SO MANY LEVERS TO PULL

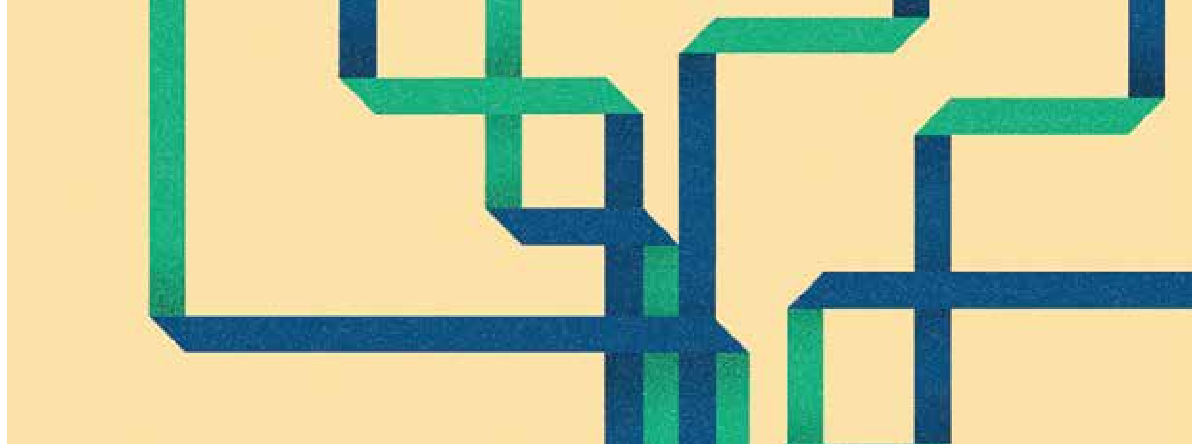
A look at how Canadian pension funds are using leverage

By *Martha Porado*

In February, the Canada Pension Plan Investment Board flipped the script on fixed income by issuing its own bonds rather than purchasing them. The move to issue one billion euros' worth of 15-year bonds at a 1.5 per cent fixed annual coupon marked the second time it had released euro-denominated bonds. In June 2017, it released two billion euros' worth of bonds.

In a move exclusively available to pension plans with serious scale, Canada's eight largest funds have all made forays into issuing their own bonds. The Ontario Teachers' Pension Plan took the lead with its initial $600-million bond issuance in 2001 at 5.7 per cent. The trend towards lower interest rates in the years since has coincided with other plans following suit. The Ontario Municipal Employees Retirement System put out $500 million worth of bonds in 2002 at 5.48 per cent, followed by a $750-million issuance by the Caisse de dépôt et placement du Québec at 4.2 per cent. At the lowest initial coupon, the CPPIB joined the party with $1 billion in 2015 at 1.4 per cent.

GETTY IMAGES / MITCH BLUNT



FIRST BOND ISSUANCES BY LARGE CANADIAN PENSION SCHEMES

2001: Ontario Teachers' Pension Plan issues **$600 million** at **5.7%** to mature in 2011

2002: Ontario Municipal Employees Retirement System issues **$500 million** at **5.5%** to mature in 2012

2003: Caisse de dépôt et placement du Québec issues **$750 million** at **4.2%** to mature in 2008

2004: British Columbia Investment Management Corp. issues **$200 million** at **3.9%** to mature in 2009 and **$100 million** on a floating rate to mature in 2006

2008: Public Sector Pension Investment Board issues **$600 million** at **4.6%** to mature in 2013

2012: Ontario Pension Board makes two issuances —one for **$350 million** and another for **$150 million**, with both at about **3.9%** – to mature in 2042 and 2062, respectively

Borrowing to buy

Other than under strict, specific circumstances, Canadian pension plans can't borrow money in order to invest if they want to remain a tax-exempt entity under the Income Tax Act. Issuing bonds is one way to get around the restriction by resorting to what Jason Mercer, vice-president and senior analyst at Moody's Investors Service Inc., refers to as "sort of a regulatory arbitrage."

Pension plans can also borrow small amounts to help avoid liquidity crunches. "Let's say you have to pay out benefits and you have investments that you can't sell for 30 days," says George Dzuro, a partner at Koskie Minsky LLP.

"They allow you to borrow . . . to fund payments so that you don't have to break investments."

In addition, there are scenarios where Canadian pension plans can mortgage properties they own to raise capital, he adds.

U.S. pension plans, however, are indeed able to leverage their assets to take out loans or issue debt. Just two years after the 2008 financial crisis, the State of Wisconsin Investment Board took on a strategy that leveraged its safer assets, namely high-grade bonds, and used the borrowed money to boost performance.

