

“FREE LUNCH” DIVERSIFICATION TOOLBOX©

INTELLIGENT ASSISTANT ENHANCES HUMAN DECISIONS



The Portfolio Diversification Institute

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2045 TDF LEGACY PORTFOLIO OPTIMIZED August 30, 2022

Some of the Portfolio Diversification Institute's research during 2022 looked at Model Portfolios and then noted criticism of Target-Date ETFs by the Press and some Regulators. We found that the majority TD2045 ETFs throughout the industry were better diversified than their other Model Portfolios. The following TD2045 ETF had 2 of 6 suggested ALT Portfolios with Diversifiable Alpha and showed the need for human skill, client needs, limitations and biases of both:

CAUTION-DILIGENCE-CARE-SKILL=PRUDENCY

J. Ben Vernazza CPA/PFS TEPemeritus & Stewart Frank CPA/PFS, AIFA – Fiduciary SME for AICPA



Legacy 2045 Target Portfolio Excel Upload

11 Constituent Legacy Portfolio

#	Symbol	Company Name	Allocation
1	IYR	iShares U.S. Real Estate ETF	8.1%
2	IYG	iShares U.S. Financial Services ETF	15.2%
3	IXC	iShares Global Energy ETF	4.0%
4	MXI	iShares Global Materials ETF	4.7%
5	IXP	iShares Global Comm Services ETF	7.6%
6	IDU	iShares U.S. Utilities ETF	2.6%
7	IXJ	iShares Global Healthcare ETF	11.1%
8	IYC	iShares U.S. Consumer Discretionary ETF	10.7%
9	IYW	iShares U.S. Technology ETF	19.5%
10	IYJ	iShares U.S. Industrials ETF	9.9%
11	IYK	iShares U.S. Consumer Staples ETF	6.6%
			100.0%

← Risk Assets Only because 70% of Uncompensated Risk is in Risk Assets

A portfolio's constituent holdings are easily uploaded to the system's data entry function from an Exile File or done manually.

Of the 55 proxy choices of BlackRock those suggested Forward Looking used in this analysis are on pages 14-15

[The Institutes](#) uses a mixture of 57 sector and sub-sector ETFs. [See "Free Lunch" Link](#)

Enterprise Memberships use their own ETFs or Proxies through the- Policy Control Center. and can control re-optimization period, /minimum % for ALTS, and more.

Artificial Intelligent Assistant Creates 6 Portfolio Alternatives For Review

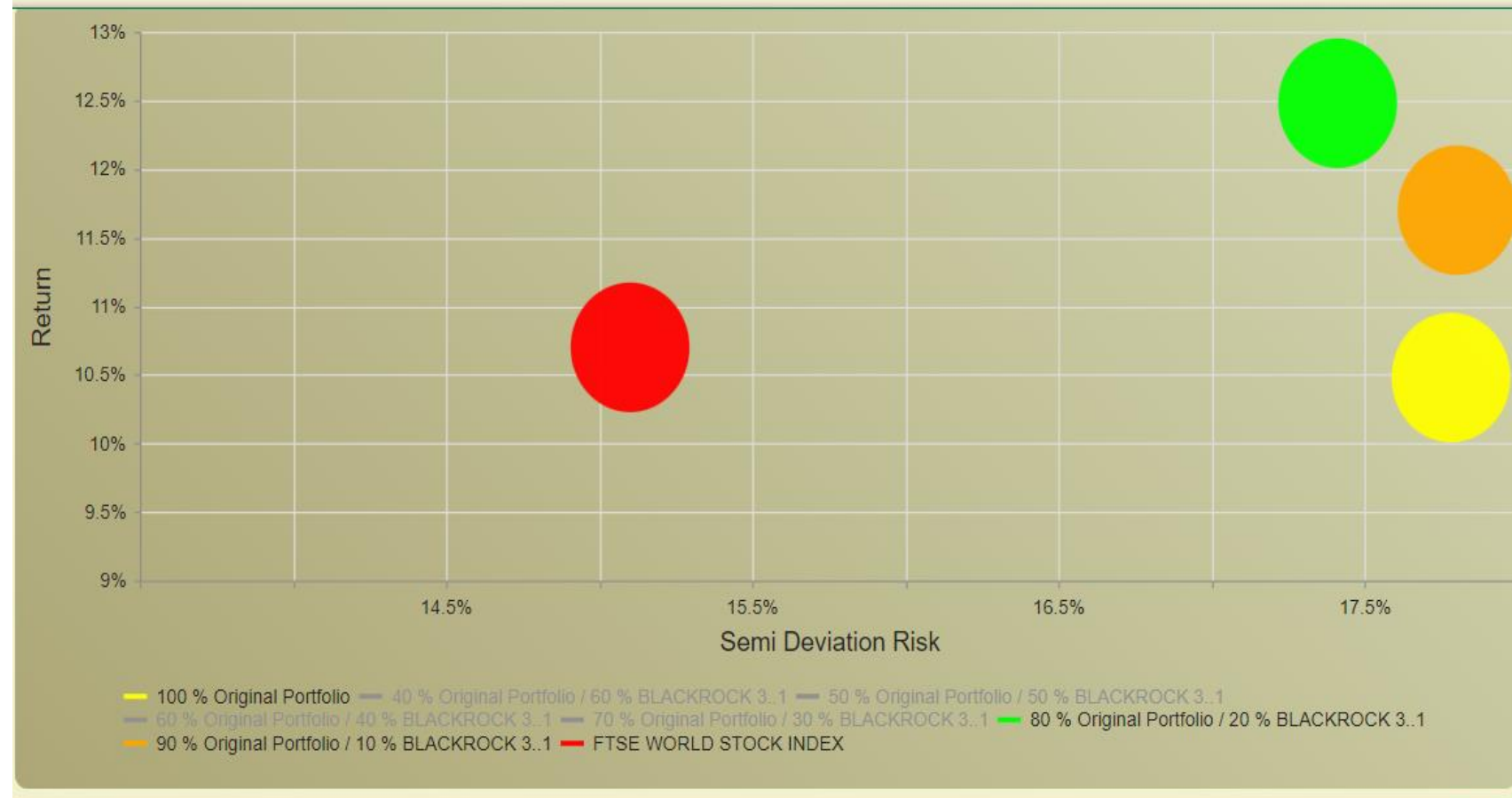
The system automatically creates six new simulated portfolios from the original legacy portfolio, decreasing the legacy's allocation in increments of 10%, 20%, 30%, 40%, 50% and 60%, respectively. The original portfolio's asset weightings are maintained within each portfolio's declining legacy position. In this case every 12 months their reciprocal percentages are filled with selected sector and/or industry proxies and reoptimized at weightings calculated by the system's forward looking modeling algorithms to improve diversification outcomes. (*Note: The Institute's algorithm makes its allocation based on data known only before the forward-looking period*). Every 12 months the legacy portfolio is rebalanced to original allocation percentages.

