
SECTION:	Investment of Pension Funds
INDEX NO.:	I400-305
TITLE:	Use of Derivatives: Significant Issues for Pension Funds
APPROVED BY:	The Pension Commission of Ontario
PUBLISHED:	Bulletin 5/2 (Summer 1994)
EFFECTIVE DATE:	When Published [Information outdated - Feb. 2000]

The Use of Derivatives: Significant Issues for Pension Funds

This article is a slightly revised version of a speech delivered by Jules A. Huot, CFA, Senior Policy Analyst at the Pension Commission of Ontario to the Second Annual Conference on "Derivatives - Design, Regulation, Use" (sponsored by the Canadian Institute) on May 10, 1994 in Toronto, Ontario.

Growth of the Market

One important and well-known development over the last two or three decades has been the growing importance of institutional investors in bond and stock markets. Stock ownership by these institutions has grown from about one fifth of total market value twenty years ago to just under one half today.

Another important development during this period is the increase in the use of exchange-traded futures, not to mention stock options. In the U.S., the volume of trading in futures has grown from 18.2 million contracts to 340 million from 1972 to 1992. Global volume is estimated at 450 million contracts. The value of daily trading exceeds US$300 billion, and the open interest is valued at above US$1.4 trillion.

In Canada, securities trading grew from 1986 to 1992 at an average annual growth rate of 14 per cent to a level of $2.7 trillion. During the same period, the over-the-counter derivatives position of the "Big Six" banks grew by 31 per cent to a notional amount of $2.2 trillion.

These trends have evolved in parallel. Institutional investors have made very little use of futures or other derivatives. A survey carried out by *Institutional Investor* magazine indicated that only about 28 per cent of U.S. pension funds used futures of any kind for any purpose. Their investment in futures was estimated at less than 1 per cent of assets.

Derivatives are useful portfolio tools to manage risks and enhance returns, yet they have been little used in pension fund portfolios. There are several reasons to explain their low profile: inability to convince clients to use them, resistance to introducing a new "asset class", apprehension of greater risk, lack of knowledge, absence of standardization and complexity of trades. This paper attempts to deal with some of these issues as they affect pension funds.

The Regulatory Framework

The *Pension Benefits Act* of Ontario (the "PBA") and its investment regulations present a mixed regime of prudence and quantitative limits. The latter are rather straightforward and compliance is relatively easy. Although these limits are immutable, the overriding concern is prudence - a concept which presents more subtlety than mere compliance with quantitative limits - which is judged at the overall portfolio level, and in terms of process rather than investment returns.

Prudence

The sections of the PBA dealing with prudence and investments are 22 (subdivided into 11 subsections) and 62. The relevant sections read as follows.

Care, diligence and skill

> **22.**--(1) The administrator of a pension plan shall exercise the care, diligence and skill in the administration and investment of the pension fund that a person of ordinary prudence would exercise in dealing with the property of another person.

Special knowledge and skill

> (2) The administrator of a pension plan shall use in the administration of the pension plan and in the administration and investment of the pension fund all relevant knowledge and skill that the administrator possesses or, by reason of the administrator's profession, business or calling, ought to possess.

Member of pension committee, etc.

> (3) Subsection (2) applies with necessary modifications to a member of a pension committee or board of trustees that is the administrator of a pension plan and to a member of a board, agency or commission made responsible by an Act of the Legislature for the administration of a pension plan.

Employment of agent

> (5) Where it is reasonable and prudent in the circumstances so to do, the administrator of a pension plan may employ one or more agents to carry out any act required to be done in the administration of the pension plan and in the administration and investment of the pension fund.

Responsibility for agent

> (7) An administrator of a pension plan who employs an agent shall personally select the agent and be satisfied of the agent's suitability to perform the act for which the agent is employed, and the administrator shall carry out such supervision of the agent as is prudent and reasonable.

Investment of pension fund

> **62.** Every person engaged in selecting an investment to be made with the assets of a pension fund shall ensure that the investment is selected in accordance with the criteria set out in this Act and prescribed by the regulations. 1987, c. 35, s. 63.

The Learning Problem

In the present context, the key element is found in subsection 22(2) which states that "*The administrator...shall use...all relevant knowledge and skill that...the administrator...ought to possess*." It is quite clear from any casual study of capital markets that futures, options, swaps and other derivatives require a substantial commitment to continuing education. Furthermore, the learning process is never really complete as innovations continue.

Subsection 22(2) of the PBA makes it also quite clear that it is no longer acceptable to refrain from pursuing certain investment practices or strategies for lack of knowledge. This presents a quandary for administrators and managers. It is obviously prudent to avoid making investments that one does not understand. But this is not prudent enough. There is a duty to acquire the necessary knowledge to arrive at a conscious and reasoned decision with respect to all available investments.

The risks of doing nothing have recently been highlighted by a court case in the U.S. where a board of directors was successfully sued for not hedging, because the organization had suffered large losses.

The challenge for an organization to venture into a new area is complicated by the various learning styles of individuals. There are basically four ways to learn something new: you can be told about it, you can read about it, you can be shown how it works, or you can proceed by trial and error. Obviously the last method will not be the prudent approach. It will conflict with the requirements of subsection 22(1) of the PBA dealing with the care that must be exercised when dealing with the property of another person.

Applicability

Derivative instruments can be useful portfolio management tools for those who know how to use them. Exchange-traded derivatives are fairly straightforward and standardized. Custom designed over-the-counter derivatives are in a constant state of flux, and as such, present the greatest problems to investment committees, money managers, and regulators.

