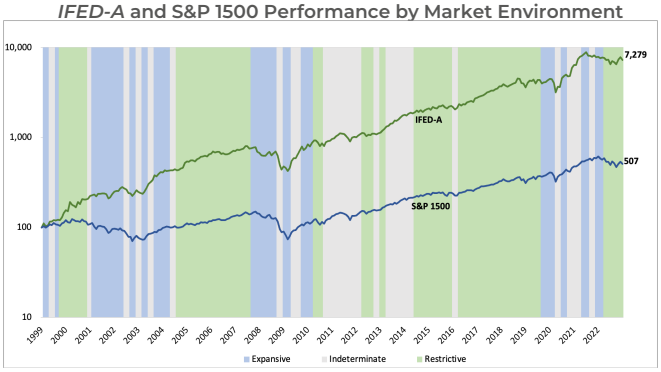
Economic Index Associates

Do You Invest with the Fed?

Economic Index Associates (EIA) is a developer and licensor of active index strategies that are replicable, investable, rules-based and transparent. EIA created the ***"Invest with the Fed" (IFED™) strategy***, which uses Fed policy signals to guide security selection.

EIA's founders are the ***authorities on the association of Fed monetary policy with security returns*** – combined they have published over 200 academic articles, which have over 10,000 citations. The basic premise of their research is captured in their book - ***Invest with the Fed*** (McGraw-Hill, 2015).

IFED-A and S&P 1500 Performance by Market Environment



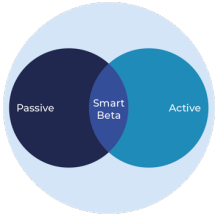
EIA's INDEX OFFERINGS & THEIR PERFORMANCE, JAN 1999 – DEC 2022

	IFED-A (All Cap)	*IFED-LG* (Large Cap)	*IFED-LM* (Large Mid)	*IFED-M* (Mid Cap)	*IFED-S* (Small Cap)	*IFED-LV* (Low Vol)
Annual Return	19.56%	18.26%	19.47%	18.60%	16.75%	12.98%
Alpha vs Benchmark	12.56%	11.45%	12.61%	9.33%	7.55%	3.98%
Standard Deviation	21.46%	18.77%	20.19%	20.67%	22.74%	12.98%
Upside Capture	154.66%	142.30%	149.12%	149.45%	148.84%	94.15%
Downside Capture	68.21%	63.79%	62.98%	68.55%	77.94%	35.41%
Tracking Error	13.87%	10.71%	12.22%	10.20%	11.09%	5.29%
Benchmark	S&P 1500	S&P 500	Russell 1000	S&P MidCap 400	S&P SmallCap 600	S&P 500 Low Vol

THE EVOLUTION OF INDEX INVESTING

CAPM

Capital Asset Pricing Model



SMART BETA

Smart beta ushered in the concept of fundamentally-weighted indexes.

ECONOMIC INDEXING

EIA applies the next generation approach – dynamically-weighted portfolios positioned to benefit from prevailing market conditions.

IFED INDEX OUTPERFORMANCE (ALPHA) BY HOLDING PERIOD

	IFED-A **(All Cap)**	***IFED-LG*** **(Large Cap)**	***IFED-LM*** **(Large Mid)**	***IFED-M*** **(Mid Cap)**	***IFED-S*** **(Small Cap)**	***IFED-LV*** **(Low Vol)**
Full Period (Jan 1999 – Dec 2022)	12.56%	11.45%	12.61%	9.33%	7.55%	3.98%
20 Years	8.51%	8.19%	8.76%	6.65%	4.38%	3.86%
10 Years	8.09%	8.17%	7.59%	8.50%	5.82%	6.22%
5 Years	5.26%	6.63%	4.05%	7.48%	6.64%	5.29%
3 Years	10.01%	12.00%	9.06%	10.13%	13.69%	7.41%
2 Years	3.82%	13.29%	9.18%	8.57%	4.26%	4.95%
1 Year	9.94%	18.76%	14.97%	9.00%	9.53%	6.52%
3 Months*	3.86%	3.69%	4.35%	1.50%	3.30%	3.44%
YTD*	9.94%	18.76%	14.97%	9.00%	9.53%	6.52%

* Not annualized

IFED METHODOLOGY

STARTING UNIVERSE AND STOCK SCORING

- Stocks listed on NYSE or Nasdaq with 3+ years of data
- EIA's proprietary monetary indicator classifies conditions as expansive, restrictive or indeterminate
- 12 firm-specific metrics determine stock *IFED Scores* (i.e., ability to benefit from prevailing market conditions)

COMPOSITION & WEIGHTING

- Each stock is ranked by its *IFED Score*
- 75 stocks with highest *Scores* for prevailing conditions are selected
- Selected stocks are weighted by *IFED Score*
- Customized *IFED* indexes integrate unique features

