

Investing for Successful Retirement

UD Osher – OLLI

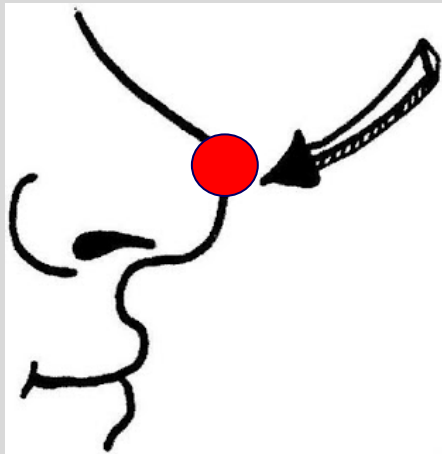
Spring 2025

□ **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.

Sixth Class – Mar. 12th

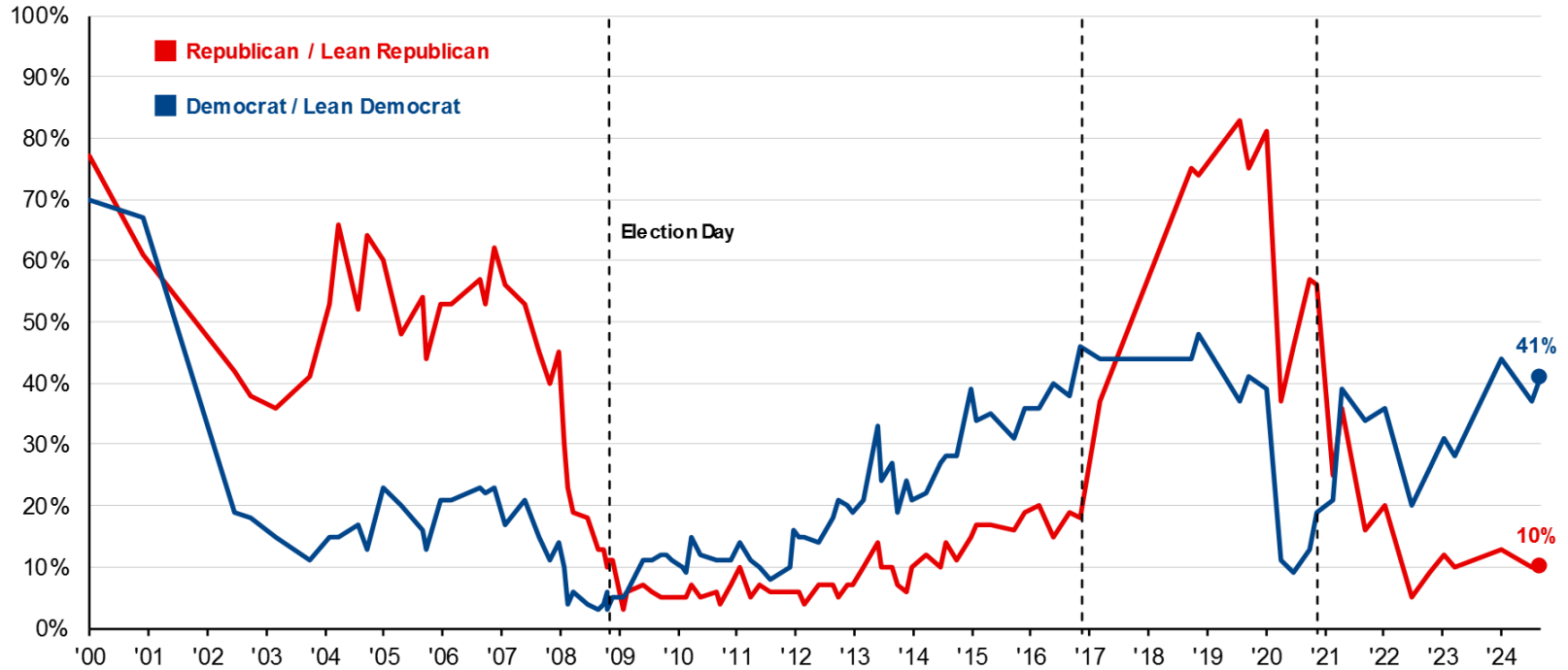
- Market Update
- Managing Risk



Consumer confidence by political affiliation

GTM U.S. 68

Percentage of Republicans and Democrats who rate national economic conditions as excellent or good



Administration	Bush	Obama	Trump	Biden
Dates in office	Jan. '01–Jan. '09	Jan. '09–Jan. '17	Jan. '17–Jan. '21	Jan. '21–Jan. '25
S&P 500 return	-4.5%	16.3%	16.0%	13.4%
Real GDP growth	1.9%	2.2%	1.8%	3.0%

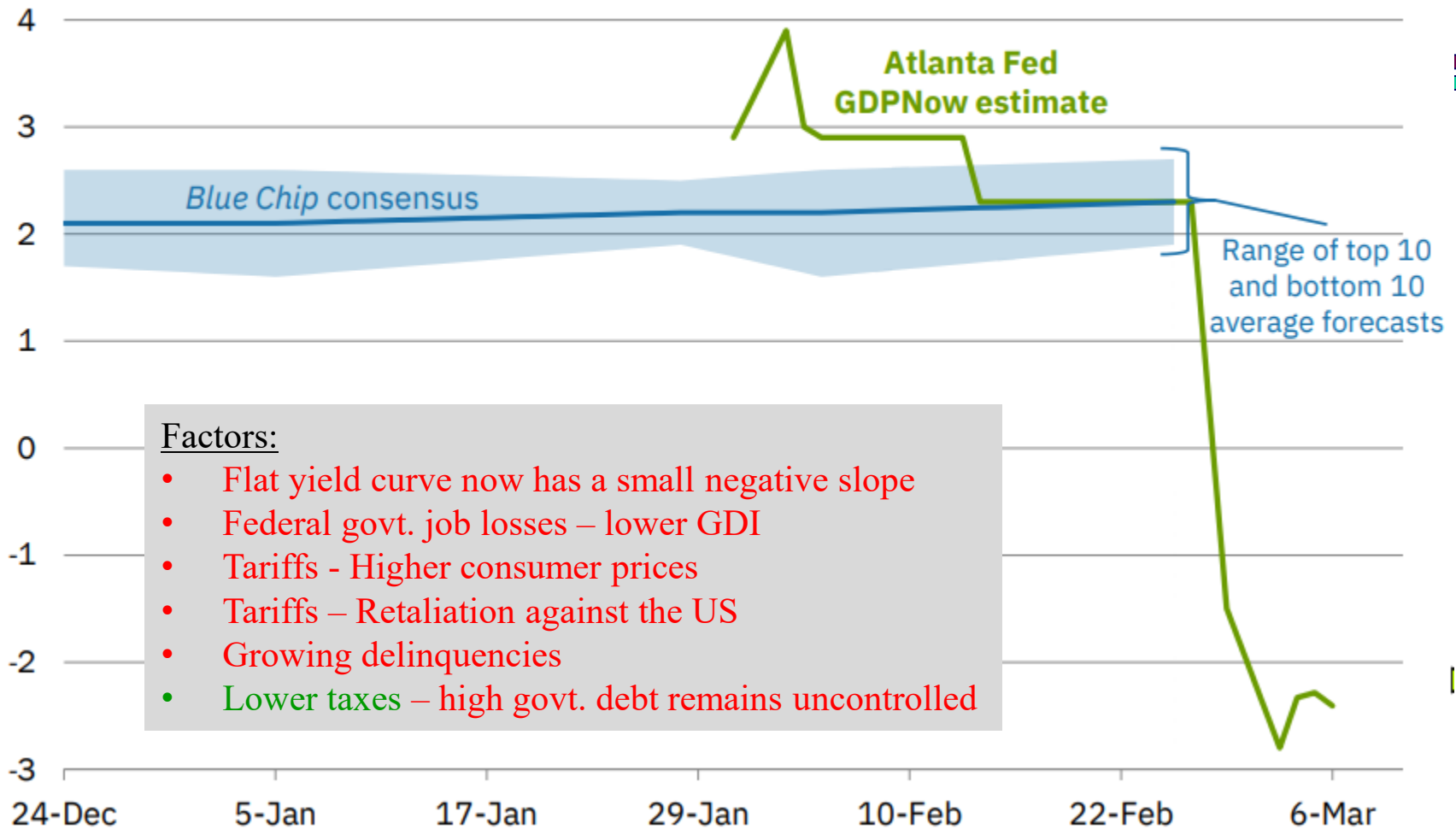
Source: Pew Research Center, J.P. Morgan Asset Management. The survey was last conducted in September 2024. Pew Research Center asks the question: "Thinking about the nation's economy, How would you rate economic conditions in this country today... as excellent, good, only fair, or poor?" S&P 500 returns are average annualized total returns between presidential inauguration dates and are updated monthly. Guide to the Markets – U.S. Data are as of February 28, 2025.

