

LIPMAN BURGON & PARTNERS

Wealth Strategy Playbook Ten principles for a new investing paradigm



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Future-proofing portfolios in a new investment era

Over the past several decades, new approaches to portfolio construction have reshaped the pursuit of risk-adjusted returns. The 'endowment model' of capital allocation stands out as an exemplar.

Pioneered by Yale and adopted by global institutions, the 'endowment model' is, in simple terms, characterised by multi-asset-class portfolios with higher allocations to private markets and alternative investments. Embracing this approach has helped institutions deliver superior returns than many public pension plans and private investors.

However, an endowment investing model is now more accessible to private investors, who also have unique advantages compared to their institutional peers. There are several reasons why, in our view, this means investors can rival or exceed the performance of leading institutions.

The first is the changing investment opportunity set. For example, the range of available alternative assets has vastly increased thanks to innovative, semi-liquid and evergreen fund structures among private asset managers.

The second is new asset allocation frameworks supported by portfolio analysis tools. These allow investors to integrate private market assets and their public market equivalents. Allocation can then follow underlying sources of risk and return, moving beyond asset class labels.

There is also mounting evidence of the outsized role of investor behaviour on long-term investment returns. By empowering investors through education and self-awareness, they are best positioned to harness available investment opportunities and design modern portfolios tailored to their appetite for risk.

When viewed as a whole, these factors present an investment paradigm shift for private investors, family offices, and for purpose organisations. To maximise outcomes, seize the opportunity, and address the inherent complexities of this new era, Lipman Burgon & Partners has developed ten principles.

This paper outlines the key attributes of each principle as a guide. They account for essential governance, investment and behavioural considerations that can optimise and modernise portfolio design.

Applying these principles requires a depth and breadth of expertise, particularly to navigate a larger universe of opportunities, novel investment approaches and tools, and behavioural challenges.

This creates a compelling case to work in partnership with investment and wealth professionals with the specialised capabilities, networks, and infrastructure to build enduring portfolios – irrespective of what's to come.

Paul Burgon Chief Investment Officer and Managing Partner Lipman Burgon & Partners

A brief history of endowment model success

PIONEERING AND PROVING THE MODEL OVER TIME

In 1985, David Swenson arrived as Chief Investment Officer of Yale University's endowment, at the time valued at US\$1 billion. In the 35 years that followed under Swenson's stewardship, the Fund delivered annualised returns of 13.7% and grew to over US\$30 billion.

This is attributable to Swenson dramatically reducing the endowment's dependence on domestic marketable securities by reallocating assets to non-traditional asset classes. When he began, three-quarters of the University's endowment was allocated to US stocks, bonds and cash.

Today, more than 90% of the portfolio is allocated to foreign equity, private equity, absolute return strategies, and real assets to capture their return potential and diversifying power. Today's actual and target portfolios have significantly higher expected returns and lower volatility than the 1985 portfolio.

The success of Swenson's approach unleashed a revolution, with endowment capital flowing into alternative investments and transforming how institutional capital is allocated to the hedge fund, venture capital and private equity industries.

EVOLVING APPLICATIONS BY THE FUTURE FUND

When the Future Fund launched in 2006, combining assets with low correlations to reduce return volatility was a fundamental driver of portfolio construction from the outset. The Fund's long-term investment horizon allowed for a sizeable allocation to private markets, which has supported its investment success.

Over the last ten years, the Future Fund has delivered an 8.8%¹ per annum return at a volatility level of 4.7%, substantially exceeding its return and volatility benchmarks.

The Future Fund is also an early adopter and advocate for the Total Portfolio Approach (TPA), which emerged in the mid-2000s as a variation on the endowment model. TPA focuses on the factors and exposures that drive a portfolio's risk-return profile, allowing for a clearer mapping of a portfolio's structure. Each new investment idea is considered by its impact on the total portfolio, which encourages debate and collaboration across investment teams.

These are just two prominent examples of how leading institutions are advancing an endowment investing style. Many others have followed, including Universities like Harvard and Princeton, Sovereign wealth funds like Singapore's GIC and asset managers like Blackrock.

Amid changes to the investment universe and the evolution of asset allocation frameworks and tools, endowment model strategies are now accessible to private investors.

"The really great painters are the ones that change how other people paint, like Picasso. David Swensen changed how everyone who is serious about investing thinks about investing."

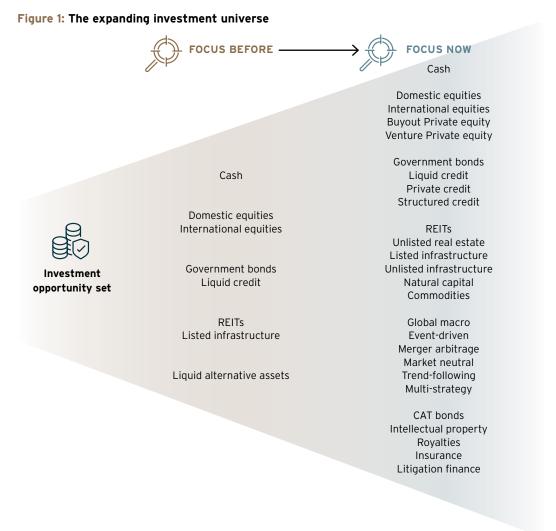
Charles Ellis, Chair, Yale University Endowment (1997 and 2008)

¹ Returns to 30 June 2023

The new paradigm for private wealth investing

That we live in an evolving world with implications for markets, assets, and investor portfolio outcomes is not a new concept. However, what has changed over time and accelerated more recently are two defining trends - **growth in the investment opportunity set** and **new asset allocation frameworks**. In many ways, this has ushered in a new paradigm for private investors.

