

# 23 Outlook & Opportunity

## John O'Keefe, Frank Erzinger

AAll Houston  
Retirement Solutions SIG  
February 2023

## Quotes of the Week:

**Madmen in authority, who hear voices in the air, are distilling their frenzy from some academic scribbler (Bernanke, Jerome?) few years back.- JM Keynes**

**Everyone is a long term investor until they have short term Losses. – A. Scaramucci**

# ToD – Ticker(s)\* of the Week

- Invest w/ the Insiders

Dems;

**NANC** – etf clone of Ms Pelosi Portfolio

**DEMZ** – Democratic Large Cap Core

Repubs;

**KRUZ** - etf clone of Msr Cruz portfolio

**ACVF** - American Conservative Values

**MAGA** – Point Bridge American First

- **A. OUTLOOK**
- **B. OPPORTUNITY**
- **C. PROSPECTS**
- **D. NEXT STEPS**

# A. OUTLOOK - BASELINE RETURN

Best ←

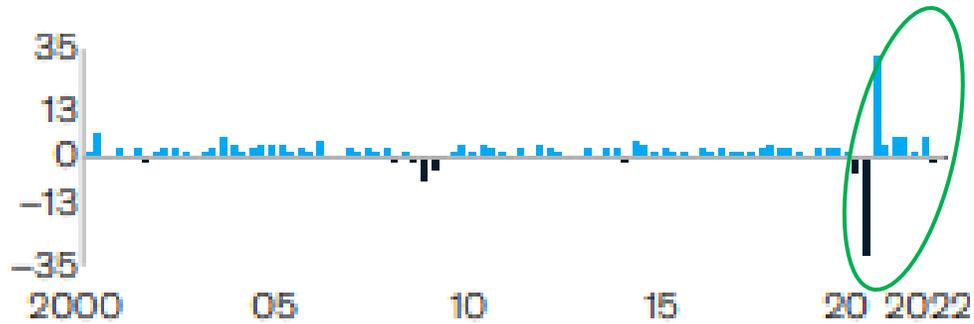
→ Worst

Year    Indicator -> VFISX    VSIGX    VTMGX    VSMAX    VEMAX    VFIAX    VIMAX

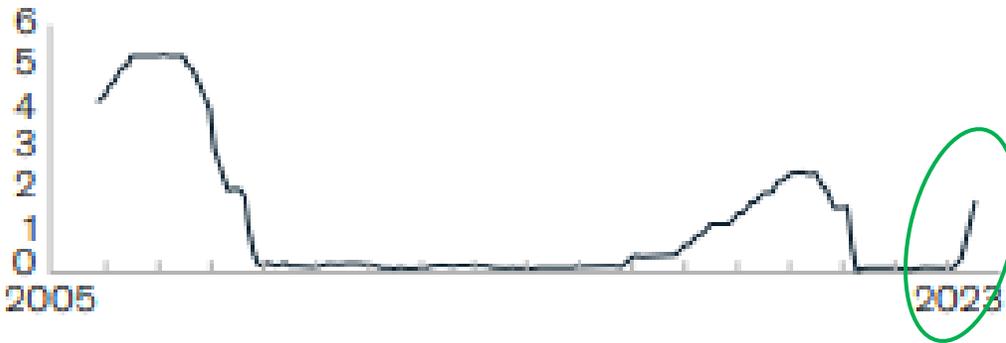
2022	Short-Term Bonds -4.7%	Intermediate Bonds -10.7%	International Stocks -15.3%	Small-Cap Stocks -17.6%	Emerging Markets Stocks -17.8%	Large-Cap Stocks -18.1%	Mid-Cap Stocks -18.7%	2022
2021	Large-Cap Stocks 28.7%	Mid-Cap Stocks 24.5%	Small-Cap Stocks 17.7%	International Stocks 11.4%	Emerging Markets Stocks 0.9%	Short-Term Bonds -0.9%	Intermediate Bonds -2.6%	2021
2020	Small-Cap Stocks 19.0%	Large-Cap Stocks 18.3%	Emerging Markets Stocks 15.1%	Mid-Cap Stocks 13.1%	Intermediate Bonds 8.2%	International Stocks 8.1%	Short-Term Bonds 4.0%	2020
2019	Large-Cap Stocks 31.3%	Small-Cap Stocks 27.2%	Mid-Cap Stocks 25.6%	International Stocks 21.9%	Emerging Markets Stocks 20.1%	Intermediate Bonds 6.3%	Short-Term Bonds 3.6%	2019
2018	Short-Term Bonds 1.4%	Intermediate Bonds 1.0%	Large-Cap Stocks -4.5%	Small-Cap Stocks -9.4%	Mid-Cap Stocks -11.5%	International Stocks -13.3%	Emerging Markets Stocks -14.71%	2018
2017	Emerging Markets Stocks 31.2%	International Stocks 25.3%	Large-Cap Stocks 21.7%	Small-Cap Stocks 16.1%	Mid-Cap Stocks 15.7%	Intermediate Bonds 1.6%	Short-Term Bonds 0.4%	2017
2016	Mid-Cap Stocks 20.2%	Small-Cap Stocks 18.2%	Large-Cap Stocks 11.8%	Emerging Markets Stocks 11.5%	Intermediate Bonds 1.2%	International Stocks 1.1%	Short-Term Bonds 1.1%	2016
2015	Intermediate Bonds 1.5%	Large-Cap Stocks 1.3%	Short-Term Bonds 0.5%	International Stocks -0.9%	Mid-Cap Stocks -2.6%	Small-Cap Stocks -3.8%	Emerging Markets Stocks -15.5%	2015
2014	Large-Cap Stocks 13.5%	Mid-Cap Stocks 9.4%	Small-Cap Stocks 7.4%	Intermediate Bonds 4.3%	Short-Term Bonds 0.7%	Emerging Markets Stocks 0.4%	International Stocks -5.7%	2014
2013	Small-Cap Stocks 37.6%	Mid-Cap Stocks 32.9%	Large-Cap Stocks 32.2%	International Stocks 21.6%	Short-Term Bonds -0.1%	Intermediate Bonds -3.1%	Emerging Markets Stocks -5.2%	2013

# A. OUTLOOK – Macro Reset 2022

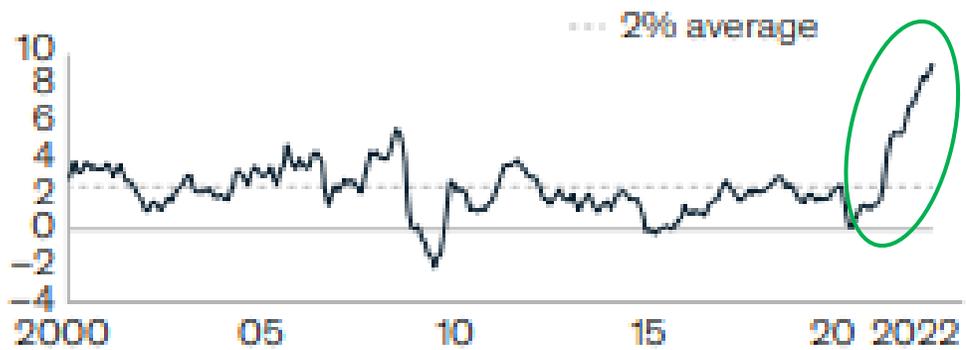
**Real GDP growth,**  
Quarterly % change from prior period



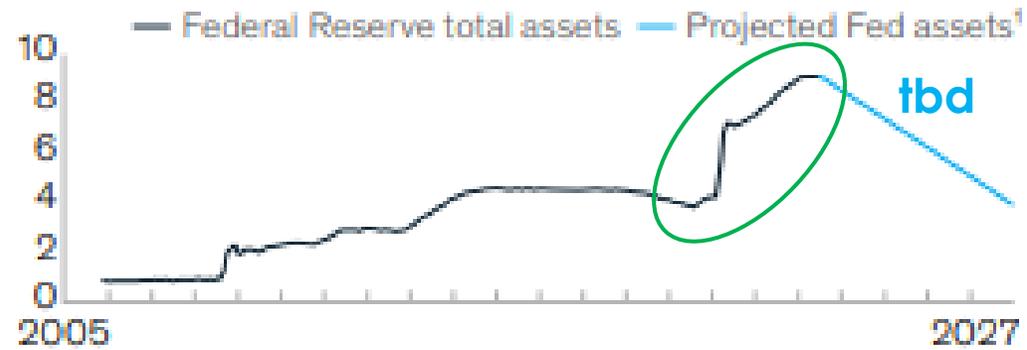
**Federal funds rate, %**



**Inflation, 12-month % change, consumer index**



**Federal Reserve total assets, \$ trillion**

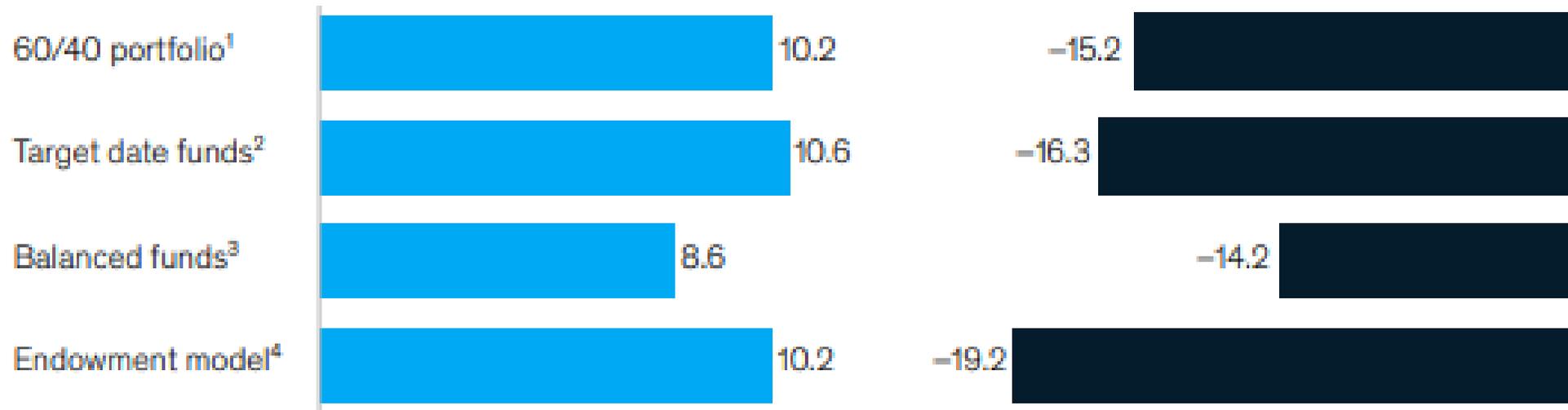


<sup>1</sup>Assets projected based on the Fed's announced monthly redemption caps to its portfolio of Treasuries and agency mortgage-backed securities.  
Source: St. Louis Federal Reserve

# A. OUTLOOK – Investment Models

Annualized returns, North America, 2017–21, %

Year-to-date returns, June 2022, %



<sup>1</sup>Simple average of mutual funds under the Morningstar Asset Allocation 50–70% Equity.

<sup>2</sup>Simple average of mutual funds under the Morningstar Target Date 2030 category.

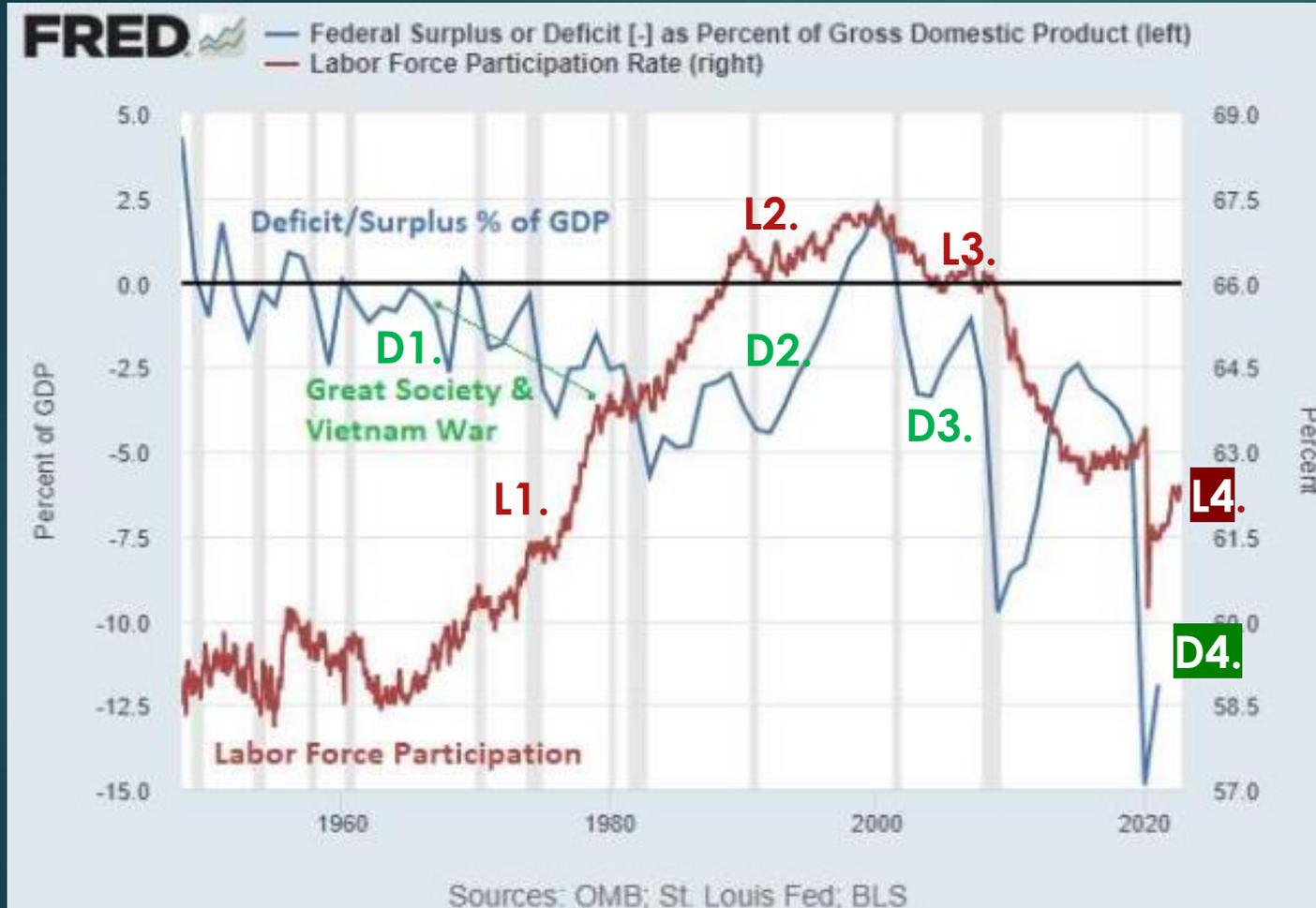
<sup>3</sup>Simple average of the Morningstar Moderate Allocation Global category. Excludes funds under the 60/40 category.

<sup>4</sup>Based on returns for the Endowment Index in US dollars. Created by ETF Model Solutions to replicate the investment strategy of large university endowments.

Source: © 2022 Morningstar. All rights reserved. The information contained herein: (1) may not be copied or distributed; and (2) is not warranted to be accurate, complete, or timely.

# A. OUTLOOK – Labor, GDP, Deficits\*

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## 2020+

**L4.** COVID Deficit Miasma, de Globalization  
**D4.** Labor ? Fixed Supply, No Raises

## 2000 to 2008;

D3. Deficit Wars in Iraq and Afghanistan  
Bank Crisis / Bailout (\$6t)  
L3. Labor Force Decline  
P3 to P4. Productive Growth - Unparalleled

## 1990 to 2000;

D2. Deficits Decline  
L2. Labor Force Expands to 2000 Peak  
P2. Productivity Growth – Digitization Start

## Pre 1990;

D1. Deficits – Viet Nam & Social Programs  
L1. Labor Force Expansion  
- Baby Boomers in the Labor Pool  
- Female Participation

\*Should also include productivity gains as a f(digitization & globalization)

# A. OUTLOOK – Treasury Stability tbd

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**Fed Debt – Buyers?**

**Social Security Trust**

- A Net Seller, In Drawdown

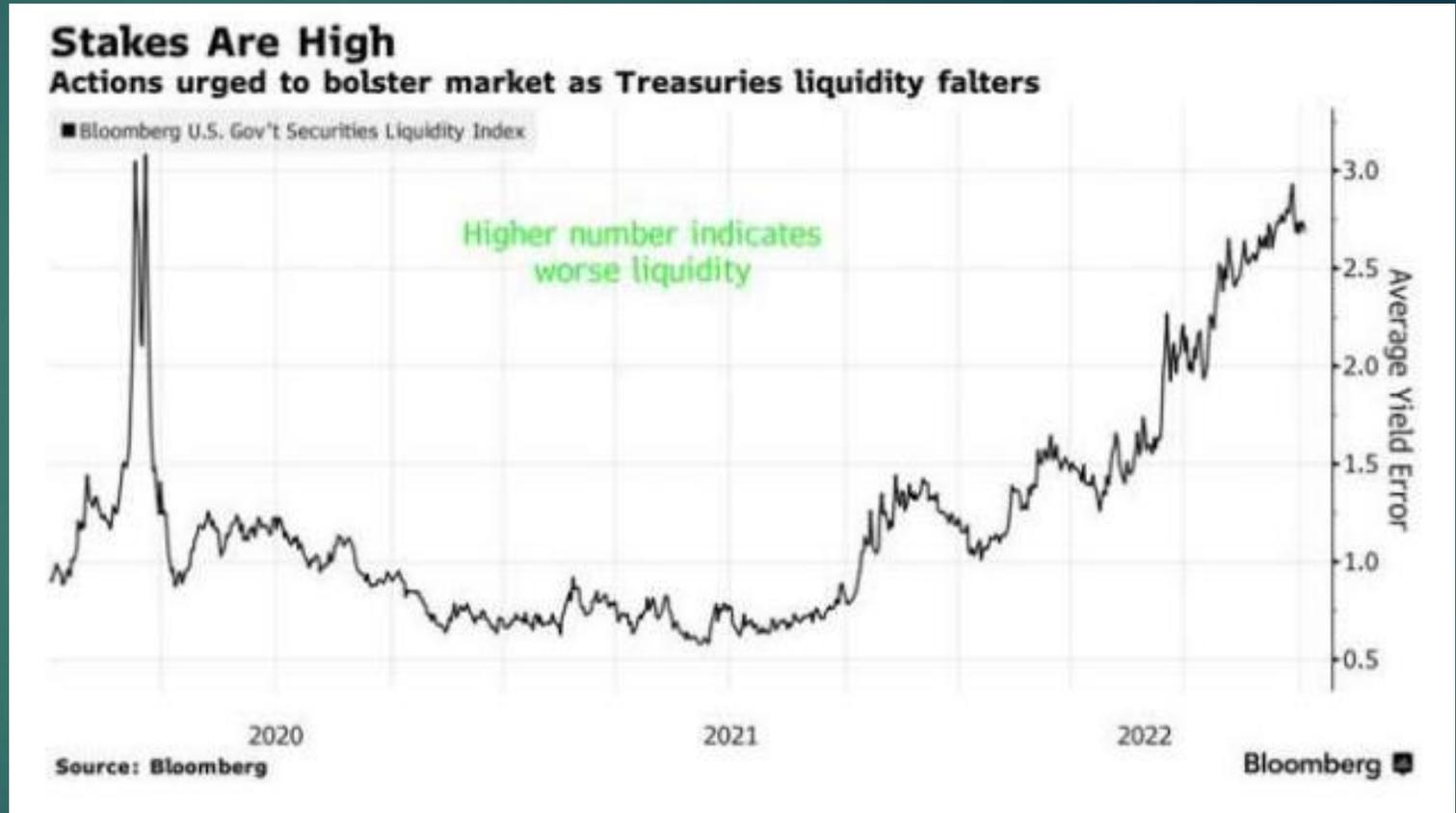
**China**

- Drawing Down Since 2013

**Japan**

- No Longer a Buyer

**US Tax Receipts - Down**



Yield Error – An indication that any large sale or purchase significantly changes price levels.

# A. OUTLOOK SCENARIOS

## - - - Effectiveness of National Policy - - -

Fiscal Support ->	Low	Modest	Targeted
Monetary Policy->	Tight	Tight -	Effective
Inflation vs Target ->	c. <u>Inflate &gt;&gt; Tgt</u>	b. <u>Inflate &gt; Tgt</u>	a. <u>Inflate ~ = Tgt</u>

### TIME for International Trade (re)Balance

1. Soon 2-5 years

c1. Limited Recession  
eGr ~ Pre Covid

b1. Soft Landing  
eGr = Trend

a1. Soft Landing  
eGr >> Trend

2. Slow 5+ Years

c2. Deep Recession  
eGr < Trend

b2. Mild Recession  
eGr ~ PreCovid

a2. Soft Landing  
eGr = Trend

3. Very Slow 10+ Years (~1970s)

eGr = economic Growth, T = Trend Rate of Econ Growth  
Inflation = Inflation Rate, Tgt – Target Int Rate via Fed Funds

# A. OUTLOOK SCENARIOS & GDP

A 2 x 2 or 3 x 3 world: scenarios for 2023 and beyond

### Short-term level of fiscal support and stance of monetary policy

How well government spending and market-based incentives are targeted and how central banks are shaping financial conditions.  
Strongly influenced by national political dynamics

Long-term structural balance and international cooperation

How well supply can satisfy global demand at affordable prices in the medium and long term

Strongly influenced by local regulation, geopolitics, and the rules of international exchange

<p><b>c1</b> 'Limited recession'</p> <ul style="list-style-type: none"> <li>• Pre-COVID-19 trend</li> <li>• Inflation &gt; target</li> </ul>	<p><b>b1</b> 'Soft landing'</p> <ul style="list-style-type: none"> <li>• Trend growth ⊕</li> <li>• Inflation &gt; target</li> </ul>	<p><b>a1</b> 'Soft landing'</p> <ul style="list-style-type: none"> <li>• Trend growth ⊕⊕</li> <li>• Target inflation</li> </ul>	<p>Structural balance achieved in 2–5 years, new era of global collaboration</p>				
				<p><b>c2</b> 'Deep recession'</p> <ul style="list-style-type: none"> <li>• Trend growth ⊖</li> <li>• Entrenched inflation</li> </ul>	<p><b>b2</b> 'Mild recession'</p> <ul style="list-style-type: none"> <li>• Pre-COVID-19 trend</li> <li>• Inflation &gt; target</li> </ul>	<p><b>a2</b> 'Soft landing'</p> <ul style="list-style-type: none"> <li>• Trend growth ⊕</li> <li>• Target inflation</li> </ul>	<p>Structural balance takes 5+ years, global collaboration challenged by divergent interests</p>

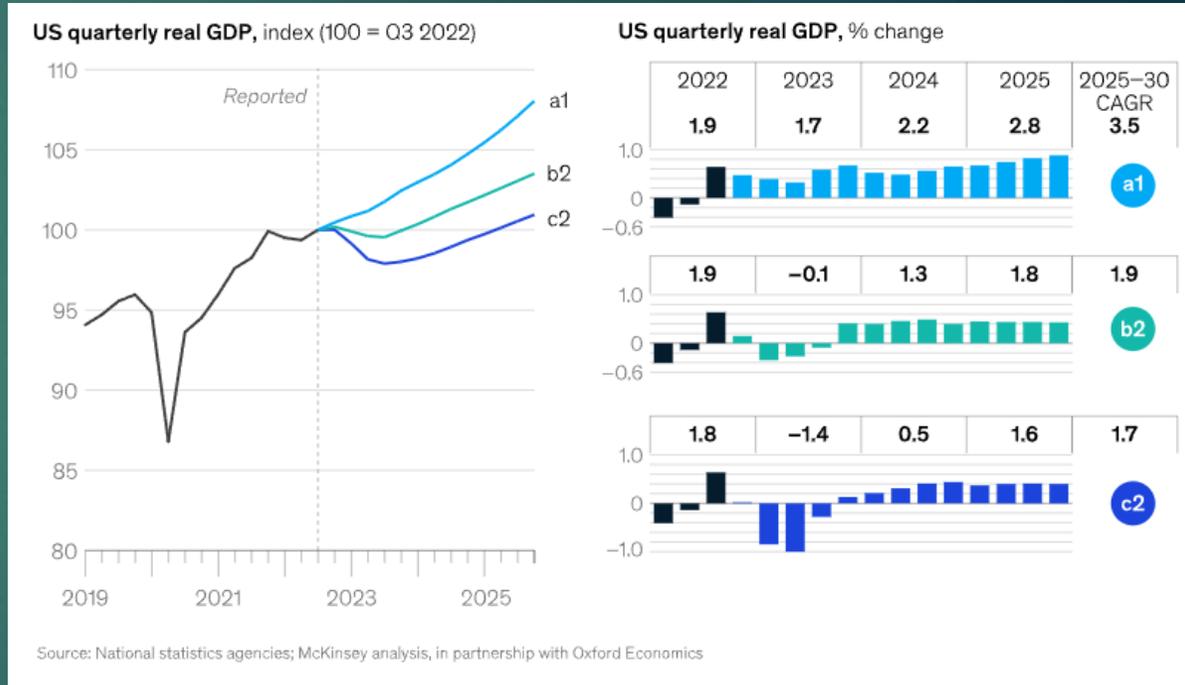
Low fiscal support and tight monetary policy pinch demand but less so for inflation

Modest fiscal support and tight monetary policy pinch inflation but less so for demand

Targeted fiscal support and monetary policy tame inflation and bolster demand

Trend growth pre-COVID-19 comparison ⊖ Below pre-COVID-19 trend ⊖⊖ Further below pre-COVID-19 trend ⊕ Above pre-COVID-19 trend ⊕⊕ Further above pre-COVID-19 trend

## GDP 2023+ Growth is Modest Risk is to Downside



Source: Oxford Economics, Mckinsey Analysis

# B. OPPORTUNITY – by US CAP

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2023 Opportunity – Wells Fargo

History – AAIL / Morningstar, December 2022

5	Eq - US Large Cap
4	Eq - US mid Cap
2	Eq - US Small Cap
1	Eq - Devel Mkt ex US
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4	FixInc - US Invest Grade Taxable
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2	FixInc Devel Mkt ex US
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4	Rassets - Commodities
3	Rassets - Priv Real Estate
4	Alts - Hdg Fund Rel Value
4	Alts - Hdg Funds Macro
3	Alts -Hdg Funds Events
3	Alts - Hdg Funds Equity Hedge
3	Alts - Hdg Funds Private Equity
3	Alts - Hdg Funds Private Debt

Index Fund	type	Total Return by Year					Annual Return			Risk				
		2022	2021	2020	2019	2019	3yr %pa	5yr %pa	10 yr % pa	Index	Yield %	Exp Ratio %	Turn Over %	\$ Assets mil
Large Blend	etf	-16.4	27.2	15.9	29.8	-5.2	6.9	8.4	11.9	1.19	1.7	0.41	56	6,858
	mf	-17.2	26.3	16.7	29.5	-6.1	6.8	8.1	11.3	1.19	0.9	0.86	52	16,552
Large Growth		-29.6	21.4	36	33.2	-3.2	5.6	8.6	13	1.37	0.8	0.54	122	3,575
Large Value		-5.4	26.8	3	25.7	-7.1	7.1	7.4	11.2	1.22	2.4	0.38	71	4,387
Mid-Cap Blend		-12.7	23.3	11.8	25.2	-9	6.6	6.6	10.3	1.32	1.5	0.41	65	2,868
Mid-Cap Growth		-29.4	11.7	42.2	30.3	-7.2	4.2	5.7	10.7	1.48	0.7	0.45	79	1,486
Mid-Cap Value		-7.2	32.1	1.1	25.5	-11.1	7.4	6.8	10.8	1.49	2.4	0.41	80	2,095
Small Blend		-15.4	24.9	11.4	23.2	-9.7	5.5	5.3	9.8	1.43	1.7	0.36	45	3,236
Small Growth		-25.4	14.1	30.4	26.2	-5.9	3.7	5.3	10	1.52	0.7	0.58	75	1,505
Small Value		-12	33	4.3	22	-12.8	6.9	5.1	9.8	1.65	1.9	0.37	53	2,284

# B. OPPORTUNITY – SECTOR 2023

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Sector	Aggregate			Median stock		
	Current dividend yield	Bloomberg consensus 2023 dividend growth	Dividend yield using 2023E dividend growth	Current dividend yield	Bloomberg consensus 2023 dividend growth	Dividend yield using 2023E dividend growth
Real Estate	3.7 %	21 %	4.5 %	3.9 %	6 %	4.1 %
Energy	3.6	(1)	3.5	3.3	4	3.4
Utilities	3.4	(5)	3.2	3.4	6	3.6
Consumer Staples	2.9	(7)	2.7	2.7	3	2.8
Financials	2.6	(1)	2.5	2.6	6	2.8
Industrials	1.9	17	2.2	1.6	7	1.7
Materials	2.5	(20)	2.0	1.8	4	1.9
Health Care	1.7	(3)	1.6	0.6	5	0.6
Communication Services	1.3	18	1.6	0.0	(0)	0.0
Information Technology	1.2	7	1.2	0.7	8	0.8
Consumer Discretionary	0.9	12	1.0	1.4	8	1.5
<b>S&amp;P 500</b>	<b>1.9 %</b>	<b>3 %</b>	<b>1.9 %</b>	<b>1.8 %</b>	<b>6 %</b>	<b>1.9 %</b>

