

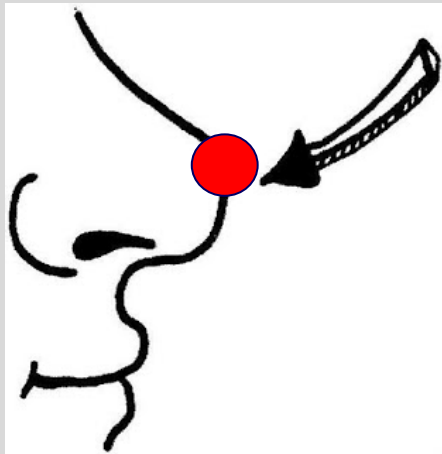
Investing for Successful Retirement

UD Osher – OLLI
Spring 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.

Third Class – Feb 21st

- Current Market - Rajeev
- Bonds

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

\$270.00

https://advantage.factset.com/hubfs/Website/Resources%20Section/Research%20Desk/Earnings%20Insight/EarningsInsight_02092024.pdf

\$250.00

\$230.00

\$210.00

\$190.00

\$170.00

\$150.00

Factset Earnings Estimates 2/16/2024

- Q423 79% reported, 75% show earnings above estimates
- Q423 S&P 500 EPS 3.2% .. 4th quarter '24 showing 17.6%
- 4 cent increase in YOY EPS estimates for 2024 at \$243.29
- 1 cent increase in YOY EPS for 2025 at \$275.35
- Fwd looking P/E = 20.4
- 12 month target for the S&P 500 5487
- CFRA data shows decrease of 17 cents in earnings for 2024



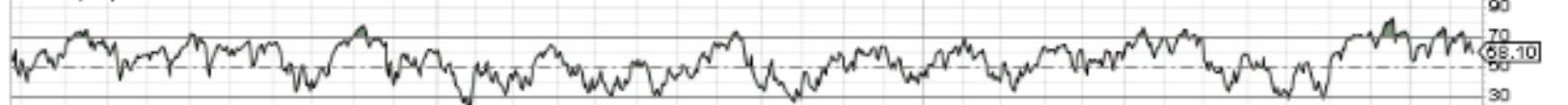
\$SPX S&P 500 Large Cap Index INDX

© StockCharts.com

20-Feb-2024

Open 4989.32 High 4993.71 Low 4955.02 Close 4975.51 Volume 2.4B Chg -30.08 (-0.60%)

