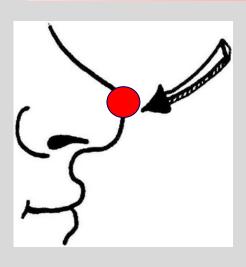
Investing for Successful Retirement

<u>UD Osher – OLLI</u> Fall 2024

- □ Rajeev A. Vaidya
- □ Ron Materniak
- **□** Jane Roe-Fox

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.

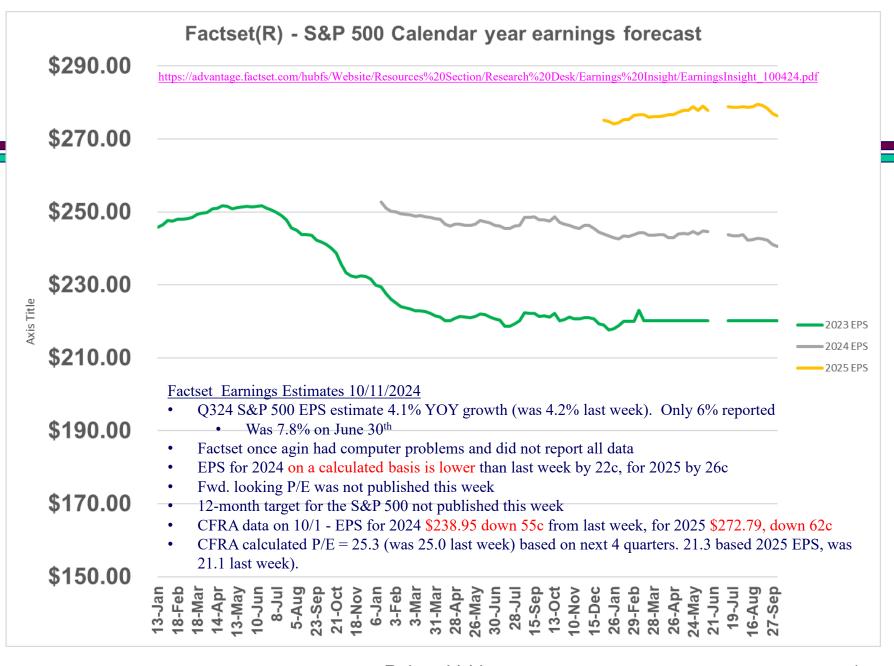
Ron, Jane and I are not a financial advisors.

This course is for educational purposes only.

Form your own opinion, make your own investment decisions.

Seventh Class - Oct. 16th

- Market Update Rajeev 20 minutes
- ☐ ETFs deep dive Part 2
 - Performance metrics
 - Risk
 - ETFs for various asset classes & strategies





Market Breadth – another way





This is NOT investment advice

Weekly market direction

Prof. Guy Werner

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COLUMNS CD&E ARE FROM IBD AND ARE PROVIDED BY DAVE (IN THE NORTH) SMITH

