



And now for something completely different

Revisiting Yale's asset allocation framework as AI drives equities higher.

Update
06 November 2025

Back in 2021, the architect of Yale's endowment investment strategy, David Swenson, died. We marked this sad event by highlighting how standard private client portfolios differed so markedly from Yale's hugely successful investment strategy. The main takeaway was the significant private markets allocations that Yale had, which made it very different indeed to most portfolios. We took the various broad constituents of Yale's asset allocation and suggested investment trusts that investors could use to replicate a Yale-like portfolio. Looking at the long-run performance of each of Yale's elements, it was clear that their historic returns weren't very far removed from Yale's long-run return expectations for each asset class.

We postulated; could it be possible that rather than harness the enormous bank of brainpower that Yale's investment team represents, married with the huge economies of scale and access that having a \$40bn balance sheet brings, and not forgetting the network built over the years as a result of many decades of being amongst the foremost and forward thinking endowment offices on the globe, that an individual with a few hundred pounds and access to TrustIntelligence.co.uk could replicate their success?

It would appear that so far, the rather surprising answer is yes.

Back to basics

But first, let's go back to the beginning. David Swenson ran the Yale endowment from 1985 until he died in May 2021 and delivered strong and consistent returns during his tenure. He revolutionised how and what Yale invested in by applying an extension of Markowitz's modern portfolio theory. He identified eight asset classes, defined by differences in their expected response to economic conditions, such as economic growth, price inflation, or changes in interest rates. Weightings are determined by risk-adjusted returns and correlations. Yale combines the asset classes in such a way as to provide the highest expected return for a given level of risk, subject to fundamental diversification and liquidity constraints.

Aside from setting a diversified strategic asset allocation to these eight asset classes and rebalancing regularly (which some researchers believe has contributed 40% of Yale's excess returns), the process also rests on manager selection. We show the 2020 asset allocation weightings that we highlighted in our

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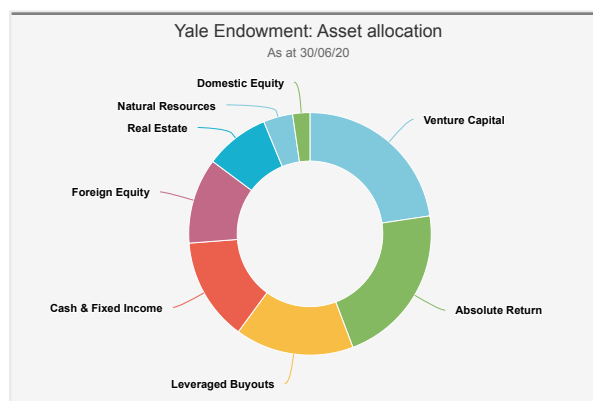


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previous article. Sadly, since then, publicly available information on asset allocation is harder to come by, and so we don't have the most recent breakdown.

Fig.1: Yale Asset Allocation (2020)



Source: Yale

Aside from Yale's contention that their investment process rests on diversification and manager selection, the above pie chart also highlights the



endowment's willingness to embrace equity risk and illiquidity. For any investors wishing to emulate Yale's asset allocation framework, the biggest change for a traditional portfolio will need to be a willingness to invest in private markets and bear the illiquidity risk this presents. The change would certainly be dramatic. But it is no more dramatic than the changes made by Yale itself in the 1990s. In 1990, 65% of the Yale endowment was targeted to US stocks and bonds. Today, target allocations for these two are less than 10%, whilst the diversifying assets of foreign equity, absolute return, real estate, natural resources, leveraged buyouts, and venture capital dominate, representing 90% of the target portfolio.

When we originally reviewed Yale's strategy, we highlighted that over time, it seemed likely that portfolios of all sorts would become less dominated by listed equities. With market commentators and the global fund management industry increasingly positioning for semi-liquid fund structures, such as ELTIF and LTAFs, to enable wider access to private markets, it would seem this trend is really starting to build momentum. Yet Yale's asset allocation would suggest that the trend has a long, long way to go.

