in 2008.
Page 120, Paragraph 6	
"When it was confronted in 2001…to keep it solvent."	This insolvency also resulted in the special *Algoma Steel regulation: Algoma Steel Inc. Pension Plans, Pension Benefits Act* – Ontario Regulation 202/02. The $330 million interest-free loan is being paid off over a period of 30 years.
Page 121, Paragraph 1	
"After all…first thirty years."	See the analysis of PBGF claim data by Sarra and Davis (2007, 49 and following).
Page 121, Paragraph 2	
"The OECD has promulgated principles…for pension guarantee funds."	Stewart (2007).
Page 121, Paragraph 4	
"The guarantee funds… recommended below."	For a discussion of guarantee insurance schemes in the United States and United Kingdom, see Nielson (2007) and Sarra and Davis (2007).
"In the U.K. this coordination... to recommend it."	Section 5(1) of the *Pensions Act, 2004* (U.K.) mandates that the Pensions Regulator "reduce the risk of situations arising which may lead to compensation being payable from the Pension Protection Fund."
Page 122, Paragraph 2	
"The OECD recommends that PBGF levies should be risk based."	Stewart (2007).
"For example, in the U.K.… pension plan itself."	Sections 174–181 of the *Pensions Act, 2004* set out the criteria for "levies" to be paid to the Pension Protection Fund, the U.K. equivalent of the PBGF.
Page 123, Paragraph 3	
"Functional counterparts do exist…Ontario by the PBGF."	For a discussion of these functional equivalents to the PBGF in other jurisdictions, see Nielson (2007) and Stewart (2007).

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 126, Paragraph 1	
"And not only dense…own mandate and expertise."	For a general overview of the sources of "pension law" see Kaplan (2006).
Page 127, Paragraph 2	
"The third…regulations or rules."	The *Pension Benefits Act* contains provisions on each of these issues.
Page 128, Paragraph 2	
"This seems odd…non-SEPP plans."	Refer to Chapter Three, Figure 3. Approximately 17% of pension plan members belong to a defined benefit single-employer pension plan (DB SEPP) without a collective bargaining agent. About 10% of pension plan members belong to a DB SEPP with a collective bargaining agent.
Page 128, Paragraph 4	
"Indeed, several stakeholders… U.K. Pensions Regulator."	In the U.K., the Pensions Regulator's approach to the use of its powers is summarized in publications available on its website: www.thepensionregulator.com/pdf/TPR_FSAguideOnRegulation-OfCBschemes.pdf and www.thepensionsregulator.gov.uk/regulatory Activity/regPara-02.aspx (last viewed on August 7, 2008). For a general discussion of principles-based and risk-based approaches to regulation, see Condon (2007).
"However, although elements… pension field in Canada."	Joint Forum of Financial Market Regulators (2004a).
Page 129, Paragraph 1	
"Principles-based regulation… abstraction."	For a full discussion of these two approaches and their implementation in different jurisdictions, see Condon (2007).
"For example, the fiduciary duty…such a principle."	*Pension Benefits Act*, s. 22(1).
Page 129, Paragraph 4	
"Clearly then…to both approaches."	Condon (2007).
Page 130, Paragraph 1	
"They are supplemented… must be performed."	The Canadian Institute of Actuaries (CIA) Standards of Practice can be found at: www.actuaries.ca/SOP_Doc/Complete/SOP_e_Complete.pdf (last viewed on August 10, 2008). Further guidance material on CIA standards is found on the CIA website at: www.actuaries.ca/educational_notes/ed_notes_e.cfm. (last viewed on August 10, 2008).

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 130, Paragraph 2	
"This could be…they are in fact doing."	The Actuarial Standards Board has sent several memoranda to members relating to pension plans. See "Current Projects" in the Board's website: www.asb-cna.ca/ (last viewed on August 12, 2008). See in particular "Revisions to Pension Funding Standards," "Revisions to Commuted/Capitalized Value standards" and "Independently Reasonable Assumptions."
Page 131, Paragraph 1	
"Failure to observe them… *Provincial Offences Act*."	*Provincial Offences Act*, R.S.O. 1990, c. P.33.
Page 131, Paragraph 3	
"Such templates…transfer real property."	This type of short form is provided in other sectors, for example, in short forms of mortgages available under the *Land Registration Reform Act*, R.S.O. 1990, c. L.4, Form s. 9.
Page 131, Paragraph 5	
"In addition to facilitating… 'individual pension plans'."	"Designated pension plans" are defined under section 8515 of the Regulations under the ITA. They are a special subset of defined benefit pension plans that are normally set up for highly compensated employees or other persons "related" to a business, such as owners. These plans have been exempted from certain FSCO filings (for example, from filing annual Investment Information Summaries).
Page 133, Paragraph 1	
"FSCO receives about 19,000…and other transactions."	Sossin (2007, 28). "Filings" in this measurement is a very broad category, including many routine administrative matters. The annual information returns (AIR) form and explanation is available on FSCO's website at: www.fsco.gov.on.ca/english/forms/pension/Form2-AIR-eng-12-07.pdf (last viewed on September 8, 2008).
Page 133, Paragraph 3	
"When submitted…funded status of the plan."	The Actuarial Information Summary (AIS) form is available on FSCO's website at: www.fsco.gov.on.ca/english/forms/pension/s-ais_24-09-2007.v2.pdf (last viewed on August 7, 2008).
Page 133, Paragraph 4	
"The IIS…plan assets."	The investment information summary (IIS) form is available on FSCO's website at: www.fsco.gov.on.ca/english/forms/pension/form8_eng-03-08.pdf (last viewed on August 7, 2008).
Page 133, Paragraph 5	
"Sponsor contributions…plan must pay to the PBGF."	*Pension Benefits Act*, s. 56. These two forms are also available on the FSCO website at: www.fsco.gov.on.ca/english/forms/pension/s-form7_24-09-2007.pdf and www.fsco.gov.on.ca/english/forms/pension/comp_form2.1_eng_jun13-05.pdf (last viewed on August 7, 2008).

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 133, Paragraph 7	
"Reasons for this…regulatory re-engineering."	For a discussion of these compliance issues, see Sossin (2007).
Page 134, Paragraph 2	
"It also participates…funding provisions."	Joint Forum of Financial Market Regulators (2004b).
Page 134, Paragraph 3	
"As noted in that chapter… PBA is awkward."	Sossin (2007, s. 2.5).
Page 134, Paragraph 4	
"If these recommendations…of plan administration."	The *Pension Benefits Act*, ss. 87 and 89(2) describe conditions for the Notice of Proposal (NOP) process. The NOP process applies to significant as well as potentially routine matters.
Page 135, Paragraph 2	
"FSCO also issues…interested parties."	The Financial Services of Ontario (FSCO) publishes a number of policy statements (in effect, guidance to stakeholders) through their *Bulletin*, and on the FSCO website at: www.fsco.gov.on.ca. It occasionally provides letters outlining their understanding of a transaction, as was the case in the Bell Canada transaction involving Ontario Teachers' Pension Plan in 2007–2008.
"And finally, some…technical legal, sense."	See, for example, advanced rulings issued by the Canada Revenue Agency. See Canada Revenue Agency (2002).
Page 136, Paragraph 2	
"Currently, FSCO has no… Office of the Superintendent of Financial Institutions."	The Office of the Superintendent of Financial Institutions (OSFI) is currently reviewing its system of audits ("examinations") of pension plans operating under federal jurisdiction. In the past OSFI has employed an "early warning" system by which information, including risk metrics, flow from plans to OSFI. Many recent examinations of plans conducted by OSFI have focused on governance issues and risk management. From time to time OSFI has also used sectoral and other plan or industry information to determine which plans to examine.
Page 136, Paragraph 3	
"For example…brought against only one plan."	See generally Sossin (2007, s. 2.5). The review of MEPPs resulted in two major investigations into the Ontario Municipal Employees Retirement System (OMERS) and the Canadian Commercial Workers Industry Pension Plan (CCWIPP). A long report was issued by FSCO in July 2007 that makes certain recommendations with respect to the administration of OMERS. Following the investigation, charges were laid on June 27, 2006, against the trustees of CCWIPP for failure to comply with the *Pension Benefits Act*. A trial has been scheduled for Fall 2008. For more information on both, see the FSCO website at: www.fsco.gov.on.ca/english/pensions/penbulletinonline/courtprosecution/prosecution/default.asp (last viewed on August 5, 2008).

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 137, Paragraph 1	
"Inquiries to FSCO…very rarely — prosecution."	Sossin (2007, s. 2.5) discussing the incidence of inquiries.
"About 80%...abandoned his or her inquiry."	Sossin (2007, s. 2.5). FSCO reports that about 80% of inquiries are handled at an informal level but it is unclear whether informal disposition results in resolution of the matter to the satisfaction of the person submitting the inquiry. There is currently not sufficient data to make a clear determination.
Page 138, Paragraph 1	
"During the Commission's… member- or retiree-friendly."	See the discussion of client relations and surveys in Sossin (2007).
Page 138, Paragraph 4	
"In such cases…represent their members (but not non-members)."	Section 57(4) of the *Labour Relations Act* 1995, S.O. 1995, c. 1, Sched. A ("LRA") specifies that a collective agreement between an employer's organization and a council of trade unions is binding upon all the employees in the bargaining unit.
Page 139, Paragraph 3	
"The Superintendent may… compliance with the PBA."	Section 18 of the *Pension Benefits Act* provides that the Superintendent may refuse to register a plan or amendment under certain circumstances.
"The Superintendent also has…with the PBA."	*Pension Benefits Act*, s. 78.
"And the Superintendent may…restrain contraventions."	*Pension Benefits Act*, ss. 109, 110 and 111.
Page 139, Paragraph 4	
"The Superintendent also has…replace a plan administrator."	*Pension Benefits Act*, ss. 69 (wind-up), 88 (challenge reports), 26 (require disclosure) and 71 (appoint an administrator).
"And finally…for some types of transactions."	For further discussion refer to Chapter Five of this report.
Page 139, Paragraph 5	
"Apparently the Superintendent…and other informal dispositions."	Sossin (2007, 42–44). According to FSCO, self-reporting of contributions (for example) by administrators and custodial trustees takes 60–90 days following the actual contributions. This report contains details of any missed contributions. FSCO conducts approximately five to six prosecutions for non-contribution per year, but these prosecutions are typically not all reported in the FSCO *Bulletin*. In addition, a constraint on efficient prosecution is that FSCO is not permitted to settle for an amount less than full contributions without a prosecution and guilty plea.

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 140, Paragraph 1	
"What does seem clear… perhaps for good reason."	There were two reported pension prosecutions in 2007: Financial Services Commission of Ontario (2007c).
"Indeed FSCO's recent… reinforces this conclusion."	For preliminary matters involved in this prosecution, see: *Ontario (Superintendent of Financial Services)* v. *Norton and Aon Consulting Inc.* (2006), ONCJ 235 (CanLII). The trial proceeded against Norton alone, and on February 23, 2007, the Ontario Superior Court dismissed all charges against Norton: see *Ontario (Superintendent of Financial Services)* v. *Norton* (2007), 59 C.C.P.B. 27. On July 2, 2008, a disciplinary tribunal of the Canadian Institute of Actuaries issued a notice of reprimand against Norton. See Canadian Institute of Actuaries, 2008. *Discipline Notice – Notice of Reprimand In Re Melvin Norton*, Ottawa: CIA, available at: www.actuaries.ca/members/ publications/2008/208056.pdf (last viewed on August 15, 2008).
Page 140, Paragraph 4	
"As noted above the Act… pension fund."	*Pension Benefits Act*, s. 87.
Page 141, Paragraph 3	
"As I have noted…mechanisms are inadequate."	Sossin (2007, s. 2.5.6).
Page 141, Paragraph 4	
"FSCO maintains…enforcement activities."	See the *Bulletin* on www.fsco.gov.on.ca (last viewed on August 10, 2008). See also FSCO's annual reports (www.fsco.gov.on.ca/english/pubs/annualreports/default.asp) and annual risk-monitoring surveys (www.fsco.gov.on.ca/english/pensions/InvestmentInformationSummary.asp and www.fsco.gov.on.ca/english/pensions/risk-based_supervision.asp).
Page 142, Paragraph 2	
"The previous regulator… throughout Ontario."	For the prior Pension Commission of Ontario mandate see s. 97(b), *Pension Benefits Act, 1987*.
"By contrast…in the pension system."	*Financial Services Commission of Ontario Act, 1997*, S.O. 1997, c. 28, s. 3.
Page 143, Paragraph 2	
"In 1997, regulation…credit unions."	*Financial Services Commission of Ontario Act*, s. 2 contains the composition of the Commission.
Page 143, Paragraph 3	
"FSCO — and each of its… cost-recovery basis."	*Financial Services Commission of Ontario Act*, ss. 25 and 27 describe the determination of assessments and fees.
Page 143, Paragraph 4	
"There is almost no…has some negative aspects)."	For an overview of the operation of FSCO and an assessment of the amalgamation, see Sossin (2007).

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 144, Paragraph 2	
"To the contrary…policy development by the Ministry."	Sossin (2007, s. 2); *Financial Services Commission of Ontario Act*, s. 12(3).
Page 144, Paragraph 3	
"While framed somewhat differently…the Ontario Securities Commission (OSC)."	The Ontario Securities Commission is a corporation operating at arm's length from the Ministry of Finance. It is governed by a board that enters five-year memoranda of understanding with the Minister over the administration and budget of the Commission. See *Securities Act*, R.S.O 1990 c. S.5, Part I ("Securities Act").
Page 145, Paragraph 3	
"First, pension staff…the Ontario Public Service."	Sossin (2007, s. 2); see also the *Financial Services Commission of Ontario Act*, s. 8(1).
Page 146, Paragraph 2	
"As is the case with…levies and fees."	The *Securities Act* empowers the Commission to make by-laws including setting fees (among other powers) subject to Minister's approval (ss. 3.1(3) and 3.4(1)). Income from these fees is maintained separately from the province's Consolidated Revenue Fund (CRF) (3.4(1)), but surplus in the management of the financial statements of the OSC may be required to be paid into the CRF from time to time.
Page 147, Paragraph 1	
"In particular…investment profile."	Financial Services Commission of Ontario (2008) and s. 7.3.2 of the report.
Page 147, Paragraph 2	
"However, FSCO does not…to perform this function."	When it introduced risk-based regulation, the Financial Services Commission of Ontario issued a discussion paper and conducted a "test" in 1999 in order to develop criteria and benchmarks for risk-based supervision: see Financial Services Commission of Ontario (2000).
Page 147, Paragraph 3	
"I also note… performance indicators."	Pensions Regulator, Pension Protection Fund (2007). The *Pensions Act, 2004* (U.K.) also provides that the Pensions Regulator may issue "clearance statements" to schemes. A clearance statement gives assurance that, based on the information provided, the regulator will not use its anti-avoidance powers to issue to the applicants contribution notices or financial support directions. In order to support a clearance statement, the regulator evaluates the strength of employer contracts to pay into the scheme. Some of the criteria that can be used to assess employer contracts (essentially, the employer's ability to pay) for contributions are: the nature and prospects of the industry in which it operates; its competitive position and its relative size within that industry; its management ability and track record; its financial policies; its profitability, capital structure (including balance sheet and financial leveraging), cash flow and financial flexibility; and its credit rating (if any). See Pensions Regulator (2008).

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 147, Paragraph 3	
"Nor does FSCO…an ad hoc and reactive manner."	Some of these observations are based on the review by Sossin (2007) and some of the Commission's discussions with FSCO staff.
Page 147, Paragraph 4	
"Of course, risk-based…not without risk."	There is a discussion on principles and risk-based approaches to regulation in Condon (2007).
Page 148, Paragraph 3	
"And finally…challenges can be minimized or eliminated."	Condon (2007, 11–13).
Page 149, Paragraph 3	
"Indeed, under our constitution…appeal and review."	There is a significant body of case law on the judicial review of administrative action. Each statute has its own context and particular form of exclusive jurisdiction, typically articulated in a "privative clause." The leading case is *Crevier* v. *Attorney General of Quebec*, [1981] 2 S.C.R. 220, and most recently, *Dunsmuir* v. *New Brunswick*, [2008] S.C.C. 9. For another example, see the treatment of the privative clause of the *Canada Labour Code*, R.S.C. 1985 c. L-2 in *Royal Oak Mines Inc.* v. *Canada (Labour Relations Board)*, [1996] 1 S.C.R. 369. For an analogous case in the context of securities regulators, see *Pezim* v. *British Columbia (Superintendent of Brokers)*, [1994] 2 S.C.R. 557.
Page 149, Paragraph 4	
"Under the PBA…with administrative law issues."	Sections 89 and 91 of the *Pension Benefits Act* describe the process for hearings before the Financial Services Tribunal (FST) and appeals from the FST to the Ontario Divisional Court.
Page 149, Paragraph 5	
"The FST is staffed…out of nine challenges."	For these figures, see Sossin (2007, s. 3 and pages 49–54) discussing the jurisprudence by the FST and the caseload in general.
Page 150, Paragraph 4	
"Nor were these the only… controlled the FST's budget."	Sossin (2007, 49–54).
Page 153, Paragraph 1	
"During the Commission's hearings…or labour arbitrators."	*Bisaillon* v. *Concordia University*, [2006] 1 S.C.R. 666 confirmed that certain pension matters should be resolved before a labour arbitrator. The Commission was also advised that FSCO occasionally advises complainants to pursue remedies for pension matters in other fora, such as arbitration or civil proceedings, in order to reduce the opportunity for conflicting results.

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 155, Paragraph 1	
"Some 60% of all plan members…the governance process."	Refer to Figures 2 and 3 in Chapter Three.
Page 155, Paragraph 2	
"That said, some 30–40% of plan members…regulation."	About 55% of all Ontario plan members are in single-employer pension plans (SEPPs), the rest in multi-employer pension plans (MEPPs); 30–40% of members are in SEPPs without a union. See Figures 2 and 3 in Chapter Three, and see Informetrica (2007a, Figures 33 and 34).
Page 156, Paragraph 2	
"The regulator is now…plan governance."	See the discussions in Chapters Two, Three and Seven regarding the improvements to data collection by the regulator and possible uses for that data. The term "nudge" is borrowed from Thaler and Sunstein (2008).
Page 157, Paragraph 1	
"Unions have bargaining relationships…SEPP members."	Figures 2 and 3 in Chapter Three. See also Informetrica (2007a, Figure 39) contains information about the percentage of unionized and non-unionized workers covered by pension plans.
Page 157, Paragraph 3	
"Under Ontario labour law…achieve its goals."	Section 17 of the *Labour Relations Act* requires parties to bargain in good faith and make reasonable efforts to make a collective agreement. The scope of bargaining is described in Labour Law Casebook Group (2004).
"For example, JSPPs…confined to committees."	Jointly sponsored pension plans are defined in s. 1(2) of the *Pension Benefits Act*. More detailed requirements for JSPPs are found in s. 3.1(1) of PBA Regulation 909. See also Figures 2 and 3 in Chapter Three.
Page 158, Paragraph 1	
"For example…under collective agreements."	Examples taken from the Commission's review of plan data provided by the Financial Services Commission of Ontario.
"The result…regulatory attention."	Financial Services Commission of Ontario (2008, 7, Table 3).
Page 158, Paragraph 2	
"Another example: unions…retired."	Section 57(4) of the *Labour Relations Act* (LRA) specifies that a collective agreement between an employers' organization and a council of trade unions is binding upon the council of trade unions and each affiliated trade union and on the employees in the bargaining unit. The definitions of "member," "employee" and "dependent contractor" in s.1(1) of the LRA clarify that the word "employees" in s. 57(4) does not include retirees.

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 159, Paragraph 2	
"Finally, in the two-thirds… appropriate vigilance."	See Figures 2 and 3 in Chapter Three.
Page 159, Paragraph 4	
"MEPPs are funded by… entitlement."	Sections 1(1) and 1(3) of the *Pension Benefits Act* define "multi-employer pension plan" (MEPP). Section 14(2) of the Act permits MEPPs to reduce accrued benefits.
Page 159, Paragraph 5	
"The PBA requires that… governing the plan."	*Pension Benefits Act*, s. 8(1)(e).
Page 161, Paragraph 1	
"JSPPs, which presently account…responsibilities."	The Commission's analysis of the Financial Services Commission of Ontario data supports this figure. There are about 617,000 jointly sponsored pension plan (JSPP) members in Ontario, or about 35% of all active members.
"As their name implies…are mandated."	The *Pension Benefits Act*, ss. 1(1) and 1(2) and s. 3.1(1) of PBA Regulation 909 contain detailed requirements for JSPPs. The definition of JSPP requires that members be obligated to contribute to solvency deficiencies and unfunded liabilities.
"While all existing JSPPs are in the public sector…a 'pure' MEPP or SEPP."	Existing JSPPs include Ontario Municipal Employees Retirement System, Ontario Teachers' Pension Plan, Colleges of Applied Arts and Technology Pension Plan, Ontario Public Service Employees Union Pension Trust and Hospitals of Ontario Pension Plan.
Page 161, Paragraph 4	
"Conversely, if funding…poor plan performance."	Ambachtsheer (2007); Clark and Urwin (2008); Mitchell and Lung Hsin (1997).
Page 162, Paragraph 3	
"The PBA states…property of another person."	*Pension Benefits Act*, s. 22(1).
Page 162, Paragraph 4	
"That is why the PBA requires…possess."	*Pension Benefits Act*, s. 22(2).
"And that is why administrators…that employs them."	*Pension Benefits Act*, ss. 22(5) and 22(8).
Page 162, Paragraph 5	
"This has become evident… *Pension Benefits Standards Act* (PBSA)."	See the discussion of quantitative limits in Chapters Four and Seven. These limits are found in Schedule III to the regulation to the *Pension Benefits Standards Act*.
Page 162, Paragraph 6	
"In this Chapter, I focus… Canada and abroad."	PBSA Regulation, Schedule III, s. 11–14.