THE GROWTH IN THE OPPORTUNITY SET FOR PRIVATE INVESTORS



Until only recently, the universe of potential investment opportunities was relatively narrow. Conventional allocations tended to be to sovereign and corporate bonds, local and international equities, and cash, as shown in Figure 1. In some cases, more sophisticated (or adventurous) investors have allocated to closed-ended private equity, property syndications and hedge funds. However, these investments tended to fall outside traditional asset allocation frameworks and presented significant operational challenges.

Once the domain of institutional investors, private assets have historically been accessed through closed-end funds calling on capital commitments from investors to maturity. Recently, the proliferation of semi-liquid, evergreen structures mean the barriers to gaining exposure to private markets are falling, even for retail investors. These structures span private equity, credit, real estate, and infrastructure and can focus on discrete strategies, sectors, and regions.

The emergence of even more specialised offerings without true public market equivalents, such as royalty streams or litigation financing, offers further diversification.

The benefits of semi-liquid funds can extend beyond liquidity, with evergreen funds offering investors immediate private markets exposure, regular income streams and the ability to choose their investment horizon.

Views that closed-ended funds offer higher returns than semi-liquid peers are also being questioned when considering the savings in time, administration, and longer-term compounding returns. As shown in Figure 2, Schroders' analysis of returns for a closedended fund vs being invested over a 10-year period shows higher value creation for the latter.

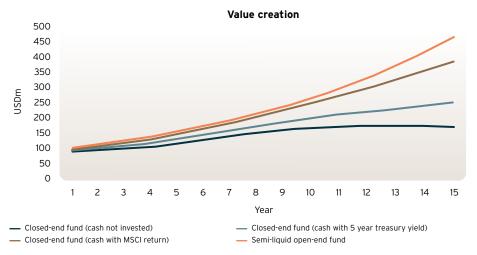


Figure 2: Cumulative returns under various fund structures

Source: Schroders 2023. For illustrative purposed only. Past performance is not an indicator of future performance and may not be repeated.

The average historical annual performance is taken over the ten year period from 2013-2022. The private equity returns are based on a closedended integrated fund with an allocation of 60% to Primaries, 20% to Secondaries, and 20% to Co-Investments. The calculation is based on Schroders Capital's standard modelling framework.

THE EVOLUTION OF ASSET ALLOCATION

While private investors have newfound access to an expanded universe of investments, traditional asset allocation frameworks are ill-suited to capitalising. Continuing a growth versus defensive, equities versus bonds posture may leave investors under-exposed to private assets or over-exposed to their associated risks where they overlap with public markets.

Therefore, investors must adopt modern asset allocation techniques that employ risk factor models that can offer actionable insights and be sufficiently robust to account for a range of listed and unlisted assets.

Figure 3: Maturing asset allocation approaches



Asset selection largely limited to liquid markets and strategies. When used, private assets are considered 'alternative' with limited portfolio weight.

Manager selection is intended primarily to generate 'alpha'.

Manager selection is often driven by recent performance. Separating manager skill from investment style is more art than science.

Frequent 'tactical' portfolio changes, macrodependent, wide range of return outcomes.

Portfolios structured around Growth (public equities) and Defensive (bonds, credit) assets. FOCUS NOW

Opportunity set spans both liquid and illiquid markets and strategies. Robust risk analytics enable private assets to be assessed alongside public counterparts.

Managers have defined roles in terms of risk, return, and factor sensitivity. Selection aims to improve reliability of these outcomes

Manager selection and allocation enhanced by measurement of factor sensitivity and post-factor alpha.

Evidence-based, long-term portfolio allocation across market environments, enabling more reliable outcomes.

Total portfolio approach underpinned by a range of uncorrelated risk factors and return drivers.

As Figure 3 shows, historically, constrained investment options beyond listed markets limited traditional asset allocation. This narrow framing has led to portfolio rebalancing and allocation shifts that tended to follow broader macroeconomic and market movements.

However, modern analytics software can appraise the underlying factors that drive risk and return across all levels of a portfolio and identify the sources of these exposures across asset classes. This enables investors to significantly enhance the risk and return outcomes of their portfolios by increasing diversification by asset classes, investment strategies and underlying risk factors.

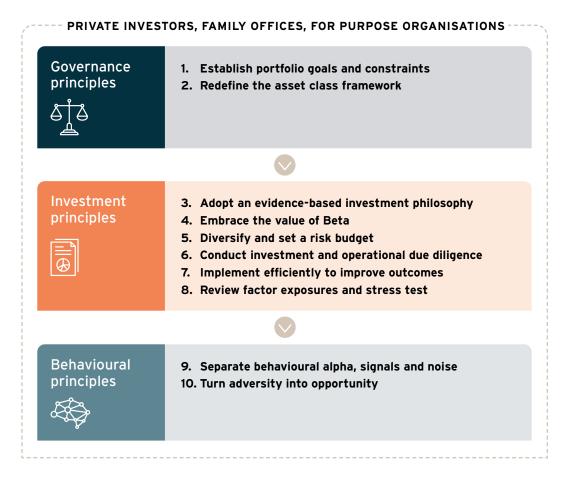
This is particularly impactful when applied to the expanded investment opportunity set. Risk software can 'de-smooth' private equity returns and appropriately account for the degree of embedded equity risk, enabling private equity to be considered in tandem with public equities in a portfolio.