▲ RSI(14) 58.10



— MACD(12,26,9) 58.201, 63.013, -4.812



— \$SPX (Daily) 4975.51

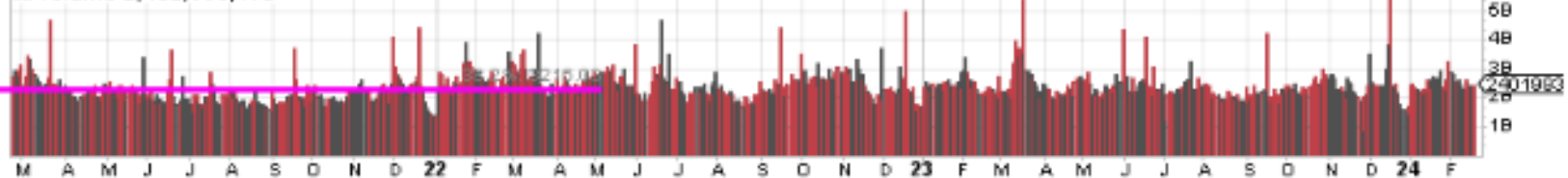
— MA(50) 4821.65

— MA(200) 4489.52

— BB(20,2,0) 4837.33 - 4949.23 - 5061.13



▲ Volume 2,401,993,472

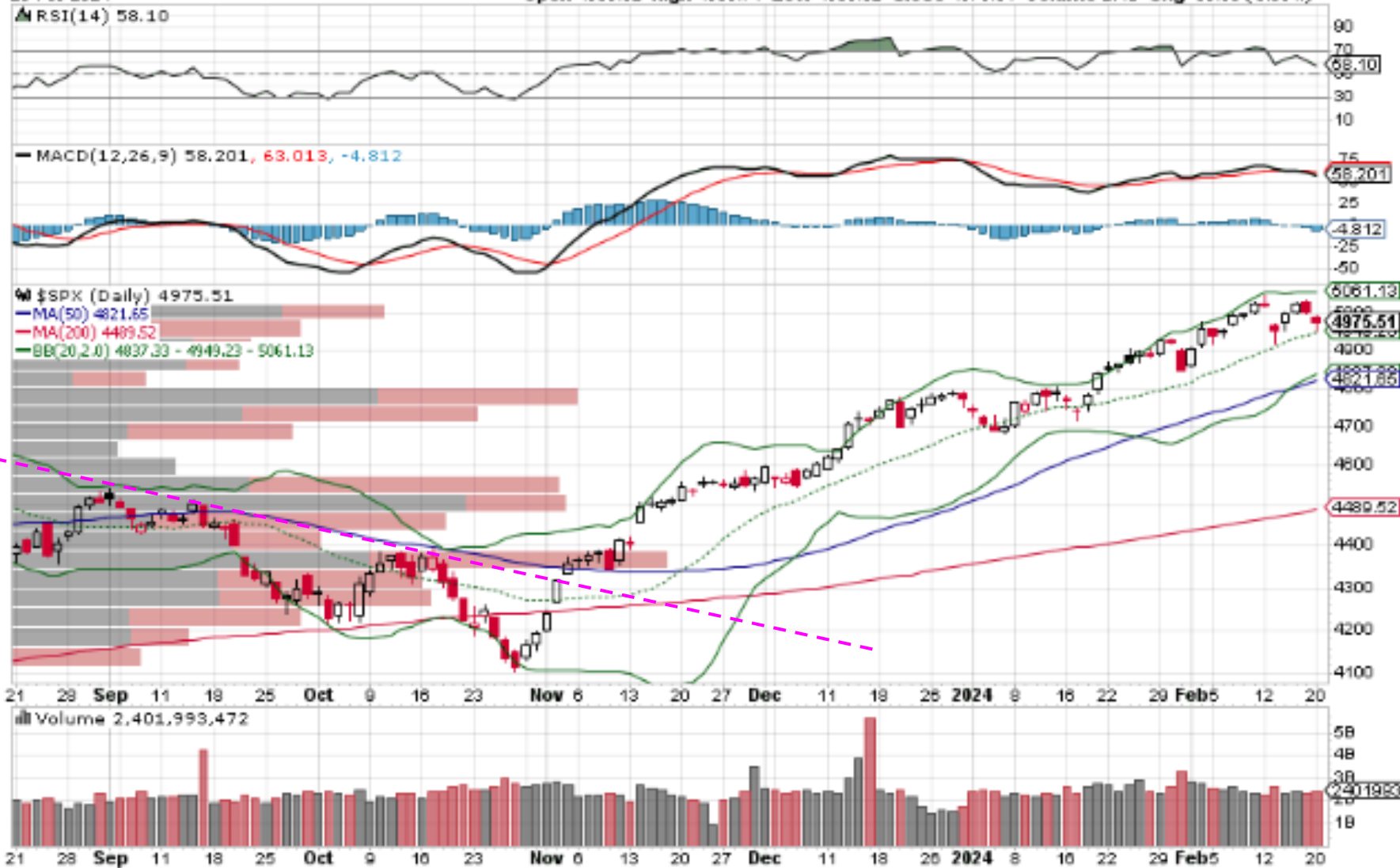


\$SPX S&P 500 Large Cap Index INDX

20-Feb-2024

Open 4969.32 High 4993.71 Low 4955.02 Close 4975.51 Volume 2.4B Chg -30.08 (-0.60%)

© StockCharts.com



\$NYAD NYSE - Advance-Delay Issues INDX

20-Feb-2024

© StockCharts.com

Open -25.00 High -25.00 Low -25.00 Close -25.00 Chg -538.00 (-104.67%)



