Three Horizons Capital

Automation and Private Credit Expansion

Scaling Ambition, Not Headcount: Harnessing Technology for Efficient Investment Evolution

Executive Summary

This case study details the transformative engagement between Three Horizons Capital and a US_PPF—an anonymized public pension fund with approximately $450 billion in assets. Faced with a critical operational challenge reflective of current industry trends. Historically, an eight-person team managed a U.S. Aggregate bond mandate with discipline and expertise. However, as market dynamics evolved—fuelled by increased allocations to alternatives and the pressing need to enhance diversification—US_PPF was tasked with integrating private credit co-investments into its investment strategy.

This mandate came at a time when global trends, documented by the Pew Charitable Trusts and echoed in research from the Journal of Finance, indicate that institutional investors are being pressed to "do more with less." In this context, private credit presents substantial due diligence, specialized underwriting, and intensive monitoring demands.

The challenge was two-fold:

1. Maintain the integrity of the core fixed income portfolio while
2. Simultaneously expand into a higher-yield, alternative asset class

- All without increasing headcount or compromising operational excellence.

Three Horizons Capital delivered by deploying a factor-based custom index integrated with advanced automation via BlackRock Aladdin. This approach not only maintained a tracking error of less than 10 basis points but also enabled the reallocation of critical human capital toward private credit origination and underwriting.

Completed in under three months, this transformation underscores that technological innovation, rigorous governance, and targeted talent reallocation allow institutional investors to do more with the same resources while maintaining robust risk control and operational efficiency.

The insights presented here draw on extensive research and industry benchmarks from sources such as the Journal of Portfolio Management, the Journal of Finance, and the CFA Institute, reaffirming that evolutionary change—grounded in proven technology and proven practitioner expertise—is the key to success in today's competitive landscape.

Introduction: About Three Horizons Capital

Three Horizons Capital is not a conventional consultant or another asset manager. We are practitioners—people who have built, led, and transformed investment businesses from the inside. Our guidance is rooted in lived experience, not theory.

We partner with clients, working shoulder to shoulder to address the realities of growth. Our focus is unwavering: we help organizations unlock and drive revenue, not through generic advice, but through a process that is adaptive, cost-conscious, and always tailored to the client's unique environment.

Our core pillars are:

- **Sales Enablement and Client Onboarding (Distribution):** Leveraging advanced data and AI-driven insights to help clients anticipate investor needs and maximize distribution impact.
- **Investment Management:** Designing and implementing scalable, cost-effective portfolio solutions, from customized indexing to automated reporting.
- **Product Design (& Operating Platform Development):** Identifying market gaps and designing products that meet real investor needs, using a collaborative, data-driven, and risk-minimizing "sandbox" approach.

We embed within client teams, guiding them from minimum viable product to scalable success, always with transparency, collaboration, and a deep respect for each client's journey.

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The Three Horizons Capital Approach & Mandate

Three Horizons Capital's approach was grounded in rigorous analysis, stakeholder engagement, and a commitment to building a scalable, sustainable solution.

1. Customized Indexing and Automation

To mitigate the pressures of an expanding mandate, our solution centred on creating a factor-based custom index that mirrored the risk-return characteristics of the traditional U.S. Aggregate bond mandate. Designed to achieve a tracking error of less than 10 basis points, this tailor-made index was seamlessly integrated with BlackRock Aladdin for automated portfolio monitoring and trade generation.

This approach is not merely about resource reallocation—it reflects a strategic alignment of operational precision and market innovation. The Journal of Portfolio Management and insights from institutions like Northern Trust validate that carefully calibrated indexing solutions help maintain tight control over duration, credit quality, and sector exposures, even in volatile conditions. By harnessing automation, we reduced manual intervention, minimized human error, and secured operational scalability, all crucial for managing complex fixed income exposures in real time.