Consequently, the factors driving portfolio outcomes, and common risks between asset classes, can be better identified. This applies the tenets of a Total Portfolio Approach (TPA) by going beyond the growth/defensive mindset and towards building portfolios with intentional exposures to a wide range of uncorrelated sources of return through careful asset and manager selection.

Principles for building enduring portfolios

In light of this new paradigm, Lipman Burgon & Partners has developed 10 investment principles that draw from our own experience as well as the latest ideas and innovations across wealth management, institutional investing, and behavioural finance.

Figure 4: The 10 principles at a glance



1. ESTABLISH PORTFOLIO GOALS AND CONSTRAINTS

Constructing a resilient and high-performing investment program begins with setting realistic return goals at the total portfolio and asset class level. The portfolio should establish absolute and relative benchmarks while recognising the trade-off between the two. Concurrently, investors must identify potential constraints that can impact capital allocation decision-making. These can include cash flow needs, investment horizons, liquidity demands or responsible investment imperatives.

Furthermore, careful consideration should be given to entity structuring for investments and the optimal location of assets. This can take into account tax considerations and future goals, including intergenerational wealth transfer for individual or family investors.

Underpinning all these is a well-defined and documented investment policy to guide prudent decision-making. These should be reviewed regularly enough to accommodate structural market changes but not so frequently as to invite short-termism.

"Investing without an objective is like driving without a destination."

Ralph Seger, CFA, Senior Portfolio Manager at Axiom Investors

Set realistic return goals

- Establish absolute return goals
- Define absolute and/or relative return benchmarks
- Identify risk tolerance levels
- Understand the trade-offs

Define allocation constraints

- Determine cash flow requirements
- Outline investment time frames
- Assess liquidity requirements
- Incorporate responsible investment overlays

Select entity structures and asset location

- Evaluate entity structures for investments
- Determine the optimal location for assets

Investment policy documentation

- Document the investment policy
- Schedule regular reviews of the investment policy

Performance monitoring

- Select a portfolio reporting platform
- Establish a framework for performance reviews and attribution analysis

"Diversify across asset classes. Diversify across securities within asset classes. Diversify across markets. Diversify across time."

David Swensen, Former Chief Investment Officer of Yale University Endowment

2. REDEFINE THE ASSET CLASS FRAMEWORK

Against the backdrop of an expanding universe of investment opportunities for private investors, it is vital to ensure that every investment contributes positively to the risk and return profile of the portfolio.

Within traditional asset classes, developing an asset class framework that takes a more integrated approach is increasingly crucial. Careful consideration must be given to the relative merits of public versus private assets, or liquid versus semi-liquid versus closed-end structures. Rather than viewing assets as distinct public and private market categories, they can be grouped according to their common risk and return drivers.

Take the case of two companies that differ only by their listing status. The risks to their cash flows and return to equity holders should be equal. There is, therefore, a significant common risk factor amongst public and private equities, which justifies their grouping under a shared 'equity' classification. We can extend this logic to credit, infrastructure, and real estate due to the shared capital appreciation, income generation and diversification characteristics of public and private equivalents.

Alternatives, meanwhile, include private assets without public equivalents, such as royalties or litigation finance, and hedge fund strategies, which can, in turn, be classed as convergent (benefit from stable volatility and mean reversion) and divergent (benefit from shifts in volatility and market dislocation).

Figure 5: Asset class classifications

Equities	Public and private domestic equities and international equities	Capital appreciation
Real assets	Listed and unlisted infrastructure, property and natural resources	
Debt markets	Public treasuries and credit. Private credit	
Treasury	Cash and cash equivalents	Income generation
Alternatives	Alternative public and private assets, divergent hedge funds, convergent hedge funds	Diversifiers

Given their shared risk and return drivers, acknowledging the similar roles private assets have to their public counterparts is beneficial from a portfolio design perspective. Once the framework is established, portfolio allocation targets and allowable ranges can be set at both the asset class and risk factor level and appropriately rebalanced through time. This approach incorporates principles from a Total Portfolio Approach (TPA) methodology that uses risk factors to assist in decision making.

It is important to note that TPA remains in the formative stage of development, particularly as it applies to private investors. It raises fundamental questions of how to balance total return objectives over asset class constraints and requires education and discussion between advisers and their clients.

In addition, private investors are unlikely to match the efficiency with which institutions can implement real time portfolio change. Of comfort is that the value added from such active strategies is often questionable, with the principal drivers of return remaining allocation to market betas and risk factor diversification.

With a better-defined asset class framework, investors can develop robust, long-horizon portfolios with minimal reliance on short-term forecasting, ultimately increasing the likelihood of achieving the absolute and relative performance goals for their portfolio.

3. ADOPT AN EVIDENCE-BASED INVESTMENT PHILOSOPHY

Data availability and advances in financial science can meaningfully enhance portfolio construction and investment selection when used alongside qualitative considerations. Take the case of public versus private equity managers, as seen in Figure 6, where relative performance, dispersion, and persistence data lead to very different investment implications.

"The most important thing about an investment philosophy is that you have one."

