



# THE MACRO SHOW

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1

# VOLATILITY



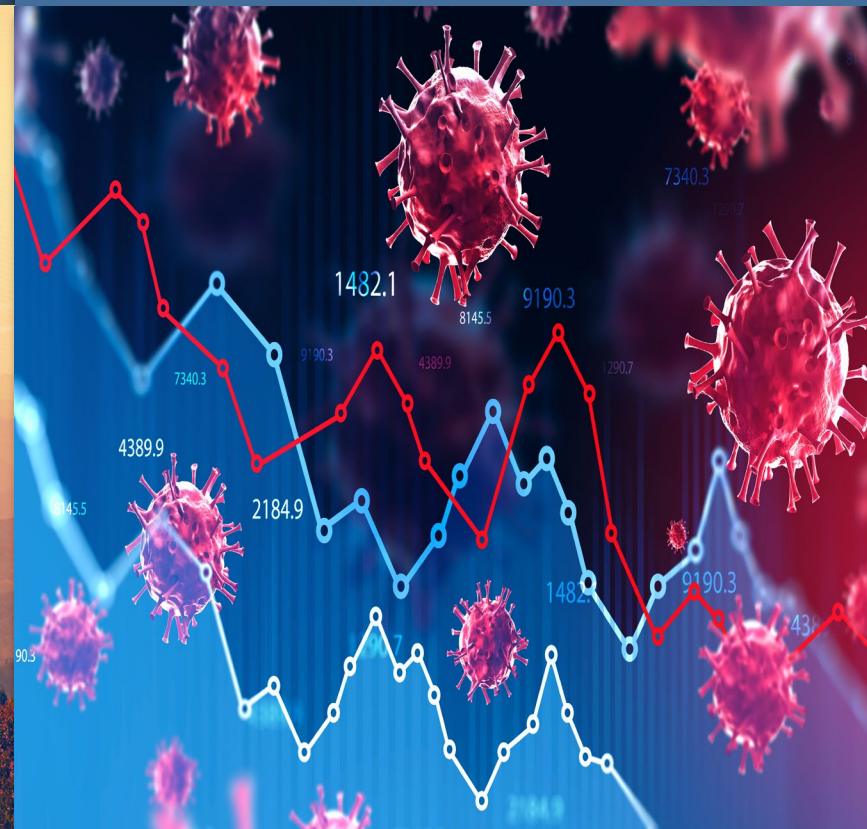
2

# INFLATION



3

# COVID



# 1

# VOLATILITY

While the market has certainly been acting more volatile, we still view this as episodic and non-trending. The VIX closed the day at 19.00, which was off the lows, but also off the highs of the day. But cross asset volatility collectively – currencies, fixed income, and equity – has remained relatively benign. Equity volatility remains bearish TREND in our models.



## 2 INFLATION

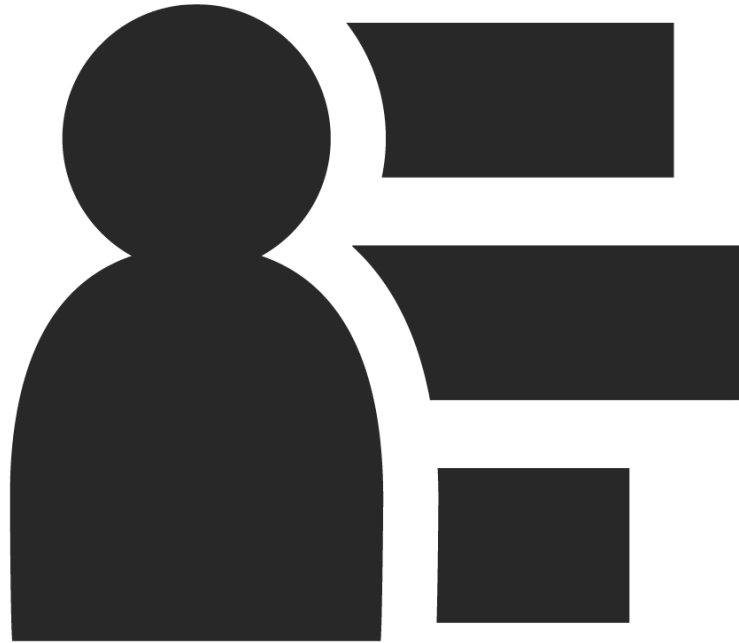
As we've written about, oil is a big component of our inflation nowcast model, so oil deflating somewhat this week due to OPEC is certainly a marginal headwind to inflation. BUT, and this is a big but, oil still has very easy comparisons through year-end. Also, China PPI came in at +8.8% Y/Y, which is important because it is highly correlated to U.S. CPI on a lag. The prices that go into Chinese producers, ultimately are felt by the U.S. consumers. Also important to note, while June decelerated from +9.0% in May, the May China PPI reading was the highest since 2008.



### 3 COVID

As they say, déjà vu all over again as the Delta variant rears its ugly head again. In the U.S., daily new cases so far remain at a very low level (~20,000 new cases). That said, certainly cases are spiking in the U.K. and we are seeing incremental lockdowns in parts of the world with a lower base of previously infected and a smaller percent of the population vaccinated. Since the start of the pandemic, COVID volatility spikes have ultimately been buying opportunities.