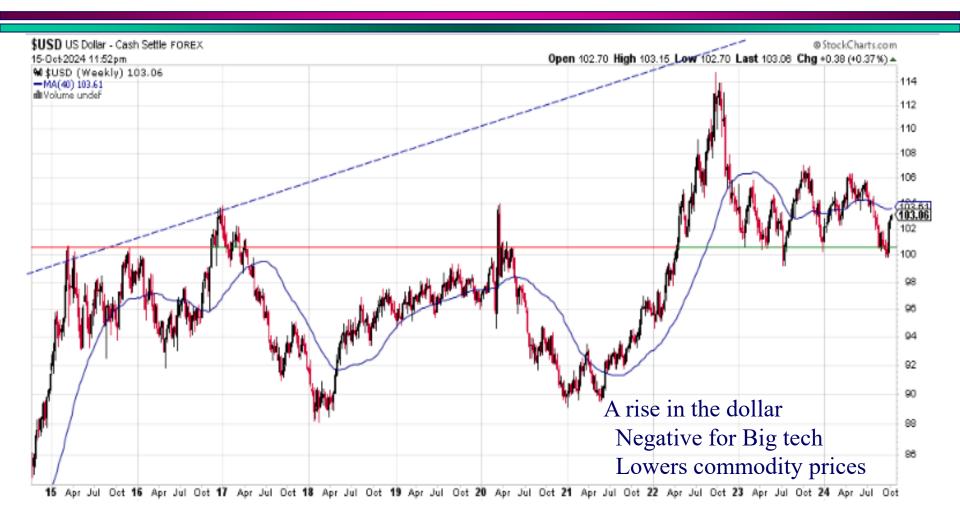
			DISTRIBUTION DAYS \$8.P 500 TRIPLE SCREEN										NASDA	Q TRIPLE SCF	REEN	
	DATE	MARKET PULSE (IBD)	S&P 500	NASDAQ	8-20 EMA	MACD	RSI	CLOSING	Δ	%CHANGE	8-20 EMA	MACD	RSI	CLOSING	Δ	%CHANGE
SAT	09/28/24	FOR THE WEEK							36	0.63%					171	0.95%
SUN	09/29/24	YTD							969	20.32%					3,108	20.70%
MON	09/30/24	CONFIRMED UP (80% -100%)	4	5	Р	Р	Р	5,762	24	0.42% In	Р	Р	Р	18,189	70	0.39%
TUE	10/01/24	CONFIRMED UP (80% -100%)	4	6	Р	Р	P	5,708	-54	-0.94%	Р	Р	Р	17,910	-279	-1.53%
WED	10/02/24	CONFIRMED UP (80% -100%)	4	6	Р	P	P	5,709	1	0.02%	P	P	Р	17,925	15	0.08%
THUR	10/03/24	CONFIRMED UP (80% -100%)	3	5	Р	F	Р	5,699	-10	-0.18%	P	0	Р	17,918	-7	-0.04%
FRI	10/04/24	CONFIRMED UP (80% -100%) JOBS FRI	3	4	Р	0	P	5,751	52	0.91%	P	Р	Р	18,137	219	1.22%
SAT	10/05/24	FOR THE WEEK							13	0.23%					18	0.10%
SUN	10/06/24	YTD							982	20.59%					3,126	20.82%
MON	10/07/24	CONFIRMED UP (80% -100%)	4	5	Р	F	Р	5,695	-56	-0.97%	P	0	Р	17,923	-214	-1.18%
TUE	10/08/24	CONFIRMED UP (80% -100%)	4	5	Р	F	Р	5,751	56	0.98%	Р	0	Р	18,182	259	1.45%
WED	10/09/24	CONFIRMED UP (80% -100%)	3	5	Р	Р	Р	5,792	41	0.71%	Р	0	Р	18,291	109	0.60%
THUR	10/10/24	CONFIRMED UP (80% -100%)	3	5	Р	Р	P	5,780	-12	-0.21%	P	0	Р	18,282	-9	-0.05%
FRI	10/11/24	CONFIRMED UP (80% -100%)	3	5	Р	P	P	5,815	35	0.61%	P	P	Р	18,342	60	0.33%
SAT	10/12/24	FOR THE WEEK							64	1.11%					205	1.13%
SUN	10/13/24	YTD							1046	21.93%					3,331	22.19%
MON	10/14/24	CONFIRMED UP (80% -100%)	3	3	Р	Р	Р	5,859	44	0.76%	Р	Р	Р	18,502	160 🕹	. 🛮 🕰 🗷 🖭 📗
TUE	10/15/24	CONFIRMED UP (80% -100%)	3	3	Р	Р	P	5,815	-44	-0.75%	P	P	P	18,315	-187	-1.01%

 $\underline{https://drive.google.com/drive/folders/0B6Qc_gjpshXMclkzQ245d2R1eTQ?resourcekey=0-5pWglNqaJPJ12L2qYurMWg}$

TLT – 20 yr U.S. Treasury ETF



U.S. Dollar



Seventh Class - Oct. 16th

- Market Update Rajeev 20 minutes
- ☐ ETFs deep dive Part 2
 - Performance metrics
 - Risk
 - □ ETFs for various asset classes & strategies

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

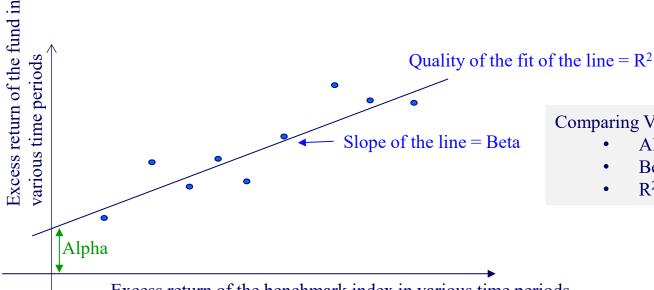
- □Hierarchy
 - Total market
 - Segments of markets
 - Sectors within markets
 - Companies within the sector

