Nottingham Monthly Market Wrap
April 30, 2020

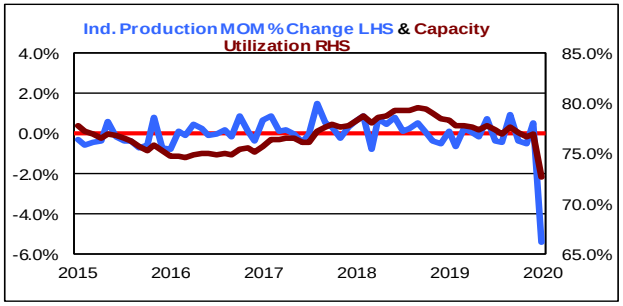
Economic Overview

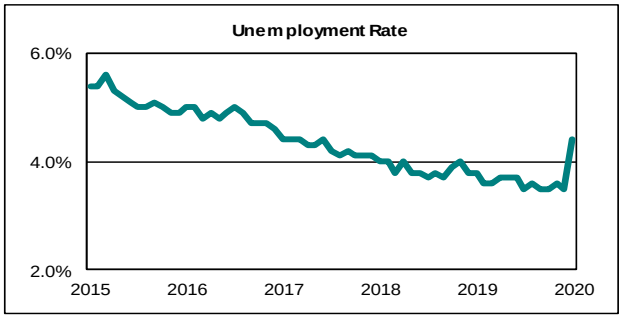
As we suggested in last month's Market Wrap, the utility of analyzing and reviewing recent economic data has declined meaningfully with the onset of the COVID-19 pandemic. March and April numbers will bear the brunt of the financial fallout from a shuttered economy, and to try and extract meaning from the data is challenging at best. We'll try and highlight a few of the more salient data points published since our last update, and offer some observations based upon current conditions. Bottom line, economic data is frightfully bad.

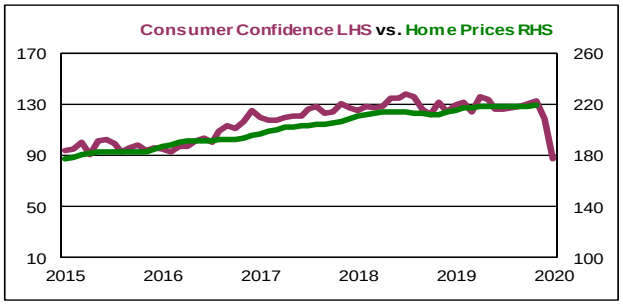
On the employment front, we saw perhaps the most astounding figures in history. Early forecasts for April's unemployment rate range from 15% to 20%, with nearly 30 million Americans seeking unemployment aid since the outbreak of the coronavirus. Weekly Initial Jobless Claims (see chart below) *averaged* 5.3 million during the month of April. At month's end Continuing Claims totaled 18 million people. Now, the good news is that the federal government has stepped up benefits to the unemployed through various measures designed to help labor weather the mandatory shutdown of their employers. As we go to press, more states are beginning to relax restrictions on business and we expect to see a steady decline in unemployment during the month of May and on into summer. Expanded unemployment benefits may offer the perverse incentive of keeping people at home, rather than back in the labor force, as idle wages for some exceed employment income.

First quarter GDP showed a decline in the US economy of -4.8%, versus a 2.1% growth rate in Q4 2019. Personal Consumption collapsed by -7.6% as businesses shuttered and workers were sent home. April's numbers are likely to be even worse than those for March as many states didn't shut down commerce until mid-month. Our friends at Strategas Research Partners are forecasting Q2 GDP to decline by a staggering -33% (annualized YoY), rebounding in Q3 +20%, finishing 2020 down -5.4% relative to 2019.

While the numbers around the economic collapse are stunning, to say the least, so too has been the fiscal and monetary response from Congress and the Federal Reserve. Time will tell if it's enough to offset the damage caused by the shutdown, but the sooner America opens for business, the better off we're all likely to be.