So, how might one tackle filling each of Yale's asset allocation buckets? There are several that are relatively simple to populate from the investment trust sector. In the table below, we suggest simplistic investment trust replacements for the various constituents of Yale's diverse asset allocation framework.

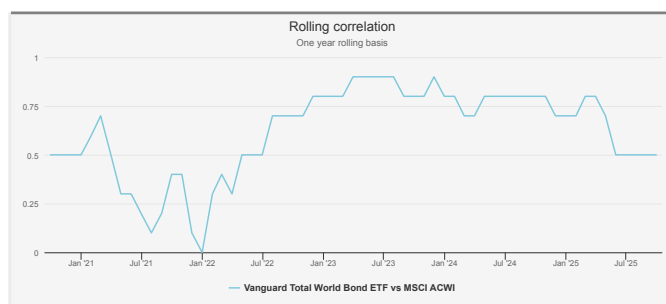
Investment Trusts As Elements Of Yale's Asset Allocation

	YALE ALLOCATION % (JUNE 2020)	LISTED COMPARATOR
Absolute return	21.6	BH Macro
Buyouts (15.8%) + Venture Capital 22.6%)	38.4	Simple average of 'investible' LPE trusts
Developed market (ex US) equities	8.6	Wtd average of Global sector
Emerging market equities	2.9	Wtd average of Global EM sector
Natural Resources	3.9	BlackRock World Mining
Real Estate	8.6	Wtd average of UK Direct Commercial Property
US equities	2.3	JPMorgan American
Cash & Fixed Income	13.7	Invesco Bond Income Plus

Source: Yale, Kepler Partners ('investible trusts' represents a simple average of HVPE, CTPE, ICGT, HGT, OCI, PIN, PEY, PPET)

In general, Yale seeks to have upwards of 30% of the portfolio invested in assets which have no equity market correlation. They group absolute return, real estate, and fixed interest in this group. In total, the 2020 Yale allocation to these elements adds up to just above 40%. Perhaps by coincidence, this echoes the traditional 60/40 portfolio, which seeks to offset equity risk of 60% by investing in bonds, which at times can be inversely correlated to equities. In reality, as the graph below shows, the correlation between equities and bonds varies, and so depending on the circumstances, it may not be prudent to rely on the uncorrelated nature of equities and bonds on their own. This is one of the fundamental tenets of the Yale portfolio: to combine high-return asset classes that are uncorrelated to each other. The investment trust sector has some good options to fill most of these buckets.

Fig.2: Correlation



Source: Morningstar

Past performance is not a reliable indicator of future results.

The biggest difference to traditional portfolios is the relatively low public equity exposure and the high exposure to leveraged buyouts and venture capital. Unfortunately, there are relatively few directly comparable avenues for a venture capital allocation, which Yale targeted at 23.5% of its portfolio in 2020. However, one trust which investors might consider is **Molten Ventures (GROW)**. GROW owns and manages a portfolio of early-to-growth stage investments in Europe, as well as managing third-party capital via EIS and VCT schemes and allocating to a fund of funds programme focussing on the seed stage. These funds act as a pipeline for sourcing companies that make their way into the main portfolio. With a diverse portfolio of technology-focussed businesses, it offers exposure to the exciting UK and European start-up scene, where the biggest winners return many multiples of invested capital, like current investment, Revolut. However, for the purposes of this analysis, it's hard to argue that it represents the same sort of exposure that Yale will own, which has a very diverse and global venture exposure, but with a heavy emphasis on the US.

Given the lack of similar venture exposure in listed form, therefore, in our simplistic representation of this part of Yale's portfolio, we combine both buyout and venture



together, and harness an equally weighted portfolio of what we see as the 'investible' listed private equity (LPE) sector (i.e. those that are diversified, and not in formal run-off). Yale's leveraged buyout funds follow a similar strategy to those employed by the LPE sector, which offers a wide range of different approaches to access what Yale believes are "extremely attractive long-term risk-adjusted returns" from a strategy that "exploit[s] market inefficiencies". Various trusts within the LPE sector do give exposure to global venture funds within their portfolios, as well as to buyouts. **HarbourVest Global Private Equity (HVPE)** is one such trust, which currently has c. 17% of the portfolio exposed to venture, as well as 14% in growth equity. It offers exposure to venture funds run by global leaders such as Insight Partners, Kleiner Perkins, and Andreessen Horowitz. In the same way, **Pantheon International (PIN)** has c. 5% in venture capital, and 19% in growth equity. Pantheon's long-running relationships with the likes of Insight Venture Partners and Index Ventures mean these two managers are the largest exposures to managers by value within the trust.

