The AMBACHTSHEER Letter
Sustainable Pension Design • Effective Pension Management

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WHERE DID THE *TOTAL PORTFOLIO APPROACH* COME FROM….

….AND WHERE IS IT GOING?

"Harry Markowitz's contribution consisted of developing a rigorously formulated operational theory for portfolio selection under uncertainty."

Nobel Prize Committee, 1990

"The investment methodology Total Portfolio Approach (TPA) is making big waves at the moment. Funds in large numbers are thinking about ways to make the transition to TPA….but the paradox is that not much money is run this way yet."

Roger Urwin, WTW, 2025

"We believe TPA deserves the mobilising oxygen that the Chartered Alternative Investment Analyst Association (CAIA)'s global convening power can provide to a transformative topic."

John Bowman, CAIA, 2025

What is *TPA*?

As a long-time commentator on strategic issues in the pensions field, comments like the two recent ones above motivated me to have a good look at the *Total Portfolio Approach* (*TPA*). Here is a summary of my reading notes on definitions and descriptions of *TPA*:

- *TPA* is an integrated, goal-oriented investment framework
- *TPA* is a unified means of assessing risk and return of the whole portfolio
- *TPA* is a process and culture configured to extract a team's best work in portfolio construction
- *TPA* encapsulates a different approach to investment strategy
- *TPA* has a long-term drawdown risk focus
- *TPA* requires collaborative team-work
- *TPA* requires boards that can think strategically but are also nimble
- *TPA* requires tech-savvy and a culture of innovation
- *TPA* addresses alignment issues between alpha and beta
- *TPA* addresses opportunity cost issues associated with static frameworks such as *Strategic Asset Allocation* (*SAA*)

While these various pieces of the *TPA* puzzle are interesting, they do not really tell us what *TPA* is, where it came from, nor where it might go from here. The goal of this *Letter* is to address these three topics.

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Harry Markowitz's Contribution

Harry Markowitz made the development of portfolio theory his life's work starting in the 1950s, and was awarded a Nobel Prize for that work in 1990. This is how the Nobel Prize Committee described his contribution: "*Harry Markowitz developed a theory for households' and firms' allocation of financial assets under uncertainty. The theory analyzes how wealth can be optimally invested in assets which differ in regards to their expected return and risk, and thereby also how risks can be reduced. His contribution consisted of developing a rigorously formulated, operational theory for portfolio selection under uncertainty. The theory has evolved into a foundation for further research into financial economics.*"

This 1990 Nobel Prize Committee description makes clear that the *Total Portfolio Approach* is not the shiny new 21st Century investment methodology implied by the two quotes that opened this *Letter*. Instead, *TPA* is simply the latest implementation version of an investment theory invented in the 1950s, and for which Markowitz was awarded the Nobel Prize in 1990. The challenge has been, and continues to be, implementing it in a way that reliably adds value. We know this based on personal experience gained in the 1970s.

Implementing Modern Portfolio Theory in the 1970s

Portfolio theory was still an esoteric topic when *Sun Life* hired me in 1969 to understand what Harry (and co-Nobel Prize recipient Bill Sharpe) were talking about, and whether it had any practical relevance in the real world of investment management. An obvious first question to address was: where do the requisite numbers (i.e., expected returns, variances, co-variances) to create the 'efficient frontier' of expected return vs. risk come from? Obviously, you can generate these numbers looking backward, but how to generate them looking forward?

On the return variances/covariances side, the historical metrics will likely be reasonable proxies for estimates for future experience. However, on the expected return side, the key judgemental questions are: how different will future return experience be from past experience…and who is going to make these judgements? Further related questions were: how accurate are these judgements likely to be, and how should they be adjusted for the likelihood that their predictive power will at best be limited?

Working with quant experts, reasonable answers were found that addressed these questions. They involved asking inside and outside investment analysts in differing fields to regularly rank the return prospects of investment opportunities in their field of expertise. They would use a 5-1 scale, with 5 indicating strong positive above neutral performance, 4 modest positive above neutral performance, 3 neutral performance, 2 modest below neutral performance, and 1 strong negative below neutral performance. These rankings would be converted to excess return expectations adjusted for assumed predictive ability and implementation costs. The final step was to run the optimization algorithm to identify the efficient frontier, and to move the actual portfolio as close to it as possible, subject to the organization's tolerance for taking on return volatility.

The key innovation in this process was actually defining and measuring predictive capabilities of investment professionals as *Information Coefficients* (*IC*s): the correlation between the return predictions and actual outcomes. It turned out that typical *IC*s were in the modestly positive 0.2 area over one year horizons. Not very strong, but sufficient to generate positive alphas after transaction costs.

This groundbreaking methodology was acquired by investment dealer *Canavest House* in 1971. From there, it was introduced to North American institutional investors through the rest of the 1970s. By the end of the decade, the time had come to pose a critical empirical question: does it work? An article I wrote with Jim Farrell titled "**Can Active Management Add Value**?" in the November 1979 issue of the *Financial Analysts Journal* addressed the question.