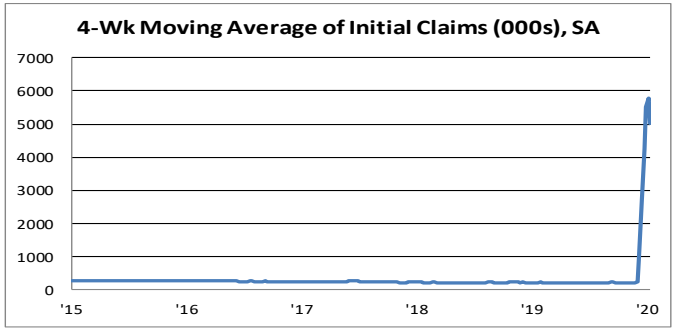


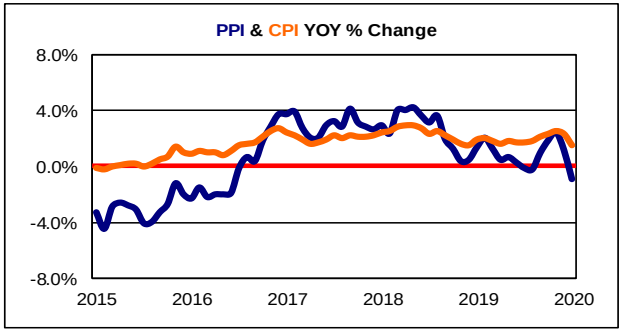




Key Data Points

Name	Current	For	Previous	For
Retail Sales ex. Autos MOM %	-4.20%	March	-0.40%	February
Housing Starts	1216K	March	1564K	February
Factory Orders MOM %	0.00%	February	-0.50%	January
Leading Indicators MOM %	-6.70%	March	-0.20%	February
Unit Labor Costs	0.90%	Q4 2019	0.20%	Q3 2019
GDP QOQ (Annualized)	-4.80%	Q1 2020	2.10%	Q4 2019
Wholesale Inventories	-1.00%	March	-0.60%	February
MBA Mortgage Applications	-3.30%	April	15.30%	March





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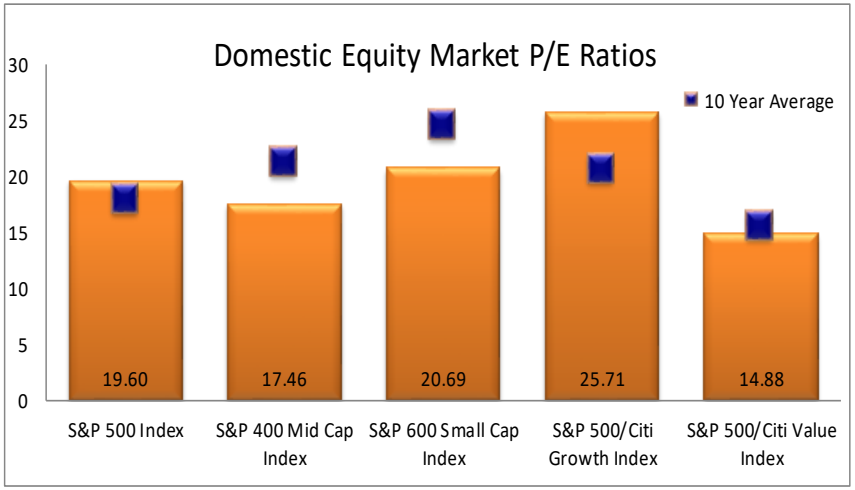
Domestic Equity

U.S. equities rose sharply in April, with the benchmark S&P 500 Index rising +12.82%, bouncing back from the -12.35% selloff in March. Gains were broad based, with Large-, Mid-, and Small-Caps posting double digit gains. Mid-Caps, as measured by the S&P MidCap 400 Index gained +14.18%, while the Small-Cap 600 Index was close behind with a +12.70% gain. With April's gains negating last month's losses, the S&P 500 stands down -9.30% YTD, and *up* +0.86% over the past year.

