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**Appendix** 

# Auto-Triggers: Exploring Their Potential in the Public Pension Ecosystem

#### Introduction

ime and again, defined-benefit (DB) pension plans have proved their mettle as the best policy option to deliver retirement security to employees at a reasonable cost and risk to employers. The evidence is clear: a DB plan is efficient and delivers twice as much benefit as a defined-contribution (DC) plan at the same level of cost to taxpayers. Pensions, uniquely among all retirement vehicles, invest for the long haul, focusing on long-term results rather than getting bogged down in the vagaries of market conditions from quarter to quarter and year to year.

However, a clamor persists to expand DC plans as a supplement to or even a replacement for pensions. Calls to convert at least some public pension plans to the DC model continue even though the performance of 401(k)s and similar plans thus far is mixed, with even some of their architects doubting their effectiveness.<sup>2</sup>

A cautious approach to adopting DC plans is appropriate because the jury is still out on whether they can provide truly resilient income security in retirement. The fact is that thus far, relatively few retirees depend on a DC plan as their primary source of post-employment income. Baby boomers—those born between 1946 and 1964, who are in or heading toward retirement—entered the workforce at a time when 401(k) plans were just being introduced into

NCPERS, How Did the Shift from Defined Benefit Pensions to Defined Contribution Plans in the Private Sector Impact Retirement Savings?, NCPERS Research Series (Washington DC: NCPERS, February 2016), <a href="https://www.ncpers.org/files/NCPERS%20">https://www.ncpers.org/files/NCPERS%20</a> Research%20Series 2016 Boston%20College v4.pdf.

<sup>&</sup>lt;sup>2</sup> Timothy W. Martin, "The Champions of the 401(k) Lament the Revolution They Started," Wall Street Journal, Jan. 2, 2017, https://www.wsj.com/articles/the-champions-of-the-401-k-lament-the-revolution-they-started-1483382348.



retirement packages that were still primarily built around DB pensions. Members of Generation X—those born between 1965 and 1978—are the first generation to have had access to 401(k) plans for most of their working careers, and the vast majority of them are still in their prime working years.<sup>3</sup> We will know more when they reach retirement age over the next two to three decades, but we know that two out of three are concerned.4

This paper examines an alternative approach that uses auto-triggers to surmount the shortcomings of individual DC plans by incorporating into the array of retirement options a new kind of plan known as the *collective defined-contribution* (CDC) plan. CDC plans are also known as risk-sharing or defined-ambitions plans. Like a DB plan, such a plan is designed to avoid one of the clear downsides of DC plans, the shifting of investment and longevity risks to employees. We explore examples of how elements of such plans are being utilized in four contexts: the Netherlands, Canada, and two U.S. states.

In a recent Bloomberg article,<sup>5</sup> Justin Fox noted that CDC plans are generally thought to have originated in the Dutch pension system, though elements of such plans have been in place since at least 1982 in the Wisconsin Retirement System, which provides good benefits and is well funded. Fox pointed to CDC plans as a possible way to ward off the push for conversion of public pensions into DC plans.

#### What Is a Collective Defined-Contribution Plan?

According to Aon Hewitt<sup>6</sup>, a collective defined-contribution (CDC) plan is different from an individualized do-it-yourself defined-contribution (DC) plan in that its assets are pooled, and investments and benefits are determined and managed like those of a defined-benefit (DB) plan. Unlike a DC plan, in which individual participants bear the investment and longevity risks, the CDC plan allows assets to be pooled and risks to be shared. Benefit and contribution rates are adjusted in step with the ups and downs of financial markets. For example,

- if investment returns are better than expected, contribution rates may be decreased and/or benefits increased, and
- if investment returns are worse than expected, contribution rates may be increased and/or benefits decreased.

The negative extremes of increasing contributions and/or reducing benefits can be avoided by building in auto-triggers with agreed-upon upper and lower limits on contributions and benefits. Similarly, to avoid frequent adjustments, the impact of the economic shock can be spread over a period of, say, three to five years. The goal is to achieve a final lifetime benefit that will be the same as that specified in the plan benefit formula (years of service  $\times$  salary  $\times$  a multiplier).