The reviewer should concentrate on the Performance and Diversification Metrics and especially Sharpe Ratios, Semi-Deviations, Fiduciary Score Variance Gap, Estimated Diversification Alpha, Diversification Risk Remaining in Portfolio, and not least ROR! On the left side of the screen one can choose any alternative for to get the details and export in an Excel for many categories one finds necessary.

All portfolios undergo both quantitative and qualitative risk factor analysis described in the Third Restatement. [See how calculations are made in accordance with Third Restatement.](#)

TWO ALTERNATIVES HAVE ADDED ALPHA
Trailing 3-Yr Risk/Reward Scatter Chart
Shows FTSE, Legacy, 90-10%, & 80-20%

RISK OF LOSS VS RETURNS SCATTER



90%-10% or 80%-20% Portfolio Analysis?

See Performance Metrics next 2 pages

The 90-10 Diversification Optimized Portfolio produced an annual ROR of 11.7% compared to 10.5% for legacy portfolio and 10.7% for the benchmark FTSE. The 80-20 Diversification Optimized Portfolio produced an annual ROR of 12.5% compared to 11.7% for the 90-10

Somewhere between both examples is where Uncompensated Risk Reduction stops producing higher 3-year annual returns or when the returns stabilize but where the Sharpe Ratio improves - the theoretical place to know before human decision changes are made. One can carefully review Performance and Diversification Metrics of potential Proxies that a person considers using and re-run on the Toolbox.

Note – Where Financial Plan, Investment Policy Statement, Trust Document, restrictions, etc. limit the fiduciary's ability to invest in certain securities, the fiduciary should document those restrictions.