J.P.Morgan
ASSET MANAGEMENT

Investing Principles

Evolution of Atlanta Fed GDPNow real GDP estimate for 2025: Q1

Quarterly percent change (SAAR)



Factors:

- Flat yield curve now has a small negative slope
- Federal govt. job losses – lower GDI
- Tariffs - Higher consumer prices
- Tariffs – Retaliation against the US
- Growing delinquencies
- Lower taxes – high govt. debt remains uncontrolled

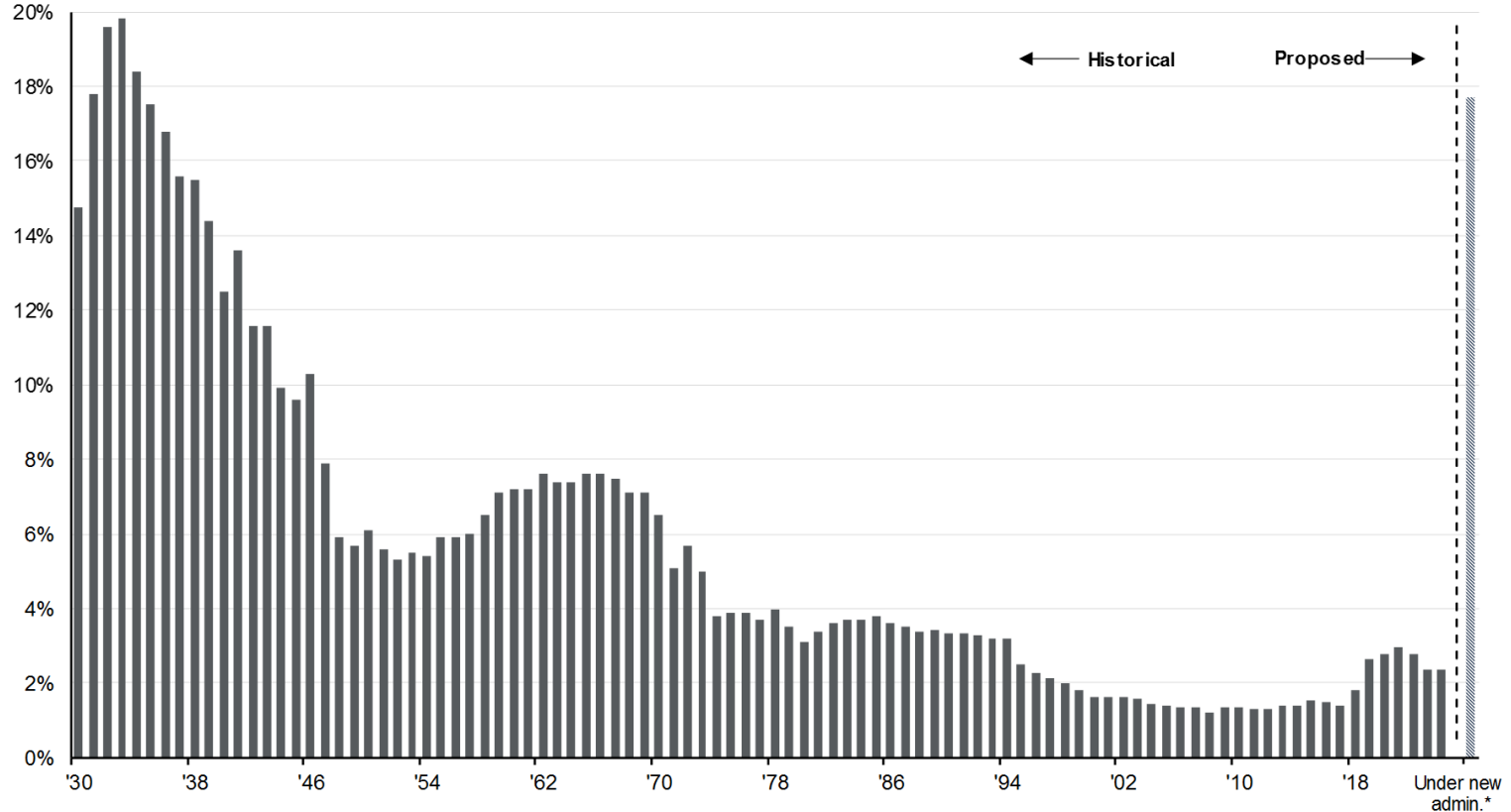


Tariffs on U.S. imports

Economy

Average tariff rate on U.S. goods imports for consumption

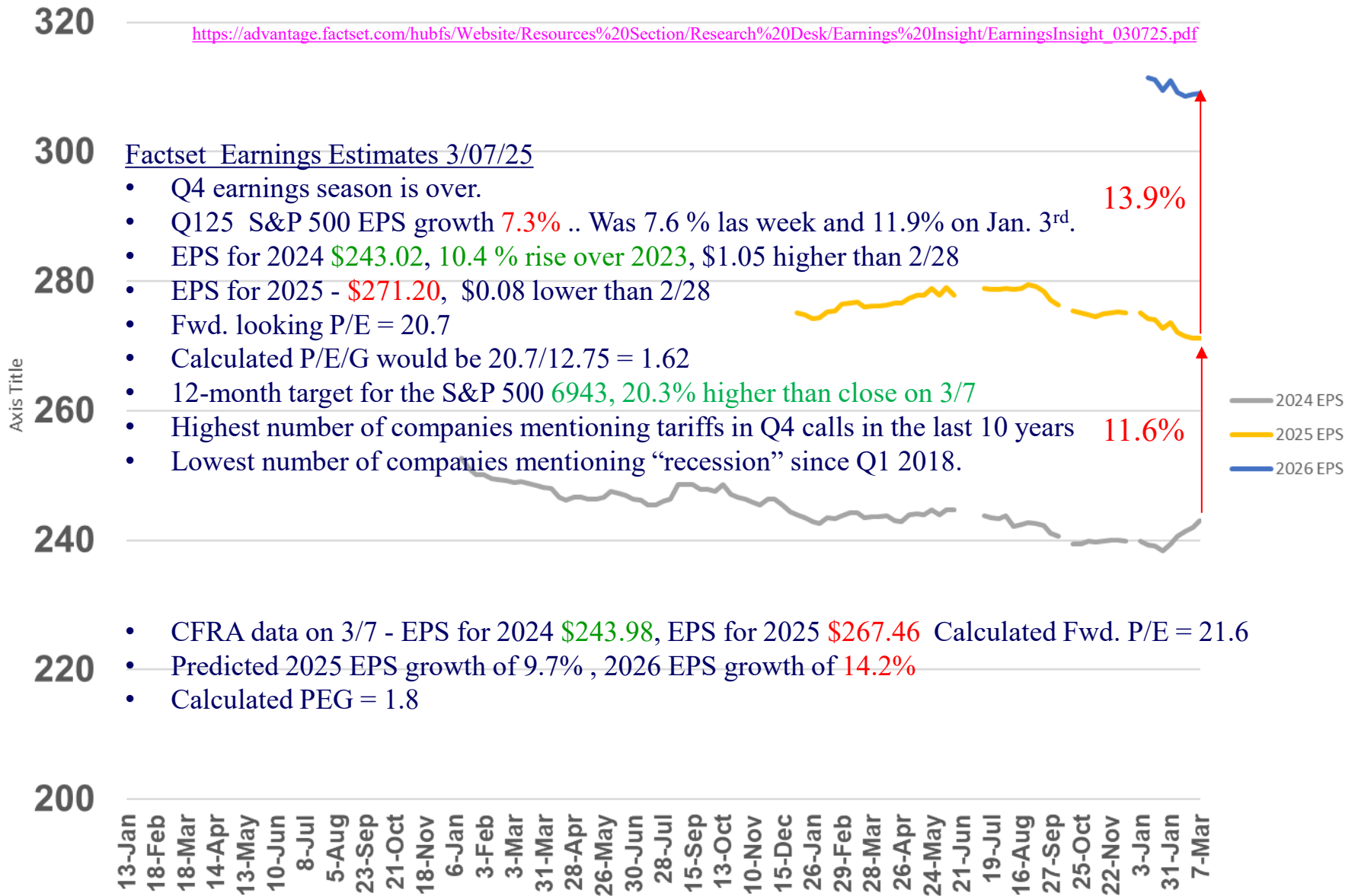
Duties collected / value of total goods imports for consumption



Source: Tax Foundation, United States International Trade Commission, U.S. Department of Commerce, J.P. Morgan Asset Management. Imports for consumption: goods brought into a country for direct use or sale in the domestic market. *Estimate is by the Tax Foundation as of October 2024 and assumes a 20% universal tariff as well as a 60% tariff on Chinese imports. May not be updated as of the latest announcements regarding tariffs and U.S. trade policy and is subject to change. Forecasts are based on current data and assumptions about future economic conditions. Actual results may differ materially due to changes in economic, market and other conditions. [Guide to the Markets - U.S. Data are as of February 28, 2025.](#)

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

https://advantage.factset.com/hubfs/Website/Resources%20Section/Research%20Desk/Earnings%20Insight/EarningsInsight_030725.pdf