David Booth, Founder and Executive Chairman of Dimensional Fund Advisors

		CHARACTERISTIC	PUBLIC EQUITY MANAGERS	PRIVATE EQUITY MANAGERS	
		Performance	Over 5- and 10-year periods more than 75% of Australian large-cap funds and 85% of international equity funds underperform their benchmarks.	The median buyout or growth manager outperforms public markets over the term of their fund. ³	
	EVIDENCE		Even within 'less efficient' markets like small and midcaps, over 50% of funds underperform the benchmark over 5 years. ²		
		Dispersion of outcomes ⁴	Low relative to private equities.	High relative to public equities.	
		Persistence of performance	Evidence suggests persistence of top performers is worse than would be expected from random chance. ⁵	Some evidence of outperformance persistency among leading managers. ⁶	
	OUTCOMES	Investment implications	These findings support a highly diversified allocation to public equities for the core of portfolios, with allocations to active strategies limited to less efficient areas of the market.	High dispersion and high aggregate performance suggest diversification helps avoid extreme negative outcomes, but persistence suggests manager selection can be rewarded.	
		Qualitative focus	For 'style' managers (value, small, quality, etc.), examining a Manager's team, process, and business enable consistency of style into the future.	Examining whether the contributors to past performance (team, investment process, etc.) will remain in place.	
			For 'alpha' managers, questioning whether alpha generation is truly uncorrelated and looking for barriers to prevent alpha decay.	Fund terms vary widely, and careful analysis of liquidity, lockup rules, fees and even distribution clawback provisions must be undertaken.	

Figure 6: Public versus private equity manager performance and implications

In Figure 6, the evidence supports accessing core public equity through a low-cost passive or enhanced index strategy and adding a private equity allocation to managers with key competitive advantages and track records of outperformance. With the concentration risk that is common in public equity markets, allocations to core private equity are playing an increasingly vital role in maintaining diversification.

With the core of the equity allocation diversified across large-cap public and private companies, investors can further diversify the equity component of portfolios by targeting alpha in active strategies such as small cap, growth equity and venture capital.

This allocation of capital through an evidence-based framework can be applied across all asset classes, with the probability of active manager outperformance increasing in private markets and alternatives where operational expertise, complexity and illiquidity are rewarded.

Using evidence to guide an investment philosophy is also important when considering investment manager fees and the risks most likely to be compensated for. Finally, all active strategies are at risk of alpha eroding through time, which increases the need for monitoring and ongoing due diligence.

- 2 CAIS Group. Assessing the persistence of private equity performance. August 2023.
- 3 S&P Global. SPIVA Australia scorecard year-end 2023.
- 4 CAIS Group. Performance dispersion in alternative asset classes. November 2022
- 5 S&P Global. US persistence scorecard year-end 2022.
- 6 CAIS Group. Assessing the persistence of private equity performance. August 2023.

Ten principles for a new investing paradigm

"Beta is a more efficient way to access capital markets than paying high fees to active managers who, by definition, are trying to beat the market."

Eugene Fama, Economist, Nobel Laureate and Professor

"By allocating risk across different asset classes and strategies, investors can create more efficient portfolios that are better aligned with their goals and risk tolerance."

Andrew Ang, Head of Factor Investing Strategies at BlackRock

4. EMBRACE THE VALUE OF BETA

Beta is a concept most often associated with equities and measures the systemic risk embedded within an asset relative to the overall market. When considering beta, it is important to understand that the systemic risk of the market also represents the return of the market.

Index funds built to replicate common benchmark indices allow investors to capture the market's beta (risk and return) in a low-cost and highly efficient manner without the requirement to purchase every security in the index.

Beta can also be considered the expected excess return above cash for investing in the market. In this regard, the return from any active equity manager is the function of a) the return on cash, b) the excess return of the market (beta) above the cash rate, and c) the 'tilts' or manager stock selection (alpha).

However, the concept of beta can be extended to cover other systematic and easily investible risk factors, such as interest rate risk, or investment styles like 'value' or 'quality'. Many beta exposures such as equity, bond, credit, and real estate can be accessed via ETFs, as can equity strategies with meaningful exposures to equity styles. Quantitative strategies offer investors systematic implementation of other risk factors such as currency carry or even certain hedge fund strategies.

In other words, the universe of "true" alpha strategies that deliver excess returns after accounting for investible betas continues to shrink, and the cost of accessing these betas has fallen.

Furthermore, any 'true' alpha is a zero-sum game, which relies on the skill of individual managers and is at constant risk of being eroded. In contrast, well-selected betas represent exposure to systematic risks that investors demand a premium to invest in. Therefore, in aggregate, and over time, betas reliably outperform cash.

Careful analysis of risk factors can help investors identify the extent to which a manager's return can be attributed to skill or exposure to a broader market or asset uplift. This avoids having to overpay for beta-driven returns that impact performance metrics.

As Bridgewater said, "The key for most investors is fixing their beta asset allocation, not trading the market well." In this way, betas are the reliable building blocks, and separating them from alphas is essential to constructing efficient portfolios.

5. DIVERSIFY AND SET A RISK BUDGET

The diversification of portfolios has many dimensions. It can be the number of holdings, asset classes or sub-asset groups held in the portfolio or the spread of investments across geographies and sectors. It can also be viewed through the exposure to underlying return drivers and risk factors.

By identifying specific and discernible sources of common or systematic risk and returns across diverse investments, investors can determine how many uncorrelated sources of return the overall portfolio is truly exposed to. This analysis can have many layers, looking across asset classes with broad 'macro' factors like equity, interest rate, or credit risk or within asset classes through the analysis of 'style' factors like value and momentum.

Institutional asset allocation frameworks have evolved from set asset class allocations to competition for capital in part due to a deeper understanding of the risk factors driving returns. This has increased both the true diversification of portfolios and allocations to idiosyncratic factors through alternative investments.

Risk budgeting has developed as a methodology to efficiently achieve an investor's desired risk-return profile and align the portfolio with their objectives and constraints. It enables investors to set levels of target risk at a portfolio, asset class and risk factor level and then apportion that risk to each investment based on its contribution. Risk budgeting can take two distinct forms, both of which find their applications in portfolio design: absolute and active.