Source: Bloomberg, FactSet, Goldman Sachs Global Investment Research

# B. OPPORTUNITY – by US SECTOR

2023 Opportunity – Wells Fargo

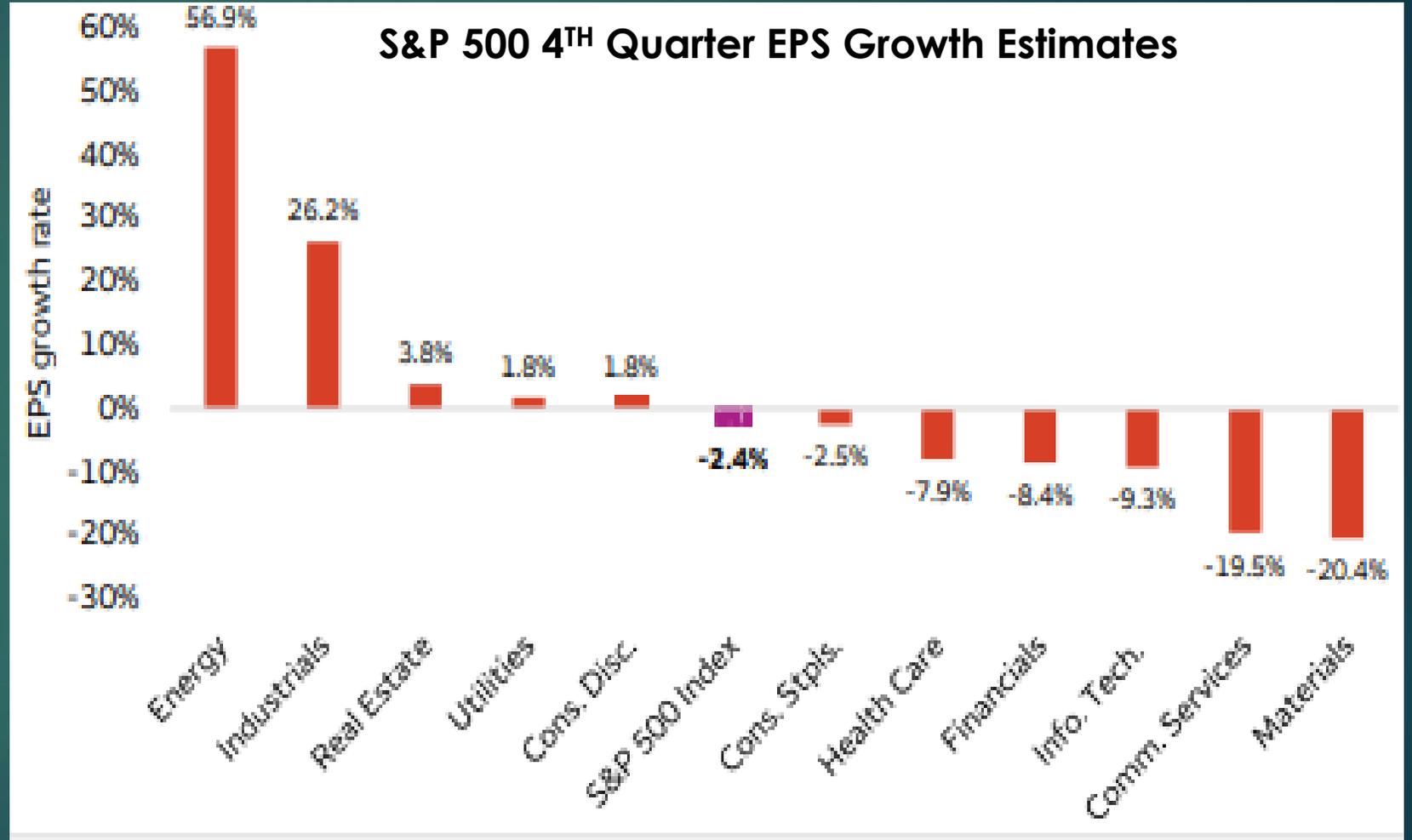
History – AAIL / Morningstar, December 2022

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Index Fund	Total Return by Year					Annual Return			Risk					\$ Assets mil	
	2022	2021	2020	2019	2018	3yr %pa	5yr %pa	10 yr % pa	Index	Yield %	Exp Ratio %	Turn Over %			
Sector Energy	43.5	46.4	-24.8	4.7	-26.6	15.6	2.4	-1.3	3.0	2.4	0.46	28	2,619	Energy	
Sector MLP	23.8	37.1	-26.7	13.1	-14.8	7.8	3.7	0.6	2.49	5.2	0.75	36	837	MLP	
Sector Utilities	-1.9	15	2.9	22.9	3	4.8	7.5	9.9	1.1	2.3	0.42	20	2,192	Utilities	
Sector Consumer Defensive	-5.1	17.6	-11.4	23	-8.9	9.2	7.7	10.9	0.98	1.8	0.46	27	2,249	Consumer	
Sector Natural Resouces	-7.4	29	21.6	19.3	-16.1	13.1	7.3	5.8	1.62	2.2	0.5	33	955	Natural Resouces	
Sector Financial	-11.2	32.8	-2.4	28.1	-13.2	4.5	4.8	10.3	1.59	3.4	1.2	28	1,967	Financial	
Sector Infrastructure	-11.4	18.7	4.8	26.9	-12.1	3.6	4	5.8	1.28	2.5	0.49	22	836	Infrastructure	
Sector Industrials	-14.7	20.9	15.9	30.2	-13.8	5.7	5.8	11.2	1.54	1.7	0.48	41	1,077	Industrials	
Sector Precious Metals	-15.3	-4	35.4	37.4	-20	2.2	2.7	-4.1	2.33	1.7	0.52	40	1,460	Precious Metals	
Sector Healthcare	-18.3	3	32	26.1	-2.5	2.9	6.1	12.5	1.26	0.5	0.53	48	1,948	Healthcare	
Sector Real Estate	-24.5	37.1	-8.5	26.7	-4.8	-2.3	1.6	5	1.48	5	0.42	26	1,714	Real Estate	
Sector Global Real Estate	-25	14.5	-8.7	21.1	-8.4	-7.9	-2.8	1.2	1.27	2.6	0.4	21	465	Global Real Estate	
Sector Consumer Cyclical	-30.9	15.9	40.4	25.6	-8.5	2.6	4.7	9.1	1.75	0.8	0.53	45	674	Consumer Cyclical	
Sector Communications	-34.7	11.1	23.1	23	-10	-0.9	0.5	4.1	1.29	1.1	0.33	32	1,215	Communications	
Sector Technology	-37.6	13.6	58.4	36.7	-2.7	3.9	8	15.3	1.58	0.5	0.56	46	1,226	Technology	

# B. OPPORTUNITY – SECTOR GROWTH

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Source: Bloomberg, Wells Fargo Investment Institute

- 5. Strong Buy
- 4. Buy
- 3. Neutral
- 2. Sell
- 1. Sell Now

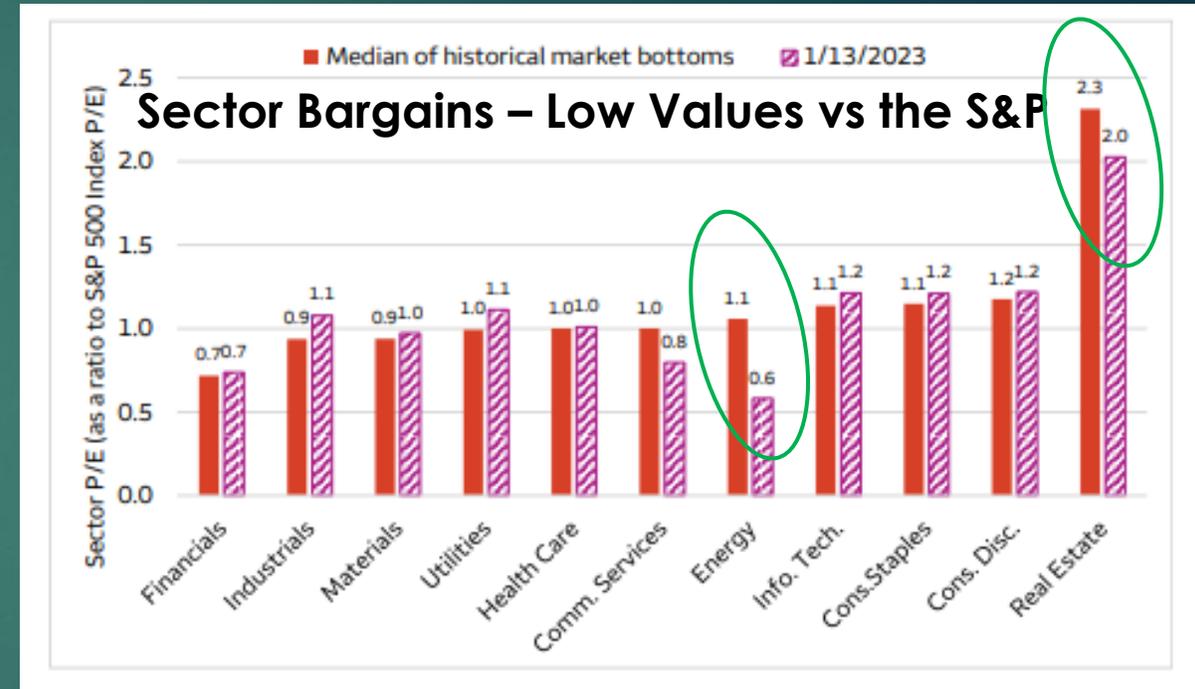
# B. OPPORTUNITY – SECTOR VALUES

## 2022 Top 30 Highlights – Energy & Commodities

Total Return % Risk Yield Exp Turn Assets

Category	Ticker	Fund	2022	2021	2020	(X)	(%)	(%)	(%)	(\$ Mil)
Equity Energy	FSENX	Fidelity Select Energy	63.0	55.3	(32.5)	2.57	2.5	0.77	56	3,150
Equity Energy	FNARX	Fidelity Natural Resources Fund	41.0	39.4	(20.8)	2.26	2.4	0.82	98	784
Energy Ltd Partner	GLPIX	Goldman Sachs MLP Energy Infrac Inv	26.0	40.0	(31.0)	2.39	6.0	1.21	166	1,433
Energy Ltd Partner	GLEIX	GS Energy Infrastructure Fd Inv Shares	21.1	38.4	(17.5)	2.02	3.5	1.22	58	364
Natural Resources	FFGCX	Fidelity Global Commodity Stock	20.7	26.1	6.0	1.60	1.8	0.94	42	1,947
Systematic Trend	GFIRX	Goldman Sachs Managed Futs Strat Inv	20.4	4.8	6.9	0.57	10.8	1.36	529	468
Long-Short Eq	HSGFX	Hussman Strategic Growth	17.3	(0.2)	14.5	0.74	1.1	1.21	113	537
Commdy Brd Bskt	GCCTX	Goldman Sachs Commodity Strategy Inv	15.8	33.3	(23.0)	1.58	10.6	0.68	83	955
Commdy Brd Bskt	VCMDX	Vanguard Commodity Strategy Admiral	14.0	35.2	5.1	1.05	14.2	0.20	15	2,071
Commdy Brd Bskt	TGABX	TCW Enhanced Commodity Strategy N	13.0	30.4	0.3	1.09	1.8	0.75	53	38
Long-Short Eq	FVALX	Forester Value N	12.3	0.0	0.4	0.44	1.4	1.27	8	15
Financial	FSPCX	Fidelity Select Insurance Port	7.8	29.3	(0.2)	1.32	0.7	0.78	15	427
Glbl Lg Stock Val	VGPMX	Vanguard Global Capital Cycles Inv	7.4	19.5	17.2	1.23	3.3	0.36	57	1,408
Natural Resources	PRNEX	T. Rowe Price New Era	7.2	25.3	(2.7)	1.50	4.3	0.70	34	3,103
Industrials	FSDAX	Fidelity Select Defense & Aero Port	6.9	4.9	(8.0)	1.62	0.4	0.74	52	1,506
Large Value	GQHPX	GQG Partners US Quality Div Inc Inv	6.7	—	—	—	3.2	0.74	—	160
Utilities	GASFX	Hennessy Gas Utility Investor	6.2	19.5	(9.3)	1.08	1.9	1.00	15	532
Utilities	FSUTX	Fidelity Select Utilities	5.2	17.7	0.6	1.11	1.6	0.74	37	1,512
Utilities	FIUIX	Fidelity Telecom and Utilities	5.0	7.2	2.1	0.98	1.9	0.60	34	965
Large Value	MPISX	BNY Mellon Income Stock M	4.4	30.7	(1.9)	1.34	2.0	0.83	83	391
Mid-Cap Blend	AVEMX	Ave Maria Value	4.2	25.2	6.2	1.41	1.1	0.97	68	371
Large Value	LEXCX	Voya Corporate Leaders Trust B	4.0	26.8	4.3	1.37	1.6	0.52	3	805
Health	LOGSX	Live Oak Health Sciences	3.7	17.5	6.0	0.92	0.3	1.00	17	58
Nontradit Bond	RPIEX	T. Rowe Price Dynamic Global Bond Inv	3.6	0.1	9.4	0.27	2.6	0.70	113	4,474
Multistrategy	VASFX	Vanguard Alternative Strategies Inv	2.2	0.6	(18.8)	0.47	3.2	1.28	166	100
Large Value	ACEHX	Invesco Exchange	1.9	16.6	(1.5)	1.20	2.1	0.54	—	56
Large Value	ALVIX	American Century Focus Lg Cap Val Inv	1.7	18.0	2.5	1.07	1.7	0.83	42	3,206
Large Value	FBCVX	Fidelity Blue Chip Value	1.5	25.0	(4.7)	1.20	1.1	0.63	41	805
Latin Amer Stock	FLATX	Fidelity Latin America	1.4	(15.6)	(20.6)	2.03	9.2	1.06	48	257
Ultrashort Bond	MUAIX	Morgan Stanley Instl Ultr-Shrt Inc A	1.3	0.0	0.3	0.03	1.4	0.40	—	11,309

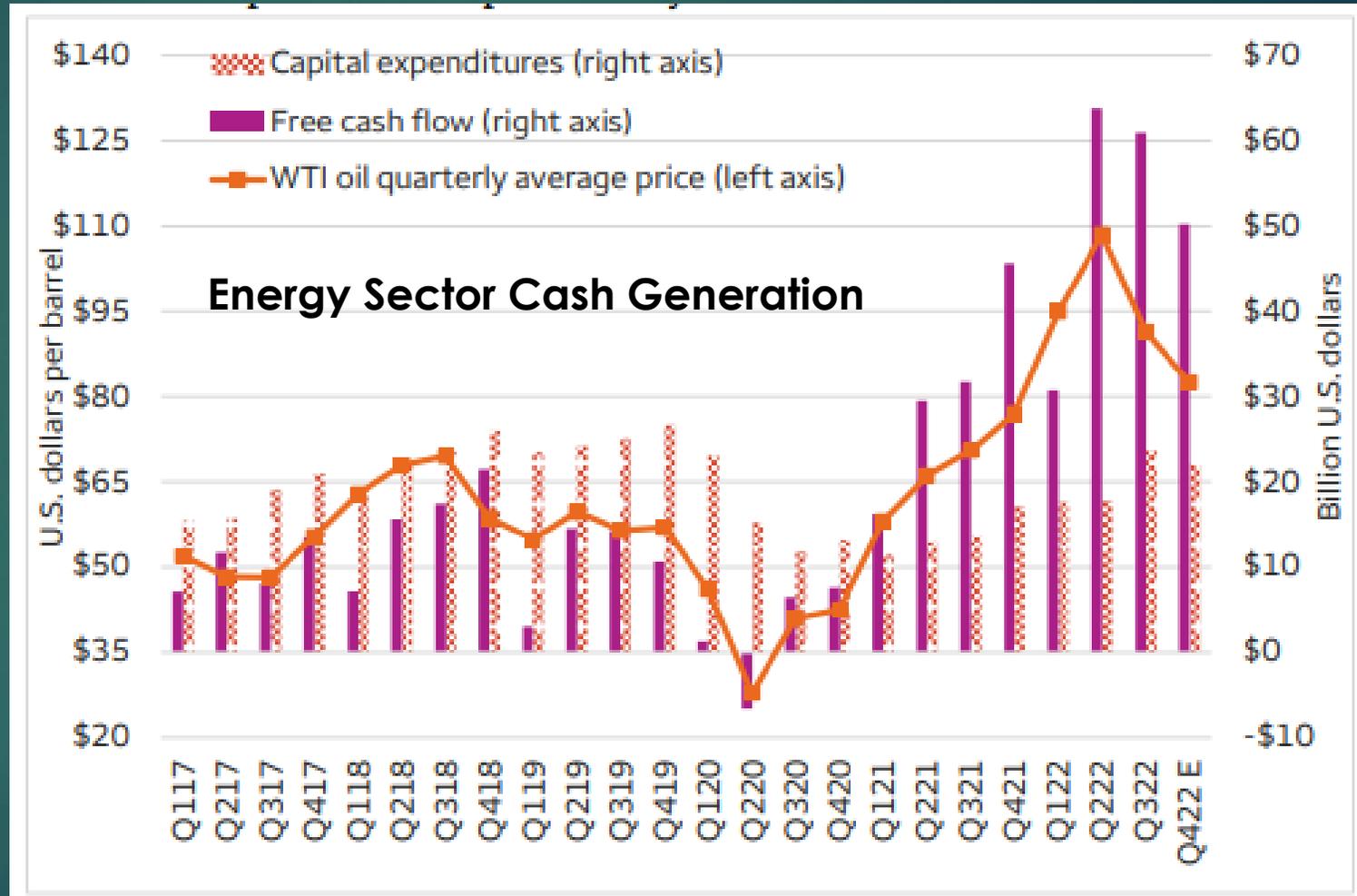
## 2023 Continued Sector Bargains



Source: Bloomberg, Wells Fargo Investment Institute, AAI

# B. OPPORTUNITY – ENERGY CASH

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4	Alts - Hdg Funds Macro
3	Alts -Hdg Funds Events
3	Alts - Hdg Funds Equity Hedge
3	Alts - Hdg Funds Private Equity
3	Alts - Hdg Funds Private Debt



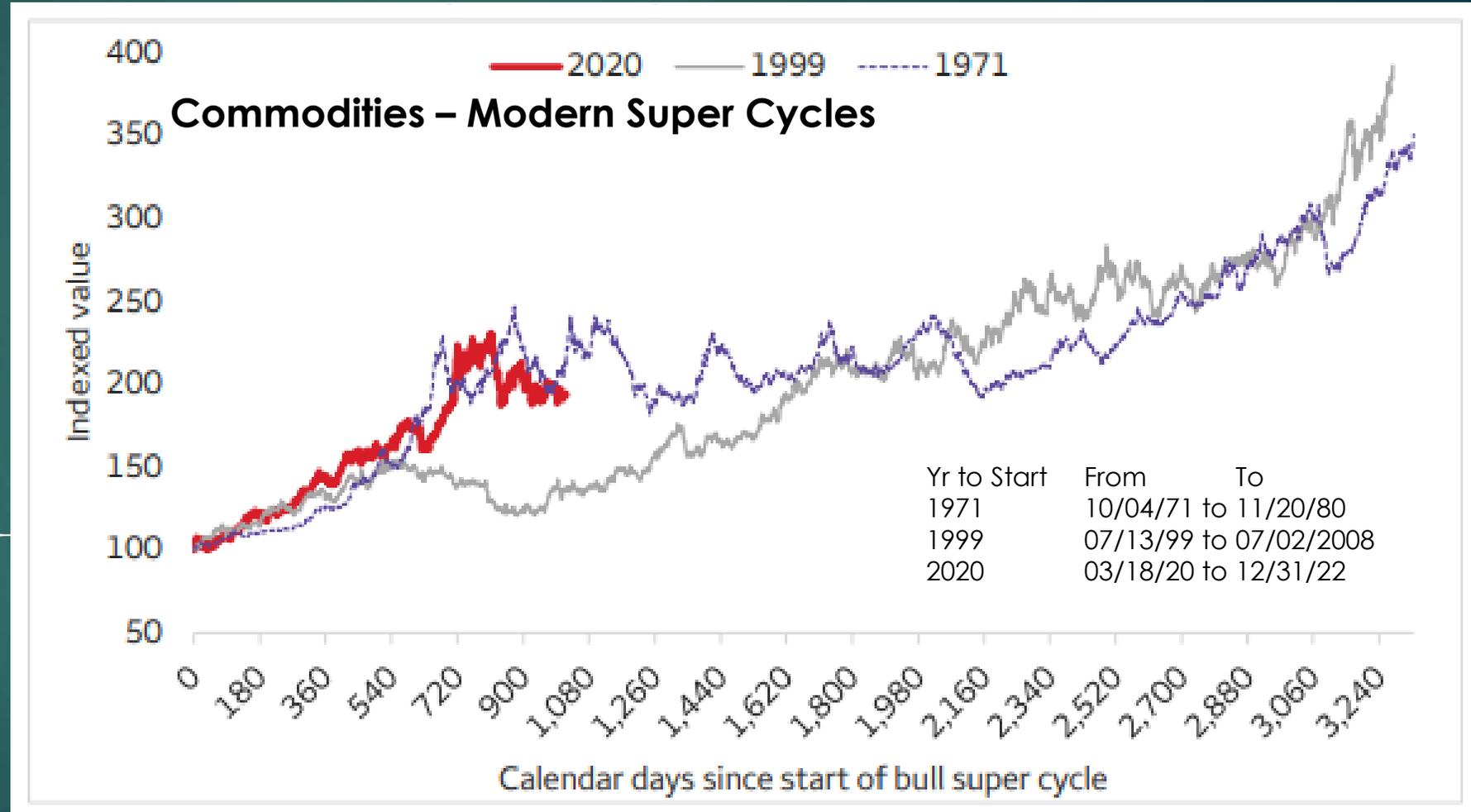
Source: EIA, FactSet, Wells Fargo Investment Institute

- 5. Strong Buy
- 4. Buy
- 3. Neutral
- 2. Sell
- 1. Sell Now

# B. OPPORTUNITY – COMMODITIES

2023 Opportunity – Wells Fargo

5	Eq - US Large Cap
4	Eq - US mid Cap
2	Eq - US Small Cap
1	Eq - Devel Mkt ex US
2	Eq - Emerg Mk ex US
4	FixInc - US Invest Grade Taxable
4	FixInc - US Short Term Taxable
2	FixInc - Intermed Taxable
5	FixInc US Long Term Taxable
2	FixInc - Hyield Taxable
2	FixInc Devel Mkt ex US
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4	Alts - Hdg Funds Macro
3	Alts -Hdg Funds Events
3	Alts - Hdg Funds Equity Hedge
3	Alts - Hdg Funds Private Equity
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Source: Bloomberg, Wells Fargo Investment Institute

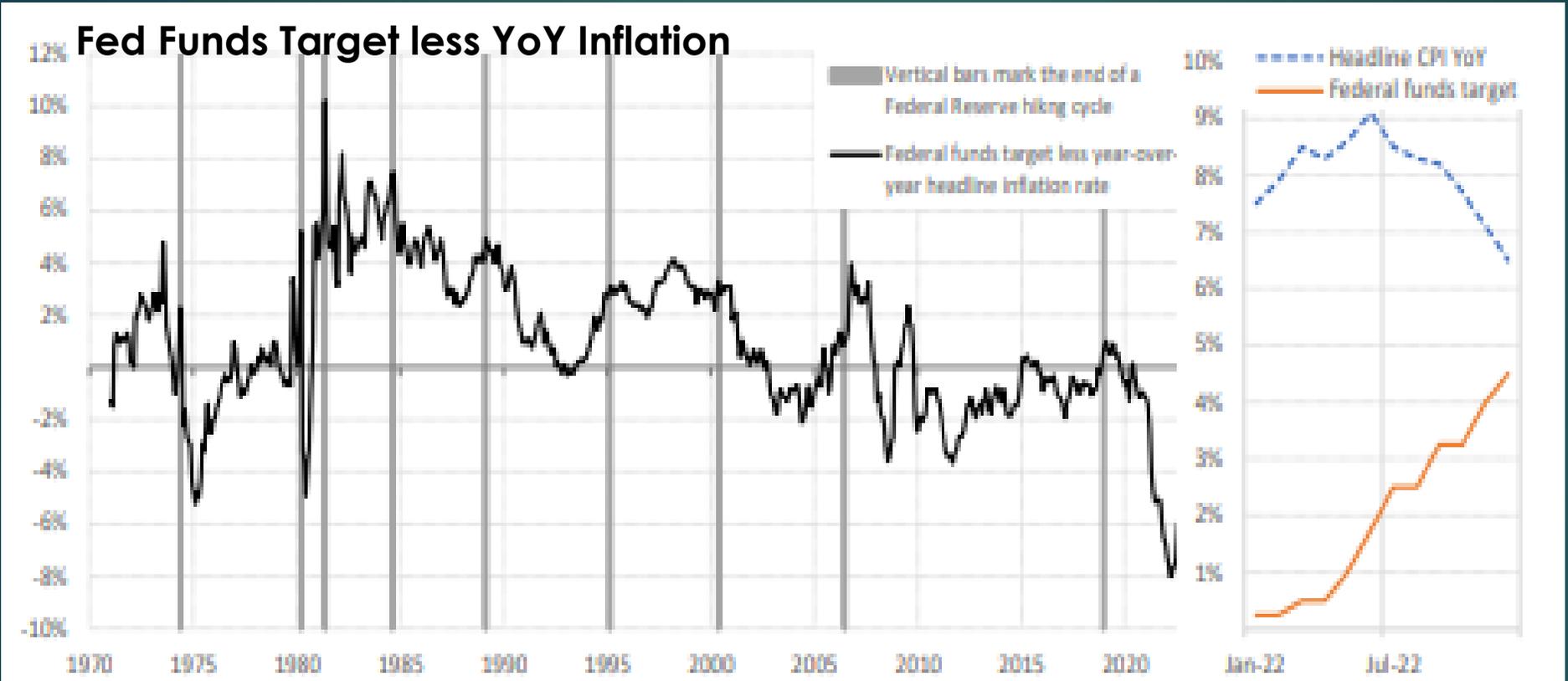
- 5. Strong Buy
- 4. Buy
- 3. Neutral
- 2. Sell
- 1. Sell Now

# C. OPPORTUNITY – COMMODITIES

Commodities	\$AuM	no etfs	RETURNS		RISK INDICIES			EXP Ratio	
			1 year	3 Year	Category	Total	Beta		
Gold	\$ 5,745	17	5%	6%	0.59	0.94	<b>0.17</b>	0.3%	Gold
Coffee	\$ 17	1	-22%	20%	1.35	2.14	<b>0.25</b>	0.8%	Coffee
Metals Precious	\$ 293	4	4%	5%	0.63	0.99	<b>0.29</b>	0.6%	Metals Precious
Beef	\$ 12	2	1%	-2%	0.59	0.93	<b>0.35</b>	0.6%	Beef
Soybeans	\$ 46	1	13%	25%	0.49	0.78	<b>0.47</b>	1.2%	Soybeans
Wheat	\$ 202	1	5%	10%	0.88	1.40	<b>0.50</b>	1.0%	Wheat
Palladium	\$ 288	1	-34%	-12%	1.25	1.98	<b>0.51</b>	0.6%	Palladium
Grains	\$ 111	11	11%	20%	0.59	0.94	<b>0.56</b>	0.7%	Grains
Carbon	\$ 135	7	-1%	57%	1.49	2.36	<b>0.57</b>	0.7%	Carbon
Agriculture	\$ 1	1	9%	15%	0.53	0.85	<b>0.59</b>	0.8%	Agriculture
Lead	\$ 1	1	-2%	5%	0.87	1.38	<b>0.67</b>	0.8%	Lead
Platinum	\$ 276	4	0%	1%	0.89	1.41	<b>0.69</b>	0.6%	Platinum
Copper	\$ 84	3	-2%	19%	0.86	1.37	<b>0.71</b>	0.7%	Copper
Corn	\$ 137	1	18%	23%	0.76	1.20	<b>0.71</b>	1.8%	Corn
Biofuels	\$ 3	1	16%	28%	0.61	0.96	<b>0.72</b>	0.8%	Biofuels
Cocoa	\$ 20	1	-3%	-5%	0.94	1.49	<b>0.76</b>	0.8%	Cocoa
Silver	\$ 2,804	4	1%	7%	1.17	1.84	<b>0.78</b>	0.5%	Silver
Sugar	\$ 23	3	24%	15%	0.89	1.41	<b>0.79</b>	0.8%	Sugar
Metals Indust	\$ 75	4	1%	19%	0.80	1.26	<b>0.86</b>	0.6%	Metals Indust
Aluminum	\$ 10	2	-14%	13%	0.87	1.37	<b>0.86</b>	0.6%	Aluminum
Tin	\$ 6	2	-29%	31%	1.32	2.08	<b>0.87</b>	0.6%	Tin
Nickel	\$ 29	2	37%	34%	1.22	1.92	1.09	0.6%	Nickel
Cotton	\$ 10	2	-16%	16%	1.28	2.02	1.32	0.6%	Cotton
Oil	\$ 263	2	9%	17%	1.51	2.39	1.77	0.9%	Oil
Crude Oil	\$ 326	6	15%	7%	1.60	2.53	1.86	0.8%	Crude Oil
Gasoline	\$ 77	1	32%	29%	1.89	2.99	1.89	0.9%	Gasoline
Nat Gas	\$ 260	3	-34%	-2%	2.33	3.68	1.97	0.8%	Nat Gas
Energy	\$ 38	3	5%	13%	1.52	2.40	2.11	0.7%	Energy

Source: AuM – Average in \$mm, AAll Source Data, Beta – Movement of Commodity Price with the Equity Market Prices

# B. OPPORTUNITY – FIXED INCOME



The "Gap" Closing but .. .. 240bps left

Sources: Bloomberg and Wells Fargo Investment Institute. For the left chart, monthly data from Jan 31, 1971 to Dec. 31, 2022. For the right chart, monthly data from Jan. 31, 2022 – Dec. 31, 2022. CPI = Consumer Price Index. YoY = year-over-year.