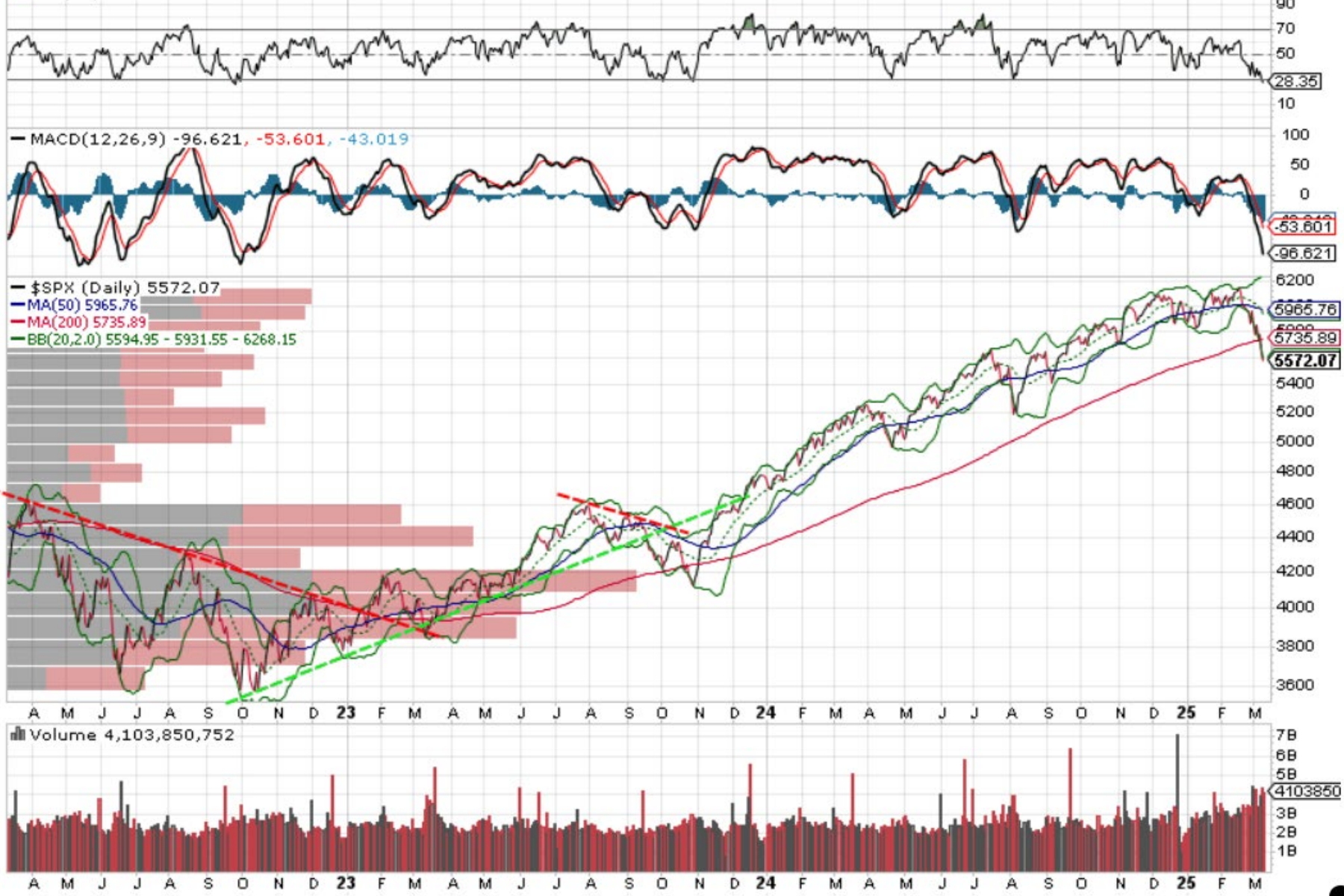
\$SPX S&P 500 Large Cap Index INDX

11-Mar-2025

Open 5603.65 High 5636.30 Low 5528.41 Close 5572.07 Volume 4.1B Chg -42.49 (-0.76%)

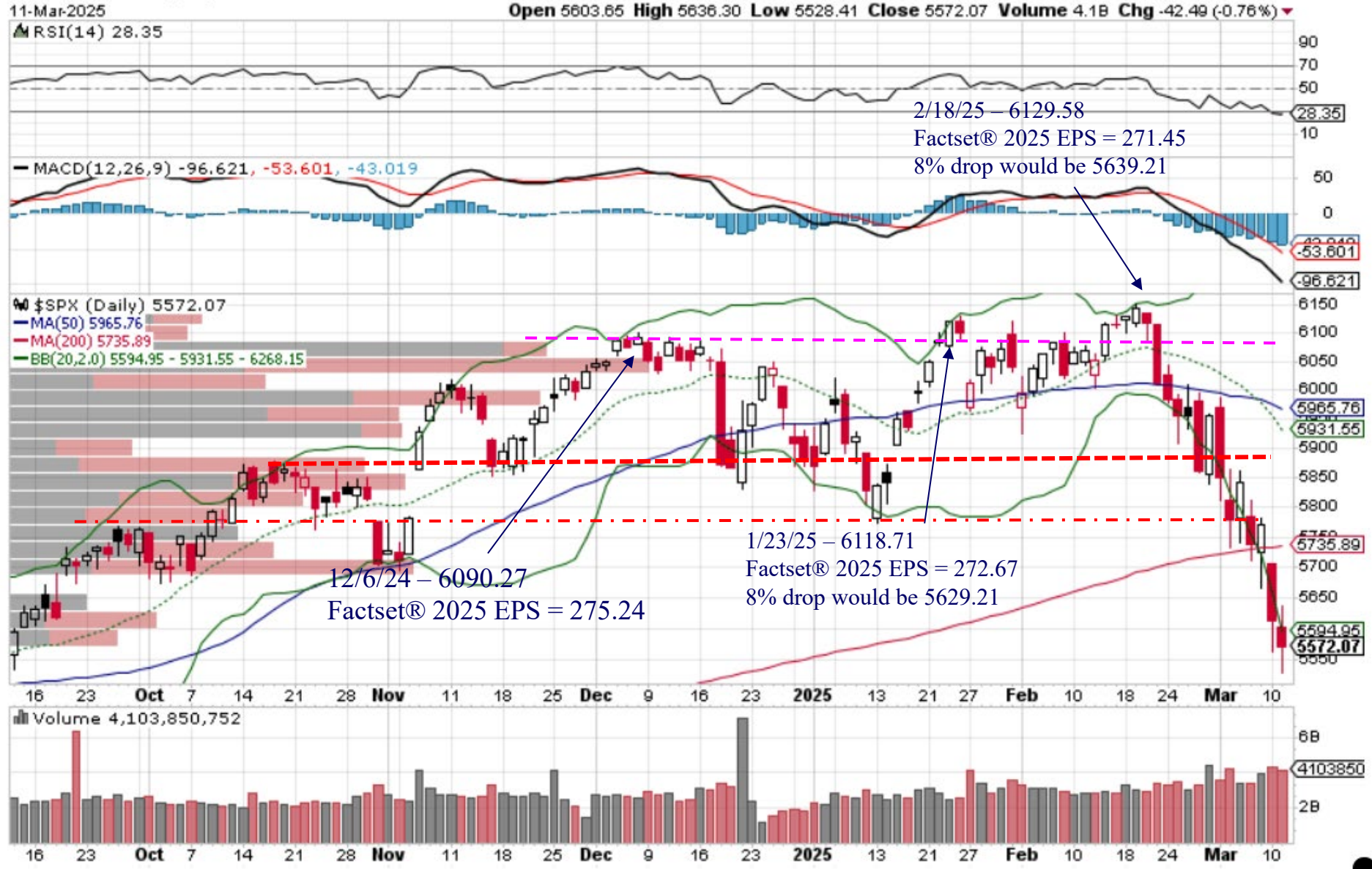
© StockCharts.com

▲ RSI(14) 28.35



\$SPX S&P 500 Large Cap Index INDX

© StockCharts.com



Market Breadth – another way

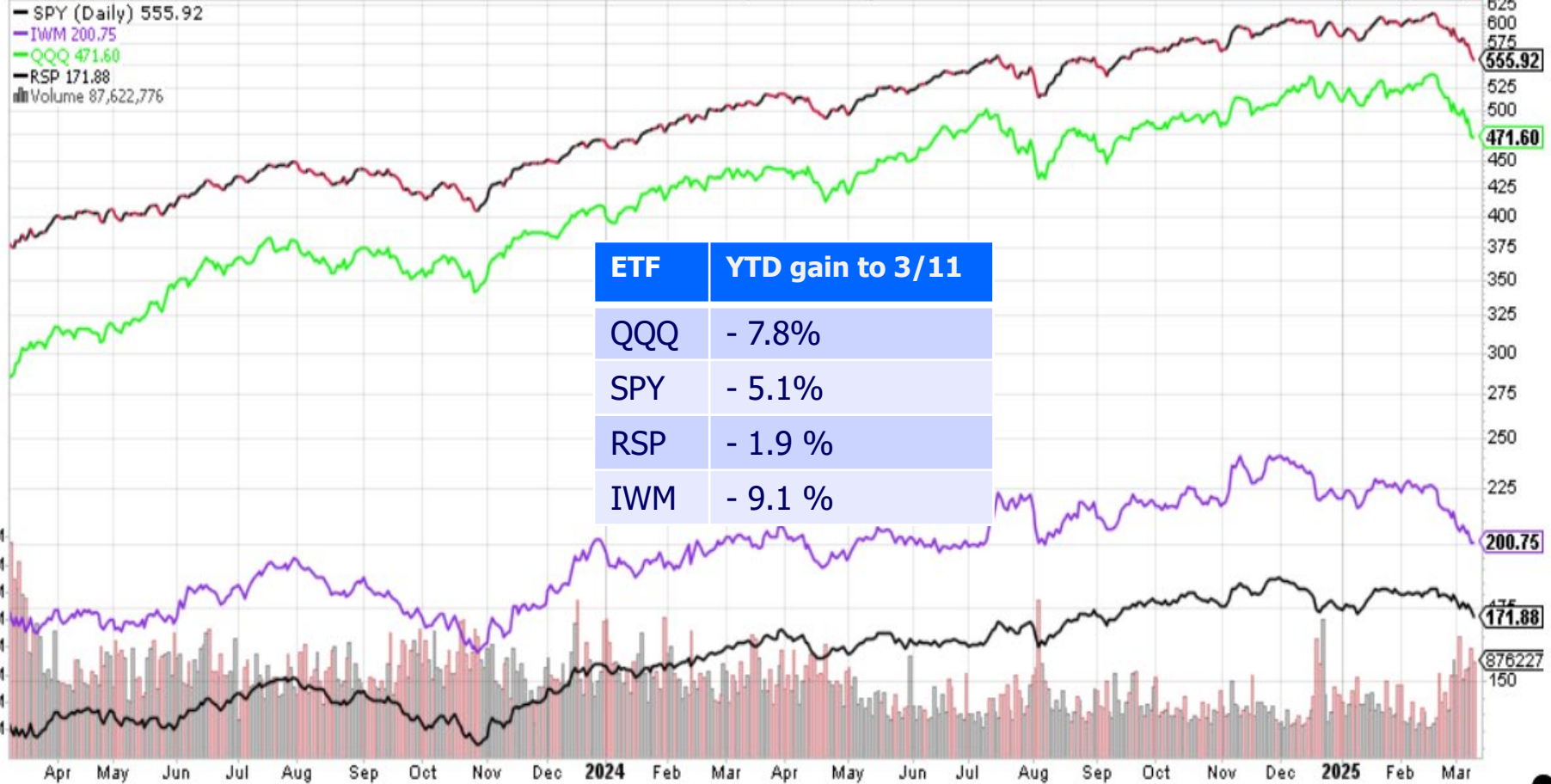
SPY SPDR S&P 500 ETF NYSE

11-Mar-2025

Open 559.40 High 564.02 Low 552.02 Close 555.92 Volume 87.6M Chg -4.66 (-0.83%)