2. Talent Reallocation

With the enhanced automation in place managing the core bond mandate, we reallocated five seasoned credit analysts to focus exclusively on the rapidly growing private credit opportunity. Simultaneously, our Treasury and Mortgage-Backed Securities (MBS) analysts assumed new responsibilities as portfolio managers for the now-indexed core mandate.

This deliberate reassignment of talent illustrates a broader industry trend—technology-enabled transformation permits investment teams to operate at peak efficiency without enlarging headcount. Research from the CFA Institute and case studies referenced in the Journal of Finance indicate that strategic talent reallocation not only enhances operational effectiveness but also nurtures a culture of continuous learning and agility. By shifting our human capital to areas with greater alpha generation potential, we retained our institutional knowledge while embracing innovation.

3. Governance and Communication

Any transformational process requires a robust governance framework and clear, transparent communication. To this end, we developed internal education tools that articulated the new investment process, enabling every member of the team to understand the rationale behind the automation and reallocation efforts. We also instituted a rigorous monitoring and risk oversight framework that covered both the bespoke indexed portfolio and the newly emerging private credit book.

This dual focus on governance and communication is vital in ensuring that the operational transition is both smooth and sustainable. Studies published in the Journal of Portfolio Management and analyses by the CFA Institute stress that effective risk oversight and stakeholder education are indispensable when integrating technological innovations into traditional investment processes. Our approach ensured real-time visibility of risk exposures and invested in building internal competency—key factors to sustaining long-term operational excellence.

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Strategic Outcomes - Results

Metric	Outcome
Headcount Growth	0 (fully achieved through internal reallocation)
Tracking Error	< 10 basis points
Time-to-Implementation	Under 3 months (pilot and full-scale rollout)
Private Credit Capacity	5 analysts reassigned exclusively
Core Bond Management	Fully automated with precise index tracking

TEAM BIOGRAPHIES

Dr. Jay Raol focuses on providing customized direct indices and analytics to help asset managers and wealth advisors to efficiently manage portfolios to specific outcomes through innovative technology.

Previously, Dr. Raol was head of fixed income within the Systematic and Factor Investing (SFI) Group at Invesco and a member of the SFI leadership team. His team researched and managed strategies in global fixed income including investment grade, high yield and treasures. The group managed $2 bill ion in strategies across active ETFS, mutual funds and separately managed accounts. In addition, he worked with clients to develop bespoke multi-asset solutions across equities, fixed income, managed futures and options.

Before joining SFI, he was director of quantitative research within Invesco Fixed Income with responsibilities in quantitative macroeconomic strategy, portfolio construction and risk management. Mr. Raol has been in the industry since 2010. He has numerous publications covering macro economic, systematic and multi-asset subjects. Mr. Raol earned a BA degree and a PhD in computational and applied mathematics from Rice University in Houston, Texas.

Bin Yang leads the research initiatives and oversees the technology platforms that drive the firm's innovative products. Previously, Mr. Yang was a Senior Quantitative Researcher at Invesco, where he specialized in fixed income quant research, multi-asset factor strategies, and portfolio construction. Mr. Yang earned a M.S. degree in financial engineering from Columbia University and B.A. degrees in Applied Mathematics, Economics, and Statistics from Rice University. He is a Chartered Financial Analyst® (CFA) charter holder.

Andrew Gardner focuses on innovative implementation of investment strategies and distribution strategies partnering with asset managers globally to effectively and efficiently increase long term sustainable organic growth.

Andrew has over 25 years in the asset management industry working across all three regions where he helped to build and establish Invesco's presence in Asia Pacific with key Merger and Acquisition while developing Invesco's Global Sovereign Wealth Program. Over the last 10 years Andrew has worked alongside Dr. Raol at Invesco where they helped to grow Invesco Systematic and Factor Investing Group across Equity, Fixed Income and Multi Asset to $40billion.

Andrew is a chartered certified Accountant with a Master's degree in Renewable Energy and Environmental Finance from University College Dublin.