



## Alpha Capture: Capitalizing on Fed Policy

Nasdaq & Economic Index Associates partner to introduce the Nasdaq *IFED* US Large-Cap Index™

July 15, 2022

# Participants



**Robert Johnson, PhD, CFA, CAIA,**  
*Chairman, CEO and Co-Founder,*  
Economic Index Associates, LLC



**Gerald Jensen, PhD, CFA,**  
Chief Investment Officer and Co-  
Founder, Economic Index  
Associates, LLC



**Ray Amani**  
Nasdaq Inc, Head of Index  
Product Solutions, Nasdaq  
Global Index R & D Team



# Agenda

- How EIA's indexes align with Nasdaq criteria
- EIA milestones and the *Invest with the Fed*<sup>TM</sup> (*IFED*<sup>TM</sup>) methodology
- Return drivers and Fed policy signals
- Effectiveness of using Fed policy signals
  - Consistency
  - Across market environments
  - Downside risk
  - Relative to alternatives
- Nasdaq *IFED-L* features
  - Sector breakdown
  - Turnover
  - Recent performance and composition





# Nasdaq Indexes: Evaluation and Partner Selection

- What clients look for in Nasdaq Indexes
  - Traditional indexes
  - Broad-Based Indexes
  - Tactical Indexes
- Evaluation process for partnerships
  - Rules based indexes, leveraging technology, transparency
  - Dynamic capabilities
  - Intellectual Property (IP)
  - Marketplace available for new strategies

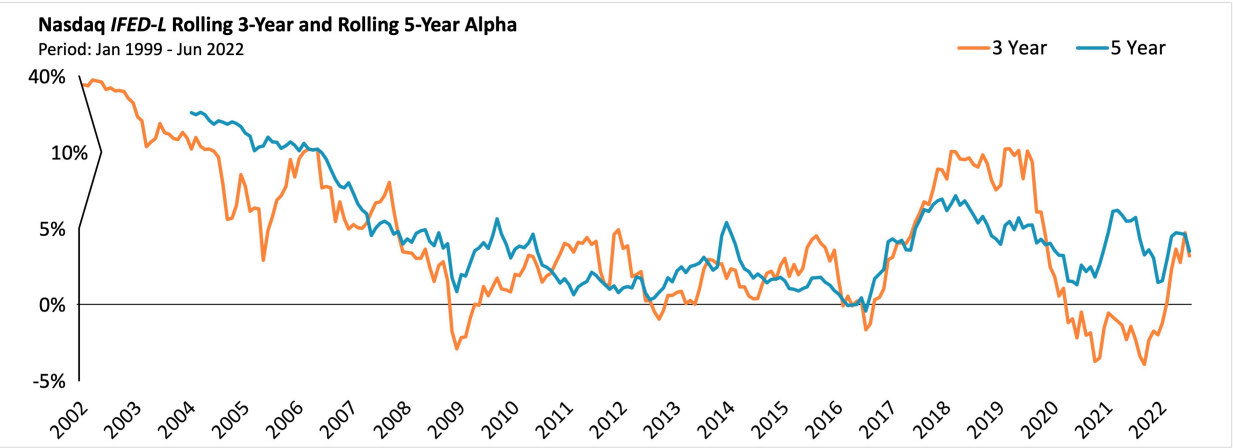


# Executive Summary

The Invest with the Fed™ (IFED™) methodology uses Fed policy signals and key firm metrics to select portfolios positioned to benefit from existing market conditions. IFED indexes are replicable, investable, rules-based and transparent. This deck presents an overview of the Nasdaq IFED US Large-Cap Index™ (Nasdaq IFED-L™).

Nasdaq IFED-L and S&P 500 Performance (Jan 1999 – Jun 2022)

Index	Cumulative Return	Average Annual Return	3-Year Rolling Return	
			Average Annual	Percent Negative
Nasdaq IFED-L	2,263.38%	14.41%	13.16%	11.34%
S&P 500	374.49%	6.85%	7.63%	23.89%
Difference	1,888.88%	7.56%	5.53%	-12.55%



## Nasdaq IFED-L performance over past 23 years

- Average annual alpha (vs S&P 500) of 7.56%
- Beat the S&P 500 3-yr and 5-yr rolling returns 86% and 98% of the time
- Cumulative return of 2,263% vs 374% for S&P 500
- Relative to S&P 500, far fewer periods of negative 3-year performance
- Underperformance was limited:
  - small number of periods of underperformance
  - size of underperformance was small relative to outperformance
  - duration of under-performance was short
- IFED strategy is an active approach that generates alpha by aligning portfolio allocations with market conditions

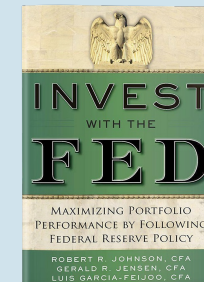
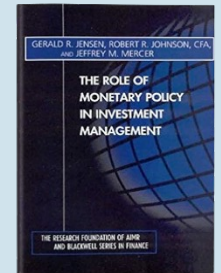




# Timeline – EIA Milestones

1966	EIA founders (Robert Johnson, Gerald Jensen and Luis Garcia-Feijoo) evaluate Fed Monetary Policy data as far back as 1966 (over 50 years)
1996	EIA founder's seminal research assessing Fed policy impact on security return patterns is published in <i>Journal of Financial Economics</i>
2000	EIA's founders publish a CFA Institute monograph titled "The Role of Monetary Policy in Investment Management"
2015	EIA's founders publish a book titled "Invest with the Fed"
2018	Economic Index Associates (EIA) is formed
2020	EIA launches first IFED customized index ( <i>IFED-L</i> )
2020	First separately managed accounts applying the IFED strategy are opened
2021	UBS launches two NYSE-listed ETNs that track <i>IFED-L</i>
2022	EIA partners with Nasdaq on two indexes - Nasdaq <i>IFED-L</i> and Nasdaq <i>IFED-LV</i>

EIA's three founders are the authorities on the association of Fed monetary policy with security returns – combined they have published over 200 academic studies, which have over 10,000 citations.







# Nasdaq *IFED*-L Methodology



## Starting Universe and Stock Scoring

- 500 largest stocks listed on NYSE and Nasdaq with 3+ years of financial data
- EIA's proprietary monetary indicator uses Fed policy signals to classify the environment as expansive, restrictive or indeterminate
- 12 firm-specific metrics\* are used to assign each stock an IFED score based on its ability to benefit from prevailing monetary conditions



## Composition & Weighting

- Each stock is ranked by its IFED score
- 100 stocks with highest scores for prevailing conditions are selected as potential constituents
- Stocks are weighted by IFED score; constraints are applied for liquidity, stock and sector weight
- Result is a final index with approximately 75 stocks



## Index Rebalance Timing

- IFED model reacts to signaled shifts in Fed policy, rather than relying on existing rate levels or economic conditions
  - ✓ Integrates a forward-looking aspect
- IFED indexes are rebalanced when the market environment changes to avoid applying an out-of-favor investment approach

\* 1) Market Capitalization; 2) Past Long-term Stock Performance; 3) Past Short-term Stock Performance; 4) Relative Value; 5) Dividend Yield; 6) Cash Ratio; 7) Residual Variability; 8) Change in Net Operating Assets; 9) Balance Sheet Bloat; 10) Equity Issuance; 11) Debt Ratio; 12) Gross Profit Margin



# EIA Research on Key Firm Metrics

IFED Metric	Expansive	Indeterminate	Restrictive
Market Capitalization	Negative	Neutral	Neutral
Long-term Stock Performance	Negative	Positive	Positive
Short-term Stock Performance	Positive	Neutral	Positive
Relative Value	Positive	Positive	Positive
Dividend Yield	Positive	Positive	Positive
Cash Holdings	Neutral	Neutral	Positive
Residual Variability	Neutral	Negative	Neutral
Change in Operating Assets	Negative	Neutral	Negative
Balance Sheet Bloat	Negative	Negative	Negative
Equity Issuance	Neutral	Negative	Neutral
Debt Ratio	Neutral	Neutral	Negative
Gross Profit Margin	Positive	Positive	Neutral

## Metric-Motivating Publication – Prominent Examples

Banz, R.W., 1981. The relationship between return and market value of common stocks. *Journal of Financial Economics*, 9(1), pp.3-18.

