JP Omega US Cross-Asset Index Portfolio – November 2021

A "**Johnson-Omega**" optimized asset universe comprising 16 long-only portfolio constituents:

US equities, US fixed Income, commodities plus cash/risk-free asset

- Assets are highly liquid
- Strategy is efficient in implementation, transparent and only moderate turnover
- Rebalancing monthly

Dynamics

Optimising Method	Johnson-Omega
Portfolio Type	Long-Only
Leverage	30% (i.e. 1.3 x)
Risk-free Rate	US Libor 1M
Benchmark	Equally Weighted Portfolio
Rebalancing	Monthly (opening 1st b-day)

Implementation

From Mar 2018:	**Private account implementation**
Feb 2017 - Mar 2018:	**Certified Paper Trading**
Jan 1996 - Feb 2017:	**Back-test**

Constituents

Equity: 0 to 32.5% (each)

1. S&P500 ES CONSUMER DISCR.
2. S&P500 ES CONSUMER STAPLES
3. S&P500 ES ENERGY
4. S&P500 ES FINANCIALS
5. S&P500 ES HEALTH CARE
6. S&P500 ES INDUSTRIALS
7. S&P500 ES INFO TECHNOLOGY
8. S&P500 ES MATERIALS
9. S&P500 ES TELECOM SERVICES
10. S&P500 ES UTILITIES
11. RUSSELL 2000

Bonds: 0 to 65% (each)

12. US BENCHM. 10 YR GOVT. IND
13. US BENCHM. 30 YR GOVT. IND

Real Estate: 0 to 32.5%

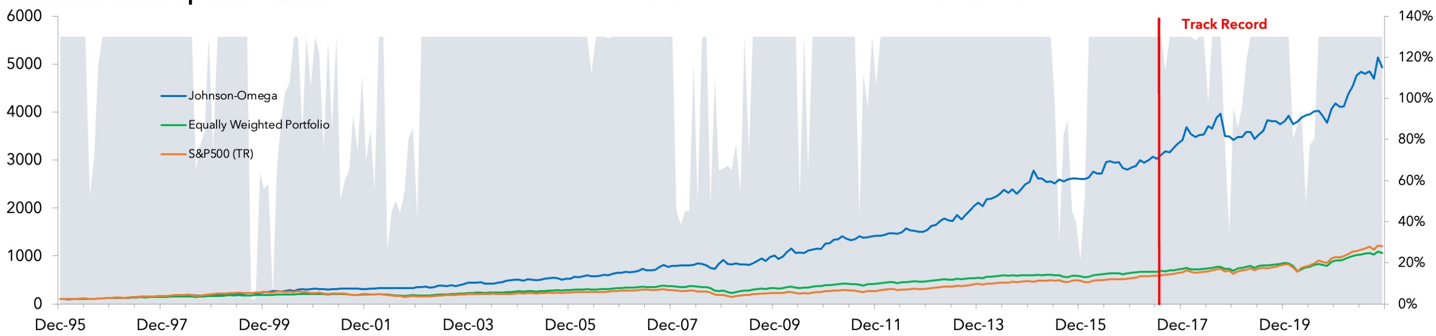
14. FTSE EPRA/NAREIT UNITED STATES

Commodities: 0 to 32.5% (each)

15. S&P GSCI Gold
16. S&P GSCI Crude Oil

Performance & Exposure Chart

Start: 29-Dec-95 **End: 30-Nov-21**



The portfolio gave away some of the gains from the strong prior month and delivered -3.9% in November, bringing the YTD performance to +18.1%. The performance resulted from a diversified portfolio with 48% exposure to equity, 25% exposure to real estate, 22% to commodities and 5% to fixed income. The allocation was fully leveraged (1.3x), as in October.

Within equities, the S&P500 Consumer and Information Technology sectors delivered 0.4% and 1.4%, respectively. The Real Estate index consolidated from its boom in September and provided -0.7% to portfolio performance. The diversification provided by fixed income worked well and delivered 0.2%, while the US Oil index crashed from its rally in the prior months and attributed -5.3% to portfolio performance.

Commodity exposure was solely to US Oil, with no allocation into Gold which moderately lost after gains from October. Oil prices suffered a sharp sell-off, prompted by fears that the new Omicron Covid variant will curb demand for petroleum products leading to a 20% fall in oil prices over the month.