From a style standpoint, Growth stocks again outperformed Value stocks, with the S&P 500 Citi Growth Index gaining +14.45% compared to the S&P 500 Citi Value Index gain of +10.71%. Environmental, Social, Governance (ESG) as a quality factor again outperformed the broader market, with the MSCI USA Extended ESG Focus Index gaining +13.11% during the period. Interestingly, ESG showed some resilience during last month's downturn by losing less than the S&P 500 (albeit by 15bps), but equally as importantly outperformed on the upside by 29bps. Over time, these small victories compound, leading to a year to date outperformance for ESG of 1.05%, a trailing 1-year outperformance of 1.54%, 3-year outperformance of 0.64% annualized, and a 5-year outperformance of +0.29% per annum. Taken as a whole, ESG has clearly proven its merit both from a values based investing standpoint, risk mitigation tool, and absolute performance driven strategy.

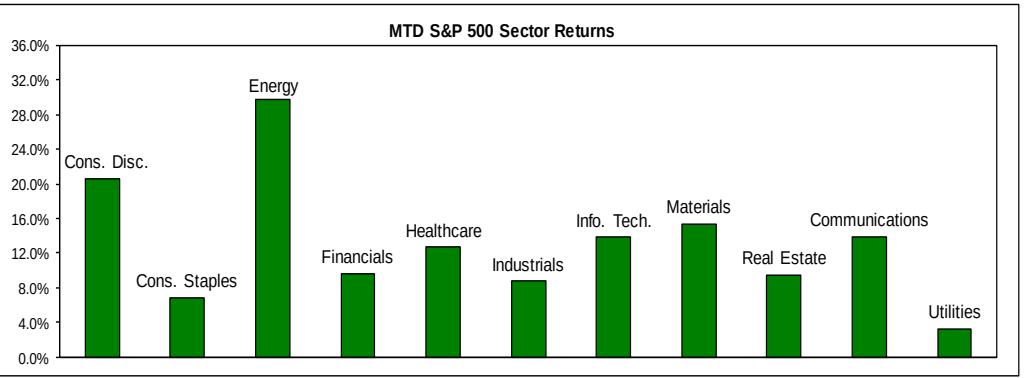
From a sector standpoint, those sectors hardest hit bounced back the sharpest, with Energy rallying +29.78% despite crude oil futures briefly turning negative, and Materials gaining +15.31%. Economically sensitive sectors such as Industrials and Financials lagged the broader market, returning +8.73% and +9.58%, respectively. Utilities were the worst performing sector on the month, posting only a +3.22% gain as investors rotated into riskier assets.

The month's notable standouts were from the market's biggest companies. Facebook (+22.73%), Apple (+15.54%), Amazon (+26.89%), Microsoft (+13.63%), and Google (Alphabet, +15.90%) all posted strong gains leading into this week's earnings. All are flat or positive YTD. Companies benefitting from increased virtual engagement, services, cloud computing, and e-commerce continue to buck the trend and provide a haven to investors looking towards future societal themes, which may be all the more accelerated due to the unfortunate impact of the coronavirus. With parts of the U.S. economy starting to open back up, it will be interesting to see how consumer habits change and how people interact moving forward. Professional sports will take on a different form, as noted by NASCAR resuming racing May 17 at Darlington, but without fans. The world is changing, and companies involved with technologies such as AI, Robotics, Payments, and Digital Infrastructure stand to benefit the most.



Domestic Equity Returns

Name	MTD	QTD	YTD	1 Year	3 Year	5 Year
S&P 500 Index	12.82%	12.82%	-9.30%	0.85%	9.01%	9.10%
MSCI USA Extended ESG Focus Index	13.11%	13.11%	-8.25%	2.39%	9.65%	9.39%
S&P 400 Mid Cap Index	14.18%	14.18%	-19.73%	-14.96%	-0.05%	3.56%
S&P 600 Small Cap Index	12.70%	12.70%	-24.09%	-19.62%	-1.83%	3.31%
S&P 500/Citi Growth Index	14.45%	14.45%	-2.15%	7.34%	13.86%	12.34%
S&P 500/Citi Value Index	10.71%	10.71%	-17.35%	-6.67%	3.50%	5.24%