Fama, E.F. and French, K.R., 1996. Multifactor explanations of asset pricing anomalies. *The Journal of Finance*, 51(1), pp.55-84.

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Naranjo, A., Nimalendran, M. and Ryngaert, M., 1998. Stock returns, dividend yields, and taxes. *The Journal of Finance*, 53(6), pp.2029-2057.

Jensen, T., 2022. Do funding conditions explain the relation between cash holdings and stock returns? *Journal of Financial and Quantitative Analysis*, 57(3), 1174-1203. doi:10.1017/S0022109021000120

Ang, A., Hodrick, R.J., Xing, Y. and Zhang, X., 2006. The cross-section of volatility and expected returns. *The Journal of Finance*, 61(1), pp.259-299.

Sloan, R.G., 1996. Do stock prices fully reflect information in accruals and cash flows about future earnings? *Accounting Review*, pp.289-315.

Hirshleifer, D., Hou, K., Teoh, S.H. and Zhang, Y., 2004. Do investors overvalue firms with bloated balance sheets? *Journal of Accounting and Economics*, 38, pp.297-331.

Pontiff, J. and Woodgate, A., 2008. Share issuance and cross-sectional returns. *The Journal of Finance*, 63(2), pp.921-945.

Fama, E.F. and French, K.R., 1992. The cross-section of expected stock returns. *The Journal of Finance*, 47(2), pp.427-465.

Novy-Marx, R., 2013. The other side of value: The gross profitability premium. *Journal of Financial Economics*, 108(1), pp.1-28.

## EIA Key Research Connecting Fed Policy & Returns

Jensen G. R., and Johnson, R.R., 1995. Discount rate changes and security returns in the U.S., 1962-1991. *Journal of Banking & Finance* 19(1): 79-95.

Jensen, G.R., Mercer, J.M., Johnson, R.R., 1996. Business conditions, monetary policy, and expected security returns, *Journal of Financial Economics* 40, 213–237.

Jensen G. R., Johnson, R.R. and Mercer, J.M., 1997. New Evidence on Size and Price-to-Book Effects in Stock Returns. *Financial Analysts Journal* 56 (November/December 1997): 34-42.

Jensen G. R., Johnson, R.R. and Mercer, J.M., 1998. The Inconsistency of Small-Firm and Value Stock Premiums. *Journal of Portfolio Management* (Winter), 27-36.

Conover, C.M., Jensen, G.R., Johnson, R.R. and Mercer, J.M., 2005. Is Fed policy still relevant for investors? *Financial Analysts Journal*, 61(1), pp.70-79.

Becher, David, Jensen, G.R., Mercer, J.M., 2008. Monetary policy indicators as predictors of stock returns. *Journal of Financial Research* 31, pp. 357-379.

Jensen, G.R. and Moorman, T., 2010. Inter-temporal variation in the illiquidity premium." *Journal of Financial Economics* 98, pp. 338-358.

Garcia-Feijoo, L., and Jensen G. R., 2014. The monetary environment and long-run stock reversals. *Journal of Financial Research* 37, pp. 3-26.

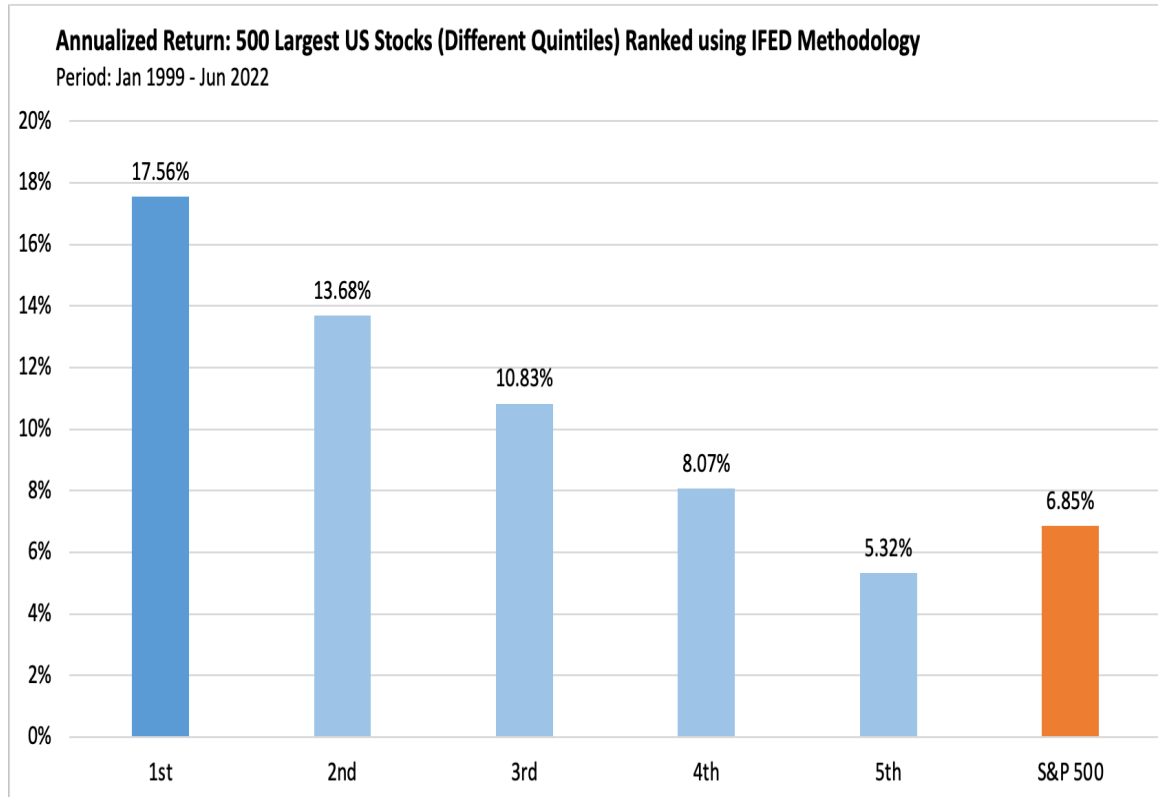
Garcia-Feijoo, L., Jensen, G.R. and Jensen, T.K., 2018. Momentum and funding conditions. *Journal of Banking & Finance* 88, pp.312-329.

García-Feijóo, L., Jensen, T.K. and Koch, P., 2022. Operating leverage, profitability, and stock returns under different aggregate funding conditions.