The Regulation to the *Pension Benefits Act* is essentially silent on the use of derivatives, as it is about most types of specific investments. The Regulation is essentially based on prudence and disclosure. It is not based on the nature of the instruments, on the quantity used, nor on their nationality (which is an *Income Tax Act* question).

Key Questions

The PCO has received a number of inquiries on various aspects of derivatives, and has seen a number of presentations on the uses of derivatives in pension portfolios. This is indicative of at least an awareness of derivatives, and possibly of an interest in them.

Since prudence is principally a matter of process in the fulfilment of fiduciary responsibility, there are a few basic questions a plan administrator should answer about how and why derivatives will be used. The following are some examples, and are not meant to be exhaustive.

Are Derivatives an Asset Class or a Tool?

This is a fundamental question. The answer will set the tone for the whole range of investment strategies, risk profile, performance analysis, and financial reporting for the pension fund.

As already mentioned, the concept of derivatives as an added asset class may be an almost insurmountable obstacle to their use in a pension fund. However, if derivatives are viewed as a tool for managing portfolio risk or to minimize transaction costs, the problem is then one of knowledge, not of philosophy or style.

Jumping ahead to the question of financial reporting and performance analysis, derivatives used as a separate asset class will be shown in a distinct section of the report. They could conceivably include a mixture of puts, calls, forwards, futures, and options thereon, on both the long and short sides of the market. Their usefulness will be judged purely in relation to the incremental return they produce.

If derivatives are used as a risk management tool, it would be desirable to list them in financial statements with the underlying securities they are modifying, e.g., swaps and futures with bonds, options with equities, currency contracts with international security positions.

Would the Use of Derivatives be Appropriate Given the Current Structure of the Portfolio?

When the "foreign property" limit was 10 per cent and foreign investments were exclusively U.S. stocks, not much thought was given to currency risk, much less country risk. Now that the limit has been increased to 20 per cent, and those foreign securities might include a rather broad spectrum of international investments, the question of hedging the foreign currency component of the pension fund should be addressed. This is not to suggest that a foreign currency position should necessarily be hedged, but that the process of examining the question should be undertaken and documented.

Cash Flows and Policy Changes

When cash flows into and out of the fund are inconsistent with the maintenance of a chosen asset mix policy, the question arises as to whether fixed income or equity swaps might be used to manage these cash flows to minimize transaction costs.

Except for aggressive asset mix shifters, changes in asset mix policy are usually undertaken very gradually. The most common concerns touch upon costs, liquidity, avoidance of drastic moves, and fear of being wrong. Derivatives can ease the transition to a long-term asset allocation, or be used in an asset overlay strategy to re-balance the asset mix.

These are just a few examples of questions to be addressed in the management of a pension fund when assessing the practicality and extent of the use of derivatives. The main concern is managing portfolio risk, but cost containment, return enhancement, policy and strategy implementation are equally valid applications. These questions likely are even more timely in situations where there are several active managers.

Disclosure - Statement of Investment Policies and Goals

The complement to prudence is disclosure, both <u>ex-ante</u> in the Statement of Investment Policies and Goals (SIP&G), and <u>ex-post</u>, in the financial statements and performance reports.

The use or proposed use of derivatives must be indicated in the SIP&G. It would be desirable to do more than simply state that derivatives will be used, and to list the types of derivatives that will be used.

The SIP&G could describe what policies and strategies are being pursued. This could be done by listing the objectives, e.g., to modify asset allocations, to adjust duration, to create synthetic securities, to hedge certain positions. Ideally, the specific types of derivatives to be used for each purpose will also be given. The purpose is to inform the reader - whether that person is a fund manager or a plan member - on the policies and the strategies pursued by the fund.

Disclosure - Financial Reporting

How pension plans should report and account for derivatives in their financial statements are dealt with in by another speaker. It is generally accepted that certain derivatives - such as futures contracts - are "off-balance sheet" items, and need not be included in a fund statement, or that some do not have an asset value. However, the spirit of full disclosure requires that financial reports include the information necessary to impart fully the investment posture of the fund to a less experienced reader of the statements.

Evaluation

Although the regulator is not mandated to monitor investment performance, the regulator is vitally interested in the question as it affects the funding of pension liabilities. On the other hand, one should be consistent with the principle of full disclosure to beneficiaries, and with the application of care, skill and diligence in the management of a pension fund. Performance reports should measure the effectiveness of a derivatives strategy vis-a-vis its stated objective, and account for the value added from the use of the derivatives.

A good starting point would be the Performance Presentation Standards of the *Association for Investment Management and Research* ("AIMR"). These standards recommend complete disclosure of the nature of the strategies for portfolios using derivatives: a description of their use, their amounts, the frequency of their use, and a discussion of their characteristics. These disclosures should be detailed enough for the administrator or the trustee to assess the effect of all the pertinent factors surrounding the returns and risks of the strategy or portfolio. It is incumbent upon the administrator or the trustee to elicit this information particularly if the administrator or trustee is to act with the appropriate degree of prudence in the supervision of the pension fund.

Summary

To summarize, trading in derivatives has grown to such an extent that it now constitutes a significant part of the capital markets, and these instruments add a new dimension to the management of investment portfolios in general, and pension funds in particular. Plan administrators and fund managers should acquaint themselves with all aspects of the principal characteristics of these vehicles. They should stay up-to-date with new developments and innovations in this field, and assess their applicability to the portfolios under their care. These are the key steps to follow in the prudential process. The complement to the exercise of prudence is full, true and meaningful disclosure and evaluation.