— \$SPX 4975.51



Market Breadth – another way



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

		ANIL PARIKH'S TRIPLE SCREEN (52 W DAILY HIGH SHOWN IN GREEN 52 W LOW SHOWN IN RED)														
		DISTRIBUTION DAYS		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	
WED	01/31/24 CONFIRMED UP (60% -80%)	7	2	P	P	P	4,845	-79	-1.60%	P	0	P	15,164	-345	-2.22%	
THUR	02/01/24 CONFIRMED UP (60% -80%)	7	2	P	P	P	4,906	61	1.26%	P	P	P	15,361	197	1.30%	
FRI	02/02/24 CONFIRMED UP (80% -100%)	6	2	P	P	P	4,958	52	1.06%	P	P	P	15,628	267	1.74%	
SAT	02/03/24 FOR THE WEEK							68	1.39%					173	1.12%	
SUN	02/04/24 FOR THE MONTH							113	2.33%					464	3.06%	
SUN	02/04/24 YTD							189	3.96%					617	4.11%	
MON	02/05/24 CONFIRMED UP (80% -100%)	7	3	P	P	P	4,942	-16	-0.32%	P	P	P	15,597	-31	-0.20%	
TUE	02/06/24 CONFIRMED UP (80% -100%)	6	2	P	P	P	4,954	12	0.24%	P	P	P	15,609	12	0.08%	
WED	02/07/24 CONFIRMED UP (80% -100%)	5	2	P	P	P	4,995	41	0.83%	P	P	P	15,756	147	0.94%	
THUR	02/08/24 CONFIRMED UP (80% -100%)	5	2	P	P	P	4,997	2	0.04%	P	P	P	15,793	37	0.23%	
FRI	02/09/24 CONFIRMED UP (80% -100%)	3	1	P	P	P	5,026	29	0.58%	P	P	P	15,990	197	1.25%	
SAT	02/10/24 FOR THE WEEK							68	1.37%					362	2.32%	
SUN	02/11/24 YTD							257	5.39%					979	6.52%	
MON	02/12/24 CONFIRMED UP (80% -100%)	3	1	P	P	P	5,021	-5	-0.10%	P	P	P	15,942	-48	-0.30%	
TUE	02/13/24 CONFIRMED UP (60% -80%) CPI	5	2	P	0	P	4,953	-68	-1.35%	P	P	P	15,655	-287	-1.80%	
WED	02/14/24 CONFIRMED UP (60% -80%)	5	2	P	0	P	5,000	47	0.95%	P	P	P	15,859	204	1.30%	
THUR	02/15/24 CONFIRMED UP (60% -80%)	5	2	P	0	P	5,029	29	0.58%	P	P	P	15,906	47	0.30%	
FRI	02/16/24 CONFIRMED UP (60% -80%) PPI	5	2	P	0	P	5,005	-24	-0.48%	P	F	P	15,775	-131	-0.82%	
SAT	02/17/24 FOR THE WEEK							-21	-0.42%					-215	-1.34%	
SUN	02/18/24 YTD							236	4.95%					764	5.09%	
MON	02/19/24 PRESIDENTS DAY (NOT FOR A.H. 45)	5	2	P	0	P	5,005	0	0.00%	P	F	P	15,775	0	0.00%	

https://drive.google.com/drive/folders/0B6Qc_gipshXMelkzQ245d2R1eTQ?resourcekey=0-5pWglNqaJPJ12L2qYurMWg