# Efficacy of the IFED Scoring Methodology



Note: the stocks in Nasdaq *IFED-L* are selected from the 100 stocks in the 1st quintile



## Key Points

- The monotonic relation between IFED score and returns supports the model's ability to classify stocks
- Four of five quintiles beat the S&P 500, suggesting that weighting stocks by IFED score is superior to weighting by market cap
- The methodology effectively identified stock potential in the prevailing market environment
- Nasdaq *IFED-L* produced a superior average return for each period of 1 year or greater



# Nasdaq *IFED-L* Performance Consistency

## Percentage of Time Nasdaq *IFED-L* Outperformed the S&P 500

Rolling Month	Rolling Quarter	Rolling Year	Rolling 2 Years	Rolling 3 Years	Rolling 5 Years
56.03%	63.57%	69.00%	75.68%	85.83%	98.21%

- Outperformance consistency increases with the holding period
- Large positive annual alphas are interspersed with a few small negatives
- The strategy excels when normal conditions prevail and mitigates underperformance during unusual times
- The IFED strategy considers twelve firm-specific metrics; it can lag when a single factor or small group of firms drives returns
- FAANGM stocks dominated market performance in 2019
- In 2006 through 2008, large financial firms dominated market attention

## Annual Returns (in %)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 YTD*
Nasdaq <i>IFED-L</i>	61.84	38.58	0.32	-11.95	38.11	13.50	21.52	12.21	3.16	-38.11	40.16	18.79	-1.89	19.47	41.98	10.88	0.91	25.41	35.30	-5.45	25.49	22.84	25.34	-9.03
S&P 500	21.04	-9.10	-11.89	-22.10	28.66	10.88	4.91	15.78	5.57	-37.00	26.45	15.06	2.11	15.99	32.37	13.68	1.37	11.95	21.82	-4.40	31.48	17.75	28.51	-20.03
Alpha	40.81	47.68	12.21	10.15	9.44	2.62	16.61	-3.57	-2.41	-1.11	13.71	3.74	-4.00	3.47	9.60	-2.79	-0.46	13.46	13.48	-1.05	-5.99	5.09	-3.17	11.00

\* 2022 YTD return is calculated through June 2022 and is not annualized





# Nasdaq *IFED-L* Information by Market Environment

Market Environment Characteristics (Jan 1999 – Jun 2022)

	Market Environment		
	Expansive	Indeterminate	Restrictive
Monetary policy moves	Fed signaling easier future policy	Contradictory moves in Fed policy signals	Fed signaling tighter future policy
Percent of Sample Period	28.72%	28.72%	42.55%
Average number of months per monetary period	6.23	3.52	8.00
Number of separate monetary periods	13	23	15
Average number of stocks in Nasdaq <i>IFED-L</i> index	74	74	73

Nasdaq *IFED-L* Performance Measures (Jan 1999 – Jun 2022)

	Full Period	Market Environment		
		Expansive	Indeterminate	Restrictive
Average Annual Alpha vs S&P 500	7.56%	9.44%	2.45%	10.43%
Sharpe Ratio – Nasdaq <i>IFED-L</i>	0.71	0.72	0.34	1.07
Sharpe Ratio – S&P 500	0.39	0.16	0.29	0.77
Information Ratio	1.36	1.43	0.85	1.76

- Nasdaq *IFED-L* produced positive average alpha and strong risk-adjusted performance in all market environments
- Created tremendous alpha when market conditions were clearly defined (i.e., expansive and restrictive environments)





# Nasdaq *IFED*-L Relative Performance (Q1.1999 – Q2. 2022)

**Movement of S&P 500 Captured by  
Nasdaq *IFED*-L & Smart Beta Indexes**

	Upside Capture	Downside Capture	Upside minus Downside Capture
Nasdaq <i>IFED</i> -L	134%	81%	53%
S&P 500 Growth	103%	98%	5%
S&P 500 Value	97%	100%	-3%
S&P 500 Momentum	100%	100%	0%
S&P 500 Low Volatility	82%	64%	18%
S&P 500 High Dividend	98%	71%	27%

- Nasdaq *IFED*-L yields superior upside and downside capture ratios relative to the prominent smart beta indexes



**Comparative Annual Alphas vs S&P 500**

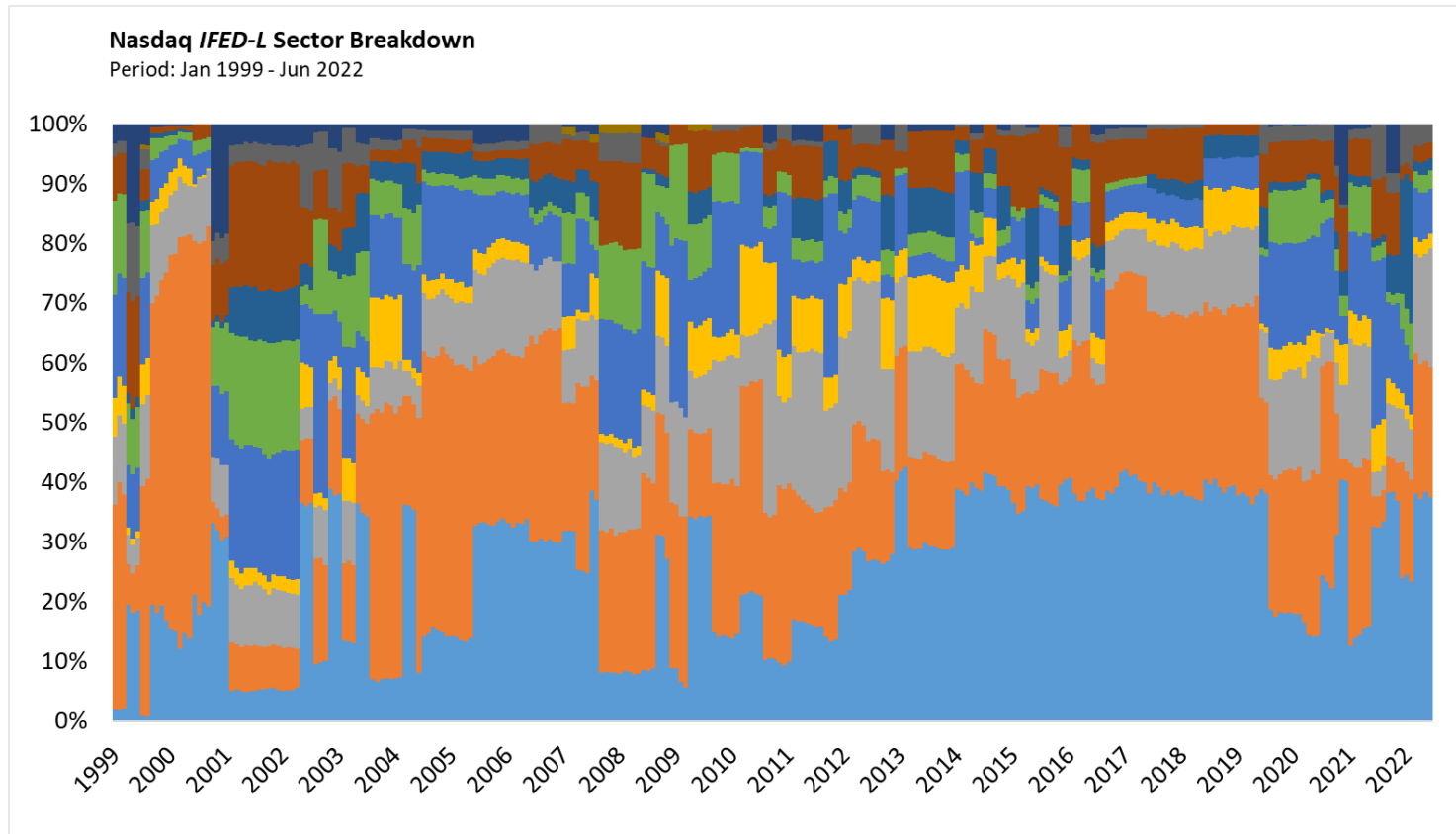
	Annual Alpha			
	Average	Median	Maximum	Minimum
Nasdaq <i>IFED</i> -L	7.56%	3.72%	47.72%	-6.05%
S&P 500 Growth	0.10%	0.38%	15.72%	-12.98%
S&P 500 Value	-0.44%	-0.39%	15.18%	-16.55%
S&P 500 Momentum	-0.60%	0.18%	26.80%	-14.83%
S&P 500 Low Volatility	2.14%	0.00%	17.12%	-22.16%
S&P 500 High Dividend	2.64%	1.36%	28.84%	-21.65%