© StockCharts.com

— SPY (Daily) 555.92
 — IWM 200.75
 — QQQ 471.60
 — RSP 171.88
 Volume 87,622,776



\$NYAD NYSE - Advance-Decline Issues INDX

11-Mar-2025

© StockCharts.com

Open 48869.00 High 48869.00 Low 48869.00 Close 48869.00 Chg -531.00 (-1.07%)







This is NOT investment advice

Weekly market direction

Prof. Guy Werner

Guy.werner@verizon.net

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

COLUMNS C,D AND E ARE FROM IBD AND PROVIDED BY DAVE (IN THE NORTH) SMITH			DISTRIBUTION DAYS			S&P 500 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	02/22/25	FOR THE WEEK							-1,118	-2.51%					-101	-1.65%						-502	-2.51%	
SUN	02/23/25	YTD						884	2.08%					132	2.24%						214	1.11%		
MON	02/24/25	UPTREND UNDER PRESSURE (40% - 60%)	5	6	F	F	F	43,461	33	0.08%	P	F	F	5,983	-30	-0.50%	P	0	F	19,286	-238	-1.22%		
TUE	02/25/25	UPTREND UNDER PRESSURE (40% - 60%)	6	7	F	F	F	43,621	160	0.37%	F	F	F	5,955	-28	-0.47%	F	F	F	19,026	-260	-1.35%		
WED	02/26/25	UPTREND UNDER PRESSURE (40% - 60%)	6	7	F	F	F	43,433	-188	-0.43%	F	F	F	5,956	1	0.02%	F	F	F	19,075	49	0.26%		
THUR	02/27/25	MARKET IN CORRECTION (20% - 40%)			F	F	F	43,239	-194	-0.45%	F	F	F	5,861	-95	-1.60%	F	F	F	18,544	-531	-2.78%		
FRI	02/28/25	MARKET IN CORRECTION (20% - 40%)			F	F	F	43,840	601	1.39%	F	F	F	5,954	93	1.59%	F	F	F	18,847	303	1.63%		
SAT	03/01/25	FOR THE WEEK							412	0.95%					-59	-0.98%						-677	-3.47%	
SUN	03/02/25	YTD						1,296	3.05%					73	1.24%							-463	-2.40%	
MON	03/03/25	MARKET IN CORRECTION (0% - 20%)			F	F	F	43,191	-649	-1.48%	F	F	F	5,849	-105	-1.76%	F	F	F	18,350	-497	-2.64%		
TUE	03/04/25	MARKET IN CORRECTION (0% - 20%)			F	F	F	42,520	-671	-1.55%	F	F	F	5,778	-71	-1.21%	F	F	F	18,286	-64	-0.35%		
WED	03/05/25	MARKET IN CORRECTION (0% - 20%)			F	F	F	43,006	486	1.14%	F	F	F	5,842	64	1.11%	F	F	F	18,552	266	1.45%		
THUR	03/06/25	MARKET IN CORRECTION (0% - 20%)			F	F	F	42,579	-427	-0.99%	F	F	F	5,738	-104	-1.78%	F	F	F	18,069	-483	-2.60%		
FRI	03/07/25	MARKET IN CORRECTION (0% - 20%)			F	F	F	42,801	222	0.52%	F	F	F	5,770	32	0.56%	F	F	F	18,196	127	0.70%		
SAT	03/08/25	FOR THE WEEK							-1,039	-2.37%					-184	-3.09%						-651	-3.45%	
SUN	03/09/25	YTD						257	0.60%						-111	-1.99%							-1,114	-5.77%
MON	03/10/25	MARKET IN CORRECTION (0% - 20%)			F	F	F	41,911	-890	-2.08%	F	F	F	5,614	-156	-2.70%	F	F	F	17,468	-728	-4.00%		
TUE	03/11/25	MARKET IN CORRECTION (0% - 20%)			F	F	F	41,433	-478	-1.14%	F	F	F	5,572	-42	-0.75%	F	F	F	17,436	-32	-0.18%		

https://drive.google.com/drive/folders/0B6Qc_gjpsHXMcIkzQ245d2R1eTQ?resourcekey=0-5pWgINqaJPJ12L2qYurMWg

TLT – 20+ yr U.S. Treasury ETF

TLT iShares 20+ Year Treasury Bond ETF Nasdaq GM
11-Mar-2025

© StockCharts.com

Open 90.96 High 91.49 Low 90.14 Close 90.40 Volume 40.4M Chg -0.65 (-0.71%)

TLT (Daily) 90.40
Volume 40,398,744



U.S. Dollar

\$USD US Dollar - Cash Settle FOREX

12-Mar-2025 1:14am

\$USD (Weekly) 103.50

MA(40) 105.01

Volume undef

Open 103.90 High 104.06 Low 103.23 Last 103.50 Chg -0.28 (-0.27%)

© StockCharts.com



<https://ticdata.treasury.gov/resource-center/data-chart-center/tic/Documents/shla2023r.pdf>

Sixth Class – Mar. 12th

- Market Update
- Managing Risk

Risks – everyone's situation is unique

- What risk are you trying to manage?
 - Annual income vs. expenses
 - Running out of money to support lifestyle
 - Diminished wealth for inheritance

- What asset class are you trying to manage risk in?
 - Stocks
 - Bonds

Investing in Retirement

- Prior to retirement – Accumulation phase
- After retirement
 - Protect and grow the investment portfolio
 - Use the portfolio to produce income for current expenses
 - Draw down the principal as needed and in a way that does not exhaust it prematurely.
- 3 unknowns
 - How long will we live?
 - How much will we need to spend?
 - What return will your portfolio earn at the risk you are willing to take?

Producing income from your investment portfolio is relevant
Sequence of return risk is relevant

The big picture

Stock market since 1900

GTM - U.S. | 19

What, Me Worry?

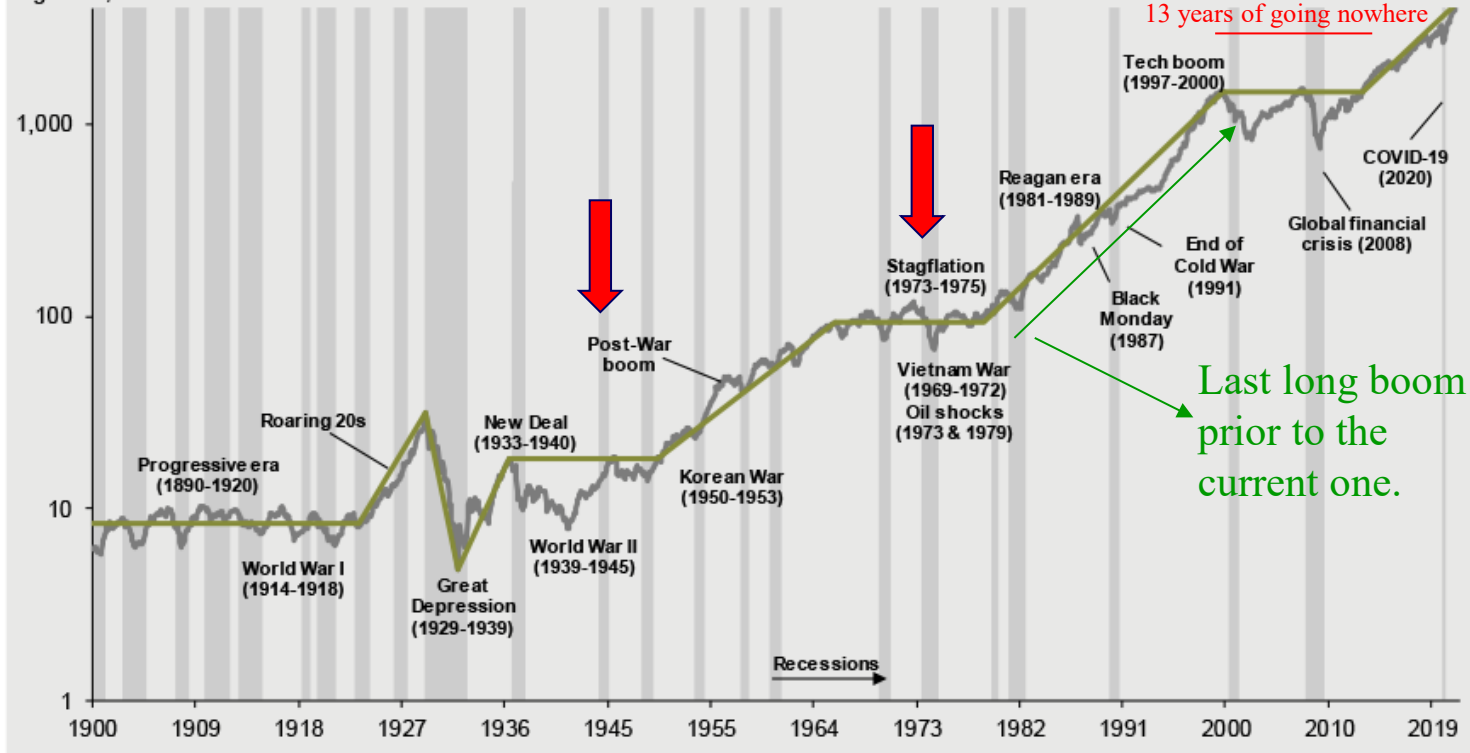


Mad Magazine

Equities

S&P Composite Index

Log scale, annual



Source: FactSet, NBER, Robert Shiller, J.P. Morgan Asset Management.
 Data shown in log scale to best illustrate long-term index patterns. Past performance is not indicative of future returns. Chart is for illustrative purposes only.
 Guide to the Markets – U.S. Data are as of August 31, 2021.