In absolute risk budgeting, each asset class or risk factor is assigned a specific proportion of the portfolio's total risk. This is set according to the investor's total return objectives and risk tolerance. To maintain these predetermined risk levels, capital allocation to each investment is monitored and adjusted over time. This strategy contrasts with a traditional mean variance framework where capital is allocated in fixed proportions and portfolio risk is allowed to fluctuate, often leading to outcomes becoming reliant on a single asset class or risk factor.

Active risk budgeting focuses on determining target levels of risk relative to a benchmark and is typically measured by tracking error (the volatility of excess returns relative to the benchmark). This can be particularly valuable in constructing asset class sleeves within a portfolio with defined alpha and beta targets. It complements a core-satellite process of allocating capital between benchmark-aware and more active strategies.

For example, an investor may allocate a small portion of their active risk budget to the most efficient areas of the market. A greater proportion can then be allocated to manager styles and markets where there is less efficiency of information and a higher probability that skill will lead to outperformance.

Through a deeper understanding of the risk factors that are driving the returns of portfolios and a framework for allocating risk, investors can increase their level of conviction. This is especially helpful during periods of manager underperformance and market volatility.

6. CONDUCT INVESTMENT AND OPERATIONAL DUE DILIGENCE

The first step of investment selection is to define a specific portfolio need with clear parameters. Only then can investment and operational due diligence have a cohesive framework. A well-specified portfolio need ensures that potential investments are evaluated against the backdrop of the entire portfolio's holdings rather than isolated performance metrics, thereby enhancing the reliability and prospective performance of the investment.

Consider the scenario of selecting a satellite global equities fund tasked with achieving high excess returns. To add precision and give due diligence a frame of reference, we need to articulate specifically how we expect the manager to achieve the return objective and how we expect it to interact with the rest of the portfolio: will the focus be on small caps, value stocks, or a multi-factor approach? Will the strategy seek to increase a tactical overweight in the portfolio or complement it instead? What range of tracking error outcomes are acceptable?

Without these detailed considerations, the selection process may be swayed by transient performance trends rather than long-term compatibility and benefit.

This precise formulation ensures that the investment due diligence (IDD) of investment managers is conducted based on the alignment between their strategy and its inputs and the investor's specific portfolio needs. Operational due diligence (ODD) evaluates the broader aspects of the investment manager's business or the design of the investment product to identify risks that could compromise the fulfilment of a specified investment need.

"Selecting a fund manager is not just about picking the one with the best returns. It's about finding a manager whose investment philosophy and process align with your own goals and risk tolerance."

Jack Bogle, Founder of The Vanguard Group We should also note the purpose of analysing the past performance of an investment manager. If "past performance is not indicative of future results," then how should past performance be used to undertake a manager assessment?

In our view, the primary purpose of analysing a manager's performance should be to verify the consistency of the track record with the stated investment approach rather than to set expectations for future over- or under-performance.

Ongoing due diligence is required to ensure that the investment thesis remains intact. Particular attention should be paid to staff departures, changes in business ownership, new product launches and changes in process or factor exposures.

There are many ways to conduct IDD/ODD, and criteria may vary significantly between asset classes. Figure 7 provides an overview of Lipman Burgon & Partners' approach to due diligence, as well as the sample criteria considered.

Figure 7: Investment and operational due diligence framework

INVESTMENT DUE DILIGENCE	OPERATIONAL DUE DILIGENCE	PERFORMANCE EVALUATION	
Investment teamSize and resourcingKey person riskIncentives	BusinessProfitabilityOwnership structureCompliance and risk	 Absolute and peer-relative return Active and absolute risk Distribution of returns Consistency of factor exposures 	
Investment process Consistency Repeatability Implementation 	 Product and structure Wind-up risk Service providers Gating mechanisms 		
 Portfolio risk management Appropriate risk limits Capacity Linkage investment decisions 	ESG • Greenwashing risk • Storage and use of ESG data • ESG policies		
Fees and costsManagement feePerformance feeHigh watermark features	 Investor support Thought leadership Informative, regular collateral Bespoke investment analysis 		
Degree of alignment with Degree of risk to Historical consistency with The investment need			

"Efficient portfolio implementation is about more than just minimising transaction costs. It's about creating a portfolio that is resilient, adaptable, and aligned with the investor's long-term objectives."

Howard Marks, Co-founder and Co-chairman of Oaktree Capital Management

7. IMPLEMENT EFFICIENTLY TO IMPROVE OUTCOMES

Efficient implementation is a multi-faceted exercise that aims to ensure a portfolio maximises the likelihood of achieving investment objectives by balancing the trade-offs involved.

Take the case of home bias. For Australian domiciled investors, home bias can offer benefits, such as franking credits in domestic equities. However, excessive home bias leads to the possibility of unexpected stock concentration and increases idiosyncratic risk.

For example, as shown in Figure 8, in the case of a 50% domestic and 50% international passive equity allocation, a single name like BHP would have a weight equal to the entire portfolio's exposure to Japanese and UK stocks combined. Investors should carefully consider the trade-offs of home bias when developing their portfolios to enhance diversification and alignment with their goals.



Figure 8: Distortion from home bias

Investors can also enhance portfolio efficiency by strategically employing passive or active strategies and managing active risk levels, considering fees. Tracking error and risk budgeting should guide active risk decisions. Limiting active risk in public markets and allocating more to private markets, which display relatively higher potential for outperformance, may represent a more effective capital allocation.