TLT iShares 20+ Year Treasury Bond ETF Nasdaq GM

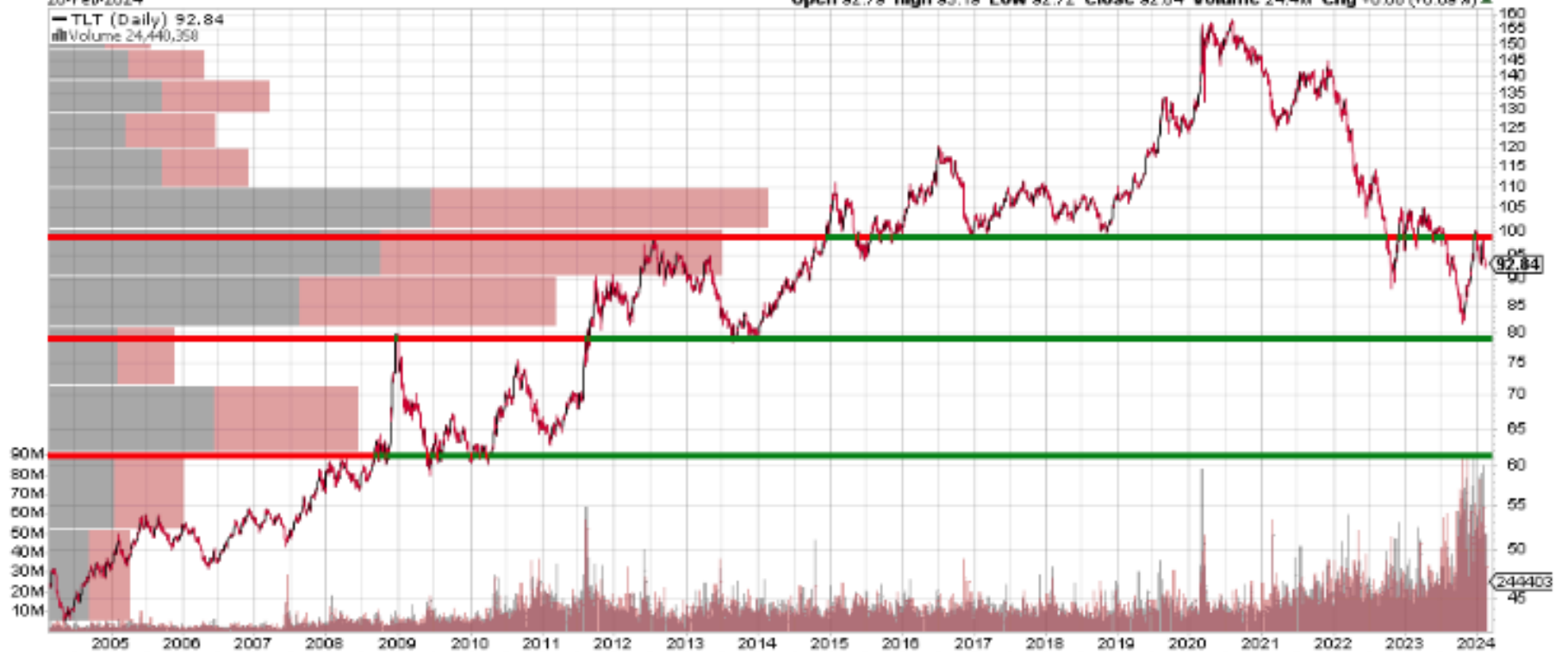
20-Feb-2024

@ StockCharts.com

Open 92.79 High 93.19 Low 92.72 Close 92.84 Volume 24.4M Chg +0.08 (+0.09%) ▲

TLT (Daily) 92.84

Volume 24,440,358



US Dollar - weekly



A rise in the dollar
negative for Big tech
Positive for commodities

Third Class

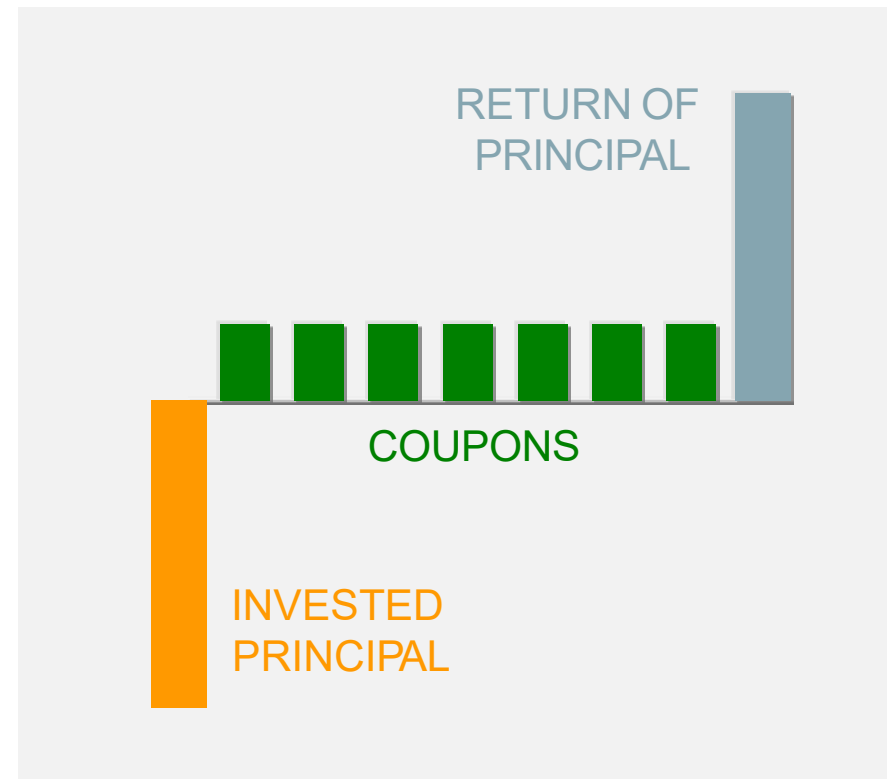
□ Investing in Bonds

□ Bonds

- What are Bonds?
- Types of Bonds – Treasury, Corporate, Municipal
- Why buy bonds?
- Risks associated with investing in bonds
- Forms of “returns” on bonds – Interest (coupon) , Capital gains or losses
- Current rates of return available
- How to buy Bonds
 - Individual Bonds
 - Bond Funds (Mutual Funds or ETF)

What is a CD or a Bond?

- Investor loans money to an issuer under a contract.
 - Defined interest rate
 - Defined duration.
- Issuer pays contracted interest to the investor periodically.
- Issuer pays back the invested principal to the investor upon maturity.



For illustrative purposes only

Bond Definitions - resource

- U.S. Treasury Bond

- <https://www.investopedia.com/terms/t/treasurybond.asp>

- Corporate Bond

- <https://www.investopedia.com/terms/c/corporatebond.asp>

- Municipal Bond

- <https://www.investopedia.com/terms/m/municipalbond.asp>

- General Obligation Bond

- <https://www.investopedia.com/terms/g/generalobligationbond.asp>

- Revenue Bond

- <https://www.investopedia.com/terms/r/revenuebond.asp>

Why do most people buy Bonds ?

- They want Relative Safety (vs. stocks for example)
- They want less Volatility
- They want “Fixed Income” (regular income)
- They want tax-efficiency
- They want to preserve capital
- They want to minimize big losses
- They want better annualized yields than savings accounts

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.