US Equity Markets

- Total US stock market
 - □ VTI Vanguard Total US Stock Market ETF
- Segments by Size
 - Large Cap VV
 - □ S&P 500 VOO (also SPY and IVV)
 - NASDAQ 100 Invesco QQQ
 - Mid Cap VO
 - Small VB

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
- $R^2 = 100\%$

Excess return of the benchmark index in various time periods Excess return = return on the benchmark – return on the 10 year US treasury

Metrics for ETF performance

15 October 2024

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

17

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.

Morningstar® - ETF rating system

- ☐ Fund analyst, Proprietary Algorithm
- Criteria minimum 3 years data
- ☐ Star system − 1 to 5 stars
 - 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
 - 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
- Performance
- Process
- Fees relative to excess return delivered
- Parent
- Higher bar for active strategies must beat benchmark with performance justifying risk and fees

Morning Star ETF screens

- □ Gold Medal and 3 to 5 star rating
 - 38 ETFs with 5 Stars.
 - 8 are bond funds.
 - 7 are dividend focused funds
 - One allocated portfolio fund and 1 commodities fund
 - □ 106 with 4 Stars
 - 18 are bond funds
 - 11 are dividend focused
 - One allocated portfolio fund and 1 commodities fund
 - □ 73 with 3 Stars
 - 20 are bond funds
 - 2 are dividend focused
 - 1 commodities fund
- Results attached as a separate Excel file on the class website.

This is not investment advice

215 in total

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
 - ☐ High Dividend VYM
 - ☐ Growing Dividend VIG, VIGI, TDVG
 - ☐ Gold & 5 Star rated QDEF, ADIV, DGRW, DTD, DGRO, DDWM
 - □ International DXJ, DEM, EUSC, HDEF, (IGRO, EUDG dividend growth), HDEF
 - ☐ Small Cap DGRS

S&P 500 – Sector Weights



Sector Weights, Price Changes, Earnings Growth, P/Es, Yields and PEGs 10/11/24

Weights & % Price Changes	S&P 500						
S&P Sectors	% of 500	MTD	YTD				
Communication Services	8.8	(0.0)	27.9				
Consumer Discretionary	9.8	(1.8)	11.2				
Consumer Staples	5.8	(1.3)	14.9				
Energy	3.5	5.6	11.6				
Financials	13.1	2.5	23.5				
Health Care	11.5	(0.1)	12.9				
Industrials	8.6	2.0	21.3				
Information Technology	32.0	2.0	32.2				
Materials	2.2	(0.4)	12.2				
Real Estate	2.3	(2.9)	8.3				
Utilities	2.5	(1.9)	25.0				
S&P Indexes	100.0	0.9	21.9				
S&P/Citigroup Growth	56.9	1.2	29.0				
S&P/Citigroup Value	43.1	0.6	14.0				

S&P	MidCap 4	400
% of 400	MTD	YTD
1.4	0.3	2.6
13.9	(2.2)	7.1
4.3	1.3	13.9
5.3	7.9	6.7
16.8	2.4	18.3
9.7	(1.0)	8.1
22.5	1.9	16.4
9.8	2.7	24.0
6.6	2.4	5.9
7.1	(3.0)	6.8
2.5	(1.6)	25.9
100.0	1.0	13.4
51.5	1.3	17.5
48.5	0.7	9.1

S&P	S&P SmallCap 600												
% of 600	MTD	YTD											
3.4	(2.0)	12.8											
14.0	(3.5)	3.4											
3.0	(0.3)	(1.8)											
4.9	6.8	0.6											
19.2	1.3	13.0											
11.0	(3.8)	3.6											
18.1	(0.1)	13.9											
11.7	1.0	0.4											
5.4	(1.5)	7.3											
7.4	(2.2)	8.3											
2.0	(3.3)	1.3											
100.0	(0.7)	7.1											
49.4	(0.4)	11.1											
50.6	(1.0)	3.2											

