

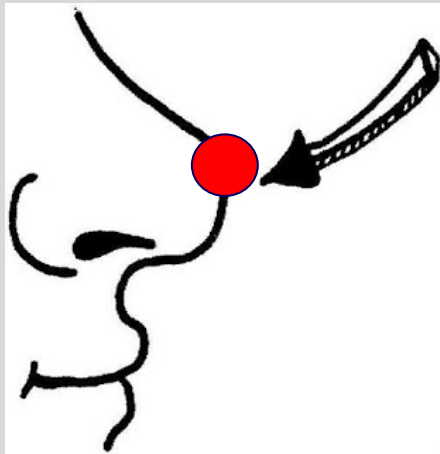
Investing for Successful Retirement

UD Osher – OLLI
Fall 2025

- **Rajeev A. Vaidya**
- **Ron Materniak**

Disclaimer in plain language

Disclaimer – in plain language:



Opinions are like noses, everyone has one !

You are going to see mine in this course !!

We are simply sharing our perspective.

This is not investment advice or recommendation.

Ron, and I are not a financial advisors.

This course is for educational purposes only.

Form your own opinion, make your own investment decisions.

Eighth Class – Oct. 22nd

- Market Update
- Deep Dive into ETFs and Mutual funds - Part 2
 - Performance metrics
 - Risk
 - ETFs for various asset classes & strategies
- Questions

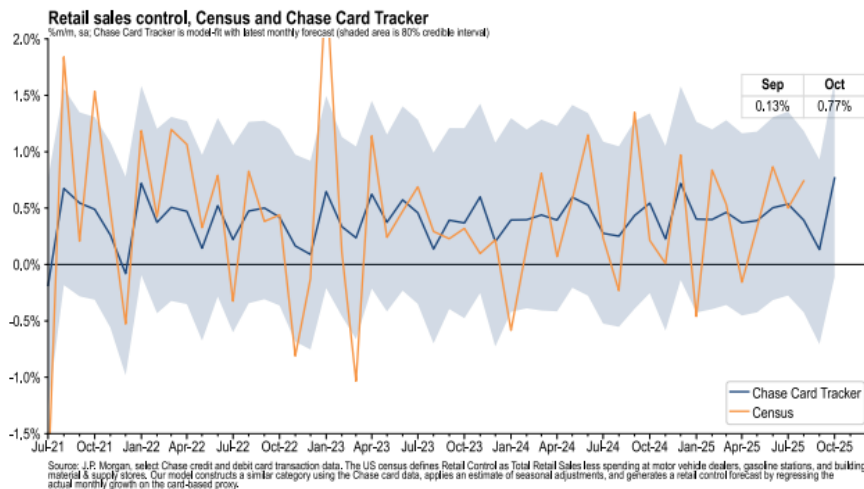
Consumer spending – 3Q 2025

J.P.Morgan

Dan Weitzenfeld (646) 299-1400
dan.weitzenfeld@jpmorgan.com

Daily consumer spending tracker

- As of 10 Oct 2025, our Chase Consumer Card spending data (unadjusted) was 5.0% above the same day last year.
- Based on the Chase Consumer Card data through 10 Oct 2025, our estimate of the US Census September control measure of retail sales m/m is 0.13%.



Retail sales, Census and Chase Card Tracker

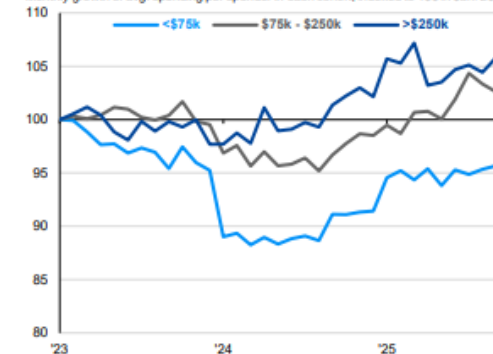
m/m, sa	Jun	Jul	Aug	Sep
Total Retail Sales & Food Services				
Census	0.97	0.61	0.63	
Chase Card Tracker	0.44	0.52	0.27	-0.11
Retail Control				
Census	0.87	0.50	0.74	
Chase Card Tracker	0.50	0.54	0.39	0.13
Gasoline Stations				
Census	0.68	0.92	0.52	
Chase Card Tracker	-0.97	-0.67	1.37	0.33
Food Services & Drinking Places				
Census	0.84	-0.09	0.73	
Chase Card Tracker	1.00	0.21	0.47	-0.28

For months with Census data, Chase Card Tracker reflects in-sample

Chart of the Week

Consumer spending by income cohort

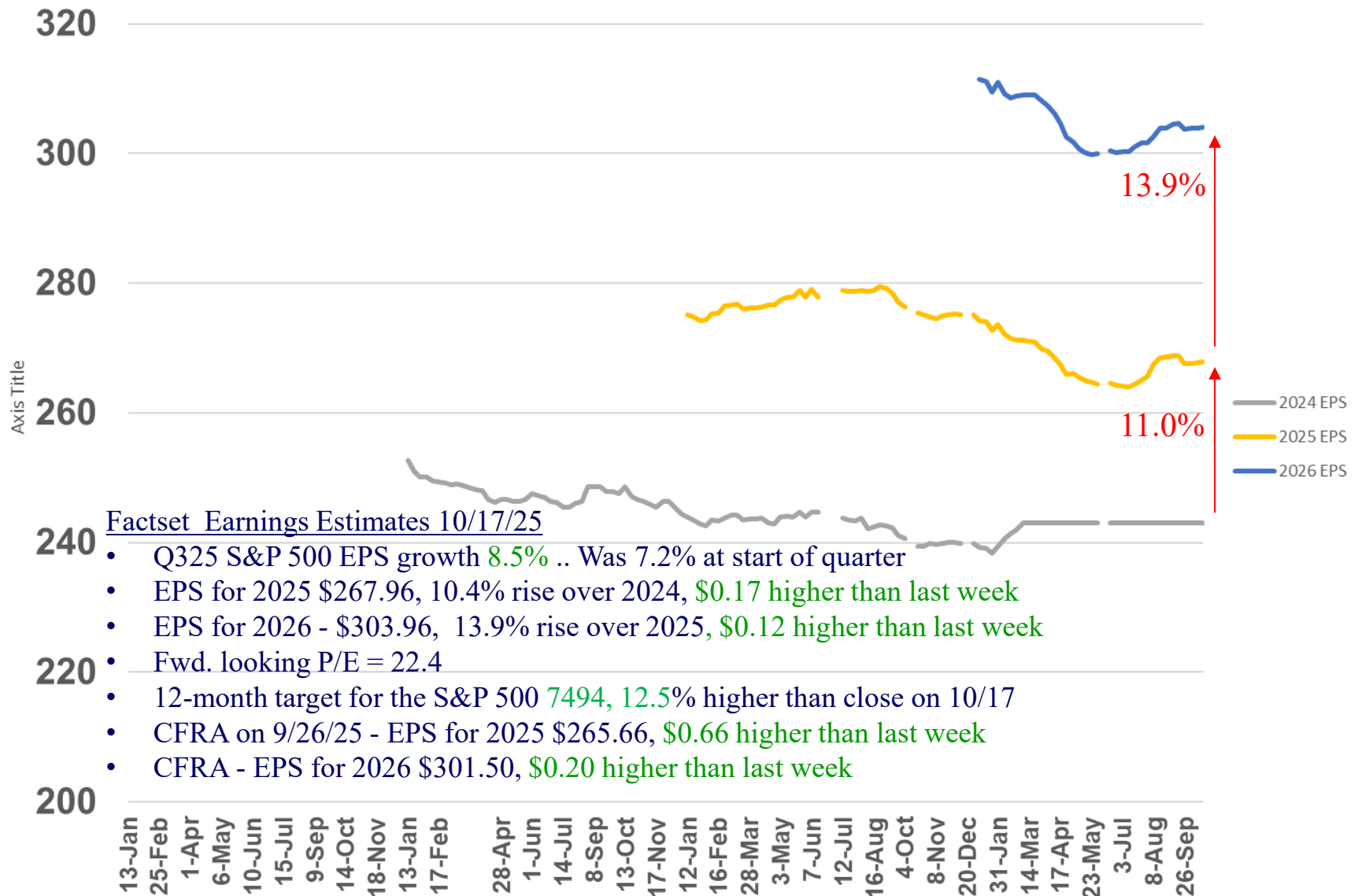
Monthly growth of avg. spending per spender in each cohort, indexed to 100 in Jan. 2023



- Government shutdown for 22 days – absence of official data
- Good Alternative sources exist – CARTS, JPM Chase CC spend etc.
- Inflation adjusted spend up by 3.3% annualized YOY in 3Q up from 1.8% in 2Q
- Spending by high income consumers still leads.