J.P.Morgan
 Asset Management

Story of two couples

Mr. & Mrs. Blue



Mr. & Mrs. Green



- Each couple retires at 65 with a life expectancy of one surviving to 90
- Each has an IRA with \$500,000 invested in the S&P 500
- Each couple withdraws \$20,000 (4%) per year to help with expenses
- Mr. & Mrs. Green retire in 1990
- Mr. & Mrs. Blue retire in 2000

Two Very Different Retirements

Mr. & Mrs. Green

Year	Return	\$500,000
1990	-3.1%	\$464,700
1991	30.2%	\$585,179
1992	7.5%	\$609,009
1993	10.0%	\$649,727
1994	1.3%	\$638,368
1995	37.2%	\$855,841
1996	22.7%	\$1,029,946
1997	33.1%	\$1,350,858
1998	28.3%	\$1,713,691
1999	20.9%	\$2,051,681

Mr. & Mrs. Blue

Year	Return	\$500,000
2000	-9.0%	\$434,850
2001	-11.9%	\$363,320
2002	-22.0%	\$263,499
2003	28.4%	\$318,227
2004	10.7%	\$332,405
2005	4.8%	\$328,460
2006	15.6%	\$359,732
2007	5.5%	\$359,446
2008	-36.6%	\$208,068
2009	25.9%	\$242,041

Portfolio drops to half in the first 3 years

- Sequence of return
- Drawdown in down markets.

Both couples have 10-15 more years of retired life

The big picture updated

\$SPX S&P 500 Large Cap Index INDX

7-Mar-2025

© StockCharts.com
Open 5726.01 High 5783.01 Low 5666.29 Close 5770.20 Volume 4.0B Chg +31.68 (+0.55%)▲

— \$SPX (Daily) 5770.20



Risks – everyone's situation is unique

- What risk are you trying to manage?
 - Annual income vs. expenses
 - Running out of money to support lifestyle
 - Diminished wealth for inheritance

- What asset class are you trying to manage risk in?
 - **Stocks**
 - Bonds

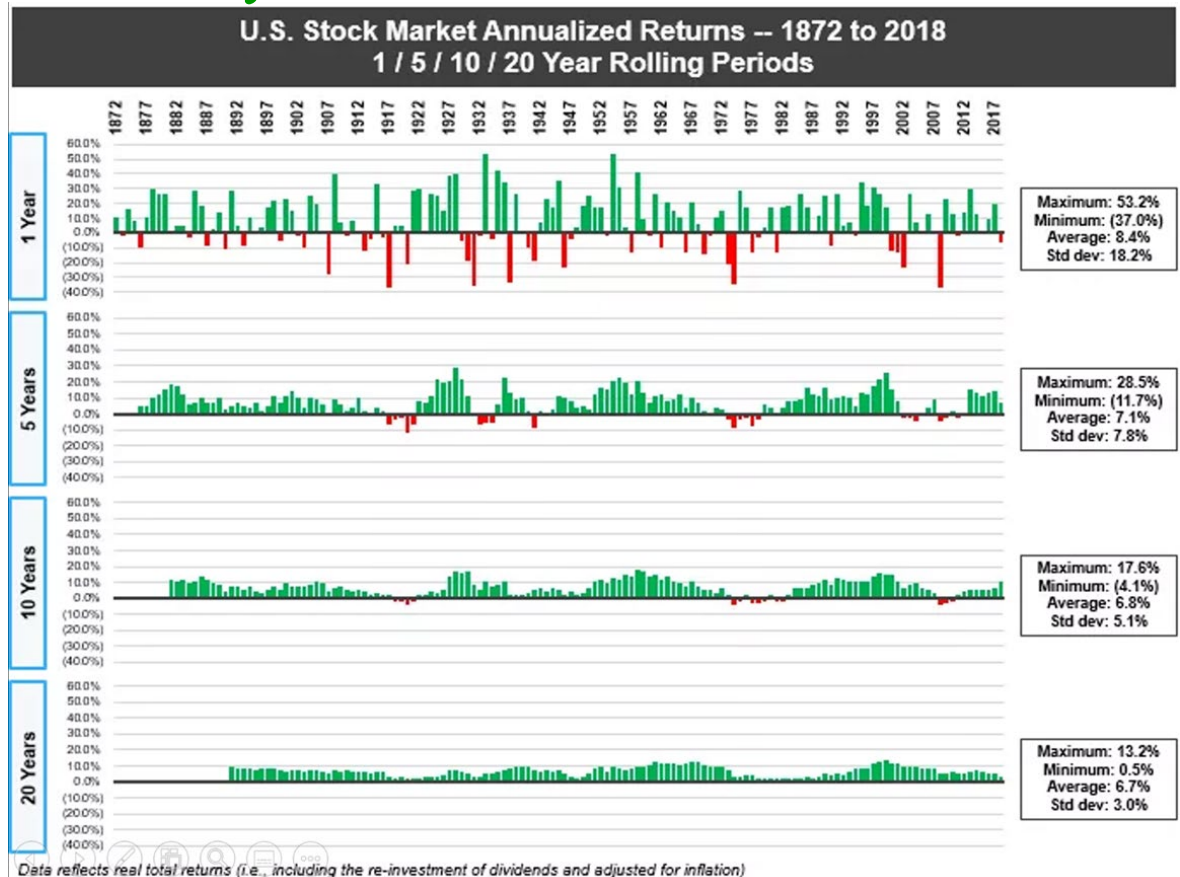
Time is your friend

Don't panic



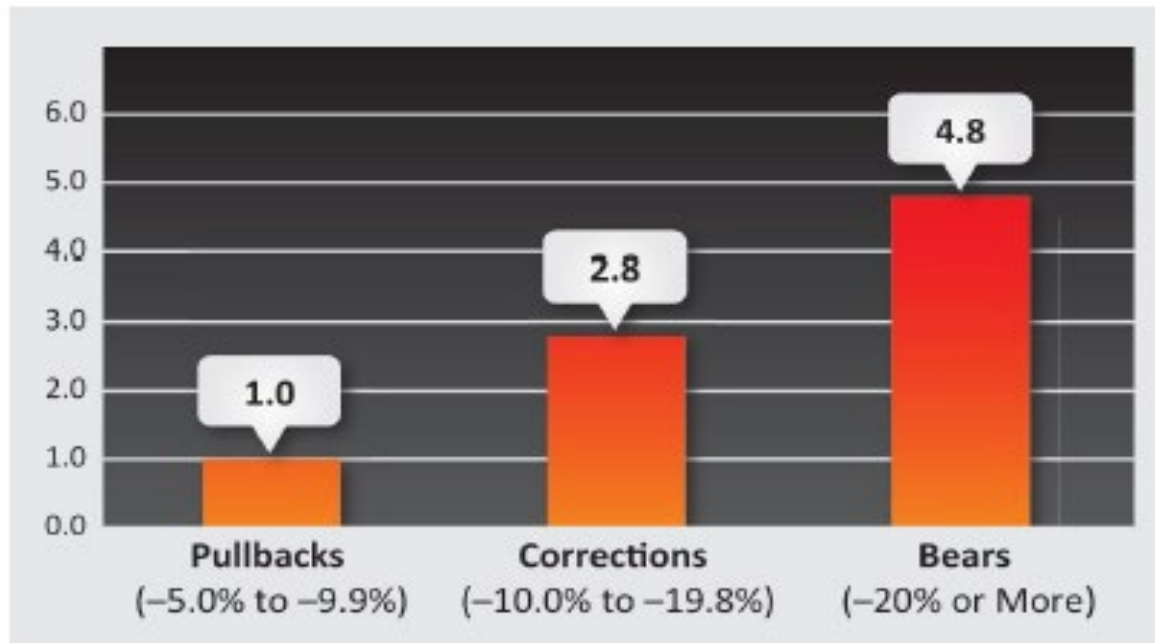
Different plans
for different
time horizons