S&P 500 Sector Returns

Sector	MTD	QTD	YTD	1 Year	3 Year	5 Year	% of S&P 500
Consumer Discretionary	20.55%	20.55%	-2.71%	1.75%	11.54%	11.44%	11.04%
Consumer Staples	6.86%	6.86%	-6.76%	3.62%	4.79%	6.75%	8.11%
Energy	29.78%	29.78%	-35.70%	-38.29%	-13.64%	-10.77%	2.94%
Financials	9.58%	9.58%	-25.43%	-16.76%	0.96%	5.19%	10.11%
Healthcare	12.65%	12.65%	-1.63%	14.52%	11.94%	8.85%	15.00%
Industrials	8.73%	8.73%	-20.68%	-15.93%	0.37%	4.68%	7.92%
Information Technology	13.80%	13.80%	0.22%	18.07%	21.73%	19.54%	25.32%
Materials	15.31%	15.31%	-14.83%	-7.18%	1.45%	2.85%	2.45%
Real Estate	9.48%	9.48%	-11.56%	-2.46%	6.04%	5.27%	2.85%
Communication Services*	13.82%	13.82%	-5.48%	3.30%	5.26%	5.17%	11.10%
Utilities	3.22%	3.22%	-10.72%	0.83%	7.06%	9.05%	3.16%

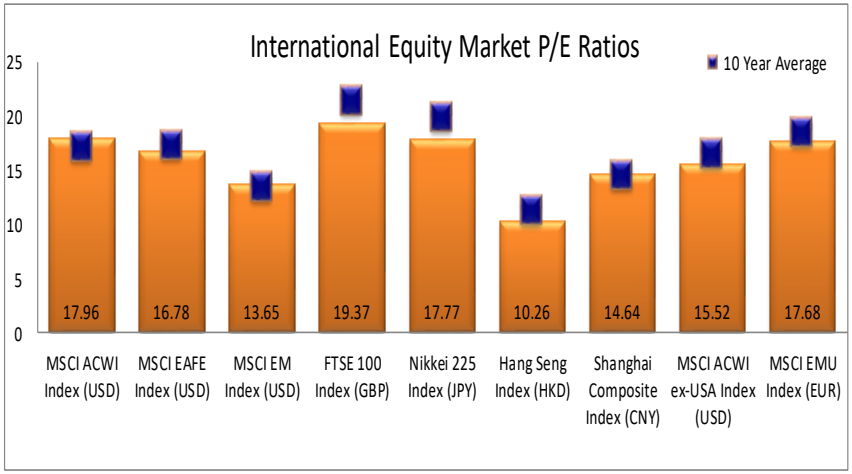
*The S&P 500 Communciation Services Sector was reclassifed from the Telecommunications Sector on September 21st, 2018

International Equity

International equities also posted strong gains in April, but not to the extent U.S. equities did. Developed Market (DM) equities, as measured by the MSCI EAFE Index rose +6.61% during the month, while Emerging Markets (EM) equities, as measured by the MSCI EM index rose +9.18%. Notably, Emerging Markets rebounded significantly more than Developed Markets, outperforming by more than +250bps; however, neither index recouped their March losses, with Developed and Emerging Markets recouping nearly 50% and 60% of their previous month's losses, respectively. This compares to the S&P 500 which effectively recouped its March losses. Part of the EM outperformance versus DM can be attributed to China reopening the vast majority of its economy, whereas DM countries such as Germany are just starting to open their countries up slowly. For the year, both DM and EM equities are firmly in the red, down -17.65% and -16.55%, respectively. Environmental, Social, Governance (ESG) as a quality factor underperformed the broader international markets in April, but remain outperformers on a year to date, 1- and 3-year basis.