Factset(R) - S&P 500 Calendar year earnings forecast

https://advantage.factset.com/hubfs/Website/Resources%20Section/Research%20Desk/Earnings%20Insight/EarningsInsight_101725B.pdf



\$SPX S&P 500 Large Cap Index INDEX

21-Oct-2025

© StockCharts.com

Open 6738.75 High 6752.16 Low 6722.03 Close 6735.35 Volume 3.1B Chg +0.22 (+0.00%) ▲

▲ RSI(14) 58.96

— MACD(12,26,9) 32.292, 37.160, -4.869

— \$SPX (Daily) 6735.35

— MA(50) 6578.19

— MA(200) 6074.78

— BB(20,2,0) 6577.28 - 6680.41 - 6783.54

Volume 3,089,382,400

22 October 2025

Rajeev Vaidya

6

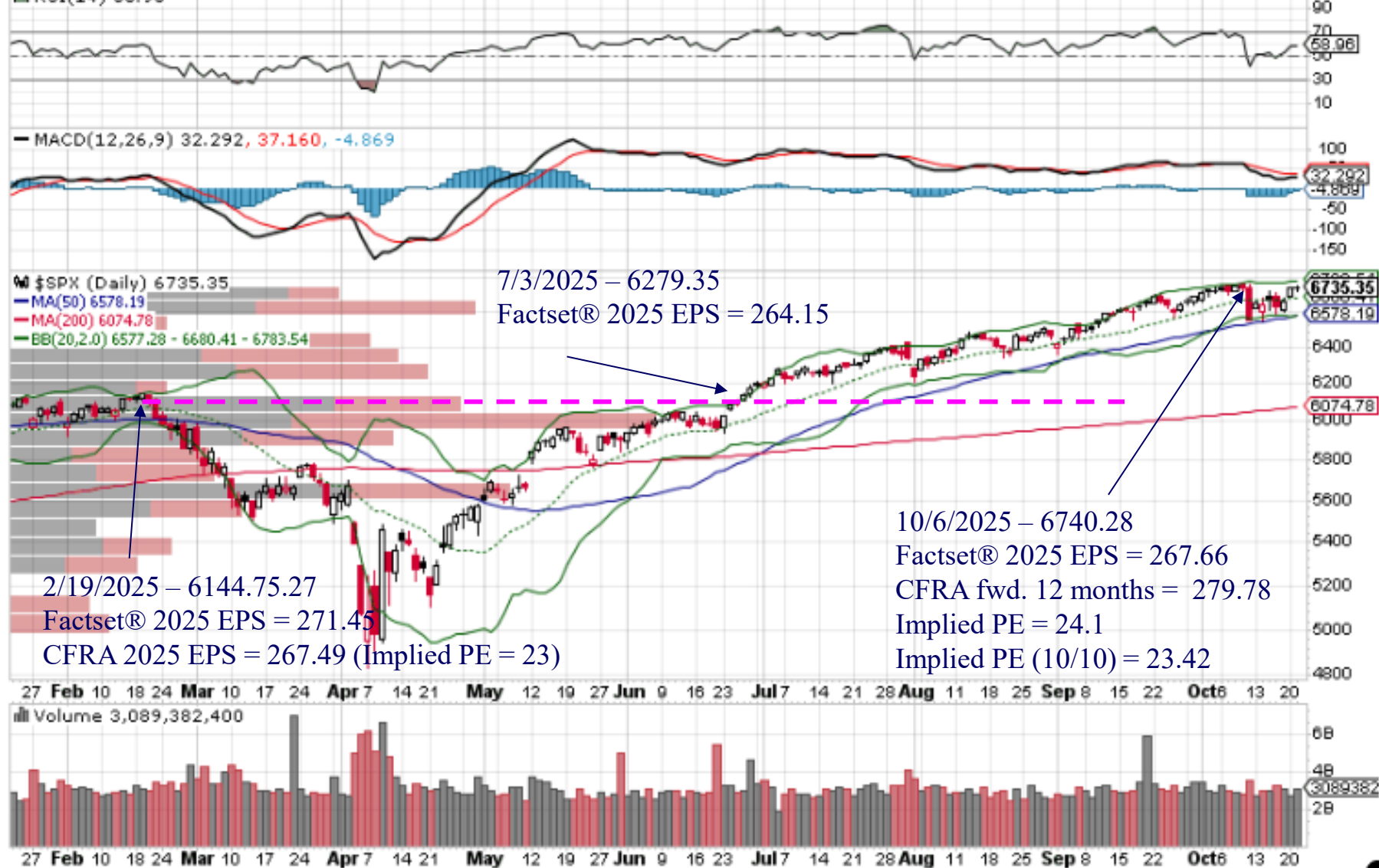
\$SPX S&P 500 Large Cap Index INDX

21-Oct-2025

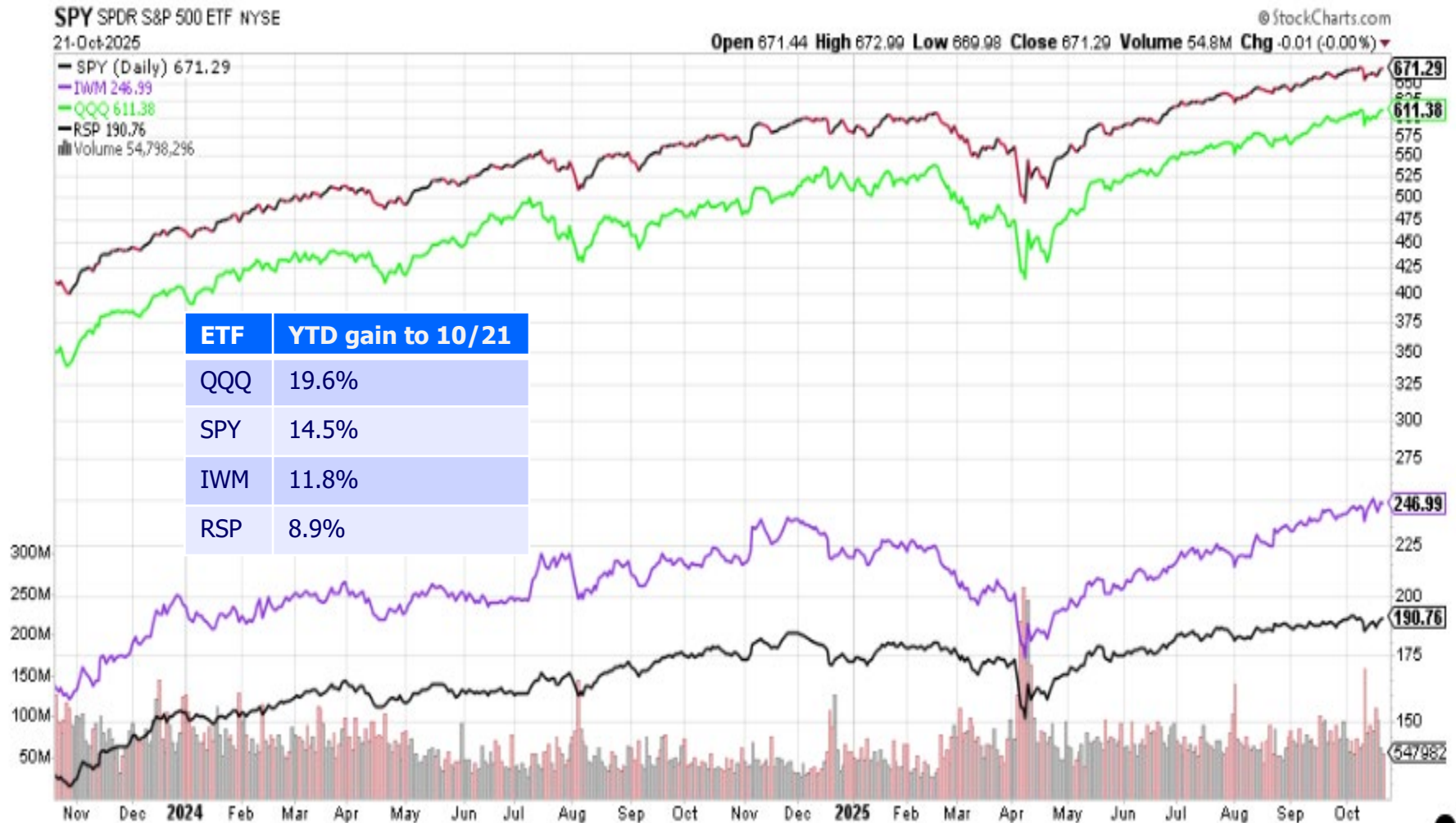
Open 6738.75 High 6752.16 Low 6722.03 Close 6735.35 Volume 3.1B Chg +0.22 (+0.00%) ▲