Portfolios & Benchmark

Comparative Performance Metrics

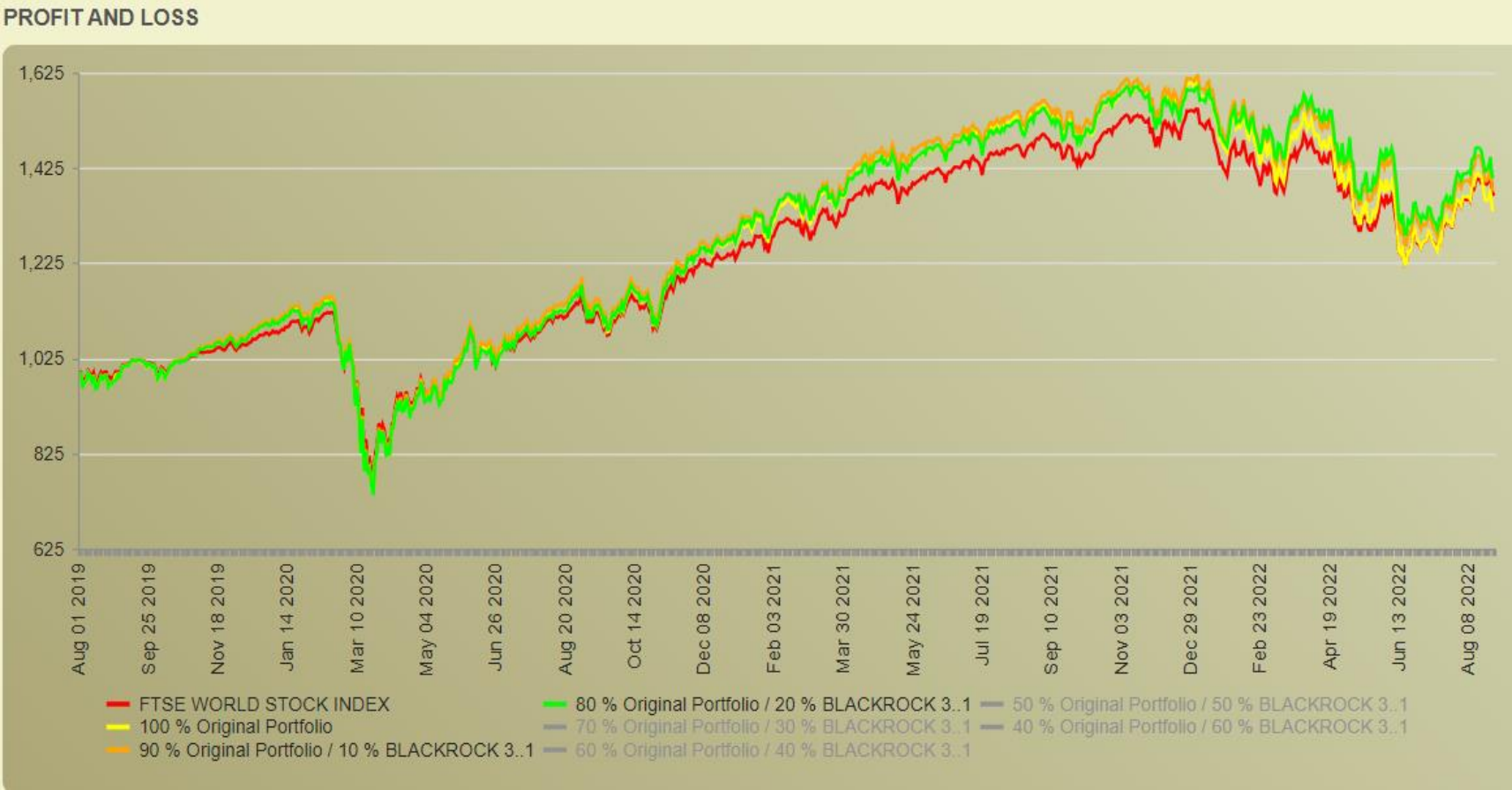
Performance Metrics								
Indices and Portfolios	FTSE WORLD STOCK INDEX	100 % Original Portfolio	90 % Original Portfolio / 10 % BLACKROCK 3..1	80 % Original Portfolio / 20 % BLACKROCK 3..1	70 % Original Portfolio / 30 % BLACKROCK 3..1	60 % Original Portfolio / 40 % BLACKROCK 3..1	50 % Original Portfolio / 50 % BLACKROCK 3..1	40 % Original Portfolio / 60 % BLACKROCK 3..1
Return	10.70 %	10.48 %	11.70 %	12.48 %	10.79 %	8.23 %	12.17 %	9.05 %
Yield	2.39 %	1.68 %	2.96 %	3.02 %	3.43 %	3.72 %	2.70 %	3.14 %
Sharpe Ratios	0.52	0.43	0.48	0.53	0.45	0.33	0.52	0.38
Risk Statistics								
Indices and Portfolios	FTSE WORLD STOCK INDEX	100 % Original Portfolio	90 % Original Portfolio / 10 % BLACKROCK 3..1	80 % Original Portfolio / 20 % BLACKROCK 3..1	70 % Original Portfolio / 30 % BLACKROCK 3..1	60 % Original Portfolio / 40 % BLACKROCK 3..1	50 % Original Portfolio / 50 % BLACKROCK 3..1	40 % Original Portfolio / 60 % BLACKROCK 3..1
Standard Deviation	20.49 %	24.20 %	24.16 %	23.68 %	24.23 %	24.88 %	23.49 %	23.94 %
Semi Deviation	15.10 %	17.78 %	17.80 %	17.41 %	17.93 %	18.59 %	17.44 %	17.92 %
MaxDrawDown	32.04 %	35.56 %	35.83 %	35.49 %	37.01 %	41.49 %	35.62 %	39.16 %
Ulcer	7.72 %	9.14 %	8.68 %	8.12 %	9.03 %	10.45 %	8.25 %	9.35 %
Benchmark Data								
Indices and Portfolios	FTSE WORLD STOCK INDEX	100 % Original Portfolio	90 % Original Portfolio / 10 % BLACKROCK 3..1	80 % Original Portfolio / 20 % BLACKROCK 3..1	70 % Original Portfolio / 30 % BLACKROCK 3..1	60 % Original Portfolio / 40 % BLACKROCK 3..1	50 % Original Portfolio / 50 % BLACKROCK 3..1	40 % Original Portfolio / 60 % BLACKROCK 3..1
R-square	0.63	0.63	0.60	0.63	0.67	1.25	0.70	1.21
Beta	1.00	1.10	1.14	1.13	1.09	0.91	1.10	0.87
Alpha	0.05 %	-6.82 %	-3.80 %	-0.85 %	-6.56 %	-10.76 %	-1.34 %	-6.60 %
Up Capture	100.00 %	128.70 %	127.58 %	123.09 %	125.82 %	122.42 %	121.73 %	111.44 %
Down Capture	100.00 %	109.94 %	109.11 %	107.46 %	109.17 %	109.54 %	107.28 %	105.77 %