# B. OPPORTUNITY – FIXED INCOME

2023 Opportunity – Wells Fargo

History – AAI / Morningstar, December 2022

5	<b>Eq - US Large Cap</b>
4	<b>Eq - US mid Cap</b>
2	Eq - US Small Cap
1	Eq - Devel Mkt ex US
2	Eq - Emerg Mk ex US
4	<b>FixInc - US Invest Grade Taxable</b>
4	<b>FixInc - US Short Term Taxable</b>
2	FixInc - Intermed Taxable
5	<b>FixInc US Long Term Taxable</b>
2	FixInc - Hyield Taxable
2	FixInc Devel Mkt ex US
3	FixInc Emerg Mkt ex US
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3	Alts -Hdg Funds Events
3	Alts - Hdg Funds Equity Hedge
3	Alts - Hdg Funds Private Equity
3	Alts - Hdg Funds Private Debt

	Total Return by Year					Annual Return			Risk					
	2022	2021	2020	2019	2019	3yr %pa	5yr %pa	10 yr % pa	Index	Yield %	Exp Ratio %	Turn Over %	\$ Assets mil	
Bond Ultrashort	0.4	0.3	1.3	3.7	1.3	0.7	1.4	1.1	0.12	2	0.21	71	3,251	Bond Ultrashort
Bond Short Term (1-5 yr)	-5.7	-0.5	5.1	6.2	1.1	-0.4	1.1	1.2	0.22	2.2	0.28	67	3,418	Bond Short Term (1-5 yr)
Bond Intermediate Core	-13.2	-1.5	7.7	9.2	-0.5	-2.8	0	1.1	0.35	2.6	0.24	130	5,724	Bond Intermediate Core
Bond Long Term	-29.1	-4.5	16.7	14.2	-1.6	-7.2	-2.4	0.4	0.78	5.8	0.21	58	3,811	Bond Long Term
Bond High Yield	-10.2	4	5.4	13.4	-2.5	-0.4	1.6	2.7	0.59	5.4	0.43	126	790	Bond High Yield
Govt Short (1-3 yr)	-4.3	-0.8	3.3	3.8	1.4	-0.6	0.6	0.7	0.11	1.5	0.15	106	5,473	Govt Short (1-3 yr)
Govt Intermediate (3-7yr)	-11.1	-1.9	5.9	6.3	1	-2.6	-0.2	0.6	0.3	2.2	0.15	158	6,402	Govt Intermediate (3-7yr)
Govt Long (7 yr+)	-29.1	-4.5	16.7	14.2	-1.6	-7.2	-2.4	0.4	0.78	5.8	0.21	58	3,811	Govt Long (7 yr+)
Muni National Short	-1.7	0.2	2.1	2.8	1.4	0.2	0.9	0.7	0.1	1	0.28	28	2,056	Muni National Short
Muni National Intermed	-8.3	2.3	5.4	7.8	1.1	-0.5	1.3	1.8	0.37	2.2	0.32	43	2,951	Muni National Intermed
Muni National Long	-13.8	3	6.4	9.8	-0.3	-2.1	0.5	1.8	0.5	2.7	0.5	29	893	Muni National Long
Muni High Yield	-15.5	5.3	2.8	11.5	0.9	-3	0.8	2.1	0.61	3.7	0.61	32	906	Muni High Yield
TIPS	-4.1	4.9	9.1	7.5	-1.1	0.9	1.8	1	0.36	5.9	0.29	39	3,356	TIPS

- 5. Strong Buy
- 4. Buy
- 3. Neutral
- 2. Sell
- 1. Sell Now

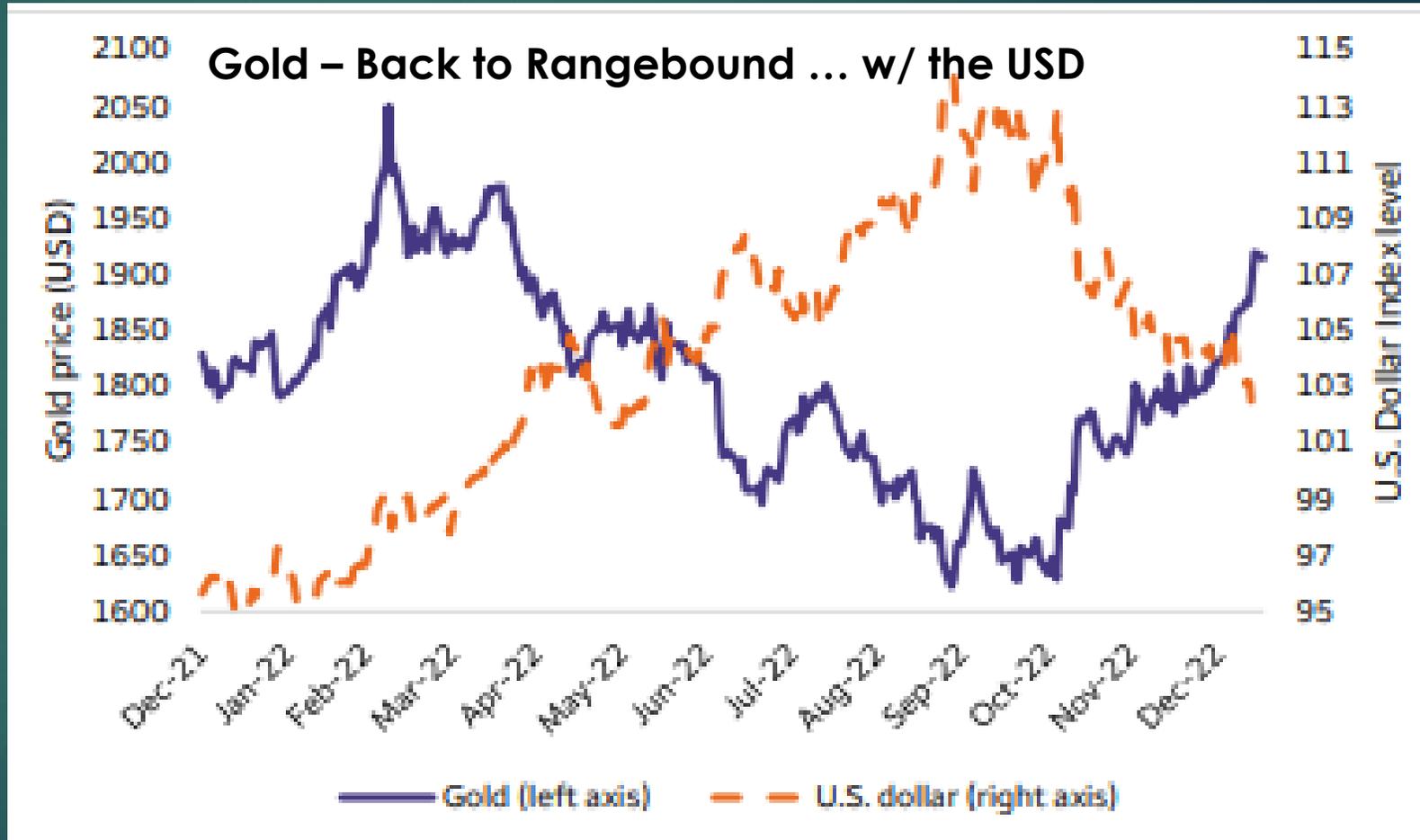
# C. PROSPECTS\*

- **COMMODITY HEDGE** – Metals+
- **CASH EQUIVALENT** – T Bill, iBond23
- **HIGH YIELD BONDS** - HYG
- **ALERIAN MLP & MIDS** - AMLP, ENFR

\* ETFs as Typical of the Asset Class and/or Constituent Companies

# C. PROSPECTS – METALS HEDGE

5	Eq - US Large Cap
4	Eq - US mid Cap
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1	Eq - Devel Mkt ex US
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4	FixInc - US Invest Grade Taxable
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Source: Bloomberg, Wells Fargo Investment Institute

- 5. Strong Buy
- 4. Buy
- 3. Neutral
- 2. Sell
- 1. Sell Now

# C. PROSPECTS – COMMODITIES

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Symbol	ETF Name	etf parameters				Total Assets	RETURNS				
		Asse	exp ratio	no cos	top 10 conc		YTD Price Δ	1 Month	1 Year	3 Year	5 Year
GLD	SPDR Gold Shares		0.40%	1	100%	\$ 55,624,200,000	2.2%	-3.0%	1.6%	17.3%	38.9%
IAU	iShares Gold Trust		0.25%	1	100%	\$ 27,214,700,000	2.2%	-3.0%	1.8%	17.8%	39.9%
SLV	iShares Silver Trust		0.50%	1	100%	\$ 10,867,200,000	-8.1%	-9.4%	-5.5%	22.4%	31.5%
GLDM	SPDR Gold MiniShares Trust		0.10%	1	100%	\$ 5,753,680,000	2.3%	-3.0%	1.9%	18.2%	N/A
SGOL	abrdn Physical Gold Shares ETF		0.17%	1	100%	\$ 2,485,390,000	2.2%	-3.0%	1.9%	18.2%	40.3%
SIVR	abrdn Physical Silver Shares ETF		0.30%	1	100%	\$ 1,022,370,000	-8.1%	-9.4%	-5.4%	23.1%	32.8%
PPLT	abrdn Physical Platinum Shares ETF		0.60%	1	100%	\$ 992,699,000	-11.7%	-11.5%	-8.5%	-3.9%	-4.5%
GLTR	abrdn Physical Precious Metals Basket Shares E		0.60%	1	100%	\$ 990,956,000	-3.1%	-6.3%	-5.5%	8.3%	34.8%
BAR	GraniteShares Gold Shares		0.17%	1	100%	\$ 936,033,000	2.3%	-2.9%	1.9%	18.1%	40.5%
OUNZ	VanEck Merk Gold Trust		0.25%	1	100%	\$ 652,193,000	2.2%	-3.0%	1.8%	17.8%	39.6%
AAAU	Goldman Sachs Physical Gold ETF		0.18%	1	100%	\$ 607,850,000	2.2%	-3.0%	1.8%	18.0%	N/A
PALL	abrdn Physical Palladium Shares ETF		0.60%	1	100%	\$ 293,029,000	-13.8%	-14.3%	-32.2%	-34.9%	52.9%
SLVO	Credit Suisse X-Links Silver Shares Covered Call		0.65%	#N/A	#N/A	\$ 149,269,000	-7.6%	-9.6%	-2.7%	-27.2%	-27.7%

	PRICING						RETURNS					FF - FUND FLOWS - pct of AuM					DIVIDENDS				
	P \$/sh close	low boll P-δ	supt 1	res 1	up boll P+δ	RSI	YTD Price Δ	1 Month	1 Year	3 Year	5 Year	YTD FF	4 Week FF	1 Year FF	3 Year FF	5 Year FF	\$/sh	Yield %	P/E Ratio	Beta	
GLD	\$173.36	\$172.58	<b>\$172.77</b>	<b>\$173.82</b>	\$182.53	49	2.2%	-3.0%	1.6%	17.3%	38.9%	GLD	0%	1%	-8%	1%	11%	\$ -	0.0%	0	<b>0.10</b>
IAU	\$35.35	\$35.19	<b>\$35.23</b>	<b>\$35.45</b>	\$37.22	49	2.2%	-3.0%	1.8%	17.8%	39.9%	IAU	0%	0%	-7%	19%	38%	\$ -	0.0%	0	<b>0.10</b>
SLV	\$20.24	\$20.12			\$22.72	41	-8.1%	-9.4%	-5.5%	22.4%	31.5%	SLV	4%	4%	-9%	21%	29%	\$ -	0.0%	0	<b>0.66</b>
GLDM	\$37.01	\$36.84	<b>\$36.89</b>	<b>\$37.11</b>	\$38.95	49	2.3%	-3.0%	1.9%	18.2%	N/A	GLDM	7%	4%	-17%	33%	51%	\$ -	0.0%	0	<b>0.09</b>
SGOL	\$17.86	\$17.77	<b>\$17.80</b>	<b>\$17.90</b>	\$18.80	49	2.2%	-3.0%	1.9%	18.2%	40.3%	SGOL	-2%	0%	-2%	35%	39%	\$ -	0.0%	0	<b>0.10</b>
SIVR	\$21.13	\$21.00			\$23.73	41	-8.1%	-9.4%	-5.4%	23.1%	32.8%	SIVR	-3%	-2%	10%	55%	59%	\$ -	0.0%	0	<b>0.66</b>
PPLT	\$87.62	\$87.68	<b>\$86.85</b>	<b>\$88.88</b>	\$99.93	36	-11.7%	-11.5%	-8.5%	-3.9%	-4.5%	PPLT	0%	0%	-6%	30%	44%	\$ -	0.0%	0	<b>0.82</b>
GLTR	\$86.50	\$86.55	<b>\$86.23</b>	<b>\$86.89</b>	\$93.67	42	-3.1%	-6.3%	-5.5%	8.3%	34.8%	GLTR	-1%	-1%	6%	48%	54%	\$ -	0.0%	0	<b>0.29</b>
BAR	\$18.47	\$18.38	<b>\$18.40</b>	<b>\$18.52</b>	\$19.44	50	2.3%	-2.9%	1.9%	18.1%	40.5%	BAR	2%	0%	0%	17%	73%	\$ -	0.0%	0	<b>0.11</b>
OUNZ	\$18.08	\$17.99	<b>\$18.02</b>	<b>\$18.12</b>	\$19.03	49	2.2%	-3.0%	1.8%	17.8%	39.6%	OUNZ	5%	3%	8%	64%	68%	\$ -	0.0%	0	<b>0.10</b>
AAAU	\$18.49	\$18.40	<b>\$18.43</b>	<b>\$18.54</b>	\$19.47	49	2.2%	-3.0%	1.8%	18.0%	N/A	AAAU	25%	25%	-9%	62%	88%	\$ -	0.0%	0	<b>0.10</b>
PALL	\$142.40	\$144.28	<b>\$140.91</b>	<b>\$145.12</b>	\$165.66	37	-13.8%	-14.3%	-32.2%	-34.9%	52.9%	PALL	7%	7%	13%	24%	8%	\$ -	0.0%	0	<b>0.38</b>
SLVO	\$81.70	\$80.77	<b>\$81.18</b>	<b>\$82.13</b>	\$91.33	38	-7.6%	-9.6%	-2.7%	-27.2%	-27.7%	SLVO	6%	6%	-18%	159%	149%	\$ -	0.0%	0	<b>0.57</b>

Source: AuM – Average in \$mm, AAll Source Data, Beta – Movement of Commodity Price with the Equity Market Prices

# C. PROSPECTS – COMMODITY GLD – METALS RISK & VOLATILITY

25

Risk & Volatility Measures					
	Trailing	<u>GLD</u>	<u>Category</u>	<u>Index</u>	<u>SPY</u>
	Alpha	4.78	0.73	–	-0.03
	Beta	0.1	0.78	–	1
	R2	1.37	24.72	–	100
	Sharpe Ratio	0.42	0.48	0.83	0.50
	Standard Deviation	15.12	27.66	17.97	21.34
Risk/Return Analysis					
Market Volatility Measures					
	Capture Ratios	<u>Investment</u>	<u>Category</u>	<u>Index</u>	<u>SPY</u>
	Upside	11	71	–	100
	Downside	-13	79	–	100
	D^2 Drawdown	<u>Investment %</u>	<u>Category %</u>	<u>Index %</u>	<u>SPY %</u>
	Maximum	-17.34	-18.56	-24.47	-23.87
	<u>D^2 Peak</u>	<u>D^2 Valley</u>	<u>D^ Duration</u>		<u>D^2 Valley</u>
	1-Aug-20	31-Oct-22	27 Months		30-Sep-22
Index - Bloomberg Commodity Trust					

# C. PROSPECTS

## – METALS RETURNS & FUND FLOW

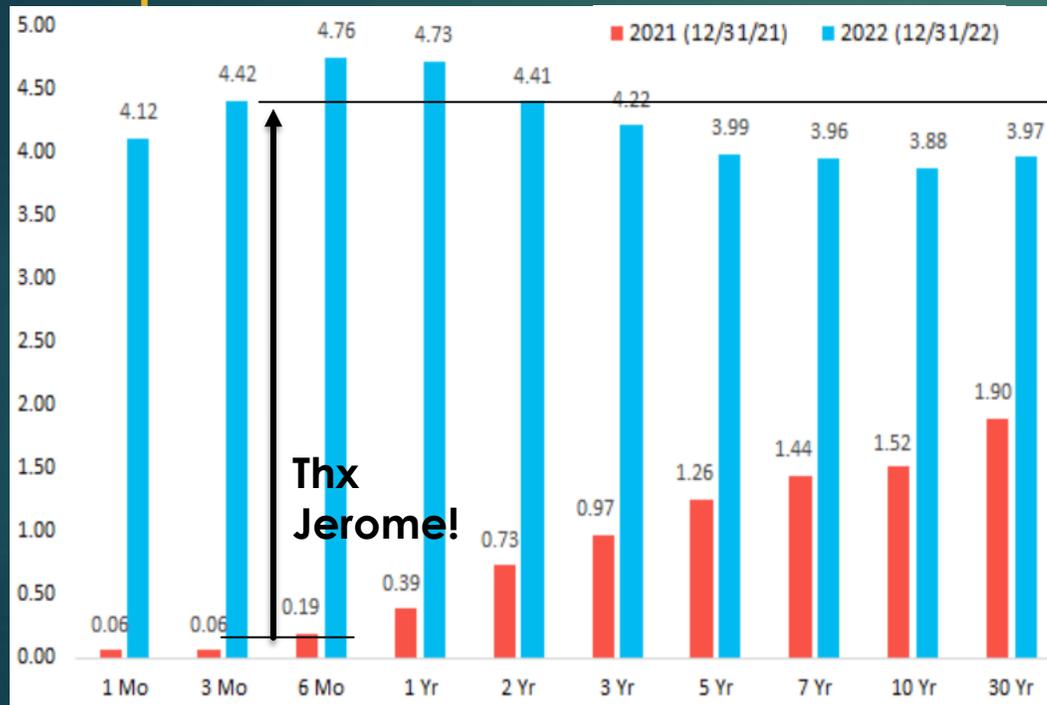
26

Symbol	ETF Name	YTD	1 year	3 year	5 year	Returns Rating	ER	AuM
GLD	SPDR Gold Shares	2.19%	1.64%	17.30%	38.94%	B	0.40%	\$ 55,624,200,000
IAU	iShares Gold Trust	2.20%	1.79%	17.83%	39.94%	B+	0.25%	\$ 27,214,700,000
SLV	iShares Silver Trust	-8.08%	-5.51%	22.37%	31.51%	C+	0.50%	\$ 10,867,200,000
GLDM	SPDR Gold MiniShares Trust	2.27%	1.90%	18.17%	N/A	N/A	0.10%	\$ 5,753,680,000
SGOL	abrdn Physical Gold Shares ETF	2.23%	1.88%	18.20%	40.34%	B+	0.17%	\$ 2,485,390,000
SIVR	abrdn Physical Silver Shares ETF	-8.05%	-5.42%	23.06%	32.81%	C+	0.30%	\$ 1,022,370,000
PPLT	abrdn Physical Platinum Shares ETF	-11.74%	-8.54%	-3.93%	-4.51%	A	0.60%	\$ 992,699,000
GLTR	abrdn Physical Precious Metals Basket Shares ETF	-3.06%	-5.51%	8.27%	34.76%	B+	0.60%	\$ 990,956,000
BAR	GraniteShares Gold Shares	2.33%	1.88%	18.09%	40.54%	N/A	0.17%	\$ 936,033,000
OUNZ	VanEck Merk Gold Trust	2.20%	1.80%	17.79%	39.61%	N/A	0.25%	\$ 652,193,000
AAAU	Goldman Sachs Physical Gold ETF	2.21%	1.82%	18.00%	N/A	N/A	0.18%	\$ 607,850,000
PALL	abrdn Physical Palladium Shares ETF	-13.75%	-32.16%	-34.89%	52.92%	A+	0.60%	\$ 293,029,000
SLVO	Credit Suisse X-Links Silver Shares Covered Call ETN	-7.59%	-2.66%	-27.15%	-27.69%	N/A	0.65%	\$ 149,269,000
DBP	Invesco DB Precious Metals Fund	-0.25%	-1.41%	12.94%	28.46%	B-	0.75%	\$ 149,034,000
GLDI	Credit Suisse X-Links Gold Shares Covered Call ETN	-0.58%	1.76%	-4.68%	5.94%	N/A	0.65%	\$ 100,205,000
DGL	Invesco DB Gold Fund	2.12%	0.20%	11.78%	29.80%	B-	0.77%	\$ 62,382,900
DBS	Invesco DB Silver Fund	-8.39%	-6.59%	18.09%	22.44%	C	0.77%	\$ 59,913,200
PLTM	GraniteShares Platinum Trust	-12.00%	-8.33%	-3.61%	-3.89%	B	0.50%	\$ 45,020,500
IGLD	FT Cboe Vest Gold Strategy Target Income ETF	1.75%	-0.72%	N/A	N/A	N/A	0.85%	\$ 40,206,600
IAUF	iShares Gold Strategy ETF	2.13%	1.33%	13.02%	N/A	N/A	0.25%	\$ 36,409,600
BGLD	FT Cboe Vest Gold Strategy Quarterly Buffer ETF	2.50%	-0.97%	N/A	N/A	N/A	0.90%	\$ 10,342,200
JJP	iPath Series B Bloomberg Precious Metals Subindex Total Return	-0.34%	-0.45%	13.95%	N/A	B-	0.45%	\$ 7,111,490
PGM	iPath Series B Bloomberg Platinum Subindex Total Return	-11.76%	-6.59%	-4.19%	N/A	A	0.45%	\$ 5,709,020
GLDX	USCF Gold Strategy Plus Income Fund ETF	0.73%	2.90%	N/A	N/A	C	0.53%	\$ 3,833,850
PSLV	The Sprott Physical Silver Trust	-8.37%	-5.98%	15.80%	25.62%	A+	0.67%	\$ -
	no of funds		25					
	Return \$		\$ 695,928,904	\$ 104,708,056	\$ (12,087,699)			\$ 108,109,737,360
	Average Return pct		0.64%	0.10%	-0.01%		0.49%	
	Flow of Funds \$	\$ 1,351,660,123	\$ (8,546,212,195)	\$ 13,692,763,783	\$ 27,166,973,022			
	Flow as Pct of AuM 23		1.3%	0.0%	0.0%			

# C. PROSPECTS – CASH Equivalent

## - 13 wk T Bills, i-Bonds 23

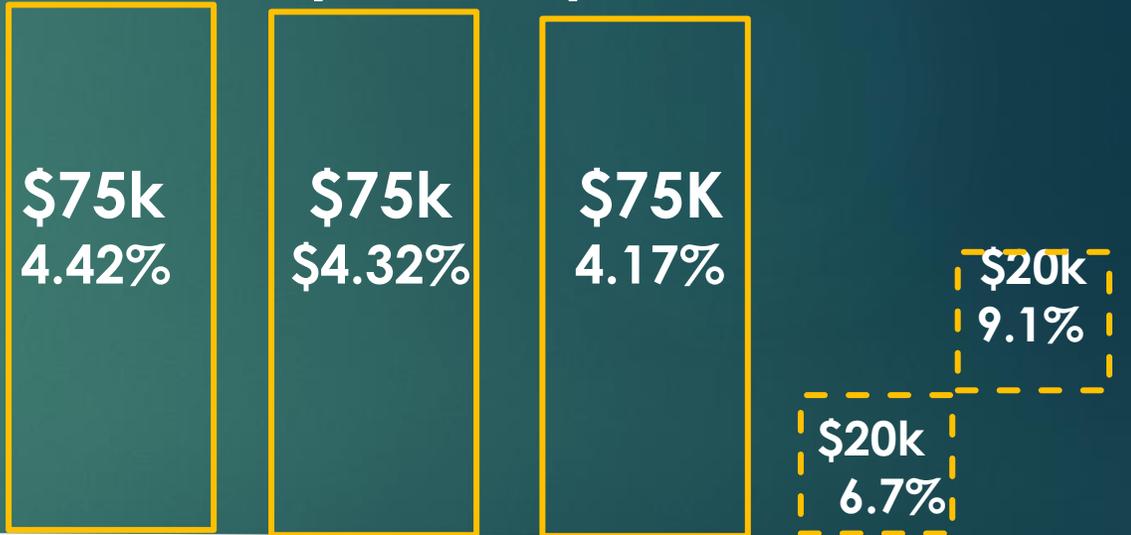
T Bill  
Yield %pa



T Bill Duration

Source: Federal Reserve Bank  
CompoundAdvisors.com

FedBonds - 13wk Bills      i-Bonds  
Q1-23c    q4-22b    q4-22a



Buy;  
Mature;

Jan 31  
Apr

Nov25  
Feb 23

Oct 03  
Feb 02

2023    2022

13 week T Bills

-- i-Bonds --

# C. PROSPECTS – MLPs

28

Symbol	ETF Name	etf parameters				Total Assets	YTD	Avg Volume	RETURNS					
		Asse	exp ratio	no cos	top 10 conc				YTD Price Δ	1 Month	1 Year	3 Year	5 Year	
AMLMP	Alerian MLP ETF		0.87%	17	92%	\$ 6,787,110,000	3.89%	1,695,571.0	3.9%	-1.7%	11.6%	49.4%	30.9%	AMLMP
AMJ	J.P. Morgan Alerian MLP Index ETN		0.85%	35	58%	\$ 2,758,670,000	5.89%	414,708.0	5.9%	0.4%	11.2%	12.4%	-8.6%	AMJ
EMLP	First Trust North American Energy Infrastructure		0.95%	63	50%	\$ 2,542,990,000	1.27%	379,825.0	1.3%	-2.0%	8.0%	18.2%	44.1%	EMLP
MLPA	Global X MLP ETF		0.46%	21	81%	\$ 1,375,170,000	4.69%	116,681.0	4.7%	0.4%	15.2%	30.6%	33.1%	MLPA
MLPX	Global X MLP & Energy Infrastructure ETF		0.45%	28	66%	\$ 1,109,740,000	1.83%	137,929.0	1.8%	-2.7%	10.5%	44.0%	49.8%	MLPX
AMZA	InfraCap MLP ETF		1.40%	28	110%	\$ 317,955,000	7.87%	56,386.0	7.9%	1.8%	19.8%	63.4%	14.7%	AMZA
ATMP	Barclays ETN+ Select MLP ETN		0.95%	22	60%	\$ 257,309,000	4.11%	33,641.0	4.1%	-0.6%	9.7%	18.1%	1.5%	ATMP
MLPB	ETRACS Alerian MLP Infrastructure Index ETN Se		0.85%	19	79%	\$ 244,238,000	4.48%	13,651.0	4.5%	0.9%	11.1%	9.4%	-15.9%	MLPB
UMI	USCF Midstream Energy Income Fund ETF		0.85%	24	64%	\$ 192,208,000	2.71%	16,798.0	2.7%	-2.0%	11.4%	N/A	N/A	UMI
AMUB	ETRACS Alerian MLP Index ETN Class B		0.80%	35	58%	\$ 99,690,700	6.20%	3,310.0	6.2%	1.0%	11.3%	15.5%	-1.7%	AMUB
AMNA	ETRACS Alerian Midstream Energy Index ETN		0.64%	0	0%	\$ 75,307,200	1.19%	454.0	1.2%	-2.2%	3.9%	N/A	N/A	AMNA
AMTR	ETRACS Alerian Midstream Energy Total Return		0.75%	0	0%	\$ 58,339,900	2.63%	389.0	2.6%	-2.2%	9.8%	N/A	N/A	AMTR
MLPO	Credit Suisse S&P MLP Index ETN		0.95%	53	58%	\$ 29,977,400	2.42%	4,833.0	2.4%	-9.4%	40.4%	23.1%	12.1%	MLPO