© StockCharts.com

▲ RSI(14) 58.96



Market Breadth – another way



21-Oct-2025

— \$NYAD Cumulative 61279.00
— MA(50) 59438.10

Open 61279.00 High 61279.00 Low 61279.00 Close 61279.00 Chg +389.00 (+0.61%)

© StockCharts.com



— \$SPX 6735.35







US govt bonds – TLT & SGOV

SGOV – Short term 0 to 3 month US treasuries



U.S. Dollar

\$USD US Dollar - Cash Settle FOREX

21-Oct-2025 9:27 pm

\$USD (Weekly) 98.97

MA(40) 100.56

Volume undef

Open 98.87 High 98.98 Low 98.30 Last 98.97 Chg +0.54 (+0.55%)

© StockCharts.com



The Value Line Investment Survey

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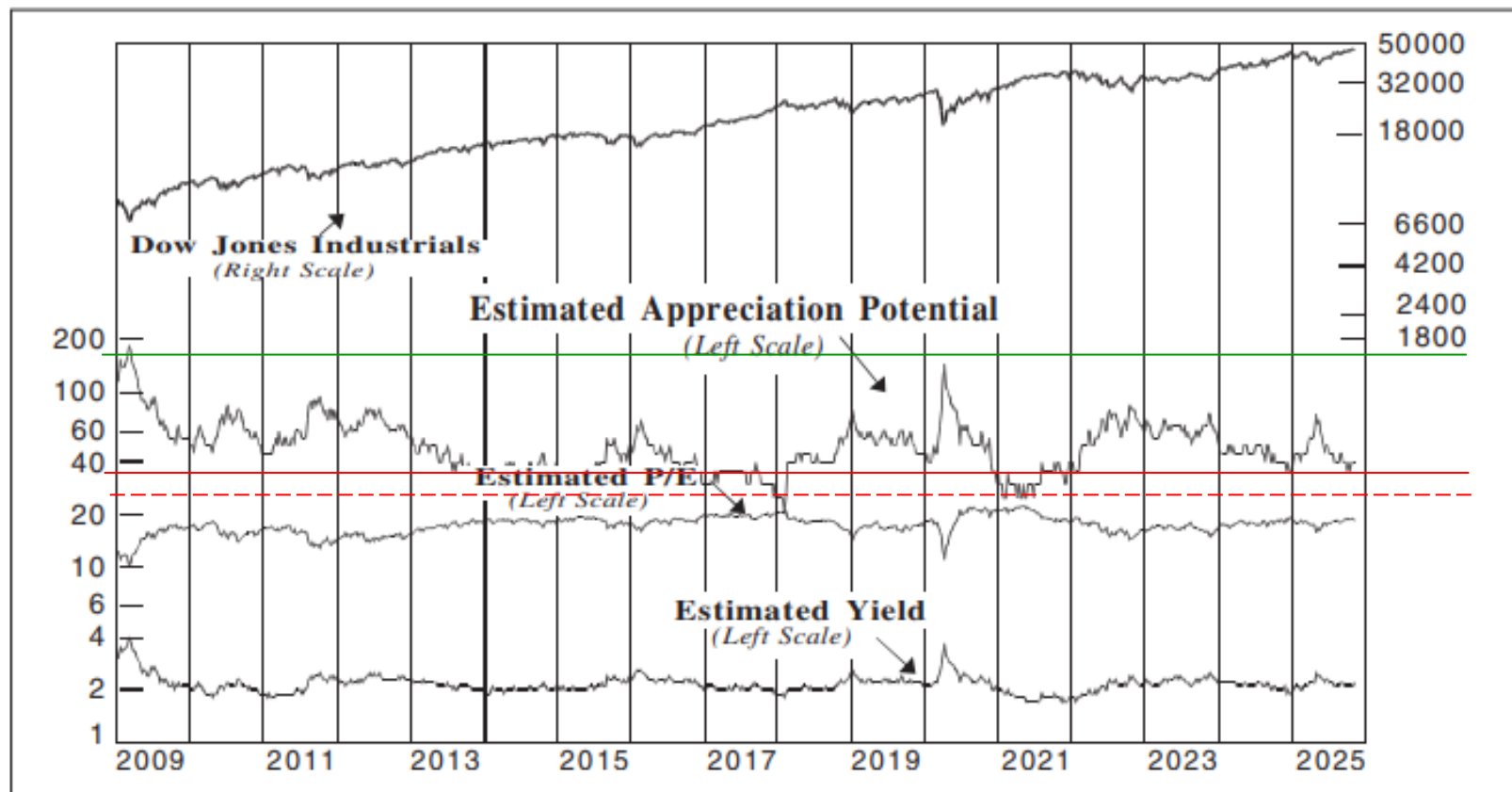
Value Line®

Part 2 File in page order in the Selection & Opinion binder.

SELECTION & OPINION

October 24, 2025

VALUE LINE ESTIMATED P/E, YIELD, APPRECIATION POTENTIAL VERSUS DOW JONES INDUSTRIALS
(January 2, 2009–October 13, 2025)



Weekly Market direction

guywerner@verizon.net

COLUMNS C,D AND E ARE FROM IBD AND PROVIDED BY DAVE (IN THE NORTH) SMITH			DISTRIBUTION DAYS		\$INDU AVERAGE						\$S&P 500 TRIPLE SCREEN						NASDAQ TRIPLE SCREEN					
DATE	MARKET PULSE (IBD)		S&P 500	NASDAQ	8-20 EMA	MACD	RSI	CLOSING	Δ	%CHANGE	8-20 EMA	MACD	RSI	CLOSING	Δ	%CHANGE	8-20 EMA	MACD	RSI	CLOSING	Δ	%CHANGE
SAT 10/04/25	FOR THE WEEK							511	1.10%					72	1.08%					296	1.32%	
SUN 10/05/25	YTD							4,214	9.91%					834	14.18%					3,470	17.97%	
MON 10/06/25	CONFIRMED UP (80% -100%)	3	4	P	0	P		46,694	-64	-0.14%	P	0	P	6,740	25	0.37%	P	P	P	22,941	161	0.71%
TUE 10/07/25	CONFIRMED UP (80% -100%)	3	4	P	0	P		46,602	-92	-0.20%	P	0	P	6,714	-26	-0.39%	P	0	P	22,788	-153	-0.67%
WED 10/08/25	CONFIRMED UP (80% -100%)	3	4	P	0	P		46,601	-1	0.00%	P	0	P	6,753	39	0.58%	P	0	P	23,043	255	1.12%
THUR 10/09/25	CONFIRMED UP (80% -100%)	5	4	P	0	P		46,358	-243	-0.52%	P	0	P	6,735	-18	-0.27%	P	0	P	23,024	-19	-0.08%
FRI 10/10/25	CONFIRMED UP (60% -80%)	5	5	0	F	F		45,479	-879	-1.90%	P	F	F	6,552	-183	-2.72%	P	F	F	22,204	-820	-3.56%
SAT 10/11/25	FOR THE WEEK							-1,279	-2.74%					-163	-2.43%					-576	-2.53%	
SUN 10/12/25	YTD							2,935	6.90%					671	11.41%					2,894	14.99%	
MON 10/13/25	CONFIRMED UP (60% -80%)	5	5	0	F	0		46,067	588	1.29%	P	F	P	6,654	102	1.56%	P	F	P	22,694	490	2.21%
TUE 10/14/25	CONFIRMED UP (60% -80%)	5	6	P	F	P		46,270	203	0.44%	P	F	P	6,644	-10	-0.15%	P	F	P	22,521	-173	-0.76%
WED 10/15/25	CONFIRMED UP (60% -80%)	4	6	P	F	P		46,253	-17	-0.04%	P	F	P	6,671	27	0.41%	P	F	P	22,670	149	0.66%
THUR 10/16/25	CONFIRMED UP (60% -80%)	5	6	P	F	F		45,952	-301	-0.65%	P	F	F	6,629	-42	-0.63%	P	F	P	22,562	-108	-0.48%
FRI 10/17/25	CONFIRMED UP (60% -80%)	5	6	0	F	P		46,190	238	0.52%	P	F	P	6,664	35	0.53%	P	F	P	22,679	117	0.52%
SAT 10/18/25	FOR THE WEEK							711	1.56%					112	1.71%					475	2.14%	
SUN 10/19/25	YTD							3,646	8.57%					783	13.31%					3,369	17.45%	
MON 10/20/25	CONFIRMED UP (60% -80%)	5	6	P	F	P		46,706	516	1.12%	P	F	P	6,735	71	1.07%	P	F	P	22,990	311	1.37%
TUE 10/21/25	CONFIRMED UP (60% -80%)	5	6	P	0	P		46,924	218	0.47%	P	F	P	6,735	0	0.00%	P	F	P	22,953	-37	-0.16%

https://drive.google.com/drive/folders/0B6Qc_gipshXMclqZ245d2R1eTQ?resourcekey=0-5pWglNqaJPJ12L2qYurMWg