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 164, Paragraph 2	
"Thus, the limits of the sponsor's duty…maximum extent possible."	Duties of the administrator of a plan are throughout the *Pension Benefits Act*, but include important fiduciary duties found in s. 22. See also section 8.3.2 of this report, paragraphs 1 and 2.
Page 166, Paragraph 1	
"Actuarial valuations… actuarial discretion."	PBA Regulation 909 s. 16 requires actuaries who prepare reports to use methods and actuarial assumptions that are "consistent with accepted actuarial practice and with the requirements of the *Pension Benefits Act* and this Regulation." See Chapter Four for a discussion of actuarial standards and their incorporation into the Act. See Canadian Institute of Actuaries Standards of Practice, available at: www.actuaries.ca/members/publications/2006/206128e.pdf (last viewed on August 19, 2008).
"And as mentioned…conform to its standards."	A CIA special discipline notice that contains a notice of reprimand against Mr. Melvin Norton. This can be accessed at: www.actuaries.ca/members/publications/2008/208056.pdf (last viewed on August 19, 2008).
"On the other hand…accountants and auditors."	For this requirement, see the *Pensions Act, 2004* (U.K.), s. 224.
Page 166, Paragraph 3	
"If that 'information'… answer for those consequences."	Quebec has adopted this approach by making exculpatory or indemnification clauses void in contracts between service providers and pension administrators: *Supplemental Pension Plans Act*, R.S.Q. c. R-15.1, s. 154.4.
Page 166, Paragraph 5	
"Other professions… inappropriate claims."	See, for example, the disciplinary and insurance arrangements put in place by the Law Society of Upper Canada. See the Law Society of Upper Canada website at: www.lsuc.on.ca/regulation (last viewed on October 7, 2008) and Lawyer's Professional Insurance Company website at: www.lawpro.ca (last viewed on October 7, 2008). Some large law firms have also arranged to purchase excess liability insurance (over the amount provided by the Lawyer's Professional Indemnity Company).
Page 167, Paragraph 2	
"As I noted in...transparency and consistency."	See the discussion in Chapter Four regarding revision of actuarial standards of practice and accounting principles applicable to pension plans.
Page 168, Paragraph 3	
"The U.K. *Pensions Act*… replicated in Ontario."	*Pensions Act, 2004* (U.K.) c. 35, s. 247–249. See also regulatory guidance, tool kits, indicative syllabus and other educational resources provided by the Pensions Regulator, available at: www.thepensionsregulator.gov.uk/trustees/index.aspx (last viewed on August 15, 2008).

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 170, Paragraph 2	
"The code may not have…business or calling."	*Pension Benefits Act*, s.22.
Page 170, Paragraph 3	
"The PBA requires…want to know."	The requirements of the annual statement sent to members are found in s. 27 of the *Pension Benefits Act* and s. 40 of PBA Regulation 909. Section 27 of the Act requires the plan administrator to annually transmit a "written statement containing the prescribed information in respect of the pension plan, the member's pension benefits and any ancillary benefits" to each member. This statement is not required for pensioners or deferred members. Section 40 of PBA Regulation 909 sets out the minimum information that must be included in the annual statement and requires the information to be provided within six months of the plan's year end.
"The PBA also requires…to the person."	*Pension Benefits Act*, s. 25.
Page 170, Paragraph 4	
"A digression: *The Labour Relations Act*…and without charge."	*Labour Relations Act*, s. 93.
Page 171, Paragraph 3	
"The third is that…Access to Information legislation."	*Freedom of Information and Protection of Privacy Act*, R.S.O. 1990, c. F.31.
Page 171, Paragraph 5	
"In fact, many major…programs."	For examples see the Ontario Teachers' Pension Plan at: www.otpp.com/web/website.nsf/web/home (last viewed on August 19, 2008); the Hospitals of Ontario Pension Plan at: www.hoopp.com (last viewed on August 19, 2008); the Ontario Pension Board at: www.opb.on.ca (last viewed on August 19, 2008); and the Ontario Municipal Employees Retirement System (OMERS) at: www.omers.com (last viewed on August 19, 2008).
Page 173, Paragraph 1	
"Under federal rules…investments."	PBSA Regulation, s. 7.1. These Statements of Investment Policy and Procedures (SIP&P) must include information regarding categories of investments and loans, including derivatives, options and futures, diversification of the investment portfolio, and the asset mix and rate of return expectations.

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 173, Paragraph 3	
“However, there is a growing… discussion on the issue.”	Freshfields, Bruckhaus Derringer (2005).
“The U.K. *Pensions Act, 2004* requires…plan itself has an SRI policy.”	*Pensions Act, 2004* (U.K.) c. 35, s. 244 and 245. See also Organisation for Economic Co-operation and Development, (2007a) and (2007b). OSFI’s guidelines can be found in Office of the Superintendent of Financial Institutions (2000).
Page 174, Paragraph 1	
“The PBA already...those voting.”	*Pension Benefits Act*, s. 24.
Page 175, Paragraph 2	
“A majority…in plan governance.”	Refer to Figures 2 and 3 in Chapter Three.
Page 176, Paragraph 4	
“Seniors and retirees…affect their pensions.”	The *Pension Benefits Act*, s. 1(1) contains the definition of “former member.”

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 179, Paragraph 1	
"(This last point is not trivial… described below.)"	Watson Wyatt (2008).
Page 181, Paragraph 2	
"One hybrid plan…DB floor of protection."	For example, see the text of the York University Pension Plan at: www.yorku.ca/hr/documents/pension/York_University_Pension_Plan_Text.pdf (last viewed on August 26, 2008), and information on the Queen's Pension Plan at: www.hr.queensu.ca/pension/pension.php (last viewed on August 26, 2008).
Page 181, Paragraph 6	
"For example, several Ontario…is provided."	Contingent indexation is provided by, for example, the Hospitals of Ontario Pension Plan (HOOPP) at: www.hoopp.com, and the Colleges of Applied Art and Technology (CAAT) Pension Plan at: www.caatpension.on.ca/Staffroom/Newsletters/Special11/S11i.html (both last viewed on August 26, 2008). In both cases, the contingent indexation is a recent change on a prospective basis from a previous policy of automatic indexation.
"Or to take another...this gradual shift."	For more information about the pension system in the Netherlands and a comparison with other OECD countries, see Pugh (2007) and Organisation for Economic Co-operation and Development (2007a).
Page 182, Paragraph 5	
"Member-funded pension… fixed amount."	For more details on member-funded pension plans in Quebec, see the Régie des Rentes (2008).
Page 183, Paragraph 1	
"Although each may…is accepted."	See Figures 2 and 3 in Chapter 3.
Page 183, Paragraph 3	
"For example…as the table illustrates."	Table 1 was taken from Ghilarducci (2007, 15). A "basis point" is 1/100th of a percentage point, so that 50 basis points is the same as .5%. Fees and other financial data commonly use basis points as a convenient scale of reference to changes less than one percent.
Page 184, Paragraph 1	
"Table 2 tracks…retired plan members."	The information in Table 2 was provided to the Commission by Mr. Hubert Lam of CEM Benchmarking.
Page 184, Paragraph 2	
"However, lower investment… sponsor small plans."	For further discussion on the features of a national pension system and the impact of pension size on these features, see Ghilarducci (2007, p. 8).

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 184, Paragraph 4	
"Keith Ambachtsheer…financial markets."	Ambachtsheer (2008).
"On the other hand… have not."	See Figures 2 and 3 in Chapter Three.
Page 185, Paragraph 3	
"In 2006…workers."	The annual report of the Canada Pension Plan for fiscal year 2006–2007 is found on the Human Resources and Social Development Canada website at: www.hrsdc.gc.ca/en/publications_ resources/cpp/2007/annual_report/page01.shtml (last viewed on August 26, 2008). General information about the Canada Pension Plan is found at: www.hrsdc.gc.ca/en/isp/cpp/cppinfo.shtml (last viewed on August 26, 2008).
"Because of amendments… 400 analysts."	Bill C-36, *An Act to amend the Canada Pension Plan and the Old Age Security Act*, amended the Canada Pension Plan and received Royal Assent on May 3, 2007. The CPP investment board was created in 1998. A short summary of the changes brought in by Bill C-36 can be found at: www.hrsdc.gc.ca/en/isp/common/hrsdc/billc-36.shtml and at: www.parl.gc.ca/common/bills_ls.asp?lang=E&ls=c36&source=library_prb&Parl=39&Ses=1. Information about the CPP Investment Board can be found at: www.cppib.ca (all websites last viewed on August 26, 2008).
Page 186, Paragraph 3	
"Third, both SEPPs…assets under management."	Information about the British Columbia Investment Management Corporation (BCIMC) can be found at: www.bcimc.com; information about the Public Service Pension Investment Board can be found at: www.investpsp.ca, and information about TIIA-CREF (Teachers Insurance and Annuity Association, College Retirement Equities Fund) can be found at: www.tiaa-cref.org (all websites last viewed on August 26, 2008).
Page 187, Paragraph 5	
"I was particularly struck… Canadian Labour Congress."	All Commission submissions can be found at: www.ontario.ca/pensions. Some submissions are also available on other websites.
Page 188, Paragraph 3	
"The idea of expanding the CPP…pension system."	See White (2008b).

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 189, Paragraph 1	
"This report…plans in Ontario."	Ontario Expert Commission on Pensions (2006), "Mandate" in *Terms of Reference*.
Page 189, Paragraph 3	
"On the other hand…'dead'."	These characterizations are taken directly from oral and written submissions to the Commission. See also Robson (2008).
Page 190, Paragraph 1	
"That said…with something similar."	Ambachtsheer (2008).
Page 190, Paragraph 3	
"Another group…experience hardship in retirement."	For a discussion of these general observations (but not particular submissions or positions of this group of stakeholders) see Gunderson (2007).
Page 192, Paragraph 3	
"Moreover, as Kendra Strauss…defined contribution (DC) plans."	Strauss (2007).
Page 193, Paragraph 2	
"Indeed controversy… political consequences."	Bill 198, *Keeping the Promise for a Strong Economy Act* (*Budget Measures), 2002*, which contained amendments to the *Pension Benefits Act* and regulation. These amendments were withdrawn from the omnibus bill.
Page 195, Paragraph 4	
"The Superintendent of Financial Services has a statutory…apparently does neither."	The *Financial Services of Ontario Act*, s. 3 provides authority to make recommendations to the Minister, and s. 97 of the *Pension Benefits Act* provides the Superintendent authority to gather statistical information. Chapter Seven reviews FSCO's policy making function. FSCO maintains a body of policy statements (in effect, guidance) through the *Bulletin* and on the FSCO website. Chapters Two and Three contain discussions of the problems with existing data sources. Data needs depend on the agency using it. There are two basic needs for pensions data, that used by the regulator in securing compliance and that used in policy development by, for example, the Pensions Champion. The following is a summary of the areas in which a regulator will require enhanced data gathering capacity.

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 195, Paragraph 4 *(cont'd)*	
	Plan Information *Information about DC plans*. Further information about defined contribution (DC) plans will facilitate future policy making in this area, which is expected to expand. This information could include more detailed information on benefit structures (number, type and allocation of investment options); rates of return (absolute rates of return and measured against benchmarks); comparisons to defined benefit (DB) plans; costs (expressed as basis points in relation to plan assets); allocation of costs (sponsor-paid or participant-paid); design of the formula for matched contributions by sponsors; hardship, withdrawal and portability features; default investment options and life-cycle default options; and forms of communications with members, including fund performance and estimates of retirement income based on scenarios. *More detailed information on benefit structures and governance structures*. The regulator should develop more classifications of different plan types, especially hybrid plans or plans with combinations of typical DB and DC benefit structures, and different plan governance structures. Future policy development and innovation would benefit from better data collection of existing plan types and innovations. *Assets and liabilities*. FSCO has started gathering information on assets and liabilities of plans. This should be further developed to be able to track levels of asset–liability matching in standardized formats, to generate benchmarks and models. **Sponsor Information** *Industry and sector data*. More information about plan sponsors' industrial or sectoral classification is essential to understanding many of the risk-based elements of regulation. *Sponsor risk data*. Risk assessment of sponsors should become a part of overall risk assessment of plans. This information could include firm size and competitive position; metrics of management performance; financial policies; profitability; capital structure (including balance sheet and financial leveraging); cash flow; and credit rating (if any). In addition to these groups of data, a policy making body will also require more information in the following areas. **Member Information** *Information on retired members*. Currently, there is no central data gathering instrument for information on retirees themselves outside of some limited data available through the Actuarial Information Summary (AIS) and *Income Tax Act* (ITA) T-1 sources. This information should include income derived from pension plans.

SECTION AND TEXT	CITATION, CHART OR COMMENT
Page 195, Paragraph 4 *(cont'd)*	
	Information of plan member demographics. Currently, the main demographic characteristics tracked by the pensions regulator are age and gender. The regulator should investigate the possibility of obtaining other relevant demographic characteristics on an individual or average or aggregate basis at the plan level. These characteristics could include, for example, family status or visible minority status. **Other Information** Although it is outside the provincial regulator's mandate, it should examine a joint data collection initiative with federal counterparts that gathers standard information on Group RRSP plans. These plans are an alternative to individual RRSPs and DC plans, and there is relatively little data available on their incidence and participation.
Page 198, Paragraph 3	
"Second, they have…Joint Forum of Financial Market Regulators (JFFMR)."	See the JFFMR website at: www.jointforum.ca/JF-WWWSite/index.htm (last viewed on August 20, 2008).
"Third, pension legislation… sponsors and members."	For the Alberta–British Columbia joint review see www.ab-bc-pensionreview.ca (last viewed on August 20, 2008). For the Nova Scotia review see www.gov.ns.ca/lwd/pensionreview/default.asp (last viewed on August 20, 2008). The federal regulator undertook an internal review and consultation on guarantee funds in 2005. Strategic Counsel (2005).

BIBLIOGRAPHY

Works Cited

Actuarial Standards Board. 2007. *Exposure Drafts for Revised Standards of Practice for Pension Commuted Values (Section 3800) and Capitalized Value of Pension Plan Benefits for a Marriage Breakdown (Section 4300)*. Ottawa: ASB. Available at: www.actuaries.ca/consultation/index_e.cfm (last viewed on August 12, 2008).

Actuarial Standards Board. 2008. *Exposure Draft on Changes to the Standards of Practice for Independently Reasonable Assumptions*. Ottawa: ASB. Available at: www.actuaries.ca/consultation/index_e.cfm (last viewed on August 12, 2008).

Akyeampong, E. 2002. "Unionization and fringe benefits" in *Perspectives in Labour and Income*. Ottawa: Ministry of Industry. Statistics Canada Catalogue no. 75-001-XIE.

Akyeampong, E. 2004. "The union movement in transition" in *Perspectives in Labour and Income*. Ottawa: Industry Canada. Statistics Canada Catalogue no. 75-001-XIE.

Alberta Ministry of Finance. 2007. *Policy Bulletin No. 39* (Nov.). Edmonton: Government of Alberta. Available at: www.finance.alberta.ca/publications/pensions/pdf/polbull39.pdf (last viewed on August 18, 2008).

Ambachtsheer, K. 2007. *Pension Revolution: A Solution to the Pension Crisis*. Hoboken, N.J.: John Wiley & Sons Ltd.

Ambachtsheer, K. 2008. *The Canada Supplementary Pension Plan (CSPP)* (May). C. D. Howe Commentary, no. 265. Toronto: C. D. Howe.

Canada Revenue Agency. 2002. *Information Circular 70-6R5*. Available at: www.cra-arc.gc.ca/E/pub/tp/ic70-6r5/ic70-6r5-e.html (last viewed on August 15, 2008).

Canadian Institute of Actuaries. 2008. *Discipline Notice – Notice of Reprimand In Re Melvin Norton*. Ottawa: CIA. Available at: www.actuaries.ca/members/publications/2008/208056.pdf (last viewed on August 15, 2008).

Clark, G., and A. Monk. 2007. *Defined Benefit Pension Coverage and Funding in Ontario: Local Experiences in a Global Context*. Report prepared for the Ontario Expert Commission on Pensions. Toronto: Ontario Expert Commission on Pensions.

Clark, G. L., and R. Urwin. 2008. "Best-practice pension fund governance." *Journal of Asset Management* 9(1):12–21.

Condon, M. 2007. *Comparative Models of Risk-Based Financial Services*. Report to the Ontario Expert Commission on Pensions. Toronto: Ontario Expert Commission on Pensions.

Davis, R. 2007. *Protecting the Pension Fund*. Report for the Ontario Expert Commission on Pensions. Toronto: Ontario Expert Commission on Pensions.

Dominion Bond Rating Service. 2007. *Pension Plans: The Myth of a Pension Problem*. Industry study. Toronto: DBRS.

Fenton, P., et al. 2001. *Employment Effects of Restructuring in the Public Sector in North America*. Working paper no. 2001-19. Ottawa: Bank of Canada.

Financial Services Commission of Ontario. 1992. *Bulletin* 3:2, Index no. W100-225.

Financial Services Commission of Ontario. 1997. "Full asset transfers under section 81 – Superintendent's consent required" and "Partial asset transfers under section 81 – Superintendent's consent required" in *Bulletin* 6:4 (Fall–Winter), Index nos. A700-251 and A-700-226.

Financial Services Commission of Ontario. 2000. *Risk-based Supervision of the Funding of Ongoing Defined Benefit Pension Plans*. Toronto: FSCO. Available at: www.fsco.gov.on.ca/english/pensions/riskbasedsupervision.pdf (last viewed on August 15, 2008).

Financial Services Commission of Ontario. 2005. *Funding Defined Benefit Pension Plans: Risk Based Supervision in Ontario: Overview and Selected Findings, 2001-2004*. Toronto: FSCO.

Financial Services Commission of Ontario. 2006. *Funding of Defined Benefit Pension Plans: Risk Based Supervision in Ontario: Overview and Selected Findings, 2002-2006*. Toronto: FSCO.

Financial Services Commission of Ontario. 2007a. *Funding of Defined Benefit Pension Plans: Risk Based Supervision in Ontario: Overview and Selected Findings, 2003-2007*. Toronto: FSCO.

Financial Service Commission of Ontario. 2007b. *Policy Distribution of Benefits on Partial Wind Up*, Index no. W100-231. Available at: www.fsco.gov.on.ca/english/pensions/policies/active/W100-231.pdf (last viewed on August 12, 2008).

Financial Services Commission of Ontario. 2007c. *Pensions E-Bulletin* 16:1–3.

Financial Services Commission of Ontario. 2008. *Funding Defined Benefit Pension Plans: Risk Based Supervision in Ontario: Overview and Selected Findings, 2005-2008*. Toronto: FSCO.

FitzGerald, B. 2008. *Actuarial Costing Research*. Report prepared for the Ontario Expert Commission on Pensions. Toronto: Ontario Expert Commission on Pensions.

Frenken, H., and K. Maser. 1992. "Employer-sponsored pension plans — Who is covered?" in *Perspectives on Labour and Income* 4:4. Ottawa: Statistics Canada.

Freshfields, Bruckhaus Derringer. 2005. *A Legal Framework for the Integration of Environmental, Social and Governance Issues into Institutional Investment*. United Nations Environmental Programme Finance Initiative (UNEP FI) Global Roundtable. Available at: www.unepfi.org/fileadmin/documents/freshfields_legal_resp_20051123.pdf (last viewed on August 19, 2008).

Ghilarducci, T. 2007. *Vehicles for Collective Provision of Pension Services: Pension Plans For Small and Medium sized Enterprises*. Report for the Ontario Expert Commission on Pensions. Toronto: Ontario Expert Commission on Pensions.

Gunderson, M. 2007. *Incentive Effects of Occupational Pension Plans*. Report prepared for the Ontario Expert Commission on Pensions. Toronto: Ontario Expert Commission on Pensions.

Horner, K. 2007. *Emerging Challenges and Policy Responses Within Canada's Retirement System*. Report prepared for HRSDC Strategic Policy Branch, Children and Families. Ottawa: HRSDC.

Horner, K. 2008. *The Fiscal Effects of a Drop in Pension Coverage*. Report prepared for the Ontario Expert Commission on Pensions. Toronto: Ontario Expert Commission on Pensions. Unpublished; on file with Commission.

House of Commons Committee on Old Age Pensions. 1912. *Report of the House of Commons Committee on Old Age Pensions*. Ottawa: House of Commons Committee.

Informetrica. 2007a. *Occupational Pension Plan Coverage in Ontario: A Statistical Report*. Report prepared for the Ontario Expert Commission of Pensions. Toronto: Ontario Expert Commission on Pensions.

