

What’s going on in the marketplace?

The story for 2022 was one of lower highs and lower lows with persistent volatility. The 12-month period was macro-driven as decades high inflation levels and aggressive Fed tightening were the central storylines with the regime transitioning from historically easy monetary policy to one of rapid tightening across the world. The unprecedented pace of the policy shift caused a repricing of risk assets as the “everything bubble” burst, best explained by a collapse of multiples with the formerly high-flying growth sectors of the market hit especially hard.

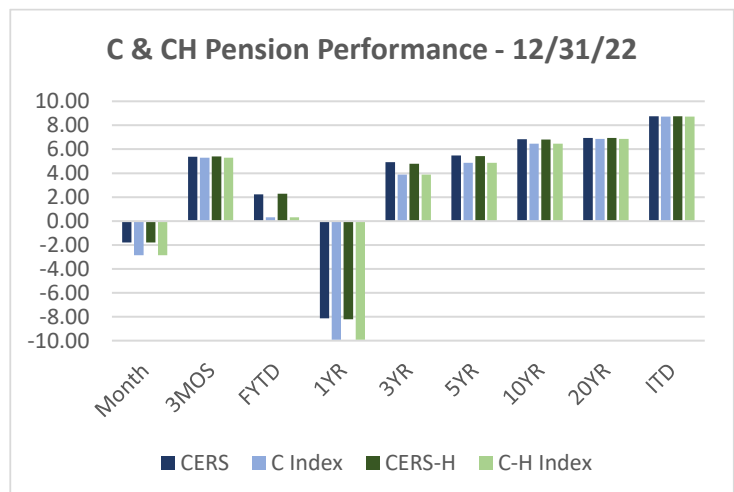
The 2022 calendar year marked the worst performance of the traditional 60/40 equity/fixed income portfolio in the last 80 years. From an equity style perspective, there was nowhere to hide; however, large cap value held up relatively well, falling ‘only’ -7.5% for the year. The large cap growth segment of the market got hit hardest, losing -29.1%, primarily due to weakness in high multiple large cap technology names. From a sector perspective, the information technology, consumer discretionary, and communication services sector all fell more than 30% during the year. Utilities and consumer staples remained relatively flat. The only sector to experience meaningful positive performance was the energy sector which was up roughly 60%. From a factor perspective, quality as defined by operating margin, return on equity, return on invested capital, and future cash flow growth led the market. Companies with higher leverage and limited liquidity were punished.

The high levels of inflation and the actions of global central banks to combat it were the central narrative of 2022. While the balance of data is beginning to indicate that inflation may have peaked and could soon start to roll over, the full potential of the damage to markets and the economy remains uncertain. The probability that the Fed may be near the end of their hiking cycle is rising as goods and commodity inflation has begun to abate. However, stickier pockets like wages and housing are likely to remain elevated, and as such price normalization across the economy is likely to take longer than once hoped. The balance may be that inflation remains elevated for longer than markets currently anticipate, and rates remain higher for longer than markets are pricing.

Volatility is likely to remain elevated in 2023 as the likelihood of a global recession is considered a certainty by many market participants, with only the depth and duration seemingly being debated. While 2022 performance was driven by a risk derating (multiple compression), 2023 is likely to be driven by earnings, which are likely to be weaker in response to a slowing global economy.

The KPPA Pension Trust portfolio fell -1.62% during the month of December, providing 100bps of downside protection versus a blended benchmark.

The CERS Pension Composite produced a -1.79% return during the month. The CERS and CERS-H Pension portfolios both returned -1.79%, while their benchmark fell -2.86%. Both funds outperformed their benchmark with similar drivers of attribution. The plans benefitted from strong selection in the Specialty Credit allocation, and solid relative performance from the public equity allocation, more specifically from the U.S. Equity allocation. Further, the Private Equity allocation bolstered relative performance. The overweight to Specialty Credit was additive in terms of relative performance. Partially



offsetting positive relative performance, was the underweight to the Real Return allocation.