Stephen Miller, "Generations View Different Retirement Paths," SHRM Online, May 3, 2014, https://www.shrm.org/resourcesandtools/hr-topics/bene-

Diane Oakley and Kelly Kenneally, Retirement Insecurity 2019 (Washington, DC: National Institute on Retirement Security, February 2019), https://www.nirsonline.org/wp-content/uploads/2019/02/FINAL-LONG-Retirement-Insecurity-2019.pdf

<sup>&</sup>lt;sup>5</sup> Justin Fox, "Wisconsin's Pension System Works for Everyone," Bloomberg, May 9, 2018, https://www.bloomberg.com/opinion/articles/2018-05-09/wisconsin-s-pension-system-works-for-taxpayers-and-employees.

Kevin Wesbroom, David Hardern, Matthew Arends, and Andy Harding, The Case for Collective DC: A New Opportunity for UK Pensions (London: Aon Consulting Limited, 2013), https://www.aon.com/unitedkingdom/attachments/retirement-investment/defined-contribution/Aon\_Hewitt\_The\_Case\_ for CDC 2015.pdf.



Since there is no one-size-fits-all model of CDC plan design, we'll examine four existing CDC-type plans in the Netherlands; New Brunswick, Canada; and Maine and Wisconsin in the United States.

#### The Netherlands CDC Plan

In the early years of the 21st century after the tech bubble burst, the Netherlands decided to weaken the defined part of its pension benefits from a fully inflation-indexed model to one with conditional promises. Specifically, the system made indexation conditional on the funding health of the plan. After the 2008 financial meltdown, the Netherlands moved toward a CDC or defined-ambition plan for its occupational pensions. Occupational pensions are set up at the industry or company level and form the second pillar of retirement security—the first being a pay-as-you-go public pension plan.

By 2016, according to an International Monetary Fund report,<sup>7</sup> the occupational pensions had about 5.5 million active members and 3 million retirees. The number of plans has steadily decreased due to regulatory requirements imposed by the Dutch central bank, giving rise to economies of scale. For example, in 2005 there were 800 occupational pension plans, but by 2014 the number of plans was 365.

The success of a CDC plan is likely to depend on well-communicated, preset rules, such that all stakeholders know beforehand what will happen in each situation and how it will affect their contributions and benefits. Based on the IMF report and a presentation by Peter Diamond<sup>8</sup> at the NCPERS 2018 Public Pension Funding Forum, the following are some of the rules of the country's current CDC plan, including its auto-triggers:

- Lifetime payments begin at retirement, based on a "career average" benefit formula.
- Benefits are typically accrued annually at a constant rate of 1.875 percent of an individual's annual salary, averaged over the person's entire career. They are generally granted in the form of real life annuities indexed to either price or industry wage developments.
- Cash withdrawals are prohibited.
- Benefits in payment and future benefits are both adjusted based on asset returns and mortality experience.
- Contributions are levied on wages at a uniform rate regardless of age.
- Each occupational plan uses a single pooled fund for investment purposes.
- In July 2015, the central bank changed the calculation method of the *ultimate forward rate* (UFR), namely the long-term reference rate anchoring the yield curve used to discount the funds' actuarial liabilities. The UFR was reduced from 4.2 percent to 3.3 percent, closer to market values (but still above the 30-year zero-coupon bond yield), at the cost of further immediate pressure on funding ratios.
- In the event that its solvency ratio falls below the minimum funding ratio of about 105 percent, a pension fund is required to submit a recovery plan to restore its policy funding ratio, computed as the average funding ratio over the past 12 months, to about 120 percent of its own funds within 10 years.

 $International\ Monetary\ Fund,\ European\ Department,\ \textit{Kingdom\ of\ the\ Netherlands}-Netherlands:\ Selected\ Issues,\ Country\ Report\ No.\ 16/46$ (Washington, DC: IMF, 2016), https://www.imf.org/en/Publications/CR/Issues/2016/12/31/Kingdom-of-the-Netherlands-Netherlands-Selected-Is-

Peter Diamond, "Pension Design Innovation" (PowerPoint presentation, NCPERS Public Pension Funding Forum, Cambridge, Massachusetts, September 18, 2018).



Recovery may be achieved through catch-up contributions or reduced benefit indexation, with benefit curtailments required only as a last resort, in the case of solvency ratios below 80 to 90 percent, or in the event the policy funding ratio cannot be restored within five years. However, such curtailments may be spread out over 10 years.