Informetrica. 2007b. *Defined Benefit Occupational Pension Plans: Members and Funding 2000-2005: Statistical Report*. Report prepared for the Ontario Expert Commission of Pensions. Toronto: Ontario Expert Commission on Pensions.

Joint Forum of Financial Market Regulators. 2004a. *Guideline No 4: Pension Plan Governance Guidelines and Self-Assessment Questionnaire*. Ottawa: JFFMR. Available at: www.capsa-acor.org (last viewed September 8, 2008).

Joint Forum of Financial Market Regulators. 2004b. *Guidelines for Capital Accumulation Plans*. Toronto: Joint Forum of Financial Market Regulators. Available at: www.jointforum-forumconjoint.ca (last viewed August 20, 2008).

Kaplan, A. 2006. *Pension Law*. Toronto: Irwin Law.

La Rochelle-Côté, S., J. Myles and G. Picot. 2007. *Income Security During Retirement in Ontario*. Toronto: Ontario Expert Commission on Pensions.

Labour Law Casebook Group. 2004. *Labour and Employment Law: Cases, Materials and Commentary* (7th ed.). Toronto: Irwin Law.

Li, J. 2007. *Impact of Tax Policy on Coverage and Funding of Corporate-sponsored Pension Plans*. Report prepared for the Ontario Expert Commission on Pensions. Toronto: Ontario Expert Commission on Pensions.

Macdonald, R. 2007. "Not Dutch disease, it's China Syndrome" in *Canadian Economic Observer* (August). Catalogue no. 11-010-XIB. Ottawa: Statistics Canada.

Martinello, F. 2000. "Mr. Harris, Mr. Rae and union activity in Ontario" in *Canadian Public Policy* 26:1.

Mercer. 2008. "Communiqué: British Columbia revises PBSA." Vancouver: Mercer. Available at: www.mercer.com/summary.htm?siteLanguage=100&idContent=1313830 (last viewed on August 18, 2008).

Mitchell, O., and Ping Lung Hsin. 1997. "Public pension governance and performance" in Vendes-Prieto, S. (ed.). *The Economics of Pensions: Principles, Policies and International Experience*. London: Cambridge University Press.

Mitchell, O., and S. P. Utkus (eds.). 2004. *Pension Design and Structure: New Lessons in Behavioural Finance*. New York: Oxford University Press.

Morissette, R. 2002. “Pensions: Immigrants and visible minorities.” *Perspectives on Labour and Income* 14, no. 2. Statistics Canada Catalogue no. 75-001-XIE.

Morissette, R., et al. 2004. “Retaining older workers.” *Perspectives on Labour and Income* 16, no 3. Statistics Canada Catalogue no. 75-001-XIE.

Morissette, R., and M. Drolet. 2001. “Pension coverage and retirement savings of young and prime-aged workers in Canada 1986–1997.” *The Canadian Journal of Economics* 34(1):100.

Morissette, R., and Y. Ostrovsky. 2007. “Pensions and retirement savings of families.” Perspectives on Labour and Income 19:4. Statistics Canada Catalogue no. 75-001-XIE.

National Union of Public and General Employees. 2006. *No Pension Panic: The Real Pension Crisis.* Ottawa: NUPGE.

Nielson, N. 2007. *Insurance Against Plan and Sponsor Failure: Examining Alternative Systems to Guarantee Private Pension Payments.* Report prepared for the Ontario Expert Commission on Pensions. Toronto: Ontario Expert Commission on Pensions.

Office of the Superintendent of Financial Institutions. 2000. *Guideline for the Development of Investment Policies and Procedures for Federally Regulated Pension Plans*. Ottawa: OSFI. Available at: www.osfi-bsif.gc.ca/app/DocRepository/1/eng/pension/guidance/penivst_e.pdf (last viewed on August 12, 2008).

Ontario Bar Association. 2007. *Mapping Pension Legislation: Comparing Legislation and Regulations Across Canada*. Report prepared for the Ontario Expert Commission on Pensions. Toronto: Ontario Expert Commission on Pensions.

Ontario Committee on Portable Pensions. 1961. *A Summary Report of the Ontario Committee on Portable Pensions*. D. C. MacGregor and G. E. Gathercole, co-chairs. Toronto: Queen’s Printer.

Ontario Expert Commission on Pensions. 2006. “Mandate” in *Terms of Reference* in the Ontario Expert Commission on Pensions, Appendix 1 to this report. Toronto: Ontario Expert Commission on Pensions. Available at: www.pensionreview.on.ca/english/docs/background.html (last viewed on July 30, 2008).

Ontario Expert Commission on Pensions. 2007. *Reviewing Ontario’s Pension System: What are the Issues? A Discussion Paper for Interested Ontarians*. Toronto: Ontario Expert Commission on Pensions.

Ontario Human Rights Commission. n.d. *The End of Mandatory Retirement*. Fact sheet. Toronto: Ontario Human Rights Commission. Available at: www.ohrc.on.ca/en/resources/factsheets/endmandatoryretirement/view (last viewed on August 11, 2008).

Organisation for Economic Co-operation and Development. 2001. *Aging and Income: Financial Resources and Retirement in 9 OECD Countries*. Paris: OECD.

Organisation for Economic Co-operation and Development. 2007a. *Pensions at a Glance: Public Policies Across OECD Countries*. Paris: OECD Publishing.

Organisation for Economic Co-operation and Development, 2007b. *OECD Guidelines on Funding and Benefit Security in Occupational Pension Plans: Recommendation of the Council.* Paris: OECD.

Pensions Regulator. 2006. *Regulatory Code of Practice No 3* and *Guidance on the Role of Contingent Assets in Scheme Funding*. London: The Pensions Regulator.

Pensions Regulator. 2008. Appendix A to *Clearance Guidance*. London: The Pensions Regulator. Available at: www.thepensionsregulator.gov.uk/pdf/clearanceGuidance2008.pdf (last viewed on August 15, 2008).

Pensions Regulator, Pension Protection Fund. 2007. *The Purple Book: DB Pensions Universe Risk Profile.*. London: The Pensions Regulator. Available at: www.thepensionsregulator.gov.uk/pdf/purpleBook2007.pdf (last viewed on August 15, 2008).

Pugh, C. 2007. *Comparative Funding Regimes*. Report prepared for the Ontario Expert Commission on Pensions. Toronto: Ontario Expert Commission on Pensions.

Puri, P. 2007. *Pension Funds: Trends in Asset Allocation and Role in Capital Markets, Corporate Governance and Regulatory Policy*. Report prepared for the Ontario Expert Commission on Pensions. Toronto: Ontario Expert Commission on Pensions.

Régie des Rentes. 2007. *Supplemental Pension Plans Newsletter* (February 7). Available at: www.rrq.gouv.qc.ca/NR/rdonlyres/60410134-4076-4EB9-8A1B-54846A2D0A13/0/let062007a.pdf (last viewed on August 18, 2008).

Régie des Rentes. 2007. *Supplemental Pension Plans Newsletter Express* (February 7). Available at: www.rrq.gouv.qc.ca/NR/rdonlyres/D3860BBE-45B1-4B38-8536-F08DCA4475CB/0/let072007a.pdf (last viewed on August 13, 2008).

Régie des Rentes. 2008. "The member-funded pension plan." *Newsletter Express* no. 23 (May). Available at: www.rrq.gouv.qc.ca/NR/rdonlyres/ECA8686C-E8B5-41E1-A761-601741B78E2C/0/newsletterno23.pdf (last viewed on August 26, 2008).

Report of the Royal Commission on the Relations of Labor and Capital in Canada, Volumes 1–4. 1889. Ottawa: Queen's Printer.

Robson, W. 2008. "DB is dead: What now?" *Canadian Investment Review* 21:1. Toronto: Rogers Media.

Royal Commission on the Status of Pensions in Ontario. 1980. *Report of the Royal Commission on the Status of Pension in Ontario*. Toronto: Royal Commission on the Status of Pensions in Ontario.

Sarra, J., and R. Davis. 2007. *Analysis of Factors Leading to Insolvency and Restructuring and Their Effects on Pension Plan Wind-Ups and Closures*. Report for the Ontario Expert Commission on Pensions. Toronto: Ontario Expert Commission on Pensions.

Sonnen, C., et al. 2007. *Economic Effects of Structural Changes in Manufacturing: A Retrospective View*. Report prepared for the United Steelworkers, Canadian Labour Congress, Ontario Federation of Labour and Fédération des travailleurs du Québec by Informetrica Ltd. Ottawa: Informetrica.

Sossin, L. 2007. *The Effectiveness and Efficiency of Pension Regulation in Ontario and in Comparative Perspective*. Report for the Ontario Expert Commission on Pensions. Toronto: Ontario Expert Commission on Pensions.

Statistics Canada. 2000. *Canada's Income Retirement Programs: A Statistical Overview 1990-2000*. Catalogue no: 74-507. Ottawa.

Statistics Canada. 2001. *Canada's Ethnocultural Portrait: The Changing Mosaic*. 2001 Census Analysis Series. Catalogue no. 96F0030XIE2001008. Ottawa.

Statistics Canada. 2007. "Employer pension plans (trusteed pension funds)." *The Daily* (January 4). Available at: www.statcan.ca/Daily/English/070104/d070104c.htm (last viewed on July 30, 2008).

Statistics Canada. 2008. "Canada's population estimates." *The Daily* (June 25). Available at: www.statcan.ca/Daily/English/080625/d080625b.htm (last viewed on July 29, 2008).

Shilton, E. 2007 *Current Issues Concerning Multi-Employer Pension Plans in Ontario*. Report for the Ontario Expert Commission on Pensions. Toronto: Ontario Expert Commission on Pensions.

Stewart, F. 2007. *Benefit Security Pension Fund Guarantee Schemes*. OECD Working Papers on Insurance and Private Pensions, no. 5. Paris: OECD Publishing.

Stewart, M. 1952. "Old age security in Canada: Changing attitudes." *Canadian Journal of Economics and Political Science* 18(2):125.

Strategic Counsel. 2005. *Report on Pension Consultations*. Report prepared for the Office of the Superintendent of Financial Institutions (OSFI). Ottawa: OSFI. Available at: www.osfi-bsif.gc.ca/app/DocRepository/1/eng/reports/osfi/Pension_Consultation_and_Overview_e.pdf (last viewed on August 20, 2008).

Strauss, K. 2007. *Trends in Occupational Pension Coverage in Ontario*. Report prepared for the Ontario Expert Commission on Pensions. Toronto: Ontario Expert Commission on Pensions.

TD Economics. 2008. *Ontario and Quebec's Manufacturing Woes Special Report*. Toronto: TD Bank.

Tapia, W., and J. Yermo. 2007. *Implications of Behavioural Economics for Mandatory Individual Account Pension Systems*. OECD Working Papers on Insurance and Private Pensions, no. 11. Paris: OECD Publishing.

Task Force on Inflation Protection. 1988. *Report of the Task Force on Inflation Protection for Employment Pension Plans*. Friedland, M., Chair. Toronto: Queen's Printer.

Thaler, R., and C. Sunstein. 2008. *Nudge: Improving Decisions About Health, Wealth, and Happiness*. New Haven: Yale University Press.

Trossman, J. 1989. "Government policy and retirement saving: The proposed reforms." *University of Toronto Faculty of Law Review* 47:742.

Tuer, E., and E. Woodman. 2005. "Recent trends in Canadian defined-benefit pension sector investment and risk management." *Bank of Canada Review*. Ottawa: Bank of Canada. Available at: www.bankofcanada.ca/en/review/summer05/woodman.pdf (last viewed on December 7, 2007).

Veall, M. 2007. *Which Canadian Seniors Are Below the Low-Income Measure?* Social and Economic Dimensions of an Aging Population research paper no. 186.

Watson Wyatt. 2008. *Defined Benefit vs. 401(k) Plans: Investment Returns for 2003–2006*. Watson Wyatt Insider. Available at: www.watsonwyatt.com/us/pubs/insider/showarticle.asp?ArticleID=19148 (last viewed on August 26, 2008).

Weitz, H. 1992. *The Pension Promise: The Past and Future of Canada's Private Pension System*. Toronto: Thomson Carswell Limited.

White, J. 2008a. "DB plan sponsors are pessimistic." *Benefits Canada* (August 1). Available at: www.benefitscanada.com/pension/db/article.jsp?content=20080801_133201_7988 (last viewed on September 8, 2008).

White, J. 2008b. "Pensions for all." *Benefits Canada* (June). Available at: www.benefitscanada.com/pension/db/article.jsp?content=20080627_131325_7584 (last viewed on August 26, 2008).

Wooten, J. 2007. *Arguments about Asymmetry of Risks and Rewards and Deferred Wages in Pension Plans*. Report prepared for the Ontario Expert Commission on Pensions. Toronto: Expert Commission on Pensions.

Selected Resources

Association of Canadian Pension Management. 2005. *Back from the Brink: Securing the Future of Defined Benefit Pension Plans*. Toronto: ACPM.

Baldwin, B., and P. Laliberté. 1999. *Incomes of Older Canadians: Amounts and Sources, 1973-1996*. Research Paper #15. Ottawa: Canadian Labour Congress.

Baldwin, B. 2007. *Determinants of the Evolution of Workplace Pension Plans in Canada*. Ottawa: Caledon Institute of Social Policy.

Baldwin, B. 2007. *Registered Pension Plans in Canada — Their Evolution, Structure and Challenges*. Report prepared for the HRSDC Strategic Analysis, Audit and Evaluation Branch. Ottawa: HRSDC.

Baldwin, B. 2008. *Registered Pension Plans in Canada — Their Evolution, Structure and Challenges*. Report prepared for the HRSDC Strategic Analysis, Audit and Evaluation Branch. Ottawa: HRSDC.

Béland, D. 2006. "The politics of social learning: Finance, institutions, and pension reform in the United States and Canada." *Governance* 19(4):559–583.

Boyce, S., and R. A. Ippolito. 2002. "The cost of pension insurance" in *Journal of Risk and Insurance* 69:121–70.

Brown, J., and D. Beatty. 2007. *Canadian Labour Arbitration*, 4th ed. Looseleaf. Aurora, ON: Canada Law Book.

Canada. Government of Canada, Special Senate Committee on Aging. 2008. *Second Interim Report. Issues and Options for an Aging Population*. Ottawa: Special Senate Committee on Aging.

Canadian Association of Pension Supervisory Authorities. Available at: www.capsa-acor.org/.

Canadian Institute of Actuaries, Task Force on the Determination of Appropriate Provisions for Adverse Deviations in Hypothetical Wind-Up and Solvency Valuations. 2007. *Determination of Appropriate Provisions for Adverse Deviations in Hypothetical Wind-Up and Solvency Valuations: Research Paper*. Ottawa: CIA.

Clark, G., et al. (eds.). 2004. *The Oxford Handbook of Pensions and Retirement Income*. Oxford: Oxford University Press.

Cooper, R. W., and T. W. Ross. 2003. “Protecting underfunded pensions: The role of guarantee funds.” *Journal of Pension Economics and Finance* 2(3):247–272.

Coronado, J., and N. Liang. 2005. *The Influence of PBGC Insurance on Pension Fund Finances*. Pension Research Council Working Paper, PRC WP 2005-10. Philadelphia, PA.: Pension Research Council.

Davis, R. 2008. *Democratizing Pension Funds Corporate Governance and Accountability*. Vancouver: UBC Press.

Estates, Trusts, & Pensions Journal. Aurora, ON: Canada Law Book.

Fang, T., A. Luchak and M. Gunderson. 2004. “How has public policy shaped defined-benefit pension coverage in Canada?” *Journal of Labor Research* 25(3):469–484.

Financial Services Commission of Ontario, *Bulletin* (1998–2008). Toronto: Queen’s Printer.

Fung, A., et al. (eds.). 2001. *Working Capital: The Power of Labour’s Pensions*. Ithaca, N.Y.: Cornell University Press.

Georgetti, K. V. 2005. *Workplace Pensions: Current Difficulties and Going Forward*. Ottawa: Canadian Labour Congress.

Ghilarducci, T. 2008. *When I’m Sixty-Four: The Plot Against Pensions and the Plan to Save Them*. New Haven: Princeton University Press.

Gillese, E., and M. Milczynsky. 2005. *The Law of Trusts*. Toronto: Irwin Law.

Gillese, E. “Pension plans and the law of trusts.” *Canadian Bar Review* 75 (1996):221-250.

Hamilton, M. 2007. *Re-thinking the Funding of Mature Pension Plans*. Canadian Institute of Actuaries member paper. Ottawa: CIA.

Ilkiw, J. 2007. *Understanding and Estimating the Fair Value of Defined Benefit Pension Promises: Using the CPP as a Case Study*. C.D. Howe Institute session on retirement/pension issues. Canadian Economic Association 41st Annual Meeting, June 1–3.

Kaplan, A. 2006. *Pension Law*. Toronto: Irwin Law.

Koskie, R., et al. 2004. *Employee Benefits in Canada*, 3rd ed. Brookfield, WI.: International Foundation for Employee Benefits.

Laidler, D., and W. Robson. 2007. *Ill-defined Benefits: The Uncertain Present and Brighter Future of Employee Pensions in Canada*. C. D. Howe Institute, commentary 250.

McCarthy, D., and A. Neuberger, A. 2005. “The pension protection fund.” *Fiscal Studies* 26:139–167.

McSweeney, I. J. F., and D. S. McFarlane. 1996. *Pension Benefits Law in Ontario*. Looseleaf. Toronto: Thomson Carswell.

Morneau Sobeco Ltd. 2006. *Morneau Sobeco Handbook of Canadian Pension and Benefit Plans*, 13th Edition. Greenan, J. (ed.). Toronto: CCH.

Nielson, N., and D. Chan, D. 2004. “Private pensions and government guarantees: Clues from Canada.” *Journal of Pension Economics and Finance* 6:1.

Organisation for Economic Co-operation and Development. 2007. *OECD Guidelines on Funding and Benefit Security in Occupational Pension Plans: Recommendation of the Council*. Paris: OECD.

Pension Commission of Ontario, *Bulletin* (1988–1997). Toronto: Queen’s Printer.

Pension Investment Association of Canada. 2007. *Pension Funding Challenges: 2007 PIAC Survey.* Toronto: PIAC.

Pugh, C., and J. Yermo. 2008. *Funding Regulations and Risk Sharing*. OECD Working Papers on Insurance and Private Pensions, no. 17. Paris: OECD Publishing.

Régis des Rentes du Quebec. 2004. *Evaluation of the Quebec System of Financial Security at Retirement in Relation to that of Other Industrialized Countries*. Quebec: Régis des Rentes du Quebec.

Sule, A., K. Atalay and T. Crossley. 2007. *The Adequacy of Retirement Savings: Subjective Survey Reports by Retired Canadians*. Social and Economic Dimensions of an Aging Population research paper no. 199. Hamilton: SEDAP.

Tamango, E. 2006. *Occupational Pension Plans in Canada: Trends in Coverage and the Incomes of Seniors*. Ottawa: Caledon Institute of Social Policy.

United Kingdom Pensions Commission. 2006. *Pensions: Implementing an Integrated Package of Pension Reforms: The Final Report of the Pensions Commission*. London: U.K. Pension Commission.

Whiteford, P., and E. Whitehouse. 2006. “Pension challenges and pension reforms in OECD countries.” *Oxford Review of Economic Policy* 22:1.

Wolfson, M. 1988. *Pension Plans in Ontario: A Statistical Overview*. Research report for the Task Force on Inflation Protection for Employment Pension Plans, Research studies, volume 1. Toronto: Task Force on Inflation Protection.

RESEARCH PROJECTS

1 Mapping Coverage and Funding of Occupational Pension Plans

Research Paper: *Occupational Pension Plan Coverage in Ontario*
Researcher: Richard Shillington
Date: 2007

Executive Summary

This report presents statistical evidence, from several sources, of occupational pension plan coverage in Ontario for the period 1977 to 2006. The report examines the incidence of occupational pension plan coverage by sector and gender, the type of coverage provided, the type of plan providing coverage, and characteristics of jobs and members covered by an occupational pension plan.

The main findings of the report are:

- The number of members of occupational pension plans has slightly increased.
- The proportion of male members has decreased, and the proportion of female members increased.
- Overall coverage as a percent of the paid labour force in Ontario is about 35%, and has declined steadily over the period.
- The coverage in the public sector paid labour force has fluctuated around 80% of paid workers.
- The coverage in the private sector paid labour force has declined to about 25% of paid workers.
- About 80% of members of occupational pension plans are members of a defined benefit plan; about 20% of members are members of a defined contribution or hybrid plan.
- About 55% of membership is in a single-employer pension plan, and 45% of membership is in a multi-employer pension plan.
- Jobs that have occupational pension coverage tend to be in larger workplaces and unionized workplaces.
- Persons with occupational pension coverage tend to be older, have higher incomes and have higher levels of education.
- Younger workers, low-income workers, visible minorities, persons with disabilities and newcomers to Canada are less likely to have occupational pension plan coverage.
- Where persons are covered by an occupational pension plan, it is likely to be the second largest asset in retirement, after home equity.

Research Paper: *Benefit Occupational Pension Plans, Members and Funding 2000–2005*
Researcher: Richard Shillington
Date: 2007

Executive Summary

This report presents statistical evidence of defined benefit (DB) occupational pension plan funding levels, membership, assets and funding assumptions in Ontario for the period 2000 to 2005.

