JP Omega US Cross-Asset Index Portfolio – October 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

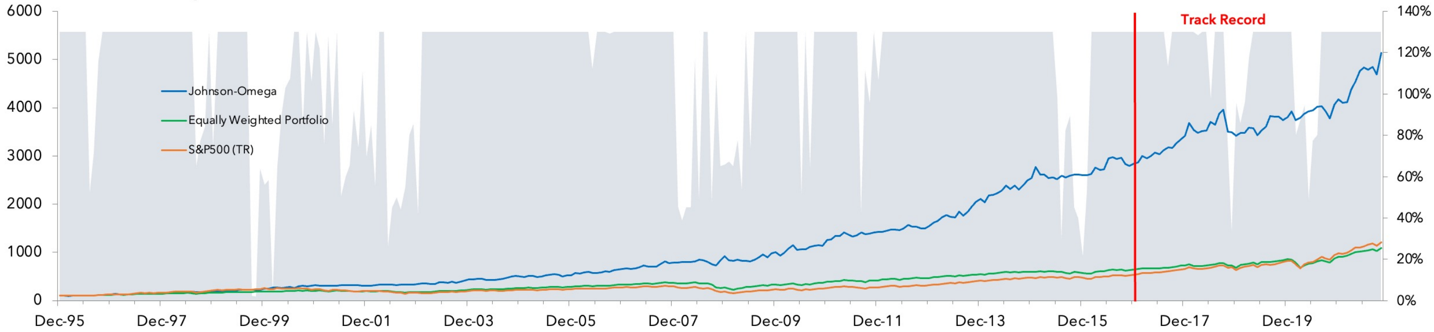
Bonds: 0 to 65% (each)
12. US BENCHM. 10 YR GOVT. IND
13. US BENCHM. 30 YR GOVT. IND

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: 29-Oct-21**



The portfolio performed well and delivered +9.5% return in October, bringing a YTD return of +22.9%. The performance resulted from 50% equity exposure together with 25% exposure to both real estate and commodities. The allocation was fully leveraged (1.3x), as in September. There was no participation in Fixed Income and the further flattening of the Treasury Yield curve.

Within equities, the selected S&P500 Health Care and Information Technology sectors delivered 1.7% and 2.7%, respectively. The Real Estate index recovered from its consolidation in September and contributed 2.3% to portfolio performance, while achieving an all-time high around the month end. The US Oil index continued its rally from September and attributed 2.8% to portfolio performance.

Commodity exposure was solely to US Oil, with no allocation into Gold which partly recovered from its decline in prior months. The rally in equity markets came as investors shook off a number of concerns that had dogged Wall Street in the prior month, when worries that high inflation, slowing growth and supply chain logjams would lead to economic stresses for American companies and consumers.

The index clearly outperformed all benchmarks. In particular the equally weighted strategy constituent universe, which delivered +5.5%. The S&P500 (TR) delivered +7.0%, while the less volatile HFRX Macro/CTA index gained +1.1%.

Performance Metrics

			Track Record		Last 12 months	
		Portfolio	**Optimized**	**Benchmark**	**Optimized**	**Benchmark**
Absolute Performance Measures	**Return and Moments**	Return comp. ann.	**13.0%**	**11.2%**	**35.8%**	**37.5%**
		Volatility ann.	**12.0%**	**13.1%**	**13.5%**	**11.2%**
		Skewness	**-0.51**	**-1.15**	**0.26**	**0.99**
		p-value	**20%**	**4%**	**26%**	**1%**
		Kurtosis	**5.58**	**7.44**	**2.23**	**5.65**
		p-value	**1.9%**	**0.7%**	**5.6%**	**7.2%**
		Downside Deviation ann.	**10.8%**	**14.6%**	**5.5%**	**3.8%**
	Maximum Drawdown	Magnitude	**13.7%**	**21.2%**	**3.3%**	**2.7%**
		Peak	**28-Sep-18**	**31-Dec-19**	**31-Aug-21**	**31-Aug-21**
		Trough	**31-Dec-18**	**31-Mar-20**	**30-Sep-21**	**30-Sep-21**
		Recovery (Months)	**19**	**8**	**1**	**1**
Relative Performance Measures	**Excess Returns**	Mean Exc. Return ann.	**1.4%**		**-1.0%**	
		t-stat	**0.26**		**-0.12**	
		Tracking Error ann.	**11.8%**		**7.9%**	
	Market Model	Jensen Alpha ann.	**6.3%**		**-0.1%**	
		t-stat	**1.36**		**-0.01**	
		Market Beta	**0.52**		**0.97**	
		t-stat	**5.15**		**4.39**	
Performance Ratios	**Traditional**	Sharpe	**0.96**	**0.77**	**2.34**	**2.90**
		Sortino	**1.07**	**0.69**	**5.78**	**8.64**
		Calmar	**0.95**	**0.53**	**10.86**	**14.12**
		Treynor	**2.7%**		**-1.0%**	
		Information	**0.12**		**-0.12**	
	Advanced	Max Gain vs. Loss	**0.83**	**0.52**	**2.77**	**4.36**
		Omega	**1.09**	**1.00**	**0.95**	**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%			22.9%	20.2%	24.0%	1.1%
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