Time is your friend



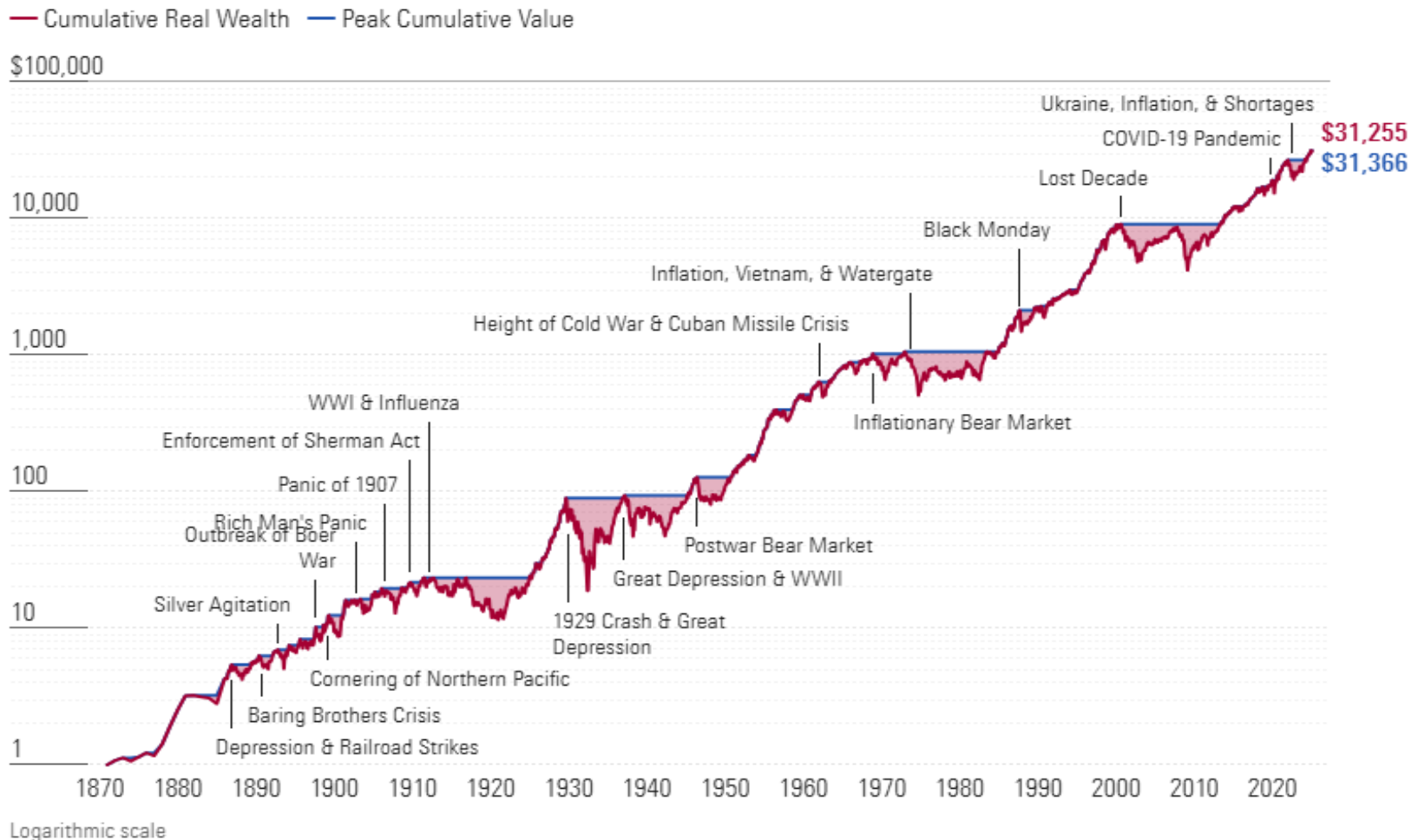
How frequent?

Figure 1. Average Number of Years Between Market Declines
Since World War II



Source: S&P Dow Jones Indices.

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 of Labor Statistics, Non-Seasonally Adjusted Consumer Price Index (2025). Data as of Jan. 31, 2025.

12 biggest downturns

Recovery 3 to 5 months

#	Start Date	S&P 500 Value at top	Low Date	S&P 500 Value at bottom	Days down	Total Loss	Recovery back to start Date	Days to recover
1	7/17/1998	1186.75	8/31/1998	957.28	45	-19.3%	11/23/1998	84
2	4/29/2011	1363.61	10/3/2011	1099.23	157	-19.4%	2/23/2012	143
3	9/20/2018	2930.75	12/24/2018	2351.10	95	-19.8%	4/26/2019	123
4	7/16/1990	368.95	10/11/1990	295.46	87	-19.9%	2/13/1991	125
5	1/4/2022	4793.54	10/12/2022	3577.03	281	-25.4%	1/19/2024	464
6	11/28/1980	140.52	8/12/1982	102.42	622	-27.1%	11/3/1982	83
7	8/25/1987	336.77	12/4/1987	223.92	101	-33.5%	7/25/1989	599
8	2/19/2020	3386.15	3/23/2020	2237.40	33	-33.9%	8/18/2020	148
9	11/29/1968	108.37	5/26/1970	69.29	543	-36.1%	3/6/1972	650
10	1/11/1973	120.24	10/3/1974	62.28	630	-48.2%	7/15/1980	2112
11	3/24/2000	1527.46	10/9/2002	776.76	929	-49.1%	5/30/2007	1694
12	10/9/2007	1565.15	3/9/2009	676.53	517	-56.8%	3/28/2013	1480

15 months

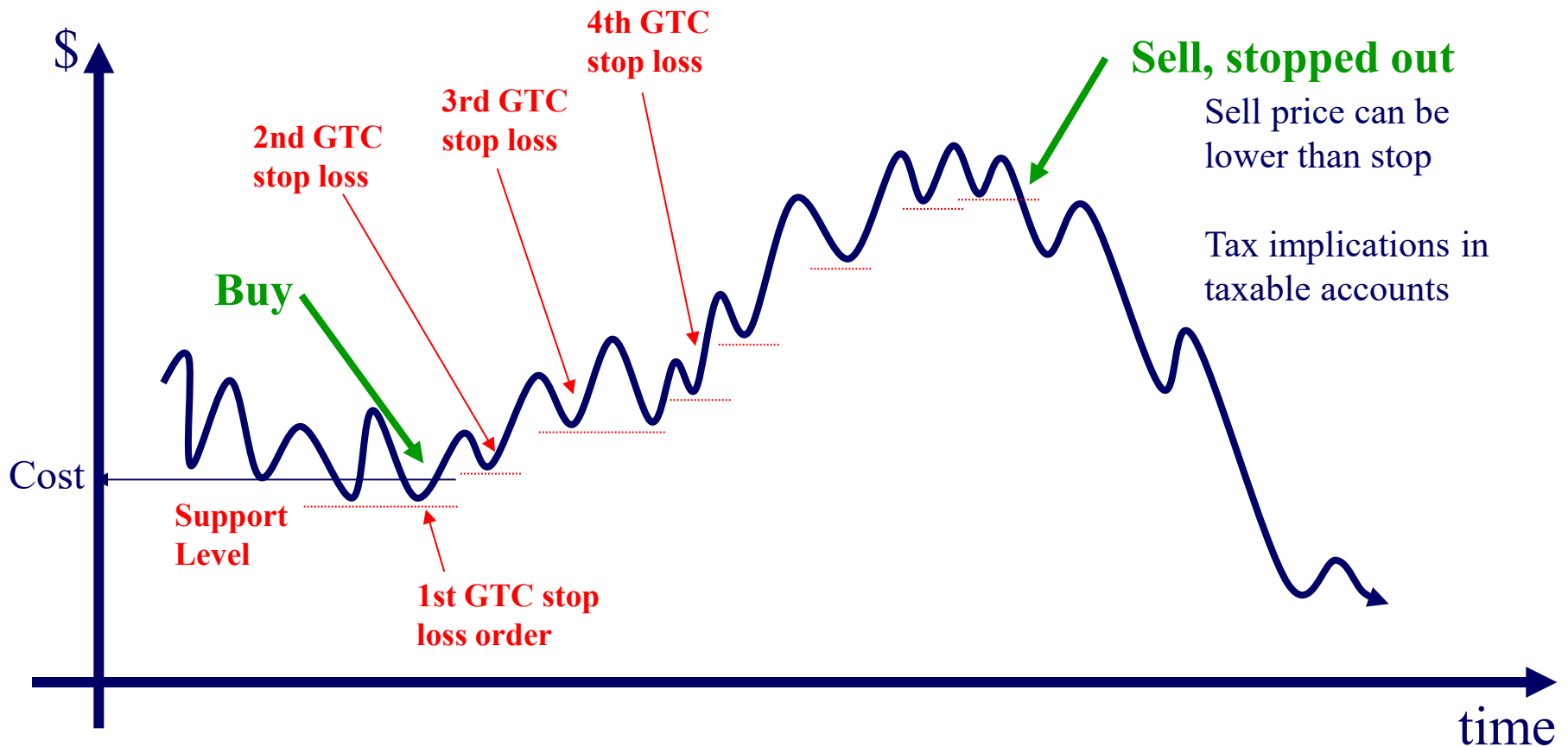
Recovery 20 to 69 months

Selling at market bottoms

- 100 shares \$100/share = \$10,000
- Need \$2000 for expenses
- Market correction - Shares drop to \$70
- Sell 30 shares = \$2100
- Left 70 shares
- Market recovers and rises - Shares rise to \$120
- Portfolio = \$8400
- If you did not sell portfolio = \$12000

Protecting your profits

Using Stop loss orders



Distribution of size of downturns

Size of the downturn	Number
0 - 3%	487
3 - 5%	53
5 - 6%	14
6 - 7%	13
7 - 8%	7
8 - 9%	2
9 - 10%	7
10 - 11%	5
11 - 12%	0
12 - 13%	1
13 - 14%	0
14 - 15%	5
15 - 16%	0
16 - 17%	0
17 - 18%	0
18 - 19%	0
>19%	13
	607

Analysis from Jan 1950 to Nov 2021

- 607 downturns
 - Most are noise less than 5%
 - Very few are >10% and less than 19%
- Stop loss at 5% would have triggered 67 times and only 24 of these instances would have been a correction > 10%
 - Misfiring rate of 64%
- Stop loss between 8 and 9% has a misfiring rate of 27%

Market timing

This is NOT investment advice

- Standard advice
 - Time in the market is more important than timing the market.
 - If you had missed the few biggest gain days, returns would be worse.
- Shift in paradigm - Market timing is not impossible nor perfect.
 - Simple techniques
 - Valuation based
 - Reading the chart with two moving averages
 - Stay in when the short-term moving average is above the long-term moving average
 - Stay out when the short-term moving average is below the long-term moving average.