Market Summary – Stockcharts®

Stockcharts.com → Main Screen → Market Analysis

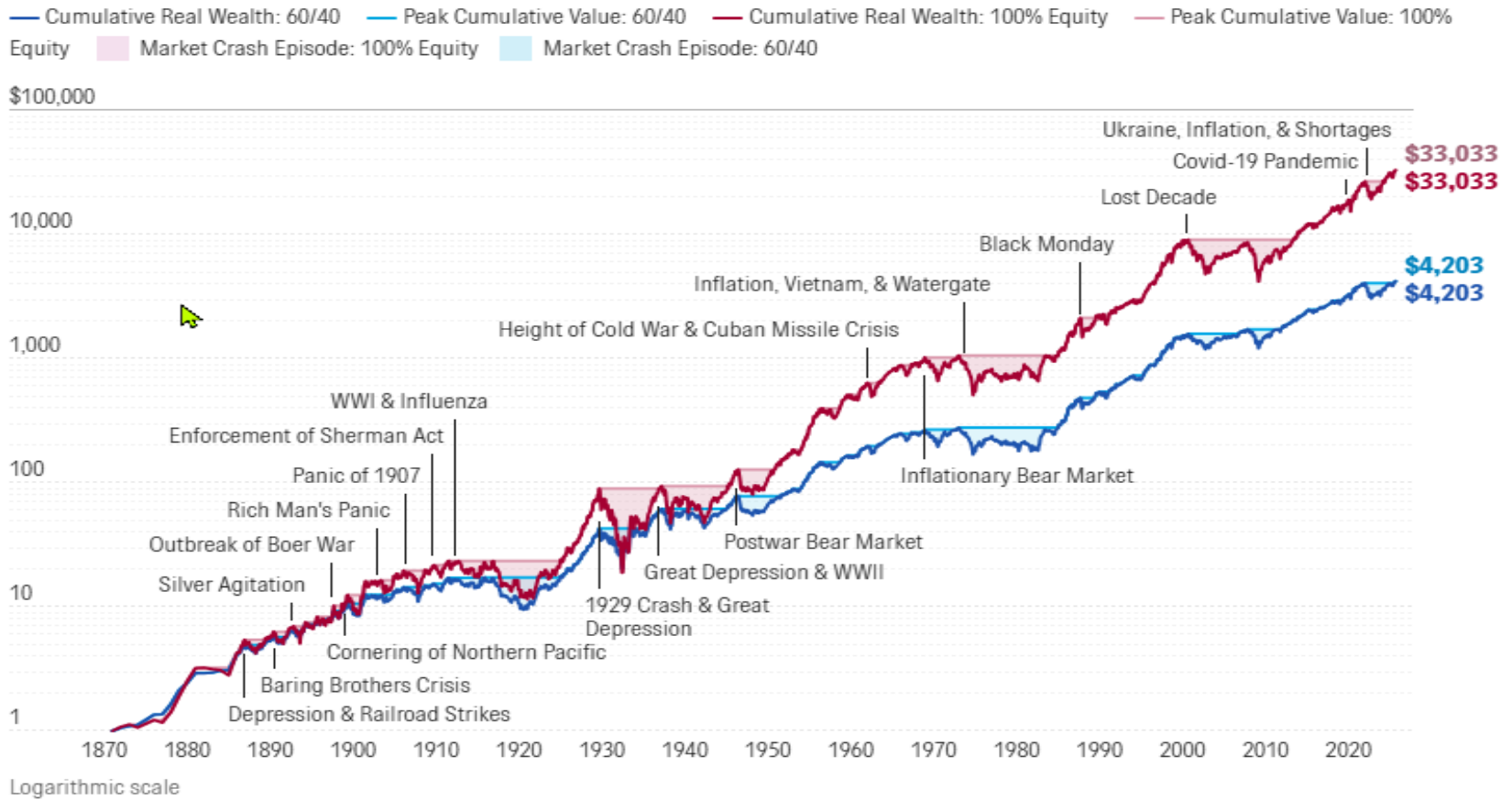
New feature – Market Summary

KELLER MARKET MODELS			
MACRO MODEL STOCKS MODEL			
	ST	MT	LT
Stocks (SPY)	↑	↑	↑
Bonds (TLT)	↑	↑	↑
US Dollar (\$USD)	↑	↑	↓

KELLER MARKET MODELS			
MACRO MODEL STOCKS MODEL			
	ST	MT	LT
S&P 500 (SPY)	↑	↑	↑
S&P 400 (MDY)	↑	↑	↑
Russell 2000 (IWM)	↑	↑	↑
NASDAQ 100 (QQQ)	↑	↑	↑

Market corrections - 'Pain Index'

Market Crash Timeline: Growth of \$1 and the US Stock Market's Real Peak Values



Source: Kaplan et al. (2009); Ibbotson (2023); Morningstar Direct; Goetzmann, Ibbotson, and Peng (2000); Pierce (1982); www.econ.yale.edu/~shiller/data.htm, Ibbotson Associated SBBI US Large-Cap Stock Inflation Adjusted Total Return Extended Index, S&P 500 (2025), Bureau

Are we in a bubble?

March 2000 - 10 year bond yield ~6%					October 2025 - 10 year bond yield ~4%				
		Weight in S&P 500	TTM ROIC (Approx.)	Act. Rev. CAGR forward 3 years			Weight in S&P 500	TTM ROIC (Approx.)	VL Est. Rev CAGR forward 3 years
1	General Electric	~4.1%	~11%	10.3%	1	Nvidia	~7.7%	164.40%	31.0%
2	Exxon Mobil	~2.6%	~19%	6.7%	2	Microsoft	~6.7%	22.10%	12.5%
3	Pfizer	~2.5%	~21%	19.5%	3	Apple	~6.7%	33.70%	8.0%
4	Cisco Systems	~2.4%	~27%	-3.7%	4	Amazon	~3.8%	14.30%	11.0%
5	Citigroup	~2.2%	~11%	22.3%	5	Meta Platforms	~2.8%	36.90%	16.0%
6	Walmart	~2.0%	~16%	10.3%	6	Broadcom	~2.8%	14.00%	14.5%
7	Microsoft	~2.0%	~35%	-3.7%	7	Alphabet (G OOG)	~2.5%	31.50%	13.5%
8	Amer. Intl. Group	~2.0%	~11%	22.3%	8	Tesla	~2.2%	6.10%	17.0%
9	Merck & Co.	~1.8%	~21%	-18.4%	9	Alphabet (GOOG)	~2.0%	31.50%	13.5%
10	Intel	~1.7%	~30%	-3.7%	10	Berkshire Hathaway	~1.6%	6.20%	13.0%
Top 10 total		~23.3%	20.2%	6.2%	Top 10 total		~38.7%	36.07%	15.0%

3x 10y yield

9x 10y yield

Data from Google AI search and Value Line

Are we in a bubble?

Perplexity.ai questions:

- What was the ROIC for the S&P 500 in March of 2000 compared to today?