#### The New Brunswick, Canada, Shared-Risk Plan

In 2013, the Canadian province of New Brunswick passed legislation titled An Act Respecting Pensions under the Public Service Superannuation Act, which introduced a shared-risk plan and eliminated automatic cost-of-living adjustments (COLAs).9 Effective January 1, 2014, the New Brunswick Public Service Pension Plan was converted into a shared-risk plan. The primary purpose of the new plan is to provide a lifetime-secure pension to plan members with a high degree of certainty. Although the new plan does not provide an absolute guarantee that base benefits will never be reduced, its legislation guaranteed that benefits earned by December 31, 2013, will never be reduced. The legislation also specified that all future COLAs and other ancillary benefits will be provided only to the extent that funds are available for them. The plan is administered by a board of trustees. The day-to-day administration of the plan is conducted by the Vestcor Pension Services Corporation.<sup>10</sup>

Peter Diamond described characteristics and auto-triggers of the New Brunswick shared-risk plan as follows:11

#### **Definitions**

- The *funding policy* provides guidance and rules regarding decisions that must or may be made by the board of trustees around funding levels, contributions, and benefits.
- The 15-year open group funded ratio compares the fair market value of the plan's assets, plus the present value of excess contributions over the next 15 years, with the plan's liabilities.
- The plan's *liabilities* are based on the benefits earned to the date of the report.
- This asset-liability ratio is used to determine actions such as granting COLAs.

#### Annual risk management tests

- The results of an annual calculation of at least a thousand 20-year simulations of a range of plausible parameter values may cause the need for short-term adjustments in any one year to help preserve long-term financial health.
- Primary risk management goal: Achieve at least a 97.5 percent probability that benefits earned will not be reduced over the next 20 years
- Secondary risk management goal #1: Members and retirees receive increases equivalent to 75 percent of increases in the consumer price index (CPI) over the next 20 years
- Secondary risk management goal #2: Seventy-five percent of projected ancillary benefits (e.g., early retirement subsidies) are provided over the next 20 years

Benefits Canada, "Retirees Sue New Brunswick over Changes to Pensions," July 3, 2014, https://www.benefitscanada.com/pensions/governance-law/ retirees-sue-new-brunswick-over-changes-to-pensions-54541.

<sup>&</sup>lt;sup>o</sup> Vestcor Pension Services Corporation, New Brunswick Public Service Pension Plan: A Guide for Plan Members (New Brunswick, Canada: Vestcor, December 2016), https://www2.gnb.ca/content/dam/gnb/Departments/ohr-brh/pdf/pensions/pension\_plans/pssa/PSSRP\_Booklet.pdf.

<sup>11</sup> Diamond, 2018.



#### If the open group funded ratio falls below 100 percent for two successive years

- Plans may increase contributions by up to 3 percent of earnings (1.5 percent each for employee and employer contributions) until such time as the open group funded ratio reaches 110 percent (without considering the effect of the contribution increase) and the funding goal under regulation is met.
- To reduce future and present benefits, plans may first change the rules for nonvested members to a full actuarial reduction for early retirement; then reduce base benefit accrual rates for future service by no more than 5 percent; and then reduce base benefits on a proportionate basis for all members, for both past and future service in equal proportions.

#### If the open group funded ratio exceeds 105 percent for two successive plan year-ends

A portion of the excess may be utilized for the following summarized actions in their order of priority: *first* reverse previously reduced base benefits under the funding deficit recovery plan and *then* provide indexing of base benefits for future payments up to full CPI for every year that has been missed or partially covered.

#### If the open group funded ratio is at least 140 percent

- Plans may first reduce contribution rates by such an amount as to maintain an open group funded ratio of 140 percent; then establish a reserve to cover the next 10 years of potential contingent indexing; and then propose benefit improvements, subject to certain criteria.
- In a given year, if an employer experiences an increase or decrease in employees of more than 5 percent, the initial contribution rates must be recalculated.
- Effective 15 years after the conversion, the employee and employer contributions must be set such that the total initial contributions remitted are shared equally between the employees and the employers.

#### If there is a political impasse

- Every three years, the chief actuary of Canada reviews the contribution rate required to sustain the Canada Pension Plan (CPP) over the next 75 years. If the system is not financially sustainable, the law requires a semiautomatic adjustment that freezes benefits and increases the contribution rate until the next triennial evaluation.
- This provision also serves as a safety net in the event of a political impasse. If the minimum contribution rate is higher than the legislated contribution rate and the federal and provincial finance ministers cannot reach an agreement, then the contribution rate is increased by one-half of the excess over three years, and benefits are frozen until the next triennial review.

Again, the success of the New Brunswick risk-sharing, or CDC, plan depends to a large degree on communications that keep everyone on the same page. Its complicated plan design, however, could cause difficulties in its successful functioning.