The index underperformed the equally weighted benchmark, which lost -2.3%. The S&P500 (TR) lost -0.7%, while the less volatile HFRX Macro/CTA index gave away -2.7%.

Performance Metrics

			Track Record		Last 12 months	
		Portfolio	**Optimized**	**Benchmark**	**Optimized**	**Benchmark**
Absolute Performance Measures	**Return and Moments**	Return comp. ann.	11.9%	10.5%	21.3%	21.3%
		Volatility ann.	12.1%	13.1%	13.8%	8.5%
		Skewness	-0.47	-1.10	0.43	-0.50
		p-value	21%	4%	13%	10%
		Kurtosis	5.31	7.31	2.73	2.71
		p-value	2.6%	0.7%	33.0%	35.6%
		Downside Deviation ann.	10.9%	14.4%	7.2%	5.0%
	Maximum Drawdown	Magnitude	13.7%	21.2%	3.9%	2.7%
		Peak	28-Sep-18	31-Dec-19	29-Oct-21	31-Aug-21
		Trough	31-Dec-18	31-Mar-20	30-Nov-21	30-Sep-21
		Recovery (Months)	19	8	0	1
Relative Performance Measures	**Excess Returns**	Mean Exc. Return ann.	1.1%		0.4%	
		t-stat	0.20		0.06	
		Tracking Error ann.	11.7%		7.4%	
	Market Model	Jensen Alpha ann.	5.6%		-8.0%	
		t-stat	1.20		-0.97	
		Market Beta	0.53		1.43	
		t-stat	5.30		5.96	
Performance Ratios	**Traditional**	Sharpe	0.87	0.72	1.46	2.31
		Sortino	0.97	0.66	2.80	3.92
		Calmar	0.86	0.50	5.45	8.04
		Treynor	2.0%		0.3%	
		Information	0.09		0.06	
	Advanced	Max Gain vs. Loss	0.84	0.54	2.30	1.19
		Omega	1.07	1.00	1.02	1.00

Monthly Returns[1]