**NEIL HOWE**  
DEMOGRAPHY

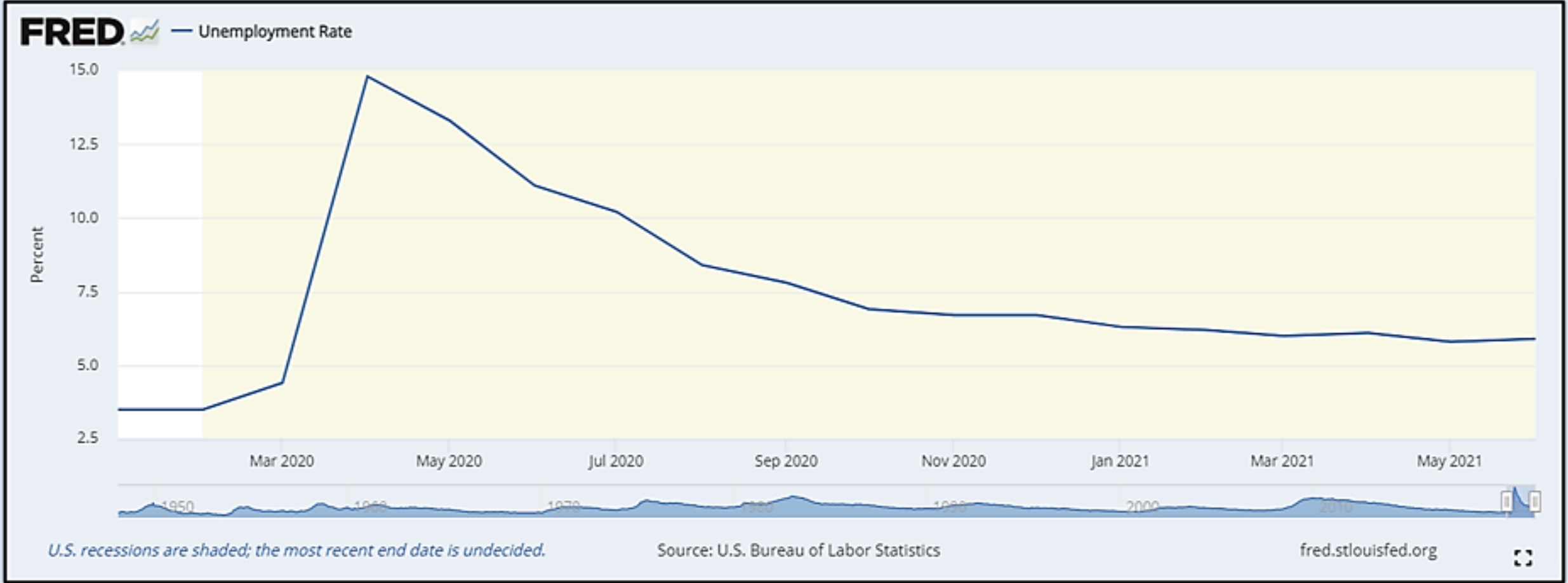
# 3 BIG TOPICS OF THE DAY

8

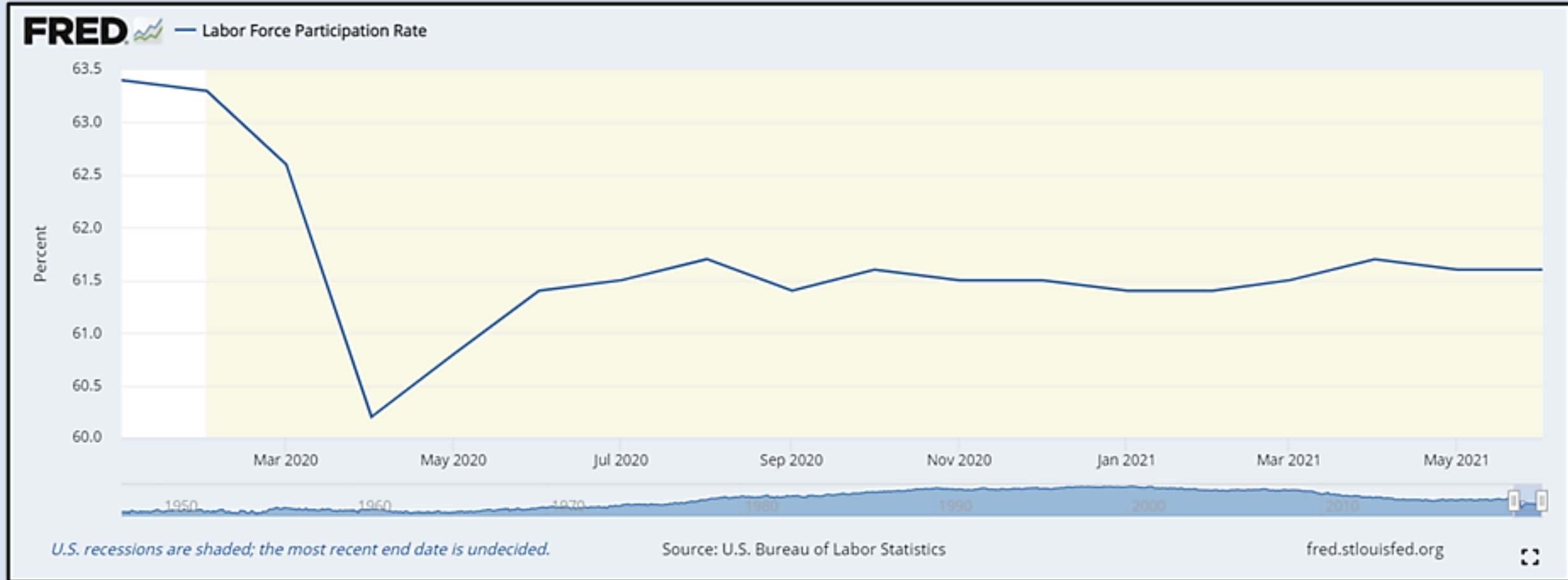
- 1. Is LFP down for good?**
- 2. Delta Variant Goes Global**
- 3. What happened to all the European firms?**



# 1) IS LFP DOWN FOR GOOD?



# 1) IS LFP DOWN FOR GOOD?





# 1) IS LFP DOWN FOR GOOD?

| Date     | Event  |
|----------|--|
| Jun 6-12 | June employment data collected throughout the week   |
| June 12  | AK**, IA, MS, and MO end federal benefits*           |
| June 19  | AL, ID, IN, NH, WV, and WY end federal benefits*     |
| June 26  | AR, FL**, GA, OH**, SD, TX, UT end federal benefits* |
| June 27  | OK ends federal benefits*                            |

| Date       | Event*   |
|------------|--|
| June 30    | SC ends federal benefits*                          |
| July 2     | June employment data released                      |
| July 10    | AZ** ends federal benefits*                        |
| July 11-17 | July employment data collected throughout the week |
| August 6   | July employment data released                      |

\*Federal benefits: \$300 weekly supplement, Pandemic Unemployment assistance, and Pandemic Emergency Unemployment Compensation

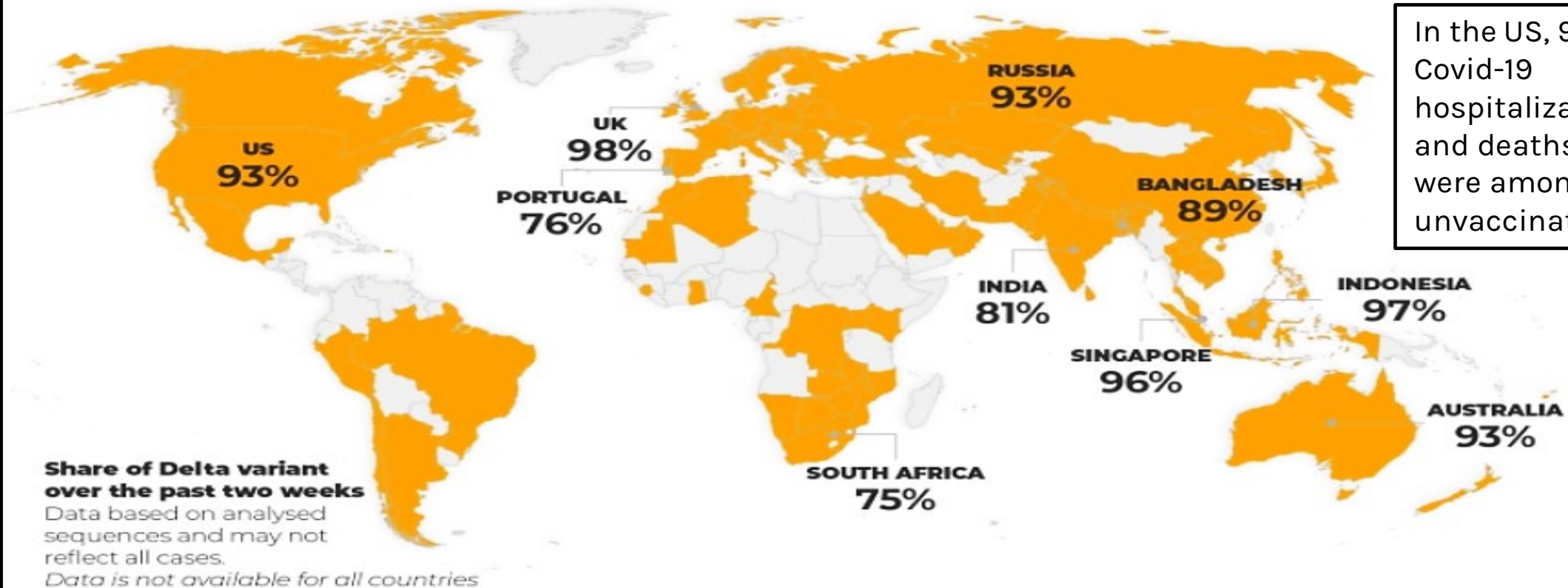
\*\*Only ending \$300 weekly supplement. Other programs will continue.