Portfolios often combine sleeves dedicated to various asset class sub-categories, such as large-cap versus small-cap equities, growth versus value, or government versus corporate bonds. While aiming for diversification, this approach increases the complexity and costs of rebalancing. It also risks managers holding offsetting stock positions, diminishing the expected alpha potential. When appropriate, fewer but more holistic allocations should be considered, such as using a single all-cap multi-factor quantitative strategy in lieu of several specialised funds. This could achieve the desired portfolio characteristics while streamlining portfolio rebalancing and enhancing risk-adjusted returns.

When applied, principles of a Total Portfolio Approach (TPA) can be valuable tools for efficient implementation. Take a hypothetical situation where the portfolio is considered overweight US growth equities. Investors could replace a US growth manager with a passive fund, increase their allocation to an offsetting value manager, or even substitute a portion of their US exposure for non-US exposure. Other solutions can be found beyond equities. Senior secured private credit can potentially offer equity-like returns despite being ranked several orders higher on the capital stack.

8. REVIEW FACTOR EXPOSURES AND STRESS TEST

New data-driven software tools have opened up access to sophisticated risk factor analysis for non-institutional investors, providing actionable insights for portfolio enhancement. These tools can also enable in-depth scenario and stress testing and portfolio optimisation.

A common approach to measuring factor exposures in portfolio analytic tools is linear regression analysis; it describes the relationship between a dependent variable (portfolio returns) and explanatory variables (factors).

Using tools to analyse factors helps categorise and manage portfolio risk. Lipman Burgon & Partners assess 17 factor-based risk exposures in two broad groupings, as shown in Figure 9.

Figure 9: Risk factor analysis

مركح MACRO FACTORS	STYLE FACTORS
Core macro	Macro styles
Equity Interest rates Credit Commodities	Equity short volatility Fixed income carry Foreign exchange carry Trend following
Secondary macro Emerging markets Foreign currency Local equity	Equity styles Low risk Momentum Quality Value Small cap Crowding

There are many applications to this factor framework:

- Manager selection: is my manager providing the desired risk exposures?
- Intra-asset class analysis: how can I blend managers to deliver desired sources of return?
- Inter-asset class analysis: which asset best delivers exposure to desired factors?
- Portfolio Analysis: Is the portfolio diversified in terms of risk factors?

Figure 10 illustrates a factor regression analysis on the returns of an emerging market quality growth manager. Given its investment style, it is unsurprising to see positive exposure to quality and low risk factors relative to its benchmark. However, interest rate sensitivity may be higher than expected or budgeted for.

"Stress testing is not about predicting the future, but rather about preparing for it. By considering a range of possible scenarios, investors can build more resilient portfolios that are better positioned to weather market turbulence."

Robert Litterman, Founding Partner, Kepos Capital

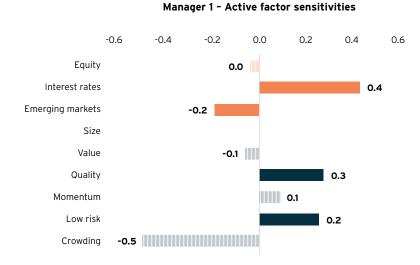


Figure 10: Active factor sensitivities for an emerging market growth manager

*Shaded bars: not statistically significant

Looking at the contribution of risk by factor category, Figure 11 shows that despite its strong performance, at most 35% (the residual figure) can be attributed to manager alpha above and beyond the fund's factor exposures, despite this residual representing 62% of the fund's tracking error (variance from its benchmark).

Figure 11: Factor and residual contributions of quality/growth emerging markets fund since inception

Total		5.1%	8.9%
	As % of total	35%	62%
Residual contribution		1.8%	5.5%
	As % of total	65%	38%
Factor contribution		3.3%	3.4%
Equity styles factors		1.5%	1.6%
Macro style factors		0.0%	0.0%
Secondary macro factors		0.7%	0.6%
Core macro factors		1.1%	1.1%
		CONT. TO EXCESS RETURN	СОНТ. ТО ТЕ

Based on this information, there may be scope to identify a strategy with compensatory factor exposures that can better isolate the manager's skill - this can then free up a portion of the risk budget for deployment elsewhere in the portfolio.

It is worth pointing out that while risk analyses can be a valuable addition, they are not a panacea. Some relevant risks cannot be measured this way, either due to data limitations or because the risks are not among the factors the risk tool measures. As a result, it is crucial to maintain a qualitative and economic rationale to gain a more holistic view of portfolio risk.

Put simply, risk factors can overlap and move together. If a portfolio's return can be derived from as many risk factors as possible and calibrated appropriately, the return for a given level of risk can be improved especially with the adoption of a risk budgeting framework.

Risk factor analysis can also enable portfolio stress-testing, both via single-asset shocks, such as the impact to a portfolio of a significant market drawdown or by using historical factor performance to model how the portfolio would have retrospectively performed. This analysis can be applied to new fund strategies to assess how they would have performed during prior periods without the requirement of a historical return series.

Figure 12 shows historical periods in which a hypothetical international equities portfolio would have had a drawdown of greater than 10% based on current factor exposures and historical factor returns over this drawdown period.