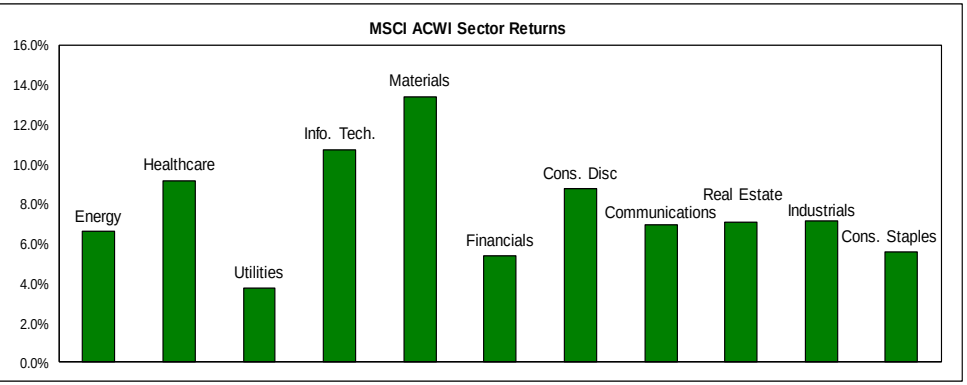
From a country perspective, the U.K. (FTSE 100 Index), Hong Kong (Hang Seng Index), and China (Shanghai Composite Index) all underperformed their respective DM and EM benchmarks, while Japan (Nikkei 225 Index) was the lone outperformer by +14bps (all in local currencies). At the regional level, the Eurozone, as measured by the MSCI EMU Index returned +6.57% in EUR terms, but remains down more than -20% for the year, highlighting the difficult path that lies ahead for the bloc's recovery. Not only does the Eurozone lack coordinated fiscal efforts, the monetary efforts of the ECB are likely to fall short despite repeated proclamations inspiring a "do whatever it takes" mentality. This stands in sharp contrast with the U.S. Federal reserve, that a "do whatever it takes" mentality means something completely different - mainly Trillions of dollars more in stimulus and a more coordinated effort.

At the sector level, Materials and Technology outperformed, returning +13.43% and +10.75% respectively, while Utilities lagged. Energy returned +6.59%, a sharp contrast with the U.S. energy sector. Adding insult to injury, Royal Dutch Shell cut its dividend for the first time since WWII in 1945, signifying the hardship befallen the sector.



International Equity Returns

Name	MTD	QTD	YTD	1 Year	3 Year	5 Year
MSCI ACWI Index (USD)	10.78%	10.78%	-12.78%	-4.42%	5.03%	4.96%
MSCI EAFE Index (USD)	6.61%	6.61%	-17.65%	-10.84%	-0.02%	0.40%
MSCI EAFE Ext. ESG Focus Index (USD)	6.21%	6.21%	-17.58%	-10.29%	0.10%	N/A
MSCI EM Index (USD)	9.18%	9.18%	-16.55%	-11.69%	0.92%	0.30%
MSCI EM Ext. ESG Focus Index (USD)	9.05%	9.05%	-16.52%	-11.25%	1.02%	N/A
FTSE 100 Index (GBP)	4.28%	4.28%	-20.80%	-17.10%	-2.49%	0.73%
Nikkei 225 Index (JPY)	6.75%	6.75%	-13.81%	-7.35%	3.79%	2.68%
Hang Seng Index (HKD)	4.43%	4.43%	-12.40%	-14.19%	3.60%	0.91%
Shanghai Composite Index (CNY)	4.00%	4.00%	-6.22%	-4.84%	-0.98%	-6.48%
MSCI ACWI ex-USA Index (USD)	7.69%	7.69%	-17.39%	-11.04%	0.27%	0.37%
MSCI EMU Index (EUR)	6.57%	6.57%	-20.07%	-14.22%	-2.74%	0.14%