In many ways, the LPE sector offers a better access route than Yale has, given the fact that an investor today is able to buy into underlying funds which have established portfolios of investments, which in some cases are very mature. Additionally, most LPE trusts trade at material discounts to NAV. This means that such trusts have the ability to make accretive share buybacks and pay dividends (which represent a form of capital return at NAV). Buybacks effectively enable trusts to re-invest in their own portfolio at times when they trade at a considerable discount to NAV.

Related to this point, managers of LPE trusts are experienced at cash management, a very important consideration for investors in the trusts. The illiquid nature of private equity (PE) investing is that the timing of specific investments and realisations is hard to predict. For traditional PE investors (i.e. not through LPE trusts), liquid and easily accessible funds need to be available should a manager 'call' on the capital committed. The effect is that for a notional amount of capital allocated to PE, the amount actually invested is always smaller, and the high headline returns that PE managers report on a deal-by-deal basis never translate into as high returns on a capital allocated basis. On the other hand, within the LPE sector, the effect of 'cash drag' is typically minimised through credit facilities, which allow trusts to run over-commitment strategies.

LPE trusts to consider

The London Stock Exchange has a wide variety of high-quality LPE trusts to choose from, and they all offer different nuances and exposures. Given the slowdown in

deal activity over the last three years, NAV performance has been relatively muted when compared to prior years, and discounts have widened. That said, there are signs that the pace of realisations has started to pick up, and with two vehicles having been taken private this year (Apax Global Alpha and Petershill, although the latter is not directly comparable to the LPE trust peer group), discounts have narrowed year to date. As such, this could be an interesting juncture to look at the sector once again.

HVPE has been a long-standing constituent of the LPE sector. HVPE offers a fully invested portfolio, diversified across PE, venture capital, and real assets/infrastructure. As we highlighted above, the HVPE portfolio represents investments managed by some of the best-known and successful management groups in the private assets industry globally. Given HVPE's broad range of exposures across private markets, the current level of gearing and the wide discount to NAV, one might argue that it is amongst the best placed of the peer group to benefit from a recovery in PE deal activity.

NB Private Equity Partners' (NBPE) approach is unique in that its portfolio is made up (almost) entirely of co-investments. These co-investment opportunities, in which other PE managers ask other investors, such as NBPE, to invest in opportunities on a deal-by-deal basis, are sourced through Neuberger Berman's \$140 billion private markets platform. It does not pay two layers of fees on the majority of co-investments, making it cost-effective relative to many peers. The underlying portfolio is largely invested in three sectors: Tech, Media & Telecom (22%), Consumer/e-commerce (21%), and Industrials/Industrial technology (18%), all of which continue to offer the prospect of good long-term growth. NBPE is in a strong position to benefit if the recovery comes, but it is also in a strong position to continue to wait, should current conditions extend further. Shareholders will continue to see returns of capital through the board's increased buyback programme, and also through the semi-annual dividend, which amounts to a dividend yield of c. 5.0% at the time of writing.

CT Private Equity's (CTPE) USP is its focus on the 'lower mid-market'. This part of the market has less competition for deals, and companies are capable of significant organic growth if they are successful. This combination, the manager rationalises, should drive higher returns. CTPE aims to mitigate the potentially higher risks of investing in smaller PE-backed businesses through diversification. With investments in c. 500 businesses, CTPE offers exposure to growth opportunities in all manner of niches, with operational and financial expertise from highly motivated management teams. Exposures found within CTPE's portfolio are unlikely to be found elsewhere in any quoted portfolio.