	PRICING			FF - FUND FLOWS - pct of AuM							DIVIDENDS					
	P \$/sh close	low boll P-δ	supt 1	res 1	up boll P+δ	RSI	YTD FF	4 Week FF	1 Year FF	3 Year FF	5 Year FF	\$/sh	Yield %	P/E Ratio		Beta
AMLMP	\$39.55	\$39.62	<b>\$39.34</b>	<b>\$39.91</b>	\$41.02	49	1%	0%	1%	-2%	-10%	\$ 2.80	8.0%	13.21	1.85	AMLMP
AMJ	\$23.03	\$22.65	<b>\$22.91</b>	<b>\$23.26</b>	\$23.46	55	0%	-1%	5%	4%	8%	\$ -	0.0%	0	1.84	AMJ
EMLP	\$27.03	\$27.06	<b>\$26.88</b>	<b>\$27.27</b>	\$27.66	48	-4%	-4%	7%	-10%	4%	\$ 0.86	3.5%	17.75	0.87	EMLP
MLPA	\$42.46	\$41.82	<b>\$42.26</b>	<b>\$42.74</b>	\$43.08	55	1%	1%	13%	23%	57%	\$ 3.05	8.2%	-52.82	1.87	MLPA
MLPX	\$40.96	\$41.12	<b>\$40.70</b>	<b>\$41.41</b>	\$42.13	48	3%	3%	17%	17%	56%	\$ 2.09	5.5%	-531.86	1.58	MLPX
AMZA	\$33.63	\$32.56	<b>\$33.36</b>	<b>\$33.98</b>	\$34.23	58	-1%	1%	-10%	18%	18%	\$ 2.64	9.4%	12.96	2.64	AMZA
ATMP	\$19.53	\$19.43	<b>\$19.43</b>	<b>\$19.72</b>	\$19.87	52	2%	2%	13%	-15%	-30%	\$ -	0.0%	0	1.54	ATMP
MLPB	\$19.60	\$19.23	<b>\$19.48</b>	<b>\$19.76</b>	\$19.87	55	0%	0%	0%	6%	72%	\$ -	0.0%	0	1.83	MLPB
UMI	\$34.39	\$34.46	<b>\$34.23</b>	<b>\$34.65</b>	\$35.24	50	3%	3%	24%	60%	60%	\$ 0.52	1.7%	0	1.6	UMI
AMUB	\$14.54	\$14.24			\$14.78	57	0%	0%	0%	13%	40%	\$ -	0.0%	0	1.76	AMUB
AMNA	\$37.35	\$37.39	<b>\$37.35</b>	<b>\$37.35</b>	\$38.40	47	0%	0%	0%	0%	0%	\$ -	0.0%	0	0.86	AMNA
AMTR	\$48.23	\$48.28	<b>\$48.23</b>	<b>\$48.23</b>	\$49.59	49	0%	0%	0%	0%	0%	\$ -	0.0%	0	1.45	AMTR
MLPO	\$13.54	\$12.70	<b>\$13.08</b>	<b>\$14.08</b>	\$15.59	47	0%	0%	0%	-1%	-130%	\$ -	0.0%	0	1.09	MLPO

# C. PROSPECTS – Alerian MLP Index

## AMLP- Companies, Value & Growth

29

Holdings	% Portfolio Weight	1-Year Return	P/E
Energy Transfer LP	10.72	39.48	7.26
Enterprise Products Partners LP	10.45	14.84	9.84
Plains All American Pipeline LP	10.42	12.95	8.39
MPLX LP Partnership Units	10.37	12.32	10.15
Western Midstream Partners LP	10.27	11.43	10.09
Magellan Midstream Partners LF	10.23	16.7	10.81
EnLink Midstream LLC	8.8	53.85	—
DCP Midstream LP	8.36	40.41	—
Cheniere Energy Partners LP	5.58	15.96	8.54
Crestwood Equity Partners LP	4.67	-0.35	—
NuStar Energy LP	3.76	7.76	—
Genesis Energy LP	2.82	-1.08	—
Hess Midstream LP Class A	2.76	8.34	—
Holly Energy Partners LP	1.88	6.58	—
Delek Logistics Partners LP	0.91	21.43	—

Value & Growth Measures	AMLP	Cat. Average	MLPs	SPY
Market Cap - \$b AVE	\$ 12	\$ 14	\$ 7	\$ 175
Price/Earnings	10.89	10.9	9.39	18.47
Price/Book	2.3	2.22	2.29	3.45
Price/Sales	0.47	0.36	0.39	2.11
Price/Cash Flow	4.47	3.67	4.44	10.7
Dividend Yield %	6.41	6.21	7.74	1.79
Long-Term Earnings %	5.35	5.93	4.06	11.27
Historical Earnings %	8.39	10.43	12.11	22.16
Sales Growth %	25.88	1.85	26.7	11.41
Cash-Flow Growth %	4.64	2.53	14.03	8.06
Book-Value Growth %	-0.76	-7.39	2.51	4.59

# C. PROSPECTS – Alerian MLP Index

## AMLMP - Overview & Volatility

30

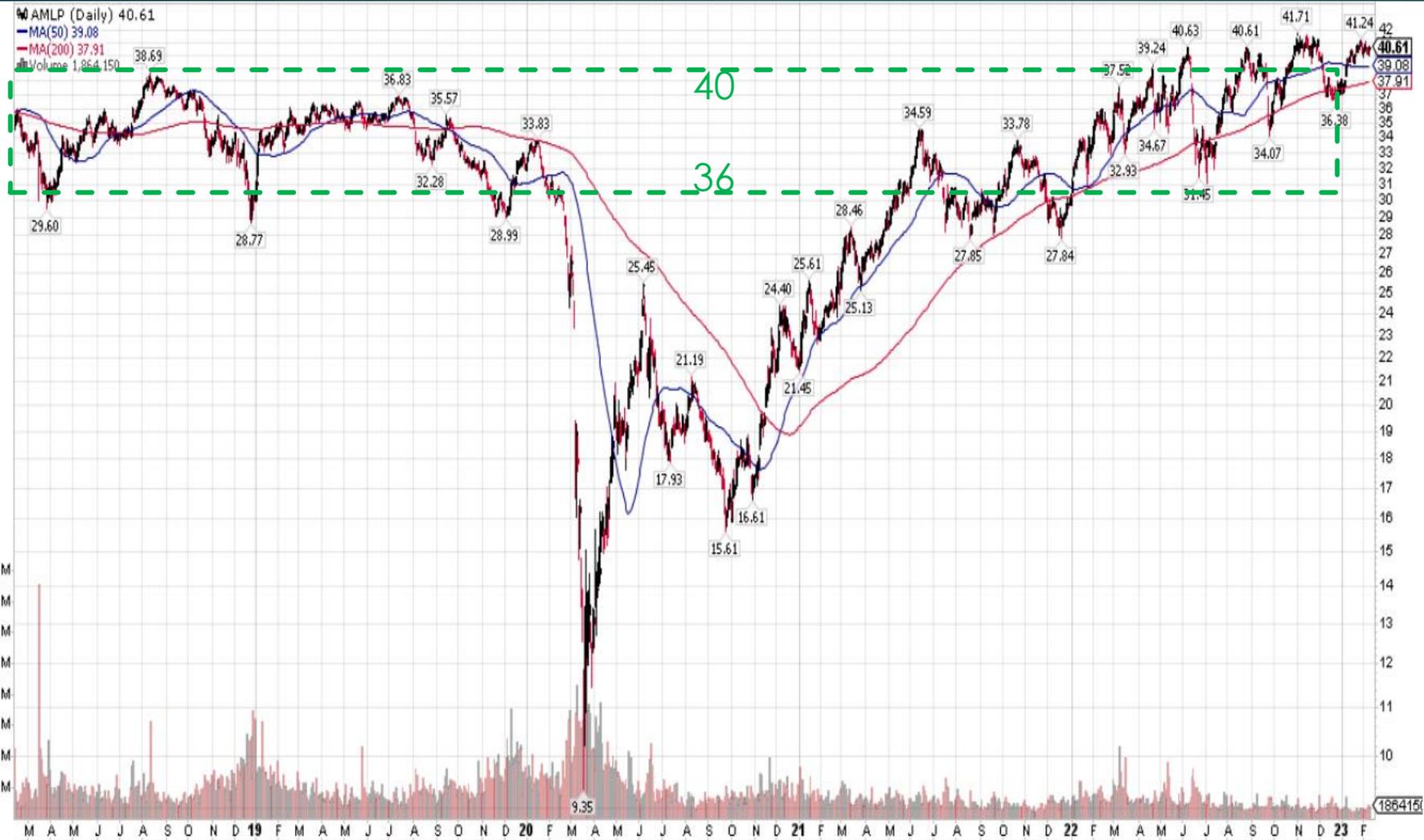
<u>NAV</u>	<u>Open Price</u>	<u>Volume / Avg</u>	<u>Day Range</u>	<u>Year Range</u>	<u>SEC Yield</u>	<u>12-Month Yield</u>	<u>Adj. Expense Ratio</u>	<u>Expense Ratio</u>	<u>Total Assets</u>
40.37	40.44	1.9 Mil / 1.8 Mil	40.05 – 40.69	32.25 – 42.47	6.0%	7.3%	0.9%	0.9%	6.7 Bil

<b>Risk &amp; Volatility Measures</b>				
	<u>AMLMP</u>	<u>Category</u>	<u>MLPs</u>	<u>SPY</u>
Trailing Alpha	8.71	7.97	12.96	-0.03
Beta	1.64	1.46	1.74	1
R2	47.7	56.28	46.49	100
Sharpe Ratio	0.44	0.47	0.51	0.50
Standard Deviation	48.74	40.35	52.39	21.34
<b>Market Volatility Measures</b>				
	<u>AMLMP</u>	<u>Category</u>	<u>Index</u>	<u>SPY</u>
Capture Ratios				
Upside	132	128	142	100
Downside	127	117	126	100
Drawdown	Investment %	Category %	Index %	Investment %
Maximum	-58.27	-50.98	-61.25	-23.87
<b>D^3 Draw Down Date(s)</b>				
Peak	Valley	Duration		Valley
1-Jan-20	31-Mar-20	3 Months		30-Sep-22

# C. PROSPECTS – Alerian MLP Index

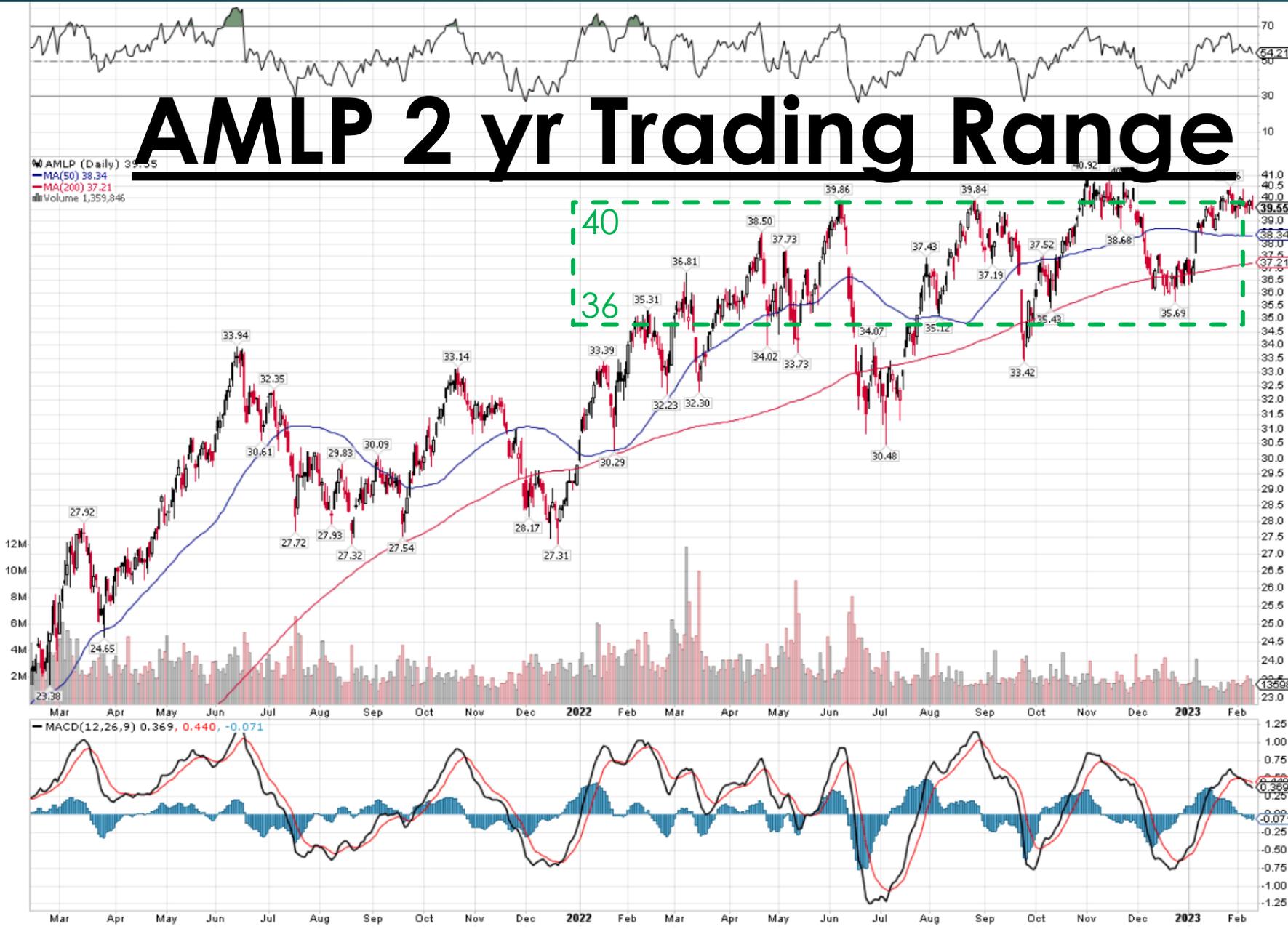
## AMLMP - 5 yr Trading Range

31



Trends	\$/sh
Today	= \$40 37
50dma	= 39 38
200 dma	= \$37 36

# AMLP 2 yr Trading Range



RSI = 58

32

Trends	\$/sh
Today	= \$40 37
50dma	= 39 38
200 dma	= \$37 36

MACD (12,26,9)  
 -0.31, -0.46, -0.055

# C. PROSPECTS –Alerian Midstream

## ENFR - Companies, Value & Growth

33

Holdings	% Portfolio Weight	1-Year Return	P/E
Enbridge Inc	9.97	4.18	17.33
Enterprise Products Partners LP	8.3	15.17	9.85
Energy Transfer LP	7.63	38.21	7.22
TC Energy Corp	5.37	-9.27	12.79
Plains GP Holdings LP Class A	5.17	14.7	5.77
ONEOK Inc	5.13	15.59	14.68
Targa Resources Corp	5.13	24.61	15.46
Cheniere Energy Inc	4.98	30.85	8.42
Kinder Morgan Inc Class P	4.94	11.8	15.58
Williams Companies Inc	4.89	10.19	17.76
Pembina Pipeline Corp	4.85	19.12	15.41
DT Midstream Inc Ordinary Shares	4.49	8.63	—
Keyera Corp	4.13	6.25	16.16
MPLX LP Partnership Units	3.56	14.8	10.34
EnLink Midstream LLC	3.39	52.67	—
Magellan Midstream Partners LP	3.17	17.63	10.95
Antero Midstream Corp	2.9	13.1	—
Equitrans Midstream Corp	2.66	4.32	9.02
Gibson Energy Inc	2.16	5.27	16.21
Western Midstream Partners LP	1.56	15.63	10.35
Hess Midstream LP Class A	1.06	5.74	—
Tellurian Inc	0.8	-20.59	5.25
Crestwood Equity Partners LP	0.62	2.35	32.79
NuStar Energy LP	0.5	13.55	—

Value & Growth Measures	ENFR	Cat. Average	Index	SPY
Market Cap - \$b AVE	\$ 18.40	\$ 14.10	\$ 7.40	\$ 175.40
Price/Earnings	12.35	10.9	9.39	18.47
Price/Book	2.3	2.22	2.29	3.45
Price/Sales	0.34	0.36	0.39	2.11
Price/Cash Flow	4.03	3.67	4.44	10.7
Dividend Yield %	5.73	6.21	7.74	1.79
Long-Term Earnings %	5.16	5.93	4.06	11.27
Historical Earnings %	13.08	10.43	12.11	22.16
Sales Growth %	36.68	1.85	26.7	11.41
Cash-Flow Growth %	12.98	2.53	14.03	8.06
Book-Value Growth %	-0.82	-7.39	2.51	4.59

# C. PROSPECTS – Alerian Midstream

## ENFR - Overview & Volatility

34

NAV	Open Price	Volume / Avg	Day Range	Year Range	12-Month Yield	Adj. Expense Ratio	Expense Ratio	Total Assets
22.04	22.17	18.9 k / 48.6 k	21.88 – 22.17	18.96 – 24.52	5.0%	0.4%	0.4%	130.8 Mil

Risk & Volatility Measures						
	<u>Trailing</u>	<u>ENFR</u>	<u>Category</u>	<u>Index</u>	<u>SPY</u>	<u>AMLPL</u>
	Alpha	6.58	7.97	12.96	-0.03	8.71
	Beta	1.47	1.46	1.74	1	1.64
	R2	58.94	56.28	46.49	100	47.7
	Sharpe Ratio	0.46	0.47	0.51	0.50	0.44
	Standard Deviation	39.17	40.35	52.39	21.34	48.74
Market Volatility Measures						
	<u>Capture Ratios</u>	<u>ENFR</u>	<u>Category</u>	<u>Index</u>	<u>SPY</u>	<u>AMLPL</u>
	Upside	131	128	142	100	132
	Downside	122	117	126	100	127
	<u>Drawdown</u>	<u>Investment %</u>	<u>Category %</u>	<u>Index %</u>	<u>Investment %</u>	<u>Investment %</u>
	Maximum	-49.42	-50.98	-61.25	-23.87	-58.27
D^3 Draw Down Date(s)						
	<u>Peak</u>	<u>Valley</u>	<u>Duration</u>	<u>Valley</u>	<u>Valley</u>	
	1-Jan-20	31-Mar-20	3 Months	30-Sep-22	31-Mar-20	

# C. PROSPECTS – Alerian Midstream

## ENFR 5 yr Trading Range

35



Trends	\$/sh
Today	= \$22
50dma	= 22
200 dma	= \$21

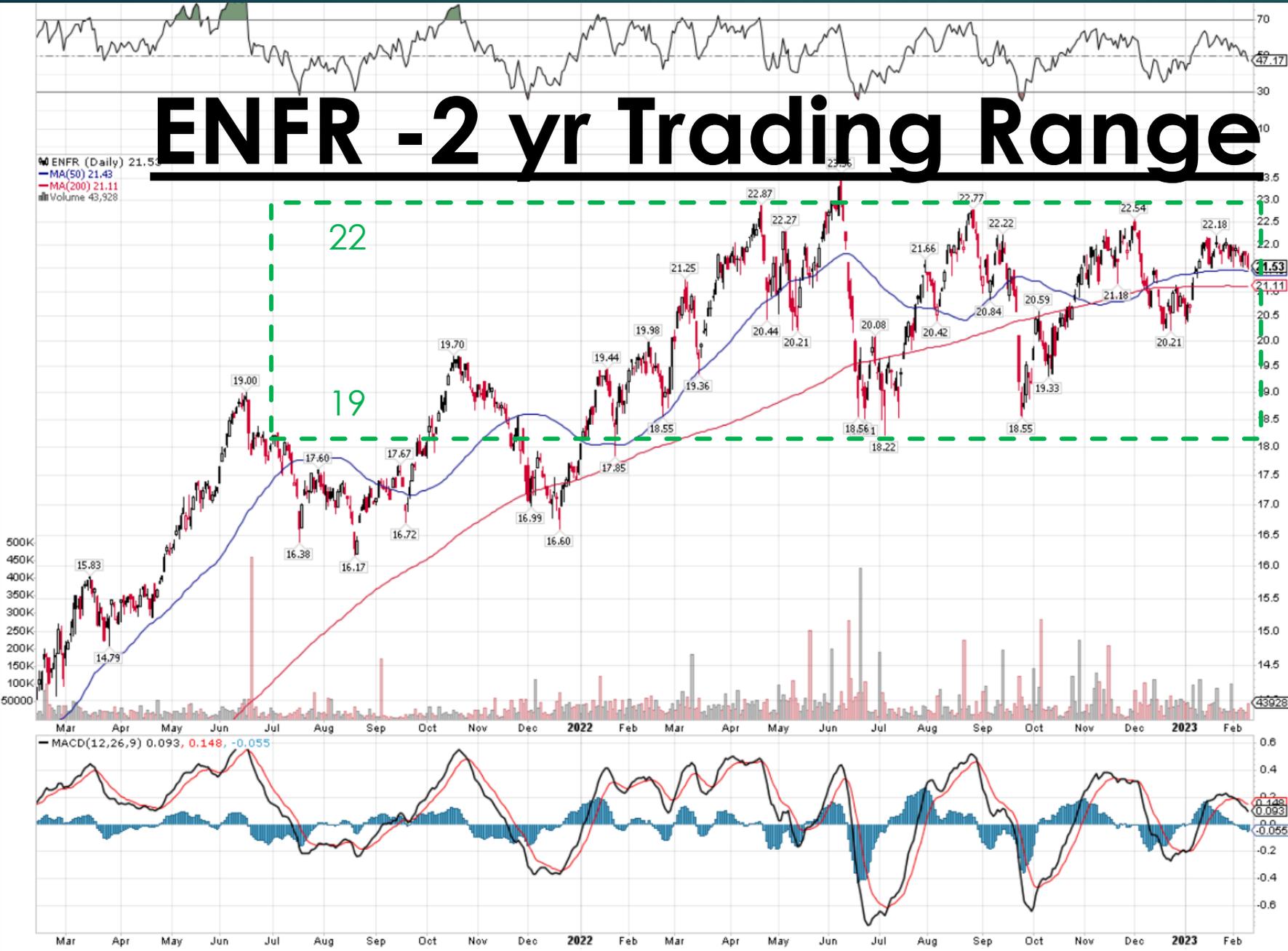
# ENFR -2 yr Trading Range

RSI = 47

36

Trends	\$/sh
Today	= \$22
50dma	= 22
200 dma	= \$21

MACD(12,26,9)  
(.09, .148, -0.55)



# C. PROSPECTS – Convertible Bonds

37

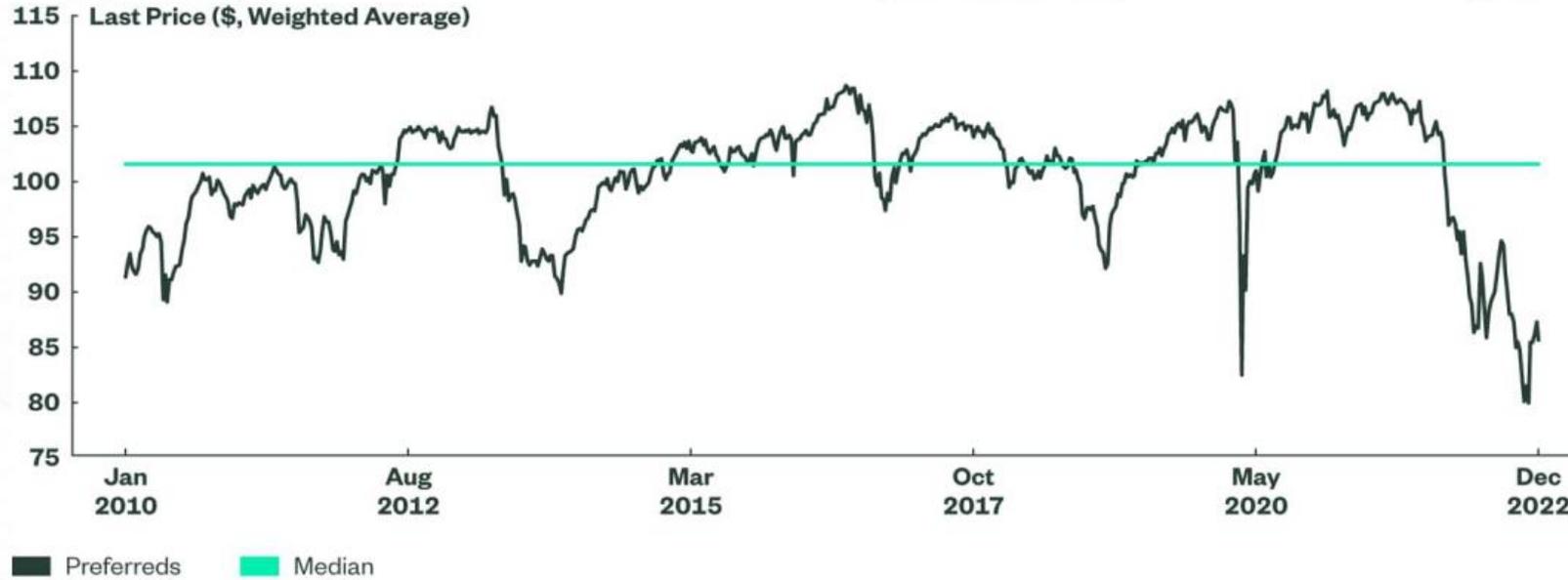
Symbol	ETF Name	etf parameters				Total Assets	YTD	Avg Volume	RETURNS				
		Ass	exp ratio	no cos	top 10 conc				YTD Price Δ	1 Month	1 Year	3 Year	5 Year
PFF	iShares Preferred & Income Securities ETF		0.45%	487	13%	\$ 13,904,500,000	8.32%	4,468,846.0	8.3%	1.7%	-4.0%	0.6%	16.4%
FPE	First Trust Preferred Securities & Income ETF		0.85%	299	16%	\$ 6,219,380,000	7.02%	3,135,706.0	7.0%	1.4%	-2.6%	2.1%	18.9%
PGX	Invesco Preferred ETF		0.50%	288	13%	\$ 4,956,380,000	11.17%	6,405,938.0	11.2%	2.0%	-4.3%	-4.9%	12.7%
CWB	SPDR Bloomberg Convertible Securities ETF		0.40%	297	13%	\$ 4,274,880,000	6.14%	682,622.0	6.1%	1.8%	-10.8%	25.2%	60.0%
PFFD	Global X U.S. Preferred ETF		0.23%	249	18%	\$ 2,398,380,000	9.34%	843,460.0	9.3%	1.4%	-5.1%	-2.5%	16.5%
VRP	Invesco Variable Rate Preferred ETF		0.50%	317	13%	\$ 1,795,810,000	5.17%	533,073.0	5.2%	1.5%	-0.6%	3.1%	18.6%
ICVT	iShares Convertible Bond ETF		0.20%	324	12%	\$ 1,253,520,000	6.61%	460,103.0	6.6%	2.9%	-11.5%	28.2%	65.8%
PGF	Invesco Financial Preferred ETF		0.55%	113	22%	\$ 1,210,820,000	9.78%	579,583.0	9.8%	1.5%	-2.8%	-4.0%	11.6%
PSK	SPDR ICE Preferred Securities ETF		0.45%	152	17%	\$ 1,074,180,000	9.94%	241,968.0	9.9%	2.0%	-2.9%	-5.3%	12.0%
FPEI	First Trust Institutional Preferred Securities & In		0.85%	191	20%	\$ 1,040,970,000	4.88%	782,213.0	4.9%	1.3%	-1.2%	5.7%	20.3%
PFXF	VanEck Preferred Securities ex Financials ETF		0.40%	121	27%	\$ 1,009,320,000	8.24%	245,089.0	8.2%	1.6%	-5.7%	3.6%	26.9%

	PRICING			FF - FUND FLOWS - pct of AuM							DIVIDENDS				
	P \$/sh close	low boll P-δ	supt 1	res 1	up boll P+δ	RSI	YTD FF	4 Week FF	1 Year FF	3 Year FF	5 Year FF	\$/sh	Yield %	P/E Ratio	Beta
PFF	\$32.89	\$32.35	<b>\$32.77</b>	<b>\$32.97</b>	\$33.72	58	-1%	-1%	-20%	-9%	-2%	\$ 1.87	4.8%	19.86	0.44 PFF
FPE	\$17.91	\$17.64	<b>\$17.88</b>	<b>\$17.94</b>	\$18.25	62	0%	1%	-15%	28%	60%	\$ 0.92	4.5%	0	0.47 FPE
PGX	\$12.37	\$12.16	<b>\$12.33</b>	<b>\$12.41</b>	\$12.75	57	-3%	-1%	-25%	4%	23%	\$ 0.73	4.9%	0	0.34 PGX
CWB	\$68.23	\$66.52	<b>\$68.00</b>	<b>\$68.42</b>	\$69.47	58	-3%	-2%	-7%	-29%	-23%	\$ 1.93	2.2%	0	0.84 CWB
PFFD	\$21.08	\$20.77	<b>\$21.00</b>	<b>\$21.20</b>	\$21.73	55	2%	1%	11%	88%	116%	\$ 1.31	5.1%	0	0.39 PFFD
VRP	\$23.44	\$23.04	<b>\$23.40</b>	<b>\$23.47</b>	\$23.75	64	-3%	-2%	-7%	16%	3%	\$ 1.11	4.3%	0	0.46 VRP
ICVT	\$73.92	\$71.15	<b>\$73.70</b>	<b>\$74.11</b>	\$75.43	60	-58%	-11%	-6%	69%	75%	\$ 3.78	3.7%	0	0.83 ICVT
PGF	\$15.74	\$15.55	<b>\$15.69</b>	<b>\$15.81</b>	\$16.23	56	-1%	1%	-20%	-9%	-7%	\$ 0.89	4.8%	0	0.29 PGF
PSK	\$35.91	\$35.30	<b>\$35.78</b>	<b>\$36.03</b>	\$37.00	58	1%	2%	-8%	16%	77%	\$ 2.42	5.6%	0	0.30 PSK
FPEI	\$18.60	\$18.29	<b>\$18.58</b>	<b>\$18.62</b>	\$18.88	64	10%	3%	47%	75%	97%	\$ 0.93	4.5%	0	0.39 FPEI
PFXF	\$18.04	\$17.74	<b>\$17.96</b>	<b>\$18.08</b>	\$18.49	57	2%	1%	7%	33%	60%	\$ 1.04	4.8%	0	0.54 PFXF

# C. PROSPECTS – Convertible Bonds

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## Preferred Securities: An Attractive Entry Point?