- Nasdaq *IFED*-L outperforms smart beta indexes, while reporting larger maximum and smaller minimum outcomes





# Sector Breakdown



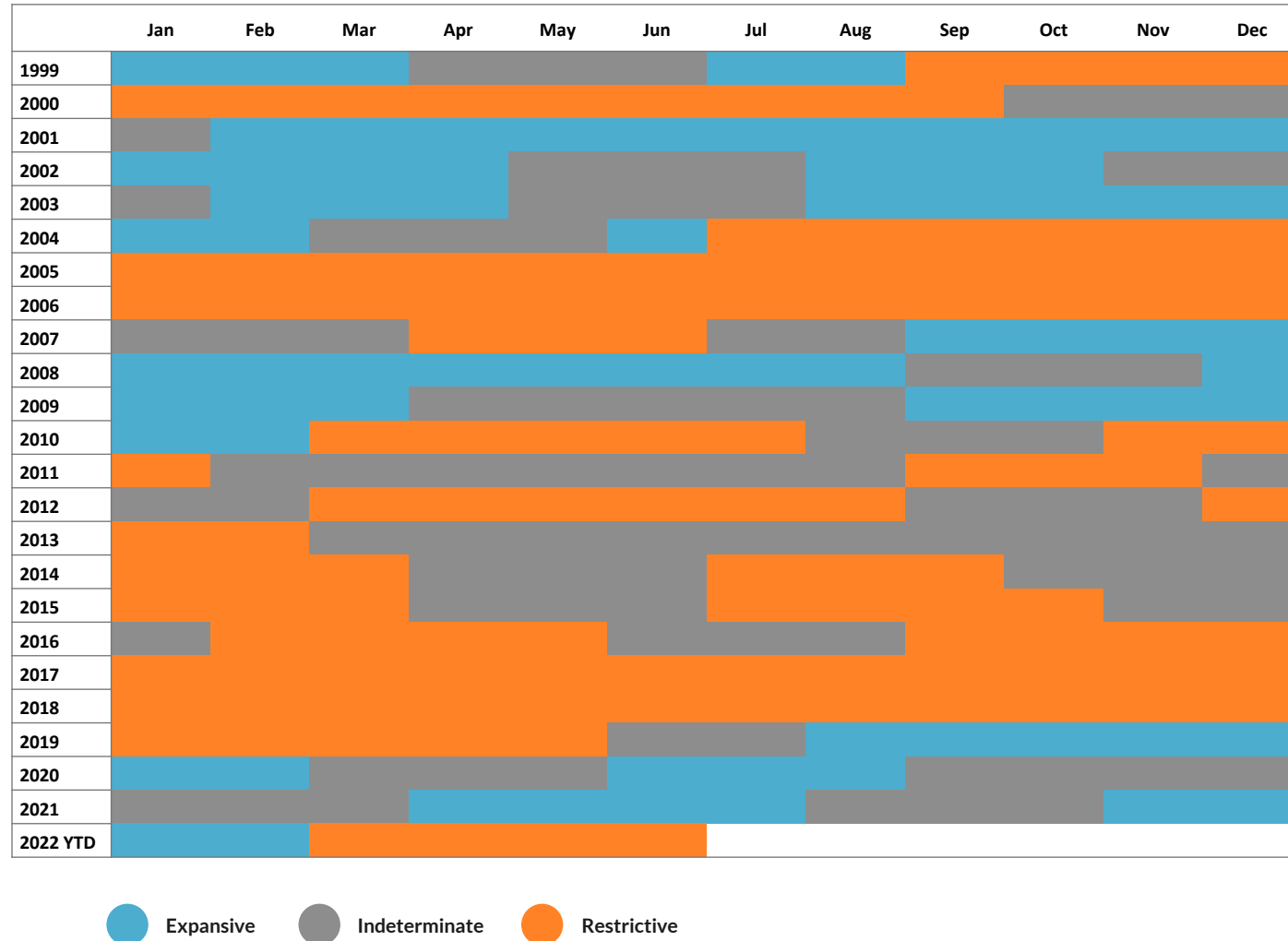
Average Weight	Sector
1.65%	Utilities
0.11%	Real Estate
2.12%	Materials
7.16%	Industrials
3.67%	Energy
5.59%	Consumer Staples
11.66%	Consumer Discretionary
4.80%	Communication Services
12.76%	Health Care
25.45%	Information Technology
25.03%	Financials

- The 12 metrics that are the basis of the IFED approach produce substantial variation in sector allocations across environment and time





# Market Environments and Index Turnover



## Nasdaq IFED-L Turnover/Rebalance Data

- Shifts in Fed policy signals are the primary trigger for index rebalances
- During the 23-year period, there are 45 rebalances
  - 35 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., 2021); min. = 1 (e.g., 2018)
  - 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 market environment





# Dashboard as of June 30, 2022

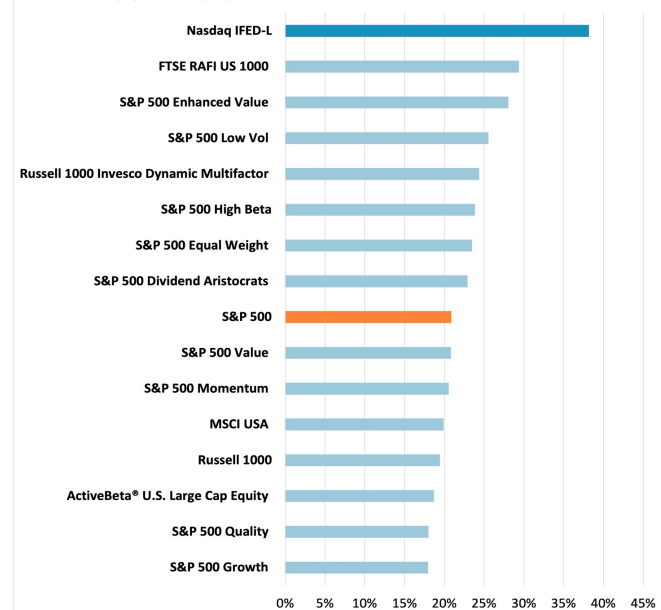
## Nasdaq IFED-L Recent Performance

	1M	3M	2022 YTD	Post Index Launch (06.09.2020)
Nasdaq IFED-L Total Return	-10.77%	-16.86%	-9.03%	40.24%
S&P 500 Total Return	-8.25%	-16.15%	-20.03%	21.71%
Difference	-2.51%	-0.71%	11.00%	18.53%

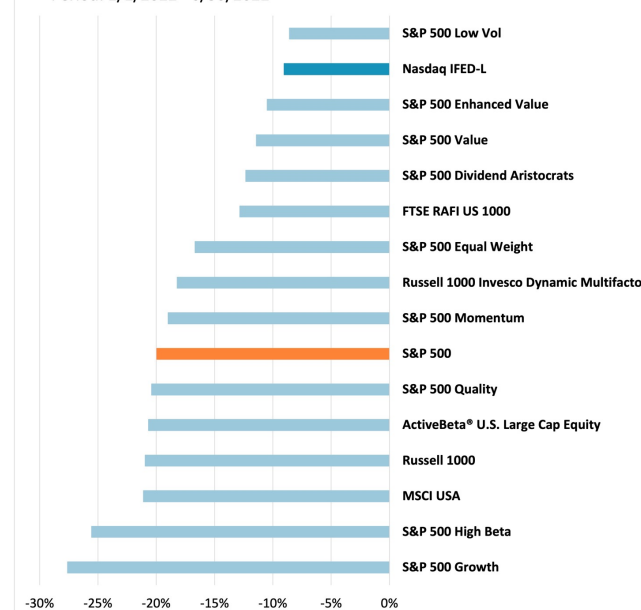
## Largest 10 Holdings

1	UnitedHealth Group Incorporated	4.70%
2	Bank of America Corporation	4.48%
3	JPMorgan Chase & Co.	3.88%
4	Citigroup Inc.	3.76%
5	The Goldman Sachs Group, Inc.	3.34%
6	Applied Materials, Inc.	3.25%
7	Morgan Stanley	2.89%
8	Lam Research Corporation	2.88%
9	Apple Inc.	2.53%
10	CVS Health Corporation	2.48%