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Research & back-test phase shown in grey.
Data sources: JP Omega & Thomson Reuters Datastream

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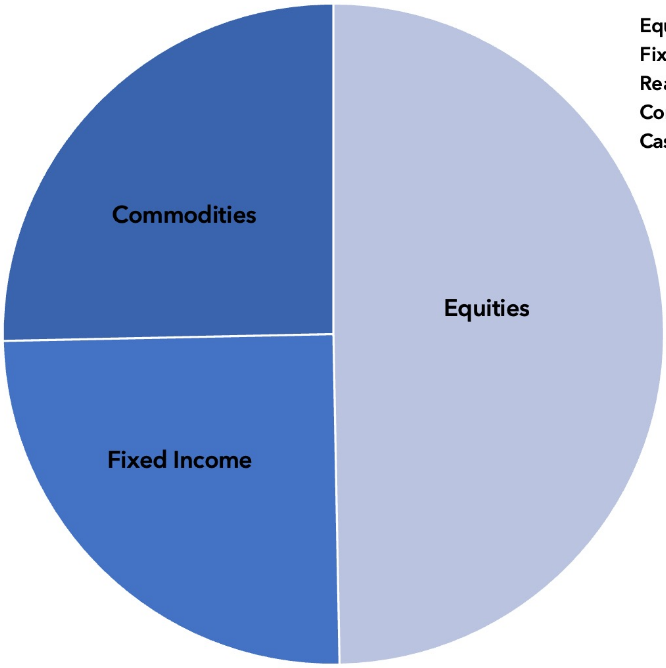
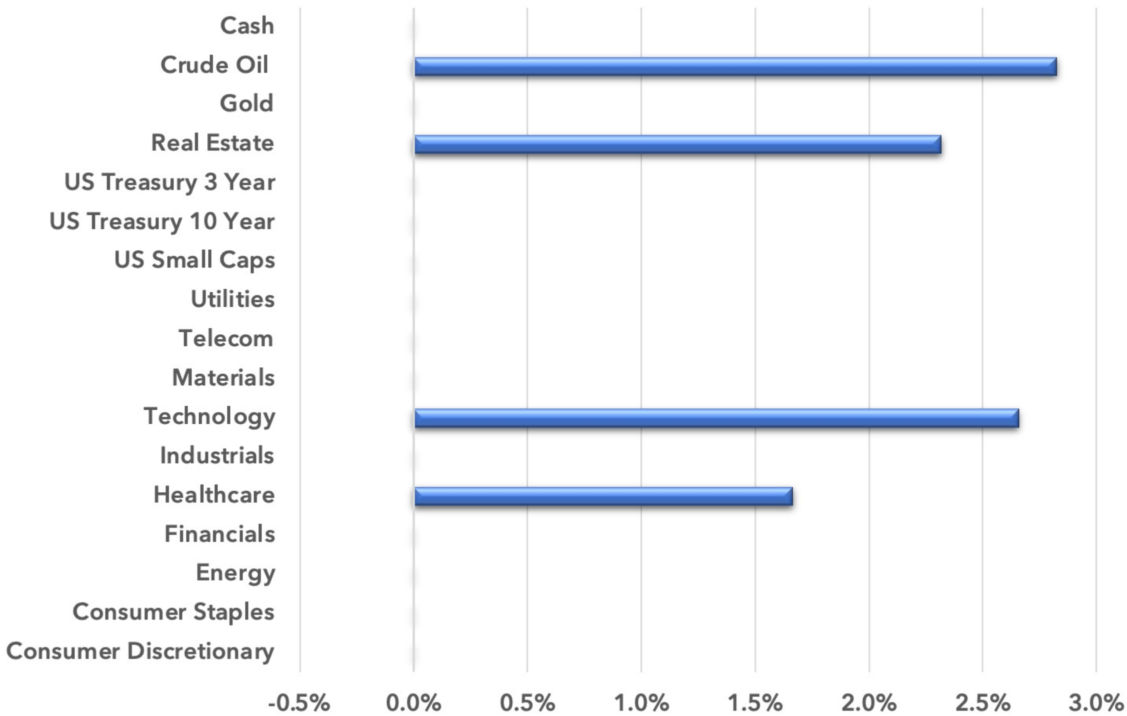
Value at Risk by Asset Class as at 31 October 2021



Equities	50%
Fixed Income	0%
Real Estate	25%
Commodities	25%
Cash	0%

Gross P/L by Sector for October 2021



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