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

	XLF
36% is AMZN	XLRE
and TSLA ——	— XLY
40% is AAPL, ——	XLK
NVDA, and	XLI
MSFT	XLB
	XLP
	XLV
	XLE
	- XLC
46% is Meta,	XLU
Google, and NFLX	

<u>Sector</u>	<u>Early</u>	<u>Mid</u>	<u>Late</u>	Recession
Financials	+			
Real Estate	++			
Consumer Discretionary	++	_	7 <u></u> -	
Info. Tech	+	+		
Industrials	++			
Materials	+		++	
Consumer Staples			++	++
Health Care			++	++
Energy			++	
Communication Services		+		 .:
Utilities	·	73 <u>—</u> 1	+	++

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
VGT
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)

Active ETFs

- Strategy / Style
- □ Active Fund Manager/team

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)
 - Covered Calls
 - DIVO

Equity Markets – Exotic Strategy

- Multiple leveraged funds
 - Complex ETF
 - Low AUM, High Fees
 - □ Very short term focus One Day!
 - Be very careful
- □ S&P 500 Double Leverage SPUU or SOO
 - QQQ triple TQQQ and short SQQQ
- □ Direxion single stock ETFs TSLA daily bear TSLS

This is not investment advice

US Bond Market

- Type of Bond
 - ☐ Federal Government
 - Municipal Governments
 - Corporate Bonds
 - Investment Grade
 - High Yield
- Term
 - Long Term
 - Intermediate Term
 - Short term

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
 - 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 (SMIN, PIN)
- Bonds
 - ☐ Total International Bonds BNDX (Hedged), BNDW

Precious Metals ETFs

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

Al assisted ETFs

					<u>Alpha</u>	AUM in	Bid /Ask	
SYMBOL	<u>Name</u>	Launch date	Exp Ratio	<u>Yield</u>	over SPY	<u>millions</u>	<u>spread</u>	<u>Style</u>
WUSA	Simplify Wolfe US Equity 150/50 ETF	9/24/2024	0.75%			3.1	0.36%	Total return swaps
CPAI	Counterpoint Quantative Equity ETF	11/28/2023	0.75%		Yes	38.1	0.21%	US Stocks and ADRs
AMOM	QRAFT AI Enhanced US Lg Cap Mom ETF	May-19	0.75%	0.16%	Yes	39.5	0.09%	Al aided momentum
LQAI	LG QRAFT AI Powered US Lg Cap	11/7/2023	0.75%		No	4.5	0.15%	
AIVL	WisdomTree Ai Enhanced Value ETF	6/16/2006	0.38%	2.04%	No	400.9	0.06%	Al enhanced value
QRFT	QRAFT AI Enhanced US Lg Cap ETF	May-19	0.75%		No	14.5	0.09%	
GVIP	GS Hedge Industry VIP ETF	1/11/2016	0.45%	0.62%	No	305.1	0.25%	Top Stocks owned by hedge funds
AIEQ	Amplify AI Powered Equity ETF	Oct-17	0.75%	0.68%	No	104.1	0.14%	