The report examines the number of filings of DB plans registered with the Financial Services Commission of Ontario based on Actuarial Information Summaries. It examines filings, membership and assets by funded ratio, calculated on going concern and solvency valuation bases. It presents the changes in funded ratio over the period, and examines shifts in key assumptions in actuarial valuations over the period.

The main findings of the report are:

- Overall, DB pension plans' funded status deteriorated between 2000 and 2003, and improved slightly by 2005, on both a going concern and solvency funding basis. It is likely that funded ratios have improved between 2005 and 2007.
- On a going concern funding basis in 2005:
    - 93% of plans were 80% funded or better, and 75.8% of plans were 90% funded or better;
    - 95% of members were in plans 80% funded or better, and 87.8% of members were in plans 90% funded or better; and
    - 98% of assets were within plans 80% funded or better.
- On a solvency funding basis in 2005:
    - 72% of plans were 80% funded or better, and 45% of plans were 90% funded or better;
    - 81.8% of members were in plans 80% funded or better, and 71% of members were in plans 90% funded or better; and
    - 89% of assets were within plans 80% funded or better.
- Overall, a significant number of plans have been showing a decrease in their funded status, particularly on a solvency basis. However, membership and assets in those plans do not reflect as dramatic a change.
- Assumptions as a whole have reflected the funding environment. Going concern interest rate assumptions continue to be higher than prescribed solvency interest rates, but have reduced over the period. On the whole, mortality table assumptions have been "updated" to reflect more recent mortality tables.

Research Paper: *The Fiscal Effects of a Drop in Pension Coverage*

Researcher: Keith Horner

Date: 2008

Executive Summary

By depressing future retirement incomes, a fall in pension coverage also has negative effects on government finances, reducing income and sales tax revenues and increasing the cost of public pension programs and other income-tested benefits.

Pension coverage in Canada declined by about 10% over the decade to 2005, and the trend appears to be continuing. Affecting younger and older workers at all income levels, the drop in coverage was most marked among those earning $50,000 to $100,000. It was not concentrated in those with low pension benefit levels, nor was it accompanied by higher benefit levels among continuing plan members.

While Registered Retirement Savings Plan (RRSP) contributions grew faster than pension contributions before 1995, the aggregate RRSP contribution rate declined between 1995 and 2005, providing no evidence of an offset to falling pension coverage. However, a shift in contributions from RRSPs to educational savings plans during that period suggests that it might not be a good guide to future trends. Labour force participation rates among men and women over age 55 increased sharply after 1995, which did provide an offset to the drop in pension coverage.

This paper presents an estimate of the fiscal effects of the coverage decline in 2030, by which time the effects on pension incomes should be fully felt and all members of the baby boom generation will have reached age 65. The projection takes into account the effects of reduced pension contribution and benefit levels on program costs and on revenues from income and sales taxes.

A 10% drop in pension coverage is found to lead to a $1.4-billion ($2005) reduction in governments' net fiscal balances — an increase in the program costs of Old Age Security (OAS) and the Guaranteed Income Supplement (GIS) of $0.48 billion, reductions in federal and provincial income tax revenues (net of refundable tax credits) of $0.68 billion, and reductions in federal and provincial sales tax revenues of $0.24 billion. Cutting the pension income decline in half to reflect an offsetting increase in RRSP saving or in the labour force participation of older workers reduces the fiscal effects by 40%.

2 Occupational Pension Plans and Retirement Income of Ontarians

Research Paper: *Income Security During Retirement in Ontario*

Researchers: Sébastien LaRochelle-Côte, Garnett Picot, John F. Myles

Date: July 2007

Executive Summary

The results outlined in this summary are from a special report made by Statistics Canada, which was commissioned by the Ontario Expert Commission on Pensions, to examine the economic welfare of Ontario workers following retirement. More specifically, the report uses a rich source of longitudinal data to track the income levels of workers who had at least $10,000 in earnings at age 55 over a period of more than 20 years as they enter retirement, and provides a number of statistics about the degree of financial well-being enjoyed by workers long after retirement (mainly by focusing on family income after taxes — i.e., family disposable income).

Results indicate that, on average, family income peaks at around age 60, then declines to around age 68, and remains stable thereafter. However, this pattern varies tremendously depending upon where one is located in the income distribution. There is little change, on average, in the income levels of lower-income people as they move through retirement, while individuals near the top of the income distribution experience significant declines in income through retirement, on average.

Regarding the role of the various income components, earnings not surprisingly account for the majority of the family income around age 55. This is true for both higher- and lower-income individuals.

By their late 60s, public pensions (including the Canada/Quebec Pension Plan, Old Age Security and the Guaranteed Income Supplement) accounted for about half of the income among the bottom quintile individuals, and private pensions and Registered Retirement Savings Plans accounted for only 20%. Among top quintile individuals, public pensions accounted for a small part of total income, while private pensions, investments and capital gains together accounted for about 60%.

More recent cohorts of retirees (say those aged 54 to 56 in 1998) have higher family income levels than their earlier counterparts (say those aged 54 to 56 in 1983) as they enter retirement, largely because of higher levels of private pension benefits received by these more recent cohorts. Whether these increased benefit levels will continue for future cohorts is unknown, because private pension coverage has been falling among younger workers.

A replacement rate is an individual's income at any age, say 65, compared with his income at age 55. Among individuals aged 55 in 1983, median replacement rates started falling below 1.0 at around age 62, fell to about 0.8 by their late 60s and then remained stable.

However, these results were quite different for low-income and high-income individuals. Among poorer individuals (in the bottom quintile), median replacement rates remained at about 1.0 throughout their retirement. Individuals in the top quintile experienced a larger drop in replacement rates, to around 0.7 by their middle 60s, since they were starting from a much higher income base at age 55.

In addition to variation in replacement rates across the income distribution, there is variation in rates within income quintiles. Individuals with virtually identical family incomes at age 55 can obviously have very different replacement rates in retirement. Focusing on the middle income quintile, analysis indicates that high replacement rate individuals are distinguished from low replacement rate individuals (from the same income quintile at age 55) by employment earnings early in retirement, plus investment and capital gains, and in later retirement, access to private pension income.

The evidence suggests that there has been little change in the pattern of replacement rates across cohorts. More recent cohorts (e.g., those age 54 to 56 in 1995) appear to have similar patterns of replacement rates as they age as retirees in the 1983 cohort.

In addition to income level and replacement rates, income instability can be an issue for retirees. Income instability can be defined as the amount of year-to-year variation in income levels for any individual. High levels of income instability can lead to consumption issues in some years, and possibly emotional stress.

With respect to income instability, two main conclusions can be drawn from this report. First, poorer individuals have higher levels of income instability than richer individuals during their late 50s and early 60s, but as the pension income kicks in and stabilizes incomes, the gap in income instability between the rich and poor disappears. Secondly, income instability declines for all groups as they age, largely because of the stabilizing effect of public pension income sources.

3 Factors Affecting Trends in Occupational Pension Plans in Ontario

Research Paper: *Trends in Occupational Pension Plan Coverage in Ontario*

Researcher: Kendra Strauss

Date: October 2007

Executive Summary

The future of occupational pensions in Ontario, especially traditional final salary schemes, is being questioned in the face of an ageing population and increasingly global economic competition. This report, part of the Ontario Expert Commission on Pensions' consultation on the future of occupational pensions, looks at changing patterns of pension coverage in the public and private sectors and recent demographic and economic trends. It assesses the extent to which traditional pension arrangements have in fact declined, and for whom, and examines whether the "pension context" in Ontario is driving changes and what the implications are for occupational coverage going forward.

Trends in pension coverage in Ontario

Coverage by registered pension plans (RPPs), in terms of the number of workers covered, has increased in recent years after a period of decline. The percentage of workers with access to an RPP has declined, however, meaning that the growth in pension coverage is not keeping pace with the growth in employment.

- The number of pension plans has declined in both the public and private sectors, but public sector funds are fewer and larger.
- Ontario has a relatively low proportion of employees in the public sector: 18.8% in the year 2000 (Statistics Canada 2003: 54). Pension coverage, however, is high. In the same year, 82.6% of public employees were covered by RPPs; by 2006, the proportion had fallen slightly to 79.5%.
- In 2006, just under 60% of all RPP members in Ontario were in the private sector. As a percentage of all employees, this group declined from just under 30% in 1992 to just under 25% in 2006.
- Defined benefit (DB) coverage has declined since 1992 from 93% to 83% of all RPP members, while defined contribution (DC) coverage has increased from 6% to 15%.
- Declining pension coverage overall seems to be a function of decreasing DB coverage. As DB coverage falls, the number of workers covered by DC plans is not increasing as quickly as the total number of paid workers.
- RPP coverage for men fell between 1991 and 1997 from 49% to 42%; from 1997 to 2000, the rate stabilized at 42%, despite an increase in membership.

- Among women, coverage peaked in 1993. Between 1993 and 1998 coverage rates fell slightly, from 42% to 40%, and then stabilized at 39% between 1998 and 2000.
- The number of “other” types of plans (hybrid, composite or combination, etc.) grew between 1986 and 2006, albeit with significant fluctuations, and the number of contributors and size of contributions to group and individual Registered Retirement Savings Plans increased.

Changing demographic trends and the structure of the economy

The population of Ontario, like the rest of Canada, is ageing. Although the process is less pronounced than in other, especially European, welfare states, it will still bring about significant changes in the demographic make-up of the province.

- In 1986 the median age for women was 32.8 (31 for men); by 2006 it had risen to 39.1 (37.3 for men).
- The number of people in the 25–44 and 45–64 age groups grew most rapidly during the same period while the slowest growth was among the under-24s.
- Ontario attracted interprovincial migrants in the late 1980s and late 1990s, and experienced out-migration in the early 1990s and between 2002 and 2006, in line with the prevailing economic conditions in Ontario and growth in other provinces such as Alberta.

The period from the early 1980s to the present was a volatile one for the Ontario economy. Two economic recessions, interspersed with periods of rapid growth, the implementation of the North American Trade Agreement (NAFTA), and increasing financial globalization and integration, have presented both opportunities and challenges in the context of employment and economic growth in the province. Labour market trends also reflect economic and social change:

- Men’s labour market participation has fallen slightly (from 94% to 92% between 1990 and 2006), as has their share of full-time employment, but employment rates among men over 60 are increasing.
- Women’s employment increased. Seventy-eight percent of women aged 25–54 were in full-time employment in 2006 (compared with 75% in 1990).
- Youth employment has declined for females and males.
- The total number of salaried individuals fell (from 46% of all jobs to 38% of all jobs between 1991 and 2006) relative to the number of employees paid by the hour.
- Growth in the absolute number of jobs increased between 1991 and 2006 in all but three industries: manufacturing, logging and utilities.
- Large firms (over 300 employees) employ the most people in Ontario, and they generated the most job growth between 2000 and 2006.
- Public sector employment is low in Ontario compared with other provinces.
- Unionization has not declined substantially, but there is variability between industries and sectors (the largest declines have been in sectors such as manufacturing).

Contextual factors as drivers of change

When compared with shifts in the type of coverage in the United States and the United Kingdom, Ontario has not experienced as dramatic a shift to DC-type plans as in the case of the former, nor as much of a drop in occupational coverage as in the case of the latter. The Ontario context has unique features:

- De-industrialization has not occurred as rapidly or dramatically.
- Overall levels of unionization have remained fairly stable.
- There may be a "pensions culture" that sustains support for traditional pension arrangements.

Nevertheless, the pressures on DB plans are significant. These include an ageing workforce, costs and funding challenges, the competitive disadvantage engendered by pension liabilities, and a lack of flexibility and portability. DB plan coverage in Ontario may continue to decline, but a large-scale retreat from DB plans is not inevitable. Factors that could encourage the continuation of DB RPP coverage include:

- innovation in plan design to encourage risk-sharing, as in the case of multi-employer plans;
- continued economic and job growth; and
- policy and regulatory changes to increase the sustainability of DB plans.

Research Paper: *Defined Benefit Pension Coverage and Funding in Ontario: Local Experiences in a Global Context*

Researchers: Gordon L. Clark, Ashby H. B. Monk, Courtney S. Monk

Date: October 2007

Executive Summary

The funding and coverage of defined benefit (DB) pension plans is an issue of vital concern in Ontario as in the rest of the world.

This paper, which is part of the Ontario Expert Commission on Pensions' (OECP) consultation on the occupational pension system in Ontario, seeks to describe and analyze the various factors influencing funding and coverage of DB plans in Ontario and compare these factors with those in other jurisdictions.

We are tasked with making qualitative judgments based on our collective expertise and knowledge of pension systems around the world. We refer to publicly available reports and academic research. In addition, we use public and private data, such as Statistics Canada's CANSIM database. In short, this paper is an interrogation of existing literatures and data rather than new scholarly material.

We find that DB pension under-funding is a recent and ongoing phenomenon in Ontario. However, Canada's DB pension under-funding today is based more on problems with the liability than on problems with the assets. Indeed, after 2002, equity values appear to have increased considerably. Nevertheless, contribution levels (one of our proxies for funding) have also increased considerably, suggesting that rising assets have not been enough to fill the funding gap. Indeed, low discount rates appear to be the root cause of under-funding, compounded by increasing longevity, actuarial practice and regulation.

We also find that DB pension coverage in Ontario shows only a gradual decline over the last 15 years. Nevertheless, we find a much faster decline in the private sector than the public sector. Indeed, private sector coverage has dropped by roughly one-third over the period under consideration (1992 to 2005). We conclude that competitive pressures, government regulation and declining unionizing rates have been important factors in driving this decline in DB coverage in the private sector.

We conclude that Ontario's DB pension system is experiencing declining coverage and plan under-funding. However, Ontario exhibits distinct differences from the global experience. Indeed, DB coverage, though on the decline, appears more resilient than in the United States and the United Kingdom. Also, under-funding does not appear to be associated with the asset side of the equation (relative to the United States and United Kingdom) but with the liability side (due to interest rates, increasing longevity, etc.).

Future research would benefit from better statistics, as consistent Ontario DB pension funding and coverage data over time was not available. As part of this project's mandate, the OECP engaged to provide by mid-summer 2007 detailed statistics and regressions analysis underscoring the factors that drive funding and coverage. Unfortunately, we never received this data, which has limited our ability to make firm conclusions in the Ontario case. As a result, this discussion can be viewed only as tentative conclusions based on a series of necessary assumptions, some of which may certainly be challenged, and indeed should be.

4 Funding Regimes in Comparative Context

Research Paper: *Comparative Funding Regimes*

Researcher: Colin J. Pugh

Date: October 2007

Executive Summary

Scope of report

This research paper is prepared for the Ontario Expert Commission on Pensions that has been established by the Government of Ontario to review the security, viability and sustainability of the pension system in Ontario. Among the guiding principles, those of particular relevance to this particular paper are "the importance of maintaining and encouraging the system of defined benefit pension plans" — an objective strongly supported by the author — and "the importance of maintaining the affordability of defined benefit plans for both members and sponsors."

More specifically, the primary objective of this paper is to summarize funding regulations in selected countries where DB plans have been (and to a large extent, still are) a dominant force in the occupational pensions scene. Particular attention is paid to the significant changes in funding regulations that have been made in several jurisdictions in recent years, and comparisons are made with the current funding regulations and the current debate in Ontario. This paper should then provide a mechanism for the Commission to assess whether the reasons for the changes in these other countries and the exact nature of their latest funding regulations provide useful guidance regarding the challenges facing the provision of occupational DB pensions in Ontario.

The **six countries** selected for *detailed analysis* provide quite different perspectives on the direction of funding regulations, thus proving the obvious — namely, that there is no perfect or one-size-fits-all solution. For example, two countries (Ireland and the Netherlands) reacted quickly to the difficult funding problems of 2001–2003 by going in opposite directions. **Ireland**, in a similar manner to Quebec, provided temporary funding relief by extending its standard amortization period for experience deficiencies from three years to 10 years if the reason for the deficit was investment-related. It has since cemented these temporary rules into more long-lasting regulations and broadened the range of allowed reasons. For example, Ireland's tiger economy has meant large salary increases that have significantly strained the funded position of traditional final-average earnings DB plans, and this cause is now also eligible for 10-year amortization. In contrast, the **Netherlands** continued to tighten its funding requirements, requiring 105% funding virtually all the time, and further requiring the accumulation of contingency reserves that bring the ultimate funding requirement for the average plan to about 130% of liabilities.

As regards the **United States**, one can argue that (overall) they tightened their regulations, but the prior regulations arguably had been the least demanding in the world, and they were also long overdue for change. The **United Kingdom** moved in another direction altogether, abolishing virtually all prescriptive minimum funding regulations and demanded that plan trustees, in consultation with the plan sponsor, establish plan-specific funding objectives. This is coupled with the plan sponsor's "covenant" covering its desire and its financial ability to keep the plan on a sound financial footing. The regulator places great weight on this covenant, which can be supplemented by additional guarantees from, for example, the parent company, and by additional financial guarantees such as letters of credit and assigned assets. As one would expect, risk-based supervision is paramount.

Switzerland prides itself on infrequent, but well-debated changes in regulations. The only major change in recent years has been to adopt the "corridor" approach and require funding to only 90% of accrued liabilities. Swiss authorities also encourage, but do not prescribe, the establishment and maintenance of investment fluctuation reserves. Finally, **Portugal** appears to be the only country (other than Canada, and the United States prior to the 2006 changes) that prescribes separate minimum funding requirements on both a wind-up type basis and a going concern valuation basis. Several other countries were surveyed by the author in the preparation of earlier papers, and some are mentioned in this paper, but none of them has (or any longer has) the dual funding requirements.

The core part of this paper is divided into four sections, and the basic thrust of each such section is identified below. The starting point is the regulation of conventional single-employer DB pension plans financed through autonomous pension funds. Where applicable, the different treatment of the funding regulation of multi-employer plans and (at the other extreme) significant shareholder plans and other small plans are identified.

Terminology

Wherever possible, this report uses terminology that is consistent with words and phrases used in Ontario pension legislation and by the Canadian actuarial profession. To the extent it can facilitate easier reference with local legislation and better communication with local regulators, the local terminology occasionally is shown in brackets. One exception is the Canadian phrase "jointly sponsored pension plans," a category into which only some multi-employer plans fall. The phrase is used in some other countries, especially where equal representation of employees and employers on the board of trustees, the board of foundation or equivalent body administering a single-employer plan is dominant, and where these bodies often have more powers than the plan sponsor — but this does not necessarily imply the same infrastructure as a Canadian plan of the same name. Instead, the phrases “multi-employer pension plans” or, where appropriate, “industry-wide plans/funds” are used.

Actuarial costing methods

Those readers requiring an introduction to actuarial costing methods, and especially the basic categorization into “families of methods,” should refer to **Section 2**. This material may also be useful to other readers requiring a simple reference point for the various actuarial methods mentioned throughout this paper. **Experts on actuarial matters do not need to read Section 2**.

Four main sections of the paper

Section 3 identifies and addresses the core funding issues common to the large majority of countries: minimum funding requirements; benefits that can be excluded from calculation of the minimum funding requirements; benefits that must be restricted due to poor funding levels; extra-statutory guidelines; maximum funding limits; and treatment of different types of plans (e.g., multi-employer and significant shareholder plans).

Section 4 identifies and addresses related actuarial matters, such as customary funding practices; further details on actuarial costing methods and actuarial assumptions; valuation of assets; roles of “provisions for adverse deviation” (PfADs, or contingency reserves); alternative forms of contributions; frequency of actuarial valuations and interim actuarial reports; and other funding information requirements.

Section 5 focuses on ownership and application of funding excesses within an ongoing plan, withdrawal of surplus assets from an ongoing plan, and related issues.

Section 6 concentrates on issues relating to the termination of over-funded and under-funded plans, whether through a voluntary plan termination or insolvency of the plan sponsor. Only a brief mention is made of PBGF-type insolvency guarantee funds, as this is the subject of a separate research paper. For completeness, each country profile simply identifies whether such an arrangement exists in that country.

Each sub-section in these Sections describes the issue itself in general terms and then continues with highlights of practices in selected countries, especially where those approaches are different from Ontario practices or reinforce key messages. Considerably more detail is found in the individual country appendices at the end of this report.

Limitations on comparisons with Ontario funding rules

Each country appendix starts with a comment on the potential limitations of interpreting or applying that country’s pension legislation in the environment of Ontario pension laws and regulations. Among the countries reviewed in this report, only Ireland, the United Kingdom and the United States are common-law countries with trust law. However, given that the primary focus of this report is actuarial funding requirements, this does not of itself automatically diminish the validity of the funding regulations to be found in the other selected countries — Netherlands and Switzerland — where occupational pensions are financed through pension foundations, and Portugal, where occupational pensions are financed through pension fund management companies.

5 Comparative Models of Regulation of Risk-Based Industries

Research Paper: *Comparative Models of Risk-based Financial Services*

Researcher: Mary Condon

Date: October 2007

Executive Summary

This paper is intended to provide an overview of the academic literature concerning two recent innovations in philosophies of regulation: (1) principles-based regulation (PBR), and (2) risk-based regulation (RBR). The paper also canvasses the implementation of these regulatory philosophies by a number of financial and pension regulators, both within and outside Canada.