Portfolios & Benchmark

Comparative Diversification Metrics

Diversification Measurements								
Quantitative Diversification Metrics								
Indices and Portfolios	FTSE WORLD STOCK INDEX	100 % Original Portfolio	90 % Original Portfolio / 10 % BLACKROCK 3..1	80 % Original Portfolio / 20 % BLACKROCK 3..1	70 % Original Portfolio / 30 % BLACKROCK 3..1	60 % Original Portfolio / 40 % BLACKROCK 3..1	50 % Original Portfolio / 50 % BLACKROCK 3..1	40 % Original Portfolio / 60 % BLACKROCK 3..1
Total Number of Portfolio Holdings	1	11	16	20	22	27	29	33
Idiosyncratic Concentration Coefficient	1.0	8.6	10.4	12.7	15.2	18.7	21.5	25.7
Fiduciary Diversification Score	1.0	5.8	7.4	9.3	10.8	12.5	13.4	16.5
Qualitative Diversification Metrics								
Sum of Weighted Position Variances	4.20 %	7.75 %	8.68 %	8.51 %	9.58 %	9.56 %	9.07 %	9.38 %
Portfolio Variance	4.20 %	5.86 %	5.84 %	5.61 %	5.87 %	6.19 %	5.52 %	5.73 %
Variance Gap	0.00 %	1.90 %	2.85 %	2.90 %	3.71 %	3.37 %	3.55 %	3.65 %
Estimated Diversification "Alpha"	0 bps	94.9 bps	142.3 bps	145.0 bps	185.4 bps	168.6 bps	177.5 bps	182.3 bps
Diversifiable Risk Remaining in Portfolio								
Quantitatively - Based on Fiduciary Scores	100 %	81 %	75 %	69 %	64 %	58 %	55 %	45 %
Qualitatively - Based on Variance Gaps	100 %	65 %	48 %	47 %	32 %	39 %	35 %	34 %

FTSE, LEGACY, 90-10, 80-20
Comparative P & L Chart



3-Year Trailing Correlation Matrix of 90% - 10% (Forward Looking Constituents)

	Symbol	IYW	IYG	IYC	IYJ	IYR	MXI	IXC	IYK	IXJ	IXP	IDU	ICLN	IEO	IEZ	JXI	MCHI
1	IYW	1	0.72	0.88	0.80	0.67	0.72	0.46	0.72	0.77	0.91	0.54	0.69	0.42	0.40	0.62	0.60
2	IYG	0.72	1	0.84	0.94	0.80	0.85	0.75	0.76	0.74	0.76	0.66	0.60	0.70	0.70	0.71	0.48
3	IYC	0.88	0.84	1	0.89	0.77	0.79	0.58	0.75	0.74	0.89	0.60	0.69	0.53	0.53	0.66	0.56
4	IYJ	0.80	0.94	0.89	1	0.84	0.89	0.71	0.83	0.81	0.81	0.72	0.67	0.65	0.65	0.77	0.51
5	IYR	0.67	0.80	0.77	0.84	1	0.75	0.60	0.79	0.77	0.69	0.82	0.59	0.54	0.51	0.83	0.38
6	MXI	0.72	0.85	0.79	0.89	0.75	1	0.77	0.78	0.78	0.77	0.66	0.68	0.68	0.68	0.74	0.54
7	IXC	0.46	0.75	0.58	0.71	0.60	0.77	1	0.59	0.54	0.53	0.49	0.51	0.95	0.91	0.54	0.36
8	IYK	0.72	0.76	0.75	0.83	0.79	0.78	0.59	1	0.81	0.72	0.77	0.59	0.52	0.50	0.81	0.42
9	IXJ	0.77	0.74	0.74	0.81	0.77	0.78	0.54	0.81	1	0.76	0.74	0.59	0.46	0.42	0.80	0.47
10	IXP	0.91	0.76	0.89	0.81	0.69	0.77	0.53	0.72	0.76	1	0.57	0.65	0.47	0.47	0.65	0.67
11	IDU	0.54	0.66	0.60	0.72	0.82	0.66	0.49	0.77	0.74	0.57	1	0.49	0.40	0.39	0.97	0.26
12	ICLN	0.69	0.60	0.69	0.67	0.59	0.68	0.51	0.59	0.59	0.65	0.49	1	0.47	0.47	0.58	0.56
13	IEO	0.42	0.70	0.53	0.65	0.54	0.68	0.95	0.52	0.46	0.47	0.40	0.47	1	0.91	0.44	0.32
14	IEZ	0.40	0.70	0.53	0.65	0.51	0.68	0.91	0.50	0.42	0.47	0.39	0.47	0.91	1	0.43	0.32
15	JXI	0.62	0.71	0.66	0.77	0.83	0.74	0.54	0.81	0.80	0.65	0.97	0.58	0.44	0.43	1	0.34
16	MCHI	0.60	0.48	0.56	0.51	0.38	0.54	0.36	0.42	0.47	0.67	0.26	0.56	0.32	0.32	0.34	1

This matrix visually shows the importance of identifying non-correlation of price movements between different securities. It is the most important part of Diversification.