## 2) DELTA VARIANT GOES GLOBAL

### COVID-19

## Where the Delta variant has spread to

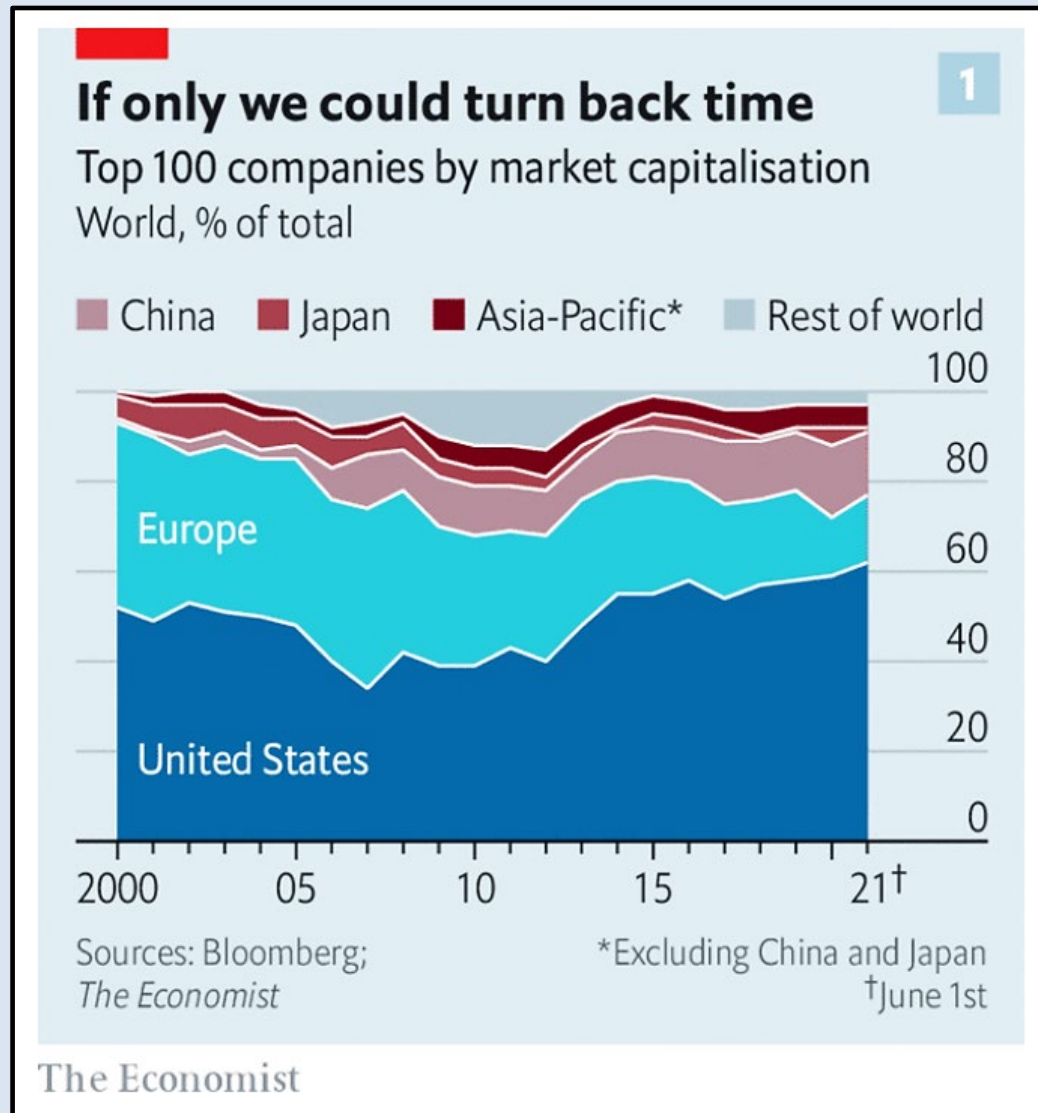
The Delta variant, which is believed to be the most transmissible variant yet, has now **spread to over 100 countries worldwide.**



In the US, 99% of Covid-19 hospitalizations and deaths in May were among the unvaccinated.



# 3) WHAT HAPPENED TO ALL THE EUROPEAN FIRMS?



### 3) WHAT HAPPENED TO ALL THE EUROPEAN FIRMS?

#### Top 20 Global Firms by Market Cap, as of noon ET July 6, 2021

| Companies             | Market Cap (In Billions) | Country      |
|-----------------------|--------------------------|--------------|
| 1. Apple              | \$ 2,365                 | USA          |
| 2. Microsoft          | \$ 2,091                 | USA          |
| 3. Saudi Aramco       | \$ 1,866                 | Saudi Arabia |
| 4. Amazon             | \$ 1,830                 | USA          |
| 5. Alphabet           | \$ 1,706                 | USA          |
| 6. Facebook           | \$ 997                   | USA          |
| 7. Tencent            | \$ 688                   | China        |
| 8. Tesla              | \$ 636                   | USA          |
| 9. Berkshire Hathaway | \$ 632                   | USA          |
| 10. TSMC              | \$620                    | Taiwan       |
| 11. Alibaba           | \$ 586                   | China        |
| 12. Visa              | \$ 525                   | USA          |
| 13. NVIDIA            | \$ 515                   | USA          |
| 14. Samsung           | \$ 482                   | South Korea  |
| 15. JPMorgan Chase    | \$ 464                   | USA          |
| 16. Johnson & Johnson | \$ 441                   | USA          |
| 17. Walmart           | \$ 392                   | USA          |
| 18. Kweichow Moutai   | \$ 392                   | China        |
| 19. LVMH              | \$ 389                   | France       |
| 20. UnitedHealth      | \$384                    | USA          |

### 3) WHAT HAPPENED TO ALL THE EUROPEAN FIRMS?

European Firms in Top 100 Global Firms by Market Cap, as of noon ET July 6, 2021

| Companies          | Market Cap (In Billions) | Country        |
|--------------------|--------------------------|----------------|
| 19. LVMH           | \$389                    | France         |
| 22. Nestle         | \$350                    | Switzerland    |
| 27. Roche          | \$329                    | Switzerland    |
| 29. ASML           | \$286                    | Netherlands    |
| 35. L'Oréal        | \$246                    | France         |
| 57. Novo Nordisk   | \$194                    | Denmark        |
| 60. Accenture      | \$192                    | Ireland        |
| 72. Medtronic      | \$169                    | Ireland        |
| 75. SAP            | \$168                    | Denmark        |
| 80. AstraZeneca    | \$158                    | United Kingdom |
| 81. Shell          | \$157                    | Netherlands    |
| 82. Unilever       | \$154                    | Netherlands    |
| 84. Hermes         | \$151                    | France         |
| 87. Linde          | \$150                    | United Kingdom |
| 88. Prosus         | \$149                    | Netherlands    |
| 91. Volkswagen     | \$143                    | Denmark        |
| 92. Dior           | \$146                    | France         |
| 99. Anheuser-Busch | \$140                    | Belgium        |