PBR is usually considered to have the following features:

- promulgation of high-level standards that are drafted at a broad level of generality;
- a focus on an outcomes-based approach;
- a commitment to enhanced stakeholder participation in the design of principles;
- increased responsibility of regulated entities' senior management for the implementation of principles within firms; and
- reliance on constant improvement of industry best practices and guidance with respect to best practices rather than prescriptive rule-making.

Case studies of principles-based regulation

In this section of the paper, material is presented dealing with the United Kingdom's Financial Services Authority (FSA) and the British Columbia Securities Commission (BCSC), as well as a number of defined benefit (DB) pension regulators. The FSA has adopted 11 "principles for business," which are expressed in terms of outcomes and behaviours, rather than process. The FSA intends that its principles-based approach permeate all aspects of its regulatory efforts; key areas where it has concentrated implementation of the approach include its "treating customers fairly" initiative and new "conduct of business" requirements, along with simplified reporting requirements. Firms that implement appropriate internal management systems so as to achieve the designated outcomes can expect lower levels of regulatory scrutiny; on the other hand, the FSA is prepared to take enforcement action based on failure to achieve principles-based outcomes.

Meanwhile, the BCSC is the Canadian securities regulator that has most enthusiastically endorsed a principles-based approach, while acknowledging that prescriptive rules may still be necessary where a rule could not achieve the desired result through outcomes-based requirements. In the DB pension regulation context, there is some evidence of a move to a principles-based approach by the new Pension Regulator in the United Kingdom. This is currently less obvious in Canada and in the United States, despite supportive commentary from the Chair of the Federal Reserve.

Controversies that are discussed in the academic literature with respect to the adoption of PBR include the following:

- There is a lack of certainty for regulated participants, as compared to prescriptive rule-based approaches.

- Will modes of collaboration in the design of principles systematically favour those regulated participants who are already powerful?
- Will existing methods of legal or political accountability for the introduction and implementation of rules (such as notice and comment requirements) require an overhaul to accommodate the more fluid and outcome-oriented approach of PBR?
- What are the conditions under which breach of general, outcome-oriented principles could be the subject of enforcement action by a regulator or, indeed, a civil suit?
- Specifically in the pension context, could the achievement of the desired outcomes established by a PBR approach actually be effectively monitored by the regulator, given the time horizons involved?
- Are all regulated participants equally well-placed to rise to the challenge of incorporating broadly-based principles into the design and monitoring of internal compliance systems?

Based on the above material, issues for consideration with respect to shifting to PBR in the Ontario DB pension context include:

- Would PBR enhance the willingness of employer sponsors to maintain a commitment to DB pension provision, given evidence of an increasing shift to DC forms of pension as an alternative?
- Can the collaborative design of principles be structured so that beneficiary groups and other third-party stakeholders have a consequential role in the process?
- Should the broad, outcomes-based principles adopted deal with core substantive issues such as arrangements for plan funding or the investment of assets, or should they be limited to the reduction of compliance costs with respect to more peripheral regulatory requirements?
- In so far as the introduction of a principles-based approach relies more heavily on upgrading internal management and reporting systems within sponsor firms and less on reactive enforcement activity by the regulator, would this be a positive development?

Risk-based regimes of regulation have the following common features:

- they emphasize the need for regulation to be proactive and preventive, rather than reactive and enforcement-oriented;
- they validate the enterprise of being selective about the regulatory problems that are targeted for attention, thereby acknowledging the possibility that there may be some regulatory failure;
- they employ specific risk assessment techniques that tend to be quantitative and probability-based, which often rely on the collection of large amounts of data, as well as mobilizing the knowledge of experts both in the design of risk assessment tools and the interpretation of the data thereby gathered; and
- they rely to an important extent on the development and operation of internal control systems within regulated organizations to manage the risks identified by the regulator.

Case studies of risk-based regulation

In this section, material is presented dealing with the FSA, the Ontario Securities Commission (OSC), the United Kingdom's Pension Regulator and the Financial Services Commission of Ontario (FSCO). The FSA has developed a highly quantitative instrument for scoring the risk levels of regulated firms. The relevant risks are those that cause harm to the achievement of the FSA's statutory objectives, such as firm financial failure, mis-selling, or market abuse. The FSA considers risk to reside in the combination of the impact and the probability of an event. For firms assessed as "low impact" (the overwhelming majority of the firms regulated by the FSA), firm-specific risk assessment is rarely carried out.

The OSC developed a risk-based approach to its regulatory tasks in 2002. Across the span of substantive regulation engaged in by the OSC (continuous disclosure review, registrant compliance, etc.), various criteria are identified in order to evaluate which activities and participants might be considered "high risk." These enumerated criteria are in general fairly loosely defined, with the most detailed set of criteria to be found in the registrant compliance area.

The U.K. Pension Regulator takes a risk-based approach to regulating its universe of DB plans. The legislative framework under which it operates introduced a "scheme specific" funding framework in 2006 rather than a generalized minimum funding requirement. The Pension Regulator focuses intensively on a small subset of the population of funds, that is, those with more than 1,000 members. It uses a filter mechanism based on two separate triggers to identify schemes whose plans for funding seem to be based on imprudent assumptions. In addition, the Pension Regulator pays attention to the strength of the "employer's covenant" in specific schemes, thus including a more qualitative dimension to its risk assessment processes.

Finally, information is provided concerning FSCO's current implementation of a risk-based regulatory strategy, in the areas of (1) review of funding arrangements, and (2) plan investments. The data gathered by FSCO as a result of its industry-wide risk-based review of funding suggests that plans have more difficulty with full funding on a solvency basis than on a going concern basis. Some convergence with respect to actuarial practices is evident from the data, particularly with respect to the interest rate assumptions used to value going concern liabilities and the mortality tables used.

Controversies discussed in the academic literature concerning risk-based regulation include the following:

- Is the process for choosing risk priorities well-founded and transparent? In particular, is there a mismatch between the risk perceptions and risk acceptance of "citizens" and those of the experts designing and implementing risk identification and assessment techniques? If there is such a mismatch, what weight should regulators give to the risk perceptions and tolerance of the public or, in the pension context, of beneficiaries?
- As with PBR above, are all regulated participants equally well-placed to invest in the internal risk management systems that substitute for robust levels of regulator-led reactive enforcement?
- To what extent can RBR approaches to regulation measure up to traditional indicators of "good regulation," such as fair and consistent treatment of all regulated participants, or due process protections from the exercise of regulatory discretion?

6 Insurance Against Pension Plan Failure: The Pension Benefits Guarantee Fund and Its Alternatives

Research Paper: *Insurance Against Plan and Sponsor Failure: Examining Alternative Systems to Guarantee Private Pension Payments*

Researcher: Norma L. Nielson

Date: October 2007

Executive Summary

Bankruptcy risk accrues to pension plan participants if a plan sponsor fails when the pension plan is under-funded. This research examines the extent of that risk and alternative approaches to mitigating it. It also offers considerations around the public policy decision regarding who bears the remaining risk. It reviews theoretical reasons for under-funding, including a review of the literature on incentive-based and capital-based explanations, as well as the approaches available — at least theoretically — to mitigate and manage the risk of sponsor bankruptcy.

The second section of the report summarizes the systems in place around the globe to handle pension default risk. The report assembles information on guarantee funds from other jurisdictions, approaches to pension default risk other than government-based guarantee funds, and approaches to protecting consumers from default risks in non-pension financial services. Attention goes first to the U.S. Pension Benefit Guaranty Corporation (PBGC), which applies to most defined benefit (DB) plans and has experienced multi-billion-dollar losses annually since the year 2000. Academic evidence suggesting that adverse selection and moral hazard are genuine issues in such funds is reviewed as are the most recent estimates of the PBGC's exposure from the Congressional Budget Office (2005). A summary of recent reform efforts, through the provisions of the U.S. *Pension Protection Act of 2006*, is provided, with emphasis on changes to the PBGC.

Looking beyond North America, the report provides information about guarantee funds in other nations — Germany, Japan, Sweden, Switzerland and the United Kingdom. Alternatives to government-based guarantee funds are examined from other Canadian jurisdictions, the Netherlands and Finland. Relevant elements of the banking literature and the insurance literature were reviewed for their insight into how providing insurance will lead to a potential increase in inappropriate risk-taking. For example, Kane and Demirgüç-Kunt's (2001) empirical examination of the effects of deposit insurance for banks led them to recommend characteristics for an insurance scheme that enhance market discipline and reduce moral hazard.

Section 3 of the report summarizes the major strengths and weaknesses of each of three public policy choices of mechanisms to manage the residual of plan sponsor bankruptcy:

- do nothing in advance;
- rely on private market mechanisms, or
- implement a government-based mechanism like a guarantee fund.

These three alternatives are assessed in terms of their ability to deliver equity, effectiveness and/or political viability.

Doing nothing in advance by definition leaves the door open to *ad hoc* responses to circumstances as they develop. This has the advantage of being adaptable to each circumstance but may produce inconsistent results across jurisdictions, firms and citizens.

Private market mechanisms are perhaps the best way to use the full capabilities of the market to assess, monitor and price default risk. They also adapt readily to changes in technology and circumstance. However, private mechanisms are limited in the type of risk reduction they can deliver effectively. Most importantly, private pooling mechanisms are not easily able to eliminate systematic risk, will be more readily available to some firms than others, and tie up capital in the economy in order to make private guarantee viable.

Government-based guarantee funds have the advantage of providing protection that is by definition available to all firms. They have additional options available with which to manage risk inter-temporally, e.g., by accumulating funds during a boom and running a deficit during a recession. A guarantee fund can assist in managing the expectations of retirees with respect to aid while simultaneously managing the expectations of plan sponsors as to the assessments that the system will require, with the latter providing some assistance in managing contagion risk.

Overall, the literature supports the notion of a government-based entity to provide pension protection, primarily because of the extent to which the risk of sponsor default is systematic in nature. Such a program should be established with an expectation that financial results will exhibit wide swings over time.

With these theoretical and global views as background, Section 4 of the report narrows its focus to look more closely at Ontario where the 1980 *Pension Benefits Act* established the Pension Benefits Guarantee Fund (PBGF). Ontario's PBGF, still the only guarantee fund to protect the pension promises of Canadian private employers, guarantees specified benefits, up to $1,000 per month per member. The amount of claims payable with respect to already-terminated pension plans as of March 31, 2006, was reported by the PBGF to be $104,064,000. That figure does not include any amount for claims that may arise from future insolvencies of sponsor employers.

Following this, the financial condition of the Ontario plans covered by the PBGF was examined. A regression model of plan assets per DB-plan participant finds that plan assets go up with real earnings of workers and down with higher unemployment; that level of assets also is moderated by the influence of taxes, with higher plan assets observed when and where tax rates are higher. Several other factors help to explain the up or down movement of the per-participant asset level across plans and across time, including investment markets, plan design, and regulatory factors. Ontario-registered pension plans had on average $17,816 less in asset value per participant. Beyond that, plans covered by the PBGF have an average of $17,037 less per participant than other Canadian DB plans that are not backed by a guarantee fund. The latter result is statistically significant at the 1% level. Though regression results do not conclusively prove a causal relationship, the strength of these results suggests that, despite controlling for a number of sources of variation, the guarantee fund is either a cause or is highly correlated with something that causes Ontario plan sponsors to invest fewer dollars into their DB pension plans.

These statistical results support recommendations found in several places in the literature that, in order to avoid unwarranted incentives for risk-taking (moral hazard), pension benefit guarantee systems should follow a set of principles designed to operate in an economically efficient manner. The present PBGF does meet two of the required principles — it provides limited benefit coverage and operates within a system of consistent funding rules. Overall, however, the PBGF falls short of qualifying as an economically efficient pension benefit guarantee system because it does not have the effective risk-based pricing and probably does not have sufficient powers to prevent moral hazard.

7 An Analysis of Asymmetry and Deferred Wages

Research Paper: *Arguments about Asymmetry of Risks and Rewards and Deferred Wages in Pension Plans*

Researcher: James Wooten

Date: October 2007

Executive Summary

A conceptual framework

Defined benefit (DB) plans create fixed claims and liabilities and residual claims and liabilities. Employees in a DB plan receive a fixed claim to pension benefits, while the plan incurs a fixed liability to pay those benefits. If a DB plan's assets exceed its liabilities (a pension surplus), the party entitled to surplus assets holds the residual claim. If the liabilities of a DB plan exceed its assets (a pension deficit), the party responsible for the shortfall incurs residual liability. The debate over pension surpluses involves conflicting claims about how the residual claims and liabilities in a DB plan are allocated and how these claims and liabilities ought to be allocated. All parties to the debate agree, however, on the rule that should govern ownership of surplus entitlements. The benefit of a pension surplus should belong to the party who bore the burdens that produced the surplus. In the discussion that follows, the *quid pro quo* principle, as I call it, provides the benchmark for assessing claims to surplus entitlement.

The asymmetry argument

The asymmetry argument views DB plans as contracts in which employees forgo wages in return for a fixed claim to pension benefits. The *Pension Benefits Act* (PBA) requires employers that sponsor a DB plan to maintain a separate pension fund that secures the plan's obligations. If a plan develops a deficit, the PBA and its regulations make the employer liable for funding the deficit. If the plan develops a surplus, current law grants employees a residual claim to some or all of the surplus when a plan winds up. Proponents of the asymmetry argument contend that the funding regime is asymmetric because the employer alone bears the residual liability for pension deficits while it must share pension surpluses with employees. They claim that this asymmetry discourages employers from funding and may provoke employers to shift to defined contribution (DC) plans. A symmetric allocation of burdens and benefits, in which employers' residual liability for all deficits is balanced by a residual claim to all surpluses, would be fairer to employers and more protective to employees.

Under the PBA, a pension surplus is the excess of a plan's assets over its "liabilities" for pension benefits. Presumably a plan's "liabilities" should correspond to the benefits employees believe they are earning. As section 3.2 of the paper explains, however, it is not entirely clear what level of pension benefits employees believe they are earning. At any given time, the service an employee has already performed may lead to their receiving a quit benefit, a wind-up benefit (which is larger than a quit benefit), or a stay benefit (which generally is larger than a wind-up benefit). If, as the *quid pro quo* principle suggests, employees pay for the pension benefit they expect to receive, which level of benefit are employees paying for? Unless this ambiguity can be resolved, the asymmetry theory may not provide clear guidance on surplus issues.

To gauge the validity of the asymmetry argument requires addressing three broad issues: (1) Is the pension-funding regime asymmetric? (2) If the pension-funding regime is asymmetric, is this a problem? For example,

does asymmetry discourage employers from funding pension obligations or induce employers to drop DB plans in favour of DC plans? (3) If asymmetry creates adverse incentives, do these incentives have harmful effects? For example, does asymmetry reduce the level of solvency in pension plans?

Whether the pension-funding regime is asymmetric depends on who bears the burden of pension deficits, who pays for pension surpluses, and who benefits from pension surpluses. The incidence of these burdens and benefits depends on the policies that produce a surplus or deficit and the context in which the surplus or deficit arises. There are two major reasons for deficits and surpluses: funding policy and investment policy. (See sections 4.1.1 and 4.1.3.) If an employer pursues a policy of over-funding pension obligations (perhaps by funding on the basis of conservative actuarial assumptions), a plan is likely to develop a surplus. If an employer pursues a policy of under-funding (perhaps by funding on the basis of aggressive actuarial assumptions), a plan is likely to develop a deficit. A plan with a policy of investing in risky assets or mismatching its assets and liabilities may develop a surplus or deficit depending on experience in capital markets. Surpluses and deficits occur in two contexts: ongoing plans or plans that wind up.

Section 4.1.2 analyzes the context of pension bargaining and concludes that, with one significant exception, employers generally bear the burden of pension deficits in an ongoing plan. Because employers are legally obligated to fund pension deficits, it is difficult for them to shift this burden to employees. This analysis does not apply, however, when a pension deficit is the result of a benefit increase that creates unfunded pension liabilities. In such a case, the employer can require the employees to bear the burden of the deficit as a condition for granting the increase.

When a plan winds up, the incidence of a deficit depends on the employer's solvency. If the employer is solvent, the PBA requires it to fund a wind-up deficiency, in which case the stockholders bear the burden. If the employer is insolvent, employees bear the burden of deficits that result from adverse investment experience or other actuarial losses. If employees are aware of this risk, they can demand a risk premium. If employees have received a risk premium, granting them a surplus entitlement compensates them twice. If employees have not received a risk premium, the analysis in section 5.2 suggests that surplus entitlements leave much to be desired as compensation for insolvency risk. If the employer is insolvent and a pension deficit is the result of a benefit increase that the employer has not fully amortized, the employees cannot be said to bear a burden because they did not pay for the benefits that they will not receive.

As is the case with pension deficits, funding policy and investment policy are the major reasons for pension surpluses. If a surplus is the result of a policy of over-funding, it seems unlikely that employees bore the burdens that produced the surplus. As section 4.1.4 explains, because employers possess extensive control over business operations and plan administration, they generally get the benefit of surpluses in an ongoing pension plan. It makes little sense for employees to bear the burden of over-funding when the surplus will inure to the employer's benefit. A surplus also may be the result of a policy of choosing risky investments or mismatching a plan's assets and liabilities. Such a policy exposes employees to insolvency risk, which, as noted above, may lead them to demand a risk premium.

As section 4.1.4 explains, whether employers or employees get the benefit of pension surpluses depends on the context in which a surplus arises. When a plan winds up, some or all of the surplus belongs to the employees. In an ongoing plan, the benefit of a pension surplus generally inures to the employer. In the paper is a table that summarizes the benefits and burdens of pension funding.

Because surplus entitlements are very different in ongoing and wound-up plans, it matters greatly where the line between "ongoing" and "wound-up" is drawn and who draws the line. This highlights the importance of the Supreme Court of Canada's decision in *Monsanto Canada v. Ontario (Superintendent of Financial Services)*, 242 D.L.R. (4th) 193 [2004]. The Court held that the surplus entitlements of members and former members affected by a partial wind-up vest when the partial wind-up occurs, rather than when the plan as a whole winds up. The line *Monsanto* establishes between ongoing and wound-up plans gives employers much less control over surpluses than if the Court had held that surplus entitlements do not vest until a plan winds up entirely. Whatever may have been the case before the Court decided *Monsanto*, this decision does appear to create significant asymmetry.

As section 5.1 explains, the claim that asymmetry reduces an employer's incentive to fund is both less compelling and more complicated than it seems. An employer's contribution to a pension fund will decrease the plan's deficit or increase the surplus. If an employer must share the surplus, it necessarily gets less benefit from a contribution that produces or increases a surplus than if the employer owned the entire surplus. All other things being equal, a regime that gives an employer exclusive ownership of pension surpluses gives the employer more of an incentive to contribute.

This point is even more compelling if the employees' residual claim is viewed as a liability rule that requires the employer to pay damages if the plan winds up with a surplus. From the employer's perspective, a rule that gives employees a residual claim to a wind-up surplus is no different in effect than a rule that makes the employer liable for damages if the plan winds up with a surplus. Tort law requires people to pay damages for harms that result from negligent conduct as a means of inducing people to avoid negligent conduct. In like manner, a rule that requires an employer to pay "surplus damages" gives employers an incentive to avoid conduct that produces pension surpluses.

But viewing the employees' surplus entitlement as a liability rule also highlights the fact that an employer does not incur liability for making contributions to its pension plan. It incurs liability for winding up a plan with a surplus. Contributions are not the only source of pension surpluses. Investment policy also plays a major role. In particular, an investment policy that mismatches the investments and liabilities of a pension plan will produce pension surpluses (or deficits). The critical role of investment policy implicates broader regulatory and policy issues, such as the policy that allows employers to make lower pension contributions when their plan selects risky or mismatched investments, and the trade-off between ensuring that pension promises are paid and ensuring that pension promises are large enough to support a comfortable retirement.

TABLE 1

Benefits and Burdens of Pension Funding: The Bottom Line
Who Bears the Burdens of a Pension Deficit?
1. If a plan is ongoing, employers bear the burden of a deficit caused by adverse investment experience or other actuarial losses.
2. If a plan is ongoing, employees bear the burden of a deficit caused by a benefit increase that creates unfunded liabilities.
3. If a plan winds up and the employer is solvent, stockholders bear the burden of a deficit caused by adverse investment experience, other actuarial losses, or a benefit increase that creates unfunded liabilities.

4. If a plan winds up and the employer is insolvent, employees bear the burden of a deficit caused by actuarial losses. If employees are aware of this risk, they can demand a risk premium. If employees do not bargain a risk premium, section 5.2 suggests that entitlement to a share of a wind-up surplus is a poor substitute.
Who Bears the Burden of Policies That Produce Pension Surpluses?
5. If a surplus is the result of a policy of over-funding, it is unlikely that employees bore the burden of the policy. But see discussion in section 3.2.
6. If a surplus is the result of a policy of mismatching investments, the employer bears most of the downside risk but the policy also exposes employees to insolvency risk. If employees are aware of this risk, they can demand a risk premium. If employees do not bargain a risk premium, section 5.2 suggests that entitlement to a share of a wind-up surplus is a poor substitute.
Who Gets the Benefit of Pension Surpluses?
7. If a plan is ongoing, the employer gets the benefit of pension surpluses.
8. If a plan winds up, employees receive some or all of the surplus.