MSCI ACWI Ex U.S. Sector Returns

Sector	MTD	QTD	YTD	1 Year	3 Year	5 Year	% of ACWI
Energy	6.59%	6.59%	-34.22%	-32.73%	-5.60%	-4.51%	10.23%
Healthcare	9.18%	9.18%	-0.47%	17.03%	8.87%	3.31%	6.88%
Utility	3.76%	3.76%	-11.57%	-1.28%	5.75%	5.17%	6.00%
Information Technology	10.75%	10.75%	-8.54%	7.03%	10.83%	10.16%	9.10%
Materials	13.43%	13.43%	-17.61%	-12.68%	0.37%	1.14%	6.53%
Financials	5.35%	5.35%	-27.25%	-23.97%	-6.12%	-3.76%	18.43%
Consumer Discretionary	8.76%	8.76%	-17.54%	-9.54%	-0.49%	-0.40%	11.38%
Communication Services*	6.95%	6.95%	-8.09%	-6.20%	-0.31%	-1.93%	7.63%
Real Estate**	7.08%	7.08%	-22.37%	-18.47%	-2.03%	N/A	3.27%
Industrials	7.14%	7.14%	-20.88%	-14.61%	-1.41%	0.53%	10.25%
Consumer Staples	5.56%	5.56%	-9.96%	-5.85%	1.92%	2.56%	10.30%

*The MSCI ACWI Ex U.S. Communciation Services Sector was reclassifed on November 30th, 2018 **The MSCI ACWI Ex. USA Real Estate Sector was developed on August 31st, 2016

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Fixed Income

The U.S. Federal Reserve has continued its asset purchases at a brisk pace, significantly growing its balance sheet in an attempt to support the functioning of the fixed income markets. This has provided a sense of relief, and reduced the volatility experienced from mid-March through early April. During the past month, the Fed rolled out additional liquidity and lending facilities, and made it clear that they are not done. Jerome Powell and the Fed seem to have adopted the European Central Bank's mantra of being willing to do whatever it takes to fight off a crisis.

This is increasingly a global theme within Central Banks. They all seem to be playing catch-up to the Bank of Japan's playbook, being willing to buy not just government bonds, but also corporate bonds, perhaps some junk bonds, and even ETFs or equity in companies. Japan is already there, and other central banks are slowly adopting those policies. These interventions may be a short-term salve, but certainly not a long-term cure.

The top performer in 2020 remains Government Bonds due to their fight to quality appeal. They were a weak performer in the month of April due to little performance coming from duration or coupon. Emerging Market and High Yield exposures recovered some of their losses during April, but remain underperformers YTD. Investment Grade corporate bonds were hit hard during the market volatility, but have managed to claw their way back to a respectably positive performance YTD.

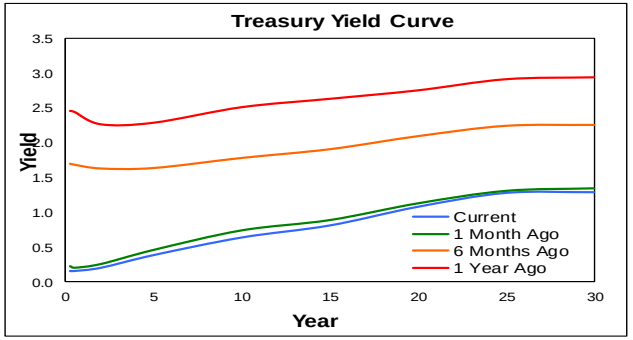
During April, the municipal sector did not participate in the broad bounce-back in pricing. There are funding concerns, given that sales tax revenue can play a large role in a municipality paying its bills. Real issues are likely to be limited to airline/transportation revenue bonds and the municipalities that went into the crisis in an extremely levered position, such as Illinois. This funding concern has affected the space indiscriminately, making the muni bond market one of the places that offer significant value, if you do your due diligence and pick up a few of the babies that went out with the bathwater. Liquidity has declined significantly and must be taken in to account when making purchases. U.S. Senate Majority Leader Mitch McConnell's comments on being in favor of broadening Chapter 9 Bankruptcy filing to allow for U.S. State bankruptcy was unhelpful, and most likely a negotiating tactic. Being unable to access Chapter 9 is one of the things that helps keep municipal borrowing rates low. Opening access, and having a state like IL take advantage of Chapter 9 would raise borrowing costs across the board.