Total Index Return: IFED-L vs Other Large-Cap Indexes Since Launch  
Period: 6/9/2020 - 6/30/2022



2022 YTD Index Returns: IFED-L vs Other Large-Cap Indexes  
Period: 1/1/2022 - 6/30/2022



## Key Points



- Nasdaq IFED-L was launched on June 9, 2020
- Since launch, Nasdaq IFED-L outperformed the S&P 500 by 18.53%
  - Additionally, it has outperformed all the prominent factor indexes
- Year-to-date, Nasdaq IFED-L has outperformed the S&P 500 by 11.00%
  - Additionally, it has outperformed all but the S&P 500 Low Volatility index
- The index is currently tilted toward firms with strong balance sheets and leading positions in their market niche
  - Five of the top ten firms are Financials and three are IT
  - Only two of FAANGM are in the index – AAPL & GOOGL

## Current Sector Composition

Financials	37.53%
Information Technology	21.80%
Health Care	19.81%
Communication Services	2.50%
Consumer Discretionary	7.55%
Consumer Staples	3.11%
Energy	2.04%
Industrials	2.69%
Materials	2.97%
Real Estate	0.00%
Utilities	0.00%



# Summary



- **Strategy Features**



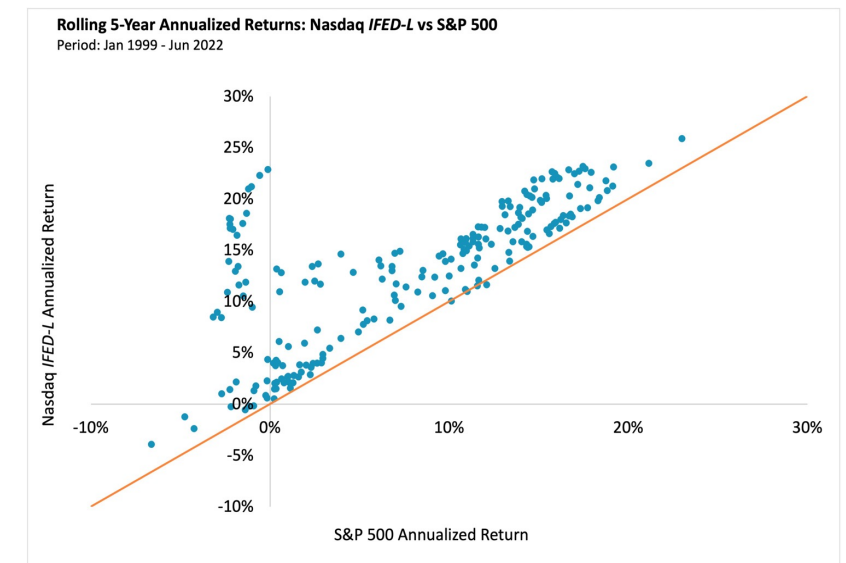
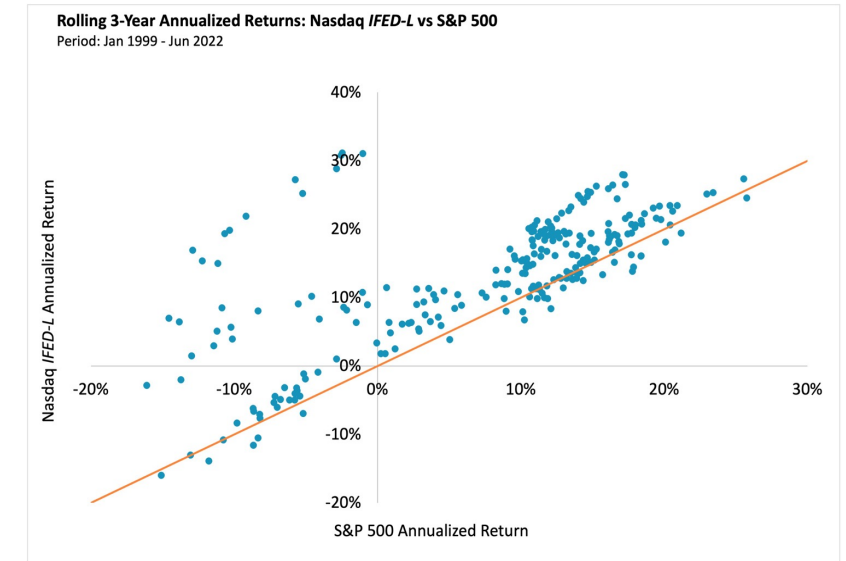
- Long-term, active strategy supported by peer-reviewed research
- Pursues alpha by using monetary conditions to guide stock selection
- Weights stocks by IFED score instead of market capitalization
- Avoids the timing issues inherent with factor investing
- Model adjusts based on changes in market conditions
- Replicable, investable, rules-based and transparent
- Strong historical return and downside risk profile over past 23 years

- **Average annual rolling 3-year alpha of 5.53% (5 Yr = 5.05%)**

- Beats S&P 500 rolling 3-year returns 86% of the time (5 Yr = 98%)
- Captures 134% of market upside and only 81% of downside

- **Diversification benefit – “low” correlation with S&P 500 and single factors**

- Generates strong alpha when systematic patterns prevail
- Mitigates underperformance when idiosyncratic forces dominate



# APPENDIX

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# Credentials of EIA's Principals

The three founders, Robert Johnson, PhD, CFA, CAIA, Gerald Jensen, PhD, CFA and Luis Garcia-Feijoo, PhD, CFA, CIPM are the authorities on the association of Fed monetary policy with security returns.

## Professional Backgrounds

### Engagement with the CFA Institute

- Robert Johnson, various leadership positions at CFA Institute, 1996-2011, including Deputy CEO, responsible for the CFA Program; received the Alfred C. "Pete" Morley Distinguished Service Award for his "extraordinarily significant contributions to CFA Institute;" continues as a consultant and volunteer
- Luis Garcia-Feijoo, Director of Exam Development at CFA Institute, 2007–2009, managed/developed Level II and III item set exams; CFA Institute consultant and volunteer since 2009; Assoc. Research Director at CFA Institute Research Foundation (2018+)
- Gerald Jensen, consultant and volunteer to CFA Institute since 2006
- Additional CFA-related activities, authored two CFA Institute Research Foundation monographs, received two CFA Society Research grants and delivered numerous research presentations at CFA societies

### Investment Industry Experience and Expertise

- Albert Neubert, MBA: various roles at S&P and Dow Jones, managed the S&P 500, led the development of the S&P MidCap 400, SmallCap 600 and SuperComposite 1500
- Anthony Collins, previous Head of Research and Product & Corp. Development, Sydney Futures and Australian Securities Exchange
- Frequent financial media contributors, e.g., *CNBC*, *Wall Street Journal*, *Financial Times*, *Barron's*, *Bloomberg TV*

