

## ACTUARIALLY-DRIVEN INVESTORS & FINANCIAL FADS

**Summary:** No matter how wild they get, financial markets don't impose upon the calculation of mortality rates. Unfortunately, the ivory tower culture of actuarial work is vulnerable to the vast but recurring changes in fashions in stocks, bonds, real estate, and (shudder) now in commodities.

Recently, HSBC estimated that by the end of 2006 institutions will hold some US \$100 billion in commodity indexes. This compares to US \$10 billion held at the end of 2003 and very much less at the cyclical low for commodities in late 2002.

This is the first direct venture by such funds in history and marks a remarkable departure from "The Prudent Man Rule" into the *fad de jour*.

In the past, the clash between the aloof long term view and undeniable market forces has resulted in corporate damage.

**Observations:** In this article, the term actuarially-driven investors refers to insurance companies and almost anything related to pension funds. These, of course, include sponsors and pension fund managers, with the connecting theme being long term studies by actuaries on mortality rates as well as projected investment returns. Obviously, so-called federal government pension plans are not included as falling under a heading of electorally-driven promotions.

In contrast with a rapidly changing financial world (particularly with volatility exceeding that typical of previous new financial eras), mortality rates change at a glacial pace. Often this culture of a virtual constant state sets itself up as removed from the variable nature of investment markets. At other times, it locks on to investment fads.

It is one thing to be detached from shorter term fluctuations, but the pedestal of the "dignified long term perspective" has, in a number of cases, been isolated – particularly from the remarkable financial volatility typical of great asset inflations.

For example, at interest rate lows in the 1940s and 1950s, insurers were very comfortable with the fashion to favour fixed income investments over risky equities.

Regrettably, the unthinkable was building and that was soaring CPI inflation which, in the early 1960s, was considered a plague that could only happen in inferior countries. Looking back on it, the irony is exquisite. As bonds were being trashed, salvation was found in equities which, in turn, were soon trashed by soaring alternative investments in commodities or real estate, which eventually turned disappointing as well.

**Some History:** As with generals always fighting the last war, the complacency that seems to go with many large funds leaves them vulnerable to the inevitable major changes in investment fashions. Since the late 1600s, insurance companies have been the largest investors, but this review is limited to North American life insurers since the 1860s. One observation is that the financial violence found with our period of asset inflation occurred in two previous examples. Another is that the steadiness of mortality calculations may

foster a complacency vulnerable to the extraordinary events that attend great asset inflations.

In the mid-1800s, some insurers in England had shown a long success of operating conservatively, providing full protection for their policyholders, with a return of 3% on their funds. In Canada and the U.S., this was about half the return from first class securities.

Businessmen in Canada, for example, saw the opportunity that, with a wider margin of safety, they could charge lower premiums and show a good return to shareholders.

The Sun Insurance Company of Montreal was incorporated in 1865 and initially the Board of Directors reviewed each policy applicant and investments. Disqualifying rules were complex and included sailing on ships crossing the Atlantic and travelling too far south into the U.S. Malaria and a variety of enteric diseases in the hotter climates were a real risk.

Of interest, the fine print also forbade payout on death due to suicide, dueling, or at the "hand of justice".

Sun, which became a global giant, is a suitable representative of the industry. Actuarial review by a consultant was first engaged in 1876 and a full-time actuary was appointed in 1881.

**The New Era That Ended In 1873:** While our review is by no means thorough, the sampling is random as to which reports were readily available. For example, the Pacific Mutual Life Insurance company started in Sacramento had their operations reviewed in 1871 by an actuary from Boston. In 1873, one was hired who had the only calculating machine in the West.

This was an "Arithmometer of Sir Thomas de Colmar" and the company's history describes it as a big brass machine that, in accomplishing astonishing feats, "its wizardry brought in many visitors". Unfortunately, it required frequent trips to San Francisco for repairs by an expert watchmaker.

In the 1870s' boom, the Northwestern Mutual Life Insurance Company extrapolated confidence and took "long term" positions in higher yielding but lower grade securities. The "new era" climaxed with a bubble in 1873 and narrowing quality spreads reversed to widening in the consequent distress and collapse of liquidity. Chagrined, the investment committee discontinued the policy of trying to obtain high returns through risky investments. The 1873-1895 contraction was called "The Great Depression", which became an enduring illustration of risk forcing prudent investing.