Comparative Summary

Period	Aggregate ROIC (approx.)	Notes
March 2000	7–8% nasdaq +1 1.1 to 1.8x UST10y	Bubble-era valuations inflated capital basis, limiting returns despite high tech margins
October 2025	11–12% spg1oba1 2.75 to 3x UST10y	Driven by better balance sheet efficiency, higher margins, and AI-driven productivity gains

- Excluding NVDA would drop the current ROIC number to 9.5 to 10 – 2.4 to 2.5x UST10y
 - Roughly 30 of NVDA's revenue comes from pre-profit AI related companies. 13 of 14 are private.
- Non profitable AI driven companies represent less than 5% of the S&P 500. They are the most frothy and vulnerable part of the market. (Meme stocks ?)
- Non profitable internet companies represented more than 30% of the NASDAQ in March 2000
- Next research – how do the major tech companies plan to earn a return on their AI investment

Eighth Class – Oct. 22nd

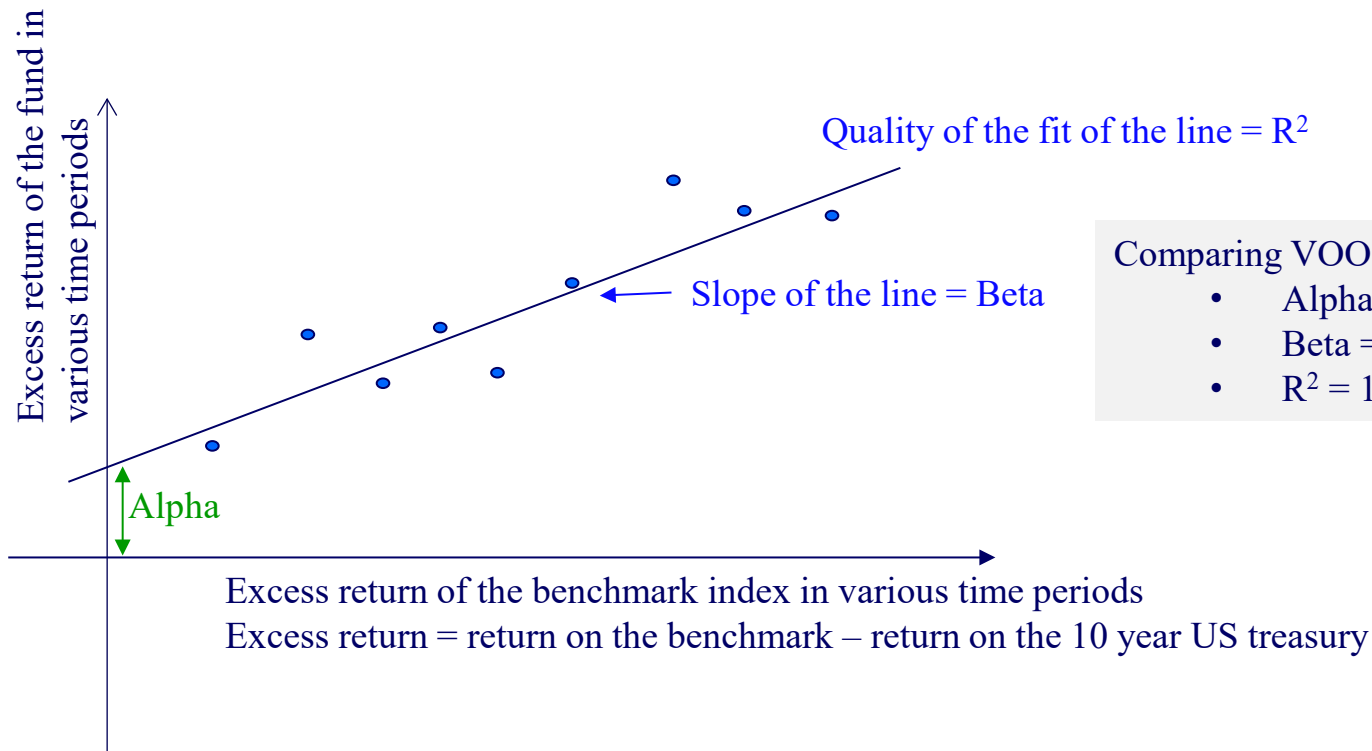
- Market Update
- Deep Dive into ETFs and Mutual funds - Part 2
 - Performance metrics
 - Risk
 - ETFs for various asset classes & strategies
- Questions

Metrics for ETF performance

Metric	Definition / what it measures	Range	Good
Alpha	Excess return delivered relative to underlying index.	Zero is center	higher
Beta	Relative volatility of the fund compared to that of its benchmark index.	One is center	lower
R Squared	Percentage of a funds price movement that can be explained by changes in value of the underlying index	0 - 100	depends
Standard Deviation	Measure of the historical dispersion of a funds returns around its mean.		lower
Sharpe Ratio	Measure of excess return of a fund over the risk free return divided by its standard deviation. Estimates if a funds return comes from smart investing decisions or excess risk.		Higher
Expense Ratio	How much the manager charges to run the ETF		Lower
Liquidity	How much volume is traded every day (Bid - Ask spread)		High

Performance of a fund

- Performance is measured relative to
 - an Index Benchmark.
 - Return in a low-risk investment like a 10-year US Govt. treasury bond.



Comparing VOO or SPY to the S&P 500

- Alpha = zero
- Beta = 1
- $R^2 = 100\%$

What's in the ETF

□ Portfolio

- Companies or individual investments
- Percent of holdings in that investment
- Number of holdings – depth or concentration
- Turnover

What do you want in an ETF?

- Reputable Sponsor
- Liquidity
- Delivers exposure to the asset class / index you want exposure to
 - High R-square to underlying asset class benchmark index
 - Low Beta
 - High Alpha
 - Low Standard Deviation
 - High Sharpe Ratio
- Low Expense Ratio and transaction fees.

Types of Risk

- Systematic Risk – macroeconomic and other “system” events that influence the value of financial assets in general.

- Unsystematic Risk
 - Risk in the stock market
 - How stocks will perform in the current financial environment.
 - Measured by volatility in the asset class
 - Correlation of the asset class to the economy and other asset classes.
 - Risks to specific sectors / industries within the stock market.
 - How the industry will perform in the current economy
 - Measured by volatility in a specific sector
 - Risk in a specific company within the sector/industry
 - How the company performs in the sector/industry
 - What happens to that company
 - Measured by Beta for that company within the market.

Why are
you taking
risk?

Passive – Index ETFs

□ Hierarchy

□ Total market

□ Segments of markets

- Sectors within markets
 - Companies within the sector

Morningstar® - ETF rating system

- Fund analyst or Proprietary quantitative algorithm
- Star system – 1 to 5 stars launched in 1986
 - 3 years of data minimum
 - Performance relative to other funds with similar asset classes, strategies.
 - How much risk is taken relative to others and benchmarks. Less is better.
 - 3 is average
 - 1 or 2 have underperformed
 - 4 or 5 have done the best in the comparison group.
- Medalist ratings – Negative, Neutral, Bronze, Silver and Gold
 - Launched in May 2023 – combined Analyst and Quantitative Rating
 - Predicted future performance of strategy based on *Net Alpha*
 - Evaluates 3 factors on a 5 point scale – high, above avg., avg., below avg., low
 - People
 - Process
 - Parent
 - Higher bar for active strategies – must beat benchmark with performance justifying risk and fees
- Algorithmic ratings launched in 2017. Sustainability ratings in 2019

Morningstar – 5 Star, Gold ETFs

- 24 ETFs meet the screen criteria on 10/20/2025, 31 on 3/20/25, 55% turnover

Ticker	Name	Morningstar Category	Strategic Beta Group	Turnover Ratio	Fund Size	Total Return (3Y) (%)	
GARP	iShares MSCI USA Quality GARP ETF	Large Growth	Growth	69	1101461828	32.4	★
DXJ	WisdomTree Japan Hedged Equity ETF	Japan Stock	Dividend	36	4175483972	31.4	★
VONG	Vanguard Russell 1000 Growth ETF	Large Growth	Growth	11	41697470236	30.7	
FLJH	Franklin FTSE Japan Hedged ETF	Japan Stock	Not Applicable	22.39	106978311	27.3	★
CGDV	Capital Group Dividend Value ETF	Large Value		29	22951393348	27.0	
EDIV	SPDR® S&P Emerging Markets Dividend ETF	Diversified Emerging Mkts	Dividend	98	893037573	25.3	★
OPPE	WisdomTree European Opportunities ETF	Europe Stock	Dividend	37	167167391	24.5	
FENI	Fidelity Enhanced International ETF	Foreign Large Blend		73	4677748467	24.0	
IVV	iShares Core S&P 500 ETF	Large Blend	Not Applicable	3	6.99895E+11	23.7	★
VOO	Vanguard S&P 500 ETF	Large Blend	Not Applicable	2	1.40902E+12	23.7	★
FELC	Fidelity Enhanced Large Cap Core ETF	Large Blend		77	5419906283	23.2	
EPS	WisdomTree U.S. LargeCap Fund	Large Value	Fundamentals	16	1267732574	21.9	
QDEF	FlexShares Quality Dividend Defensv ETF	Large Value	Dividend	50	474408646	21.0	
VLU	SPDR® S&P 1500 Value Tilt ETF	Large Value	Value	17	527812415	18.1	★
SMLF	iShares U.S. Small-Cap Eq Fac ETF	Small Blend	Multi-Factor	23	2493565871	17.4	★
VFMF	Vanguard US Multifactor ETF	Mid-Cap Value		50	406381250	17.1	★
SIZE	iShares MSCI USA Size Factor ETF	Mid-Cap Blend	Other	23	366733571	16.1	
SDCI	USCF SummerHaven Dyn CmdtyStgy NoK-1 ETF	Commodities Broad Basket	Commodity	0	262405785	12.8	★
USCI	United States Commodity Index	Commodities Broad Basket	Commodity		273411370	12.5	★
HFSI	Hartford Strategic Income ETF	Multisector Bond		136	235253937	10.9	
VDC	Vanguard Consumer Staples ETF	Consumer Defensive	Not Applicable	9	8510462720	9.9	★
LQDH	iShares Interest Rate Hedged Corp Bd ETF	Ultrashort Bond	Risk-Oriented	9	521426283	9.4	
HYZD	WisdomTree Interest Rt Hdg Hi Yld Bd ETF	Nontraditional Bond	Not Applicable	49	183853311	9.3	★
MBSD	FlexShares Disciplined Duration MBS ETF	Intermediate Government	Fixed Income	31	86924575	5.4	★