Note that the legacy portfolio comprises the first 11 constituents and contains moderately correlated holdings.

The system improved diversification by replacing the legacy's overall weighting with a number of less correlated assets.

Each matrix provides information that allows the user to better customize portfolios. Reviewing the 80-20 report likely leads to some new Proxies and compromise somewhere in between.

3-Year Trailing Correlation Matrix of 80% - 20% (Forward Looking Constituents)

	IYW	IYG	IYC	IYJ	IYR	MXI	IXC	IYK	IXJ	IXP	IDU	AAXJ	IAK	IBB	ICLN	IEO	IYE	MCHI	PABU	VEGI
IYW	1	0.72	0.88	0.80	0.67	0.72	0.46	0.72	0.77	0.91	0.54	0.75	0.60	0.76	0.69	0.42	0.45	0.60	0.41	0.64
IYG	0.72	1	0.84	0.94	0.80	0.85	0.75	0.76	0.74	0.76	0.66	0.69	0.92	0.57	0.60	0.70	0.75	0.48	0.28	0.83
IYC	0.88	0.84	1	0.89	0.77	0.79	0.58	0.75	0.74	0.89	0.60	0.73	0.76	0.70	0.69	0.53	0.58	0.56	0.46	0.76
IYJ	0.80	0.94	0.89	1	0.84	0.89	0.71	0.83	0.81	0.81	0.72	0.72	0.89	0.64	0.67	0.65	0.71	0.51	0.33	0.86
IYR	0.67	0.80	0.77	0.84	1	0.75	0.60	0.79	0.77	0.69	0.82	0.60	0.80	0.56	0.59	0.54	0.58	0.38	0.25	0.72
MXI	0.72	0.85	0.79	0.89	0.75	1	0.77	0.78	0.78	0.77	0.66	0.76	0.83	0.59	0.68	0.68	0.72	0.54	0.26	0.90
IXC	0.46	0.75	0.58	0.71	0.60	0.77	1	0.59	0.54	0.53	0.49	0.57	0.74	0.38	0.51	0.95	0.97	0.36	0.11	0.80
IYK	0.72	0.76	0.75	0.83	0.79	0.78	0.59	1	0.81	0.72	0.77	0.63	0.77	0.60	0.59	0.52	0.56	0.42	0.20	0.74
IXJ	0.77	0.74	0.74	0.81	0.77	0.78	0.54	0.81	1	0.76	0.74	0.67	0.71	0.76	0.59	0.46	0.51	0.47	0.26	0.70
IXP	0.91	0.76	0.89	0.81	0.69	0.77	0.53	0.72	0.76	1	0.57	0.79	0.66	0.72	0.65	0.47	0.52	0.67	0.39	0.69
IDU	0.54	0.66	0.60	0.72	0.82	0.66	0.49	0.77	0.74	0.57	1	0.46	0.72	0.47	0.49	0.40	0.47	0.26	0.17	0.60
AAXJ	0.75	0.69	0.73	0.72	0.60	0.76	0.57	0.63	0.67	0.79	0.46	1	0.59	0.62	0.69	0.50	0.53	0.90	0.23	0.69
IAK	0.60	0.92	0.76	0.89	0.80	0.83	0.74	0.77	0.71	0.66	0.72	0.59	1	0.49	0.54	0.68	0.74	0.38	0.21	0.83
IBB	0.76	0.57	0.70	0.64	0.56	0.59	0.38	0.60	0.76	0.72	0.47	0.62	0.49	1	0.63	0.35	0.39	0.54	0.34	0.53
ICLN	0.69	0.60	0.69	0.67	0.59	0.68	0.51	0.59	0.59	0.65	0.49	0.69	0.54	0.63	1	0.47	0.50	0.56	0.26	0.64
IEO	0.42	0.70	0.53	0.65	0.54	0.68	0.95	0.52	0.46	0.47	0.40	0.50	0.68	0.35	0.47	1	0.96	0.32	0.10	0.74
IYE	0.45	0.75	0.58	0.71	0.58	0.72	0.97	0.56	0.51	0.52	0.47	0.53	0.74	0.39	0.50	0.96	1	0.35	0.15	0.77
MCHI	0.60	0.48	0.56	0.51	0.38	0.54	0.36	0.42	0.47	0.67	0.26	0.90	0.38	0.54	0.56	0.32	0.35	1	0.20	0.48
PABU	0.41	0.28	0.46	0.33	0.25	0.26	0.11	0.20	0.26	0.39	0.17	0.23	0.21	0.34	0.26	0.10	0.15	0.20	1	0.25
VEGI	0.64	0.83	0.76	0.86	0.72	0.90	0.80	0.74	0.70	0.69	0.60	0.69	0.83	0.53	0.64	0.74	0.77	0.48	0.25	1

This matrix visually shows the importance of identifying non-correlation of price movements between different securities. It is the most important part of Diversification.