11-Mar-2025

Open 5968.33 High 5986.09 Low 5528.41 Close 5572.07 Volume 27.0B Chg -382.43 (-6.42%)



— \$SPX (Weekly) 5572.07
— EMA(8) 5869.41
— EMA(20) 5881.95

This is NOT investment advice



— \$SPX (Daily) 5572.07
— EMA(8) 5742.06
— EMA(20) 5866.32

This is NOT investment advice



This is NOT investment advice

Two Moving averages method


- Steve Brubaker Presentation with simple moving averages
- The 50-day and 200-day simple moving average
 - Golden cross
 - Death Cross
- Signal to noise is high with moving averages on daily charts
- Signal to noise is lowest on monthly charts
 - Improvement over buy and hold is smaller
- Weekly charts offer a middle road
 - Not too many trades
- Best in an IRA

Types of Risk

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

- Unsystematic Risk
 - Risk in the Stockmarket
 - 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 – financial performance
 - Measured by Beta for that company within the market.

Why are
you taking
more risk?



General ideas on risk in stocks

- It is riskier to buy an individual stock than to buy a stock fund or ETF.
- Dollar cost averaging or staged entry and exit lower risk.
- Dividend paying stocks tend to be less volatile.
 - Dividend growing stocks provide attractive income ideas.
- Diversify vs. simplify?

Risks – everyone's situation is unique

- What risk are you trying to manage?
 - Annual income vs. expenses
 - Running out of money to support lifestyle
 - Diminished wealth for inheritance

- What asset class are you trying to manage risk in?
 - Stocks
 - Bonds

Risks in a Bond

- **Prepayment risk** - The possibility that a bond issue will be paid off earlier than expected is known as prepayment risk. This often occurs through a call provision.
 - Reinvestment Risk – Low in a rising rate environment.
 - Loss of planned return over call/issue price
- **Default Risk** - The possibility that a bond issuer will not be able to make interest or principal payments when they are due.
- **Interest Rate risk** - Interest rate risk is the possibility that interest rates will be different than the investor expected over the life of the bond. If interest rates decline significantly, you face the possibility of prepayment as firms exercise call features. If interest rates rise, you risk holding a bond with below-market rates that may lose value.

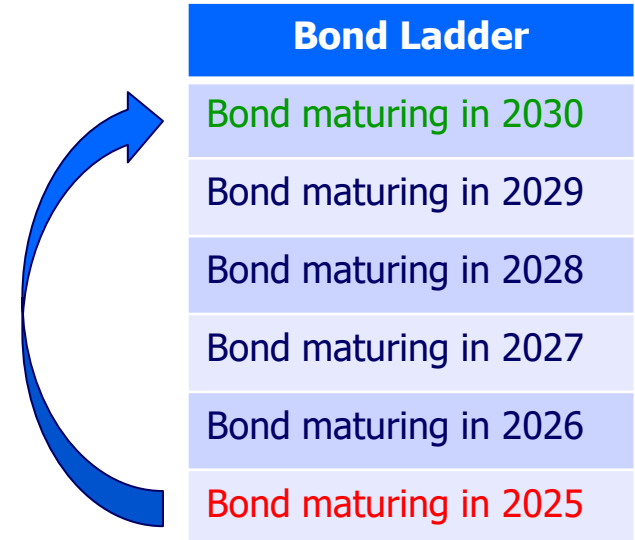
Buying Individual bonds

- Manage interest rate sensitivity / risk.
- Manage taxation
- Timing of maturities and income

- CD
- US govt. treasuries / bonds
- Muni bonds
- Investment grade Corp bonds
- Non-investment (junk, HY) corporate bonds
- Mortgage backed securities
- Foreign govt bonds
- Foreign non-govt bonds

Generally speaking

- Yield and risk go together .. High yield .. High risk*
- Longer term bonds have more interest rate risk*
- Foreign bonds have currency risk*
- Use your broker's bond desk*
- Diversify – industry groups, time frames*



Spend / Reinvest
in 2030 bond / Reinvest in
alternative assets

Risk in individual assets vs. Funds

- There is more risk in buying individual stocks than funds
- It is easier to manage risk in buying individual high quality bonds than in bond funds.
 - Not so for high yield bonds
- Actively managed funds vs. passively managed funds
 - Actively managed stock funds are unlikely to perform better than passive index funds
 - Actively managed bond funds are relatively more likely to perform better than the index as compared to actively managed stock funds



Asset class returns

GTM | U.S. | 59

2010-2024		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	YTD
Ann.	Vol.																
Large Cap 13.9%	Small Cap 20.6%	REITs 27.9%	REITs 8.3%	REITs 19.7%	Small Cap 38.8%	REITs 28.0%	REITs 2.8%	Small Cap 21.3%	EM Equity 37.8%	Cash 1.8%	Large Cap 31.5%	Small Cap 20.0%	REITs 41.3%	Com dty. 16.1%	Large Cap 26.3%	Large Cap 25.0%	DM Equity 7.3%
Small Cap 10.3%	EM Equity 17.9%	Small Cap 26.9%	Fixed Income 7.8%	High Yield 19.6%	Large Cap 32.4%	Large Cap 13.7%	Large Cap 1.4%	High Yield 14.3%	DM Equity 25.6%	Fixed Income 0.0%	REITs 28.7%	EM Equity 18.7%	Large Cap 28.7%	Cash 1.5%	DM Equity 18.9%	Small Cap 11.5%	REITs 5.2%
REITs 9.4%	REITs 16.8%	EM Equity 19.2%	High Yield 3.1%	EM Equity 18.6%	DM Equity 23.3%	Fixed Income 6.0%	Fixed Income 0.5%	Large Cap 12.0%	Large Cap 21.8%	REITs -4.0%	Small Cap 25.5%	Large Cap 18.4%	Com dty. 27.1%	High Yield -12.7%	Small Cap 16.9%	Asset Alloc. 10.0%	Com dty. 4.8%
Asset Alloc. 7.2%	DM Equity 16.5%	Com dty. 16.8%	Large Cap 2.1%	DM Equity 17.9%	Asset Alloc. 14.9%	Asset Alloc. 5.2%	Cash 0.0%	Com dty. 11.8%	Small Cap 14.6%	High Yield -4.1%	DM Equity 22.7%	Asset Alloc. 10.6%	Small Cap 14.8%	Fixed Income -13.0%	Asset Alloc. 14.1%	High Yield 9.2%	Fixed Income 2.7%
High Yield 5.9%	Com dty. 16.1%	Large Cap 15.1%	Cash 0.1%	Small Cap 16.3%	High Yield 7.3%	Small Cap 4.9%	DM Equity -0.4%	EM Equity 11.6%	Asset Alloc. 14.6%	Large Cap -4.4%	Asset Alloc. 19.5%	DM Equity 8.3%	Asset Alloc. 13.5%	Asset Alloc. -13.9%	High Yield 14.0%	EM Equity 8.1%	Asset Alloc. 2.6%
DM Equity 5.7%	Large Cap 15.1%	High Yield 14.8%	Asset Alloc. -0.7%	Large Cap 16.0%	REITs 2.9%	Cash 0.0%	Asset Alloc. -2.0%	REITs 8.6%	High Yield 10.4%	Asset Alloc. -5.8%	EM Equity 18.9%	Fixed Income 7.5%	DM Equity 11.8%	DM Equity -14.0%	REITs 11.4%	Com dty. 5.4%	EM Equity 2.3%
EM Equity 3.4%	Asset Alloc. 10.4%	Asset Alloc. 13.3%	Small Cap -4.2%	Asset Alloc. 12.2%	Cash 0.0%	High Yield 0.0%	High Yield -2.7%	Asset Alloc. 8.3%	REITs 8.7%	Small Cap -11.0%	High Yield 12.6%	High Yield 7.0%	High Yield 1.0%	Large Cap -18.1%	EM Equity 10.3%	Cash 5.3%	High Yield 2.2%
Fixed Income 2.4%	High Yield 9.4%	DM Equity 8.2%	DM Equity -11.7%	Fixed Income 4.2%	Fixed Income -2.0%	EM Equity -1.8%	Small Cap -4.4%	Fixed Income 2.6%	Fixed Income 3.5%	Com dty. -11.2%	Fixed Income 8.7%	Cash 0.5%	Cash 0.0%	EM Equity -19.7%	Fixed Income 5.5%	REITs 4.9%	Large Cap 1.4%
Cash 1.2%	Fixed Income 4.7%	Fixed Income 6.5%	Com dty. -13.3%	Cash 0.1%	EM Equity -2.3%	DM Equity -4.5%	EM Equity -14.6%	DM Equity 1.5%	Com dty. 1.7%	DM Equity -13.4%	Com dty. 7.7%	Com dty. -3.1%	Fixed Income -1.5%	Small Cap -20.4%	Cash 5.1%	DM Equity 4.3%	Cash 0.7%
Com dty. -1.0%	Cash 0.9%	Cash 0.1%	EM Equity -18.2%	Com dty. -1.1%	Com dty. -9.5%	Com dty. -17.0%	Com dty. -24.7%	Cash 0.3%	Cash 0.8%	EM Equity -14.2%	Cash 2.2%	REITs -5.1%	EM Equity -2.2%	REITs -24.9%	Com dty. -7.9%	Fixed Income 1.3%	Small Cap -2.9%