## Investment Publications and Research

### Investment Management Books

- Collectively authored 5 books and 2 research monographs:
  - *Invest with the Fed* - presents basis of EIA strategy; 4.4/5 Amazon rating
  - *Strategic Value Investing* - on Warren Buffett's Berkshire Hathaway Annual Meeting Reading List for the past 5 years
  - Research monographs, *Commodities as an Investment* and *The Role of Monetary Policy in Investment Management*
  - *Investments, Analysis and Management* - Integrates much of the CFA curriculum; widely used in university classrooms
  - The Tools and Techniques of Investment Planning
  - Investment Banking for Dummies

### Research Publications (over 9,000 citations)

- Published over 200 articles in peer-reviewed journals
- Academic publications include: *Journal of Finance*, *Journal of Financial Economics*, *Journal of Financial and Quantitative Analysis* and *Journal of Business*
- Professional publications include: 10 articles in the *Financial Analysts Journal* and 9 in *Journal of Portfolio Management*

### Journal Editorial Positions

- Luis Garcia, co-editor/associate editor of the *Financial Analysts Journal*, since 2012
- Robert Johnson, served on editorial/advisory boards of the *Journal of Portfolio Management*, *Quarterly Journal of Finance and Accounting* and *Journal of Wealth Management*
- Gerald Jensen, served on editorial board of the *Journal of Financial Research*

## Investment Philosophy

### Index Strategy - Background and Description

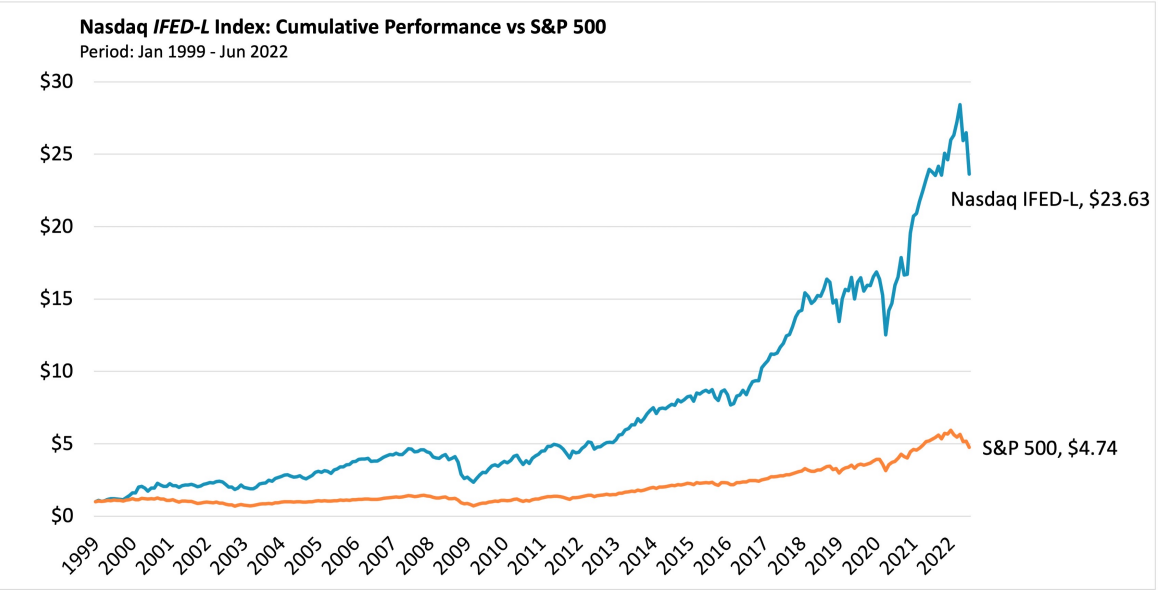
- Strategy developed based on over 30 years of research
- Unique firm metrics identify stocks that prosper under each of three market environments
- Strategy selects and weights stocks, so allocation is positioned to capitalize on market conditions; strategy avoids going out-of-favor
- Approach is applicable to a range of asset classes, including international equities, bonds and commodities
- Strategy does not change to match recent investment fads

### Basic Principles of EIA Philosophy

- 1) Ethical conduct is essential - EIA strategy is guided by CFA Institute Code of Ethics and Standards of Practice
- 2) Time in the market is crucial - Strategy is always fully invested, shifts constituent stocks strategically based on changes in Fed policy signals
- 3) Diversification avoids underperformance - Strategy selects stocks using 12 diverse firm-specific metrics, producing a diversified portfolio
- 4) Excessive turnover hurts performance - Strategy is dynamic; however, turnover is limited relative to active strategies
- 5) Following the herd destroys wealth - Strategy grounded in economic/financial theory with long-term focus; will maintain effectiveness until Fed policy is irrelevant
- 6) Knee-jerk reactions are harmful - Rules-based approach, strategically shifts with market conditions; does not succumb to following the current investment fad



# Nasdaq *IFED*-L Performance vs. Peers

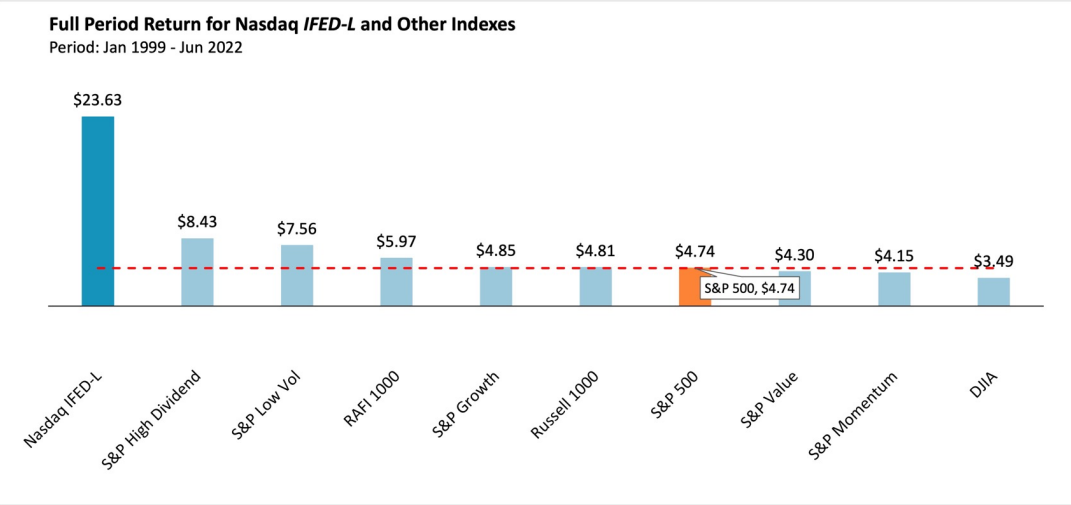


- From January 1999 to June 2022, \$1 invested in Nasdaq *IFED*-L compounded to \$23.63 versus \$4.74 for the S&P 500
- Nasdaq *IFED*-L has outperformed during prolonged periods of recognized stock market weakness and strength
  - The IFED strategy is a long-term strategy and performs best over longer-term horizons, ideally 3 years or longer