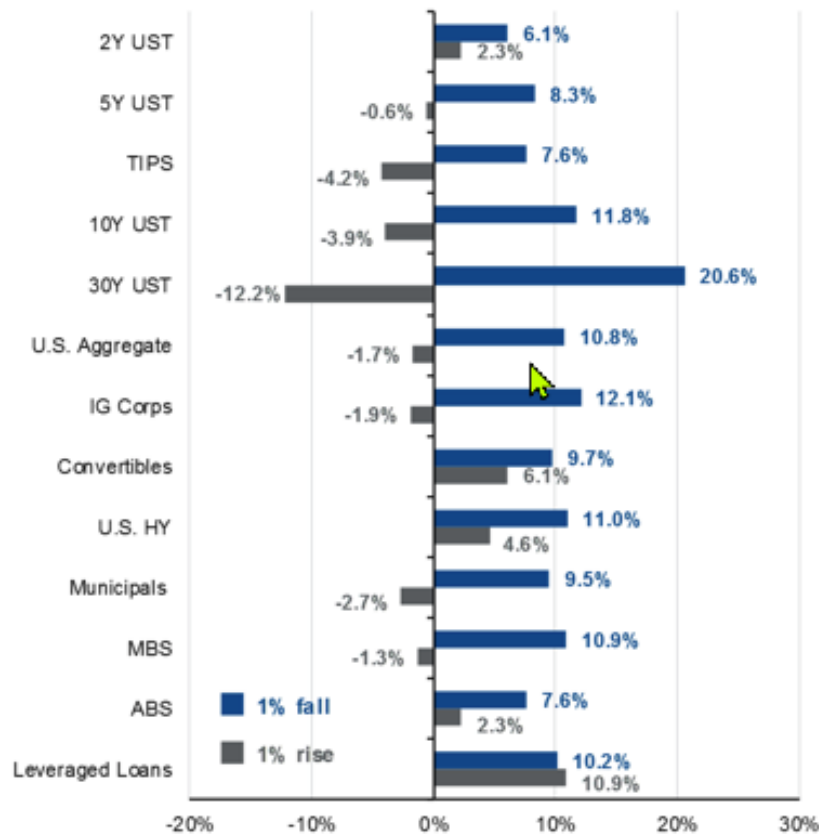
Bond values & Interest Rates

- Suppose you bought a bond last year with a coupon rate of 5%, when market rate of interest was also 5%, and you paid \$1,000 per bond.
- Next year, market rate of interest has risen to 6%.
Obviously, a buyer would not pay \$1,000 for a bond yielding 5% when the buyer could buy new \$1,000 bonds with current coupon rates of 6%. The buyer would expect to get at least 6%, which means that this bond will sell at a discount (less than \$1,000) in order to be competitive with current bonds.
- Conversely, if market rates of interest fall to 4%.
Obviously, a seller would not sell the bond for \$1,000 for a bond yielding 5% when the buyer would have to pay \$1000 to buy new bonds with current coupon rates of 4%. The seller would expect to get at least 5%, which means that this bond will sell at a premium (more than \$1,000) in order to be competitive with current bonds.
- This is relevant if you buy and sell a bond. It is not relevant if you buy a bond at issue and hold it to maturity.
 - If you buy after issue – Premium / Discount and YTM are relevant.

U.S. Treasuries	Yield		Return			
	1/31/2024	12/31/2023	2024 YTD	Avg. Maturity	Correlation to 10-year	Correlation to S&P 500
2-Year	4.27%	4.23%	0.36%	2 years	0.75	0.00
5-Year	3.91%	3.84%	0.13%	5	0.94	-0.04
TIPS	1.70%	1.72%	0.18%	7.3	0.71	0.34
10-Year	3.99%	3.88%	-0.30%	10	1.00	-0.09
30-Year	4.22%	4.03%	-2.70%	30	0.93	-0.14
Sector						
U.S. Aggregate	4.59%	4.53%	-0.27%	8.4	0.87	0.25
IG Corps	5.11%	5.06%	-0.17%	10.7	0.59	0.48
Convertibles	7.56%	7.88%	-0.75%	-	-0.09	0.87
U.S. HY	7.80%	7.59%	0.00%	4.9	-0.01	0.77
Municipals	3.37%	3.22%	-0.51%	13.3	0.67	0.26
MBS	4.80%	4.68%	-0.46%	7.5	0.78	0.24
ABS	5.56%	5.65%	0.88%	3.6	0.18	0.13
Leveraged Loans	10.55%	10.59%	0.70%	4.3	-0.26	0.60

Impact of a 1% rise or fall in interest rates

Total return, assumes a parallel shift in the yield curve



Source: Bloomberg, FactSet, Standard & Poor's, U.S. Treasury, J.P. Morgan Asset Management. Sectors shown above are provided by Bloomberg unless otherwise noted and are represented by - U.S. Aggregate; MBS: U.S. Aggregate Securitized - MBS; ABS: J.P. Morgan ABS Index; IG Corporates: U.S. Corporates; Municipals: Muni Bond; High Yield: Corporate High Yield; Leveraged Loans: J.P. Morgan Leveraged Loan Index; TIPS: Treasury Inflation-Protected Securities; Convertibles: U.S. Convertibles Composite. Convertibles yield is as of most recent month-end and is based on U.S. portion of Bloomberg Global Convertibles Index. Yield and return information based on bellwethers for Treasury securities. Yields shown for TIPS are real yields. Sector yields reflect yield-to-worst. Leveraged loan yields reflect the yield to 3Y takeout. Correlations are based on 15-years of monthly returns for all sectors. ABS returns prior to June 2012 are sourced from Bloomberg. Past performance is not indicative of future results.