#### The Wisconsin Retirement System

In 1975, Wisconsin lawmakers passed legislation that asked the state's Department of Employee Trust Funds (ETF) to consolidate most state and local retirement systems into a single organization. These systems had a number of different formulas, with some closer to DC than DB. The challenge was to figure out how to make them all fit together.

The coordinated effort of ETF and the Wisconsin legislature (through the latter's Retirement Research Committee) resulted in a design that will provide a relatively modest pension with no COLAs but supplement it with postretirement annuity adjustments that are increased or decreased depending on investment performance. Similarly, employer and employee contributions to the plan are adjusted based on investment returns and changes in life expectancy.

According to a 2017 ETF report<sup>12</sup> and a 2012 multi-agency study,<sup>13</sup> the Wisconsin Retirement System (WRS) is now a strong public pension plan because of its stable funding, unique plan design, and robust governance. While the average funding percentages for public pensions in the United States are in the low to mid-70s, the Wisconsin system is almost 100 percent funded. Here are a few additional characteristics of the Wisconsin system:

- Retiree liabilities are discounted at a conservative 5 percent, versus the plan's active liabilities of 7 percent.
- The board has the authority to set contribution rates and annuity adjustments "based upon recommendations of the actuary." These are actuarial decisions, not political ones. 14
- Contributions are treated as fringe benefit costs and not as a separate expenditure requiring annual appropriations.
- The WRS can intercept state aid to capture any contributions not paid by a participating unit of government (though the plan has never had to use this tool).
- Contribution rates are set annually to ensure full funding of future benefits.
- Contribution rates are generally split evenly between employees and employers.
- Amounts due from employers and employees are paid in full.
- To keep costs low, the State of Wisconsin Investment Board invests assets professionally, prudently, and efficiently. The majority of WRS benefits paid (approximately 75 percent, according to some estimates) come from investment earnings.
- Unlike most other public pension systems, employees and retirees bear most of the investment risk.
- There are no guaranteed COLAs.
- Postretirement adjustments depend on investment performance and can be reduced or increased based on investment returns.

<sup>&</sup>lt;sup>12</sup> Wisconsin Department of Employee Trust Funds, Our Wisconsin Retirement System: Strong for Wisconsin (Madison, WI: Wisconsin ETF, 2017), http://etf.wi.gov/publications/et7100.pdf.

Wisconsin Department of Administration, Wisconsin Department of Employee Trust Funds, and Wisconsin Office of State Employment Relations, Study of the Wisconsin Retirement System (Madison, WI: Department of Administration, 2012), http://etf.wi.gov/publications/wrs-study.pdf.

<sup>14</sup> Per Robert Conlin, Executive Secretary of WRS



- Annuities cannot be reduced below the original amount set at retirement.
- The Wisconsin system ensures intergenerational equity through its focus on long-term investment and regular collection of actuarially determined contributions.

The WRS is a combination DC and DB plan that has elements similar to those of the CDC plans in the Netherlands and New Brunswick, Canada. However, the Wisconsin plan incorporated these elements into its plan design long before the emergence of the CDC plans that now exist in other countries.

#### The Maine Public Employees Retirement System

The Maine Public Employees Retirement System, or MainePERS, is not a CDC plan per se, but a DB plan that incorporates some CDC features, such as auto-triggers. According to Sandy Matheson, executive director of MainePERS, the system has a multiple-employer cost-sharing arrangement with local jurisdictions.

By way of background, Matheson outlined the problem as follows. The economic projections MainePERS looked at in early 2016 following two years of 1.5 percent returns showed that returns could hover at 4 percent for the next four years before climbing slowly back up to 8 percent. Stress-testing this scenario showed that employer contribution rates would have to be increased, benefits curtailed, or both, to maintain the plan's funding level. Above all, participating jurisdictions could and likely would drop out of the plan if employer rates became too high. These actions would create a last-man-standing situation, leading to probable demise of the pension plan.

To address the problem and avoid a cycle of raising rates and reducing benefits following difficult financial markets, MainePERS created a new framework within the existing DB plan that has the following features:

- Both employer and employee contribution rates are variable.
- These rates are determined annually based on market returns.
- Rate caps and minimums for both employers and employees reduce rate volatility and provide cost predictability.
- Excess required contributions are amortized into the COLA, essentially eliminating COLA freezes or cap reductions.
- Subsequent market gains are amortized first into the COLA and then into employer and employee rates.
- Employers pay for their liabilities upon withdrawal.

Due to these and related changes to discretionary benefits, the plan moved from an 86 percent funding level to 89 percent and is expected to continue to increase, ultimately to 100 percent or above. Employers know how to budget in bad times because they know the maximum their contribution rates can be. Employees get to share in the good times rather than continue to pay fixed rates, but they still have their benefits reduced in bad times.