Back then, in 2010, many economists were predicting inflation and interest rates would rise as the United States recovered from the financial blow. Given that anticipation, one critic of the strategy, Daniel Jick, vice-chair of HighVista Strategies, told the *Wall Street Journal* that higher interest rates could have spelled trouble for a pension plan with levered bonds, since if prices were to fall, their leveraged status could amplify the declines.

However, the United States and Canada, for that matter, saw continued low interest rates for many years after 2010, showing just how difficult it can be to plan for market conditions in the long term. Today, interest rates have been on the rise in many jurisdictions. In June, the U.S. Federal Reserve raised its key short-term interest rate by 0.25 per cent, reiterating its forecast of continued hikes in 2018, while the Bank of Canada raised its benchmark rate by 0.25 per cent in July.

Such low interest rates for so long have been a major challenge for Canadian pension plans seeking to maintain adequate returns, says Mark Webster, director of exchange-traded fund distribution for BMO Global Asset Management. However, it's not the only headwind in the Canadian economy, he notes. Pension plans are issuing bonds now, he says, "because many Canadians are retiring earlier and most Canadians are living longer and that's a devilish combination," he says. Traditional approaches aren't cutting it today, he adds, noting pension funds are using more complex methods in order to free up capital to further diversify their asset mixes by solidifying their moves into real estate, infrastructure and other real assets.

And while interest rates in North America have been on the rise, that's not yet the case in Europe, Webster notes. He points out that some, although not all, of the recent debt issuances from Canadian pension plans have been in Europe. As such, issuing bonds remains advantageous in that jurisdiction.

Elsewhere, interest rate increases aren't necessarily a cause for worry, according to Webster. "If rates are rising because growth is continuing . . . that's a good indication that the economic growth is thriving and so people should have the wherewithal to pay off an indenture. If rates are rising because inflation is on the horizon, that's a little bit different because obviously, inflation erodes real returns. So it has to be a measured approach," he says.

Repo me this

Operating in a world where decent returns are increasingly hard to come by, pension plans have had a significant presence in bond repurchase agreements. In a 2016 research report, the Bank of Canada estimated that at the end of 2015, the top eight pension plans in Canada were counter parties in 15 to 35 per cent of all outstanding repurchase agreements and reverse repos reported by Canadian financial institutions on their balance sheets.

Such agreements are essentially short-term collateralized loans, whereby investors free up cash by selling securities — bonds in this case — but agree to buy them back at a set future date. The approach can help avoid a liquidity crunch if a pension fund wants to act quickly on an opportunity by freeing up cash, says Webster.

But is there a risk in all of that leveraging activity? The Bank of Canada believes so. The trouble lies with the fact that pension plans are assuming

GETTY IMAGES / MITCH BLUNT

If rates are rising because growth is continuing . . . that's a good indication that the economic growth is thriving and so people should have the wherewithal to pay off an indenture.

the risk of damage to other counter parties in those agreements, which they can't control, the report found. If the banks themselves were to experience a serious period of funding stress, they might have to stop repo lending to even their highest-quality counter parties, including pension plans. That could, in turn, create a liquidity crunch, forcing plans to sell assets at unfavourable times in order to rebalance.

Diving into derivatives

The derivatives market presents a similar issue, according to the report. When trading futures contracts, for example, an investor only has to put up a small percentage of what the agreement is actually worth. For example, to hold a $500 contract, an investor might need to only put up 20 per cent, or $100. The change in the price of the underlying security can cause the value of the contract to move up or down. If the contract's value rose to $600, the trader would pocket the $100 profit. If however, the value of the contract were to drop to $300, the trader would have to take a $200 loss even though the initial investment was only $100. In that way, if trades go poorly, investors can lose even more than their original investment. The larger the value of the contract, the more that small changes in the value of underlying securities can push gains or losses.

Should pension funds face margin calls they aren't ready for, they could again find themselves having to sell assets at unfavourable price points. Losses from the sale of assets in either scenario could be material enough to have an adverse effect on asset prices generally, causing a spillover into the broader financial markets.

2015:
Canada Pension Plan Investment Board issues **$1 billion** at **1.4%** to mature in 2020

2017:
Alberta Investment Management Corp. issues **$400 million** at **2.3%** to mature in 2024

Source: Overbond Ltd., 2017

In response to that risk, particularly surrounding derivatives, the Bank of Canada has been a proponent of a process called central clearing within the Canadian repurchase market and, at the time of its report, was working with the Canadian Derivatives Clearing Corp. to bolster efforts in that area. In April 2018, the Montreal-based organization launched a new direct-clearing model for Canadian buy-side firms and established a new membership category called limited clearing members, which includes pension plans, that can clear cash or repo trades directly through it.