This is not
investment
advice

US Equity Markets – Style

- Total US stock market – VTI, ITOT, SCHB

- Style – Growth vs. Value

	Growth	Blend	Value
Large	VOOG	VV, VOO	VOOV
Mid	VOT	VO	VOE
Small	VBK	VB, DFAS, SMLF	VBR

- DOW – DGT
 - Nasdaq - ONEQ
 - S&P 500 – VOO, IVV, SPLG, EQWL(equal weighted)
 - Style – Dividend (Funds distribute both qualified and non-qualified dividends reported in the 1099 DIV)
 - High Dividend – VYM
 - Value focus - QDEF
 - Growing Dividend – VIG, VIGI, TDVG
 - International – EDIV
 - Small Cap - DGRS

S&P 500 – Sector Weights



Sector Weights, Price Changes, Earnings Growth, P/Es, Yields and PEGs
10/17/25

Weights & % Price Changes	S&P 500			S&P MidCap 400			S&P SmallCap 600		
S&P Sectors	% of 500	MTD	YTD	% of 400	MTD	YTD	% of 600	MTD	YTD
Communication Services	10.2	0.2	23.9	1.4	(2.6)	22.8	2.9	(1.1)	(8.6)
Consumer Discretionary	10.3	(2.3)	2.3	12.2	(1.2)	(5.5)	13.4	(2.8)	(0.7)
Consumer Staples	5.0	1.7	3.8	4.9	2.0	3.4	2.6	(0.4)	(14.4)
Energy	2.8	(3.5)	0.7	3.8	(6.0)	(6.3)	4.3	(3.2)	(15.1)
Financials	13.1	(3.2)	7.9	15.9	(5.8)	(1.8)	17.6	(4.7)	0.6
Health Care	9.1	2.8	4.0	8.9	1.2	0.2	10.9	1.5	(4.7)
Industrials	8.2	(1.7)	15.1	23.6	(0.8)	9.3	18.0	(0.9)	10.2
Information Technology	35.1	0.4	22.2	13.9	1.4	10.0	15.9	3.6	15.4
Materials	1.8	(2.0)	5.6	5.0	(1.2)	1.0	5.0	(0.9)	4.5
Real Estate	1.9	(0.2)	3.3	6.7	0.5	2.2	7.2	(2.0)	(5.5)
Utilities	2.5	4.9	20.8	3.6	0.2	18.0	2.2	3.0	5.2
S&P 500	100.0	(0.4)	13.3	100.0	(1.2)	3.3	100.0	(1.0)	1.9
S&P/Citigroup Growth	54.7	(0.4)	18.5	52.9	(1.3)	4.0	50.9	(0.8)	3.5
S&P/Citigroup Value	45.3	(0.3)	7.7	47.1	(1.1)	2.5	49.1	(1.3)	0.2

US Equity Markets – Sector

Sector Performance by Business Cycle Phase

The table below shows how sectors have tended to perform in each stage of the business cycle. For more information on sector performance patterns, read [The Business Cycle Approach to Sector Investing \(PDF\)](#).

This is not
investment
advice

42% is AMZN
and TSLA

39% is AAPL,
NVDA, and
MSFT

37% is Meta,
Google, and NFLX

Sector	Early	Mid	Late	Recession
Financials	+			
Real Estate	++			--
Consumer Discretionary	++	-	--	
Info. Tech	+	+	--	--
Industrials	++			--
Materials	+	--	++	
Consumer Staples			++	++
Health Care	--		++	++
Energy	--		++	
Communication Services		+		-
Utilities	--	-	+	++

++ Consistently Overperform -- Consistently Underperform □ No Clear Pattern
 + Overperform - Underperform

Unshaded (white) portions above suggest no clear pattern of over- or underperformance vs. broader U.S. equity market. Double +/- signs indicate that the sector is showing a consistent signal across all three metrics: full-phase average performance, median monthly difference, and cycle hit rate. A single +/- indicates a mixed or less consistent signal. Source: Fidelity Investments (AART).

VHF

VNQ

VCR

VGIT

VIS

VAW

VDC

VHT

VDE

VOX

VPU

Equity Markets - Industry

- Specific Industry of interest
 - Based on market direction etc.
 - Fund manager / team make choices
- Examples
 - Infrastructure - IFRA
 - Solar Energy – TAN
 - Internet Security – HACK, BUG -> similar top holdings
 - Lithium & Batteries – LIT, BATT -> 6% weight on TSLA
 - Healthcare – VHT
 - Biotech – IBB, XBI
 - Medical Devices – IHI
 - Airlines – JETS
 - Real Estate – VNQ, JPRE, REET(global)
 - Robotics – ROBO
 - AI centric – XAIX, CHAT, AIQ

Active ETFs

- Strategy / Style
- Active – Fund Manager/team

Even the pros can't do it !!

Funds that consistently outperformed the S&P 500 index

Hold period	% of funds that beat the index
1 year	27.39%
3 years	35.13%
5 years	13.09%
10 years	14.02%

SPIVA Scorecard – Published by the S&P DJI

<https://www.spglobal.com/spdji/en/research-insights/spiva/>

Equity Markets - Active

- Manager / Team chooses portfolio to achieve objective
- Equity Premium Income / growth
 - JEPI (covered calls – Equity Linked Notes), monthly distributions
- Multiple strategies
 - Low Beta
 - LVHD, EEMV, VFMV, ONEV, QLV
 - Active Beta
 - GSLC, GSIE
 - Momentum
 - MMTM, MTUM, IMTM, ONEO (Russell 1000), IDMO (international), BUZZ (Social Media)
 - Covered Calls
 - DIVO
 - JEPI

Equity Markets – Exotic Strategy

- Multiple leveraged funds

- Complex ETF
- Low AUM, High Fees
- Very short term focus – One Day!
- Be very careful

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advice

- S&P 500 Double Leverage – SPUU or SOO

- QQQ – triple - TQQQ and short SQQQ

- Direxion – single stock ETFs – TSLA daily bear TSLS

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US Bond Market

- Total Bond Market – FBND, BND, IUSB, AGG
- Total Corporate Bonds – VTC
- High Yield Bonds – HYZD, HYGH, SJNK, SHYG, HYDB, FALN, HYGV
- Total Tax – Exempt – VTEB
- Inflation Protected (TIPS) – TDTF, SCHP

	Short	Intermediate	Long Term
Treasuries	VGSH	VGIT	VGLT
Corporate	VCSH	VCIT	VCLT
Total Bond Mkt.	BSV	BIV	BLV

International Markets

□ Equities

- Total International Markets – VXUS, IXUS, EMXF, FDEM, VEU
 - Small Cap – VSS
 - Hedged - DDWM
- Emerging Markets – VWO, SPEM, QEMM, FDEM, TLTE, EDIV
- Developed Markets – VEA, TLTD, JHMD, IDEV
- Region specific – Latin America (ILF), Europe (SPEU, VGK), APAC ex JP (BBAX)
- Country Specific – Taiwan (EWT), Japan (DXJ, BBJP, JPXN, EWJV), India (INDY, EPI)