For the fiscal year-to-date, the KPPA Pension Trust portfolio gained 2.05%, outperforming the benchmark return of 0.36% while the CERS Pension Composite returned 2.25%. The CERS and CERS-H Pension portfolios returned 2.24% and 2.28%, against a benchmark return of 0.31%. Both funds outperformed due to similar attribution drivers. Relative outperformance was driven by solid performance in the Private Equity, Public Equity (most notably within the international strategies), and Core Fixed Income allocations. The portfolios benefitted from their overweight to the Specialty Credit allocation; the CERS-H portfolio benefitted from its cash overweight during a volatile period. The underweight to the Real Return allocation (and to a lesser degree to Real Estate) partially offset the relative outperformance of the plans.

Global equity markets were weaker during the month of December, as evidenced by the MSCI ACWI Index returning -3.94%. Domestic markets were significantly weaker than their Non-US market counterparts (R3000: -5.86% versus MSCI ACWI Ex-US: -0.62%). This brought the fiscal year return for global equity markets to 2.28%.

US equity markets fell -5.86% during the month (Russell 3000), while the KPPA portfolio fared slightly better, returning -5.43%. All market segments were significantly weaker; with value holding up better than growth (R3000V: -7.58% versus R3000G: -4.18%). Despite the negative absolute return, individual strategies provided positive relative performance.

For the first two quarters of the fiscal year, the KPPA US Equity portfolio gained 2.96% compared with its benchmark return of 2.40%. During the period, mid-caps significantly outperformed both their small and large cap counterparts (MC: 8.05% versus R2000: 3.91% versus SP500: 2.31%). Value significantly outperformed growth (5.95% versus -1.13%) during the period. The KPPA portfolio's relative outperformance has been driven by its slight overweight down market cap and tilt value.

NonUS equity markets returned -0.62% (MSCI ACWI Ex-US) during the month. Developed markets returned -0.45% (MSCI World Ex-US) during the period while emerging markets fell -1.45% (MSCI EM). The KPPA portfolio lost -0.70% during the month, trailing the index by 8bps. Relative underperformance was driven by stock selection, as most individual mandates struggled.

Fiscal year-to-date, Non-US markets rose 3.09%. Developed markets significantly outperformed their emerging market counterparts (5.66% versus -2.99%). The KPPA portfolio returned 4.65%, thanks to strong relative performance amongst the individual strategies, in particular the relative value and emerging market mandates.

The specialty credit portfolio outperformed its benchmark during the month, returning 0.53% versus -0.10%. The High Yield market declined (-0.62%) as spreads reversed in a continuation of the risk-off sentiment and rates rose. The leveraged loan segment of the market held up better as the Morningstar LSTA Leveraged Loan Index gained 0.42% during the month as quality outperformed better combined with less sensitive rate profile. During the first half of the fiscal year, the portfolio underperformed its benchmark, gaining 2.30% versus 3.85%. Individual strategy relative performance has been mixed fiscal year to date, especially with private market pricing playing catch-up, but continues to produce strong relative performance over longer periods.