Source: Bloomberg Finance, L.P., period January 1, 2010–December 8, 2022. Preferreds = ICE Exchange-Listed Fixed & Adjustable Rate Preferred Securities Index. It is not possible to invest directly in an index.

# C. PROSPECTS – HIGH YIELD BONDS

39

Symbol	ETF Name	ETF parameters			Total Assets	YTD	Avg Volume	RETURNS					
		Asses	exp ratio	no cos				top 10 conc	YTD Price Δ	1 Month	1 Year	3 Year	5 Year
HYG	iShares iBoxx \$ High Yield Corporate Bond ETF	0.48%	1207	4%	\$ 16,669,500,000	2.05%	34,246,388.0	2.1%	-2.0%	-5.1%	-2.0%	12.6%	HYG
JNK	SPDR Bloomberg High Yield Bond ETF	0.40%	1177	4%	\$ 9,583,210,000	2.44%	8,290,401.0	2.4%	-1.9%	-6.1%	-2.3%	12.8%	JNK
USHY	iShares Broad USD High Yield Corporate Bond ET	0.15%	1937	3%	\$ 9,526,910,000	2.37%	6,552,133.0	2.4%	-1.7%	-4.9%	0.6%	15.0%	USHY
SHYG	iShares 0-5 Year High Yield Corporate Bond ETF	0.30%	787	6%	\$ 6,423,290,000	1.81%	2,941,422.0	1.8%	-1.1%	-0.7%	4.2%	16.5%	SHYG
SRLN	SPDR Blackstone Senior Loan ETF	0.70%	1	100%	\$ 6,223,110,000	3.27%	2,466,355.0	3.3%	0.7%	-2.3%	5.4%	14.2%	SRLN
BKLN	Invesco Senior Loan ETF	0.65%	129	27%	\$ 4,449,180,000	3.65%	8,450,795.0	3.7%	0.7%	1.4%	5.4%	13.4%	BKLN
HYLB	Xtrackers USD High Yield Corporate Bond ETF	0.15%	1077	4%	\$ 4,027,200,000	2.06%	4,429,186.0	2.1%	-2.1%	-5.0%	-1.2%	13.5%	HYLB
SJNK	SPDR Bloomberg Short Term High Yield Bond ET	0.40%	842	8%	\$ 3,962,800,000	2.43%	4,900,606.0	2.4%	-0.8%	-1.0%	7.0%	18.7%	SJNK
ANGL	VanEck Fallen Angel High Yield Bond ETF	0.35%	210	17%	\$ 2,857,950,000	2.70%	2,041,000.0	2.7%	-1.0%	-6.0%	5.2%	20.7%	ANGL

Symbol	PRICING			FF - FUND FLOWS - pct of AuM							DIVIDENDS				
	P \$/sh close	low boll P-δ	supt 1	res 1	up boll P+δ	RSI	YTD FF	4 Week FF	1 Year FF	3 Year FF	5 Year FF	\$/sh	Yield %	P/E Ratio	Beta
HYG	\$74.78	\$75.04	<b>\$74.56</b>	<b>\$75.13</b>	\$76.86	47	8%	-6%	17%	5%	21%	\$ 3.98	4.6%	0	0.37
JNK	\$91.73	\$91.99	<b>\$91.47</b>	<b>\$92.14</b>	\$94.22	48	-2%	-2%	33%	-2%	9%	\$ 5.17	4.8%	0	0.39
USHY	\$35.12	\$35.18	<b>\$35.02</b>	<b>\$35.29</b>	\$35.99	48	-1%	-3%	27%	65%	107%	\$ 2.29	5.6%		0.39
SHYG	\$41.39	\$41.40	<b>\$41.29</b>	<b>\$41.53</b>	\$42.07	49	-13%	-4%	23%	35%	50%	\$ 2.41	5.3%	0	0.32
SRLN	\$41.99	\$41.59			\$42.13	64	2%	1%	-47%	74%	75%	\$ 2.22	4.8%	0	0.33
BKLN	\$21.16	\$20.97			\$21.20	64	8%	6%	-27%	-20%	-60%	\$ 0.70	3.2%	0	0.26
HYLB	\$34.23	\$34.36	<b>\$34.13</b>	<b>\$34.39</b>	\$35.19	47	1%	-6%	-16%	-2%	91%	\$ 2.26	5.7%	0	0.36
SJNK	\$24.70	\$24.65	<b>\$24.63</b>	<b>\$24.78</b>	\$25.07	51	11%	5%	9%	20%	-1%	\$ 1.27	4.7%	0	0.34
ANGL	\$27.63	\$27.60	<b>\$27.54</b>	<b>\$27.75</b>	\$28.21	50	-5%	-11%	-42%	44%	69%	\$ 1.47	4.4%		0.5

# C. PROSPECTS – High Yield Bonds\*

## HYG – Bond Income Measures

	Holdings	% Portfolio Weight	Maturity Date	Coupon Rate
	TransDigm, Inc. 6.25%	0.47	15-Mar-26	6.25
	Mozart Debt Merger Subordinated Inc. 3.875%	0.42	1-Apr-29	3.88
	Tibco Software Inc 6.5%	0.4	31-Mar-29	6.5
	Directv Financing LLC/Directv Financing Co-Obligor Inc. 5.875%	0.37	15-Aug-27	5.88
	AAAdvantage Loyalty IP Ltd/ American Airlines Inc 5.5%	0.37	20-Apr-26	5.5
	Caesars Entertainment Inc New 6.25%	0.36	1-Jul-25	6.25
	Teva Pharmaceutical Finance Netherlands III B.V. 3.15%	0.34	1-Oct-26	3.15
	CCO Holdings, LLC/ CCO Holdings Capital Corp. 5.125%	0.32	1-May-27	5.13
	AAAdvantage Loyalty IP Ltd/ American Airlines Inc 5.75%	0.3	20-Apr-29	5.75
	Intelsat Jackson Holdings, Ltd. 6.5%	0.3	15-Mar-30	6.5
	Turnover 19%			
	Total Holdings 1204			

Fixed Income Measures	HYG	AGG
Effective Duration	3.97	6.39
Modified Duration	4.18	6.53
Effective Maturity	—	8.73
Credit Quality	BB-	AA
Weighted Coupon	5.64	2.8
Weighted Price	91.12	91.96
Yield to Maturity	8.59	4.25

# C. PROSPECTS – High Yield Bonds

## HYG - Overview & Volatility

41

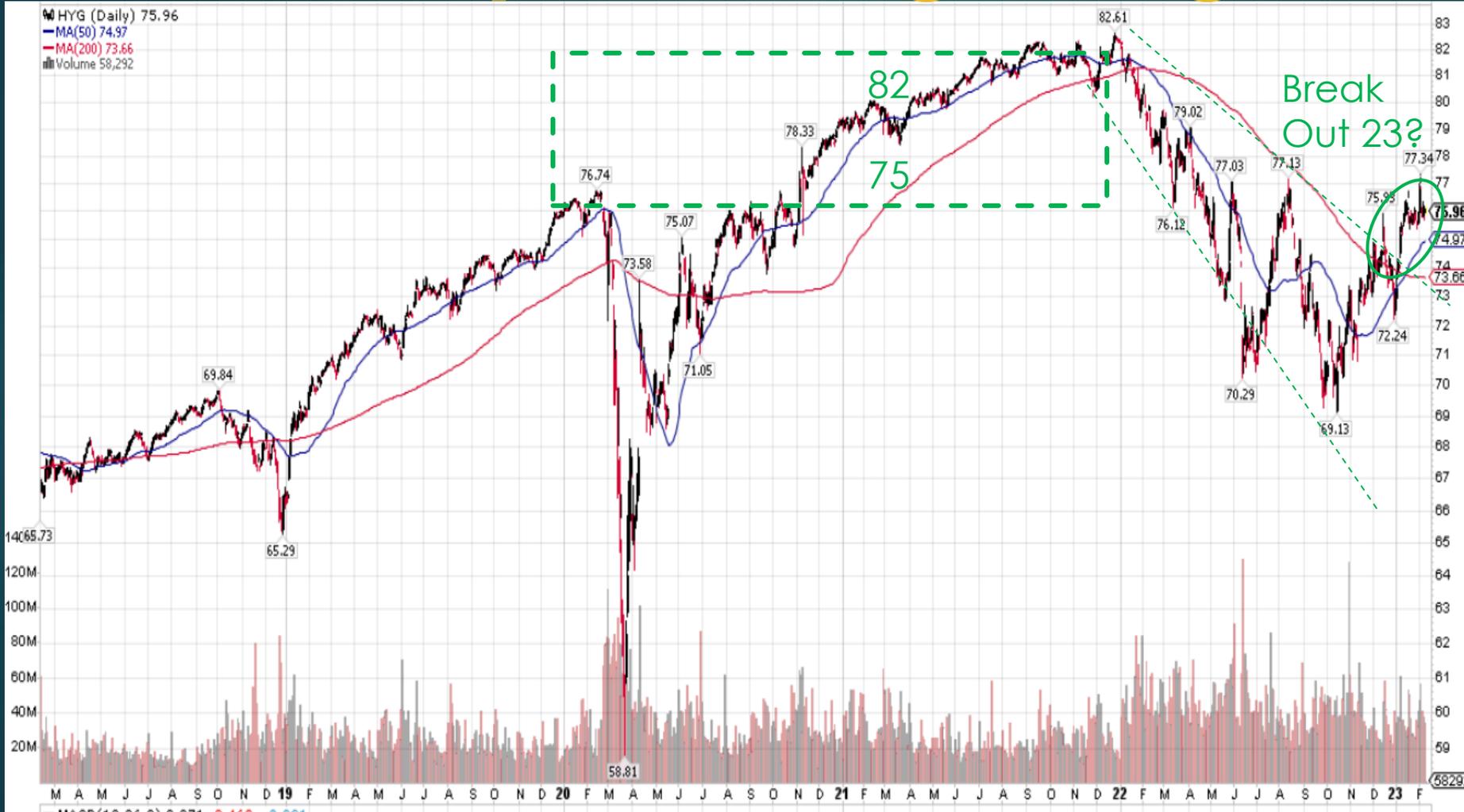
NAV	Open Price	Volume / Avg	Day Range	Year Range	SEC Yield	12-Month Yield	Adj. Expense Ratio	Expense Ratio	Total Assets
75.93	76.06	34.1 Mil / 33.2 Mil	75.69 – 76.16	70.40 – 84.12	7.3%	5.1%	0.5%	0.5%	17.8 Bil

Risk & Volatility Measures			
	HYG	Index	AGG
Trailing Alpha	3.25	4.47	-0.02
Beta	1.12	1.09	1
R2	36.06	32.65	99.92
Sharpe Ratio	-0.02	0.09	-0.52
Standard Deviation	11.15	11.46	6.05
Market Volatility Measures			
	HYG	Index	AGG
Capture Ratios			
Upside	149	162	101
Downside	109	105	101
D^3 Drawdown Date	Investment %	Index %	Investment %
Maximum	-14.86	-14.57	-17.19
Peak	Valley		Valley
1-Jan-22	30-Sep-22		31-Oct-22

# C. PROSPECTS – High Yield Bonds

## HYG 5 yr Trading Range

42

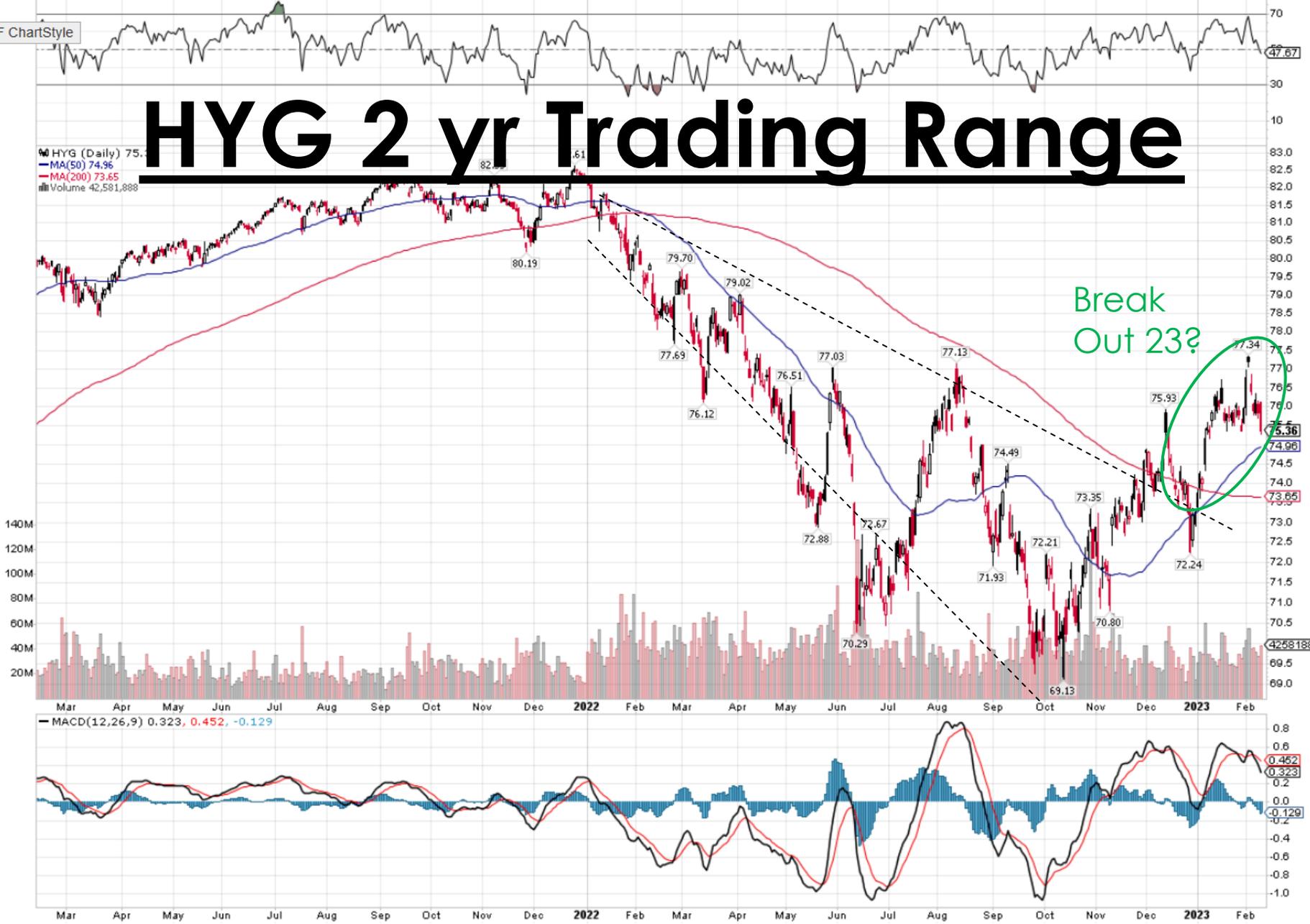


Trends	\$/sh
Today	= \$76
50dma	= \$75
200 dma	= \$74

F ChartStyle

# HYG 2 yr Trading Range

HYG (Daily) 75.  
MA(50) 74.96  
MA(200) 73.65  
Volume 42,581,888



RSI = 53

43

Trends	\$/sh
Today	= \$76
50dma	= \$75
200 dma	= \$74

MACD (12, 26, 9)  
0.32, 0.462, -.092

# C. PROSPECTS – LARGE CAP

Symbol	ETF Name	etf parameters					Total Assets	YTD	Avg Volume	RETURNS				
		Asse	exp ratio	no cos	top 10 conc					YTD Price Δ	1 Month	1 Year	3 Year	5 Year
<b>HDV</b>	iShares Core High Dividend ETF		0.08%	76	53%	\$ 12,038,400,000	-1.11%	1,025,583.0		-1.1%	-3.3%	2.4%	21.1%	47.9%
<b>VLUE</b>	iShares MSCI USA Value Factor ETF		0.15%	152	31%	\$ 7,777,610,000	5.96%	503,414.0		6.0%	0.5%	-8.9%	17.2%	37.8%
<b>FDL</b>	First Trust Morningstar Dividend Leaders Index		0.45%	99	55%	\$ 5,289,340,000	1.97%	1,229,468.0		2.0%	-1.7%	5.6%	35.3%	65.4%
<b>DFIV</b>	Dimensional International Value ETF		0.35%	560	18%	\$ 4,923,660,000	8.06%	777,754.0		8.1%	1.4%	-3.8%	N/A	N/A
<b>CDC</b>	VictoryShares US EQ Income Enhanced Volatility		0.35%	102	15%	\$ 2,067,550,000	2.59%	151,594.0		2.6%	-1.6%	-7.5%	43.6%	67.6%
<b>DHS</b>	WisdomTree US High Dividend Fund		0.38%	395	37%	\$ 1,504,610,000	1.27%	130,386.0		1.3%	-1.5%	4.7%	27.3%	55.1%
<b>SDOG</b>	ALPS Sector Dividend Dogs ETF		0.40%	52	23%	\$ 1,344,400,000	4.45%	58,770.0		4.5%	-1.8%	0.6%	30.9%	48.4%
<b>FTA</b>	First Trust Large Cap Value AlphaDEX Fund		0.59%	188	11%	\$ 1,303,980,000	7.60%	97,241.0		7.6%	1.4%	1.2%	35.5%	51.2%
<b>GCOV</b>	Pacer Global Cash Cows Dividend ETF		0.60%	102	21%	\$ 1,278,970,000	5.61%	419,906.0		5.6%	-0.7%	3.4%	26.6%	38.4%
<b>AVLV</b>	Avantis U.S. Large Cap Value ETF		0.15%	226	21%	\$ 882,686,000	6.14%	125,908.0		6.1%	1.0%	0.9%	N/A	N/A
<b>PWV</b>	Invesco Dynamic Large Cap Value ETF					\$ 828,669,000	0.17%	57,800.0						
<b>SPY</b>	SPDR S&P 500 ETF Trust		0.09%	505	26%	\$ 379,109,000,000	6.45%	81,038,496.0		6.5%	2.6%	-9.6%	28.6%	72.1%
<b>IVV</b>	iShares Core S&P 500 ETF		0.03%	503	26%	\$ 310,044,000,000	6.47%	4,394,681.0		6.5%	2.6%	-9.6%	28.7%	72.9%
<b>VTI</b>	Vanguard Total Stock Market ETF		0.03%	3951	21%	\$ 284,316,000,000	7.03%	3,993,240.0		7.0%	2.7%	-10.1%	27.1%	68.2%
<b>VOO</b>	Vanguard S&P 500 ETF		0.03%	506	24%	\$ 282,261,000,000	6.48%	4,002,011.0		6.5%	2.6%	-9.6%	28.6%	72.6%
<b>QQQ</b>	Invesco QQQ Trust		0.20%	102	53%	\$ 161,848,000,000	13.29%	51,919,536.0		13.3%	8.1%	-17.1%	34.2%	103.8%
<b>VUG</b>	Vanguard Growth ETF		0.04%	254	45%	\$ 78,354,900,000	12.47%	1,510,452.0		12.5%	7.2%	-18.0%	25.5%	82.0%
<b>VIG</b>	Vanguard Dividend Appreciation ETF		0.06%	291	30%	\$ 65,820,100,000	1.84%	1,722,343.0		1.8%	-1.1%	-4.4%	27.2%	73.0%
<b>IWF</b>	iShares Russell 1000 Growth ETF		0.18%	515	44%	\$ 61,681,400,000	10.07%	2,592,956.0		10.1%	6.0%	-15.8%	29.2%	87.4%
<b>ITOT</b>	iShares Core S&P Total U.S. Stock Market ETF		0.03%	3328	23%	\$ 41,355,500,000	7.02%	1,836,276.0		7.0%	2.7%	-10.0%	27.0%	68.0%
<b>SCHX</b>	Schwab U.S. Large-Cap ETF		0.03%	760	24%	\$ 31,624,900,000	6.78%	2,041,138.0		6.8%	2.7%	-10.4%	27.5%	70.8%
<b>USMV</b>	iShares MSCI USA Min Vol Factor ETF		0.15%	167	15%	\$ 30,125,100,000	-0.11%	3,031,625.0		-0.1%	-2.1%	-4.7%	10.8%	57.0%
<b>DIA</b>	SPDR Dow Jones Industrial Average ETF Trust		0.16%	31	55%	\$ 29,558,000,000	1.82%	4,072,244.0		1.8%	-1.4%	-3.9%	22.7%	56.3%

# C. PROSPECTS – LARGE CAP

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	PRICING						FF - FUND FLOWS - pct of AuM						DIVIDENDS				
	P \$/sh close	low boll P-δ	supt 1	res 1	up boll P+δ	RSI	YTD FF	4 Week FF	1 Year FF	3 Year FF	5 Year FF	\$/sh	Yield %	P/E Ratio	Beta		
		3	5	6	4	7	3	5	6	7	8	3	6	7	8		
HDV	\$103.08	\$103.27	<b>\$102.49</b>	<b>\$104.14</b>	\$106.40	45	-9%	-8%	27%	31%	36%	\$ 3.38	3.4%	24.9	0.9	HDV	
VLUE	\$96.57	\$93.48	<b>\$95.85</b>	<b>\$97.72</b>	\$99.37	54	-4%	-1%	-54%	18%	30%	\$ 2.23	2.1%	19.8	1.1	VLUE	
FDL	\$37.28	\$36.98	<b>\$37.04</b>	<b>\$37.68</b>	\$38.21	50	7%	6%	63%	61%	62%	\$ 1.23	3.6%	18.9	0.95	FDL	
DFIV	\$32.85	\$32.21	<b>\$32.67</b>	<b>\$33.15</b>	\$33.33	61	3%	2%	22%	28%	28%	\$ 0.18	0.5%	0.0	0	DFIV	
CDC	\$63.68	\$63.17	<b>\$63.19</b>	<b>\$64.52</b>	\$65.70	49	-2%	-2%	48%	62%	62%	\$ 1.70	2.5%	23.5	0.72	CDC	
DHS	\$87.05	\$86.51	<b>\$86.59</b>	<b>\$87.89</b>	\$89.27	49	1%	-1%	37%	30%	12%	\$ 3.05	3.8%	15.2	0.91	DHS	
SDOG	\$53.73	\$53.18	<b>\$53.25</b>	<b>\$54.57</b>	\$56.06	50	1%	1%	8%	-30%	-76%	\$ 1.81	3.4%	20.2	1.12	SDOG	
FTA	\$70.81	\$67.84	<b>\$70.24</b>	<b>\$71.78</b>	\$73.30	56	-1%	0%	5%	5%	5%	\$ 1.03	1.5%	13.2	1.24	FTA	
GCOW	\$33.52	\$33.33	<b>\$33.32</b>	<b>\$33.86</b>	\$34.03	57	21%	19%	81%	82%	86%	\$ 1.34	4.4%	16.6	0.93	GCOW	
AVLV	\$53.27	\$51.68	<b>\$52.87</b>	<b>\$53.99</b>	\$54.74	55	8%	6%	78%	93%	93%	\$ -	0.0%	0.0	0	AVLV	
PWV	\$47.14															PWV	
SPY	\$407.09	\$388.32	<b>\$403.74</b>	<b>\$412.50</b>	\$418.00	56	-1%	-1%	1%	-1%	-3%	\$ 5.66	1.2%	21.7	0.99	SPY	
IVV	\$409.07	\$390.13	<b>\$405.69</b>	<b>\$414.48</b>	\$419.97	56	0%	0%	5%	15%	24%	\$ 5.84	1.3%	33.2	0.99	IVV	
VTI	\$204.64	\$194.64	<b>\$202.96</b>	<b>\$207.47</b>	\$210.62	56	1%	1%	7%	35%	44%	\$ 2.85	1.2%	23.4	1.03	VTI	
VOO	\$374.11	\$356.83	<b>\$371.04</b>	<b>\$379.09</b>	\$384.13	56	0%	0%	8%	36%	47%	\$ 5.29	1.2%	24.3	0.99	VOO	
QQQ	\$301.68	\$270.06	<b>\$298.26</b>	<b>\$307.05</b>	\$314.55	59	-2%	-1%	0%	21%	28%	\$ 1.77	0.5%	30.4	1.03	QQQ	
VUG	\$239.68	\$217.45	<b>\$237.21</b>	<b>\$243.66</b>	\$249.02	58	1%	1%	13%	19%	27%	\$ 1.53	0.5%	37.8	1.03	VUG	
VIG	\$154.64	\$152.42	<b>\$153.52</b>	<b>\$156.50</b>	\$158.40	50	-2%	-2%	4%	18%	30%	\$ 2.55	1.5%	23.2	0.86	VIG	
IWF	\$235.81	\$216.65	<b>\$233.67</b>	<b>\$239.21</b>	\$243.57	58	-6%	-5%	0%	-9%	-12%	\$ 1.49	0.5%	45.9	1.03	IWF	
ITOT	\$90.75	\$86.30	<b>\$89.97</b>	<b>\$92.06</b>	\$93.44	56	-2%	-1%	1%	23%	44%	\$ 1.24	1.2%	32.3	1.03	ITOT	
SCHX	\$48.21	\$45.87	<b>\$47.82</b>	<b>\$48.86</b>	\$49.57	56	0%	0%	104%	120%	136%	\$ 1.32	1.2%	26.9	1.01	SCHX	
USMV	\$72.02	\$71.82	<b>\$71.62</b>	<b>\$72.70</b>	\$73.78	46	0%	0%	10%	-33%	25%	\$ 1.08	1.4%	30.8	0.75	USMV	
DIA	\$337.08	\$332.41	<b>\$334.57</b>	<b>\$341.07</b>	\$343.55	51	-2%	-1%	4%	9%	-6%	\$ 5.62	1.6%	17.99	0.99	DIA	

# C. PROSPECTS – Large Cap Blend\*

## NOBL - Companies

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In GoldSachs Sector Rank Order			
<u>Holdings</u>	<u>1-Year Return</u>	<u>P/E</u>	<u>Sector</u>
Essex Property Trust Inc	-22.79	38.6	Real Estate
Chevron Corp	28.76	10.7	Energy
Exxon Mobil Corp	46.36	10.7	Energy
Consolidated Edison Inc	9.85	18.9	Utilities
Atmos Energy Corp	11.88	19.4	Utilities
NextEra Energy Inc	1.68	24.2	Utilities
Archer-Daniels Midland Co	8.55	12.1	Consumer Defensive
Brown-Forman Corp Registered Shs	-2.46	31.2	Consumer Defensive
Coca-Cola Co	-0.84	23.2	Consumer Defensive
Brown & Brown Inc	-12.69	23.6	Financial Services
S&P Global Inc	-7.66	29.1	Financial Services
Franklin Resources Inc	5.59	13.1	Financial Services