Derivatives, as an asset class of their own, are subject to the same market risks as their underlying securities, the Bank of Canada's research noted. A sudden change in the value of derivatives as an asset due to market fluctuations can have a "non-negligible impact" on a pension plan's financial performance and liquidity situation, it said.

"Size kills," says Joseph Cusick, director of institutional education and business development for the Options Industry Council, a Chicago-based organization. The most important thing for institutional investors to understand about using derivatives is they can't overdo their allocation to them, he says. "If you're trading too many of these leveraged instruments against your balance sheet, yes, you could get potentially run over."

Cusick suggests it's important to be clear that the problem investors can face with derivatives is an abundantly simple one. "They get too big. They trade much bigger than their book, and that's how they get into trouble. Historically, that's always been the case."

Used properly, he says, some derivatives can represent an admirably innovative approach. "I have to give kudos to the Canadian plans," he says. "If you look at [the Healthcare of Ontario Pension

GETTY IMAGES / MITCH BLUNT

> **“Size kills. If you’re trading too many of these leveraged instruments against your balance sheet, yes, you could get potentially run over.**

Plan] or Ontario Teachers’, they’re two great examples of where you’re seeing funding ratios of over 100 per cent and they are strong consumers of both [over-the-counter] and exchange-traded option strategies.”

Instead of simply including derivatives as an asset class, such plans are using put and call options in order to guide underlying assets in their portfolios to their greatest return potential, he says. “They’re using options strategies like selling calls against their underlying assets and selling puts to naturally rebalance on a cash-secured basis.” Increasing use of options allows plans to obtain extra yield from their assets while simultaneously mitigating excess volatility in the total portfolio, he adds.

How much is too much?

Evaluating the quantity of risk at play is tricky since determining exactly how much leverage a pension plan has taken on is difficult, the Bank of Canada report noted. Balance-sheet leverage, defined as the ratio of a fund’s gross net assets to net asset value (gross assets minus the debt the fund goes into to buy other assets, such as by issuing bonds), varies widely among the top eight plans in Canada. Their average ratio appears to be what the Bank of Canada calls a “modest” 1.3:1, but it’s difficult to tell whether that’s an accurate representation because of the multiple forms leverage can take. Indeed, the report noted “it is not possible to precisely assess aggregate leverage using public sources.” The CPPIB, for example, with net assets of $337 billion, has approved a $25-billion limit for raising bonds. While it hasn’t yet reached that limit, it would amount to 7.4 per cent of the fund’s total net assets, representing just one component of its leverage strategies.

In issuing bonds, the investments that pension plans subsequently make with the freed-up cash can add a further layer of risk that can be difficult to spot, says Malcolm Hamilton, a senior fellow at the C.D. Howe Institute. “Suppose I have cash in my portfolio and I want to have more bonds and I want to have more risk assets. So I say . . . I’m going to take all the cash and pour it into risk assets and then I’ll borrow a little money and I’ll put it into bonds. You can look at the end of the day and say, well, the reason they borrowed was to buy more bonds, but it’s equally true to say, had they not used all of their cash to buy risk assets, they wouldn’t have needed to borrow to buy more bonds.”

From an outside perspective, it’s essentially impossible to determine what a pension plan’s intentions for that capital really are in terms of achieving a particular asset mix, he says. “The only thing that seems unusual to me is that these plans seem to have more and more risk assets and more and more illiquid assets with every passing year. And yet they describe themselves as driving the risk down with every passing year, and I just don’t see how you can hold that stuff and think your risks are going down.”

Mei Mavin, director of corporate communications at the CPPIB, said the “limited degree of leverage” it takes on through issuances of short- and medium-term debt directly enables the fund to increase its holdings of lower-risk asset classes. She further described its use of leverage, including the component taken on through derivatives, as a “modest” approach entered into at the end of building a portfolio “at the targeted level of total risk.”

The Ontario Teachers’ Pension Plan stresses that its own bond issuances are a useful way for it to diversify its funding sources. “[Ontario Teachers’ Finance Trust’s] commercial paper program provides low-cost funding for desired terms that supports our investment strategies and internal liquidity requirements. The diversification of funding sources, away from the dependence on bank balance sheets, has been important at a time when capital and liquidity regulations have been changing,” said Audrey Gaspar, managing director of treasury and integration.

“An added benefit has been that the non-Canadian dollar issuance provides a natural hedge against the currency risks in a multi-currency portfolio of investments.”

In the anticipated environment of higher interest rates, pension plans may feel less pressure to be so creative in driving returns, says Mercer. Indeed, with higher interest rates, pension plans would need to make changes to their levered strategies, he adds, noting it’s hard to know what the end result would look like. “I think we’d be kind of in uncharted territory. Really, all of these strategies have been taken on during this low interest rate environment.” BC

Martha Porado is an associate editor at *Benefits Canada*: martha.porado@tc.tc.