Guide to the Markets - U.S. Data are as of January 31, 2024.

Bond Credit Ratings – three major agencies

Moody's		S&P		Fitch		Rating description		
Long-term	Short-term	Long-term	Short-term	Long-term	Short-term			
Aaa	P-1	AAA	A-1+	AAA	F1+	Prime	Investment-grade	
Aa1		AA+		AA+		High grade		
Aa2		AA		AA		Upper medium grade		
Aa3		AA-		AA-				
A1	A+	A-1	A+	F1				
A2	A	A-2	A	F2				
A3	A-		A-					
Baa1	P-2	BBB+	A-3	BBB+	F3	Lower medium grade		
Baa2	P-3	BBB		BBB				
Baa3		BBB-		BBB-				
Ba1	Not prime	BB+	B	BB+	B	Non-investment grade speculative		
Ba2		BB		BB				
Ba3		BB-		BB-				
B1		B+		B+		Highly speculative		
B2		B		B				
B3		B-		B-				
Caa1		C	CCC+	C	CCC	C	Substantial risks	Non-investment grade AKA high-yield bonds AKA junk bonds
Caa2			CCC				Extremely speculative	
Caa3			CCC-				Default imminent with little prospect for recovery	
Ca			CC					
	C							
C	D	/	/	DDD	/	In default		
				DD				
/				D				

Increasing Effort needed to manage risk

Increasing Risk

Credit Rating Descriptions

Moody's	S&P	Fitch	Credit worthiness ^{[7][8]}
Aaa	AAA	AAA	An obligor has extremely strong capacity to meet its financial commitments.
Aa1	AA+	AA+	An obligor has very strong capacity to meet its financial commitments. It differs from the highest-rated obligors only to a small degree.
Aa2	AA	AA	
Aa3	AA-	AA-	
A1	A+	A+	An obligor has strong capacity to meet its financial commitments but is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than obligors in higher-rated categories.
A2	A	A	
A3	A-	A-	
Baa1	BBB+	BBB+	An obligor has adequate capacity to meet its financial commitments. However, adverse economic conditions or changing circumstances are more likely to lead to a weakened capacity of the obligor to meet its financial commitments.
Baa2	BBB	BBB	
Baa3	BBB-	BBB-	
Ba1	BB+	BB+	An obligor is less vulnerable in the near term than other lower-rated obligors. However, it faces major ongoing uncertainties and exposure to adverse business, financial, or economic conditions which could lead to the obligor's inadequate capacity to meet its financial commitments.
Ba2	BB	BB	
Ba3	BB-	BB-	
B1	B+	B+	An obligor is more vulnerable than the obligors rated 'BB', but the obligor currently has the capacity to meet its financial commitments. Adverse business, financial, or economic conditions will likely impair the obligor's capacity or willingness to meet its financial commitments.
B2	B	B	
B3	B-	B-	
Caa	CCC	CCC	An obligor is currently vulnerable , and is dependent upon favourable business, financial, and economic conditions to meet its financial commitments.
Ca	CC	CC	An obligor is currently highly vulnerable .
	C	C	The obligor is currently highly vulnerable to nonpayment. May be used where a bankruptcy petition has been filed.
C	D	D	An obligor has failed to pay one or more of its financial obligations (rated or unrated) when it became due.



Yield curve

GTM U.S. 34

U.S. Treasury yield curve



Source: FactSet, Federal Reserve, J.P. Morgan Asset Management. Guide to the Markets - U.S. Data are as of January 31, 2024.