<u>Holdings</u>	<u>1-Year Return</u>	<u>P/E</u>	<u>Sector</u>
W.W. Grainger Inc	39.03	20.1	Industrials
Caterpillar Inc	25.85	15.6	Industrials
Automatic Data Processing Inc	9.57	27.5	Industrials
Illinois Tool Works Inc	7.24	24.9	Industrials
Emerson Electric Co	-9.33	21.0	Industrials
Cintas Corp	15.74	31.6	Industrials
A.O. Smith Corp	-9.19	20.0	Industrials
3M Co	-25.37	13.2	Industrials
Roper Technologies Inc	-3.44	26.6	Industrials
Expeditors International of Washing	4.33	20.1	Industrials
General Dynamics Corp	9.19	18.1	Industrials
Nucor Corp	45.64	12.6	Basic Materials
Albemarle Corp	18.99	9.5	Basic Materials
Air Products & Chemicals Inc	16.18	25.3	Basic Materials
Linde PLC	13.46	25.8	Basic Materials
West Pharmaceutical Services Inc	-33.66	32.5	Healthcare
Cardinal Health Inc	51.24	15.7	Healthcare
Genuine Parts Co	32.98	19.5	Consumer Cyclical

Source: Finra, Morningstar, US Large Cap Equity (Dividend Aristocrats)\*

# C. PROSPECTS – Equity Large Cap NOBL – Value & Growth

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<u>Cap, Value &amp; Growth Measures</u>	<u>NOBL</u>		<u>Cat. Average</u>		<u>Index</u>		<u>SPY</u>
Market Cap \$b AVE	\$	51	\$	104	\$	107	\$ 175
Price/Earnings		17.19		12.82		14.91	18.47
Price/Book		2.8		2.24		2.56	3.45
Price/Sales		1.34		1.36		1.52	2.11
Price/Cash Flow		12		7.55		8.1	10.7
Dividend Yield %		2.44		2.67		2.56	1.79
Long-Term Earnings %		8.97		11.81		9.53	11.27
Historical Earnings %		21.71		28.29		23.43	22.16
Sales Growth %		7.6		4.66		10.34	11.41
Cash-Flow Growth %		4.27		7.14		5.7	8.06
Book-Value Growth %		6.12		7.07		2.46	4.59

# C. PROSPECTS – Equity Large Cap\*

## NOBL - Overview & Volatility

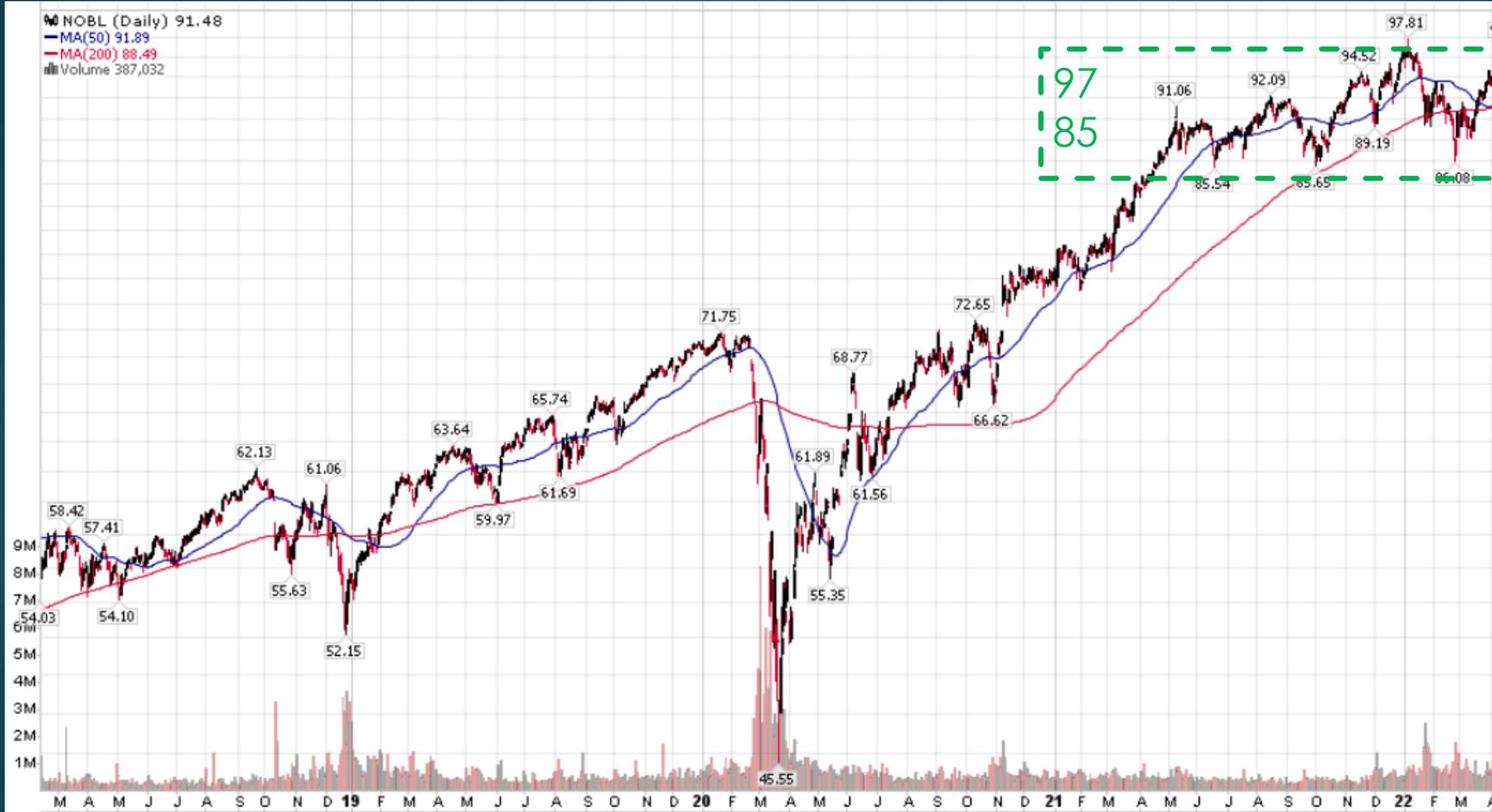
NAV	Open Price	Volume / Avg	Day Range	Year Range	SEC Yield	12-Month Yield	Adj. Expense Ratio	Expense Ratio	Total Assets	Category
92.46	93.21	24.3 k / 483.6 k	92.87 – 93.21	79.09 – 98.66	1.9%	1.9%	0.4%	0.4%	11.4 Bil	US Fund Large Value

Risk & Volatility Measures				
	<u>NOBL</u>	<u>Category</u>	<u>Index</u>	<u>SPY</u>
Trailing Alpha	1.34	0.68	–	-0.03
Beta	0.9	0.94	–	1
R2	90.13	84.93	–	100
Sharpe Ratio	0.54	0.49	0.51	0.50
Standard Deviation	20.32	21.8	20.99	21.34
Market Volatility Measures				
	<u>NOBL</u>	<u>Category</u>	<u>Index</u>	<u>SPY</u>
Capture Ratios				
Upside	92	92	–	100
Downside	88	90	–	100
D^2 Drawdown	NOBL%	Category %	Index %	SPY %
Maximum	-23.30	-26.79	-25.44	-23.87
D^2 Peak	D^2 Valley	D^ Duration		D^2 Valley
1-Jan-20	31-Mar-20	3 Months		30-Sep-22

# C. PROSPECTS – Equity Large Cap

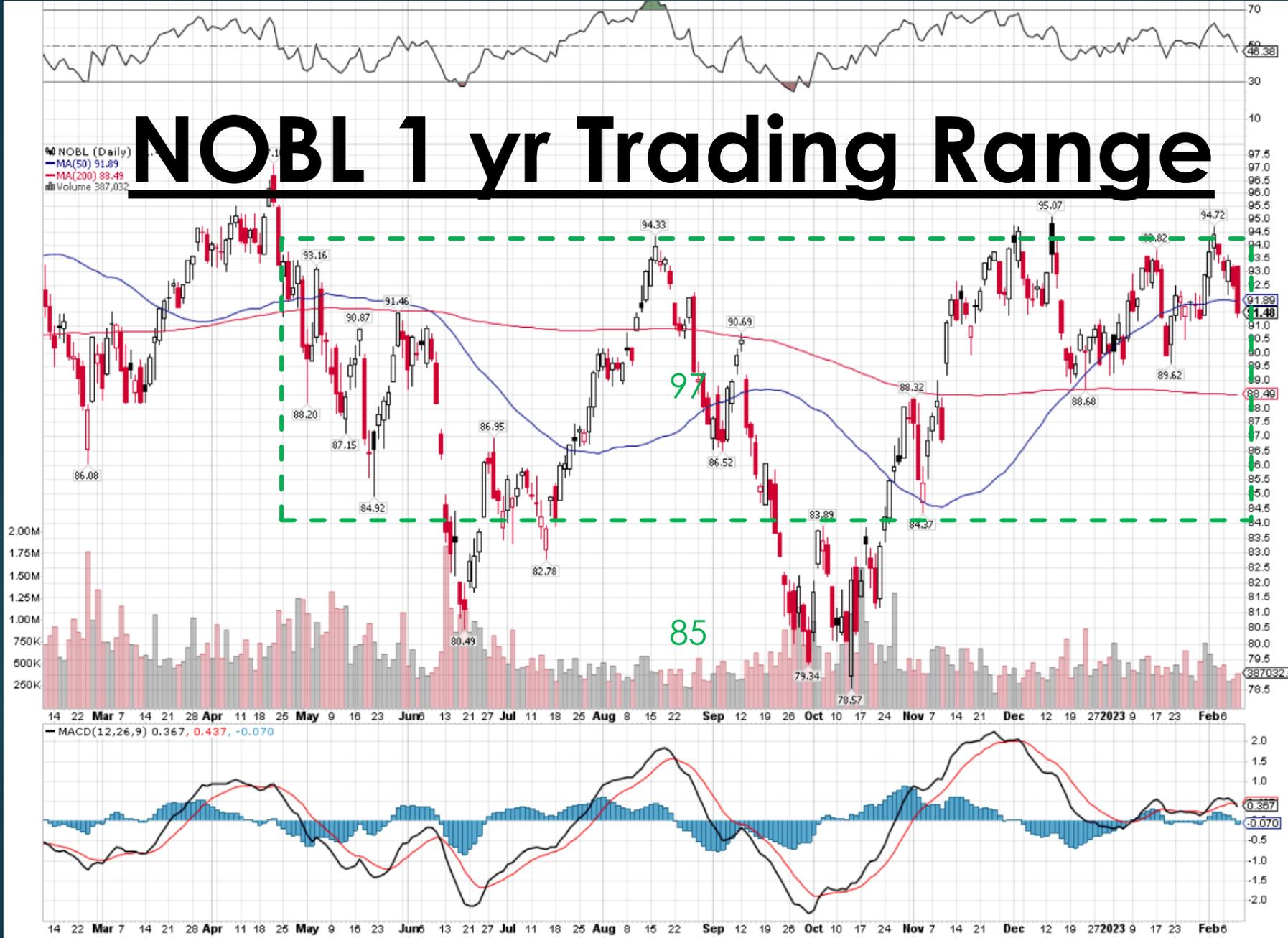
## NOBL 5 yr Trading Range

49



Trends	\$/sh
Today	= \$91
50dma	= \$91
200 dma	= \$88

# NOBL 1 yr Trading Range



RSI = 46

50

Trends	\$/sh
Today	= \$91
50dma	= \$91
200 dma	= \$88

- **A. OUTLOOK**
- **B. OPPORTUNITY**
- **C. PROSPECTS**
- **D. NEXT STEPS**

# APPENDIX

**A. BASELINE SPY, QQQ**

**B. DEBT BUBBLES**

**C. FIXED INCOME – JPMorgan**

**D. INTERNATIONAL**

# APPENDIX A – BASELINE SPY, QQQ

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SPY Constituents - Top 25 -> 40% of SPY				
Holdings	% Portfolio Weight	1-Year Return	P/E	Sector
Meta Platforms Inc Cla:	1.22	-16.69	19.27	Communication Services
Alphabet Inc Class C	1.59	-28.17	18.66	Communication Services
Alphabet Inc Class A	1.79	-28.72	18.55	Communication Services
Amazon.com Inc	2.63	-38.02	58.82	Consumer Cyclical
Tesla Inc	1.52	-34.50	49.51	Consumer Cyclical
The Home Depot Inc	0.98	-9.14	18.98	Consumer Cyclical
Procter & Gamble Co	0.97	-11.09	23.75	Consumer Defensive
PepsiCo Inc	0.69	2.13	23.53	Consumer Defensive
Exxon Mobil Corp	1.34	46.36	10.7	Energy
Chevron Corp	0.88	28.76	10.68	Energy
Mastercard Inc Class A	0.92	-0.53	30.3	Financial Services
Visa Inc Class A	1.09	1.68	27.17	Financial Services
Berkshire Hathaway In	1.61	-4.03	21.41	Financial Services
JPMorgan Chase & Co	1.21	-5.97	11.01	Financial Services
Bank of America Corp	0.74	-24.34	10.28	Financial Services
Eli Lilly and Co	0.77	43.66	39.22	Healthcare
UnitedHealth Group In	1.29	-0.77	19.42	Healthcare
Johnson & Johnson	1.24	-2.01	15.55	Healthcare
Merck & Co Inc	0.77	42.3	14.47	Healthcare
AbbVie Inc	0.74	4.75	12.94	Healthcare
Pfizer Inc	0.71	-11.82	12.84	Healthcare
NVIDIA Corp	1.53	-11.50	51.55	Technology
Microsoft Corp	5.56	-11.59	28.49	Technology
Apple Inc	6.59	-12.71	25.58	Technology
Broadcom Inc	0.71	3.06	14.56	Technology

# APPENDIX A – BASELINE SPY, QQQ

## Companies

54

SPY Constituents - Top 25 -> 40% of SPY				
Holdings	% Portfolio Weight	1-Year Return	P/E	Sector
Meta Platforms Inc Class A	1.22	-16.69	19.27	Communication Services
Alphabet Inc Class C	1.59	-28.17	18.66	Communication Services
Alphabet Inc Class A	1.79	-28.72	18.55	Communication Services
Amazon.com Inc	2.63	-38.02	58.82	Consumer Cyclical
Tesla Inc	1.52	-34.50	49.51	Consumer Cyclical
The Home Depot Inc	0.98	-9.14	18.98	Consumer Cyclical
Procter & Gamble Co	0.97	-11.09	23.75	Consumer Defensive
PepsiCo Inc	0.69	2.13	23.53	Consumer Defensive
Exxon Mobil Corp	1.34	46.36	10.7	Energy
Chevron Corp	0.88	28.76	10.68	Energy
Mastercard Inc Class A	0.92	-0.53	30.3	Financial Services
Visa Inc Class A	1.09	1.68	27.17	Financial Services
Berkshire Hathaway In	1.61	-4.03	21.41	Financial Services
JPMorgan Chase & Co	1.21	-5.97	11.01	Financial Services
Bank of America Corp	0.74	-24.34	10.28	Financial Services
Eli Lilly and Co	0.77	43.66	39.22	Healthcare
UnitedHealth Group In	1.29	-0.77	19.42	Healthcare
Johnson & Johnson	1.24	-2.01	15.55	Healthcare
Merck & Co Inc	0.77	42.3	14.47	Healthcare
AbbVie Inc	0.74	4.75	12.94	Healthcare
Pfizer Inc	0.71	-11.82	12.84	Healthcare
NVIDIA Corp	1.53	-11.50	51.55	Technology
Microsoft Corp	5.56	-11.59	28.49	Technology
Apple Inc	6.59	-12.71	25.58	Technology
Broadcom Inc	0.71	3.06	14.56	Technology

QQQ Constituents - Top 25 -> 70%				
Holdings	% Portfolio Weight	1-Year Return	P/E	Sector
Comcast Corp Class A	1.34	-19.04	10.36	Communication Services
Alphabet Inc Class A	3.74	-28.72	18.55	Communication Services
Alphabet Inc Class C	3.76	-28.17	18.66	Communication Services
Meta Platforms Inc Class	3.31	-16.69	19.27	Communication Services
T-Mobile US Inc	1.44	14.64	20.33	Communication Services
Netflix Inc	1.31	-9.09	31.95	Communication Services
Starbucks Corp	0.98	14.1	31.35	Consumer Cyclical
Tesla Inc	3.93	-34.50	49.51	Consumer Cyclical
Amazon.com Inc	6.31	-38.02	58.82	Consumer Cyclical
PepsiCo Inc	1.89	2.13	23.53	Consumer Defensive
Costco Wholesale Corp	1.79	-2.64	35.09	Consumer Defensive
Gilead Sciences Inc	0.86	39.07	12.59	Healthcare
Amgen Inc	1.03	2.88	13.35	Healthcare
Honeywell International	1.09	5.98	22.32	Industrials
Cisco Systems Inc	1.55	-12.40	13.23	Technology
Qualcomm Inc	1.19	-24.35	14.14	Technology
Broadcom Inc	1.96	3.06	14.56	Technology
Texas Instruments Inc	1.29	5.01	23.2	Technology
Adobe Inc	1.41	-26.00	24.63	Technology
Apple Inc	12.02	-12.71	25.58	Technology
Advanced Micro Devices	1.1	-33.95	27.78	Technology
Microsoft Corp	12.25	-11.59	28.49	Technology
Intuit Inc	0.95	-23.38	30.67	Technology
NVIDIA Corp	4.38	-11.50	51.55	Technology
Intel Corp	0.94	-39.15	55.25	Technology

# APPENDIX A – BASELINE SPY, QQQ

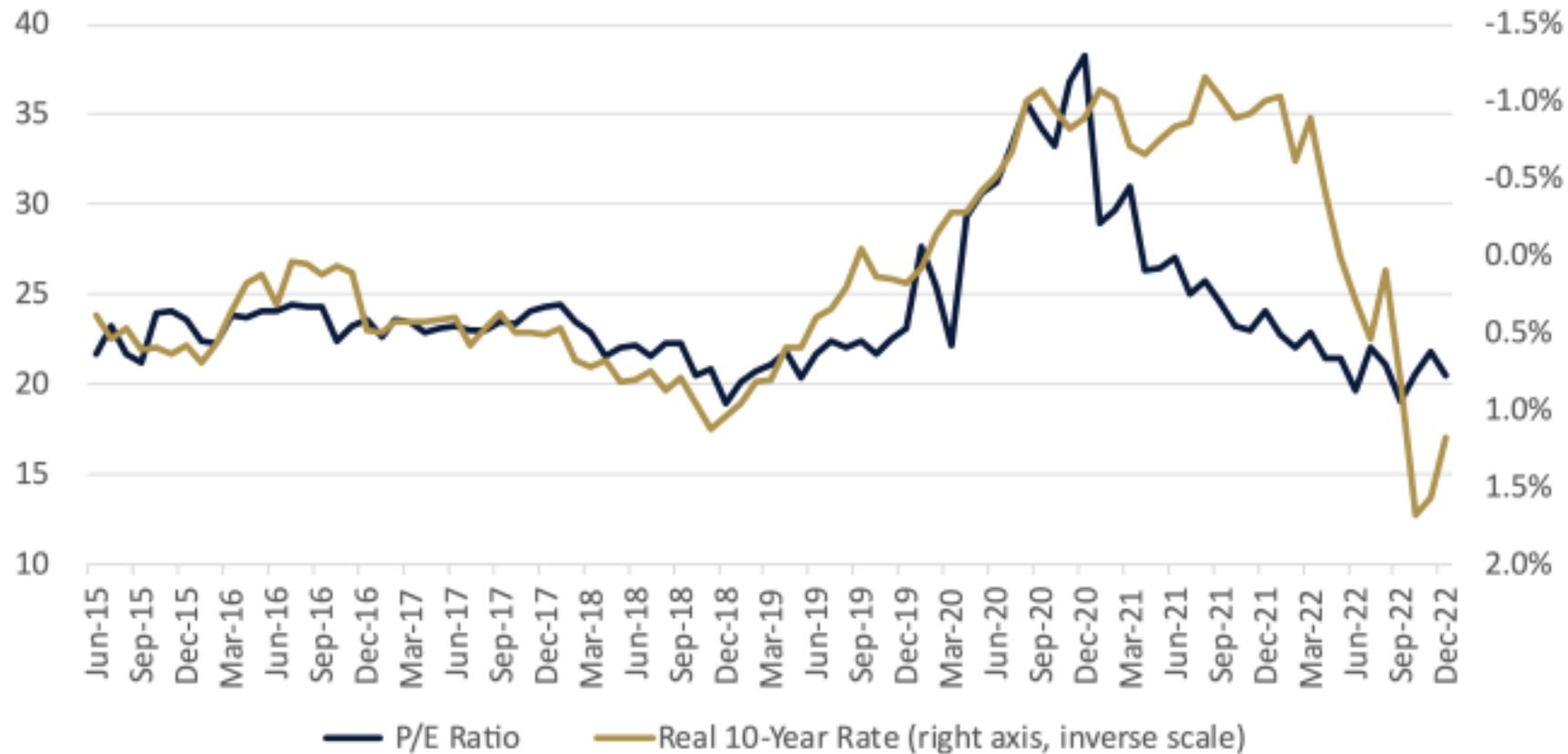
## Cap, Value and Growth

55

<u>Value &amp; Growth Measures</u>	<u>SPY</u>	<u>QQQ</u>
<u>Market Cap AVE \$b</u>	176	331
Price/Earnings	18.47	23.17
Price/Book	3.45	5.19
Price/Sales	2.11	3.31
Price/Cash Flow	10.7	13.46
Dividend Yield %	1.79	0.96
Long-Term Earnings %	11.27	10.35
Historical Earnings %	22.16	24.68
Sales Growth %	11.41	14.07
Cash-Flow Growth %	8.06	6.18
Book-Value Growth %	4.59	10.45

<u>Investment %</u>		
<u>Sectors</u>	<u>SPY</u>	<u>QQQ</u>
Basic Materials	2.44	0
Consumer Cyclical	10.46	15.73
Financial Services	13.91	0.76
Real Estate	2.85	0.25
ST->	29.66	16.74
Communication Services	8.11	16.92
Energy	4.77	0.45
Industrials	8.75	4.2
Technology	24.33	47.8
ST->	45.96	69.37
Consumer Defensive	7.03	5.97
Healthcare	14.46	6.7
Utilities	2.88	1.23
ST->	24.37	13.9

## P/E Ratio vs. Real 10-Year Rates

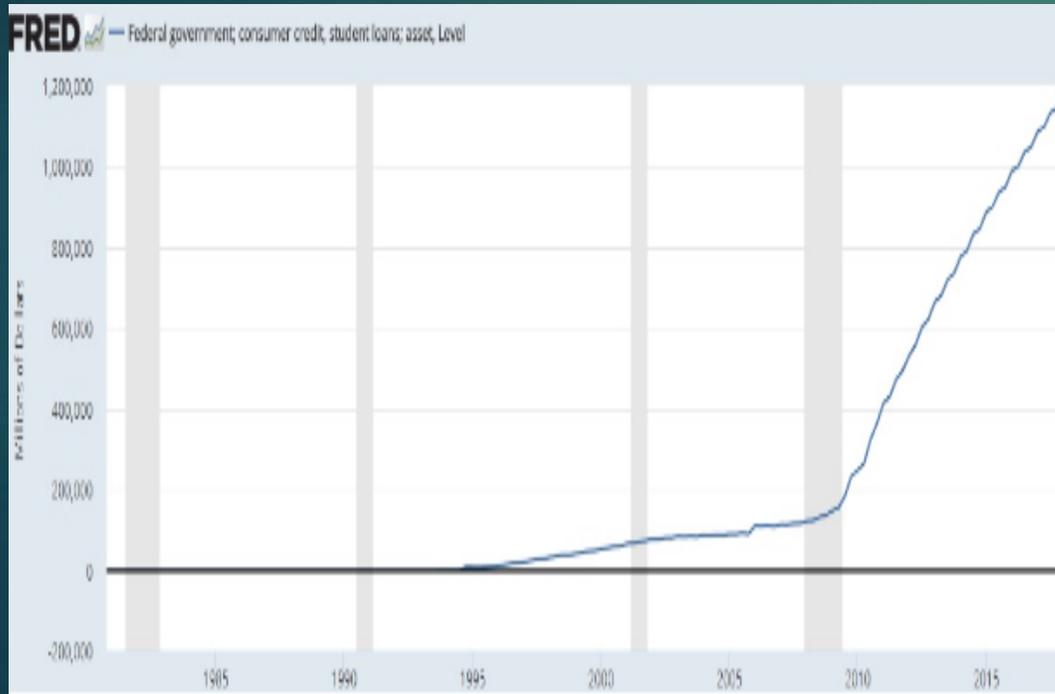


Source: Federal Reserve and Macrotrends

# APPENDIX B – Debt Bubbles

**bubble 1 - \$1.3t Student Loans**  
**44 mm Americans, Ave debt \$35k**  
**10% in Default**

**bubble 2 – State & Local Pensions**  
**\$1.38t unfunded**  
**Plan for 6% Returns pa**  
**Alternative COLA Adjustments**



Source: St Louis Fed

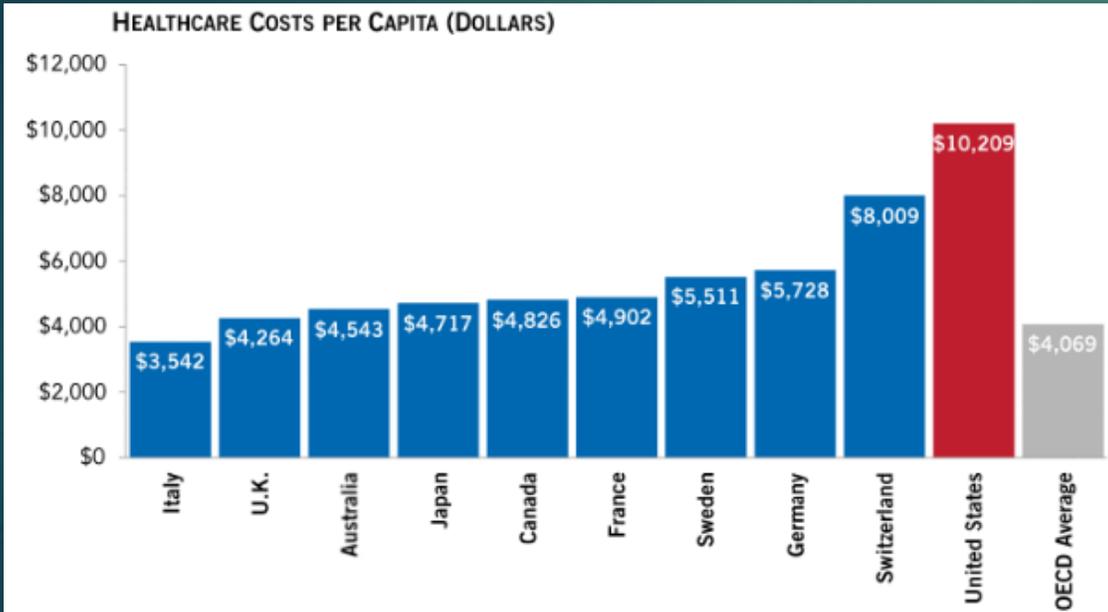
STATE PENSION Net Liability 2020			
State	Liabilities (total pension liability)	Pension debt (net pension liability)	Funded ratio
California	\$689,862,628	\$194,344,796	72%
New York	\$229,905,278	\$31,825,516	86%
Texas	\$288,705,649	\$93,793,312	68%
Ohio	\$213,325,248	\$39,089,211	82%
Florida	\$217,497,837	\$55,551,311	74%
Wisconsin	\$118,723,255	(\$6,243,139)	105%
Washington	\$110,556,760	\$5,437,196	95%
North Carolina	\$118,983,168	\$15,794,613	87%
<b>Total</b>	<b>\$4,531,452,555</b>	<b>\$1,383,538,610</b>	<b>69.50%</b>