Asset class returns

GTM U.S. 60

2009	-2023																
Ann.	Vol.	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	YTD
Large Cap	Sm all Cap	EM Equity	REITs	REITs	REITs	Sm all Cap	REITs	REITs	Small	EM Equity	Cash	Large Cap	Sm all Cap	REITs	Comdty.	Large Cap	Large Cap
14.0%	21.9%	79.0%	27.9%	8.3%	19.7%	38.8%	28.0%	2.8%	Cap 21.3%	37.8%	1.8%	31.5%	20.0%	41.3%	16.1%	26.3%	22.1%
Sm all		High	Small	Fixe d	High	Large	Large	Large	High	DM	Fixe d		EM	Large		DM	EM
Сар	REITs	Yield	Сар	Income	Yield	Cap	Cap	Cap	Yield	Equity	In com e	REITs	Equity	Сар	Cash	Equity	Equity
11.3%	21.2%	59.4%	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%	17.2%
REITs	EM	DM	EM	High	EM	DM	Fixed	Fixed	Large	Large	REITs	Sm all	Large	Com dty.	High	Sm all	REITs
10.9%	Equity 20.3%	Equity 32.5%	Equity 19.2%	Yield 3.1%	Equity 18.6%	Equity 23.3%	Income 6.0%	Income 0.5%	Cap 12.0%	Cap 21.8%	-4.0%	Cap 25.5%	Cap 18.4%	27.1%	Yield -12.7%	Cap 16.9%	14.2%
High	20.5% DM			Large	DM	Asset	Asset	0.576		Small	High	25.5% DM	Asset	Sm all	Fixe d	Asset	DM
Yield	Equity	R⊟Ts	Comdty.	Cap	Equity	All C.	Alle.	Cash	Comdty.	Cap	Yield	Equity	Alles,	Cap	Income	Allec.	Equity
8.6%	18.4%	28.0%	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%	13.5%
Asset	Com dty.	Small	Large	Cash	Sm all	High	Sm all	DM	EM	Asset	Large	Asset/	DM	Asset	Asset	High	Asset
Alloc.		Сар	Сар		Сар	Yield	Cap	Equity	Equity	Alles.	Сар	All .	Equity	Allec.	All€c.	Yield	Alloc.
8.1%	16.6%	27.2%	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%	12.3%
DM Equity	Large Cap	Large Cap	High Yield	Asset AIJ®ç.	Large Cap	REITs	Cash	Asset Alloc.	R⊟Ts	/High Yield	Asset Allec.	EM Equity	Fixed Income	DM Equity	DM Equity	REITs	Sm all Cap
7.4%	16.1%	26.5%	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%	11.2%
EM	High	Asset	Asset	Sm all	Asset		High	High	Asset		Sm all	High	High	High	Large	EM	High
Equity	Yield	AI I⊅c.	—Alboc.	Сар	Allec.	Cash	Yield	Yield	Allec.	REITs	Сар	Yie ld	Yie ld	Yield	Cap	Equity	Yield
6.9%	11.5%	25.0%	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%	9.6%
Fixe d	Asset	Comdty.	DM	DM	Fixe d	Fixed	EM	Sm all	Fixed	Fixed	Com dty.	Fixed	Cash	Cash	■M	Fixed	Com dty.
Income 2.7%	Alloc. 11.5%	18.9%	Equity 8.2%	Equity -11.7%	Income 4.2%	Incom e -2.0%	Equity -1.8%	Cap -4.4%	Income 2.6%	Income 3.5%	-11.2%	Income 8.7%	0.5%	0.0%	Equity -19.7%	Income 5.5%	5.9%
2.1 /0	Fixe d	Fixed	Fixe d	-11.7/0	4.2 /0	-2.0 /6 EM	DM	=4.4 /6 EM	2.0% DM	3.370	-11.2 /6 DM	0.1 /6	0.5 /6	Fixed	Small	3.3 /6	Fixed
Cash	Income	Income	Income	Com dty.	Cash	Equity	Equity	Equity	Equity	Comdty.	Equity	Com dty.	Com dty.	Income	Cap	Cash	Income
0.8%	4.5%	5.9%	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%	4.4%
Com dty.	Cash	Cash	Cash	EM Equity	Com dty.	Com dty.	Com dty.	Com dty.	Cash	Cash	EM Equity	Cash	REITs	EM Equity	R⊟Ts	Com dty.	Cash
-0.2%	0.7%	0.1%	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%	4.1%
		ateat Meel															

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 US Aggregate, REITs: NAREIT Equity REIT Index, Cash: Bloomberg 1-3m Treasury. The "Asset Allocation" portfolio assumes 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 US 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. Balanced portfolio assumes annual rebalancing. Annualized (Ann.) return and volatility (Vol.) represents period from 12/31/2008 to 12/31/2023. Please see disclosure page at end for index definitions. All data represents total return for stated period. The "Asset Allocation" portfolio is for illustrative purposes only. Past performance is not indicative of future returns.

Guide to the Markets - U.S. Data are as of September 30, 2024.

J.P.Morgan
ASSET MANAGEMENT

ETFs that do the asset allocation

- Balanced Funds
 - □ iShares aggressive LCR 5 Star, Gold
 - □ iShares moderate AOM 4 Star, Gold

□ Target Dated funds

This is not investment advice

Class 8 - Oct. 23th

- Market Update Rajeev 20 minutes
- Investing for dividends

Thanks!!

- □ Happy Investing !!
- My EMail
 - ☐ diyinvst@udel.edu
- □ Class website
 - □ http://udel.edu/~diyinvst