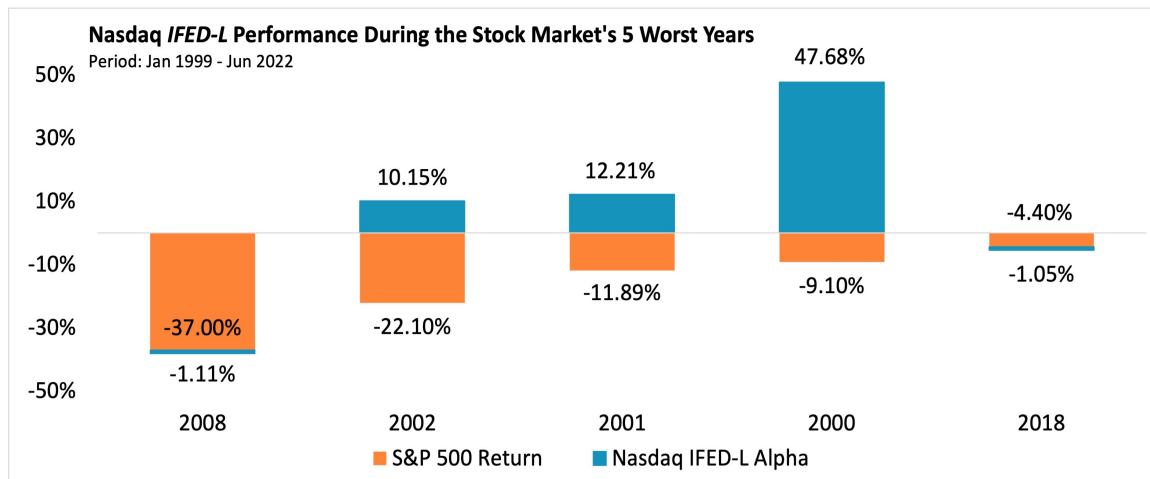
## Cumulative Return During 3-Year Periods of Significant Market Moves

	Unfavorable Market Periods		Favorable Market Periods	
	Jan 2000 to Dec 2002	Jan 2007 to Dec 2009	Jan 2003 to Dec 2005	Jan 2012 to Dec 2014
Nasdaq <i>IFED</i> -L	22.40%	-10.51%	90.48%	88.08%
S&P 500	-37.61%	-15.90%	49.66%	74.55%





# Downside Risk Analysis



## Nasdaq *IFED-L* Downside Risk

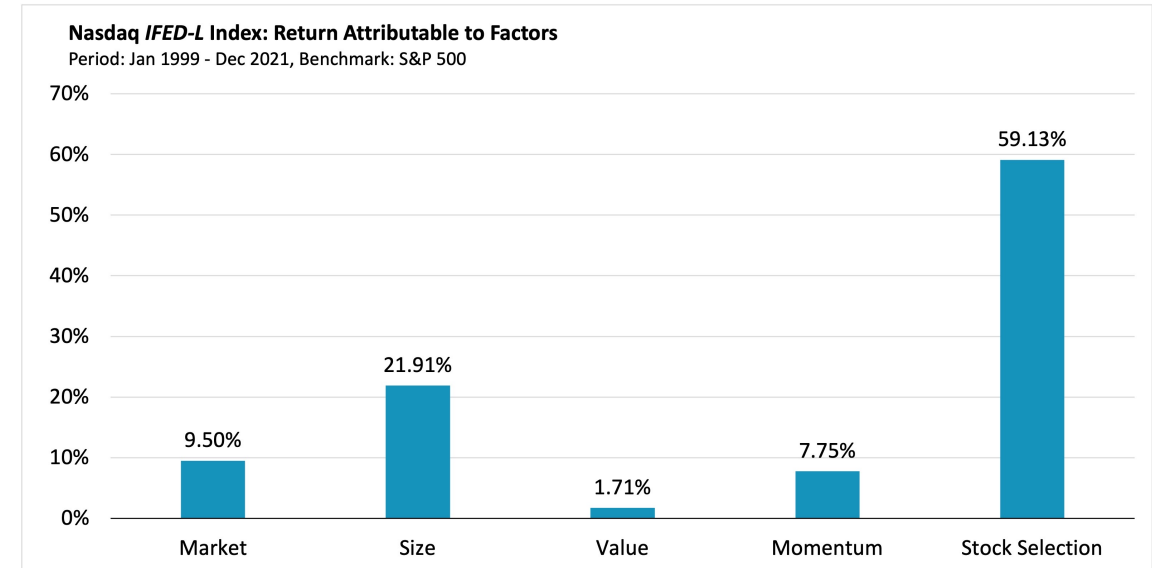
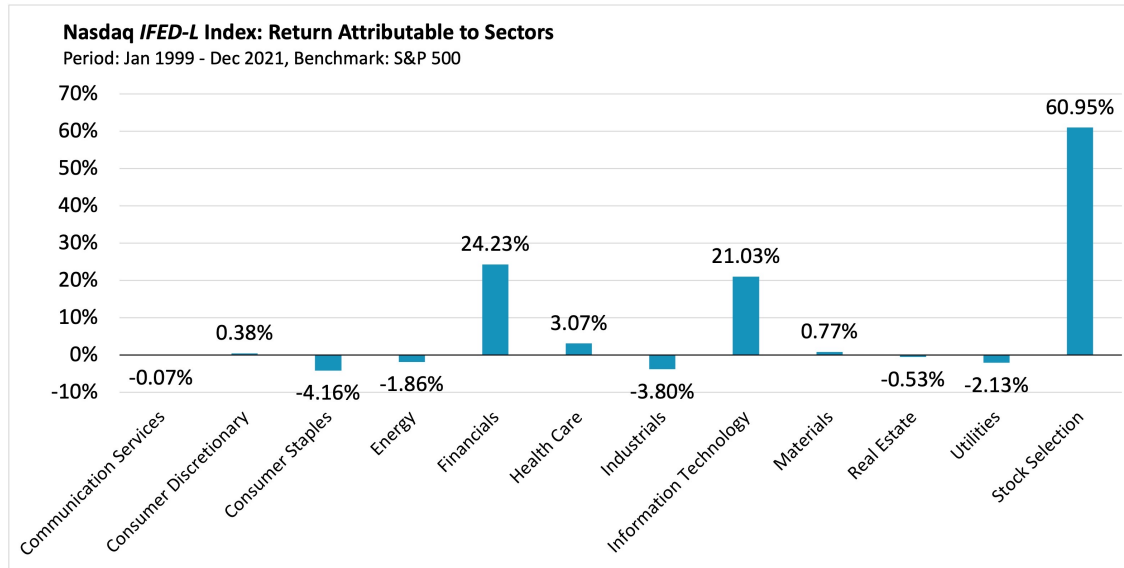


- Nasdaq *IFED-L* drawdowns are smaller than, or comparable to, the S&P 500
- Nasdaq *IFED-L*'s average alpha in the 5 worst years for market performance is 13.6%
- Alpha is substantial and positive in 3 of the 5 worst years
  - Ranges from 10.15% to 47.68%
- The negative alpha is small in the 2 years of underperformance
  - Ranges from -1.11% to -1.05%
- The IFED strategy mitigates significant underperformance when the market is at its worst





# Factor & Sector Attribution Analysis



- Nasdaq IFED-L produces alpha by selecting stocks that are optimally positioned to market conditions; it does not maintain any substantial sector bias
  - Sector attribution confirms that 60.95% of alpha is attributable to stock selection (relative to sector weighting)
- Biggest sector contributors: Information Technology and Financials



- Four-factor attribution analysis confirms that the majority of alpha is due to stock selection
  - 12 firm metrics are used to select stocks; thus, factor exposures are incidental and deviate over time
  - During the 23 years, 59.13% of alpha comes from stock selection (relative to factor tilts)
- On average, Nasdaq IFED-L accrues some benefit from the four factors, with the size factor being most prominent (21.91%); followed by the market factor (9.50%)