Central Bank Activity

Name	Current	1 Month Ago	6 Months Ago	1 Year Ago
Fed Funds Rate	0.25%	0.25%	1.75%	2.50%
Bank of Japan Target Rate	0.10%	0.10%	0.10%	0.10%
European Central Bank Rate	0.00%	0.00%	0.00%	0.00%
Bank of England Official Bank Rate	0.10%	0.10%	0.75%	0.75%

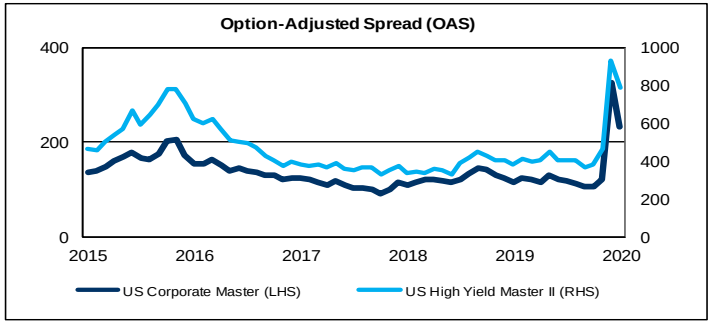
Fixed Income Returns

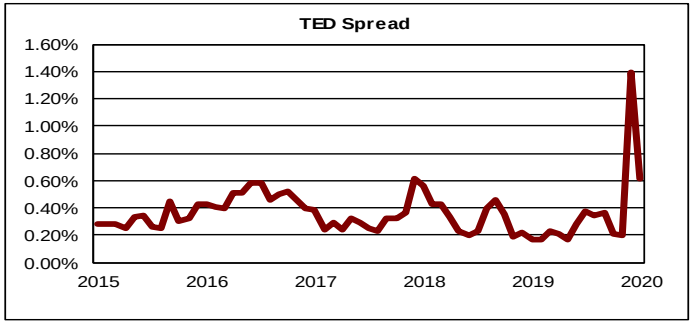
Name	MTD	QTD	YTD	1 Year
Bloomberg Barclays US Government Index	0.63%	0.63%	8.76%	14.10%
Bloomberg Barclays US Agg Index	1.78%	1.78%	4.98%	10.84%
Bloomberg Barclays US Corporate Index	5.24%	5.24%	1.42%	9.88%
Bloomberg Barclays US Corporate High Yield Index	4.51%	4.51%	-8.75%	-4.11%
Bloomberg Barclays EM USD Agg Index	2.60%	2.60%	-7.13%	-0.76%
Bloomberg Barclays Global Agg Treasuries USD Index	0.85%	0.85%	4.28%	9.18%
Bloomberg Barclays Municipal Index	-1.26%	-1.26%	-1.88%	2.16%
S&P Green Bond Select Index Total Return	2.61%	2.61%	0.95%	4.72%

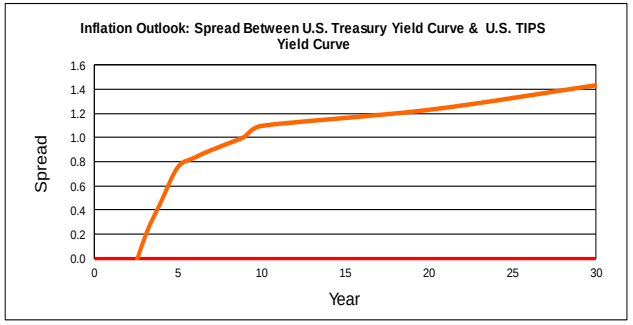


U.S. Treasury Yields

Period	3 Month	6 Month	2 Year	5 Year	10 Year	15 Year	20 Year	25 Year	30 Year
Current	0.16%	0.16%	0.20%	0.39%	0.64%	0.81%	1.08%	1.28%	1.29%
1 Month Ago	0.22%	0.20%	0.25%	0.45%	0.73%	0.88%	1.12%	1.30%	1.34%
6 Months Ago	1.69%	1.68%	1.63%	1.63%	1.78%	1.90%	2.09%	2.24%	2.25%
1 Year Ago	2.46%	2.45%	2.27%	2.29%	2.51%	2.63%	2.75%	2.91%	2.93%