□ Bonds

- Total International Bonds – BNDX (Hedged), BNDW

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Precious Metals ETFs

Investment Focus	Example ETFs
<u>Individual Precious Metals</u>	
Gold	IAU, GLD, SGOL
Gold Miners	GDX, RING, GOEX
Silver	SLV, SIVR,
Silver Miners	SIL, SLVP
Platinum	PPLT, PLTM
Palladium	PALL
<u>Precious Metal baskets</u>	
Palladium + Platinum	SPPP
Gold + Silver + Platinum + Palladium	GLTR

USG – Gold & Income

- Strategic Metals - REMX

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AI assisted ETFs

Data is not complete

Ticker	ETF Name	AUM (USD)	Expense Ratio	3Y CAGR	SPY 3Y CAGR	Alpha vs SPY
WUSA	WisdomTree U.S. AI Enhanced Value	381M	0.38%	9.72%	24.18%	-14.46%
CPAI	Counterpoint Quantitative Equity	10M	0.75%	~21.2%	24.18%	-2.98%
AMOM	QRAFT AI-Enhanced Momentum	5M	0.75%	24.76%	24.18%	0.58%
LQAI	LG QRAFT AI-Powered Core	15M	0.75%	N/A	N/A	Too early
AIVL	WisdomTree AI Enhanced Value	381M	0.38%	9.72%	24.18%	-14.46%
QRFT	QRAFT AI-Enhanced Large Cap	15M	0.75%	21.65%	24.18%	-2.53%
AIEQ	AI Powered Equity ETF	119M	0.80%	14.74%	24.18%	-9.44%
BUZZ	VanEck Social Sentiment ETF	102M	0.76%	N/A	24.18%	Too early
BOTZ	Global X Robotics & AI	3.09B	0.68%	25.30%	24.18%	1.12%
AIQ	Global X AI & Tech	6.6B	0.68%	38.35%	24.18%	14.17%

- As a reference the AUM for SPY is 470B and the expense ratio is 0.095%

Source – perplexity.ai on 10/21/25

Alternative Asset Classes

- Schwab Crypto theme ETF – STCE
 - AUM 387M
 - Expense Ratio = 0.30%
 - Invests in BitCoin, other coins and tokens and companies in the crypto space
- Private Markets
 - Lack of liquidity
 - Lack of transparency
 - Lack of exposure to total portfolio of assets
 - Private credit
 - PRIV (AUM = 140M, Expense Ratio 0.70%). Uses investment grade bonds and structured products to simulate private credit exposure.
 - PSP (AUM = 330.6M, Expense Ratio = 1.8%) Invests in top global publicly listed PE firms.



Asset class returns

GTM

U.S.

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2010 - 2024		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	YTD
Ann.	Vol.																
Large Cap	Small Cap	REITs	REITs	REITs	Small Cap	REITs	REITs	Small Cap	EM Equity	Cash	Large Cap	Small Cap	REITs	Comdty.	Large Cap	Large Cap	EM Equity
13.9%	20.6%	27.9%	8.3%	19.7%	38.8%	28.0%	2.8%	21.3%	37.8%	1.8%	31.5%	20.0%	41.3%	16.1%	26.3%	25.0%	28.2%
Small Cap	EM Equity	Small Cap	Fixed Income	High Yield	Large Cap	Large Cap	Large Cap	High Yield	DM Equity	Fixed Income	REITs	EM Equity	Large Cap	Cash	DM Equity	Small Cap	DM Equity
10.3%	17.9%	26.9%	7.8%	19.6%	32.4%	13.7%	1.4%	14.3%	25.6%	0.0%	28.7%	18.7%	28.7%	1.5%	18.9%	11.5%	25.7%
REITs	REITs	EM Equity	High Yield	EM Equity	DM Equity	Fixed Income	Fixed Income	Large Cap	Large Cap	REITs	Small Cap	Large Cap	Comdty.	High Yield	Small Cap	Asset Alloc.	Large Cap
9.4%	16.8%	19.2%	3.1%	18.6%	23.3%	6.0%	0.5%	12.0%	21.8%	-4.0%	25.5%	18.4%	27.1%	-12.7%	16.9%	10.0%	14.8%
Asset Alloc.	DM Equity	Comdty.	Large Cap	DM Equity	Asset Alloc.	Asset Alloc.	Cash	Comdty.	Small Cap	High Yield	DM Equity	Asset Alloc.	Small Cap	Fixed Income	Asset Alloc.	High Yield	Asset Alloc.
7.2%	16.5%	16.8%	2.1%	17.9%	14.9%	5.2%	0.0%	11.8%	14.6%	-4.1%	22.7%	10.6%	14.8%	-13.0%	14.1%	9.2%	12.9%
High Yield	Comdty.	Large Cap	Cash	Small Cap	High Yield	Small Cap	DM Equity	EM Equity	Asset Alloc.	Large Cap	Asset Alloc.	DM Equity	Asset Alloc.	Asset Alloc.	High Yield	EM Equity	Small Cap
5.9%	16.1%	15.1%	0.1%	16.3%	7.3%	4.9%	-0.4%	11.6%	14.6%	-4.4%	19.5%	8.3%	13.5%	-13.9%	14.0%	8.1%	10.4%
DM Equity	Large Cap	High Yield	Asset Alloc.	Large Cap	REITs	Cash	Asset Alloc.	REITs	High Yield	Asset Alloc.	EM Equity	Fixed Income	DM Equity	DM Equity	REITs	Comdty.	High Yield
5.7%	15.1%	14.8%	-0.7%	16.0%	2.9%	0.0%	-2.0%	8.6%	10.4%	-5.8%	18.9%	7.5%	11.8%	-14.0%	11.4%	5.4%	9.6%
EM Equity	Asset Alloc.	Asset Alloc.	Small Cap	Asset Alloc.	Cash	High Yield	High Yield	Asset Alloc.	REITs	Small Cap	High Yield	High Yield	High Yield	Large Cap	EM Equity	Cash	Comdty.
3.4%	10.4%	13.3%	-4.2%	12.2%	0.0%	0.0%	-2.7%	8.3%	8.7%	-11.0%	12.6%	7.0%	1.0%	-18.1%	10.3%	5.3%	9.4%
Fixed Income	High Yield	DM Equity	DM Equity	Fixed Income	Fixed Income	EM Equity	Small Cap	Fixed Income	Fixed Income	Comdty.	Fixed Income	Cash	Cash	EM Equity	Fixed Income	REITs	Fixed Income
2.4%	9.4%	8.2%	-11.7%	4.2%	-2.0%	-1.8%	-4.4%	2.6%	3.5%	-11.2%	8.7%	0.5%	0.0%	-19.7%	5.5%	4.9%	6.1%
Cash	Fixed Income	Fixed Income	Comdty.	Cash	EM Equity	DM Equity	EM Equity	DM Equity	Comdty.	DM Equity	Comdty.	Comdty.	Fixed Income	Small Cap	Cash	DM Equity	REITs
1.2%	4.7%	6.5%	-13.3%	0.1%	-2.3%	-4.5%	-14.6%	1.5%	1.7%	-13.4%	7.7%	-3.1%	-1.5%	-20.4%	5.1%	4.3%	4.5%
Comdty.	Cash	Cash	EM Equity	Comdty.	Comdty.	Comdty.	Comdty.	Cash	Cash	EM Equity	Cash	REITs	EM Equity	REITs	Comdty.	Fixed Income	Cash
-1.0%	0.9%	0.1%	-18.2%	-1.1%	-9.5%	-17.0%	-24.7%	0.3%	0.8%	-14.2%	2.2%	-5.1%	-2.2%	-24.9%	-7.9%	1.3%	3.2%

Source: Bloomberg, FactSet, MSCI, NAREIT, Russell, Standard & Poor's, J.P. Morgan Asset Management.

Large Cap: S&P 500, Small Cap: Russell 2000, EM Equity: MSCI EME, DM Equity: MSCI EAFE, Comdty: Bloomberg Commodity Index, High Yield: Bloomberg Global HY Index, Fixed Income: Bloomberg U.S. Aggregate, REITs: NAREIT Equity REIT Index, Cash: Bloomberg 1-3m Treasury. The "Asset Allocation" portfolio is for illustrative purposes only and assumes annual rebalancing with the following weights: 25% in the S&P 500, 10% in the Russell 2000, 15% in the MSCI EAFE, 5% in the MSCI EME, 25% in the Bloomberg U.S. Aggregate, 5% in the Bloomberg 1-3m Treasury, 5% in the Bloomberg Global High Yield Index, 5% in the Bloomberg Commodity Index and 5% in the NAREIT Equity REIT Index. Annualized (Ann.) return and volatility (Vol.) represents the period from 12/31/2009 to 12/31/2024. Please see the disclosure page at the end for index definitions. All data represent total return for stated period. Past performance is no guarantee of future results.
Guide to the Markets – U.S. Data are as of September 30, 2025.