Section 5.2 suggests that the incoherent allocation of surplus entitlements may pose a greater threat to DB plans than any asymmetry in the burdens and benefits of pension funding. The rules governing residual claims to pension surplus create sequential entitlements. Employers get the benefit of surplus in an ongoing plan, while employees get some or all of the surplus when a plan winds up. The sequential character of these entitlements means that the employer cannot benefit from the surplus in an ongoing plan without reducing the surplus that will be available to employees when the plan winds up. Moreover, the sequencing of entitlements gives the employer an incentive to get as much benefit as it can from pension surpluses while the plan is ongoing. This structuring of entitlements is bound to — and does — produce conflict.

Proponents of the asymmetry argument claim that the mismatch in the burdens and benefits of pension funding makes DB plans more burdensome, which hastens the ongoing shift from DB to DC plans. As section 5.3 explains, whether asymmetry in the funding regime gives employers an incentive to shift to DC plans depends on how it affects the relative costs and benefits of DB and DC plans as perceived by the parties to the pension bargain. As Richard Ippolito has argued, DB plans are complex arrangements that play out over many decades. As a result, it is often very difficult for employees to weigh the burdens and benefits of a DB plan. Because DB plans are hard to assess, they require a significant degree of trust from employees. In contrast, DC plans require much less trust because they are (or appear to be) transparent. If the structure of surplus rights produces conflict that undermines employees' trust in DB plans, employers will have all the more reason to prefer DC plans.

Section 6.1 discusses a natural experiment on the effect of surplus entitlements on funding practices. Between 1986 and 1990, the U.S. Congress passed a series of laws that impose excise taxes on pension assets that revert to an employer after a DB plan terminates. These taxes create residual claims that parallel surplus entitlements in Ontario. Employers own the surplus in an ongoing plan, but when a plan terminates with a surplus the excise tax gives the federal government a residual claim to most of the surplus. Research on the excise tax suggests that it has had a very detrimental effect on the solvency of DB plans in the United States. Over the last two decades, there have been major changes in actuarial assumptions and contribution levels. In a period in which equity markets produced unprecedented gains, the funding status of DB plans declined. The apparently deleterious effects of the U.S. excise tax deserve close consideration from policy makers in Ontario.

The deferred-wage argument

According to the deferred-wage argument, employees are owners of the pension fund, rather than creditors whose debt is secured by the fund. Proponents of the deferred-wage theory claim that employers bargain employees' pay on a *total-compensation* basis. Employers and employees agree on the total compensation employees will receive then apportion this amount among the various components of compensation such as wages, pensions and other employee benefits. Employers and employees estimate the level of contributions needed to pay for pension benefits. Employers then withhold this amount from employees' wages and contribute it to the pension fund. Proponents of the deferred-wage argument contend that employees own the "deferred wages" the employer contributes to the pension fund every bit as much as they own the wages they receive on payday. The employees' ownership of pension contributions entails that they own the pension fund. As owners of the pension fund, employees are entitled to the entire benefit of the fund, including any surplus that develops.

Section 8.1 looks at how the proponents of the deferred-wage model use this argument. The deferred-wage model comes into play only when the model conflicts with the governing documents of a pension plan. In other words, proponents invoke the deferred-wage argument when plan or trust documents include language that conflicts with the implications of the model. When the governing documents of a plan are ambiguous, advocates use the deferred-wage model to justify an interpretation that accords with the view that pension contributions are deferred wages. In such a case, the deferred-wage argument justifies an interpretation that has a textual basis in the governing documents of the plan. When the governing documents of a plan contradict the deferred-wage model, however, the model justifies decisions and policies that override the express provisions of a plan in favour of an interpretation that has no basis in the plan text. The latter use of the deferred-wage model raises the question as to whether it is a good idea to use a theory of the pension bargain to override provisions in plan documents that are the result of actual bargaining between employers and employees.

The deferred-wage argument reasons that employees own the pension fund because they own the money their employer contributes to the fund. This line of reasoning considers the employees' ownership of amounts withheld from their wages as a *sufficient condition* for their ownership of the pension fund. As section 8.2 explains, the employees' ownership of the money their employer contributes to the pension fund may be a *necessary condition* for the employees to own the fund, but it is not a sufficient condition. There are a variety of circumstances in which a sequence of transfers that is virtually identical to the sequence hypothesized by the deferred-wage model leads to the provider of capital becoming a creditor with a fixed claim to regular payments from the recipient of the provider's capital but with no residual claim to surplus revenues that arise from the recipient's use of the capital. This analysis undermines the inference that employees, as providers of the "deferred wages" their employer contributes to the pension fund, necessarily retain ownership of the assets in the pension fund.

Section 8.3 points out a contradiction in the deferred-wage model. Proponents of the deferred-wage argument contend that employees agree to forgo an amount of wages that will fund the estimated cost of the fixed benefits promised by a pension plan, while their employer agrees to contribute these forgone wages to the pension fund. If the employer and employees overestimate the cost of pension benefits and the plan ends up with a surplus, proponents of the deferred-wage argument contend that employees who "overpaid" for pension benefits should receive the benefit of their overpayment. This line of reasoning involves a contradiction. According to the deferred-wage argument, the employer and employees estimate the level of pension contributions based on the assumption that employees will receive a fixed claim to pension benefits. If employees are entitled to the pension surplus, this assumption turns out to be wrong because the deferred-wage model gives employees both a fixed claim to pension benefits *and* a residual claim to any surplus that develops. In this way, the deferred-wage argument implies that employees get more than it assumes they bargained for.

The deferred-wage argument holds that employers and employees negotiate employees' pay on a total-compensation basis. Pension contributions are a component of total compensation, so employees allow their employer to withhold from their wages the money the employer contributes to the pension fund. Recent experience illustrates that fluctuations in interest rates or equity markets may have a dramatic effect on the contributions an employer must make to its pension plan. If, as the deferred-wage argument contends, pension contributions are forgone wages, there should be a strong inverse correlation between pension contributions and wages. The very significant increases in pension contributions that employers recently have experienced should have produced a corresponding reduction in wages. As section 8.4 explains, both logic and evidence suggest that no such reduction occurred. Yet if employees' wages are not reduced by the full amount of their employers' pension contributions, shareholders bear some of the burden of pension contributions. If this is so, a key premise of the deferred-wage argument — that is, that all pension contributions are deferred wages — is false.

8 Analysis of the Financial Services Commission of Ontario

Research Paper: *The Effectiveness and Efficiency of Pension Regulation in Ontario and in Comparative Perspective*

Researcher: Lorne Sossin

Date: October 2007

Executive Summary

This study investigates the efficiency and effectiveness of pension regulation in Ontario.

Pension regulation in Ontario occurs within a broader framework of the Financial Services Commission of Ontario (FSCO), which includes the Financial Services Tribunal (FST). FSCO, which is led by the Superintendent of Financial Services, has authority over enforcing the *Ontario Pension Benefits Act* (PBA). Pensions are just one area for which FSCO is responsible (insurance and mortgage brokers are two other regulated sectors). Similarly, the FST adjudicates disputes between FSCO and affected parties from all regulated sectors.

The criteria for efficient and effective regulation include whether the goals of the PBA are being fulfilled. Because there is significant uncertainty as to precisely which goals the PBA is intended to advance, it is difficult to find a consensus on the criteria for efficient and effective pension regulation. For this reason, it is helpful to examine how pension regulation in Ontario compares with peer jurisdictions in Canada and abroad.

The Pension Division within FSCO regulates all private pension plans in Ontario. In many areas, it has shown a commitment to improving both its efficiency and effectiveness. Its risk-based approach to monitoring and enforcement is designed to maximize the benefits of the resources invested in pension regulation. The Pension Division has also made significant strides in providing better service to its stakeholders. For example, while the number of inquiries from plan members has increased from 650 to over 1,000 in the past five years, the response time to address these inquiries has gone down from 94 days to 14 days over the same period.

FSCO is funded by government on a cost-recovery basis through the collection of levies and fees from regulated pension plans. FSCO exercises functional autonomy in relation to pension regulation. Government has the potential for influence over FSCO, however, through its control over the budget, through the appointment of the Superintendent and through its development of pension legislation.

The FST operates at arm's length from FSCO and ensures that those wishing to challenge FSCO decisions receive a fair hearing before an impartial tribunal. The structure of the FST, which consists of part-time members drawn from across FSCO's regulated sectors, has led to a series of challenges, including a lack of deference from the Courts and a lack of institutional capacity and leadership in relation to pensions.

This study concludes that there are a number of areas where the efficiency and effectiveness of FSCO and the FST could be enhanced. These areas include more transparent benchmarks and performance evaluation and augmenting the statutory tools available to FSCO. Other strategies include strengthening the expertise available both to FSCO and the FST; more emphasis on education, outreach and communication within FSCO; and greater structural independence for the Pension Division within FSCO, and for FSCO within government. Effective pension adjudication would be enhanced by an expert body dedicated to resolving pension disputes. Finally, to clarify the criteria for efficiency and effectiveness in pension regulation, the objectives of the PBA should also be more clearly expressed.

The possible benefits of such enhancements are highlighted by an analysis of pension regulation in Australia, the United Kingdom and the United States. While these jurisdictions have national pension regulators, and deal with much higher volumes of pension plans than Ontario, their success in the areas of performance evaluation, education and outreach, and their mix of reactive and proactive enforcement strategies, provide a valuable basis of comparative data for evaluating pension regulation in Ontario.

Pension regulation in Ontario is neither inefficient nor ineffective; however, it is neither as efficient nor as effective as it could be.

9 Actuarial Costing Research

Research Paper: *Actuarial Costing Research*

Researcher: Brian A. P. FitzGerald, Capital G Consulting

Date: 2008

Executive Summary

The purpose of this research project is to provide the Commission with information on the cost implications of a number of potential changes to the regulations governing actuarial valuations in Ontario. It is not the purpose of the research project to consider the desirability of such changes but only to provide factual input. The potential changes tested were intended to represent a range of possibilities rather than a particular direction; indeed many of them are inconsistent with each other.

The key parameters considered include funding targets, amortization periods for surpluses and deficits, liability definitions and calculations.

The project assesses the impact of varying these parameters on the funded status of the plans and the level and volatility of plan contributions.

The project also provides some commentary on the impact of plan maturity.

The methodology employed has been to undertake costings for a number of sample pension plans. The report presents the results of these costings and presents a number of observations that are developed throughout the Observations section of the report. The population of plans included is relatively small, so care should be taken when extrapolating these results to other plans.

Project methodology

A number of actuarial firms were approached to prepare projections of costs for sample plans (based on the given scenarios) drawn from their client bases.

- They were asked to prepare costs that showed the impact of changes on funded ratios and employer contribution levels.
- Precautions were taken to ensure that client identities were not made known outside the firm that was reporting on them.
- It was assumed that there would be no change in investment policy over the projection period as a result of changes in the economic conditions or funded status.

Results for 10 plans are shown in this report. Calculations were undertaken for the 10 pension plans, which were selected from a larger number for which preliminary calculations were done.

Valuations were projected for each year to 2015 for the 10 plans under five different economic scenarios and for seven variations on the current regulations. More than 3,500 valuation runs were required to produce the results that follow.

Observations

This report presents the results of calculations of the project, including the impact of a number of possible changes to Ontario funding regulations on the funded status of and employer minimum contributions to a sample selection of pension plans. The report also shows the cost and impact on members if certain changes were made to the benefit requirements of the Ontario pension legislation.

The report provides a number of "observations" derived from the calculations. These observations are based on projections for a limited number of plans and care should be taken when extending them to other plans.

The first three observations apply under the current rules. In brief, under stable economic conditions (i.e., no noticeable volatility of returns) the current funding rules appear to maintain the funded ratios close to the 100% mark (i.e., full funding on a solvency basis). However, it should be noted that the price of stability in the funded status is volatility in the employer minimum contributions.

The fourth observation deals with the impact of extending the amortization period for payments in respect of solvency deficiencies. The result indicates minor impact both in terms of funded ratios and employer minimum contributions. But, as would be expected, the trend is to lower funded ratios as the amortization period lengthens.

The projections show little or no change in the funded status of the pension plans if the requirement to file a going concern valuation is eliminated. They also show virtually no change in minimum employer contributions for about half of the plans. For the remainder of the plans, the projections show an increase in employer minimum contributions during the period examined. This is perhaps not the result one would expect, but is attributed to two factors. One is that the going concern normal cost was used as a proxy for the cost (on a solvency basis) of the benefits accruing in the year following the valuation period. The second factor is the change in methods of amortization.

When the elimination of the going concern valuation is combined with setting the solvency funding hurdle at 120% of the solvency liability there is a substantial increase in employer minimum contributions. The typical impact is a doubling of the level of these contributions. This is accompanied by an average increase in the funded ratio of nine percentage points; that is to say, from an average of 100% to an average of 109%.

It should be noted that an increase in contributions of, say, 1% of pensionable payroll will have an impact on the funded ratio that is dependent on the relative size of the payroll and the market value of the plan assets. That is to say that the larger the payroll, the greater the impact a 1% contribution will have on the plan assets. Conversely, an increase in the funded ratio by a specific number of points will require a greater percentage contribution when the payroll is smaller relative to the market value. For a number of the plans studied the pensionable payroll was in the range of 40 to 60% of the plan assets. The data available was not sufficient to analyze the impact of ratios outside this range.

Eliminating the solvency valuation reduced the employer minimum contribution by (order of magnitude) 10 to 20%, but there were a small number of exceptions, which gave rise to greater reductions. When the elimination of solvency valuations was combined with ½% decrease in the going concern discount rate, the average impact was an increase in contribution of (order of magnitude) 10 to 30%. Again, there were exceptions.

10 Protecting the Pension Fund

Research Paper: *Protecting the Pension Fund*

Researcher: Ronald B. Davis

Date: October 2007

Executive Summary

This report assesses pension plan funding media and applicable law in Canada, the United States and the United Kingdom, in order to describe the protection offered to the defined benefit (DB) pension fund. It describes the experience or problems with different forms of media and the extent to which each type is used.

Background

The context for the assessment of the protection offered by various media and legal rules is the risk or threats to the promised benefits provided through DB pension plans. The promised benefits are the right to the payment of a specified sum of money for the rest of the employee's life following retirement. The first risk is an insolvency in which the employer will not be able to pay the promised benefit due to insufficient funds. Even if a separate fund has been set aside in the employer's accounts, other creditors will have a greater claim to the employer's assets, including the amounts designated to pay pension benefits. Alternatively, when an employer is in financial distress, it can decide to use funds set aside for pension benefits to try to rescue the business. In either circumstance, there will be insufficient funds to pay the promised benefits.

Funding media respond to these risks by providing a separate legal entity in which the fund set aside to pay the benefits can be deposited, protecting it from claims by the employer's creditors in an insolvency. These media include a trust fund, an insurance company group annuity contract, an insurance company deposit administration contract or a pension society. They can also protect against the employer using the funds when it is in financial distress if the funds can be used only to provide the promised benefits. They also serve to separate the investment risk to the fund — the risk that the investment of the fund's assets will not generate sufficient returns to pay the benefits — from the financial risks in the employer's business.

Pension funds originated in the realization by employers that the practice of funding the pension benefits from current revenues was generating demands on those revenues that were increasingly difficult to meet as employees aged and life spans increased in the first third of the 20th century. Pre-funding the promise offered a means to recognize the cost of the benefit when it was earned, ensure that the burden of providing the benefit was shared equitably between different generations of shareholders, and add credibility to a benefit program that offered significant human resource management advantages to the employer.

Regulation relating to funding methods

Income tax regulation offered an immediate deduction from taxable income for both employer and employee contributions to fund a pension plan, together with the opportunity to accumulate tax-free investment income in the fund. Taxes were payable only on the pension benefit received by the employee after retirement. In order to ensure a pension plan fulfilled the public policy purpose of offering these tax benefits by providing retirement income security for older citizens, regulations conditioning eligibility for the tax benefits were developed. The regulations required that legal title to the pension fund assets be transferred to a separate legal entity and that the employer's contributions to the fund be irrevocable. They also did not permit the employer to retroactively revoke the entire pension plan, but permitted the employer to terminate the plan, provided accrued benefits under the plan were fully funded to the date of termination. Thus, income tax regulation aimed at ensuring tax benefits were being provided only for contributions to pension funds that would provide pension benefits also had the effect of protecting pension funds from an employer's financial distress or insolvency.

Pension legislation also adopted the requirement that the fund be held in a separate legal entity. Pension plan regulation has as its goals to increase the protection offered by the private pension system by ensuring adequate funding standards, safeguarding against speculative investments and providing minimum standards for vesting of benefits during the members' working lives. In doing so, it gave plan members legally enforceable claims on the assets of the pension fund for amounts required to fund their benefits and clarified their status as the beneficiaries of the pension fund. However, the claims arising from mandatory vesting do not in themselves create a legal claim to pension fund assets in excess of the plan's current liabilities.

Surplus use and allocation

With the fund held in a separate legal entity and the legally enforceable claims of plan members for payments of benefits from the funds, the remaining issue arising in respect of funding media is the ownership and use of surplus assets in the pension fund. It is important to differentiate between two different concepts of surplus assets: those in an ongoing plan and those in a plan that has been terminated. In the former case, the surplus assets are an estimate that, if all of the variables concerning future economic trends used by a pension plan actuary in forecasting the future costs of future benefits behave as predicted, not all of the assets in the plan will be needed to pay those future benefits. Of course, a change in any variable will affect this forecast, and a subsequent forecast may find that there is no surplus, or that the plan is actually in a deficit position. The second concept of surplus refers to the calculation made when the pension plan is terminated. Since there will be no future accrual of benefits and there is no need to forecast future pension costs or investment performance, the calculation of the surplus is not an estimate and the existence of the surplus is not contingent on future economic performance.

The distinction between these two concepts of surplus is important in assessing the circumstances in which there is a dispute over the use or ownership of those assets. Except in circumstances in which the plan is terminated, partially terminated or proposed to be terminated, the disputes concerning the use of surplus involve the first concept — surplus assets in an ongoing plan. These include: extraction of surplus by an employer from an ongoing plan; funding contribution holidays; funding benefit improvements; funding deficits in other pension funds sponsored by the employer; and, funding new types of pension benefits. Where a plan is terminated, the issue is who is entitled to share in the surplus available for distribution and whether the plan members and pensioners can terminate a pension plan in order to obtain a distribution of the surplus in the plan.

Surplus in an ongoing plan

The problems of the competing claims concerning the legitimate use of excess assets in a pension fund are complex and multi-layered. They involve conflicting views of the implications of the DB pension "bargain," the allocation of the burdens of the significant risks in such a bargain, and the proper distribution of the increases in income that can result from an increase in certain risks. Where surplus in an ongoing plan is an issue, the competing claims include: the plan sponsor's interests in the continuation of a valuable human resource management benefit plan on a cost-effective basis; the plan members' interests in receiving the full benefit of past employer contributions as part of their compensation for past services rendered; the need to provide reasonable assurance that accrued benefits will continue to be fully funded; and the concerns of tax authorities about excessive contributions to tax-exempt funds.

In balancing these claims, both regulation and judicial pronouncements on the nature of a DB plan have played a role, with the emphasis varying by jurisdiction. Except for the extraction of surplus in the United States, and the use of surplus in one plan to fund benefits accrued in another plan in Canada, the use of the trust as a funding medium has not played a significant role in questions about surplus use in an ongoing plan. Instead, the role of regulatory requirements is central to the resolution of these issues. For example, in Ontario, any extraction of surplus by an employer from an ongoing plan must meet minimum standards with respect to the funding left in the plan following the withdrawal, *and* receive the unanimous consent of the plan members, pensioners and beneficiaries.

In the United States, the pension legislation ERISA (*Employee Retirement Income Security Act* of 1974) requires the plan's assets to be held in a trust in which the use of the assets for any purpose other than the provision of benefits to plan members is prohibited while the plan is ongoing. In Canada, where the surplus assets in a pension trust are to be distributed to plan members on termination, courts have held that their use to fund benefits accrued in the past for members of other plans sponsored by the employer is an impermissible revocation of a trust. However, the use of surplus assets to fund employer contribution holidays, either in respect of the original members of the plan or for new employees (whether hired directly or acquired by the employer through mergers with other entities) is permitted in all jurisdictions. Also permitted is the use of surplus to fund employer contribution holidays in respect of new types of pension benefits such as defined contribution (DC) pension plans, provided the benefits are being delivered as part of the same plan.

Thus, where the regulation is permissive, courts have interpreted broad amending powers in a trust instrument and pension plan as including the power to make amendments to accomplish these goals. This interpretation is based primarily on the courts' views about the private pension system as a voluntary system in which an employer may terminate participation at any time and in which the choice of the benefits to be provided is left to the employer. Although recognizing the interests of employees in receiving the full benefit of past contributions, the courts have held that the retention of control by the employer over prospective benefit design, and the utilization of surplus assets to fund benefits, does not involve a trespass on the reasonable expectations of plan members in a DB pension plan, and recognizes legitimate employer interests in controlling its costs and utilizing the plan as a human resource asset for all of its employees.

Surplus in a terminated plan

Where the issue concerns the allocation of surplus assets on plan termination, however, differing considerations may apply. The employer's interests in the continuation of the plan for its benefit are no longer an issue, nor are the interests in controlling its costs and benefit design. The factors often cited as relevant are the employer's having taken the investment risk through its obligation to make additional contributions to fund accrued benefits, and the employees' having foregone increased cash compensation for the contributions made by the employer.

