

BURSTING THE BUBBLE

By Vincent Lépine and Michel Jalbert

Is inflation dead? Not likely. In fact, from a worldwide perspective, inflation is the norm. Canadian pension plan sponsors should heed warnings of an inflationary future.

Pension plan sponsors, portfolio managers and financial analysts have focused on investment returns lately, given the resurgence of equity markets and the facelift some portfolios have received in the wake of the late-90s volatility. They are equally focused on risk and its management, in particular on asset/liability mismatches, funding shortfalls, and the like. In many ways, it's a 'back to basics' process: back to the proven portfolio building blocks of sound asset allocation and consistent risk management. But among the manifold items contained in risk management, a critical one is inflation.

Inflation has arguably been off the radar screen for some time now, for clear reasons: historically low managed rates and low price pressures. You may recall that in the mid- to late-90s, there was even a 'zero-inflation' current of analysis; a particularly telling book title was *The Death of Inflation*.

True, inflation remains extremely low. At the time this article was written, the U.S. Consumer Price Index (CPI) was clocked at a seasonally adjusted annual rate of around 1.7%, still below its historical average of 2.4% (see Chart 1). Why worry?

Yet, there are signs of an upcoming trend of price increases, one that industry practitioners would be well-advised to heed.

INFLATION TRENDS, HERE AND ABROAD

An examination of the situation worldwide certainly hints at the possibility of inflation returning here. On a global scale, disparities do prevail, with industrialized countries reporting an average 1.9% annual CPI inflation value,

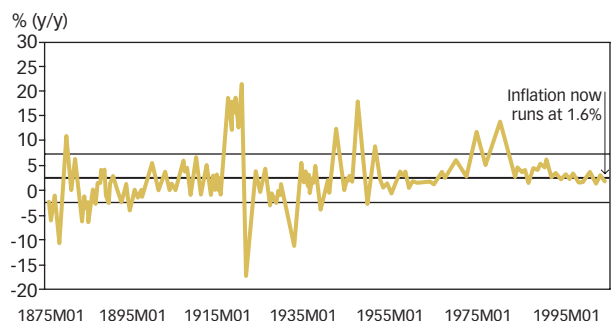
Latin America 7.4%, and Eastern Europe 11.4%. More importantly, it is worth noting that the deflation epicenter of the 1990s, Asia, has shifted back into an inflationary environment (2.2% in 2003). In short, from a worldwide perspective, inflation is the norm, not the exception.

Another important factor needs to be considered: the two core components of the CPI basket, goods and services, contribute in very different ways to overall inflation. The facts bear this out. Over the 12 months ending in February 2004, Canadian inflation in the CPI goods component has been negative, at a -0.8% rate. Services, on the other hand, contributed 2.1% to the

CHART 1

Historical perspective

U.S. CPI inflation averaged 2.4% since 1875, typically fluctuating by more than 4.5% per year.



Source: Global Financial Databases and Datastream

overall CPI change. This feature is observed elsewhere around the globe (see Chart 2).

Because the prices of services are rising faster than the prices of goods, the relative importance of services in the CPI increases over time. In the 1960s, goods accounted for 60% of the U.S. CPI; they now account for 40%. Looking forward, this trend is likely to persist.

This has yet another significant consequence. Not only do prices of services rise faster than the price of goods, they are also three times less volatile. In short, inflation in services is more persistent. This means that once overall inflation starts accelerating, it is harder to stop.

THE GOODS ADD PRICE PRESSURE

Unfortunately, there is more to the story. Inflation is resurfacing on the goods side too. Shorter-term cyclical pressures are mounting, as is evidenced by the upward-trending prices of commodities such as oil and gold, and more generally captured by the CRB index's upward progression. Moreover, commodity prices have been trending upward since the end of 2001—for 29 consecutive months. This typically heralds a re-acceleration of goods-related CPI inflation.

Other leading indicators of inflation are also pointing in the same direction. Composite indicators of inflation worldwide indicate the current price-pressure signal is widespread.