**MACRO GRIND**

# Our Research Process is REPEATABLE

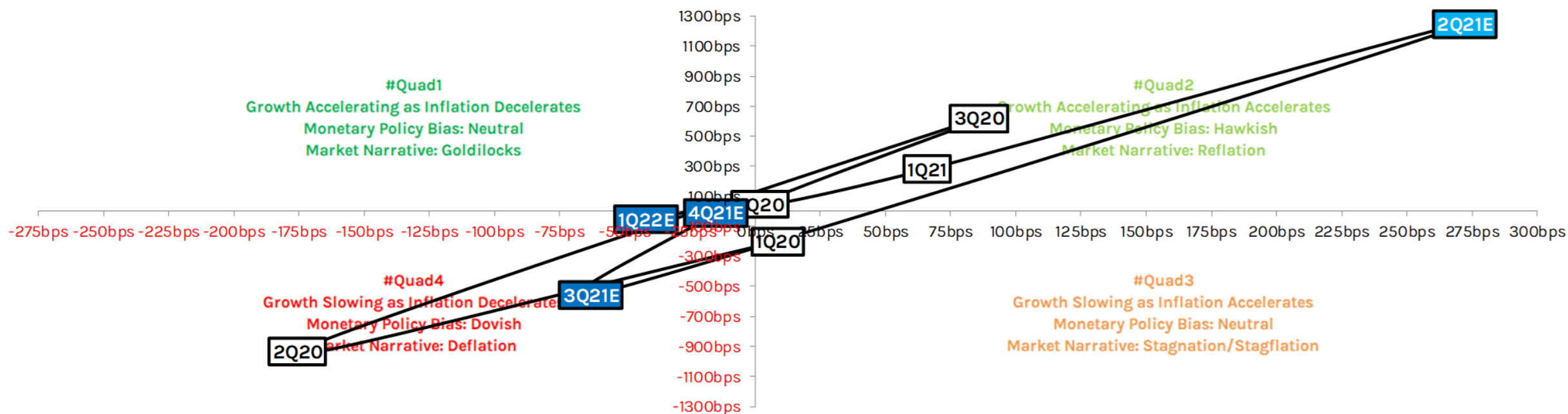
The Macro Show

July 9, 2021

| United States                | 2Q18  | 3Q18  | 4Q18  | 1Q19  | 2Q19  | 3Q19  | 4Q19  | 1Q20   | 2Q20    | 3Q20   | 4Q20   | 1Q21  | ← Actuals   Estimates →      | 2Q21E  | 3Q21E  | 4Q21E  | 1Q22E |
|------------------------------|-------|-------|-------|-------|-------|-------|-------|--------|---------|--------|--------|-------|------------------------------|--------|--------|--------|-------|
| Real GDP QoQ SAAR            | 2.70% | 2.10% | 1.30% | 2.90% | 1.50% | 2.60% | 2.40% | -5.00% | -31.40% | 33.40% | 4.30%  | 6.40% | Real GDP QoQ SAAR            | 9.16%  | 8.58%  | 3.87%  | 4.18% |
| Real GDP YoY                 | 3.33% | 3.12% | 2.48% | 2.27% | 1.96% | 2.08% | 2.34% | 0.32%  | -9.03%  | -2.85% | -2.39% | 0.41% | Real GDP YoY                 | 12.85% | 7.25%  | 7.15%  | 6.60% |
| 2yr Comparative Base Effects | 1.80% | 1.98% | 2.39% | 2.57% | 2.75% | 2.74% | 2.59% | 2.67%  | 2.64%   | 2.60%  | 2.41%  | 1.29% | 2yr Comparative Base Effects | -3.53% | -0.39% | -0.02% | 0.36% |
| Headline CPI YoY             | 2.71% | 2.64% | 2.20% | 1.64% | 1.81% | 1.76% | 2.03% | 2.12%  | 0.36%   | 1.22%  | 1.24%  | 1.90% | Headline CPI YoY             | 4.62%  | 3.99%  | 3.84%  | 3.42% |
| 2yr Comparative Base Effects | 1.48% | 1.54% | 1.96% | 2.38% | 2.31% | 2.30% | 2.16% | 1.93%  | 2.26%   | 2.20%  | 2.12%  | 1.88% | 2yr Comparative Base Effects | 1.09%  | 1.49%  | 1.64%  | 2.01% |

## United States

◆ x-axis: First Difference of YoY Headline CPI;  
y-axis: First Difference of YoY Real GDP



Data Source: Bloomberg. Light Blue box = Hedgeye Nowcast Model estimate. Dark Blue boxes = Hedgeye Comparative Base Effects Model estimates.

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Updated: 6/22/2021

# Highest/Lowest Expected Values By Quad Regime

## Quad 1: Goldilocks

### Best Asset Classes:

Equities, Credit, Commodities, FX

### Worst Asset Classes:

Fixed Income, USD

### Best Equity Sectors:

Tech, Consumer Discretionary, Materials, Industrials, Telecom

### Worst Equity Sectors:

Utilities, REITS, Consumer Staples, Financials, Energy

### Best Equity Style Factors:

High Beta, Momentum, Leverage, Secular Growth, Mid Caps

### Worst Equity Style Factors:

Low Beta, Defensives, Value, Dividend Yield, Small Caps

### Best Fixed Income Sectors:

BDCs, Convertibles, HY Credit, EM \$ Debt, Leveraged Loans

### Worst Fixed Income Sectors:

TIPS, Short Duration Treasuries, MBS, Treasury Belly, Long Bond

## Quad 2: Reflation

### Best Asset Classes:

Commodities, Equities, Credit, FX

### Worst Asset Classes:

Fixed Income, USD

### Best Equity Sectors:

Tech, Consumer Discretionary, Industrials, Energy, Financials

### Worst Equity Sectors:

Telecom, Utilities, REITS, Consumer Staples, Health Care

### Best Equity Style Factors:

Secular Growth, High Beta, Small Caps, Cyclical Growth, Momentum

### Worst Equity Style Factors:

Low Beta, Dividend Yield, Value, Defensives, Size

### Best Fixed Income Sectors:

Convertibles, BDCs, Preferreds, Leveraged Loans, HY Credit

### Worst Fixed Income Sectors:

Long Bond, Treasury Belly, Munis, MBS, IG Credit

## Quad 3: Stagflation

### Best Asset Classes:

Gold, Commodities, Fixed Income

### Worst Asset Classes:

Credit

### Best Equity Sectors:

Utilities, Tech, Energy, Industrials, Consumer Discretionary

### Worst Equity Sectors:

Financials, REITS, Materials, Telecom, Consumer Staples

### Best Equity Style Factors:

Secular Growth, Momentum, Mid Caps, Low Beta, Quality

### Worst Equity Style Factors:

Small Caps, Dividend Yield, Value, Defensives, Size

### Best Fixed Income Sectors:

Munis, EM \$ Debt, Long Bond, TIPS, Treasury Belly

### Worst Fixed Income Sectors:

BDCs, Preferreds, Convertibles, Leveraged Loans, HY Credit

## Quad 4: Deflation

### Best Asset Classes:

Fixed Income, Gold, USD

### Worst Asset Classes:

Commodities, Equities, Credit, FX

### Best Equity Sectors:

Consumer Staples, Utilities, REITS, Health Care, Telecom

### Worst Equity Sectors:

Energy, Tech, Industrials, Financials, Materials

### Best Equity Style Factors:

Low Beta, Dividend Yield, Quality, Defensives, Value

### Worst Equity Style Factors:

High Beta, Momentum, Leverage, Secular Growth, Cyclical Growth

### Best Fixed Income Sectors:

Long Bond, Treasury Belly, IG Credit, Munis, MBS

### Worst Fixed Income Sectors:

Preferreds, EM Local Currency, BDCs, Leveraged Loans, TIPS

# Sector Performance

| <u>SECTOR</u>                  | <u>Ticker</u> | <u>Price</u>    | <u>1-Day %<br/>Chg</u> | <u>MTD %<br/>Chg</u> | <u>QTD %<br/>Chg</u> | <u>YTD %<br/>Chg</u> |
|--------------------------------|---------------|-----------------|------------------------|----------------------|----------------------|----------------------|
| Consumer Discretionary         | XLY           | \$180.80        | -0.25%                 | 1.26%                | 1.26%                | 12.45%               |
| Financial Select Sector        | XLF           | \$35.68         | -2.00%                 | -2.75%               | -2.75%               | 21.03%               |
| Health Care Select Sector      | XLV           | \$128.27        | -0.55%                 | 1.84%                | 1.84%                | 13.07%               |
| Technology Select Sector       | XLK           | \$149.82        | -0.95%                 | 1.46%                | 1.46%                | 15.23%               |
| Consumer Staples Select Sector | XLP           | \$69.75         | -0.37%                 | -0.31%               | -0.31%               | 3.41%                |
| Industrial Select Sector       | XLI           | \$101.88        | -1.39%                 | -0.51%               | -0.51%               | 15.05%               |
| Materials Select Sector        | XLB           | \$81.38         | -1.36%                 | -1.13%               | -1.13%               | 12.42%               |
| The Energy Select Sector       | XLE           | \$51.75         | -0.58%                 | -3.94%               | -3.94%               | 36.54%               |
| Utilities Select Sector        | XLU           | \$64.52         | -0.29%                 | 2.04%                | 2.04%                | 2.90%                |
| Real Estate Select Sector      | XLRE          | \$45.31         | -0.09%                 | 2.21%                | 2.21%                | 23.93%               |
| Communications Services Sector | XLC           | \$80.92         | -1.10%                 | -0.06%               | -0.06%               | 19.92%               |
| <b>S&amp;P 500</b>             | <b>SPX</b>    | <b>4,320.82</b> | <b>-0.86%</b>          | <b>0.54%</b>         | <b>0.54%</b>         | <b>15.04%</b>        |