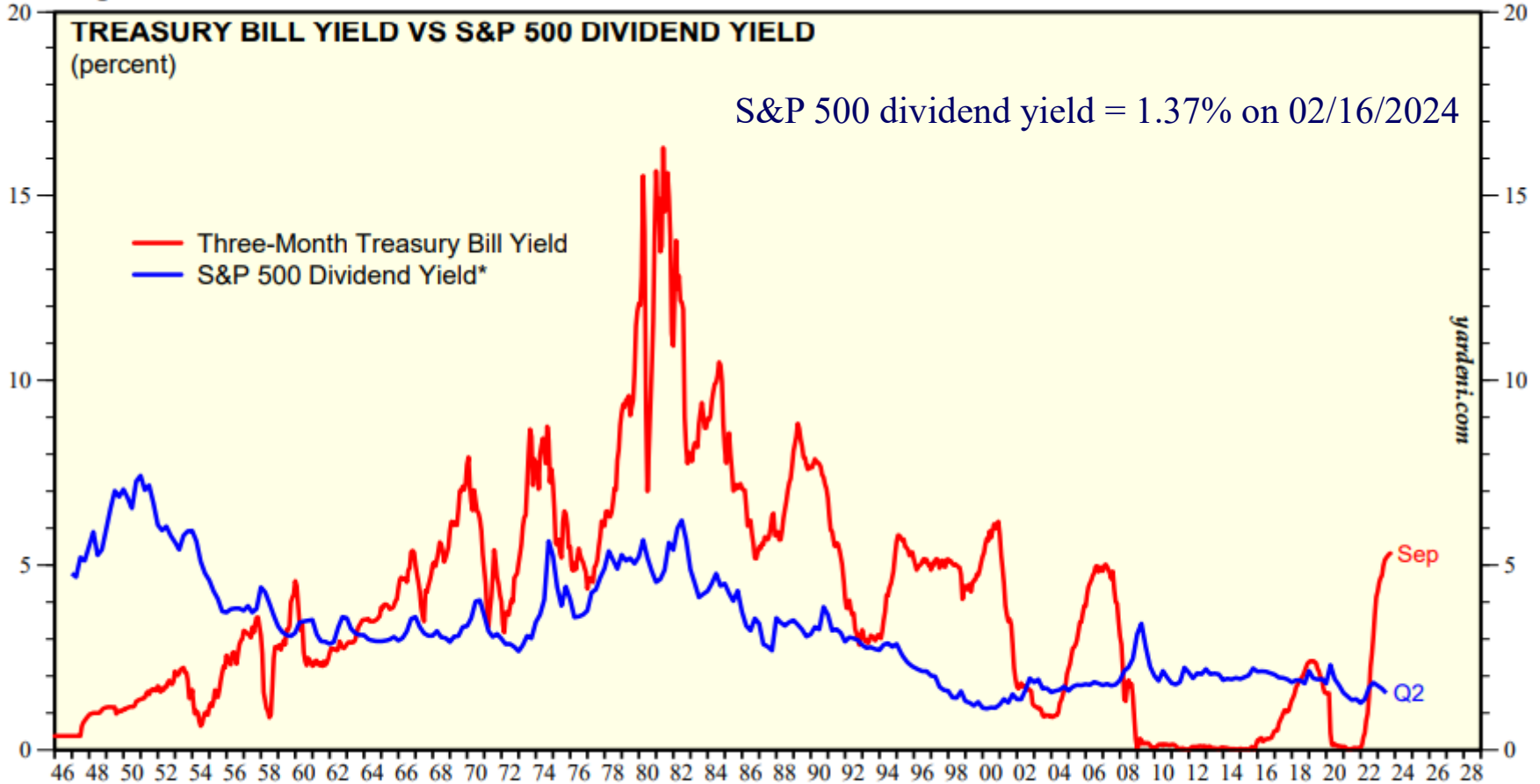
J.P.Morgan
ASSET MANAGEMENT

Fixed Income

Dividend & Treasury Yields

Yardeni.com – no longer published

Figure 3.



* S&P 500 four-quarter trailing dividends per share divided by quarterly closing value of the S&P 500 index.

Source: Standard & Poor's and Federal Reserve Board.

US Treasuries

- Bills – short term one year or less
 - Zero coupon Bonds
- Notes – medium term 2 to 10 years
 - Interest paid semiannually
- Bonds – long term 10+ years
 - Interest paid semiannually

- All interest is taxed federally
 - Tax free in most states including DE, PA and NY
- Muni bond interest is tax free federally and in the state the muni lies in
- Corporate bond income is taxed both federally and in states

Current Fixed Income Yields – 2/20/24



View by: **Highest Yield** | Median Yield

Pop out the yield table [↗](#)