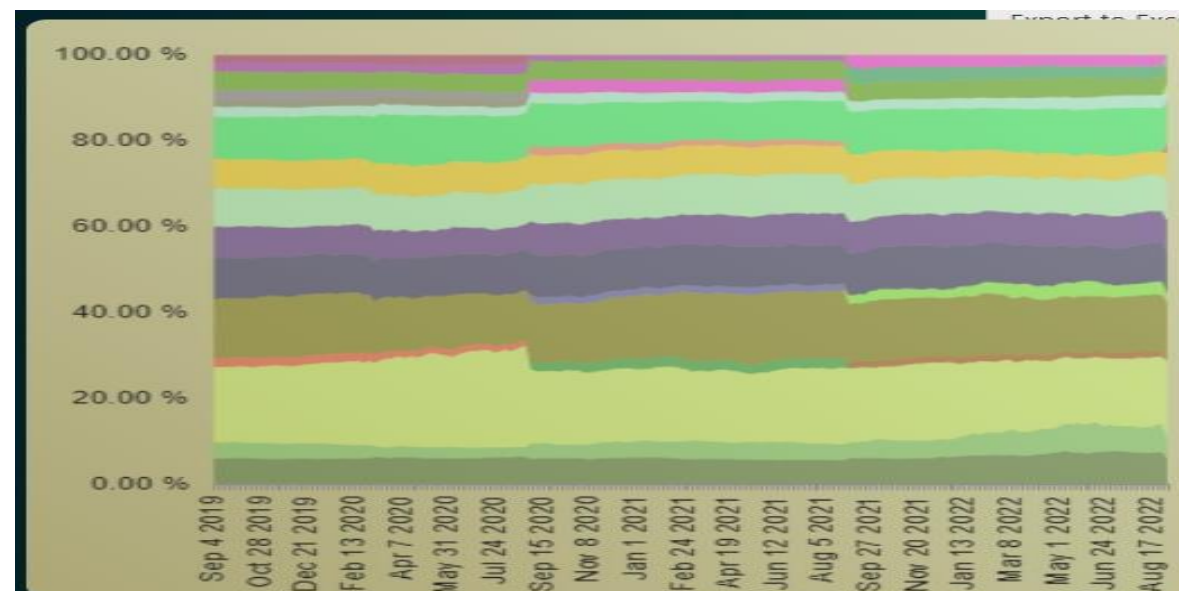
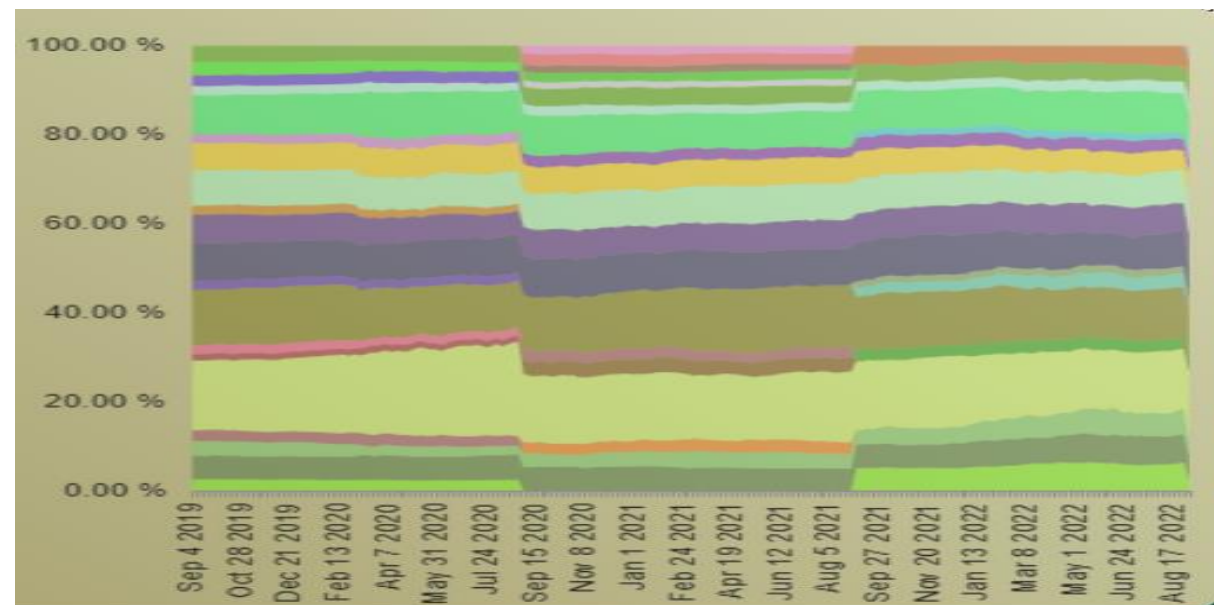
Note that the legacy portfolio comprises the first 11 constituents and contains moderately correlated holdings.

The system improved diversification by replacing the legacy's overall weighting with a number of less correlated assets.