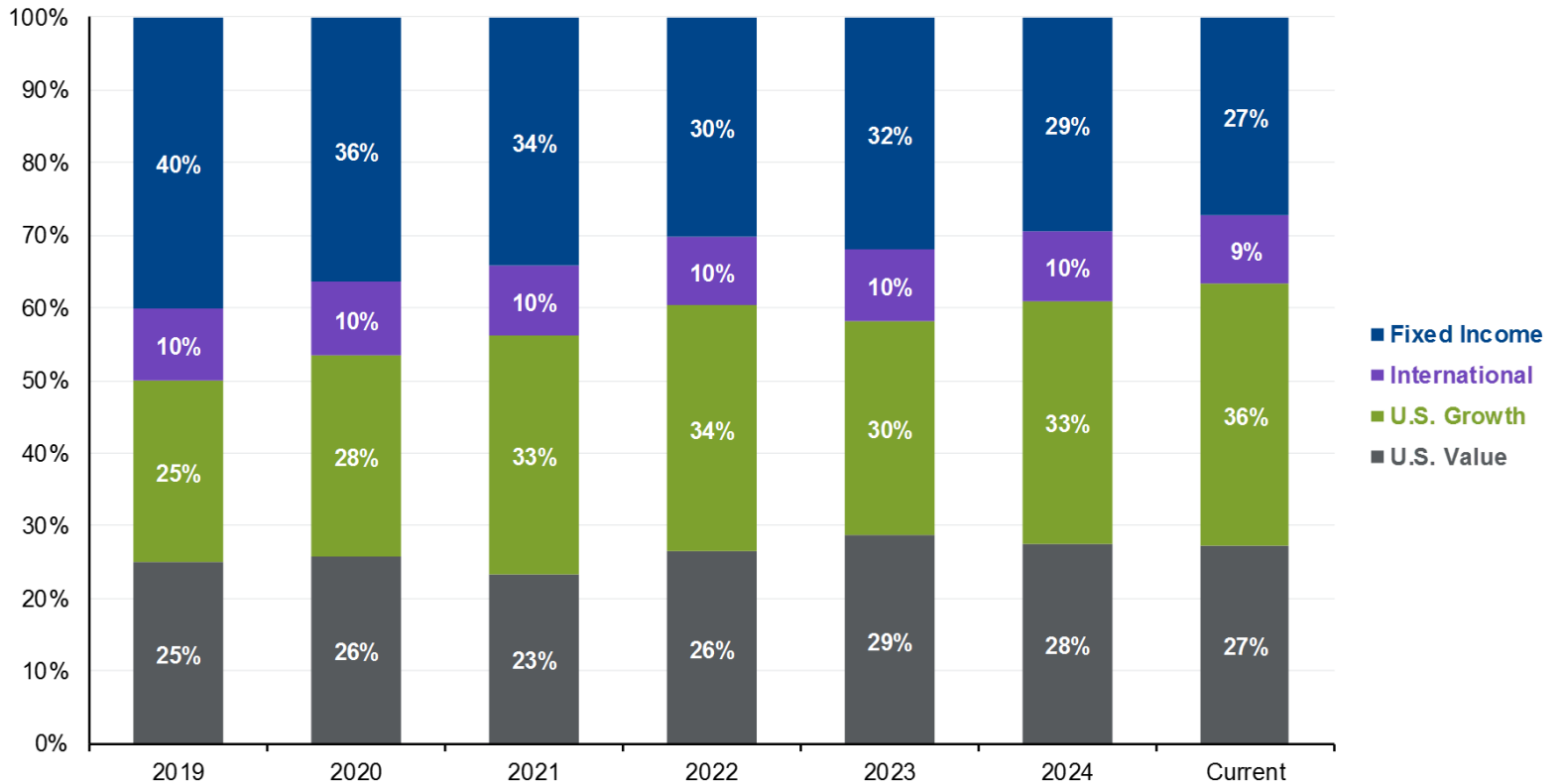
Investing Principles

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 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 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. Balanced portfolio assumes annual rebalancing. Annualized (Ann.) return and volatility (Vol.) represents period from 12/31/2009 to 12/31/2024. 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 February 28, 2025.



60/40 portfolio drift

60/40 portfolio composition by asset class
Start of 2019 to current, no rebalancing



Investing Principles

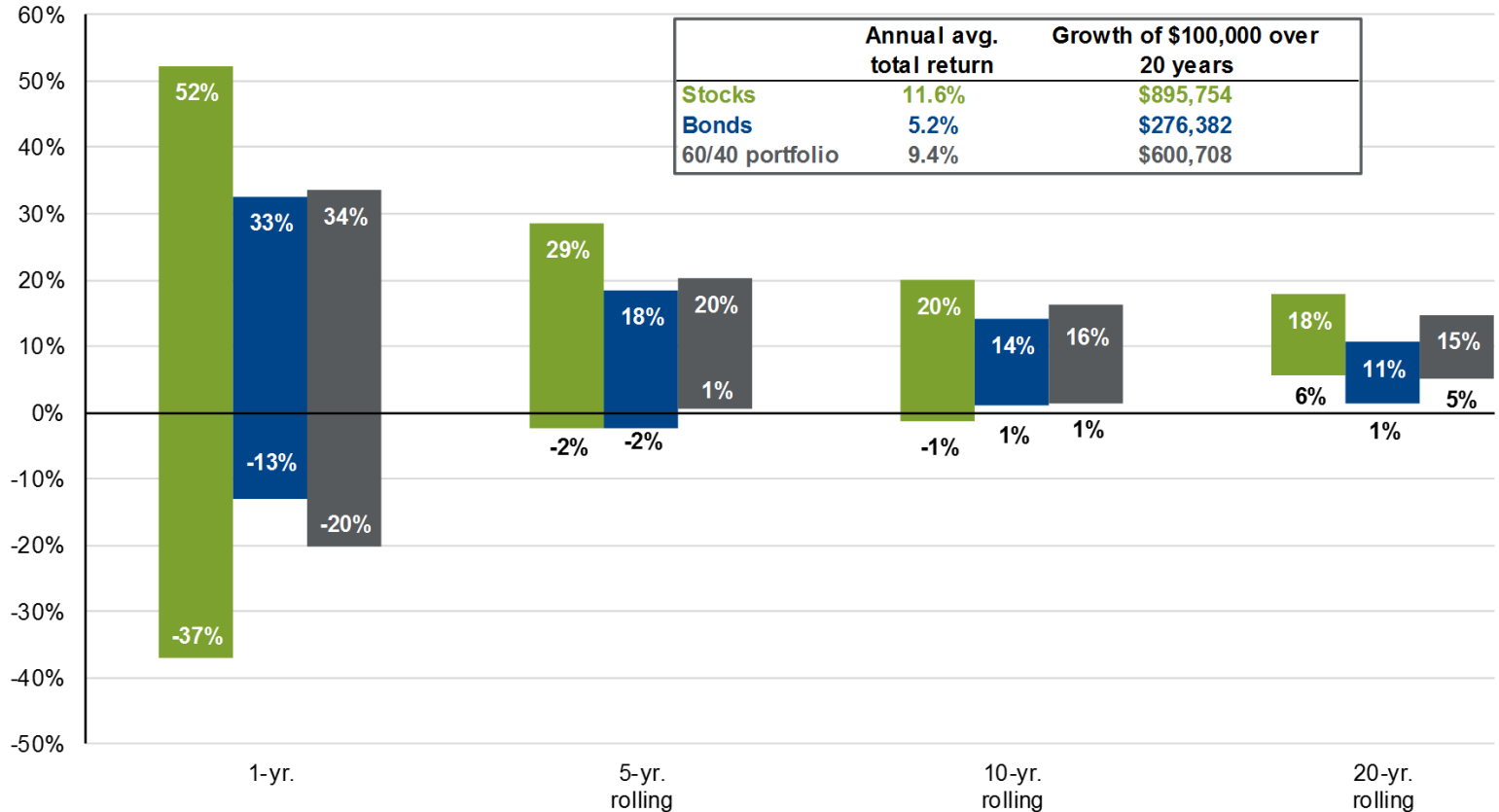
Source: Bloomberg, FactSet, MSCI, Russell, Standard & Poor's, J.P. Morgan Asset Management. Standard asset allocation at the start of 2019 assumes 60% weight to global equities and 40% to U.S. fixed Income. U.S. Value: Equal-weighted Russell 1000 Value and Russell 2000 Value, U.S. Growth: Equal-weighted Russell 2000 Value and Russell 2000 Growth, International: MSCI ACWI ex-US, Fixed Income: 10% Bloomberg Global HY Index and 30% Bloomberg U.S. Aggregate. Past performance is not indicative of future returns. *Guide to the Markets - U.S.* Data are as of February 28, 2025.



Time, diversification and the volatility of returns

Range of stock, bond and blended total returns

Annual total returns, 1950–2024



Source: Bloomberg, FactSet, Federal Reserve, Standard & Poor's, Strategas/Ibbotson, J.P. Morgan Asset Management. Returns shown are based on calendar year returns from 1950 to 2024. Bonds represent Strategas/Ibbotson for periods prior to 1976 and the Bloomberg Aggregate thereafter. Growth of \$100,000 is based on annual average total returns from 1950 to 2024. *Guide to the Markets - U.S.* Data are as of February 28, 2025.

Seventh Class – Mar. 19th

- Market Update
- Deep Dive into ETFs – Part 1
 - What is an ETF?
 - How does it work?
 - How is it different from a Mutual Fund
 - Performance criteria for an ETF

Thanks !!

- Happy Investing !!
- **My EMail**
 - diyinvst@udel.edu
- **Class website**
 - <http://udel.edu/~diyinvst>