**The New Era That Ended in 1929:** The next new era developed in the 1920s and Sun became one of the great companies in the world. T.B. Macaulay was both an actuary and a visionary who had, at the end of WWI in 1918, sensed the coming of a new era of industrialization. As history records, he didn't understand the risks of the subsequent great financial boom. His way to participate was through equities, with selection the key, and no investments were to be made for early sale or making a quick profit. In the mid-1920s, Macaulay wrote, "We are conservative in our selections and we retain our holdings

indefinitely, regardless of market fluctuations.". The rationalization was, "We have enlisted the brainiest and most experienced men on the continent to manage the investments.". (This compares with the boasts from a hedgefund in March, 1998 that their staff included "a disproportionate number of the world's leading computer scientists, system architects, and financial engineers". The fund became insolvent in September, 1998.)

With the benefit of hindsight and the duress of the early 1930s, this policy came into question and was rejected.

But, in foresight, this was an impossible view as the 1920s progressed and Sun's aggressive approach to equities was unique in North America and was matched by only a few life companies in England. In 1927, 55% of their investments were in various classes of corporate bonds and some 30% was in common shares which, at the top in 1929, amounted to 52% of the company's assets. This was well appreciated by speculators as the stock soared from 560 in January 1927 to 4100 in September 1929. The low on the consequent debacle was 145.

**Infatuation With Fixed Income At Secularly Low Interest Rates:** A 1971 history of the company observed that if the wagon is hitched to the star it must follow the star. Sun's business contracted with the bust and no dividends were paid for four years. In the mid-1930s, management proudly announced that since 1931 they had exclusively invested in "fixed interest-bearing securities".

This, of course, brings us around to the regard in the 1940s for fixed income that pushed long treasury yields down to less than 3% as concerns for risk in equities had investment-grade shares at a 6% dividend yield. Since the early 1700s, there have been six "new eras". Typically at bear market lows, investment-grade stocks traded at a 6% dividend yield and with the enthusiasms at bull market tops at 3%. On the credit cycle, interest rates for senior government bonds typically traded around 3% at an economic trough and at the height of a boom near 6%. (Over 300 years, the 15% in 1980 was the exception.)

By the late 1960s, widespread concerns about another depression were dispelled by a wonderful bull market. As that one was peaking, the popular projection claimed there would be so much institutional money coming into the stock market that there would be a "shortage of equities". Expanding earnings multiples and new issues were also featured.

Despite this allure, the policy at a large life company was that any investment that fluctuated in value had no value because the actuary could not match with any certainty the sanctified 30-year forecast of mortality rates. Investments, therefore, required fixed income. All bonds were held to maturity. Even if the issue was rated as junk, it qualified as an "in" investment while equities and real estate were "out". In the early 1960s, equities were restricted to 15% of investment funds and undesirable real estate was kept at 1%.

**Infatuation With Real Estate At Secularly High Interest Rates:** The greatest bear market in history for bonds accelerated in the 1960s, making fixed income investments unpopular. As the rate of inflation was getting well beyond most coupons, actuarial assumptions suddenly forced direct investments in real estate. Pension funds bought a wide variety of properties at inflated prices.

Out of the speculative real estate collapse in the early 1980s, another great bull market for common shares started. With this, another cult of equities developed with actuaries eventually recommending a 60%+ weighting. Despite the collapse of radical speculation in techs, this has maintained. This compares with the aggressive 52% weighting by Sun Life in 1929.

Using the DJIA, equities didn't break even until 1955. This, so to speak, is an actuarial life-time and, although there was little change in mortality rates, the investment culture had changed to minimize rather than celebrate equities.

More recently, equities are very much in fashion, real estate again has been wonderful, and confidence in the Fed's ability to depreciate the dollar "forever" is so strong that former champions of fiduciary responsibility are speculating in commodities.

Recent changes in the yield curve and credit spreads are indicative of the financial stresses that accompany the culmination of any great boom. This review starts with the asset mania that blew out in 1873 when the leading New York newspaper editorialized that nothing could go wrong because, without a central bank on a gold standard, the Treasury Secretary had ample powers to prevent a contraction. It lasted from 1873 to 1895 and senior economists called it "The Great Depression" until as late as 1940.

However, as history has shown, institutional infatuation with a fashionable asset class provides a reliable indicator of a paradigm change.

For around 150 years and despite an august dedication to the long term, financial institutions have flocked to fashion and then suffered chagrin. This ranged from being overweight in bonds at a 3% yield in the 1940s to being overweight equities in the late 1960s when the S&P started a 66% decline in real terms.

If Sun Life, for example, suffered considerable remorse in being overweighted in stocks in 1929 at a 3% dividend yield, is a similar remorse possible with being overweight now at a 1.84% dividend yield?

Taking this line a little further, what is the potential for chagrin when positioned in commodities with no coupon, let alone dividend?

The history of the investment behaviour of financial institutions provides an answer.

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