Each slide provides new information that allows the user to better customize portfolios. Reviewing the 90-10 report likely leads to some new Proxies and compromise somewhere in between

ROLLING ASSET ALLOCATION AND OPTMIAZTION On each of the three annual anniversary dates (of portfolio input) the system rebalances the portfolio's initial legacy weightings to their originally entered percentages reduced to the total percentage allocated to the portfolio's total legacy portion, and concurrently fills the non-legacy percent with assets optimized for best fit diversification outcomes from the list of 55 proxies by the provider. DETAILS ON PAGE 13 & 14 USUALLY ASSIST IN VARIATION DECISIONS.

The charts (80-20 on top & 90-10 on bottom) graphically illustrate the combined re-balancing -optimization of the selected portfolio. The following two pages present the value changes resulting from the re-balancing/re- optimization activity for each choice. Forward Forecasting of recommended PROXIES is done by the algorithm, based only on information available before the date of each forecast.



90%-10% Portfolio Rolling Value Table

SYMB	09/04/2019	08/29/2020		09/03/2020	08/29/2021		09/03/2021	08/29/2022		08/30/2022
IYW	125,935	200,575		144,687	201,693		196,441	156,479		175,500
IYG	97,791	98,184		115,547	178,834		152,350	129,995		136,800
IYC	69,220	81,610		81,419	102,286		109,636	89,404		96,300
IYJ	63,736	70,706		75,278	103,296		100,388	84,985		89,100
IYR	53,091	48,442		62,238	82,444		84,359	74,736		72,900
MXI	30,605	35,664		36,022	48,315		47,910	40,297		42,300
IXC	26,002	18,327		30,097	41,827		41,658	65,540		36,000
IYK	43,086	53,648		49,028	61,627		67,495	73,429		59,400
IXJ	71,447	86,738		83,527	103,490		114,033	102,510		99,900
IXP	49,388	61,047		57,621	74,467		77,871	52,910		68,400
IDU	17,040	15,983		19,990	23,588		26,979	29,876		23,400
ICLN	0	0		0	0		0	0		25,000
IEO	0	0		0	0		0	0		15,000
IEZ	0	0		0	0		23,190	30,346		20,000
JXI	0	0		0	0		0	0		15,000
MCHI	0	0		0	0		0	0		25,000
EWJ	0	0		0	0		35,611	27,352		0
EWV	14,434	11,947		0	0		0	0		0
IAI	0	0		0	0		16,855	14,727		0
IBB	14,074	18,551		0	0		0	0		0
IHI	0	0		24,981	32,662		0	0		0
ITA	17,874	13,916		0	0		0	0		0
ITB	14,447	19,544		12,605	17,283		0	0		0
IYH	10,673	13,192		0	0		0	0		0
IYM	0	0		12,952	17,288		0	0		0
RING	0	0		16,591	13,187		0	0		0
SOXX	0	0		16,807	26,233		0	0		0
TECB	0	0		0	0		39,765	27,414		0
Total	718,843	848,074		839,390	1,128,519		1,134,541	1,000,000		1,000,000

80%-20% Portfolio Rolling Value Table

Date	09/04/2019	08/29/2020	09/03/2020	08/29/2021	09/03/2021	08/29/2022	08/30/2022
IYW	109,652	174,640	124,598	173,689	169,246	134,817	156,000
IYG	85,147	85,489	99,504	154,004	131,259	111,999	121,600
IYC	60,270	71,057	70,115	88,084	94,458	77,027	85,600
IYJ	55,495	61,563	64,826	88,954	86,491	73,220	79,200
IYR	46,226	42,178	53,597	70,997	72,681	64,389	64,800
MXI	26,647	31,053	31,021	41,606	41,277	34,719	37,600
IXC	22,640	15,958	25,918	36,019	35,891	56,467	32,000
IYK	37,515	46,711	42,221	53,070	58,151	63,264	52,800
IXJ	62,209	75,523	71,930	89,121	98,246	88,319	88,800
IXP	43,002	53,153	49,621	64,128	67,091	45,585	60,800
IDU	14,836	13,916	17,215	20,313	23,244	25,740	20,800
AAXJ	0	0	20,437	23,298	33,749	25,752	25,000
IAK	0	0	0	0	0	0	15,000
IBB	0	0	15,743	20,861	0	0	15,000
ICLN	0	0	0	0	49,533	47,729	35,000
IEO	0	0	0	0	0	0	25,000
IYE	0	0	0	0	0	0	20,000
MCHI	14,219	19,448	0	0	0	0	20,000
PABJ	0	0	0	0	0	0	20,000
VEGI	17,525	19,359	0	0	55,528	62,782	25,000
EWJ	0	0	0	0	27,988	26,008	0
EWJ	0	0	20,438	24,393	0	0	0
EZA	0	0	0	0	16,927	14,805	0
GSG	0	0	20,047	29,231	0	0	0
IGE	0	0	0	0	22,454	31,970	0
IGV	0	0	20,049	26,863	0	0	0
IHE	0	0	0	0	16,411	15,409	0
IHI	17,355	21,380	0	0	0	0	0
INDA	0	0	24,818	35,199	0	0	0
ITA	21,009	16,358	0	0	0	0	0
ITB	0	0	16,282	22,325	0	0	0
IXG	14,083	13,452	0	0	0	0	0
IYM	14,050	16,273	0	0	0	0	0
IYT	0	0	12,317	16,085	0	0	0
JXI	17,856	17,933	0	0	0	0	0
KXI	10,677	11,127	0	0	0	0	0
RCD	14,102	15,041	0	0	0	0	0
TECB	0	0	12,042	15,897	0	0	0
Total	704,516	821,614	812,736	1,094,137	1,100,624	1,000,000	1,000,000