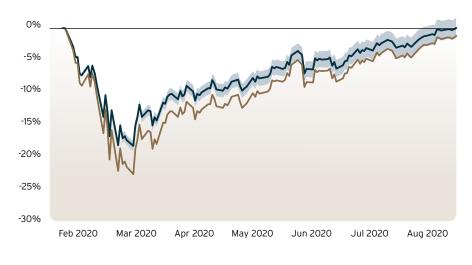
Hypothetical Drawdown Period	Months from Peak to Trough*	Months from Trough to Recovery*	Portfolio Estimated Max Drawdown	Benchmark Estimated Max Drawdown
April 1998 to March 1999	6	5	-18.8% (+/- 1.7%)	-24.0% (+/- 0.9%)
March 2000 to February 2005	36	24	-33.8% (+/- 4.7%)	-47.5% (+/- 2.6%)
October 2008 to Jauary 2011	17	22	-36.2% (+/- 2.8%)	-47.0% (+/- 1.6%)
February 2020 to August 2020	1	5	-19.6% (+/- 0.9%)	-24.3% (+/- 0.5%)

Figure 12: Stress test of hypothetical international equities portfolio in historical periods

Benchmark is the MSCI AC World Index (50% AUD Hedged, 50% Unhedged)

* Rounded to nearest whole month

It is then possible to further drill down into each of those periods to better understand the behaviour of the portfolio in that period. Figure 13 shows the example of the 2020 Coronavirus-induced equity bear market and subsequent recovery:





- Sample Equity Portfolio Simulated Performance

MSCI AC World Index (50% AUD Hedged, 50% Unhedged)

While it is extremely unlikely for future bear markets to play out exactly like those of the past, harnessing these insights and applying them within the context of an investor's objectives can enable a more robust portfolio design.

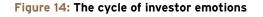
"The investor's chief problem - and even his worst enemy - is likely to be himself."

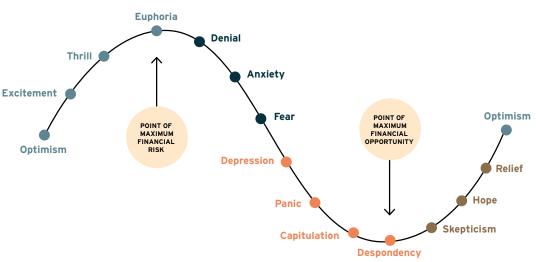
Benjamin Graham

9. SEPARATE BEHAVIOURAL ALPHA, SIGNALS AND NOISE

When navigating markets, it's crucial to acknowledge the inherent unpredictability and the limitations of forecasting. Despite this, investors often find themselves at odds with rational investing principles, driven by an innate compulsion to buy and sell at precisely the wrong moments.

Economists have long recognised that natural cognitive biases-such as loss aversion, herding, and confirmation bias-exert a pervasive influence on investment decisions. This often leads to less-than-optimal outcomes. However, mere awareness of these biases is insufficient. To counter their effects, investors must actively identify and employ targeted strategies to overcome them as they arise.





Source: Russell Investments

Behavioural alpha, the excess return earned by self-aware investors compared to their emotionally driven peers, underscores the importance of disciplined decision-making. Extensive research has shown that most active investors fail to outperform the market, highlighting the significance of behaviour. Emotional reactions can lead to excessive trading, resulting in higher taxes and fees over time.

During periods of short-term economic turbulence, it becomes essential to look through the noise. Remember, the fundamental purpose of markets is to price securities to deliver a return commensurate with their risk. When prices fall, their expected return, all other things being equal, is mechanically rising. Therefore, selling in these times can compromise long-term outcomes.

In addition, history shows us that during severe market disruptions, governments and central banks are motivated to take corrective measures, stabilise markets, and work toward resolution. Whilst there is no guarantee of success, these are powerful forces that can take coordinated action to restore market order and confidence.

Asset allocation frameworks that evaluate returns, risk factors, and the relative value between investment options improve the robustness of a portfolio across market cycles. They support investors to maintain composure and seek out opportunities in times of uncertainty and crisis.

Investing involves a series of decisions, choices, and actions that significantly impact portfolio outcomes. One common mistake is acting on noise rather than genuine signals. Genuine signals should be relevant and actionable, but their interpretation can vary depending on an investor's capabilities and expertise. For instance, high-frequency trading data can be a valuable signal for experienced quant traders but is not relevant or actionable for private investors. Similarly, macroeconomic data may be relevant but is rarely actionable, as it is quickly factored into asset pricing.

It's wise to recognise your investment strengths and limitations and seek specialist help for other investment functions when needed.

10. TURN ADVERSITY INTO OPPORTUNITY

It can be daunting for private investors to compare their resources and expertise against those of institutions. This includes their larger teams, access to capital and deal flow, and the ability to use leverage and derivative strategies to manage risk.

Randy Pausch

"We cannot change the

cards we are dealt, just

how we play the game."

However, being larger and beholden to regulatory obligations can constrain the type and size of allocation, how much active risk they can budget for and their deployment speed and agility.

For example, due to their size and associated mandates, institutional investors are often forced to pass on smaller investment opportunities that offer high potential returns. In contrast, as a proportion of their assets, private investors are well positioned to deploy meaningful amounts of capital to such deals. These can be sourced from private networks or through strategic partnerships with asset managers that can generate a steady pipeline of deal flow and co-investment opportunities.

At Lipman Burgon & Partners, we aim to source, diligence, and recommend a series of select opportunities each year, depending on the opportunity set and attractiveness of the investment thesis. These can be liquid and illiquid strategies, many of which we select for their highly asymmetric risk and return outcomes.

When these types of specialist opportunities are included in an investment program, participating private investors have an opportunity to significantly enhance returns over time. They can provide a natural complement to a well-diversified and thoughtfully constructed core multi-asset portfolio.

However, capturing these opportunities requires risk budgeting and liquidity management to ensure portfolio diversification isn't compromised in pursuit of returns. Therefore, working with partners that can undertake rigorous due diligence across a range of asset classes is essential.