PIN offers a one-stop-shop exposure to global PE, focussing on the lower and mid-market, offering exposure to what the manager argues is the sweet spot for capital growth. PIN has been increasingly focussed on direct investments, whilst concentrating its primary commitment strategy towards fewer, higher conviction managers. One of the big changes introduced by the board in 2023 was a desire to become (and remain) more fully invested. As a result, gearing has been purposefully increasing (see **Gearing section**), and at just below 10% of NAV is now towards the higher end of the range envisaged by the board. PIN's board is very focussed on initiatives to narrow the discount, and so the potential for the discount narrowing to enhance NAV total returns for shareholders is there.

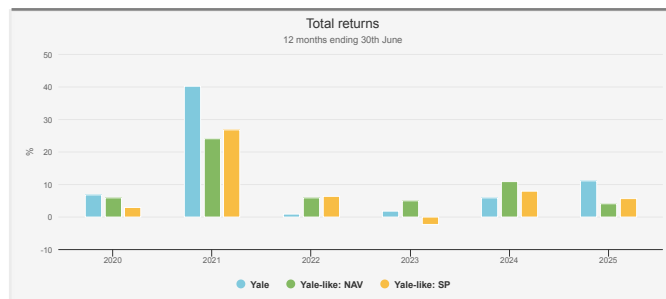
As part of a diversified portfolio, the higher returns generated by directly invested PE trusts can be attractive, notwithstanding the greater volatility of returns. **HgCapital Trust (HGT)** focusses on software and tech-enabled services companies, and is managed by Hg, one of the leading PE firms to specialise in this area. HGT has been a very strong performer over the long term, achieving share price total returns of 19.2% per annum over the last ten years. The key to understanding HGT's portfolio is Hg's unique approach and strategy. The team have significant experience in building businesses that provide critical services for many thousands of businesses globally. By focussing on tightly defined 'clusters' where the team have experience and expertise, the team can concentrate on supporting investee businesses to rapidly achieve scale. Hg's approach is to grow businesses of different sizes, end-market focus, and maturity profiles within these clusters, and remains focussed on software and tech-enabled services. HGT represents a high-quality offering, giving unique access to one of the success stories of European technology investing.

Yale vs Yale-like investment trust portfolio

Our suggested 'Yale-like' portfolio would represent a huge change to traditional portfolios, and would require a big leap of faith. Yet the good news is that the performance of this portfolio has pretty much measured up to the original over the past five years. Yale's financial year runs to 30th June, and so we have compared the performance of our portfolio with that of the original over the last five years. Compounding these returns (and not rebalancing), Yale equates to around an 80% return over these years, whilst the NAV performance of the portfolio marginally underperforms with a total return of 67%. Unsurprisingly, especially given the travails of equity markets and discounts over this period, share price returns lag at 54%, mainly a result of discounts widening in 2023 and 2024.

Over the same period, the iShares MSCI World ETF has delivered 93%.

Fig.3: Total Returns



Source: Morningstar, Kepler Partners

Past performance is not a reliable indicator of future results.

The table below highlights how elements of the portfolio, at a NAV level, provide diversification. We have decided not to include the PE constituents in this analysis, both because of their sheer number, as well as the differing time lags within the sector for valuations that mean NAV correlations over one-year periods are not particularly meaningful. It is interesting to us how low the correlations are within this group, which, of course, is the whole point in the first place. Interestingly, running the analysis based on share prices and not NAVs does not change the picture particularly, showing that whilst share prices are correlated over the short term to broader equity market moves, over rolling one-year periods, the main driver for correlation purposes is NAV moves.

Not to labour the point too much, we also think the correlation of each element of the portfolio in each annual period also shows an interesting and important feature of different asset classes. Correlation is not static, and in different years, asset classes have different correlations with each other. The table below shows the various elements' correlation with world equities (not each other, in the table above) over each of Yale's financial years ending June. We would highlight BH Macro (BHM) in particular, which had a negative correlation during the 12 months to end June 2020 when equity markets globally were tanking. Yet correlation switched the following year. This dynamic correlation is, in our view, one of the more attractive features of macro hedge funds.