90% - 10% and 80% - 20% Portfolios Table of Correlation Scores, Allocations, & Sharpe Ratios



The two following tables represent forward looking suggestions for three variables for 90/10 and 80/20 that enhance your ability to customize. Symbols with high total scores (too correlated), low Sharpe Ratios (less return or more risk or both), and/or higher allocation percentages (too concentrated) are the “bad apple” candidates in the legacy portfolio that you should consider modifying while keeping the total weighting the same and also by changing the weighting of the legacy portfolio . With its larger weighting, One might consider reducing IYR, IYJ & MXI weightings and replacing with increases in IYW and IYK which could increase the ROR by 8-12 basis points. Run them to find out!

Because this table uses 3-year trailing data from a forward-looking portfolio's model of potential future constituents, shorter periods of analysis may also be needed to better customize diversification, a process that is easily accomplished on the “Toolbox” platform. One could do that and add another column. e.g., the last 6 months and the last year.

When good results only occur in the 50% and 40% legacy portfolios, your original legacy portfolio is probably too concentrated. Rethink its starting allocation applying the information gained so far..

Finally, re-introduce the fixed income compensated risk element back into the portfolio by combining the new, risk only asset line-up with the previously set aside fixed income. Run it! This re- mixed portfolio's Compensated Risk will show the major improvement while its reduction in Uncompensated Risk will be comparatively less [because relatively greater gains in Uncompensated Risk reduction occur in risk asset classes ([see Brealy link](#))].

Now RUN IT AGAIN with the fixed income. Revise if you deem it necessary.

TABLES OF CORRELATION SCORES, ALLOCATIONS, & SHARPE RATIOS

90%-10% PORTFOLIO

Symbol	Red	Orange	Yellow	Score	Sharpe	Allocation
IYW	3	4	4	11	0.64	17.6%
IYG	3	6	8	17	0.24	13.7%
IYC	0	8	4	12	0.25	9.6%
IYJ	3	14	3	20	0.31	8.9%
IYR	0	8	4	12	0.14	7.3%
MXI	0	4	8	12	0.38	4.2%
IXC	6	0	3	9	0.39	3.6%
IYK	0	6	7	13	0.91	5.9%
IXJ	0	6	7	13	0.52	10.0%
IXP	3	4	4	11	0.12	6.8%
IDU	3	2	3	8	0.34	2.3%
ICLN	0	0	0	0	0.77	2.5%
IEO	6	0	1	7	0.60	1.5%
IEZ	6	0	1	7	0.04	2.0%
JXI	3	6	3	12	0.30	1.5%
MCHI	0	0	0	0	-0.10	2.5%

80%-20% PORTFOLIO

Symbol	Red	Orange	Yellow	Score	Sharpe	Weight
IYW	3	4	6	13	0.64	15.6%
IYG	6	8	7	21	0.24	12.2%
IYC	0	8	8	16	0.25	8.6%
IYJ	3	18	4	25	0.31	7.9%
IYR	0	8	5	13	0.14	6.5%
MXI	3	6	9	18	0.38	3.8%
IXC	6	2	4	12	0.39	3.2%
IYK	0	4	9	13	0.91	5.3%
IXJ	0	4	10	14	0.52	8.9%
IXP	3	4	6	13	0.12	6.1%
IDU	0	2	4	6	0.34	2.1%
AAXJ	3	0	5	8	0.10	2.5%
IAK	3	8	6	17	0.32	1.5%
IBB	0	0	4	4	0.22	1.5%
ICLN	0	0	0	0	0.77	3.5%
IEO	6	0	2	8	0.60	2.5%
IYE	6	0	5	11	0.46	2.0%
MCHI	3	0	0	3	-0.10	2.0%
PABU	0	0	0	0	-0.41	2.0%
VEGI	3	8	6	17	0.81	2.5%

“THE FREE LUNCH IS HERE FOR THE TAKING” “LET’S EAT!”

William Sharpe, Nobel Laureate Speaking to a Luncheon of Financial Analysts 1979 AND
Adds Sharpe Ratio to “FREE LUNCH” of Laureate Harry Markowitz (1928-2023)

“AI” PROCESS THAT BEHAVES LIKE AN “IA”

(Intelligent Assistant) measures & lowers Uncompensated Risk (UCR) and builds 6 new portfolios.
Increases portfolio returns by 75-325+ bps for *Model Portfolios-Pension Plans-Trustees-Family Offices-Endowments-Advisor Developed Portfolios-Solo Investors*.

FIDUCIARY SCORE EXPLAINED

A portfolio’s “Fiduciary Diversification” score is a mathematically calculated combination of the Idiosyncratic and Systematic Diversification into a single score that defines diversification in terms of the number of equivalently, equally weighted, and sufficiently asymmetric portfolio constituents.

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