The successful implementation of the new framework at MainePERS, according to Matheson, is a result of intensive communication and discussions with stakeholders. She said future success will also depend on continued communication.



#### **Pros and Cons of Collective Defined-Contribution Plans**

Collective defined-contribution (CDC) plans have certain advantages over individualized, doit-yourself 401(k)-type defined-contribution plans: CDC plans pool the risk and behave like defined-benefit (DB) pension plans. Because these plans are not the norm, communication and investment risk management take on a bigger role than in traditional DB plans. Of course, CDC plans are no panacea. The Netherlands' CDC plan received much praise from the rest of the world for the intergenerational fairness resulting from its adjustments. However, persistent longevity increases, two financial crises, and continued interest rate declines have resulted in deterioration of the funding status of even the Dutch plan. It is becoming clear that the conditionality of the benefits may have to go well beyond indexation. In a way, then, CDC plans may be a pathway toward reductions in lifetime pension benefits and in retirement security.

A recent article on the Benefits Canada blog, titled "There's More to New Brunswick's Shared-Risk Plan Story,"15 outlined a number of that plan's shortcomings. Through the plan, the article argued, the government of New Brunswick has abrogated its statutory obligation to provide pension benefits to its current and former employees by overriding its own pension promises; furthermore, it has done so by changing the law retroactively. The article also pointed out flaws in the way the new plan was communicated and implemented. Even the legislators who passed the legislation did not fully understand the program, nor was there a consensus between employees and employers. Furthermore, the New Brunswick plan is likely to provide a relatively lower benefit than the province's original DB plan.

## In Closing

Collective defined-contribution (CDC) retirement plans, often lauded as a step toward ensuring sustainability through risk sharing and auto-triggers, may make sense in the current fiscal environment, in which state and local governments continue to make their revenue systems more regressive and reliant on volatile schemes such as casinos, lotteries, user fees, and so on. If state and local governments stay on the path of continuing to make their revenue systems regressive and volatile, the benefits in these plans will have to be further reduced and employee contributions further increased because revenues won't be enough to fund the CDC premiums, regardless of economic ups and downs. It might be wise for those who want to follow the CDC approach to build in some revenue-raising auto-triggers. Otherwise, ongoing benefit reductions will likely pile up, on top of the reductions that the switch from the current DB to a CDC plan initially demands.

<sup>15</sup> H. Clare Pitcher, "There's More to New Brunswick's Shared-Risk Plan Story," Benefits Canada, October 2, 2015, https://www.benefitscanada.com/pensions/db/there's-more-to-new-brunswick's-shared-risk-plan-story-72263.



# **Appendix**

## **Characteristics of Various Pension Plans That Include Auto-Triggers and Other Elements** of a Collective Defined-Contribution Plan

New Brunswick	Netherlands	Wisconsin	Maine
The funding policy provides guidance and rules regarding decisions that must or may be made by the board of trustees around funding levels, contributions, and benefits.	Lifetime payments begin at retirement, based on a "career average" benefit formula.	Retiree liabilities are discounted at a conservative 5 percent versus the plan's active liabilities of 7 percent.	Both employer and employee contribution rates are variable.
The 15-year open group funded ratio compares the fair market value of the plan's assets, plus the present value of excess contributions over the next 15 years, with the plan's liabilities.	Benefits are typically accrued annually at a constant rate of 1.875 percent of the annual salary, averaged over the individual's career.	The board has the authority to set contribution rates and annuity adjustments "based upon recommendations of the actuary." These are actuarial decisions, not political ones.	These rates are determined annually based on market returns.
The plan's liabilities are based on the benefits earned to the date of the report.	Benefits are generally granted in the form of real life annuities indexed to either price or industry wage developments.	Contributions are treated as fringe benefit costs and not as a separate expenditure requiring annual appropriations.	Rate caps and minimums for both employers and employees reduce rate volatility and provide cost predictability.
This asset-liability ratio is used to determine board actions, such as granting cost of living adjustments (COLAs).	Cash withdrawals are prohibited.	The plan can intercept state aid to capture any contributions not paid by a participating unit of government (it has never had to use this tool).	Excess required contributions are amortized into the COLA, essentially eliminating COLA freezes or cap reductions.
An annual risk management test calculates at least a thousand 20-year simulations of a range of plausible parameter values. The results may cause the need for short-term adjustments in any one year to help preserve long-term financial health.	Benefits in payment and future benefits are both adjusted based on asset returns and mortality experience.	Contribution rates are set annually to ensure full funding of future benefits.	Subsequent market gains are amortized first into the COLA and then into employer and employee rates.
Primary risk management goal: Achieve at least 97.5 percent probability that benefits earned will not be reduced over the next 20 years	Contributions are levied on wages at a uniform rate regardless of age.	Contribution rates are generally split evenly between employees and employers.	Employers pay for their liabilities upon withdrawal.