In light of the accommodating approach shown by central bankers around the world, inflation's comeback shouldn't come as a surprise. The global monetary policy stance is extremely lax and is likely to remain so for some time. By keeping interest rates at historical lows, monetary authorities are deliberately aiming at re-inflating the world economy. This trend is increasingly having the desired impact. At this juncture, the issue is that financial markets are not ready for this outcome.

In the final analysis, the case for accelerated price appreciation is compelling. A proactive approach to inflation is important at this time: it's important to be ready, safe, and not sorry. But to make the case for battling inflation more relevant, let's turn to the effects inflation has on investments and pension plan obligations.

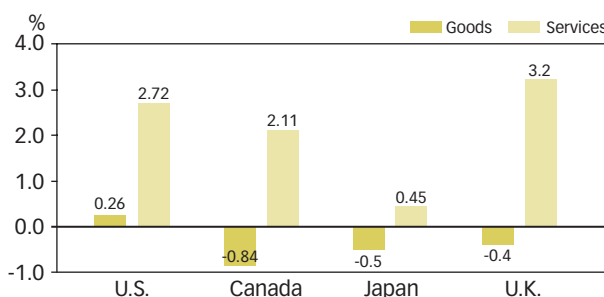
PENSION PLANS: THE IMPACT

The return of inflation is occurring as North American plans are arguably in some disrepair. For instance, at the end of August 2003, the deficit of U.S. corporate plans stood at US\$580 billion. As well, at the end of 2002, Canadian corporate and public plans were showing a shortfall of \$225 billion with more than 30% of Quebec-based plans insolvent. Moreover, the resurgence of stock markets in 2003 has hardly improved the financial situation of many pension plans, as its uplift effect has been somewhat mitigated by an increase in plan liabilities due

CHART 2

Inflation for services and goods

An analysis of CPI inflation in two sectors in major countries over the 12 months ending February 2004.



Source: TAL Global Asset Management Inc., and Datastream.

to the low interest-rate environment.

Plan sponsors seem caught between aggressive actuarial assumptions and high-required rates of return, and lower tolerance to risk, given plan imbalances. Current mismatches between assets and liabilities put renewed pressures on sponsors, creating an incentive to address budding inflation early on.

It's a good idea to counter the issue in the early stages, because inflation has a significant impact on the financial situation of pension plans. In a study commissioned by the Association of Canadian Pension Management and conducted in May 2003, 587 Canadian final-average-pay pension plans were analyzed. The results are striking: with full indexing, liabilities mushroom, increasing by more than 45%. This consequently decreases the average funded ratio from 97% to 67%. In particular, this shows how presumably well-funded plans fall short when inflation is not a component of plan and portfolio design.

In addition, inflation inherently has a direct impact on how traditional asset classes fluctuate. In brief, an increase in inflation will lead to higher interest rates, and then translate into lower returns for fixed income assets. As well, the transition to a higher-inflation environment will generally have a significant impact on equity markets. Upward-trending inflation will typically lead to a contraction in P/E multiples—thus limiting the potential upside for equity prices.

Chart 3, a simple sensitivity analysis that ignores short-term fluctuations and the intricacies of pension accounting rules, illustrates the impact of inflation on the financial situation of a pension plan. Although the net effect is negligible, as illustrated, inflation has a significant impact on the various elements of the financial equation. Thus, from a plan funding and surplus point of view, inflation needs to be addressed to maintain plan balance. Three questions then occur:

1. What inflation hedges can be used in portfolio building?

2. What are the correlation levels of inflation hedges with other typical asset classes?
3. What are the return/risk characteristics of inflation hedges within the portfolio?

INFLATION HEDGES AVAILABLE TO CANADIAN PLAN SPONSORS

Numerous empirical studies have shown that traditional asset classes (i.e., stocks and bonds) do not constitute effective inflation-hedging vehicles. Moreover, there are few inflation hedges available in readily useable format for plan sponsors. But there are three potential products that could be added to a portfolio in order to introduce an element of protection against inflation and to improve its risk/return profile.