The table below shows the NAV total returns over each period, which echoes the table above, highlighting that in each year, there are very different return drivers to the portfolio. We have highlighted in grey those elements which have outperformed Yale's return in any given year. In particular, we note the strong and consistent returns for the venture and buyouts sleeve, as represented by the average of the investible peer group, illustrating just why this is an important component of our Yale-like portfolio.



NAV Correlation (Five Years To 30/06/2025)

	BH MACRO GBP	BLACKROCK WORLD MINING	JPMORGAN AMERICAN	INVESCO BOND INCOME PLUS	M'STAR INV TRUST GLOBAL EMERGING MARKETS	M'STAR INV TRUST PROPERTY - UK COMMERCIAL	M'STAR INV TRUST GLOBAL
BH Macro GBP	1						
BlackRock World Mining	0.18	1					
JPMorgan American	-0.06	0.3	1				
Invesco Bond Income Plus	-0.12	0.3	0.53	1			
M'star Inv Trust Global Emerging Markets	-0.06	0.33	0.58	0.43	1		
M'star Inv Trust Property - UK Commercial	0.08	0.11	0.14	0.02	0.02	1	
M'star Inv Trust Global	-0.12	0.37	0.9	0.62	0.7	0.09	1
AVERAGE	-0.32	0.32	0.43	0.35	0.36	0.08	0.44

Source: Morningstar

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Annual NAV Correlation With World Equities

12 MONTHS ENDING:	BHMG	BRWM	JAM	BIPS	M'STAR INV TRUST GLOBAL EMERGING MARKETS	M'STAR INV TRUST PROPERTY - UK COMMERCIAL	M'STAR INV TRUST GLOBAL
30-06-2020	-0.6	0.9	1	0.9	0.9	0.6	1
30-06-2021	0.6	0.7	1	0.7	0.8	0.6	1
30-06-2022	0.7	0.7	1	0.8	0.8	0.8	1
30-06-2023	0.6	0.7	0.9	0.9	0.9	0.9	1
30-06-2024	0.6	0.5	1	0.8	0.9	0.8	1
30-06-2025	0.4	0.5	0.9	0.3	0.7	0.3	1

Source: Morningstar

Past performance is not a reliable indicator of future results

NAV Returns (1 July To 30 June)

	YALE	BHMG	BRWM	JAM	UK COMMERCIAL PROPERTY	BIPS	GLOBAL	GLOBAL EM	VENTURE & BUYOUTS (LPE TRUST AVE)
2020	6.8	20.4	3.6	6.5	-3.8	1.8	5.2	-9.3	2.9
2021	40.2	6.6	49.5	37.2	6.9	14.3	26.4	31.6	36.5
2022	0.8	17.3	1.1	1.7	10.7	-11.2	-18	-9.1	11.2
2023	1.8	-0.8	11.3	14.4	3.7	3.6	9.1	3.3	7.0
2024	5.7	3.3	-1	29.3	5.9	13.3	19.3	12.3	13.0
2025	11.1	6.7	-1.4	4.6	-2.6	8.2	4.5	11.7	2.3

Source: Morningstar

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Conclusion

Scale, access, and expertise give Yale a natural advantage, yet investment trusts offer a surprisingly effective way for private investors to capture the benefits of a Yale-style allocation, particularly in private equity, venture, and other diversifying asset classes. Most traditional portfolios likely have diversifying elements to them, but the Yale-like portfolio above has diversification in spades. Whilst we haven't analysed the diversifying properties of LPE, it has been a big contributor to returns in NAV terms, in particular being an important source of returns during the period between 2022 and 2024 (inclusive) when Yale's returns have been rather more muted.

We think overall, we have shown that the investment trust sector has plenty to offer those who wish to build diversified portfolios. Yale's big difference from traditional portfolios is their exposure to buyouts and venture. Looking forward, with signs that the PE sector is starting to see realisation activity build up once again, if momentum continues, this will be a key driver of NAV growth and sentiment towards the sector. For most portfolios, PE won't represent more than 3.8%, let alone the 38% in our Yale-like portfolio. With wide discounts and the potential for better times ahead, now could be an interesting time to consider adding to the LPE sector.

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