The allocation of surplus between plan members and the plan sponsor is not determined by regulation in the United States, the United Kingdom or Canada. Instead, each jurisdiction permits payment of this surplus to the plan sponsor, if the sponsor is otherwise entitled to receive the surplus. In Ontario, pension legislation interprets any document that did not expressly provide for surplus distribution to the employer before December 31, 1986, as requiring distribution to plan members. The choice of funding medium plays an important role in Canada with respect to the determination of entitlement. The same choice does not appear to be as determinative in the United States and the United Kingdom. In Canada, the use of a trust fund is a transfer of all the employer's interest in its pension contributions to the trustees for the benefit of the beneficiaries, unless the trust document permits the employer to revoke the trust. A broad power of amendment is not sufficient to amend the trust to obtain an interest in the surplus on termination after the trust is created. In contrast, if the funding medium is an insurance contract, a broad power of amendment will enable the plan sponsor to amend the plan to receive surplus on termination.

However, in Ontario entitlement is only the first step. In order for a plan sponsor to obtain surplus on termination, it must obtain the consent of a prescribed percentage of plan members, pensioners and beneficiaries. Other jurisdictions provide for an arbitration of the issue, if a specified percentage of plan members object to a surplus sharing agreement. Thus, in Canada there has been an attempt to encourage a negotiated settlement by requiring consent, but such consent is not mandatory except in Ontario.

In the United States the distribution of excess assets to the plan sponsor from a pension trust is not considered to be contrary to trust law because under U.S. trust law, the reservation of a broad power of amendment by the settlor is considered to encompass the power to revoke the trust. In addition, courts interpreting ERISA's provisions have distinguished the distribution of excess assets on termination as a reversion of unused trust assets, not a revocation, and in some cases, courts have held that the trust applies only to those assets needed to fully satisfy all liabilities, with any excess assets being returned to the employer on a resulting trust. Under U.S. law, strong, express wording prohibiting a reversion of any assets is required before an amendment permitting that reversion will be found invalid. None of the U.S. decisions appears to turn on the choice of funding medium.

The U.K. cases reviewed all dealt with trust funds. Thus, there was no contrasting treatment to consider. The statutory regime provides for a distribution of surplus to the employer where all plan members' benefits have been funded to the statutory maximum permitted. Certainly where the plan specifically prohibits the return of contributions or any amendments that would have the effect of allowing part of the assets to revert to the employer, the courts have held subsequent amendments to allow surplus to be paid to the employer to be invalid. None of the decisions appears to be based on the reasoning that because the contributions are held in trust and there is no express power of revocation, the employer may not receive surplus.

Extent of use of different funding media and assessment of levels of litigation

In so far as the use of funding media in different jurisdictions, trusts are the prevalent medium in all three jurisdictions, especially in larger plans. Between 1974 and 2006, the use of trusts in DB pension plans in Canada has increased, with the total membership in such plans increasing from 62.7% in 1974 to 76.8% in 2006. Data regarding reported pension dispute decisions in Canada was gathered to try and assess the level of litigation concerning surplus assets in Canada from 1980 to 2007. Once reports of the same dispute in different levels of courts and decisions that did not deal with the merits were eliminated, there were 111 decisions remaining. The percentage of the disputes in which a trust was involved seemed roughly comparable to the percentage of plans in Canada held in trust and there did not appear to be any overrepresentation of trust funds in pension surplus disputes.

11 Analysis of Multi-employer Pension Plans

Research Paper: *Current Issues Concerning Multi-Employer Pension Plans in Ontario*

Researcher: Elizabeth Shilton

Date: October 2007

Executive Summary

The majority of pension plans in Ontario are single-employer plans (SEPPs), established or sponsored by individual employers to provide benefits to their own employees. A significant number of Canadian workers, however, are members of plans that do not fit this model. They belong to multi-employer pension plans (MEPPs), which provide benefits to members based on their employment with one or more of a specific group of employers who participate in the plan. Ontario regulates significantly more MEPPs than any other Canadian jurisdiction; more than 30% of Canadian MEPPs are registered in Ontario. The regulatory framework in Ontario was originally designed with the single-employer model in mind. While it has been adapted over the years to accommodate some of the unique features of MEPPs, this process has been a "patchwork" exercise, which has left gaps and inconsistencies. Many pension plan officials, their professional advisors and the regulators share the view that there is room for improvement in the regulatory "fit" between the *Pension Benefits Act* (PBA) and the real world of MEPPs in Ontario.

The purpose of this report is to provide the Commission with background information for addressing a number of policy questions, including:

- Does the PBA adequately recognize the variety of MEPPs currently in existence, and is it sufficiently flexible to provide for the ongoing development of new structures and benefit types?
- Does the PBA provide adequate regulatory guidance with respect to the representative structure, quality and conduct of the governing bodies of MEPPs?
- Does the PBA provide adequate protection for the benefits of MEPP members? Are its funding rules realistic in light of the unique structure of MEPPs?
- Do the PBA's wind-up and partial wind-up rules adequately recognize the fluidity among participating employers in MEPPs?
- Do MEPPs generally experience more regulatory problems than SEPPs?

Part I of the report examines MEPPs in Ontario, including a review of the legislative history of MEPP regulation and an examination of the current profile of Ontario MEPPs. MEPPS in Ontario range in size from 230,000 members to seven members. They fall into three broad categories. The first and largest category is the "classic" MEPP, characterized by substantial trade union involvement in the establishment and governance of the plan, an important role for broad-based collective bargaining in recruiting participating employers and establishing contribution levels, and mobility of plan members among participating employers. Classic MEPPS are normally defined benefit (DB) plans funded by fixed, collectively bargained contributions.

The second category is the public sector MEPP. This category includes a number of very large statutory DB plans, several of which are jointly sponsored by employers and plan members. Several public sector plans are established by trust agreement; many of these are DB plans as well. The common element in these plans is the fact that the employers involved are fully or substantially publicly funded.

The third category is the "co-operative" MEPP, a heterogeneous group of plans organized on a multi-employer basis simply to achieve administrative efficiencies and economies of scale, rather than because of employee mobility, or a coordinated collective bargaining structure. These plans, which may involve unions, have a broad range of benefit structure and may be either DB or defined contribution (DC) plans. A recurring theme throughout the report is that Ontario law was designed primarily to accommodate the classic MEPP, and fails, in some areas, to encompass the realities of other types of MEPPs.

Part I also includes a detailed examination of the current regulatory framework for MEPPs, focusing on:

- how MEPPs are defined;
- how they are governed;
- what rules are in place to address benefit stability and plan funding; and
- what rules are in place with respect to plan wind-ups and partial wind-ups.

This analysis identifies the fact that many of the special legal rules applicable to MEPPs in Ontario apply only to MEPPs established pursuant to collective or trust agreements. The new (2005) legal regime applicable to jointly sponsored pension plans (JSPPs) is examined as well.

Part II is an analysis of how these issues (definition, governance, benefit stability/funding and wind-ups) are addressed in the regulatory frameworks of certain other jurisdictions across Canada: specifically, the federal jurisdiction, British Columbia, Alberta and Quebec. These jurisdictions have been chosen because, together with Ontario, they regulate most of the MEPPs registered in Canada, and because they represent a range of different approaches to MEPP issues. The analysis identifies a number of areas in which these jurisdictions approach the regulations of MEPPs differently than Ontario, including:

- British Columbia's distinction between negotiated cost plans and other types of DB plans;
- Alberta's distinction between unionized MEPPs and non-unionized multi-unit pension plans (MUPPs); and
- the requirement in the federal and British Columbia legislation that there be regulatory approval of any reduction in accrued benefits.

In addition, three recent amendments to Quebec's pension legislation are relevant to the regulation of MEPPs:

- the new member-funded pension plans;
- additional quality control measures within governing bodies; and
- innovations in regulating the relationship between governing bodies and third-party service providers.

Part III examines available data on how well MEPPs are faring within the current regulatory regime compared to SEPPs. In addressing this issue, the report first examines data generated by the Financial Services Commission of Ontario (FSCO) and related bodies, on:

- decisions of the Superintendent of Financial Services;
- pension cases before the Financial Services Tribunal;
- the funded status of pension plans;
- plan wind-ups and partial wind-ups; and
- prosecutions.

The purpose of this examination is to identify, where possible, areas in which MEPPs have raised particular problems for FSCO within the current regulatory framework. The report then looks at comparative data from other jurisdictions under these headings, where available. The data is incomplete, but suggests that MEPPs do not pose more, or more serious, problems within the regulatory system than SEPPs.

Part IV is a thematic discussion of issues arising out of the current legislative framework for MEPPs, commenting on problems raised for regulators in Ontario by the current system, and exploring some solutions that have been implemented in other provinces. Issues addressed include approaches to MEPP categories, representation and quality control in MEPP governance, whether MEPPs should have to meet solvency funding standards, wind-ups and partial wind-ups, the role of unions, multi-jurisdictional MEPPs and communications with plan members.

Part V concludes the report with a brief discussion of implications for regulation. Appendices to the report provide statistical information on:

- the incidence of MEPPs and SEPPs across Canada;
- the six largest and six smallest MEPPs in Ontario;
- the number of pension plans by plan type in the surveyed jurisdictions;
- pension plan members by plan type in the surveyed jurisdictions;
- the number of MEPPs and SEPPs by plan and benefit type in the surveyed jurisdictions;
- wind-ups and partial wind-ups in the surveyed jurisdictions;
- funding data in the surveyed jurisdictions; and
- Alberta MUPPs.

12 Alternative Governance Models

Research Paper: *Vehicles for Collective Provision of Pension Services: Pension Plans for Small and Medium-Sized Enterprises*

Researcher: Teresa Ghilarducci

Date: 2007

Executive Summary

This study is part of the Ontario Expert Commission on Pensions consultation on the occupational pension system in Ontario. The Commission's primary focus is on defined benefit (DB) plans. The Commission aims to describe the various factors leading to the decline in pensions and to explore issues relevant to "the security, viability and sustainability of the pension system in Ontario."

This study examines how the size and organization of DB pension plans affects their function and structure. The size of the employer often determines the size of a pension plan, but it doesn't have to. Therefore, this study pays special attention to the issue of "pooling" and describes the characteristics of a well-run employer DB pension plan.

The data used, and the literature reviewed, focus on the U.S. experience with multi-employer plans (MEPPs) in the private sector and the public sector (government plans such as for state and municipal employees) and, to a lesser extent, the experience in the Netherlands and Sweden.

The study concludes that smaller employers can provide better pensions when they can attach their pension plans to a larger entity to take advantage of economies of scale in administration and in risk control that leads to greater bargaining power and superior coordination of benefits and employment.

In fulfillment of the research mandate, several voluntary employer-based DB plan systems are described. Only in special circumstances — in union environments and in the government and not-for-profit sectors — do workers in small and medium-sized firms, and those workers who have low incomes, obtain pension coverage under a second-pillar employer pension.

Highlights of the study are as follows:

- The study reviews the literature on ideal pension design with emphasis on the consensus and points of disagreement among scholars;
- It specifically focuses on the literature on multi-employer structures, including the U.S. experience with voluntary MEPPs in the private and public sectors and relevant **experience in** the Netherlands and Sweden. Small establishments who want to sponsor DB pensions have been created in these jurisdictions.
- Given the paucity of academic research in the area, the study briefly covers a multi-variable regression analysis that examines how the size of a pension plan and the structure of the pension board affect the benefit formula (the pension generosity) and the funded status of the plan, using a sample of 163 U.S. public sector pension plans. There are some effects: under-funded plans and larger plans have slightly larger benefits. Governance structure has no effect on benefit structure or unfunded status.
- Academic work on optimal pension design and descriptions of international and domestic pooled pension funds outline the challenges faced by small establishments in providing efficient and effective pension systems. Small groups of employees have pension plans when large plans take part in administrative agreements with small groups.
- Often these administrative agreements form hybrids between a defined contribution and DB pension. The contribution to an account comes from work and the proceeds are distributed at retirement in the form of a mandatory annuity.

13 Analysis of Pension Plans in Insolvencies

Research Paper: *Analysis of Factors Leading to Insolvency and Restructuring and Their Effects on Pension Plan Wind-ups and Closures*

Researchers: Janis P. Sarra, Dr. Ronald B. Davis

Date: October 2007

Executive Summary

Much of the impetus for Ontario's current regime of pension legislation had its origins in the need for minimum standards regarding adequate funding of private sector pension promises, which was highlighted by the termination of under-funded plans by insolvent plan sponsors and the loss of promised benefits by the affected plan members. Recently, some high-profile insolvency proceedings involving Air Canada and Stelco highlighted another facet of the relationship between pension plans and plan sponsor insolvency when under-funded pension plans became a major factor in directors' decisions to restructure their liabilities. Thus, both plan members and the plan sponsor's investors have a shared interest in ensuring that pension plan liabilities are securely funded.

This report reviews the sources of risks that pension plans will be under-funded, the potential effects of that under-funding on plan sponsor solvency, and the ramifications of sponsor insolvency for the pension plan members in an under-funded plan.

Legislative and regulatory mitigation of insolvency risk

The pension promise around which pension plans are built has some structural aspects that can lead to its being unfulfilled in the event of a plan sponsor's insolvency. In return for services rendered during the plan member's employment, the sponsor promises to pay benefits to the member for life, following the member's retirement from employment. Fulfillment of such a promise is premised on the sponsor's continued existence throughout the plan member's employment and, thereafter, for the balance of the member's life, as well as the financial capacity to pay the promised benefits at the time they are due. Plan sponsor insolvency can destroy those premises because the sponsor may not survive and its assets may be distributed among its creditors.

Pension legislation has addressed these risks by requiring pre-funding of the promised benefits; providing plan members with an enforceable claim to their accrued benefits after a short period of service with the employer; and requiring, in concert with federal tax rules, that the assets required to be used for pre-funding the promised benefits be legally separated from those of the plan sponsor. The latter requirement insulates the pension plan's funds from the claims of the plan sponsor's creditors in the case of the sponsor's insolvency. These legislative and regulatory requirements have substantially mitigated the insolvency risk for plan members. However, there is still some risk of under-funding at the time of sponsor insolvency. These remaining risks are two-fold.

First, a sponsor in financial difficulty may delay remitting required contributions to the pension fund and, if the sponsor becomes insolvent, those unremitted contributions will have to be collected through the insolvency proceeding. Although pension legislation attempts to provide some protection by deeming these contributions to be held in trust, the statutory-deemed trust has not proved effective in separating the amount of contributions owed from the other assets of the sponsor in insolvency proceedings. These unremitted contributions are therefore treated as unsecured claims in the distribution of the sponsor's assets among its creditors, with the result that the pension fund will recover only a small fraction of the contributions owing. This risk affects both defined benefit (DB) and defined contribution plans.

The second risk, unique to DB pension plans, is that the fund set aside to pay for the promised benefits will not be sufficient to pay the full amount required to provide the accrued benefits if the plan is terminated as a result of the sponsor's insolvency. Pension legislation requires that the determination of the amounts required to be contributed by the sponsor to the pension fund be calculated by a member of the actuarial profession using accepted actuarial practice. Actuarial practice necessarily involves forecasting numerous future events in order to determine how much must be contributed today to fund benefits payable years, perhaps decades, in the future. Any deviation from that forecast may lead to the assets in the fund being less than the liabilities accrued at a particular point in time. If that point in time coincides with the sponsor's insolvency, then benefits will not be fully funded. Ontario pension legislation provides protection against this risk by requiring triennial assessments of the solvency of the pension fund and, if those assessments indicate that liabilities exceed assets, the sponsor is required to make special payments to the fund over the next five years in order to extinguish the shortfall. However, this payment schedule can expose the plan members to a shortfall risk in the event of the sponsor's insolvency for a period of up to eight years.

Relationship between insolvency risk and sponsor insolvency

Plan members share insolvency risk with the sponsor's investors. The requirement that the sponsor must make special payments over and above the normal cost of the pension benefits in order to pay off the solvency deficiency can impose significant demands on the sponsor's cash flow. If these demands coincide with a period of financial stress for the sponsor, they may be the trigger for the sponsor's insolvency. Economic shocks such as rapid drops in share price, steadily declining interest rates and unforeseen events that change expected earnings and/or the cost of benefits can increase risk to pension plans or can precipitate insolvency proceedings and impose losses on the plan members and beneficiaries in the form of reduced benefits. Plan members' claims for the balance of any remaining deficiency in the fund's assets and any unremitted contributions will be treated as unsecured claims in a liquidation and distribution of the sponsor's assets in an insolvency proceeding. Insolvency and bankruptcy law is aimed at providing an orderly distribution of assets where a plan sponsor is liquidated, while providing a mechanism that allows plan sponsors, in some circumstances, to attempt to devise a business plan such that the plan sponsor can restructure and carry on business. A restructuring plan may allow the sponsor to continue through the compromise of creditors' claims and through pension risk allocation in the form of amended plans, extended amortization schedules, letters of credit and termination of plans.

While unremitted contributions during bankruptcy do not currently qualify for a preference, proposed federal legislation would enhance the position of such claims by securing pension contribution arrears with a charge over the assets of the plan sponsor in both bankruptcies and receiverships. The amendments would also enhance the position of such claims in an insolvency restructuring proceeding.

Ontario is a leader in reducing insolvency risk through its Pension Benefits Guarantee Fund (PBGF). From 1980 to September 2007, the PBGF has paid out claims from 107 plan sponsors with a total of 144 pension plans, which represents only a fraction of the 7,674 plans currently covered by the PBGF. The PBGF has paid claims totalling \$883 million and has recovered \$48.5 million from the estates of plan sponsors in the same period. The data on the intersection of pension law and insolvency law continues to be limited. Of the amounts paid out by the PBGF to March 2006, 70% of pension plans for which claims were paid had plan sponsors in bankruptcy proceedings. The dollar value of total claims paid in respect of plan sponsors under *Bankruptcy and Insolvency Act* (BIA) and *Companies' Creditors Arrangement Act* (CCAA) proceedings was \$823 million, representing 93% of the value of all claims paid out by the PBGF.

Private receivership and voluntary assignment into bankruptcy appear to be the two routes most frequently utilized prior to plan termination and claims to the PBGF. There are also a number of cases in which the plan sponsor has filed bankruptcy after a restructuring effort under the BIA or the CCAA and claims have been paid out by the PBGF. In contrast, in most cases of successful BIA and CCAA restructuring plans, the pension plan does not require access to the funds of the PBGF, indicating that restructuring proceedings are likely an important risk reduction tool at the point of plan sponsor insolvency. The PBGF has, however, been used effectively in a few instances, to facilitate the survival of a plan sponsor. In terms of timelines, the claims made to the PBGF follow a markedly different pattern than bankruptcy cases, which have been steadily in decline for the past decade. However, if one separates out the bankruptcy cases that involved failed CCAA proceedings, it is evident that payments by value out of the PBGF track the number of CCAA filings. Given that both restructuring and liquidation proceedings in Ontario have been concentrated in the manufacturing and retail sectors, the PBGF figures for bankruptcy filings also track general bankruptcy sector trends.

Examination of jurisdictions such as the United Kingdom, the United States, Germany and Sweden indicates that there are multiple strategies to reduce insolvency risk, including well-funded national pension guarantee programs; early warning programs; risk levies; and other strategies noted in the study.

14 The Impact of Pension Funds on the Ontario Government

Research Paper: *Pension Funds: Their Role in Capital Markets, Corporate Governance and a Competitive Economy*

Researcher: Poonam Puri

Date: 2007

Executive Summary

This paper examines the investment patterns of pension funds in Canada and their impact on capital markets and corporate governance. The analysis made in the paper is under the following five headings:

- Asset allocation patterns of Canadian pension funds;
- Pension funds' impact on capital markets;
- Recent trends in pension fund investments — private equity and venture capital;
- Pension funds' influence on corporate governance; and
- The role of pension funds in policy making and regulatory changes.

For the purpose of analysis, the paper uses a combination of data for which the main source is Statistics Canada, scholarly literature on the subject, field surveys and reports of current events. The conclusions drawn in the paper with reference to the five headings listed above are summarized below.

Asset allocation patterns of Canadian pension funds

Pension funds are large investors in various assets, such as stocks, bonds, private equity and other securities and assets. The asset allocation patterns in the investments of Canadian pension funds are examined, and the following are the major conclusions drawn from the study:

- Over the period studied, stocks traded in the public capital markets have remained more or less stable at about 40% of the total assets of pension funds, and are an important asset class for the funds.
- Foreign holdings by pension funds more than doubled to 30%, while holdings of Canadian securities have correspondingly fallen during the period.
- Holdings in fixed-income securities declined by a quarter, from 41% to 32% of the assets of pension funds during the period.
- There appears to be a small, but steady, interest for new varieties of investments such as venture capital and private equity. According to available data, the value of such investments was over $70 billion in 2006.
- The data available on the asset allocation patterns of Ontario pension funds reveals that the pattern of asset allocation by Ontario pension funds is more or less in line with their non-Ontario counterparts.