# Sector Relative Performance

|                                | <u>Ticker</u> | <u>Price</u> | <u>1-Day %</u><br><u>Chg</u> | <u>MTD %</u><br><u>Chg</u> | <u>QTD %</u><br><u>Chg</u> | <u>YTD %</u><br><u>Chg</u> |
|--------------------------------|---------------|--------------|------------------------------|----------------------------|----------------------------|----------------------------|
| Consumer Discretionary         | XLY           | \$180.80     | 0.61%                        | 0.72%                      | 0.72%                      | -2.58%                     |
| Financial Select Sector        | XLF           | \$35.68      | -1.15%                       | -3.30%                     | -3.30%                     | 6.00%                      |
| Health Care Select Sector      | XLV           | \$128.27     | 0.31%                        | 1.30%                      | 1.30%                      | -1.96%                     |
| Technology Select Sector       | XLK           | \$149.82     | -0.09%                       | 0.92%                      | 0.92%                      | 0.19%                      |
| Consumer Staples Select Sector | XLP           | \$69.75      | 0.48%                        | -0.86%                     | -0.86%                     | -11.63%                    |
| Industrial Select Sector       | XLI           | \$101.88     | -0.54%                       | -1.05%                     | -1.05%                     | 0.02%                      |
| Materials Select Sector        | XLB           | \$81.38      | -0.50%                       | -1.67%                     | -1.67%                     | -2.62%                     |
| The Energy Select Sector       | XLE           | \$51.75      | 0.28%                        | -4.48%                     | -4.48%                     | 21.51%                     |
| Utilities Select Sector        | XLU           | \$64.52      | 0.56%                        | 1.50%                      | 1.50%                      | -12.13%                    |
| Real Estate Select Sector      | XLRE          | \$45.31      | 0.77%                        | 1.67%                      | 1.67%                      | 8.90%                      |
| Communications Services Sector | XLC           | \$80.92      | -0.24%                       | -0.60%                     | -0.60%                     | 4.88%                      |

# Market Share Volume & Total Value Traded

| <u>INDEX/SECURITY</u>   | <b>VOLUME: (7/8) vs.</b> |               |               |               |
|-------------------------|--------------------------|---------------|---------------|---------------|
|                         | <u>Prior Day</u>         | <u>1M Ave</u> | <u>3M ave</u> | <u>1Y Ave</u> |
| Total Market Volume*    | -9%                      | -6%           | -15%          | -8%           |
| Total Exchange Volume** | 6%                       | 0%            | 1%            | -6%           |

\*Total Market Volume = Total US exchange volume plus OTC and OTCBB trading volume for all security types. Calculated by Bloomberg.

\*\*Tape A+B+C volume = total US exchange volume

\*\*\* Total Traded Value for Russell 3000 (total mkt proxy)

# Style Factor Performance

|         | FACTOR                  | 1D<br>% Chg | 1W<br>% Chg | 1M<br>% Chg | 3M<br>% Chg | 6M<br>% Chg | YTD<br>% Chg |
|---------|-------------------------|-------------|-------------|-------------|-------------|-------------|--------------|
| Debt    | High Debt/EV            | -1.0%       | -2.7%       | -5.9%       | 0.3%        | 16.4%       | 20.5%        |
|         | Low Debt/EV             | -0.9%       | 0.6%        | 5.5%        | 6.4%        | 11.0%       | 13.7%        |
| SI      | High Short Interest     | -1.1%       | -2.1%       | -2.9%       | 1.2%        | 13.8%       | 17.1%        |
|         | Low Short Interest      | -0.9%       | 0.5%        | 1.4%        | 4.6%        | 12.0%       | 13.9%        |
| BETA    | High Beta               | -1.2%       | -2.8%       | -4.5%       | 0.4%        | 18.2%       | 23.2%        |
|         | Low Beta                | -0.6%       | 0.8%        | 2.0%        | 5.6%        | 9.8%        | 11.2%        |
| YIELD   | High Yield              | -0.9%       | -1.2%       | -4.4%       | 1.4%        | 13.7%       | 15.5%        |
|         | Low Yield               | -0.9%       | -0.5%       | 2.2%        | 3.5%        | 11.9%       | 16.1%        |
| MKT CAP | MCAP Bottom 25%         | -1.1%       | -1.9%       | -4.7%       | -0.1%       | 12.8%       | 16.3%        |
|         | MCAP Top 25%            | -0.8%       | -0.1%       | 1.5%        | 4.4%        | 13.0%       | 15.4%        |
| Sales   | Top 25% Sales Growth    | -1.0%       | -1.2%       | 0.7%        | 2.1%        | 12.7%       | 15.4%        |
|         | Bottom 25% Sales Growth | -1.1%       | -1.3%       | -3.2%       | 3.0%        | 13.8%       | 17.9%        |
| EPS     | Top 25% EPS Growth      | -1.1%       | -1.4%       | -0.7%       | 1.8%        | 11.4%       | 14.8%        |
|         | Bottom 25% EPS Growth   | -1.1%       | -1.6%       | -3.5%       | 1.3%        | 15.2%       | 18.8%        |

*\*Mean Performance of Top Quartile vs. Bottom Quartile, S&P500 Companies*

# Rates & Spreads

|                    |        | 1D      | 5D      | 1M      | 3M      | vs. 52-Wk, Bps |       | vs.    | vs.    |
|--------------------|--------|---------|---------|---------|---------|----------------|-------|--------|--------|
|                    | Price  | Bps Chg | Bps Chg | Bps Chg | Bps Chg | High           | Low   | 3Y Ave | 5Y Ave |
| 3M T-Bill          | 0.04%  | 0.0     | 0.8     | 3       | 4       | -10            | 19    | -113   | -106   |
| 3M LIBOR           | 0.12%  | 0.0     | -1.4    | 0       | -6      | -16            | 1     | -130   | -129   |
| 2Y T-Note          | 0.20%  | -2.0    | -3.9    | 4       | 4       | -8             | 11    | -105   | -115   |
| 5Y T-Note          | 0.77%  | -3.7    | -11.5   | -1      | -12     | -22            | 58    | -64    | -87    |
| 10Y T-Note         | 1.33%  | -2.4    | -13.1   | -20     | -37     | -44            | 83    | -41    | -65    |
| 30Y T-Note         | 1.97%  | -1.1    | -11.4   | -24     | -40     | -55            | 80    | -29    | -53    |
| 2Y-10Y Spread, Bps | 112.64 | 2.4     | -6.4    | -21.0   | -38     | -45            | 73    | 64     | 50     |
| IG SPREAD (AAABBB) | 1.07%  | 1.0     | 3.0     | -1      | -1      | -52            | 3     | -42    | -41    |
| HIGH YIELD         | 3.67%  | 8.0     | -2.0    | -24     | -35     | -291           | 14    | -220   | -224   |
| 5Y BREAK EVEN      | 2.42%  | -3.0    | -9.4    | -1.3    | -15.7   | -40.4          | 122.2 | 70.6   | 66.9   |