Source: Pew Charitable Trusts

# APPENDIX B – Debt Bubbles

## Bubble 3 - US Health Care – 2.5x Developed Country Average

- US Health Care% GDP      1990      2025  
   12%      >20%

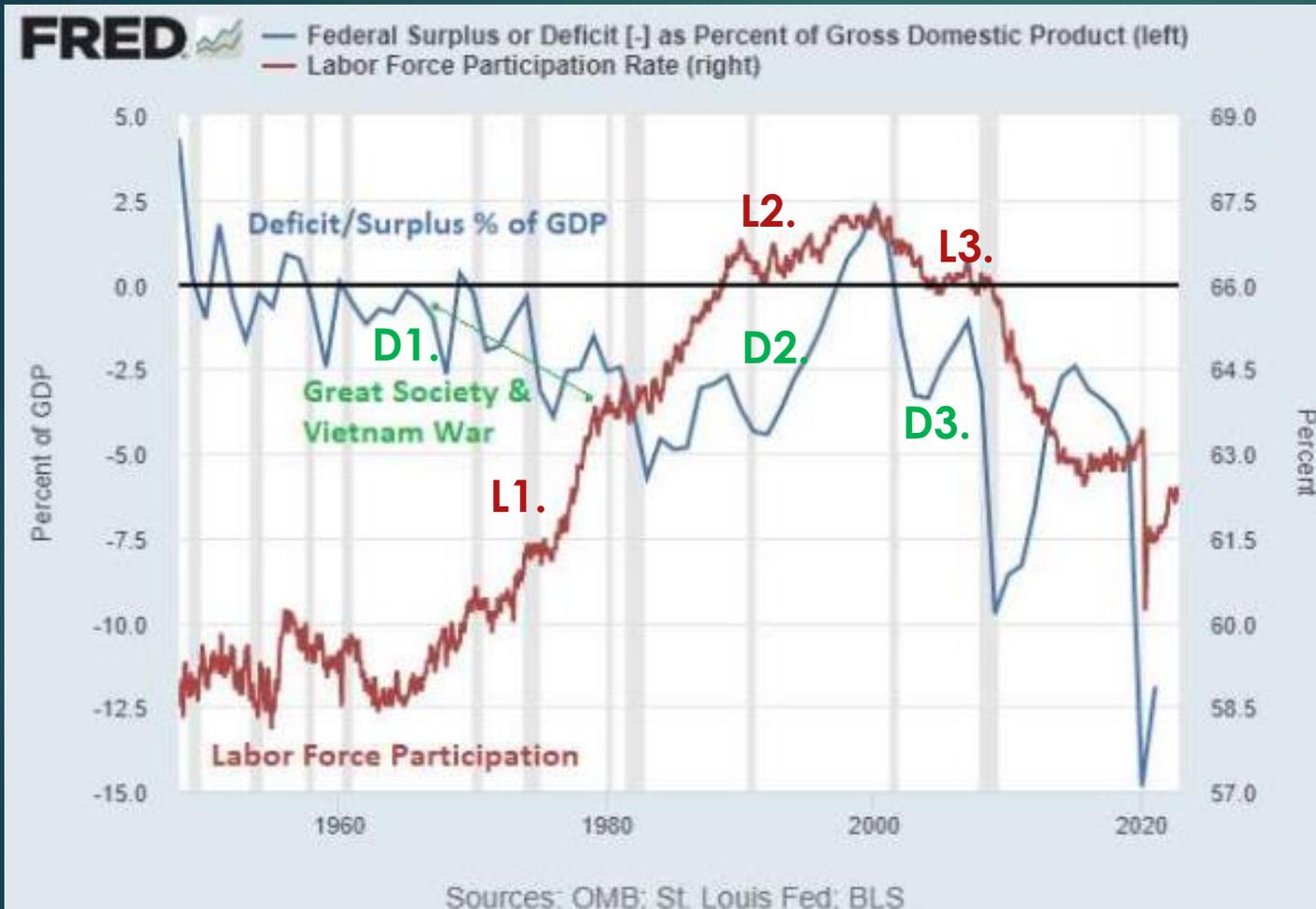


Source: Peter G Peterson

# APPENDIX B – Debt Bubbles

## Bubble 4 – US National Debt

59



Pre 1990;

D1. Deficits – Viet Nam & Social Programs

L1. Labor Force Expansion

- Baby Boomers in the Labor Pool

- Female Participation

1990 to 2000;

D2. Deficits Decline

L2. Labor Force Expands to 2000 Peak

2000 to 2008

D3. Deficit Wars in Iraq and Afghanistan

Bank Crisis / Bailout (\$6t)

L3. Labor Force Decline

2020

D4. COVID Miasma

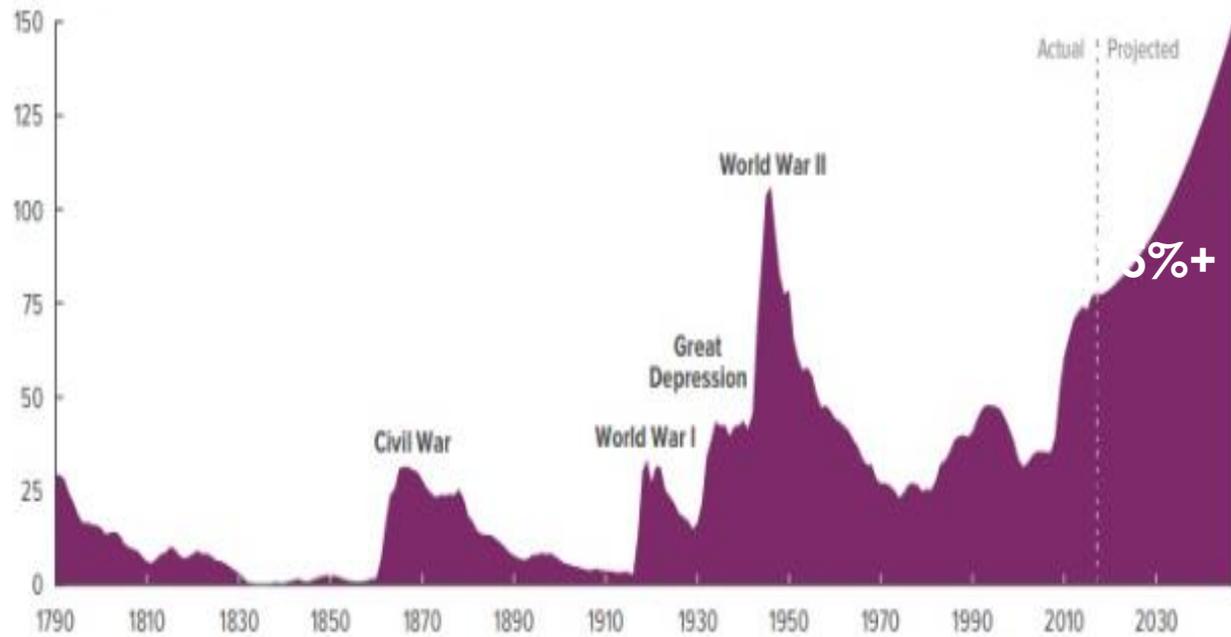
# APPENDIX B – Debt Bubbles

## Bubble 4 – Federal Debt – Percent of GDP

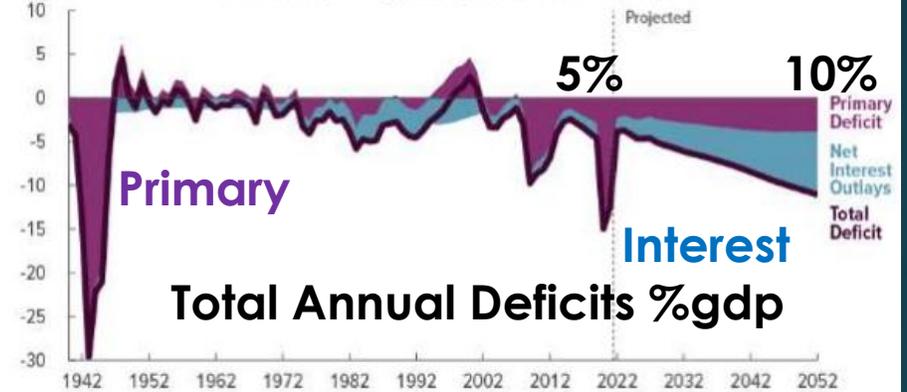
## Bubble 4 – Fed Debt

Federal Debt Held by the Public

Percentage of Gross Domestic Product

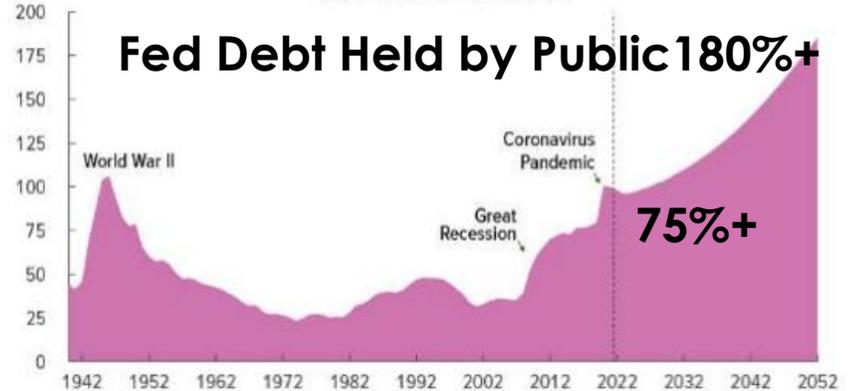


Total Deficits, Primary Deficits, and Net Interest Outlays



Federal Debt Held by the Public

Fed Debt Held by Public 180%+



# APPENDIX B – Debt Buyers

61

Fed Debt – Buyers?

Social Security Trust

- A Net Seller, In Drawdown

China

- Drawing Down Since 2013

Japan

- No Longer a Buyer

US Tax Receipts - Down



Yield Error – An indication that any large sale or purchase significantly changes price levels.

# APPENDIX C – Fixed Income

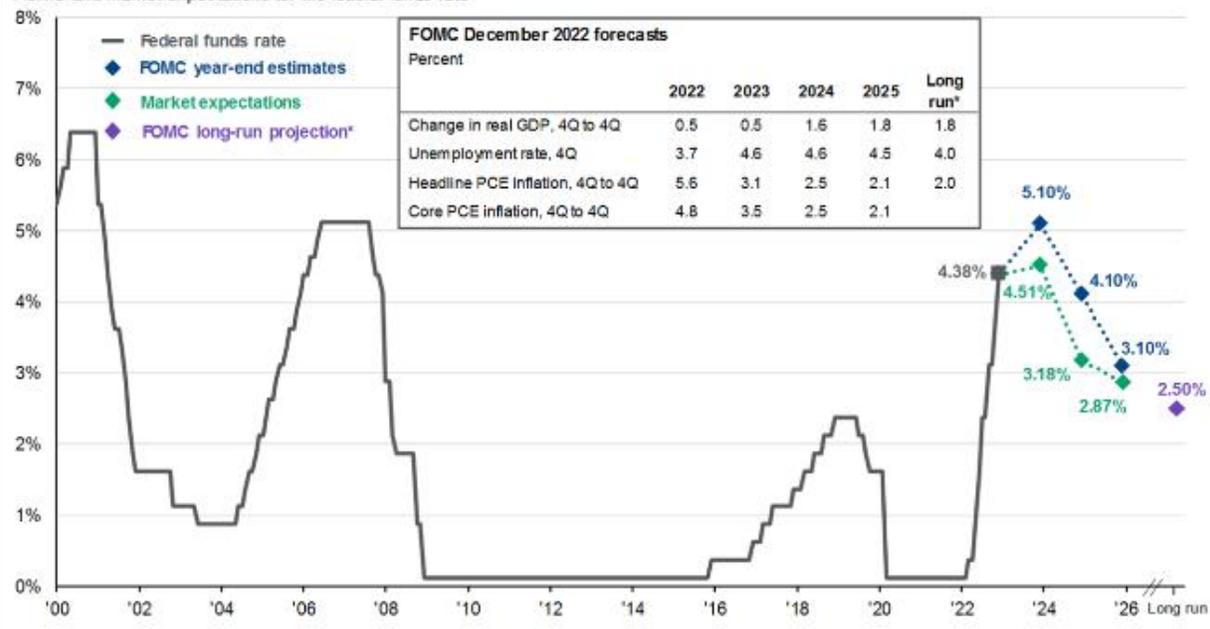
## FixInc-01 The Fed & Interest Rates

## FixInc-02 The Fed Bal. Sheet

62

### Federal funds rate expectations

FOMC and market expectations for the federal funds rate

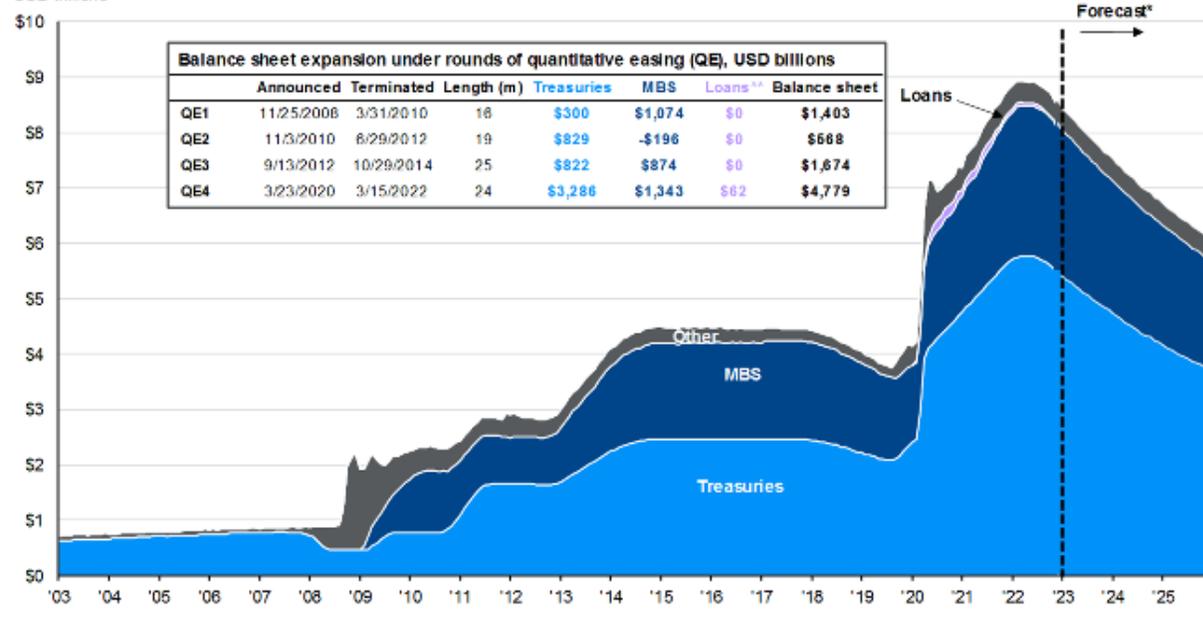


<https://am.jpmorgan.com/us/en/asset-management/adv/tools/portfolio-tools/bond-ladder-illustrator/>

Source: Bloomberg, Factset, FedReserve  
JPM Asset Management - 01/31/23

### The Federal Reserve balance sheet

USD trillions



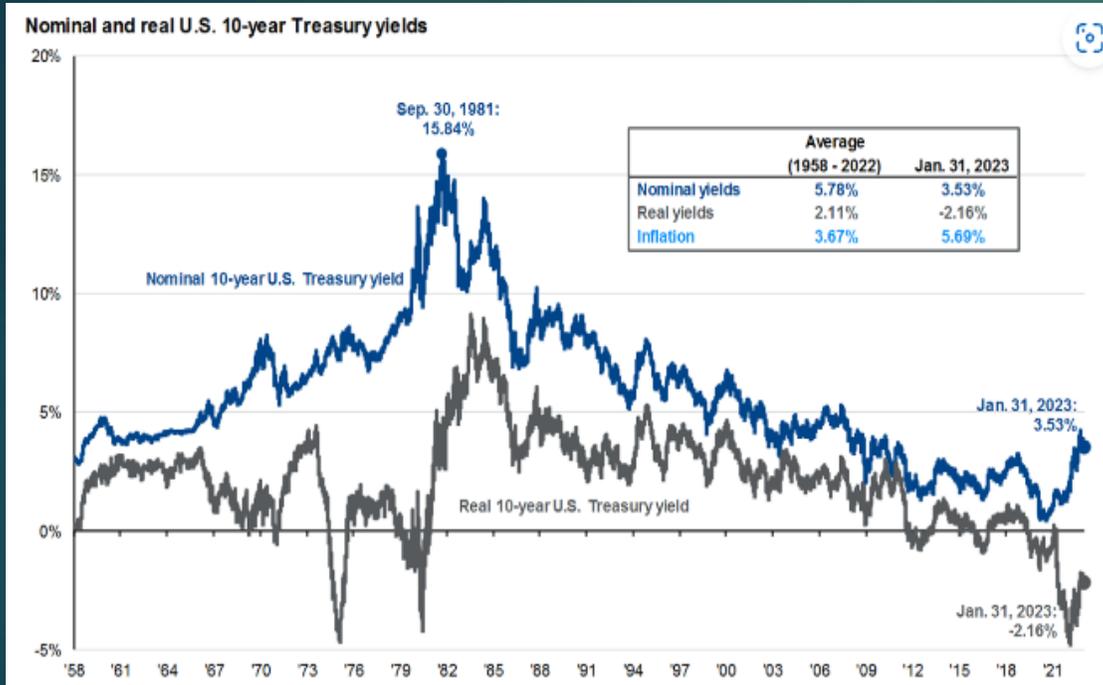
### Balance sheet expansion under rounds of quantitative easing (QE), USD billions

	Announced	Terminated	Length (m)	Treasuries	MBS	Loans <sup>AA</sup>	Balance sheet
QE1	11/25/2008	3/31/2010	18	\$300	\$1,074	\$0	\$1,403
QE2	11/3/2010	8/29/2012	19	\$829	-\$196	\$0	\$688
QE3	9/13/2012	10/29/2014	25	\$822	\$874	\$0	\$1,674
QE4	3/23/2020	3/15/2022	24	\$3,286	\$1,343	\$62	\$4,779

Source: Factset, FedReserve JPMorgan Investment Bank,  
JPM Asset Management - 01/31/23

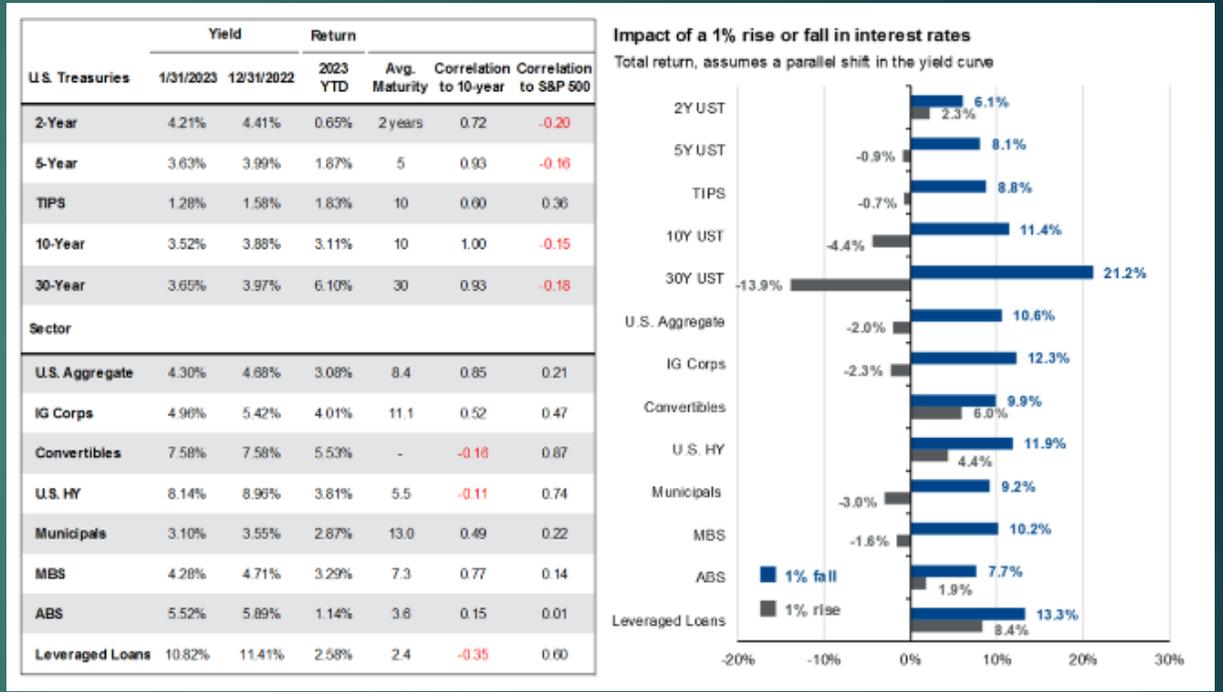
# APPENDIX C – Fixed Income

## FixInc-03 Interest Rates – Nominal & Real



Source: BLS, Factset, JPMorgan - 01/31/23

## FixInc-04 Fixed Income Market Dynamics

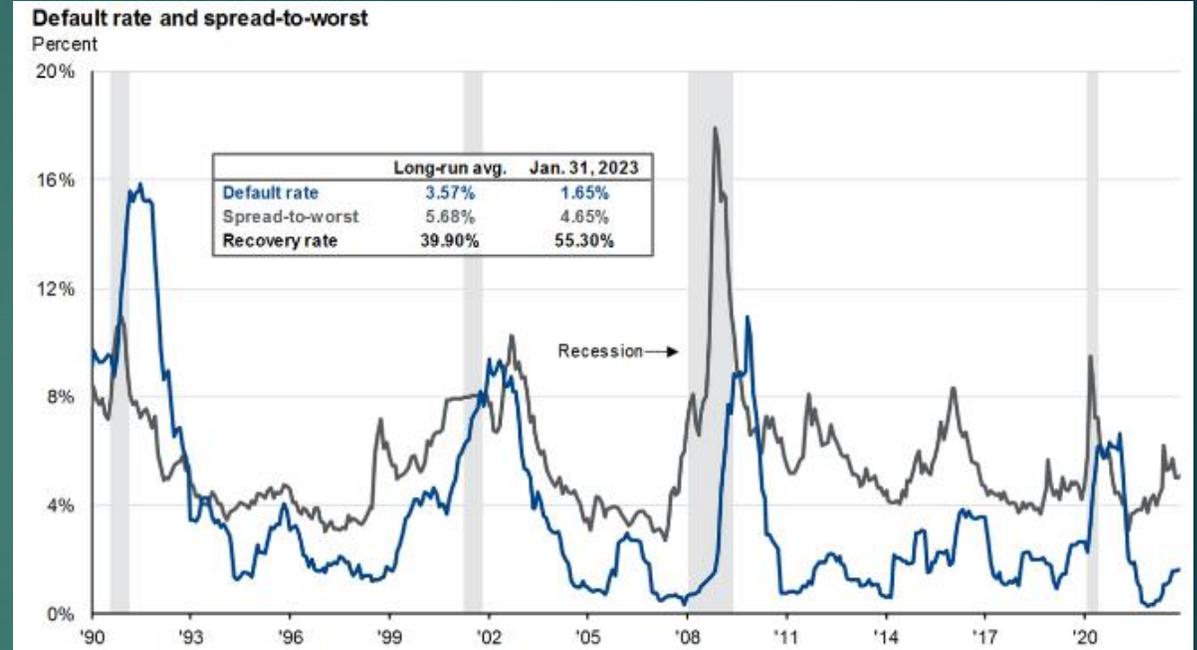
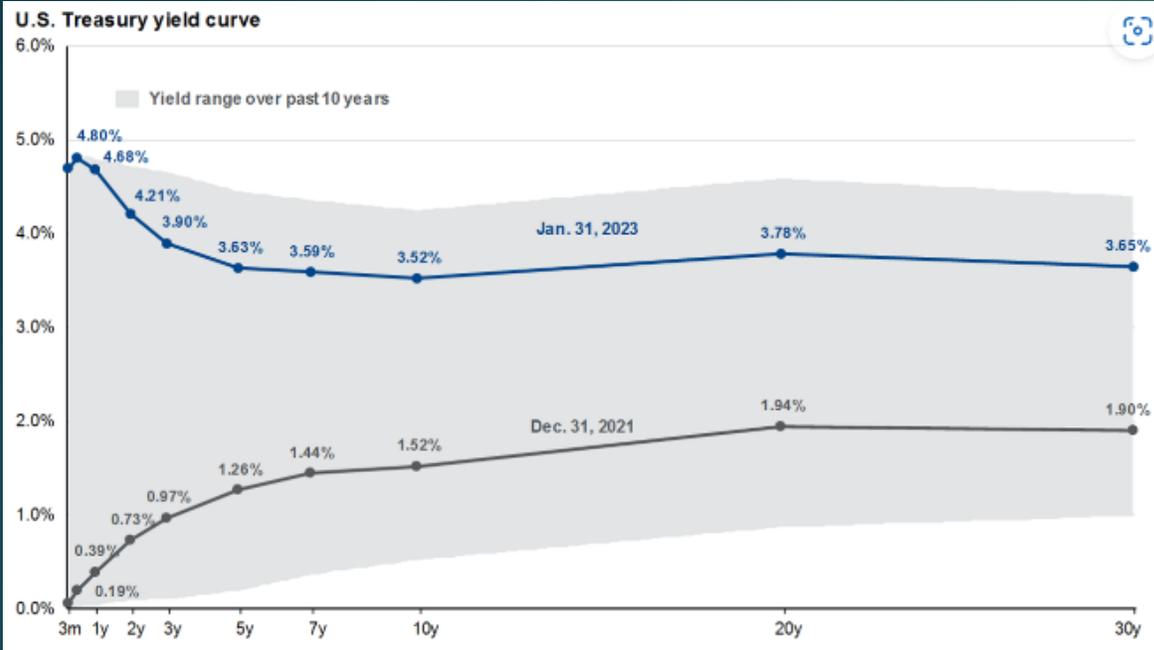


Source: Bloomberg, Factset, S&P, US Treasury, JPMorgan - 01/31/23

# APPENDIX C – Fixed Income

## FixInc-04 - The US Yield Curve – JPM High Yield Index

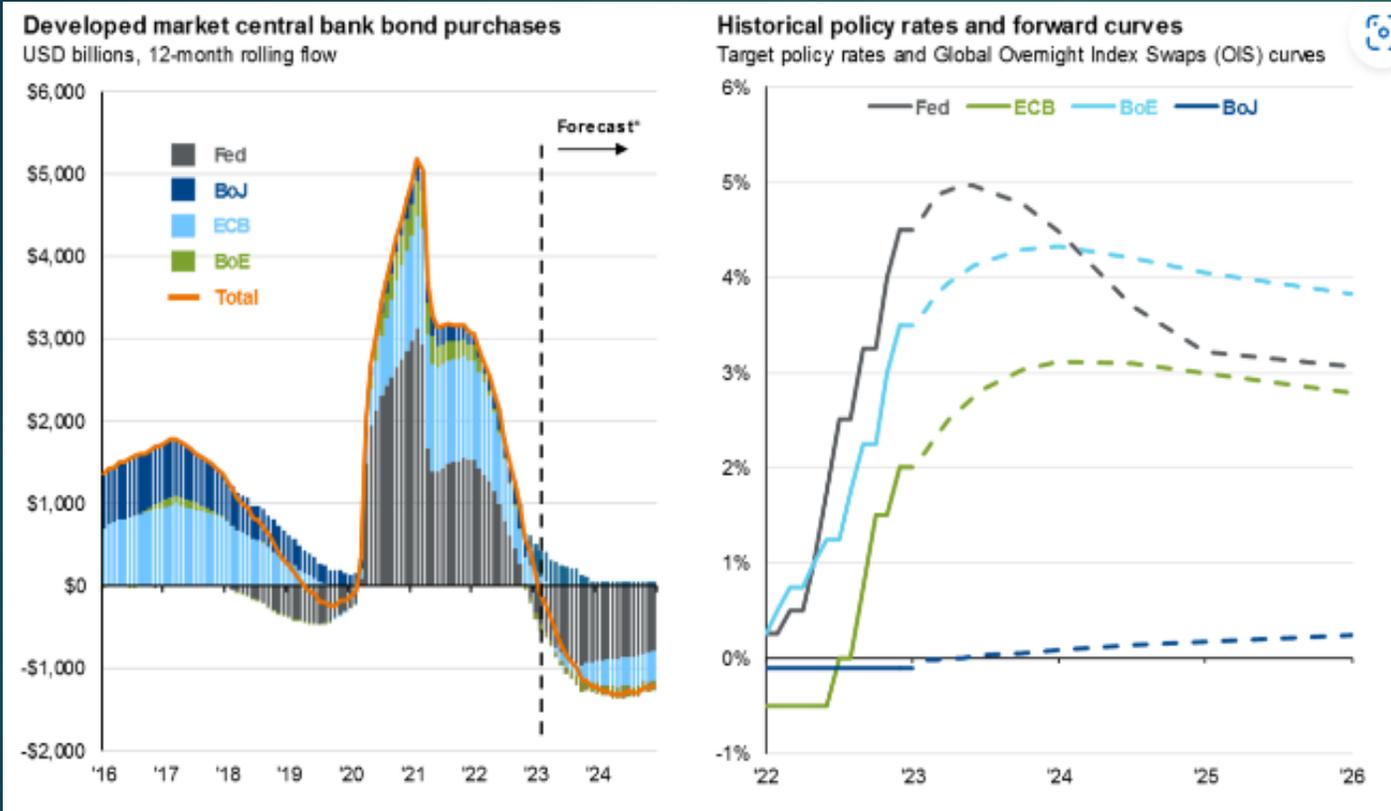
## FixInc-05 High Yield Bonds



Source:FactSet, Fed, JPMorgan - 01/21/23

# APPENDIX C – Fixed Income

## FixInc- 06 Developed Market Monetary Policy



Source: BIS, Bloomberg, FactSet, Fed, JPMorgan - 01/21/23

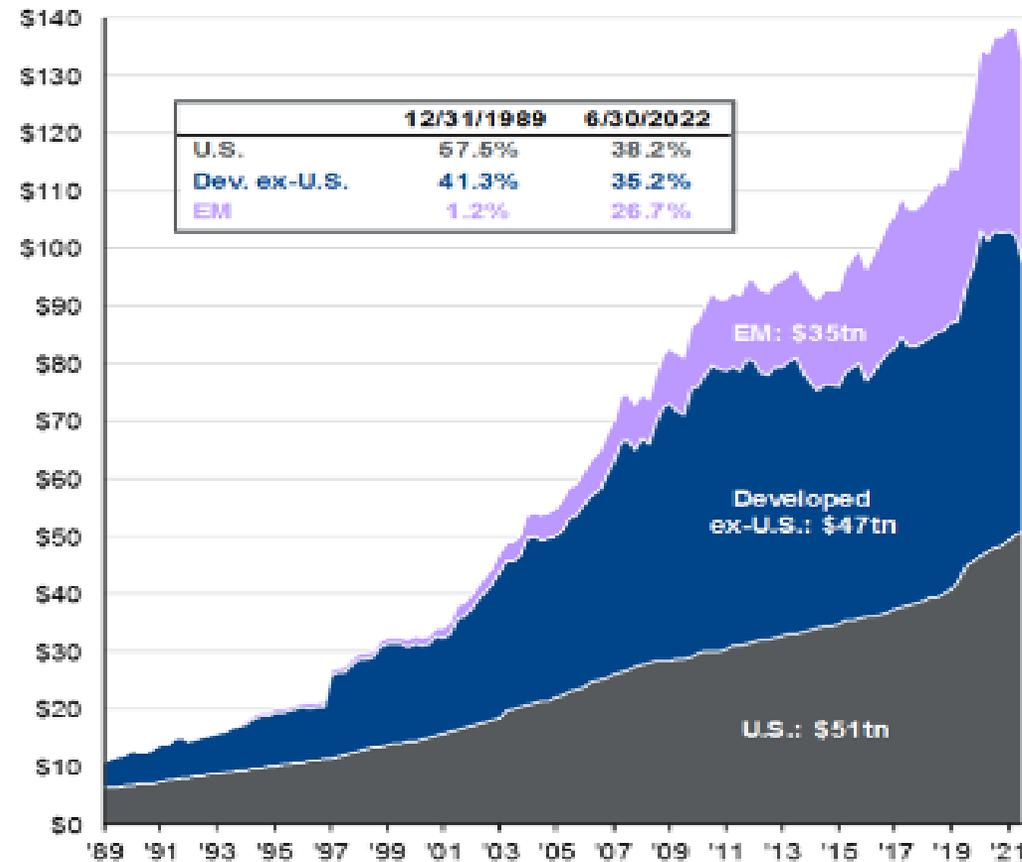
# APPENDIX C – Fixed Income

## FixInc-07 Global Fixed Income

Aggregates	Yield		2023 Return			
	1/31/2023	12/31/2022	Local	USD	Duration	Correlation to 10yr
U.S.	4.30%	4.68%	3.08%	3.08%	6.3 years	0.91
Gbl. ex-U.S.	2.96%	3.13%	-	3.39%	7.10	0.57
Japan	0.74%	0.75%	-0.19%	1.27%	9.20	0.58
Germany	2.96%	3.22%	1.90%	3.69%	6.20	0.47
UK	3.93%	4.29%	2.62%	5.03%	8.60	0.48
Italy	3.78%	4.10%	2.82%	4.63%	6.20	0.33
China	2.95%	2.94%	1.08%	2.86%	5.80	0.55
<b>Sector</b>						
Euro Corp.	3.95%	4.32%	2.22%	4.02%	4.5 years	0.42
Euro HY	7.52%	8.32%	3.20%	5.02%	3.20	0.04
EMD (\$)	8.11%	8.55%	-	3.17%	6.20	0.34
EMD (LCL)	6.61%	6.86%	1.69%	4.29%	5.00	0.22
EM Corp.	6.66%	7.28%	-	3.04%	5.20	0.24