Pension funds' impact on capital markets

Most of the investments of pension funds are in publicly traded securities, and this makes pension funds a powerful force in these markets. The paper examines how the presence and operations of pension funds impact the capital markets, and draws the following conclusions:

- Pension funds are important players in the capital markets. The trading activity of pension funds is significant to the functioning of the capital markets in that it enhances the efficiency of the public market and adds liquidity. In the 13-year period between 1993 and 2006, pension funds made net purchases of over $350 billion in the stock market.
- Pension funds earn significant profits on the sale of securities, and derive revenues from investment income. However, profits on sales of securities have emerged as the more important source of revenue for pension funds. Investment income fell from over 58% in 1990 to less than 27% in 2004. Net profits from the sale of securities, which represented less than 3% of the revenue of pension funds in 1990, rose to a high of almost 54% in 2000, and were about 30% in 2004. Although the trend with profits on sale of securities is variable during the period, their importance in the revenue structure of pension funds has been gaining in significance.
- There is mixed evidence about the performance of pension funds relative to market benchmarks.
- Pension funds have some influence on the corporate governance practices of public issuers, and their presence in the capital markets enhances investor protection and public confidence in the capital markets

Recent trends in pension fund investments — private equity and venture capital

Since the 1990s, some pension funds have increased investments in private equity and venture capital, marking a break from their traditional practice. The paper analyzes the significance of the trend for private equity and venture capital investment by pension funds, and makes the following findings:

- Large pension funds have invested in new varieties of investments, such as venture capital or private equity. Thirty-two of the 100 largest pension funds have assets in venture capital and private equity, and these assets represent 8% of their total asset value. In comparison, only 2% of smaller funds have invested in private equity and venture capital, and their assets in this category, including real estate, are just 3% of their total.
- Investments in private equity and venture capital require greater scrutiny, transaction costs and overall involvement, both at the pre-investment stage as well as in the post-investment phase.
- Some data indicate that private equity investments are profitable for pension funds. For example, the Ontario Teachers Pension Plan (OTPP) earned a return of 31.4% on its investments in this category while its overall rate of return was only 17.2%.

Pension funds' influence on corporate governance

Pension funds are significant shareholders in public corporations. This raises the question of their role in influencing the governance of these corporations. The paper examines the issue and draws the following conclusions:

- Canadian pension funds have undertaken systemic efforts to promote good governance among corporations primarily through suasive methods. The Canadian Coalition for Good Governance (CCGG) was launched mainly by pension funds and is an important vehicle. Its activities include regularly examining current issues and preparing policy guidelines for its members. In addition, the Pension Investment Association of Canada (PIAC) also provides guidance to its members on playing an effective role in their capacity as shareholders in corporations.
- The literature on the subject finds that the involvement of institutional investors, including pension funds, in corporate governance has myriad implications, both positive and negative. The positive ones include the size of the holdings and ability to influence corporate behaviour through suasion, litigation and effective use of the threat of exit. Some negative aspects of pension fund involvement in corporate governance include free-riding by other shareholders, conflicts of interest situations for pension fund managers and absence of proprietary interest on the part of pension fund mangers.
- In general, pension funds in Canada place reliance on informal discussions with corporate managers for resolving corporate governance issues, and prefer to avoid more confrontational methods, such as negative voting, litigation or proxy campaigns. This influence is difficult to measure objectively.
- Pension funds have generally not been keen on seeking representation on the boards of directors of corporations. This trend may reverse for large funds with more private equity investments.
- Data on shareholder proposals is insufficient to arrive at clear conclusions on the use of this instrument by pension funds to intervene in corporate governance.
- A minority of pension funds (about 30%) surveyed in 2006 delegated the task of voting to their investment managers. Of these, about 70% gave freedom to the investment managers to decide on how to vote. This may indicate the constraints of lack of resources and expertise on the part of smaller pension funds to effectively exercise their voting rights as shareholders of corporations.

The role of pension funds in policy making and regulatory changes

Pension funds operate in a complex regulatory environment and have an important stake in the formulation of policy and legislation with respect to corporations, corporate governance, securities markets and pension fund investments. The last part of the paper examines the role of pension funds in influencing policy and bringing about regulatory changes, and the following are the important conclusions:

- Pension funds play an active role and appear to be quite effective in campaigning for regulatory changes in which they are interested as investors in the capital markets. The amendments made to the *Canada Business Corporations Act* in 2001 with respect to proxies and shareholder communications, as well as the removal of the foreign property rule from the *Income Tax Act* in 2005, are prominent examples of the efficacy of pension fund activism in bringing about policy and regulatory changes.

- Campaigning for policy and regulatory changes is done both at the collective level through organizations such as the CCGG and PIAC, and by larger pension funds such as the Canada Pension Plan Investment Board and the OTPP.

15 Pension Plans and the Labour Force

Research Paper: *Incentive Effects of Occupational Pension Plans*

Researcher: Morley Gunderson

Date: October 2007

Executive Summary

About 35% of the workforce is covered by employer pension plans, and coverage is declining over time. Coverage is much higher in the public sector compared with the private sector, in large firms and when there is a collective agreement. Coverage rates have grown more rapidly for females than males so that female coverage is now almost as high as male coverage.

About 81% of plan members are in defined benefit (DB) plans, divided between 66% being in final-earnings plans and 15% in flat-benefit plans. About 16% are in defined contribution (DC) plans, although there has been an increase in DC plans relative to DB plans over time.

The ageing workforce and impending retirements means that larger numbers are facing "pension issues." Impending labour and skill shortages means that employers may want to consider pensions as a strategic human resource policy to facilitate retention — the opposite of the strategy followed in the 1970s and 1980s to facilitate early retirements and downsizing. This will give rise to other related issues such as: age-related fringe benefits including disability benefits; reasonable accommodation requirements; age discrimination issues; and the continuation of seniority-based pay.

For employees, the main challenge will be to ensure a degree of financial security in retirement that may otherwise be jeopardized by:

- a longer period of retirement because of increased life expectancy;
- the decline in pension coverage and the shift from DB to DC plans;
- concerns over the financial viability of even DB plans;
- potential retrenchments in public pensions; and
- risks to pensions associated with increases in non-standard employment and the *possible* decline of long-tenured jobs, at least for some.

The long-term trend toward early retirement appears to be reversing, perhaps reflecting:

- concerns over income adequacy in retirement, perhaps from uncertainties over pensions;
- a need to continue working to accumulate the service credits that affect pension benefits;
- the growth of non-standard work that may provide less income security, although it may also accommodate continued employment;
- a desire or need to amortize the cost of a longer education period over a longer work life;
- more job opportunities associated with the growing labour and skill shortages;
- shift in the nature of work away from blue-collar work, which is physically arduous, toward white-collar work, which is less physically demanding and intrinsically more interesting;
- improved health and longer life expectancy;
- fewer early retirement buyouts in pension plans; and
- increased participation of women, **who are** also coordinating their retirement with their husbands.

With respect to retirement preferences:

- Most people tend to retire for voluntary reasons.
- Few retired due to mandatory retirement and few cited mandatory retirement as a substantial barrier to continued employment.
- Working time inflexibility was a prominent barrier.
- Slightly less than one-quarter of retirees return to work after initially retiring.
- Returning for financial reasons was the most prominent reason for returning.
- The expected age of retirement is increasing.
- The probability of returning to work after retiring is greatest for those with the following characteristics: healthy; younger when they initially retire; have a pension and other income that provides financial security during retirement; have an available job; were in a previous job that was not physically demanding; and had a "distaste" for retirement.

Regulations on DB plans have also fostered the shift to DC plans. While DC plans may expose workers to more investment risk, DB plans also expose them to other risk:

- inflation risk, since the benefits are not fully adjusted for post-retirement inflation;
- risk of benefit loss associated with job loss or job changing or wage concessions, which affect earnings and service credits upon which such benefits are usually based;
- the risk of firm bankruptcy and its implications for pension solvency;

- risk associated with inadequate funding arising from various factors;
- risk associated with disputes over surplus assets;
- risk associated with having so much of your wealth tied to your employer; and
- risk associated with not understanding the complexities of DB plans.

Both theory and evidence suggest that employees "pay" for their pension plan in the form of compensating wages. This also implies that employees will "pay" in the form of lower cash wages for at least some of the benefits they may receive from improvements in occupational pension plans if those benefits impose a cost on employers. As well, it may be perfectly rational for workers in low-wage jobs to not want costly pension coverage since they may prefer the cash wages, especially if they are liquidity-constrained, or have spousal coverage, or if private pension benefits when they are retired would reduce their eligibility for income-tested public benefits.

The wage–benefit tradeoff could also imply that female wages are lower than male wages in part because of greater pension benefits that females receive because of their greater life expectancy. However, this is more than offset by other factors that reduce their pension benefits so that females tend to receive fewer pension benefits than do males — and this exacerbates the male–female wage gap.

Employer pensions are the most prominent source of income for seniors age 65 and over, and the increase in both private and public pensions has contributed substantially to Canada's success in dramatically reducing poverty among the aged. Some concerns remain:

- There are still some elderly groups "at risk," especially divorced and separated women.
- Much of the improvement for seniors relative to that of non-seniors reflects the stagnation of employment income for the non-elderly.
- For many elderly, the *security* of their income and well-being can still be "at risk" given the difficulties of combatting elder abuse and financial exploitation.

With respect to job tenure and hence the ability to accumulate pension benefits:

- The evidence is inconclusive, but recent evidence suggests that job tenure has been decreasing because the decline for males has more than offset the increase for females.
- There is more polarization with short-duration jobs getting shorter and long-duration ones getting longer.
- There is a slight decline in job duration for youths, and especially for less-educated and younger males.
- There is also considerable variability over time for youths.

With respect to incentive effects, both theory and evidence suggests that employer pensions facilitate deferred compensation and a range of interrelated positive behaviours, including employee loyalty, commitment and bonding to the firm; employee interest in the financial solvency of the firm; and periodic and retrospective evaluations. Employees also exhibit a strong preference for such deferred compensation for reasons outlined.

Pensions can be used strategically to induce early retirement and discourage postponed retirement (as was prominent during the downsizing of the 1970s and 1980s), or vice versa to alleviate shortages (as is prominent today).

Pensions can foster desirable effects with respect to employee selection, recruitment and retention by discouraging poor performers from applying, and encouraging employees who are "savers" and future-oriented.

Pensions (and even under-funding) can foster employee interest in the financial solvency of the firm, which in turn can induce positive behaviour and foster a willingness to engage in concession bargaining.

Pensions can save on current wages and thereby provide private sector firms with an internal source of funds. In the public sector the concern is that this will be used to reduce tax costs for current generations by shifting pension obligations to future taxpayers.

Mandatory retirement, which existed for about half of the workforce in the 1990s before Ontario banned it in 2006, is intricately twinned with pensions in that the security of a pension income is the *quid pro quo* for having to retire from the particular job. Mandatory retirement provisions tend to prevail in "good jobs" and for workers who would generally not be considered as vulnerable. If mandatory retirement is banned, as is increasingly the case, this suggests that pensions may also dissipate or they may be altered in ways to serve as a substitute for mandatory retirement by creating incentives to leave the job with the pension plan. As well, it may be more difficult to have other human resource practices: deferred compensation; job and promotion opportunities for youths; succession planning as well as the costing of age-related benefits for employers; retirement planning for employees; and periodic and retrospective monitoring and evaluation of older workers.

The evidence on job stability is mixed, albeit some recent comprehensive evidence suggests it has declined in the United States, especially for older males. Whether this suggests that DB plans are less capable of delivering pension benefits that depend upon such long-term employment relations is an open question. Earlier Canadian evidence suggested no substantial change in job durations.

DC plans, however, have other advantages for employees:

- they do not inhibit mobility (as do DB plans);
- they are attached to workers and not jobs, and increasing emphasis is being placed on "protecting" workers rather than jobs; and
- while DC plans expose workers to investment risk, DB plans also have risk.

Both economic theory and empirical evidence suggest that employees "pay" for their pension plan in the form of compensating wages. This also implies that employees will "pay" in the form of lower cash wages for at least some of the benefits they may receive from improvements in occupational pension plans if those benefits impose a cost on employers.

DB plans can have a wide range of incentive effects, including:

- to facilitate deferred compensation, with its positive associated effects for both employers and employees;

- to induce early retirement and discourage postponed retirement (as was prominent during the downsizing of the 1970s and 1980s), or vice versa, to alleviate shortages (as is prominent today);
- to foster desirable selection, recruitment and retention effects, discouraging poor performers from applying and encouraging employees who are "savers" and future-oriented;
- to foster employee interest in the financial solvency of the firm, which in turn can induce positive behaviour;
- to save on current wages and thereby provide private sector firms with an internal source of funds (albeit in the public sector this can be used to reduce tax costs for current generations by shifting pension obligations to future taxpayers); and
- to reduce unwanted turnover and quits (and thereby foster training), but this can also mean reduced mobility.

16 Tax Policy and Occupational Pension Plans

Research Paper: *Tax Expenditure Analysis of Employer-Sponsored Registered Pension Plans*

Researcher: Jinyan Li

Date: October 2007

Executive Summary

Employer-sponsored registered pension plans (RPPs) receive tax assistance from both the federal and Ontario governments. From a tax policy perspective, such tax assistance is in the nature of a "tax expenditure." This report analyzes the amount of the tax expenditures associated with RPPs, who benefits from these expenditures, and the impact of these tax expenditures on other tax-assisted retirement savings plans such as Registered Retirement Savings Plans (RRSPs), and public pensions such as Old Age Security (OAS) and the Canada/Quebec Pension Plan (C/QPP).

By relying primarily on existing data and secondary literature, the report concludes that the cash flow estimates of the annual cost of federal RPP tax expenditures ranges from $7 billion to $12 billion (with the exception of three "odd" years: over $15 billion in 1999, less than $1 billion in 2001 and negative $1 billion in 2002), accounting for 0.8 to 1.3% of the gross domestic product.

RPPs are designed to provide a "top-up" source of retirement income. Therefore, RPP tax expenditures benefit only individuals covered by an RPP. The question of who benefits from these tax expenditures is tied to the membership of RPPs. Generally speaking, RPP members are individuals with middle or high incomes, who work for public sector employers or large companies, or belong to a trade union. Companies that sponsor RPPs also benefit from the tax expenditures as a result of tax deductions for the contributions made to RPPs.

RPPs interact with RRSPs and public pensions. The amounts of tax expenditures associated with the tax deduction for contributions to RPPs and for contributions to RRSPs from 1989 to 2006 show that contributions to RRSPs have increased at a higher rate than those to RPPs. The coverage of RRSPs has expanded during the era of decline in RPP coverage. Because RRSPs can be used as "income smoothing" vehicles as opposed to retirement saving plans, they provide less security in retirement income than RPPs (especially defined benefit, or DB, plans).

RPPs have a potential impact on the Old Age Security/Guaranteed Income Supplement (OAS/GIS) system through the "clawback" in the OAS/GIS system and the funding of these programs. OAS payments are clawed back when an individual's net income (which includes private pension income) is greater than $63,511 (as of 2007). RPPs may interplay with OAS/GIS in terms of financing the latter programs. Tax expenditures on RPPs and RRSPs are revenues foregone by the government. OAS/GIS payments are funded by general tax revenue. From 1988 to 1998, pension tax expenditures accounted for over 80% of OAS/GIS payments. In 1999, pension tax expenditures exceeded the OAS/GIS payments and with the exception of the odd years (1999–2002), they continue to account for between 68 and 70%. On the other hand, the RPP and OAS regimes have been designed to assist individuals in different income groups: the former is for middle- and high-income groups to ensure a certain level of income replacement, and the latter is for low-income groups to provide old age income security (income replacement may be 100% or more for these individuals).

RPPs and the C/QPP share a common feature: contribution-based plans. Only individuals who make contributions to such plans are covered. They are totally different from the OAS/GIS system. The majority of RPPs take into consideration contributions and benefits under the C/QPP. For example, DB plans often provide "bridging" benefits to early retirees to ensure that the retirement income remains relatively stable if a worker takes early retirement.

Ontario does not have its own tax policy on RPPs. Because the shared income tax base and RPP tax expenditures are provided through deductions or exclusions in computing the tax base, federal tax policy directly affects Ontario. As such, tax expenditures associated with RPPs have revenue cost for the federal government as well as Ontario. The increasing RPP tax expenditures and the expansion of RRSPs in the era of decline in RPP coverage raise significant issues about the efficacy and equity of the tax policy. However, if the dual policy goals of the Canadian and Ontario retirement income system remain to be income replacement (mostly for middle- and high-income individuals) and income security, the tax expenditures remain important policy instruments. It is perhaps time to re-examine the design of RPP tax expenditures to make them more effective and viable in a changing business, demographic and social environment.

Research Paper: *Impact of Tax Policy on Coverage and Funding of Corporate Sponsored Pension Plans*

Researcher: Jinyan Li

Date: October 2007

Executive Summary

Corporate-sponsored defined benefit (DB) plans and defined contribution (DC) plans are referred to as registered pension plans (RPPs) under the *Income Tax Act*. The decline in DB coverage and the under-funding of DB plans have been well reported elsewhere. This report examines the extent to which tax policy has contributed to these problems in the case of corporate-sponsored DB plans. It relies primarily on existing empirical data and secondary literature.

Part 2 of this report discusses whether the decline of the coverage of corporate DB plans is related to, or caused by, major changes in tax policy, such as the universal contribution limit for all tax-assisted retirement saving plans, the contribution limits, and reductions in tax rates for individuals and corporations.

The report concludes that the 1991 tax reform has clearly reduced the relative advantage for DB plans by integrating the tax treatment of DB plans, DC plans and Registered Retirement Savings Plans (RRSPs) and by increasing the tax-sheltered contributions to DC plans and RRSPs. Empirical data shows an increase in DC plans and RRSP coverage during the era of decline in DB coverage. It is clear that tax policy has encouraged the expansion of RRSPs and DC plans. However, it is not clear whether — or if so, to what extent — such expansion has occurred at the expense of DB plans. It is true that small DB plans have tended to disappear, and some may have been replaced by a DC plan or group RRSP — but the question remains as to whether these DB plans would have disappeared regardless of the option of DC plans or group RRSPs. RRSP contributions made by individuals who are not covered by DB plans (e.g., new workers, part-time workers, the self-employed, and workers in smaller firms) are not necessarily the result of a shift away from DB plans. Therefore, the growth of RRSPs and DC plans may represent additional retirement savings, especially in cases where individuals with higher earnings tend to contribute to both RPPs and RRSPs.

Lowering marginal tax rates for individuals and corporations can be a double-edged sword. Lower tax rates result in more after-tax income, and thus more funds available for making contributions. On the other hand, the value of the tax assistance is determined by the marginal tax rate. Lower rates mean less value of the tax assistance and thus, less tax incentive. There is no conclusive empirical evidence, however, on the extent to which the decline in DB coverage has resulted from the lowering of tax rates.

Part 3 discusses the role of tax policy in respect of the funding of DB plans. More specifically, it examines the role of the 10% surplus rule, the lack of flexibility in funding DB plans and the foreign property rule.

The effect of the 10% rule is to deny corporate sponsors their tax deductions for the contributions to "over-funded" plans, resulting in a "tax cost" to the employer (the amount is dependent on the applicable corporate income tax rate). The purpose of this rule is to allow a moderate amount of surplus to be retained in a plan while limiting the government revenue cost associated with deferrals of tax on amounts over and above those required to fund the promised pension benefits. Empirical evidence shows that:

- It is not clear that the 10% rule is the sole, or major, cause of contribution holidays taken by corporate sponsors in the late 1990s.
- There is no observable relationship between the number of contribution holidays taken by plan sponsors and plan funding ratios.
- The percentage of under-funded plans that did not take contribution holidays was sometimes greater than for those that did take contribution holidays between 1994 and 2003.
- Forty-five percent of under-funded plans would have completely eliminated their current actuarial deficit if contribution holidays had not been taken.

Overall, the 10% rule is counter-intuitive: it does not encourage companies to "save for rainy days," thus, it is not an effective "smoothing" mechanism.

The *Income Tax Act* currently recognizes DB plans and DC plans and provides limits on various aspects of a DB plan that can be registered for tax purposes. It does not encourage any innovation in designing corporate pension plans, such as "cash balance plans" recognized by the U.S. *Pension Protection Act of 2006*. A cash balance plan may violate the benefit accrual requirements for DB plans.

Part 4 of the report suggests a re-evaluation of the pension tax policy in light of the changing environment for corporate pension plans. Although no exact data can pinpoint the impact of the 10% surplus rule on the funding status of DB plans, this rule is too rigid and fails to function as a buffer for companies whose financial position changes dramatically from year to year. The surplus limit may be raised. In light of the increasing popularity of DC plans and remaining relative advantages of DB plans in managing pension risks, it is also worth considering reforming the tax rules so that they can accommodate "cash–balance" plans that have features of both DB plans and DC plans.

17 Mapping Pension Legislation in Canada

Research Paper: *Mapping Pension Legislation in Canada*

Researchers: Ontario Bar Association, Pension and Benefits Section

Date: 2007

Research Paper: *Summary of Pension Legislation in Canada*

Researcher: Morneau Sobeco

Date: 2007

Executive Summary

This project compares a wide range of legislative and regulatory pension provisions across Canada, including those related to funding, multi-employer pension plans, jointly sponsored pension plans, minimum benefits, surplus, plan wind-ups, asset transfers and mergers, plan expenses, regulatory tools, financial reporting and defined contribution plans.