Private investors have another underappreciated advantage that emerges during extreme market volatility. During periods of market crises, institutions are often forced to de-leverage and sell down positions to rebalance and meet liquidity or risk limits. Further, this frequently occurs simultaneously among large institutions, and leads to a spiral of selling, which can have a major impact on asset values and the overall market.

In contrast, free from those constraints, private investors who have an awareness of market dynamics do not have to participate in the de-leveraging. Instead, a welldesigned portfolio offers resilient pockets of available liquidity to purchase a range of public and private assets should they be attractive at discounted valuations.

So, when the world gets turned upside down there can be opportunities for patient and self-aware private investors. They not only have the independence to move but can keep one eye firmly on the potential for behavioural alpha.

Conclusion

These 10 Principles are considerations and steps investors can take, alongside investment managers and advisers, that can help modernise the approach to portfolio design and build strong foundations for long-term performance.

Each is grounded in an evidence-based approach to investing, providing the lens through which portfolio design can follow. This begins with setting the strategy, approach and governance best suited to investors' goals and personal circumstances and defining the allocation framework to maximise long-term returns.

From there, efficient investors are rewarded, optimising exposures to risks and returns to create a portfolio that can perform in all market conditions. Finally, remember that investor behaviour is often the most significant driver of investor success, which applies to investors and the managers they select.

These principles reflect Lipman Burgon & Partners' investment philosophy and our experience working with private investors, endowments, and family offices to build multi-asset portfolios that take advantage of the current and emerging opportunity set.

In essence, by embedding these principles in portfolio design, we have seen first-hand how it enhances portfolio outcomes for investors in this new paradigm.

The Lipman Burgon & Partners investment team



Paul Burgon Chief Investment Officer and Managing Partner



Elliot Lucas Senior Investment Analyst



Alexa Bablusha Investment Analyst

Glossary

Factor model: We refer to several technical terms in this paper, many of which relate to the concept of factor models. A factor model in finance is a mathematical model that describes the return of an asset or portfolio as a function of various common underlying factors and the asset's sensitivity to those factors. A general formula for a linear factor model is:

$$R_i - R_f = \alpha_i + \beta_{i,1} \times F_1 + \beta_{i,2} \times F_2 + \dots + \beta_{i,K} \times F_K + \epsilon_i$$

Where:

- **R**_i is the return of asset **i**.
- **R**_f is the risk-free rate
- **a**_i is the intercept or the expected return of asset **i** when all factor returns are zero.
- $\beta_{i,k}$ is the exposure or sensitivity of asset *i* to factor *k*. It measures how much the asset's return changes with a unit change in the factor return.
- F_k is the return of factor k. Factors can be macroeconomic variables, fundamental attributes, or statistical constructs
- ϵ_i is the asset-specific or idiosyncratic return, assumed to be uncorrelated with the factors and across assets

A well-known example of such a model is the Capital Asset Pricing Model, which we can use to relate the return (\mathbf{R}_s) of a stock or a fund to its sensitivity $(\boldsymbol{\beta})$ to the excess returns of the overall stock market versus the risk free rate $(\mathbf{F} = \mathbf{R}_m - \mathbf{R}_f)$ movements of the overall stock market. This is a 1-factor model expressed as:

$R = \alpha + \beta x (R_m - R_f) + \epsilon_i$

Alpha: Alpha is often defined as the excess return of an investment over a specified benchmark index. However, this fails to account for that investment's exposure to other compensated sources of risk, or even its sensitivity to said benchmark. Therefore, we define alpha as the return not explained by the factors.

Beta: In the context of a multi-factor model, Beta is the sensitivity of an asset to a given factor. It measures how much an asset's return changes with a unit change in the factor return.

Factor: A factor is a common characteristic or attribute that helps explain the returns and risk of a broad set of securities or assets. Factors capture the underlying drivers of asset returns. Factors can be:

- macroeconomic (such as economic growth or inflation), explaining returns across different asset classes
- style-based (such as value, size, momentum), explaining returns within a given asset class.

Risk premium: A risk premium is the extra return above the risk-free rate that an investor expects to earn as compensation for taking on additional risk. A well-known example is the equity risk premium - the excess return stocks provide over a risk free asset (such as cash).

Correlation: Correlation measures the relationship between two variables and ranges from -1.0 to 1.0. It describes the relationship between the price movements of two assets. A highly positive (negative) correlation between two assets indicates that when one asset moves up or down the other has tended to reliably move in the same (opposite) direction. Correlation close to zero indicates little relationship between the movements of the two assets.

Information ratio: The information ratio is a statistical measure that evaluates the ability of an investment manager to generate excess returns compared to a benchmark, adjusted for risk. It quantifies the manager's skill in exploiting investment opportunities. A higher information ratio suggests more consistent and skillful performance, while a lower ratio indicates underperformance or higher volatility relative to the benchmark.

Risk budget: A risk budget is a framework for allocating risk across a portfolio of investments based on an investor's risk tolerance, risk capacity, and investment objectives. By budgeting risk, investors aim to avoid unintended risk concentrations and remain aligned with their investment objectives.

Volatility: Volatility is a measure of the degree and frequency of price fluctuations of an investment over a period of time. It indicates the level of risk and uncertainty associated with the price changes and how far returns deviate from their average over a given timeframe.

Tracking error: Tracking error measures how closely an investment portfolio tracks its benchmark index - the closer to zero the more closely it tracks its benchmark. It represents the degree of active risk a portfolio takes relative to its benchmark.



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