# Key \$USD Correlations

| METRIC    | <i>*Days = Trading Days</i> |       |       |       |       | 52-Wk Rolling 30D Correlation |       |            |            |
|-----------|-----------------------------|-------|-------|-------|-------|-------------------------------|-------|------------|------------|
|           | 15D                         | 30D   | 90D   | 120D  | 180D  | High                          | Low   | % Time Pos | % Time Neg |
| SPX       | 0.79                        | 0.70  | -0.32 | 0.01  | -0.13 | 0.70                          | -0.94 | 23%        | 77%        |
| BRENT Oil | 0.13                        | 0.86  | -0.12 | 0.10  | -0.09 | 0.88                          | -0.92 | 29%        | 71%        |
| CRB Index | -0.20                       | -0.09 | -0.46 | 0.10  | -0.08 | 0.82                          | -0.96 | 38%        | 62%        |
| GOLD      | 0.53                        | -0.93 | -0.86 | -0.78 | -0.48 | 0.54                          | -0.98 | 9%         | 91%        |
| BTC       | 0.14                        | -0.68 | 0.44  | 0.18  | -0.13 | 0.78                          | -0.87 | 47%        | 53%        |

# CFTC Non-Commercial Net Long Positioning (Updated Weekly)

## CFTC NON-COMMERCIAL NET LONG POSITIONING

|             | METRIC               | Latest    | W/W Chg  | 3M Ave    | 6M Ave    | 1Y Ave    | 3Y        |             | Z-Score |        |
|-------------|----------------------|-----------|----------|-----------|-----------|-----------|-----------|-------------|---------|--------|
|             |                      |           |          |           |           |           | Max       | Min         | 1Y      | 3Y     |
| EQUITIES    | SPX (Index + E-mini) | 49,001    | (8,240)  | (6,788)   | (10,687)  | (2,186)   | 245,514   | (318,850)   | 1.12X   | 0.36X  |
|             | VIX                  | (66,691)  | (4,915)  | (78,077)  | (101,577) | (98,937)  | 44,245    | (218,362)   | 1.41X   | 0.50X  |
|             | Russell 2000 (mini)  | (34,635)  | 2,244    | (31,544)  | (18,009)  | 3,217     | 58,474    | (88,708)    | -1.51X  | -0.79X |
|             | Dow Jones (mini)     | (878)     | 14,344   | (9,290)   | (11,060)  | (9,574)   | 54,635    | (28,732)    | 1.39X   | -0.56X |
|             | Nasdaq (mini)        | (5,388)   | 2,788    | (8,353)   | (970)     | (3,774)   | 47,085    | (133,005)   | -0.05X  | -0.60X |
|             | Nikkei Index         | (4,846)   | 235      | (4,541)   | (3,579)   | (2,648)   | 4,738     | (16,298)    | -0.67X  | 0.35X  |
| RATES       | 10Y UST              | 25,386    | (80,875) | 109,741   | 72,470    | 75,177    | 238,882   | (758,490)   | -0.74X  | 0.74X  |
|             | 2Y UST               | (191,128) | (38,340) | (200,416) | (223,887) | (237,161) | 5,264     | (421,551)   | 0.61X   | 0.40X  |
|             | 5Y UST               | (194,501) | (30,559) | (85,692)  | (37,876)  | (143,695) | 148,962   | (866,140)   | -0.33X  | 0.11X  |
|             | UST Bonds            | (79,074)  | (16,255) | (104,199) | (137,444) | (163,961) | 3,026     | (241,003)   | 1.76X   | 0.22X  |
|             | 30D Fed Funds        | (200,030) | 56,278   | (232,287) | (163,672) | 1,099     | 488,558   | (320,917)   | -1.05X  | -1.27X |
|             | Eurodollar           | (515,250) | (16,558) | 132,669   | 374,745   | 447,760   | 2,134,274 | (2,835,314) | -2.68X  | -0.48X |
| CURRENCIES  | USD                  | (453)     | 61       | 2,156     | (2,505)   | (4,581)   | 43,033    | (15,000)    | 0.62X   | -0.94X |
|             | JPY                  | (73,390)  | (14,806) | (52,311)  | (24,959)  | 3,936     | 52,239    | (117,731)   | -1.91X  | -1.11X |
|             | EUR                  | 85,503    | (4,178)  | 90,363    | 103,768   | 135,662   | 212,535   | (123,765)   | -1.24X  | 0.66X  |
|             | GBP                  | 13,243    | (489)    | 25,380    | 24,955    | 10,140    | 40,671    | (107,406)   | 0.17X   | 0.91X  |
|             | AUD                  | (19,964)  | (287)    | (5,557)   | (1,656)   | (1,530)   | 15,665    | (74,181)    | -2.34X  | 0.45X  |
|             | CAD                  | 43,808    | 3,966    | 31,669    | 21,652    | 2,539     | 53,332    | (67,121)    | 1.72X   | 1.85X  |
|             | MXN                  | (19,519)  | 9,125    | (10,939)  | (8,308)   | 2,495     | 170,379   | (29,510)    | -1.43X  | -1.26X |
|             | NZD                  | 3,131     | (165)    | 5,620     | 8,489     | 7,692     | 17,126    | (42,544)    | -0.95X  | 0.73X  |
| COMMODITIES | CHF                  | 10,073    | (2,710)  | 1,989     | 5,227     | 9,437     | 17,848    | (47,216)    | 0.11X   | 0.94X  |
|             | CRUDE OIL            | 594,465   | 4,496    | 550,255   | 554,863   | 538,442   | 693,179   | 332,714     | 2.05X   | 1.33X  |
|             | GOLD                 | 72,516    | (3,647)  | 91,553    | 85,439    | 111,116   | 292,066   | (103,009)   | -1.04X  | -0.49X |
|             | COPPER               | 12,208    | 2,577    | 31,597    | 45,823    | 53,647    | 80,564    | (60,135)    | -2.18X  | 0.10X  |
|             | Natural Gas          | (99,486)  | 3,592    | (74,733)  | (38,059)  | (2,988)   | 71,340    | (262,534)   | -1.92X  | -0.37X |
|             | RBOB Gasoline        | 64,236    | 7,121    | 53,887    | 56,229    | 59,442    | 129,000   | 40,626      | 0.41X   | -0.57X |
|             | ULSD Heating Oil     | 25,447    | 1,281    | 15,996    | 13,413    | 12,537    | 50,485    | (27,674)    | 1.90X   | 1.22X  |
|             | Silver               | 40,554    | 2,858    | 45,466    | 44,553    | 44,582    | 80,646    | (30,158)    | -0.51X  | 0.23X  |
|             | Platinum             | 15,305    | 1,833    | 24,561    | 27,600    | 22,703    | 69,306    | (11,540)    | -0.96X  | -0.47X |
|             | Corn                 | 341,790   | (8,369)  | 434,377   | 467,232   | 365,757   | 557,581   | (270,560)   | -0.12X  | 1.02X  |
|             | Soybeans             | 93,990    | 931      | 166,075   | 180,403   | 196,067   | 270,935   | (148,817)   | -1.78X  | 0.36X  |
|             | Wheat                | 17,412    | (4,158)  | 21,037    | 26,715    | 28,469    | 63,219    | (69,231)    | -0.69X  | 0.22X  |
|             | Live Cattle          | 91,667    | (2,573)  | 87,540    | 93,654    | 79,936    | 183,134   | 20,158      | 0.58X   | 0.28X  |
|             | Lean Hogs            | 82,469    | (6,528)  | 90,284    | 83,368    | 64,591    | 101,705   | (7,575)     | 0.74X   | 1.25X  |
|             | Sugar                | 240,157   | 610      | 258,813   | 246,426   | 249,515   | 316,046   | (205,161)   | -0.20X  | 1.14X  |
|             | Cotton               | 71,610    | 7,626    | 69,394    | 77,312    | 73,994    | 108,851   | (37,827)    | -0.15X  | 0.93X  |
|             | Coffee               | 51,567    | 4,809    | 49,961    | 47,792    | 42,077    | 64,466    | (106,651)   | 0.52X   | 1.21X  |
|             | Cocoa                | 9,201     | (2,476)  | 20,283    | 29,465    | 30,900    | 81,269    | (31,483)    | -1.30X  | -0.45X |
|             | Orange Juice         | 1,983     | 130      | (271)     | (6)       | 269       | 5,531     | (9,416)     | 1.14X   | 1.24X  |