# Performance by Environment: Other IFED Indexes

## Annual Alpha: IFED Indexes vs Benchmarks (Jan 1999 – Jun 2022)

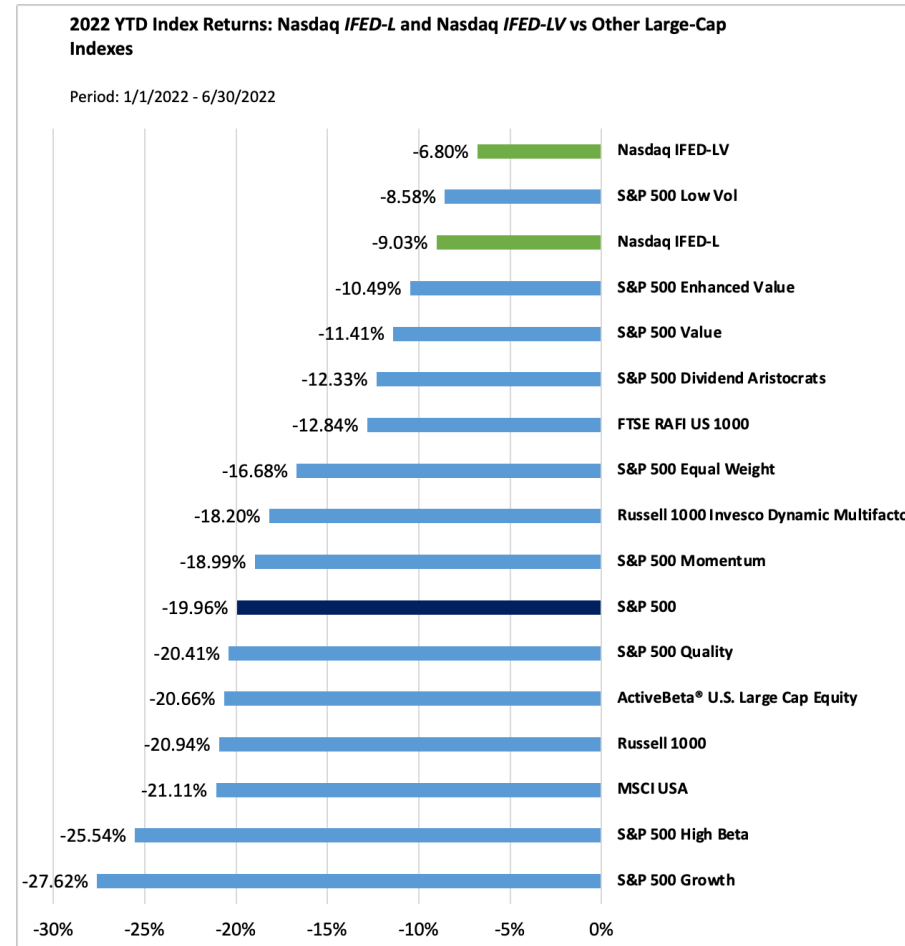
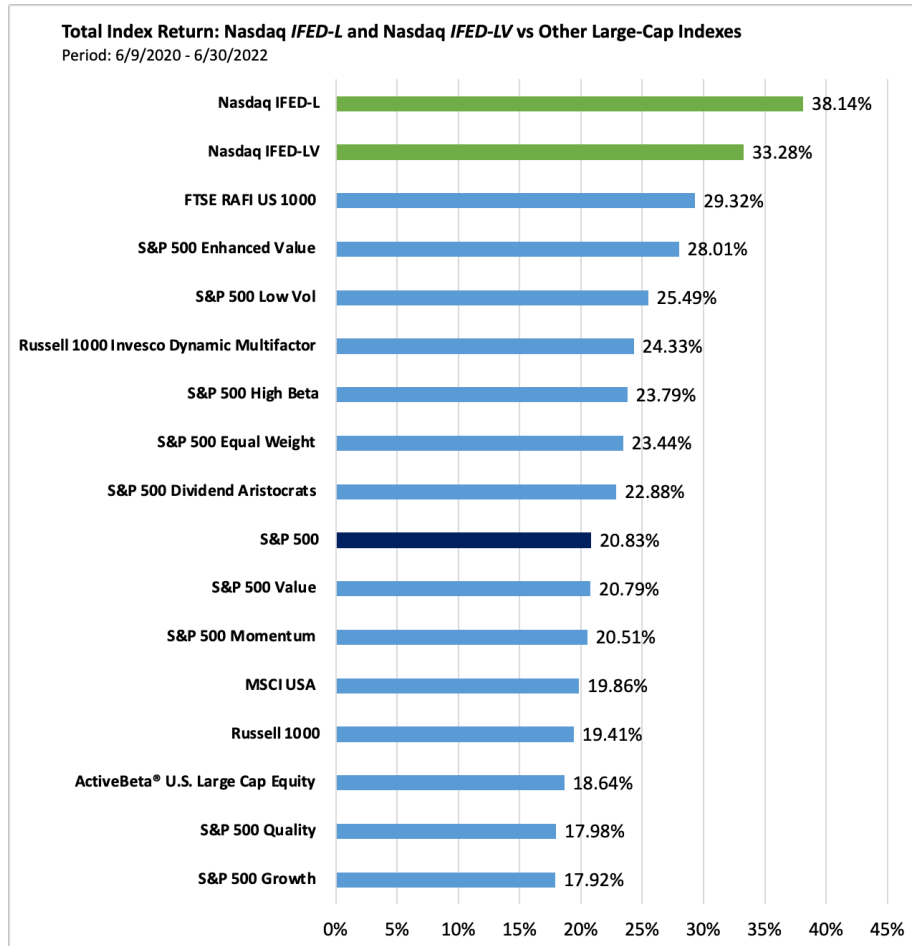
	Full Period	Market Environment		
		Expansive	Indeterminate	Restrictive
<b>Alpha: IFED-A vs S&amp;P 1500</b>	<b>12.41%</b>	<b>15.50%</b>	<b>14.47%</b>	<b>9.50%</b>
Sharpe Ratio – IFED-A	0.86	0.75	0.84	0.99
Sharpe Ratio – S&P 1500	0.40	0.06	0.36	0.71
<b>Alpha: IFED-LM vs Russell 1000</b>	<b>12.48%</b>	<b>12.20%</b>	<b>14.79%</b>	<b>11.25%</b>
Sharpe Ratio – IFED-LM	0.92	0.70	0.87	1.10
Sharpe Ratio – Russell 1000	0.38	0.04	0.34	0.72
<b>Alpha: IFED-M vs S&amp;P MidCap 400</b>	<b>9.35%</b>	<b>9.12%</b>	<b>11.01%</b>	<b>8.49%</b>
Sharpe Ratio – IFED-M	0.85	0.62	0.87	0.98
Sharpe Ratio – S&P MidCap 400	0.46	0.15	0.43	0.74
<b>Alpha: IFED-S vs S&amp;P SmallCap 600</b>	<b>7.23%</b>	<b>12.44%</b>	<b>8.33%</b>	<b>3.44%</b>
Sharpe Ratio – IFED-S	0.68	0.67	0.71	0.68
Sharpe Ratio – S&P SmallCap 600	0.43	0.14	0.45	0.63
<b>Alpha: IFED Low Vol vs S&amp;P Low Vol</b>	<b>3.78%</b>	<b>1.58%</b>	<b>5.52%</b>	<b>4.11%</b>
Sharpe Ratio – IFED Low Vol	0.93	0.52	0.91	1.22
Sharpe Ratio – S&P 500 Low Vol	0.68	0.39	0.62	0.94



- All IFED indexes have outperformed their benchmark in each market environment



# The Forthcoming Nasdaq *IFED-LV*



- The forthcoming Nasdaq *IFED* US Large-Cap Low Volatility Index™ (Nasdaq *IFED-LV*) applies the *IFED* methodology to a basket of 75 stocks with low volatility characteristics.

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Nasdaq <i>IFED-L</i> Index	Ticker	Reuters
Price Return	IFEDL	.41Z8
Total Return	IFEDLT	.41Z9



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