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD	Bench	S&P500 (TR)	HFRX Macro/CTA
2021	-1.8%	0.4%	6.2%	3.7%	5.1%	1.4%	-0.9%	1.2%	-3.3%	9.5%	-3.9%		18.1%	17.4%	23.2%	-1.7%
2020	3.0%	-4.4%	1.3%	2.2%	1.3%	0.6%	1.6%	0.4%	-2.8%	-3.5%	7.6%	2.7%	9.8%	5.6%	18.4%	4.2%
2019	1.7%	0.1%	3.0%	-0.2%	-4.0%	2.8%	2.4%	5.9%	-0.5%	0.1%	-1.8%	1.6%	11.2%	25.0%	31.5%	4.8%
2018	7.7%	-4.0%	-1.7%	1.2%	0.3%	4.9%	-1.4%	6.1%	2.3%	-11.8%	-0.2%	-2.1%	0.0%	-6.3%	-4.4%	-3.2%
2017	1.1%	4.2%	-1.5%	1.6%	2.4%	-1.2%	2.7%	2.0%	-0.4%	3.2%	2.5%	2.2%	20.4%	12.9%	21.8%	2.5%
2016	-0.2%	1.1%	4.7%	-1.4%	0.2%	8.6%	0.6%	-0.9%	0.5%	-4.3%	-1.2%	1.6%	8.9%	13.2%	12.0%	-2.9%
2015	9.2%	-5.9%	0.2%	-3.0%	0.4%	-1.3%	2.9%	-1.3%	1.4%	0.9%	-0.2%	-0.2%	2.6%	-3.9%	1.4%	-2.0%
2014	-3.5%	7.0%	0.8%	1.7%	2.3%	4.4%	-2.7%	3.1%	-3.8%	3.6%	4.5%	2.1%	20.6%	8.9%	13.7%	5.2%
2013	5.2%	1.6%	4.7%	3.0%	-2.0%	-0.7%	7.1%	-4.7%	4.8%	5.4%	5.0%	3.0%	36.6%	16.5%	32.4%	-1.8%
2012	0.1%	1.4%	1.9%	0.1%	-0.7%	2.4%	5.1%	-2.9%	0.0%	-1.9%	0.0%	2.9%	8.4%	12.0%	16.0%	-1.0%
2011	1.2%	5.3%	0.8%	4.7%	-3.3%	-2.7%	1.6%	4.5%	-1.9%	0.8%	1.3%	0.8%	13.6%	7.2%	2.1%	-4.9%
2010	-6.9%	6.0%	8.5%	6.7%	-7.9%	0.8%	-0.5%	4.3%	2.2%	1.7%	-1.2%	10.1%	24.7%	16.9%	15.1%	-1.7%
2009	-9.6%	-0.7%	2.2%	-1.8%	-0.6%	-0.7%	3.2%	6.6%	5.8%	-5.9%	9.6%	2.4%	9.3%	21.9%	26.5%	-8.8%
2008	-0.1%	1.9%	-0.5%	0.1%	1.8%	3.7%	-1.3%	-3.9%	-6.6%	-3.1%	14.8%	10.2%	16.2%	-25.7%	-37.0%	5.6%
2007	2.4%	-1.7%	2.0%	2.9%	6.0%	-3.7%	-0.7%	1.5%	8.5%	6.1%	-4.8%	1.9%	21.3%	11.3%	5.5%	3.2%
2006	7.8%	-2.3%	4.2%	2.9%	-4.0%	0.2%	2.5%	2.3%	-0.9%	5.0%	3.3%	0.7%	23.3%	15.3%	15.8%	5.6%
2005	-3.1%	6.0%	-1.5%	-3.2%	1.7%	4.7%	2.2%	1.6%	-1.4%	-6.3%	4.4%	0.9%	5.3%	8.4%	4.9%	6.7%
2004	0.3%	1.1%	1.4%	-6.5%	0.5%	0.3%	2.7%	3.5%	5.8%	3.8%	1.8%	-1.0%	14.1%	16.7%	10.9%	-0.3%
2003	1.1%	1.4%	-3.7%	1.7%	9.0%	-0.4%	-1.8%	5.4%	-4.7%	5.5%	4.1%	7.2%	26.5%	26.1%	28.7%	14.6%
2002	0.6%	2.9%	2.1%	-0.1%	0.3%	-0.8%	-1.0%	1.5%	1.5%	-2.1%	-0.1%	6.3%	11.4%	-7.7%	-22.1%	14.0%
2001	-3.0%	-0.2%	-0.5%	2.0%	1.0%	0.5%	0.1%	1.5%	-1.8%	0.7%	-1.5%	-0.2%	-1.2%	-5.2%	-11.9%	8.3%
2000	0.3%	8.4%	0.5%	-3.2%	2.5%	6.0%	-6.7%	11.5%	3.4%	-1.5%	2.5%	2.3%	27.7%	8.7%	-9.1%	12.5%
1999	6.3%	-7.3%	4.7%	5.6%	-2.9%	8.0%	-0.8%	1.8%	0.5%	0.3%	0.7%	8.4%	27.0%	14.4%	21.0%	25.8%
1998	0.7%	0.6%	8.7%	-1.8%	-0.1%	5.8%	1.3%	-6.2%	3.5%	-0.7%	0.5%	7.7%	20.9%	13.1%	28.6%	
1997	6.0%	-5.7%	-6.5%	3.5%	6.9%	3.2%	8.2%	-4.6%	8.0%	-5.4%	5.7%	4.4%	24.2%	19.9%	33.4%	
1996	0.5%	-2.2%	2.2%	2.4%	1.0%	2.0%	-2.4%	3.0%	5.9%	1.2%	8.3%	4.6%	29.4%	22.2%	23.0%	