Its conclusion was: "*Tests suggest that current research approaches can generate judgements with low, but significant predictive power, and that a combination of approaches will often yield results superior to those of any one approach. Superior results are only forthcoming, however, when the active manager devotes adequate attention to the requisite building blocks.*"

Implementing Now-Old Portfolio Theory in the 2020s

Are the active management success conclusions reached in the 1970s still relevant in the 2020s? If they are, the *Total Portfolio Approach* has the potential to generate a modest net excess return over the return on a passively-implemented policy portfolio that represents an organization's risk tolerance. However, most of the current *TPA* descriptions we have seen make no mention of devoting "adequate attention to the requisite building blocks" of successful active management. Specifically, when *TPA* investment organizations make *TPA*-driven investment decisions, what *Information Coefficient* (*IC*) are they assuming? Are they actually measuring the predictive content of their return projections? How closely do their *IC* assumptions match subsequent *IC* outcomes?

The key point we make here should now be clear. Our reading of the *Total Portfolio Approach* suggests it is a somewhat casual approach to 'optimizing' portfolio efficiency over time by regularly screening through a 'kitchen sink' investment opportunity set that can include investment factors, derivatives, currencies, listed securities, unlisted securities, and leverage, all competing for a place in the limited-space total fund. Why do this? According to the *TPA* literature, "*to extract a team's best work in portfolio construction….requiring tech-savvy and a culture of innovation*". All well and good, but just words unless the process is backed by measurable assumptions about an organization's shorter term relative return predictive ability.[i]

A Radical Refocus: *Ownership Investing*

Readers who infer from our commentary above that we believe *TPA* currently is an over-sold, under-researched activity are right. To further make the point, we return briefly to Bart Madden's *Pragmatic Theory of the Firm* (*PTF*) as the basis for rethinking investing retirement savings. *PTF* postulates that a firm's purpose defensible to all its stakeholders is four-fold:

1. Provide a vision that inspires employees to commit to behaving ethically and making the world a better place through the products and services the firm provides.

2. Survive and prosper through continual gains in efficiency and sustained innovation, which depend on the firm's knowledge-building proficiency. Systems thinking is an important part of knowledge-building. Earning at least the firm's cost of capital is a financial requirement.

3. Work continuously to sustain win-win relationships with all of the firm's stakeholders (e.g., customers, suppliers, employees, and shareholders).

4. Take care of future generations through products and services that are designed to minimize waste and environmental harm.

The January 2025 *Letter* confirmed the validity of *PTF*. The *Letter*'s title was "**Understanding Corporate Longevity: What Secret Sauce Do Firms Over 100 Years Old Have In Common?**" It reviewed Vicki TenHaken's 2016 book on the lessons we can learn from companies that have survived and prospered continuously for over 100 years. What has been the secret sauce that has enabled these firms to accomplish this for such a long time?

According to TenHaken, corporate longevity is related to four factors:

1. Strong corporate vision and culture,
2. Unique core competencies and change management,
3. Close relationships with employees and business partners,
4. Active members in the local community.

The January *Letter* noted…. "*comparing Madden's Pragmatic Theory of the Firm with TenHaken's longevity findings, it is hard not to observe that the two mirror each other closely. Thus the conclusions of Madden's deductive approach to setting out the conditions for sustainable corporate value-creation are confirmed by TenHaken's historical approach to understanding the drivers of historical corporate longevity*". We further noted the convergence of John Kay's "The Corporation the 21st Century" findings and conclusions with those of Madden and TenHaken.

Long-Termism Should Dominate

What are the implications of this ex ante/ex post investment theory/practice evolution being fostered by people like Ambachtsheer, Kay, Penrose, Madden, TenHaken, and Buffett? Specifically, what should it motivate the professionals responsible for the oversight and management of $trillions of retirement savings to consider doing? Are making decisions that emphasize ownership-focused long-term value-creation strategies over short-term 'beauty contest' trading gains not a logical answer? The challenge is to effectively emphasize such a long-term strategy, even when short-term trading strategies such as *TPA* continue to be featured in today's institutional investment media.

Where does that leave the shorter-term trading strategies that operate under the *TPA* umbrella? This *Letter* points out the primary unanswered question at this point seems to be: what is the net value-added potential of these *TPA* strategies? Can they reasonably expected to add 10 basis points to total fund return? 20bps? 30bps? What level of predictive ability is required to justify these net value-added projections? What is the evidence such a level of predictive ability actually exists? We hope that Board members of pension organizations are asking these questions before approving management proposals to emphasize and rely heavily on some kind of *Total Portfolio Approach*.

Keith Ambachtsheer

Endnotes:

i. As an example, CPP Investments is organized into six investment teams: Total Fund Management, Capital Markets & Factor Investing, Active Equities, Credit Investments, Private Equity, and Real Assets. Each team has its own customized benchmark for performance measurement purposes.

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