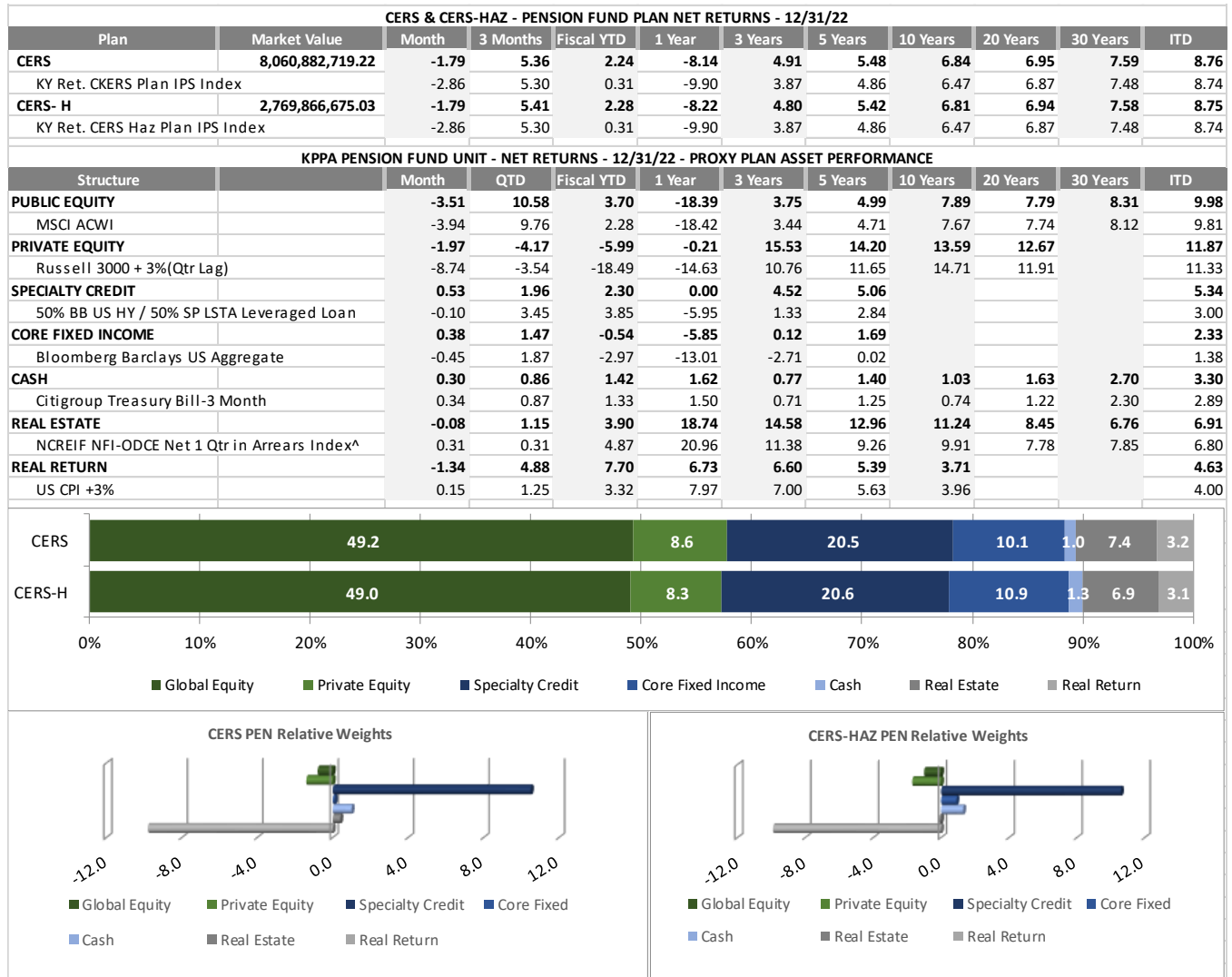
The core fixed income portfolio gained 38bps compared to the Bloomberg Aggregate Index return of -0.45%. Relative outperformance was attributable to positioning within the allocation; the portfolios remain underweight overall duration given rising rates and elevated volatility. Both shorter-term and intermediate credit market segments held up better. For the fiscal year, the portfolio returned -0.54% compared to the benchmark return of -2.97%.

The private equity allocation fell -1.97% during the month, bringing the fiscal year return to -5.99%. Trailing public marks have significantly affected the overall performance of the portfolio, the 1-year return crossed into negative territory, now at -0.21% as of 12/31/22.

The real return portfolio fell -1.34% during the month, compared to its benchmark return of 0.15%. As with several of the previous month, performance was driven by the MLP portion of the portfolio (approximately 40% of the allocation); the investment was down -4.81%. For the fiscal year, the portfolio has returned 7.70%, bringing the 1-year return to 6.73%.

Real estate remained relatively flat during the month, falling 8bps. The latest quarter performance of 1.15% brought the 1-year return to 18.74% versus 20.96%. The portfolio has benefitted from recent strength in industrial, multi-family, student housing, and storage properties.

The cash portfolio returned 0.30% during the month compared with the 3-month T-bill's 0.34%. This brought the fiscal year return to 1.42% (versus 1.33%).