New Brunswick	Netherlands	Wisconsin	Maine
Secondary risk management goal #1: Members and retirees receive increases equal to 75 percent of the increase in the consumer price index (CPI) over the next 20 years	The plan uses a single pooled fund for investment purposes.	Amounts paid by employers and employees are paid in full.	
Secondary risk management goal #2: 75 percent of ancillary benefits (e.g., early retirement subsidies) will be provided over the next 20 years	In July 2015, the central bank changed the calculation method of the "ultimate forward rate" (UFR), namely the long-term reference rate anchoring the yield curve used to discount the funds' actuarial liabilities. The UFR was reduced from 4.2 percent to 3.3 percent, closer to market values (but still above the 30-year zero-coupon bond yield), at the cost of further immediate pressure on funding ratios.	To keep costs low, the State of Wisconsin Investment Board invests assets professionally, prudently, and efficiently. The majority (approximately 75 percent according to some estimates) of plan benefits paid come from investment earnings.	
If the open group funded ratio falls below 100 percent for two successive years, a contribution increase of up to 3 percent of earnings (1.5 percent each for employee and employer contributions) is triggered, until such time as the open group funded ratio reaches 110 percent (without considering the effect of the contribution increase) and the funding goal under regulation is met. Procedure for reducing future and present benefits: First, change the rules for nonvested members to a full actuarial reduction for early retirement; then reduce base benefit accrual rates for future service by no more than 5 percent; and then reduce base benefits on a proportionate basis for all members, for both past and future service in equal proportions.	In the event their solvency ratio falls below the minimum funding ratio of about 105 percent, pension funds are required to submit a recovery plan to restore their policy funding ratios, computed as the average funding ratio over the past 12 months, to about 120 percent of their own funds within 10 years.	Unlike under most other public pension systems, employees and retirees bear most of the investment risk.	



New Brunswick	Netherlands	Wisconsin	Maine
If the open group funded ratio exceeds 105 percent for two successive plan year-ends, a portion of the excess may be utilized for the following summarized actions in this order of priority: first, reverse previously reduced base benefits under the funding deficit recovery plan; then provide indexing of base benefits for future payments up to full CPI for every year that has been missed or partially covered.		There are no guaranteed COLAs.	
If the open group funded ratio is at least 140 percent, plans may reduce contribution rates by such an amount as to maintain an open group funded ratio of 140 percent, then establish a reserve to cover the next 10 years of potential contingent indexing, and then propose benefit improvements, subject to certain criteria.  In a given year, if an employer experiences an increase or decrease in employer sof more than 5 percent, the initial contribution rates must be recalculated.  Effective 15 years after the conversion, the employee and employer contributions must be set such that the total initial contributions remitted are shared equally between the employees and employers.	Recovery may be achieved through catch-up contributions or reduced benefit indexation, with benefit curtailments required only as a last resort in the case of solvency ratios below 80 to 90 percent, or in the event the policy funding ratio cannot be restored within five years. However, such curtailments may be spread out over 10 years.	Postretirement adjustments depend on investment performance and can be reduced or increased based on investment returns.	



<b>New Brunswick</b>	Netherlands	Wisconsin	Maine
The plan has provisions that safeguard contributions in the even of a political impasse. For instance, every three years, the chief actuary of Canada reviews the contribution rate required to sustain the Canada Pension Plan (CPP) over the next 75 years. If the system is not financially sustainable, a semiautomatic adjustment freezes benefits and increases the contribution rate until the next triennial evaluation.		Annuities cannot be reduced below the original amount set at retirement.	
The insufficient contribution rate provisions of the base CPP serve as a safety net in the event of a political impasse. If the minimum contribution rate is higher than the legislated contribution rate and if the federal and provincial finance ministers cannot reach an agreement, then the contribution rate is increased by one-half of the excess over three years and benefits are frozen until the next review by the chief actuary of Canada.		The Wisconsin system ensures intergenerational equity through its focus on long-term investment and regular collection of actuarially determined contributions.	