Inflation-Indexed Bonds

Inflation-indexed bonds (IIBs) deliver a real return above a pre-determined inflation benchmark by paying an inflation-adjusted coupon and capital. And although Canadian IIBs are limited in number and market breadth, this is not true of foreign ones.

In fact, the complementary combination of domestic and foreign inflation-indexed bonds makes sense for two reasons. First, the foreign IIB market is large, highly liquid and rapidly growing, with a total market capitalization of \$520 billion (more than three times its size five years ago). Second, the relatively high correlations between the Canadian CPI and foreign IIBs (ranging between 0.5 and 0.6 on a currency-hedged basis) make a compelling case for inflation hedging.

Commodities

Commodities constitute another inflation-hedging product to consider. As the acquisition of physical commodities is impractical, the most effective way of gaining exposure to commodities is through an investable replication of a recognized index (using cash-settlement futures). Index selection criteria include high liquidity, good inflation-proxy characteristics, index weightings reflecting economic significance, and high information ratios.

Interestingly, the returns on commodity indices stem from a combination of three sources of value (spot price movements, collateral yield,

and supply and demand conditions), conferring better stability to index values and growth. Importantly, using an index to gain commodities exposure is tantamount to establishing a synthetic position, with a 100% Canadian underlying asset. Hence, the commodities position in the portfolio is considered 100% de facto Canadian content.

Real Estate

Finally, Canadian real estate represents a significant inflation hedge, in addition to being a good leading indicator of inflation. According to our research, lead time varies between 12 and 18 months, and the strength of the signal is important. In fact, real estate price inflation is in itself a significant component of general price inflation.

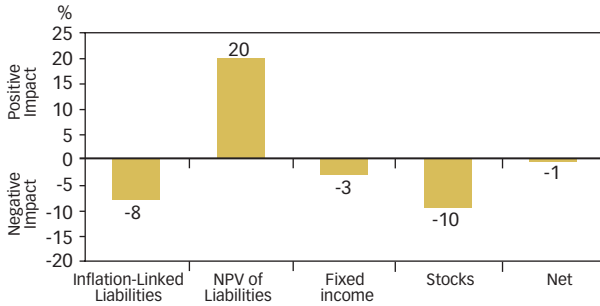
Real estate holdings, a recognized inflation hedge, may suffer from lack of liquidity and complex due diligence processes. As for real estate investment trusts (REITs), institutional investors may find them difficult to analyze and invest in.

These three asset classes—inflation-indexed bonds, commodities and real estate—represent significant inflation hedges, given high correlations with Canadian CPI data, in addition to high risk-adjusted return values.

CHART 3

Impact of inflation shock

Effects on a pension plan's financial situation from a permanent 2% increase in inflation. (Final average pay plan 60% equities/40% bonds)



Source: TAL Global Asset Management Inc.

A SIMULATION

Recognizing that the period under review is relatively short, potentially including atypical high-performance periods for the real estate market, it is interesting to examine the performance of a model portfolio (composed of the three inflation-hedging asset classes described above) for the period between January 1,

1999, and December 31, 2003.

The findings are noteworthy. From 1999 to 2003, the model portfolio of inflation-hedging asset classes returned 10.4% annually, with a standard deviation of 5.7%. This would translate into a real return of 9% and an information ratio of 1.80.

Finally, replacing 10% to 20% of the equity position in a typical plan portfolio has generated increased returns and reduced volatility. The reason is that the model portfolio shows low correlation with other asset classes (e.g., 0.24 with SC Universe, 0.17 with S&P/TSX, and -0.08 with S&P 500 in Canadian dollars).

In conclusion, it does make sense to hedge against inflation. A well-designed mix of Canadian and foreign inflation-indexed bonds, commodities (through a replicable index) and Canadian real estate represents a compelling inflation-hedging asset, which would potentially contribute to increased portfolio returns and controlled portfolio volatility for pension plans. **BC**

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