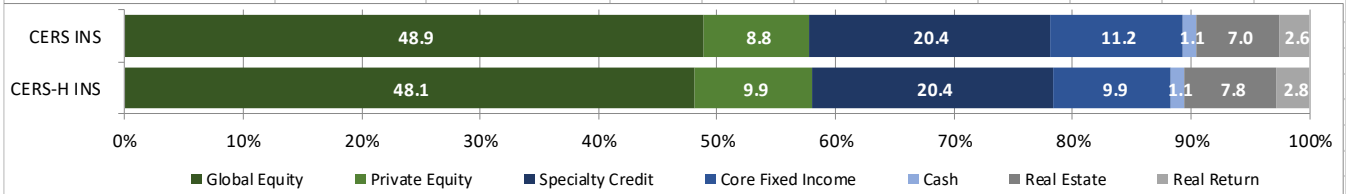


CERS INS & CERS HAZ INS - INSURANCE FUND - PLAN NET RETURNS - 12/31/22

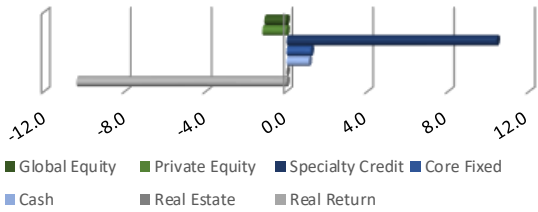
Plan	Market Value	Month	3 Months	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	20 Years	30 Years	ITD
CERS INS	3,071,319,181.23	-1.77	5.53	2.32	-7.70	4.73	5.41	6.76	6.80	6.77	7.25
KY Ins. CERS Plan IPS Index		-2.86	5.30	0.31	-9.90	3.55	4.66	6.43	6.98	6.95	7.40
CERS - H INS	1,522,831,336.04	-1.75	5.39	2.20	-7.60	4.86	5.52	6.83	6.84	6.79	7.27
KY Ins. CERS Haz Plan IPS Index		-2.86	5.30	0.31	-9.90	3.55	4.66	6.43	6.99	6.95	7.40

KPPA INSURANCE FUND UNIT - NET RETURNS - 12/31/22 - PROXY PLAN ASSET PERFORMANCE

Structure	Month	QTD	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	20 Years	30 Years	ITD
PUBLIC EQUITY		-3.50	10.57	3.67	-18.28	3.77	4.96	7.95	7.70	8.27
MSCI ACWI		-3.94	9.76	2.28	-18.42	3.41	4.67	7.63	7.40	8.05
PRIVATE EQUITY		-1.92	-2.45	-2.55	6.51	15.25	14.22	14.73	12.06	11.00
Russell 3000 + 3%(Qtr Lag)		-8.74	-3.54	-18.49	-14.63	10.76	11.65	14.71	11.61	10.88
SPECIALTY CREDIT		0.59	2.21	2.45	0.49	4.52	4.97			5.19
50% BB US HY / 50% SP LSTA Leveraged Loan		-0.10	3.45	3.85	-5.95	1.33	2.84			3.00
CORE FIXED INCOME		0.36	1.50	-0.62	-6.20	-0.13	1.52			2.03
Bloomberg Barclays US Aggregate		-0.45	1.87	-2.97	-13.01	-2.71	0.02			1.38
CASH		0.29	0.84	1.39	1.60	0.72	1.26	0.85	1.47	2.43
Citigroup Treasury Bill-3 Month		0.34	0.87	1.33	1.50	0.71	1.25	0.74	1.22	2.31
REAL ESTATE		-0.10	1.18	3.82	18.44	14.44	12.93	11.10		10.52
NCREIF NFI-ODCE Net 1 Qtr in Arrears Index^		0.31	0.31	4.87	20.96	11.38	9.26	9.91		7.10
REAL RETURN		-0.94	4.12	6.41	5.01	6.40	5.31	3.51		4.41
US CPI +3%		0.15	1.25	3.32	6.69	6.96	5.64	4.02		4.05



CERS Insurance Relative Weights



CERS-HAZ Insurance Relative Weights