### Global bond market

USD trillions

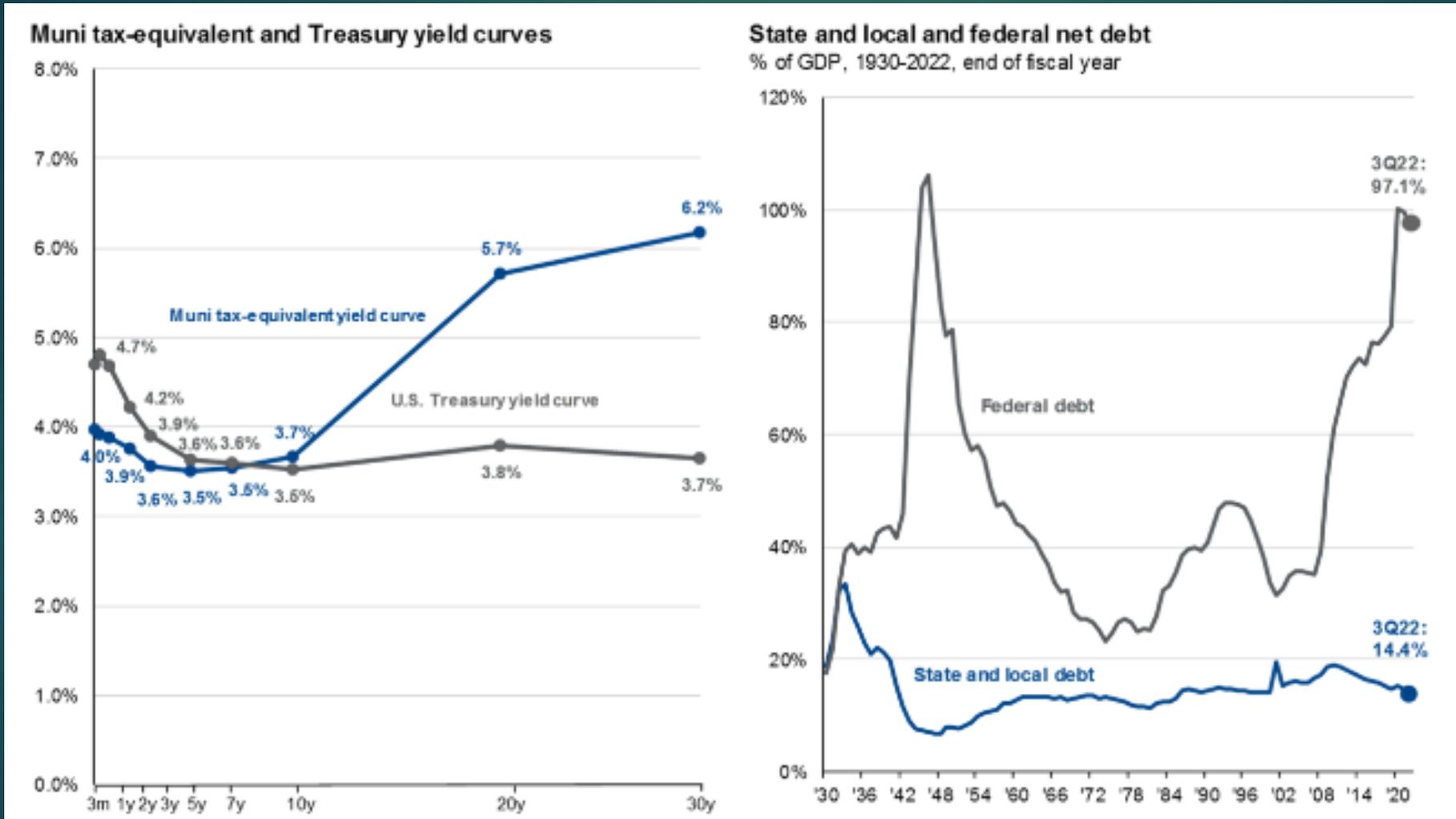


Source: JP Morgan Asset Management,  
(left) BIS, Bloomberg, FactSet,  
(right) BIS Fed, JPMorgan - 01/21/23

# APPENDIX C – Fixed Income

## FixInc-08 Municipal Finance

67

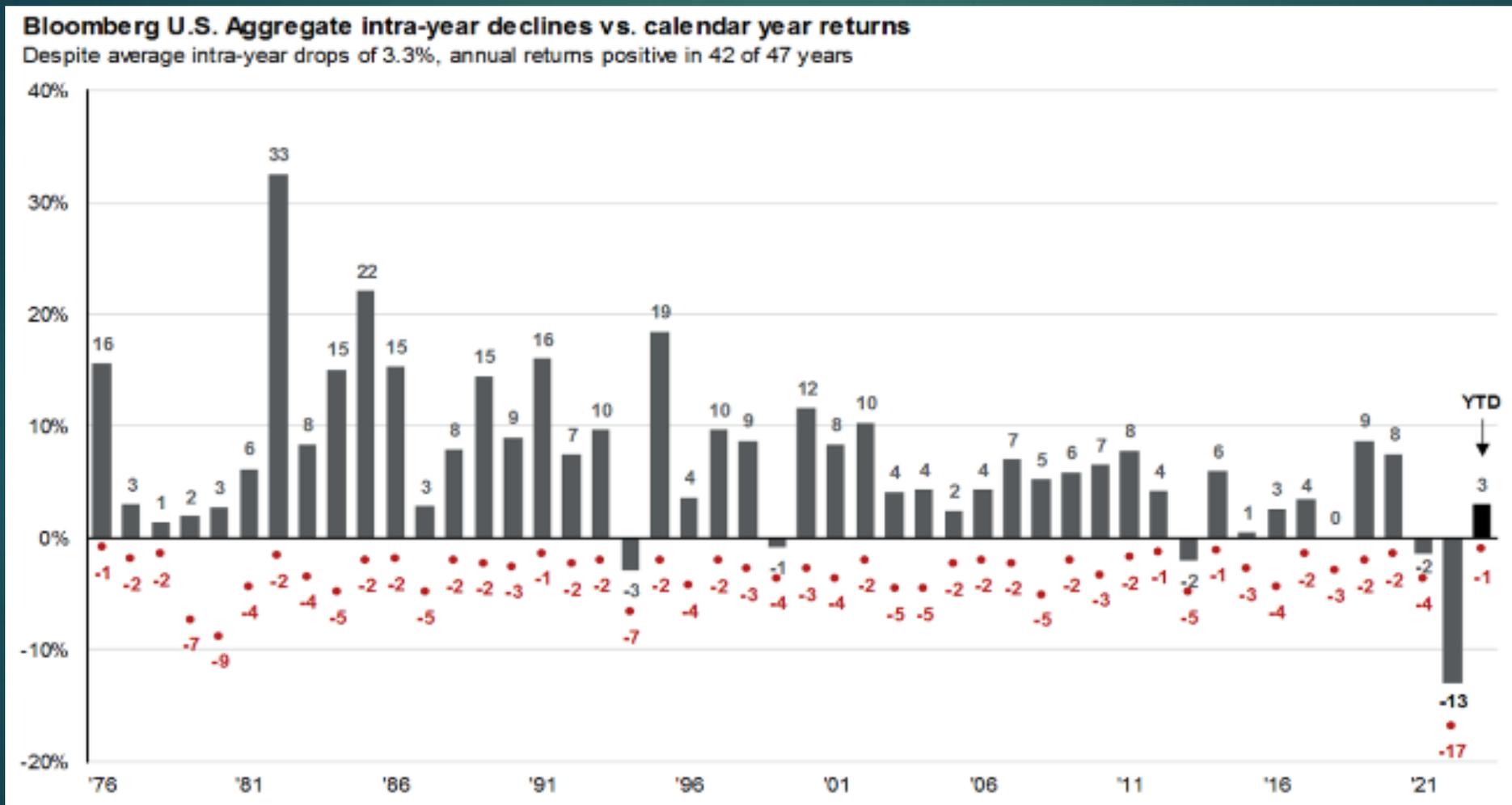


Source: JP Morgan Asset Management,  
(left) BIS, Bloomberg, Federal Reserve FactSet,  
(right) Census Bureau Annual Survey, CBO JPMorgan - 01/21/23

# APPENDIX C – Fixed Income

## FixInc-09 Bloomberg US Aggregate Annual Returns & Intra Year Declines

68



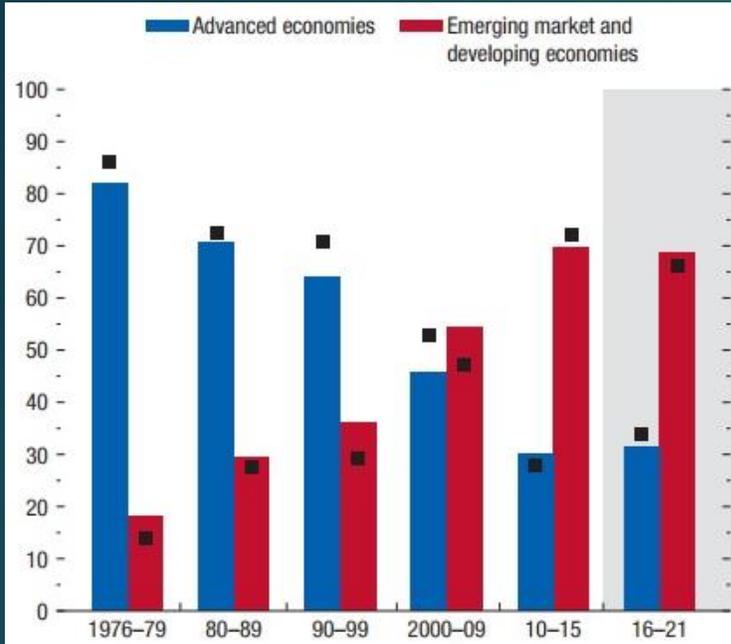
Source: Bloomberg, JP Morgan Asset Management, JPMorgan - 01/31/23

# APPENDIX D – Foreign

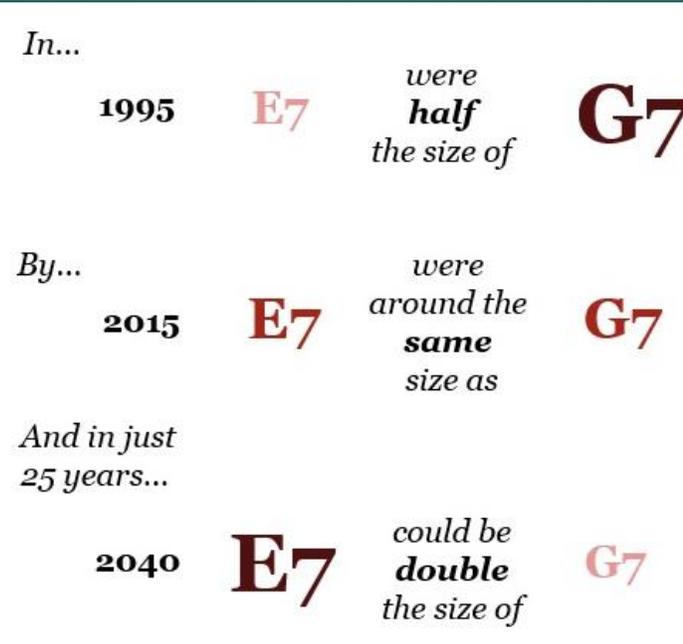
	Total Return by Year					Annual Return			Risk					
	2022	2021	2020	2019	2019	3yr %pa	5yr %pa	10 yr % pa	Index	Yield %	Exp Ratio %	Turn Over %	\$ Assets mil	
Foreign Large Blend	-15.2	10.7	8.1	22	-13.5	0.5	1.4	4.4	1.11	2.9	0.35	35	5,573	Large Blend
Foreign Large Growth	-22.8	8	25.2	27.4	-15.7	0.5	2.2	5.1	1.21	3.2	0.57	62	883	Large Growth
Foreign Large Value	-8.1	12.1	-1.5	18.9	-13	0.3	0.8	3.6	1.2	4.6	0.41	55	1,121	Large Value
Foreign Small/Mid Blend	-18.4	12.5	10.3	23.5	-17.6	0.4	0.5	4.7	1.27	2.2	0.29	20	3,38	Small/Mid Blend
Foreign Small/Mid Value	-11.6	12.6	1.6	20.1	-16.9	0.4	0	4.5	1.27	3.8	0.58	36	672	Small/Mid Value
Emerging Markets Diversifie	-18.6	1.8	12.6	17.5	-14.3	-2.4	-1.5	0.9	1.22	3.5	0.47	43	2,318	Markets Diversified

# APPENDIX D – International

## Global Output & Consumption Growth



Source: IMF staff calculations.  
 Note: Weighted averages are calculated using market exchange rates. Colored bars show percentage of contribution to output growth; black squares show percentage of contribution to consumption growth.



G7: US, UK, France, Germany, Japan, Canada and Italy  
 E7: China, India, Indonesia, Brazil, Russia, Mexico and Turkey

Sources: IMF for historical GDP, PwC analysis for projections to 2050



# APPENDIX D – International

## Broad International Stocks

VXUS	Vanguard Total Internations
IXUS	I Shares Core MSCI
SCH	Schwab Int Equity

## Emerging Market ETFs

VWO	Vanguard Emerging Markets	C,T,I
IEMG	I Shares Core	C, SC, T
SCHE	Schwab Emerging Markets	C, T, I

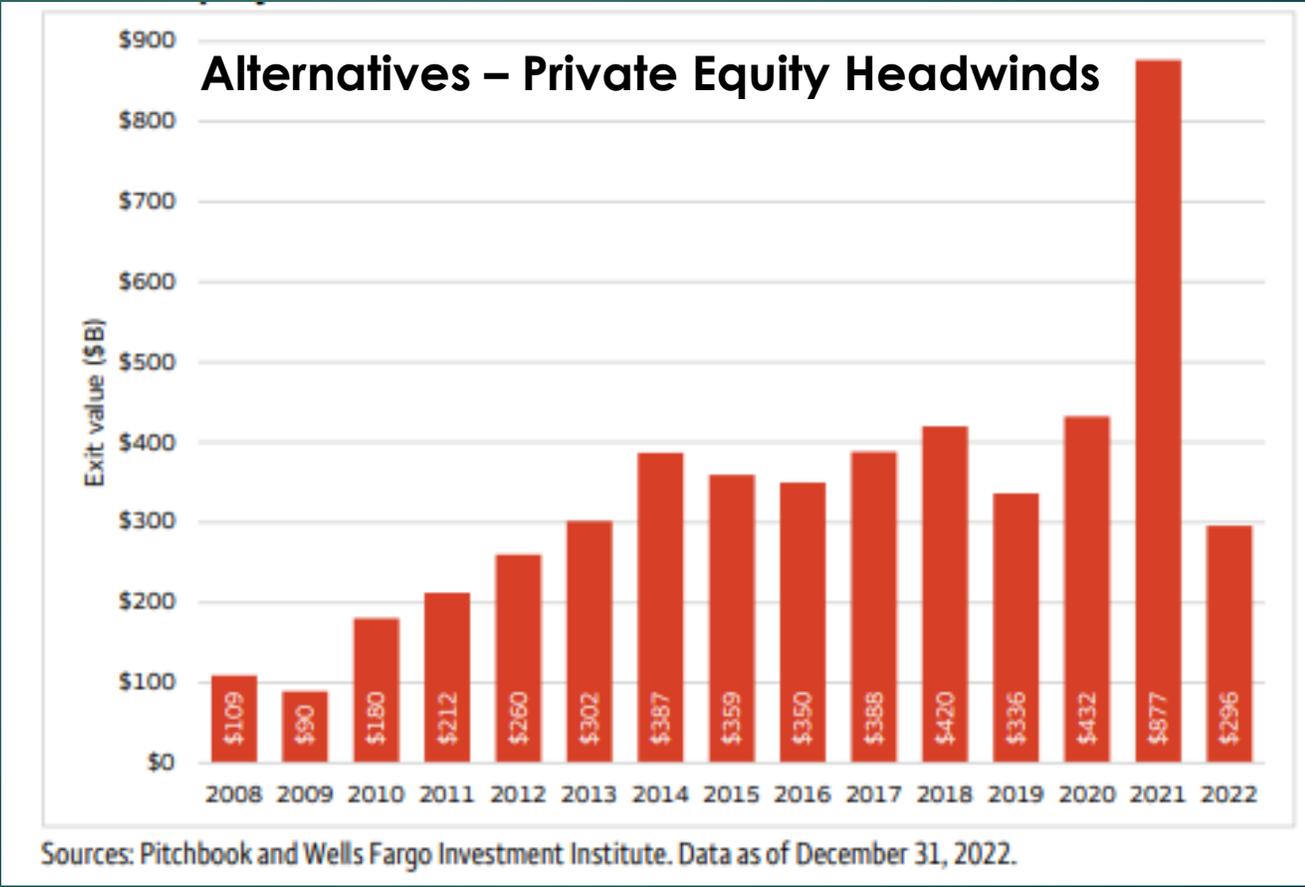
## International Dividend ETFs

VIGI	Vanguard Div Appreciation	Switz, CAN, Japan
VYMI	Vanguard High Div Yield	UK, Switz, Australia
IDV	iShares Int Select Dividend	UK. Australia, France

BAM	Brookfield Asset Management
BPY	“ Property Partners
BEP	“ Renewable Partners
BIP	“ Infrastructure Partners
BBU	“ Private Equity Funds

# App E - ALT HEADWIND

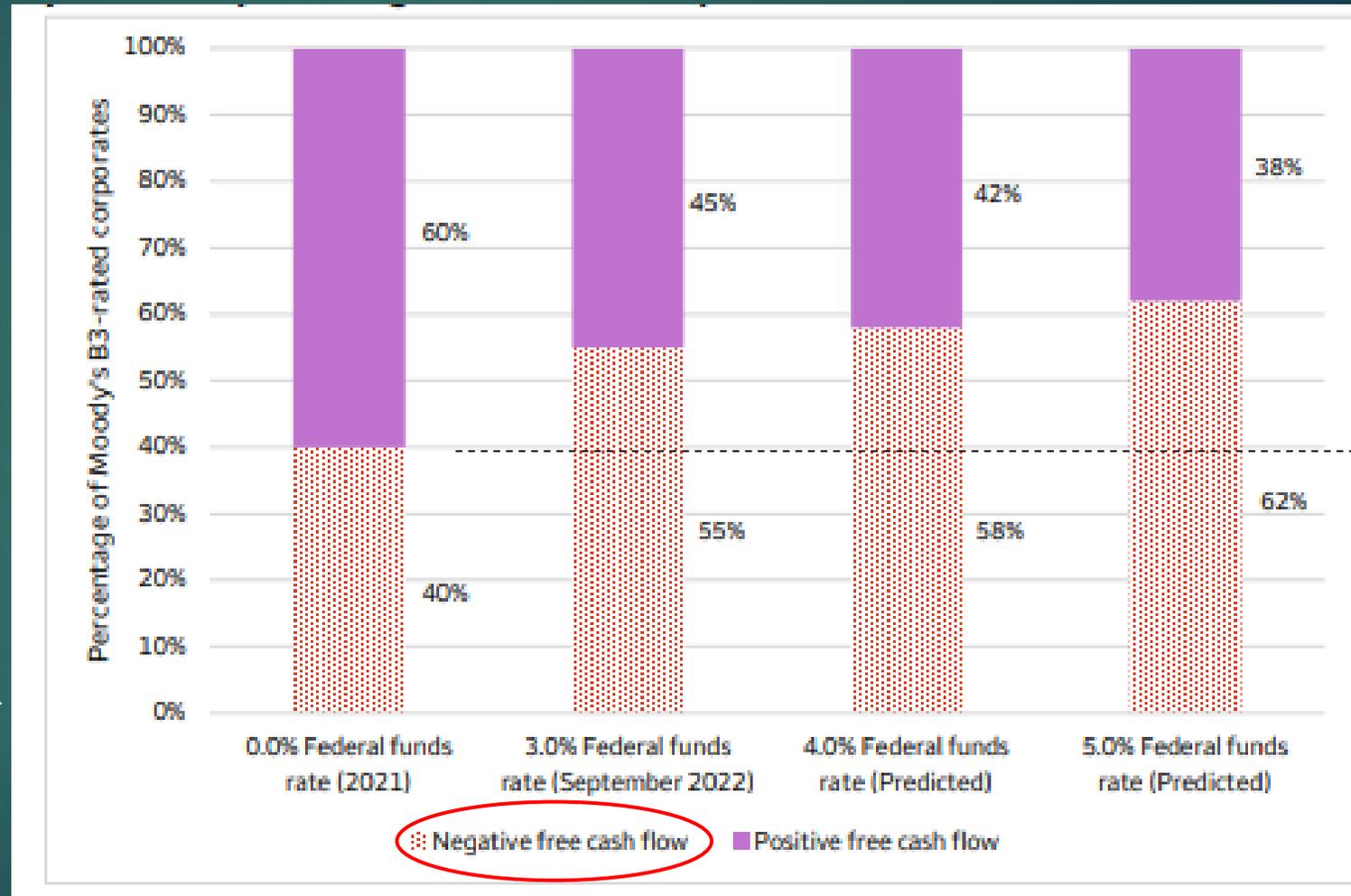
5	<b>Eq - US Large Cap</b>
4	<b>Eq - US mid Cap</b>
2	Eq - US Small Cap
1	Eq - Devel Mkt ex US
2	Eq - Emerg Mk ex US
4	<b>FixInc - US Invest Grade Taxable</b>
4	<b>FixInc - US Short Term Taxable</b>
2	FixInc - Intermed Taxable
5	<b>FixInc US Long Term Taxable</b>
2	FixInc - Hyield Taxable
2	FixInc Devel Mkt ex US
3	FixInc Emerg Mkt ex US
4	<b>Rassets - Commodities</b>
3	Rassets - Priv Real Estate
4	<b>Alts - Hdg Fund Rel Value</b>
4	<b>Alts - Hdg Funds Macro</b>
3	Alts -Hdg Funds Events
3	Alts - Hdg Funds Equity Hedge
3	Alts - Hdg Funds Private Equity
3	Alts - Hdg Funds Private Debt



- 5. Strong Buy
- 4. Buy
- 3. Neutral
- 2. Sell
- 1. Sell Now

# App E - ALTS CASH FLOW

5	Eq - US Large Cap
4	Eq - US mid Cap
2	Eq - US Small Cap
1	Eq - Devel Mkt ex US
2	Eq - Emerg Mk ex US
4	FixInc - US Invest Grade Taxable
4	FixInc - US Short Term Taxable
2	FixInc - Intermed Taxable
5	FixInc US Long Term Taxable
2	FixInc - Hyield Taxable
2	FixInc Devel Mkt ex US
3	FixInc Emerg Mkt ex US
4	Rassets - Commodities
3	Rassets - Priv Real Estate
4	Alts - Hdg Fund Rel Value
4	Alts - Hdg Funds Macro
3	Alts -Hdg Funds Events
3	Alts - Hdg Funds Equity Hedge
3	Alts - Hdg Funds Private Equity
3	Alts - Hdg Funds Private Debt



Increase by 55%

- 5. Strong Buy
- 4. Buy
- 3. Neutral
- 2. Sell
- 1. Sell Now

Source: Marathon Asset Management LP, Moodys, Wells Fargo Investment Institute

# App F – Typical Data Sources

	<u>Source</u>	<u>Publisher (timing)</u>	<u>Inc Sig Use</u>
<u>ECONOMICS</u>			
A1 LEI Leading Econ Indicators	Conference Board	Fed (monthly updates)	LT Risk On/ Off by Asset Class
A2 GDP – QoQ, YoY “GDP Now”	Fed – Atlanta, Survey	Fed Web Site(s) (monthly)	ST Risk On/Off by Asset Class
A3 Inflation – CPI, PPI, CIE	Fed – Cleveland	“ “ “ “	
A4 Credit Markets & Spreads	Moodys	Market Outlook	Credit Spreads
A5 Sector Drivers	CB		
<u>SENTIMENT</u>			
B1 Sentiment – 75dma	Delta Mgmt Group	Barrons (wkly)	Entry / Exit Alerts – On, 2/3, 1/3, Off
B2 “ - Investors	AAll National Web Site	Web and Magazine (wkly)	“ “
B3 “ - Fund Mgrs	BoAmerica – Survey	Monthly	“ “
B4 “ - CNNvB	CNN – Fear / Greed	SS- Seven Sentiments	Entry or Exit, Risk On / Off
<u>ASSET ROTATION</u>			
C1 Relative Rotation	etfdb.com, RRG’s	etfdb, stockcharts	Fund Flow – Momo & Return
C2 Prospect->Best Few	Sector Surfer	sumgrowth.com	Asset-> Market->Sector->ETFs
C3 DJ – 128 Industrial Groups	Dow Jones	Barrons Dloads	->Ind.Groups-> Companies
<u>VALUATIONS</u>			
C1 Schiller Market Val	multipl.com/CAPE	Schiller	Asset Valuation History
C1 Morningstar	finra.com		Company Valuation History/Fcst
C2 ValueLine			“
C3 Compustat	fidelity.com		“
C4 Options	optionsplay.com		Entry / Exit Economics
<u>INSIDER TRADES</u>			
Institutional Investors 13f Filings	docoh.com	Quarterly	