HEDGEYE TV

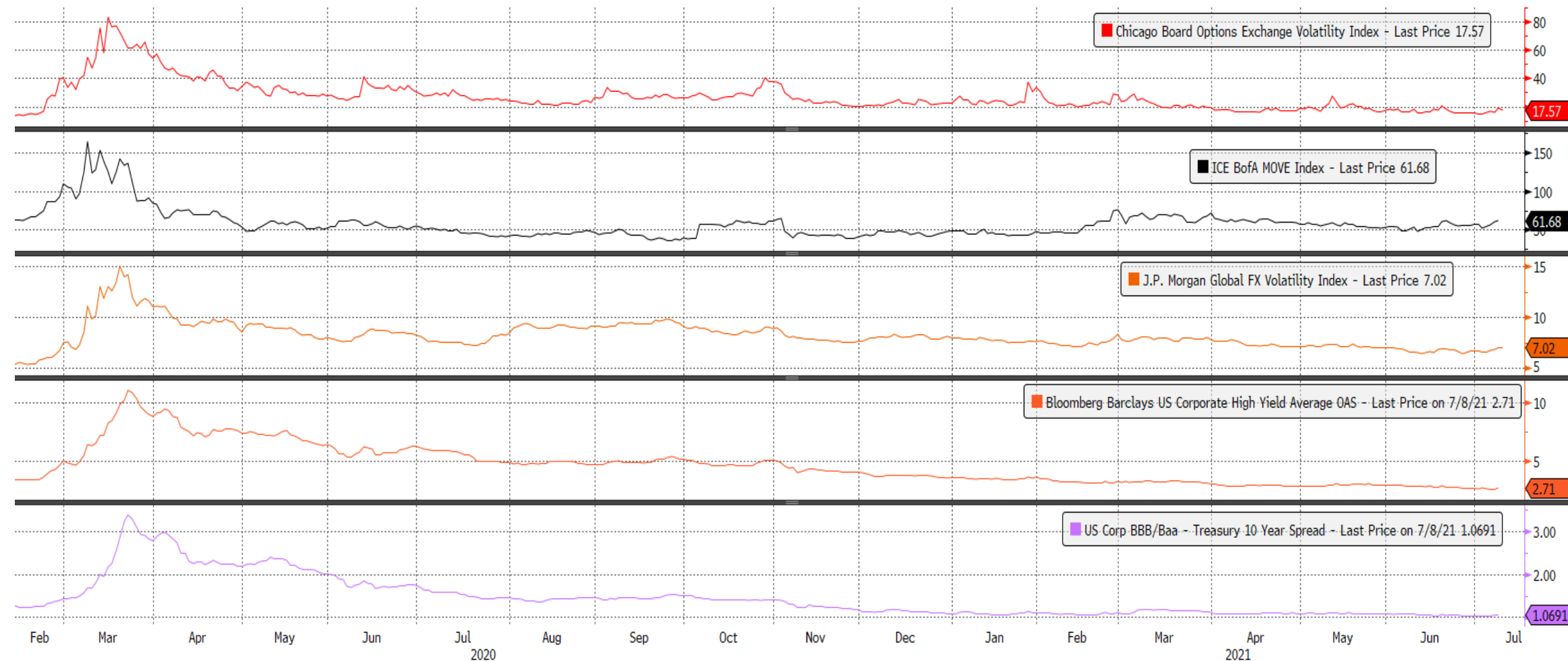
The Macro Show

July 9, 2021

# Cross Asset Class Volatility

The Macro Show

July 9, 2021



VIX Index (Chicago Board Options Exchange Volatility Index) VolSpread Daily 12

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# Implied & Realized Volatility