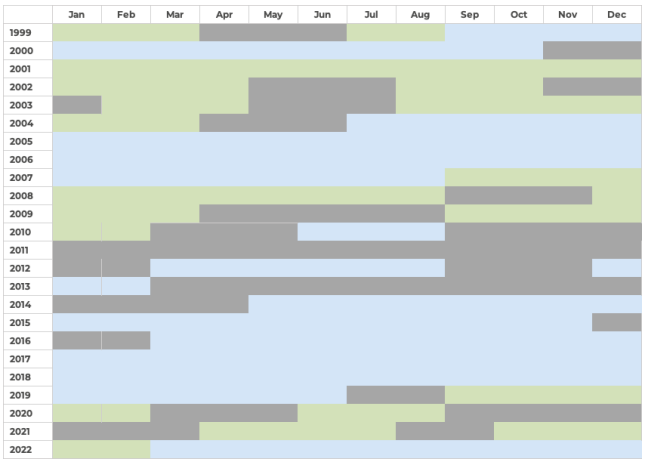
INDEX REBALANCE TIMING

- *IFED* indexes rebalance when required to maintain alignment with market conditions.
- The *IFED Model* reacts to signaled shifts in Fed policy, rather than relying on existing rate levels or past economic conditions.
- See below....

Selected Data by Market Environment: Jan 1999 - Dec 2022

	Market Environment		
	Expansive	**Intermediate**	**Restrictive**
Fed Signal	Easing	Mixed	Tightening
***IFED-A* Alpha**	15.50%	14.08%	10.11%
Fed Mandate Priority	Full Employment	Balanced	Price Stability (Inflation)
% Sample Period	26.39%	26.74%	46.88%

MARKET ENVIRONMENT CHARACTERISTICS



* *IFED* indexes rebalance at the beginning of June to account for an update in the financial metrics if there has been no change in the market environment in the prior six months.

IFED Turnover/Rebalance Data

- **Shifts in Fed policy signals are the primary trigger for index rebalances**
- During the 24-year period, there are 44 rebalances
  - → 34 due to changes in the market environment
  - → 10 due to changes in firm metrics with no change in the market environment *
- Rebalances per year: max. = 3 (e.g., 1999); min. = 1 (e.g., 2001)
  - → Average number of rebalances is 1.91 per annum
  - → Turnover per rebalance ranges from 40.28% to 97.35%
  - → Average annual turnover is 168.98%, range of 40.28% to 281.28%
- Index composition changes with each rebalance; alpha is captured by maintaining an allocation that aligns with the environment
  - → Firm metrics drive the composition, so factor and sector exposures vary substantially across environment

COMPARATIVE ANNUAL RETURNS BY HOLDING PERIOD

	IFED-A	S&P 1500	*IFED-LG*	S&P 500	*IFED-LM*	Russell 1000	*IFED-M*	S&P 400	*IFED-S*	S&P 600	*IFED-LV*	S&P Low Vol
Full Period	**19.56%**	7.00%	**18.26%**	6.81%	**19.47%**	6.85%	**18.60%**	9.27%	**16.75%**	9.20%	**12.98%**	9.00%
20 Years	**18.44%**	9.92%	**17.95%**	9.76%	**18.68%**	9.92%	**17.30%**	10.66%	**15.02%**	10.64%	**14.14%**	10.28%
10 Years	**20.49%**	12.40%	**20.65%**	12.48%	**19.96%**	12.37%	**19.27%**	10.78%	**16.64%**	10.82%	**17.68%**	11.46%
5 Years	**14.41%**	9.15%	**15.89%**	9.26%	**13.19%**	9.13%	**14.18%**	6.71%	**12.52%**	5.88%	**13.85%**	8.55%
3 Years	**17.60%**	7.59%	**19.41%**	7.41%	**16.41%**	7.35%	**17.36%**	7.23%	**19.49%**	5.80%	**12.85%**	5.44%
2 Years	**6.90%**	3.08%	**15.87%**	2.58%	**10.58%**	1.40%	**12.80%**	4.24%	**7.46%**	3.20%	**14.36%**	9.41%
1 Year	**-7.84%**	-17.78%	**0.65%**	-18.11%	**-4.16%**	-19.13%	**-4.06%**	-13.06%	**-6.57%**	-16.10%	**1.94%**	-4.59%
3 Months*	**11.65%**	7.79%	**11.25%**	7.56%	**11.59%**	7.24%	**12.29%**	10.78%	**12.49%**	9.19%	**14.71%**	11.27%
YTD*	**-7.84%**	-17.78%	**0.65%**	-18.11%	**-4.16%**	-19.13%	**-4.06%**	-13.06%	**-6.57%**	-16.10%	**1.94%**	-4.59%

* Not annualized

For more information:

w: www.economicindexassociates.com **e:** info@economicindexassociates.com **p:** +1 212 653 0697

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