J.P.Morgan
ASSET MANAGEMENT

ETFs that do the asset allocation

- Balanced Funds (Funds of funds)
 - iShares aggressive – AOA – 3 Star, Silver
 - iShares moderate – AOM – 4 Star, Gold

- Target Dated funds

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advice

Ninth Class – Oct. 29th

- Market Update
- Disciplined Buying & Selling
 - Why buy individual stocks?
 - 5 Steps of disciplined buying
 - You don't make money when you buy – disciplined selling
- Questions

Thanks !!

- Happy Investing !!

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Morningstar – 5 Star, Gold ETFs

- 31 ETFs meet the screen criteria on 3/20/2025, 38 in October 2024, 58% turnover

Ticker	Name	Morningstar Category	Fund Size	Total Return (3Y)
DXJ	WisdomTree Japan Hedged Equity ETF	Japan Stock	3528400933	25.93632
FLJH	Franklin FTSE Japan Hedged ETF	Japan Stock	88601528	20.57877
GARP	iShares MSCI USA Quality GARP ETF	Large Growth	309947170	14.27202
EDIV	SPDR® S&P Emerging Markets Dividend ETF	Diversified Emerging Mkts	602169228	13.04206
JQUA	JPMorgan US Quality Factor ETF	Large Blend	5497193259	11.84652
VONG	Vanguard Russell 1000 Growth ETF	Large Growth	33707222138	11.69317
DDWM	WisdomTree Dynamic Ccy Hdgd Intl Eq ETF	Foreign Large Value	390660256	11.66599
FELG	Fidelity Enhanced Large Cap Growth ETF	Large Growth	3005710862	11.34491
TSPA	T. Rowe Price US Equity Research ETF	Large Blend	1383578934	10.98844
RSPN	Invesco S&P 500® Equal Wt Indls ETF	Industrials	654673354	10.88095
SDCI	USCF SummerHaven Dyn CmdtyStgy NoK-1 ETF	Commodities Broad Basket	132823680	10.79575
FLRG	Fidelity U.S. Multifactor ETF	Large Blend	201044545	10.76178
EQWL	Invesco S&P 100 Equal Weight ETF	Large Value	1107769288	10.06205
IVV	iShares Core S&P 500 ETF	Large Blend	5.34636E+11	10.02707
SPLG	SPDR® Portfolio S&P 500® ETF	Large Blend	56267826794	10.01877
VOO	Vanguard S&P 500 ETF	Large Blend	1.39909E+12	10.00198
USCI	United States Commodity Index	Commodities Broad Basket	226272314	9.48445
VFMF	Vanguard US Multifactor ETF	Mid-Cap Value	329016600	8.6878
VLU	SPDR® S&P 1500 Value Tilt ETF	Large Value	421072983	8.50984
DIVB	iShares Core Dividend ETF	Large Value	668590572	8.50243
DGRO	iShares Core Dividend Growth ETF	Large Value	30155799155	7.75927
HYZD	WisdomTree Interest Rt Hdg Hi Yld Bd ETF	Nontraditional Bond	181833760	6.90121
IEDI	iShares U.S. Consumer Focused ETF	Consumer Cyclical	29862447	6.24983
VDC	Vanguard Consumer Staples ETF	Consumer Defensive	9045238701	6.17613
SMLF	iShares U.S. Small-Cap Eq Fac ETF	Small Blend	1713654337	6.06692
SJNK	SPDR® BImbg ST HY Bd ETF	High Yield Bond	4944937429	6.03933
FSMD	Fidelity Small-Mid Multifactor ETF	Small Blend	995587004	5.9514
ADIV	SmartETFs Asia Pcfc Dvdnd Bldr ETF	Pacific/Asia ex-Japan Stk	7222998	5.39931
SKOR	FlexShares Credit-Scored US Corp Bd ETF	Corporate Bond	495272343	2.73209
MBSD	FlexShares Disciplined Duration MBS ETF	Intermediate Government	87295379	1.01559
TDTF	FlexShares iBoxx 5Yr Target Dur TIPS ETF	Inflation-Protected Bond	793014407	0.06133

Morningstar – 5 Star, Gold ETFs

- 38 ETFs meet the screen criteria on 10/10/2024

Ticker	Name	Morningstar Category	Strategic Beta Group	Turnover Ratio	Fund Size
EVSM	Eaton Vance Short Dur Muncpl Inc ETF	Muni National Short			145522953
EVTR	Eaton Vance Total Return Bond ETF	Intermediate Core-Plus Bond			726091149
FELG	Fidelity Enhanced Large Cap Growth ETF	Large Growth		58	2889423331
FHLC	Fidelity MSCI Health Care ETF	Health	Not Applicable	5	2957265088
FSMD	Fidelity Small-Mid Multifactor ETF	Small Blend	Multi-Factor	50	506491440
FLRG	Fidelity U.S. Multifactor ETF	Large Blend	Multi-Factor	42	170254549
FFLC	Fidelity® Fundamental Large Cap Core ETF	Large Blend		63	515808619
SKOR	FlexShares Credit-Scored US Corp Bd ETF	Corporate Bond	Fixed Income	121	453930814
MBSD	FlexShares Disciplined Duration MBS ETF	Intermediate Government	Fixed Income	46	86936631
QDEF	FlexShares Quality Dividend Defensv ETF	Large Value	Dividend	51	412610499
TDTF	FlexShares iBoxx 5Yr Target Dur TIPS ETF	Inflation-Protected Bond	Fixed Income	52	706790232
BOUT	Innovator IBD® Breakout Opps ETF	Mid-Cap Growth	Growth	1945	12903070
EQWL	Invesco S&P 100 Equal Weight ETF	Large Value	Other	18	855458531
LCR	Leuthold Core ETF	Tactical Allocation		50.36	92083875
DGT	SPDR® Global Dow ETF	Global Large-Stock Value	Not Applicable	12	241089135
SPLG	SPDR® Portfolio S&P 500® ETF	Large Blend	Not Applicable	3	47492687408
VLU	SPDR® S&P 1500 Value Tilt ETF	Large Value	Value	13	393431642
ADIV	SmartETFs Asia Pcf Dvnd Bldr ETF	Pacific/Asia ex-Japan Stk		11.56	4554775
SDCI	USCF SummerHaven Dyn CmdtyStgy NoK-1 ETF	Commodities Broad Basket		0	25445155
VDC	Vanguard Consumer Staples ETF	Consumer Defensive	Not Applicable	9	8581797854
VHT	Vanguard Health Care ETF	Health	Not Applicable	4	21558319842
VGIT	Vanguard Information Technology ETF	Technology	Not Applicable	15	90973156373
VONG	Vanguard Russell 1000 Growth ETF	Large Growth	Growth	14	30371551565
VOO	Vanguard S&P 500 ETF	Large Blend	Not Applicable	2	1.27742E+12
VBR	Vanguard Small-Cap Value ETF	Small Value	Value	16	58301669911
DDWM	WisdomTree Dynamic Ccy Hdg Intl Eq ETF	Foreign Large Value	Dividend	28	297156342
HYZD	WisdomTree Interest Rt Hdg Hi Yld Bd ETF	Nontraditional Bond	Not Applicable	21	148709660
DXJ	WisdomTree Japan Hedged Equity ETF	Japan Stock	Dividend	32	3601054529
DGRW	WisdomTree US Quality Dividend Gr ETF	Large Blend	Dividend	25	14841708775
DTD	WisdomTree US Total Dividend ETF	Large Value	Dividend	15	1353092876
DGRO	iShares Core Dividend Growth ETF	Large Value	Dividend	25	30358888617
IVV	iShares Core S&P 500 ETF	Large Blend	Not Applicable	3	5.43678E+11
LQDI	iShares Inflation Hedged Corp Bd ETF	Corporate Bond	Risk-Oriented	5	54528738
HYGH	iShares Interest Rate Hdg Hi Yld Bd ETF	High Yield Bond	Not Applicable	5	313713473
EWT	iShares MSCI Taiwan ETF	China Region	Not Applicable	34	5723407190
IEDI	iShares U.S. Consumer Focused ETF	Consumer Cyclical		15	26091452
IFRA	iShares US Infrastructure ETF	Infrastructure	Not Applicable	32	3021862766
USXF	iShares® ESG Advanced MSCI USA ETF	Large Growth	Not Applicable	12	1214187180