| TIME WINDOW SETTING:                   |                 | TOTAL RETURN<br>PERFORMANCE | IVOL PREMIUM/DISCOUNT |       |           |        |        |             | REALIZED VOLATILITY TRENDS |        |         | IMPLIED VOLATILITY TRENDS |      |            |
|--|-----------------|-----------------------------|-----------------------|-------|-----------|--------|--------|-------------|----------------------------|--------|---------|---------------------------|------|------------|
| VOLATILITY_30D                         |                 |                             | IVOL PREM %           | YTD % | Yesterday | 1W Ago | 1M Ago | TTM Z-Score | 3Yr Z-Score                | RVOL   |         | PERCENTILE                | IVOL | PERCENTILE |
| PUT_IMP_VOL_30D                        |                 |                             |                       |       |           |        |        |             |                            | TICKER | CURRENT | MM %                      | 10YR | CURRENT    |
| US EQUITIES                            |                 |                             |                       |       |           |        |        |             |                            |        |         |                           |      |            |
| CURRENT                                |                 |                             |                       |       |           |        |        |             |                            |        |         |                           |      |            |
| Energy Sector SPDR ETF                 | XLE US EQUITY   | 39.36%                      | 16%                   | 7%    | 11%       | -5%    | 0.5    | 0.7         | 28.4                       | -4%    | 75%     | 33.0                      | 18%  | 82%        |
| Vanguard Real Estate REIT ETF          | VNQ US EQUITY   | 23.28%                      | 17%                   | 8%    | 3%        | -8%    | 0.4    | 0.8         | 13.4                       | -14%   | 44%     | 15.7                      | 10%  | 62%        |
| Financials Sector SPDR ETF             | XLF US EQUITY   | 22.05%                      | 17%                   | 2%    | 4%        | 23%    | 0.0    | 0.3         | 18.1                       | 23%    | 63%     | 21.2                      | 17%  | 73%        |
| Communication Services SPDR ETF        | XLC US EQUITY   | 20.34%                      | 67%                   | 59%   | 33%       | -15%   | 1.5    | 1.6         | 10.8                       | -41%   | 6%      | 18.0                      | 15%  | 32%        |
| SPDR S&P 500 ETF Trust                 | SPY US EQUITY   | 16.02%                      | 44%                   | 37%   | 23%       | -7%    | 0.9    | 1.1         | 9.1                        | -27%   | 23%     | 13.1                      | 13%  | 51%        |
| Industrials Sector SPDR ETF            | XLI US EQUITY   | 15.76%                      | 55%                   | 59%   | 38%       | 23%    | 0.9    | 1.2         | 13.3                       | -11%   | 38%     | 20.6                      | 13%  | 75%        |
| Technology Sector SPDR ETF             | XLK US EQUITY   | 15.68%                      | 70%                   | 61%   | 63%       | -13%   | 2.0    | 1.7         | 11.8                       | -41%   | 26%     | 20.1                      | 15%  | 72%        |
| Power Shares QQQ Trust ETF             | QQQ US EQUITY   | 14.63%                      | 80%                   | 66%   | 44%       | -7%    | 2.1    | 2.3         | 10.8                       | -42%   | 16%     | 19.4                      | 13%  | 71%        |
| Health Care Sector SPDR ETF            | XLV US EQUITY   | 13.90%                      | 20%                   | 3%    | 19%       | 23%    | -0.4   | 0.2         | 11.0                       | 11%    | 32%     | 13.2                      | 9%   | 39%        |
| I-Shares Russell 2000 ETF              | IWM US EQUITY   | 13.46%                      | 41%                   | 24%   | 16%       | -7%    | 1.0    | 1.1         | 16.2                       | -19%   | 48%     | 22.9                      | 22%  | 77%        |
| Materials Sector SPDR ETF              | XLB US EQUITY   | 13.37%                      | 55%                   | 36%   | 38%       | 34%    | 1.0    | 1.1         | 14.9                       | -9%    | 39%     | 23.2                      | 5%   | 78%        |
| Consumer Discretionary Sector SPDR ETF | XLY US EQUITY   | 12.80%                      | 110%                  | 88%   | 70%       | -6%    | 2.3    | 2.6         | 8.3                        | -49%   | 7%      | 17.5                      | 14%  | 69%        |
| Consumer Staples Sector SPDR ETF       | XLP US EQUITY   | 4.63%                       | 64%                   | 12%   | 54%       | 28%    | 0.4    | 0.4         | 9.9                        | -1%    | 35%     | 16.3                      | 27%  | 83%        |
| Utilities Sector SPDR ETF              | XLU US EQUITY   | 4.47%                       | 12%                   | 24%   | 81%       | -14%   | -0.2   | 0.1         | 14.1                       | -3%    | 54%     | 15.7                      | 26%  | 70%        |
| INTERNATIONAL EQUITIES                 |                 |                             |                       |       |           |        |        |             |                            |        |         |                           |      |            |
| Euro Stoxx 50 Index                    | SX5E INDEX      | 16.08%                      | 30%                   | 27%   | 38%       | -8%    | 0.9    | 1.1         | 12.3                       | -17%   | 25%     | 16.0                      | 17%  | 44%        |
| I-Shares MSCI Emerging Markets ETF     | EEM US EQUITY   | 2.32%                       | 26%                   | 30%   | 19%       | -3%    | 0.7    | 0.8         | 13.9                       | -22%   | 22%     | 17.5                      | 2%   | 36%        |
| I-Shares MSCI Japan ETF                | EWJ US EQUITY   | -0.64%                      | 29%                   | 22%   | 11%       | -23%   | 0.6    | 1.0         | 12.2                       | -30%   | 29%     | 15.7                      | 18%  | 43%        |
| I-Shares China Large-Cap ETF           | FXI US EQUITY   | -7.26%                      | 7%                    | 8%    | 4%        | -2%    | 0.4    | 0.4         | 20.8                       | 4%     | 47%     | 22.2                      | 13%  | 52%        |
| CURRENCIES                             |                 |                             |                       |       |           |        |        |             |                            |        |         |                           |      |            |
| PowerShares US Dollar Index ETF        | UUP US EQUITY   | 2.43%                       | 20%                   | 22%   | 27%       | 0%     | -0.3   | -0.1        | 5.3                        | -16%   | 23%     | 6.4                       | 1%   | 21%        |
| Currency Shares British Pound ETF      | FXB US EQUITY   | 0.60%                       | 5%                    | 6%    | 15%       | -7%    | -0.2   | -0.1        | 6.2                        | -9%    | 17%     | 6.5                       | 3%   | 14%        |
| Currency Shares Euro Trust ETF         | FXE US EQUITY   | -3.53%                      | 2%                    | 5%    | 3%        | -16%   | -0.2   | -0.1        | 5.6                        | -16%   | 15%     | 5.7                       | 3%   | 12%        |
| Currency Shares Japanese Yen ETF       | FXJ US EQUITY   | -6.22%                      | 6%                    | -4%   | 12%       | 2%     | -0.6   | -0.3        | 6.0                        | 6%     | 29%     | 6.4                       | 10%  | 17%        |
| COMMODITIES                            |                 |                             |                       |       |           |        |        |             |                            |        |         |                           |      |            |
| United States Oil Fund ETF             | USO US EQUITY   | 50.02%                      | 85%                   | 100%  | 77%       | 10%    | 2.4    | 2.9         | 18.0                       | -31%   | 14%     | 33.4                      | 16%  | 63%        |
| United States Natural Gas Fund ETF     | UNG US EQUITY   | 39.78%                      | 47%                   | 44%   | 53%       | 23%    | 0.6    | 0.9         | 31.8                       | 22%    | 40%     | 46.6                      | 46%  | 70%        |
| PowerShares DB Base Metals Fund ETF    | DBB US EQUITY   | 15.64%                      | 372%                  | 462%  | 486%      | 197%   | 0.0    | -0.1        | 21.0                       | 4%     | 81%     | 99.0                      | 65%  | 86%        |
| PowerShares DB Agriculture Fund ETF    | DBA US EQUITY   | 9.48%                       | -15%                  | -12%  | -12%      | -2%    | -2.1   | -1.5        | 23.4                       | 22%    | 99%     | 20.0                      | 6%   | 88%        |
| SPDR Gold Shares ETF                   | GLD US EQUITY   | -5.44%                      | -5%                   | -8%   | -5%       | 11%    | -0.4   | -0.4        | 14.9                       | 25%    | 59%     | 14.2                      | 8%   | 45%        |
| FIXED INCOME                           |                 |                             |                       |       |           |        |        |             |                            |        |         |                           |      |            |
| I-Shares IBOXx HY Corporate Bond ETF   | HYG US EQUITY   | 2.72%                       | 90%                   | 55%   | 68%       | 0%     | 1.6    | 2.0         | 2.0                        | -40%   | 0%      | 3.9                       | 14%  | 9%         |
| I-Shares IBOXx IG Corporate Bond ETF   | LQD US EQUITY   | -0.83%                      | 10%                   | 10%   | 4%        | 2%     | -0.5   | -0.1        | 5.3                        | -2%    | 60%     | 5.8                       | 6%   | 55%        |
| I-Shares J.P. Morgan USD EM Bond ETF   | EMB US EQUITY   | -1.36%                      | 7%                    | 14%   | 47%       | 4%     | -0.5   | -0.2        | 5.2                        | -17%   | 37%     | 5.6                       | -15% | 19%        |
| I-Shares 7-10 Year Treasury Bond ETF   | IEF US EQUITY   | -2.08%                      | 38%                   | 23%   | 23%       | 35%    | -0.3   | -0.1        | 4.9                        | 27%    | 39%     | 6.7                       | 30%  | 74%        |
| I-Shares 20+ Year Treasury Bond ETF    | TLT US EQUITY   | -5.03%                      | 24%                   | 19%   | 5%        | 21%    | 0.3    | 0.8         | 12.5                       | 34%    | 54%     | 15.5                      | 38%  | 81%        |
| MEGA-CAP TECH                          |                 |                             |                       |       |           |        |        |             |                            |        |         |                           |      |            |
| Alphabet                               | GOOGL US EQUITY | 42.69%                      | 94%                   | 99%   | 74%       | -11%   | 2.9    | 2.8         | 13.9                       | -42%   | 8%      | 27.1                      | 28%  | 69%        |
| Facebook                               | FB US EQUITY    | 26.54%                      | 51%                   | 51%   | 43%       | -23%   | 1.6    | 1.5         | 22.6                       | -30%   | 27%     | 34.2                      | 37%  | 59%        |
| Microsoft                              | MSFT US EQUITY  | 25.30%                      | 62%                   | 58%   | 43%       | -16%   | 2.3    | 2.0         | 14.6                       | -34%   | 13%     | 23.6                      | 27%  | 65%        |
| Amazon                                 | AMZN US EQUITY  | 14.57%                      | 50%                   | 48%   | 58%       | 3%     | 1.0    | 1.1         | 21.5                       | 5%     | 32%     | 32.2                      | 52%  | 63%        |
| Apple                                  | AAPL US EQUITY  | 8.30%                       | 73%                   | 70%   | 53%       | -2%    | 3.4    | 2.4         | 16.7                       | -26%   | 12%     | 28.9                      | 30%  | 65%        |