[1] gross returns of an ETF portfolio applied with 1.3 x leverage

JP Omega Ltd delivers analytical modelling solutions using the proprietary Johnson-Omega model that was created and developed by Dr Alex Passow.
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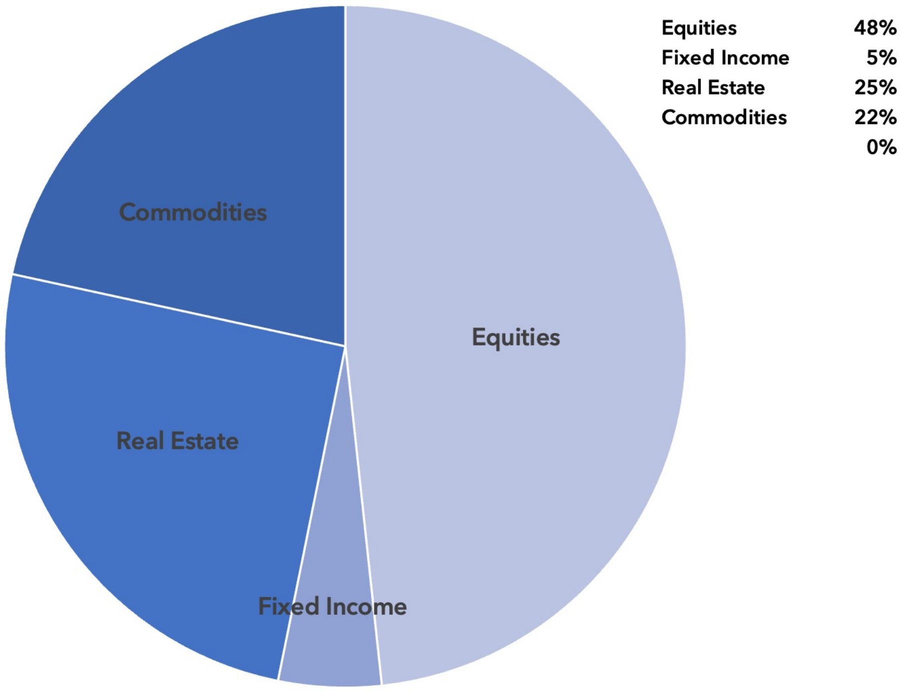
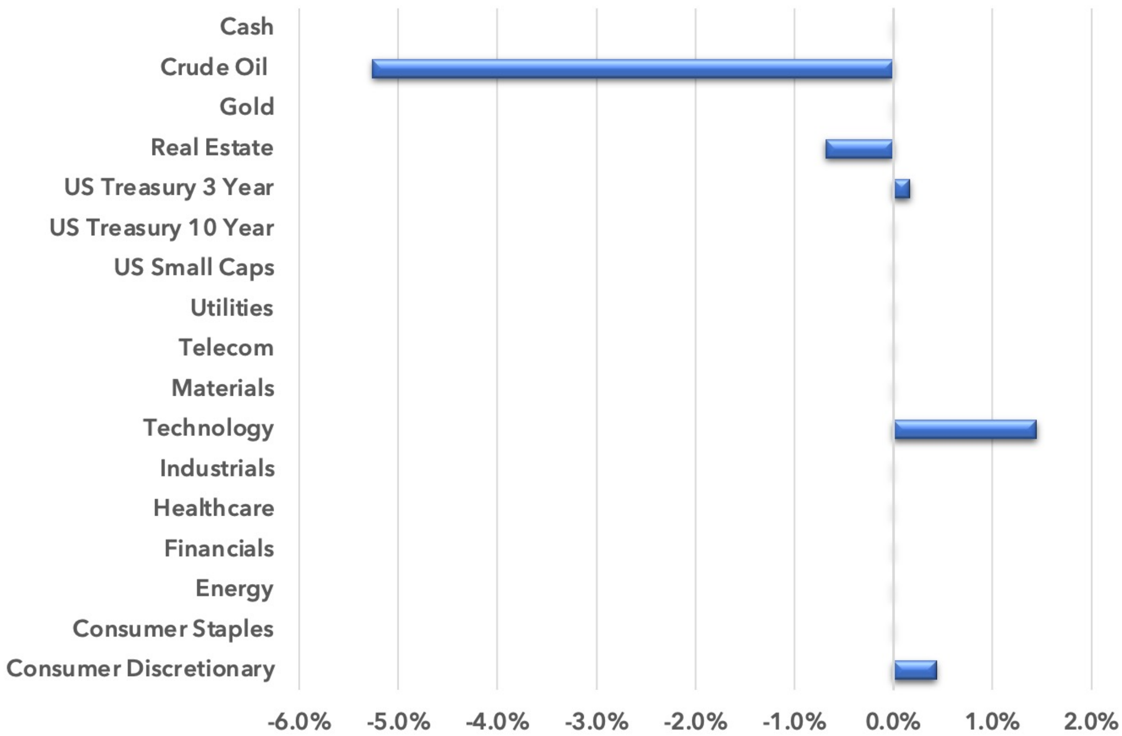
Research & back-test phase shown in grey.
Data sources: JP Omega & Thomson Reuters Datastream

JP Omega US Cross-Asset Index Portfolio – November 2021

Value at Risk by Asset Class as at 30 November 2021



Gross P/L by Sector for November 2021



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