Understanding This Table	3mo	6mo	9mo	1yr	2yr	3yr	5yr	10yr	20yr	30yr+
CDs (New Issues)	5.30%	5.20%	5.30%	5.35%	5.10%	5.05%	5.05%	4.25%	--	--
BONDS										
U.S. Treasury	5.37%	5.30%	5.13%	5.02%	4.60%	4.37%	4.25%	4.27%	4.58%	4.45%
U.S. Treasury Zeros	5.22%	5.17%	4.63%	4.81%	4.61%	4.37%	4.28%	4.39%	4.77%	4.33%
Agency/GSE	5.36%	5.32%	5.35%	5.27%	5.54%	5.55%	5.87%	6.23%	6.14%	5.36%
Corporate (Aaa/AAA)	--	4.83%	4.99%	4.88%	4.88%	4.40%	4.78%	5.69%	4.95%	4.95%
Corporate (Aa/AA)	5.27%	5.05%	5.28%	5.13%	4.85%	4.76%	4.86%	4.66%	5.26%	5.09%
Corporate (A/A)	5.58%	5.53%	5.44%	5.44%	5.24%	5.50%	5.27%	5.64%	5.79%	5.99%
Corporate (Baa/BBB)	5.74%	5.89%	5.93%	6.21%	6.82%	7.11%	7.24%	6.90%	7.24%	6.77%
Municipal (Aaa/AAA)	3.84%	3.85%	3.48%	3.56%	3.60%	3.86%	3.91%	3.91%	3.82%	--
Municipal (Aa/AA)	4.56%	3.82%	3.79%	3.90%	3.70%	3.85%	3.94%	4.24%	4.50%	4.99%
Municipal (A/A)	3.81%	3.76%	4.02%	3.71%	3.74%	3.85%	4.20%	4.13%	4.45%	4.53%
Taxable Municipal*	5.44%	5.55%	5.44%	5.28%	5.12%	5.00%	4.97%	5.35%	5.90%	5.46%

AS OF 11:53 AM ET 02/20/2024. YIELDS MAY BE DELAYED UP TO 15 MINUTES.

Bond - Investment Return

- Interest (Quarterly, Semi-Ann, Annual etc.)
- Capital Gain or Loss (at sale or maturity)

- The sum of both cash flows, over time =
total annualized Yield

Understanding Yields

- Coupon Rate – set at initial offering
- Your Yield depends on what price you buy the bond at, if you buy it in the secondary market after issue and how long you hold it.
 - Price of the bond
 - Your cost includes accrued interest

- Yield to Maturity
- Yield to Worst
- Yield to Call
 - Depends on the terms of the call

<https://www.investopedia.com/articles/investing/022516/understanding-different-types-bond-yields.asp>

Bond Yields

High Yield Corp bond examples

Very different COUPON
(annual interest paid)

Similar Yield to
Worst and Maturity

Top 5 Corporate Bonds (by Yield)

CUSIP	Order Qty / Available	Issue	Coupon Pay Frequency	Maturity / Ratings	YTM YTW	Price	Action
720198AG5 Industrial	10 / 500	PIEDMONT OPER PARTNERSHIP LP Cont Callable, Make Whole Real Estate	9.25 Semi-Annually	07-20-2028 Baa3/BBB-	7.339 7.311	107.081	Buy
74348TAW2 Financial	25 / 654	PROSPECT CAP CORP Cont Callable, Make Whole, Special Redemption Features Business Development	3.437 Semi-Annually	10-15-2028 Baa3/BBB-	7.254 7.254	85.161	Buy

Very different prices

WHY? In the top bond, annual yield is mostly from interest with capital loss at maturity.

In the bottom bond, annual yield from interest is small, but a large portion of yield comes from capital gain at maturity.

How can you buy bonds?

Buy Individual Bonds

- US Treasury bonds can be bought through a Treasury Direct account ([treasurydirect.gov](https://www.treasurydirect.gov)) that you set up.
- All bonds (Treasury, Corporate, Municipal etc) can be bought through a broker investment account or an IRA or Roth IRA
- All bonds (Treasury, Corporate, Municipal etc) can be bought through a managed broker investment account for a fee. (usually less than 0.5%)

Buy Bond Funds (Mutual Funds or ETFs)

- Very important to understand the prospectus/strategy of the fund.
- Both broad-market index or managed ETFs exist. (FBND, VGLT, MINT)
- Fixed maturity year – Invesco “Bullet shares”
- Hard to assess the premium or discount to par value of the portfolio.
- You can not control how other investors in the fund act. They may sell before maturity for example.

Buying bonds

- Stocks are identified with a ticker symbol ... Bonds with a CUSIP
- Fidelity, TD Ameritrade and other brokers have tools to select bonds.
- Work with a bond expert on the fixed income desk at your broker.
- Understand that there are commissions and bid/ask spreads. Buying bonds at best prices needs some work to understand what options you have with the broker you use.
- Diversify
 - Not too much in any one bond.
 - Across bond types and industry groups within corporates.
 - Across maturity horizons ... short to long ... in ladders.
 - Buying high quality with the intent to hold to maturity minimizes variables / unknowns.

Fourth Class – Feb. 28th

- US Equities Market Review – 20 minutes
- Deep Dive into the markets
 - JP Morgan Monthly Market Review

Thanks !!

□ Happy Investing !!

□ **My EMail**

□ diyinvst@udel.edu

□ **Class website**

□ <http://udel.edu/~diyinvst>