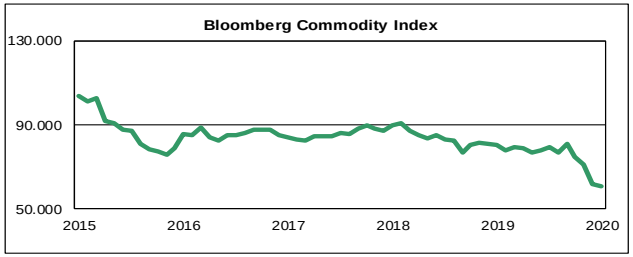
Alternative Investments

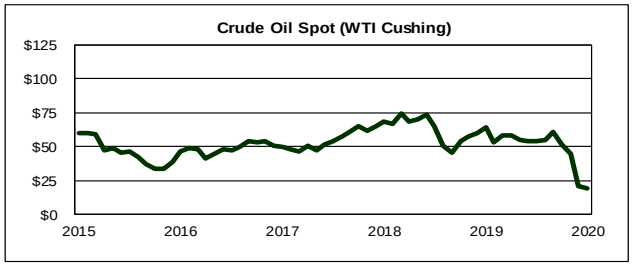
Alternative investment performance varied wildly in April as crude oil plummeted and precious metals such as gold shined. The Federal Reserve announced further stimulus measures, the yield curve and U.S. Dollar (DXY Index) were largely unchanged on the month, and volatility, as measured by the CBOE VIX Index plummeted more than -36% to close at 34.2 after surging above 80 (all-time highs) at the height of investor panic.

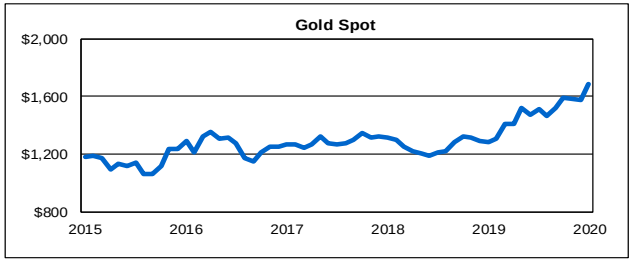
Perhaps the most interesting development in the alternatives space during April was the fact May futures contracts on the NYMEX turned negative, hitting a low of -$37.63, catching the world by surprise. Oil prices plummeted, with U.S. West Texas Intermediate (WTI) crude oil losing -8.0% on the month to close at $19/barrel on the NYMEX. Oil prices have lost -69.1% year to date, falling from $61/barrel at the start of the year. Futures prices plummeted as time to expiration on futures contracts began converging towards spot prices. Already weakening global demand was turbo charged by the covid-19 pandemic, and the uncertainty around when demand from cars, trucks, and planes may pick up, and to what extent. Has the future of electric vehicles and renewable energy finally been put into the lime light? Storage tanks and tanker ships are full, with global storage capacity nearly at capacity, meaning until a pick up in demand takes place or oil spigots are turned off, excess supply will need to go somewhere - and that may mean additional negatively priced contracts.

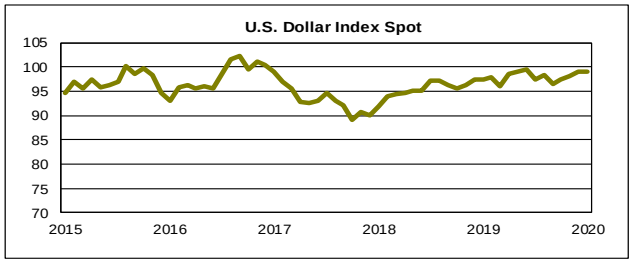
The drop in oil prices caused a commensurate fall in commodities prices, with the Bloomberg Commodities Index losing -24.7% year to date. The lone bright spot in the commodities space has been gold, which gained +6.9% in April to close at $1,687/ounce, up +11.2% from $1,517/ounce to start the year. Gold is likely to continue to get a bid as investors look for non-correlated assets, portfolio diversifiers and hedges, and ways to ward off the inevitable negative impact of $10 Trillion in global stimulus.

Real Estate, as measured by the FTSE NAREIT All-REIT Index rose +8.8% after losing -21.4% in March. Fears over the ability of individuals and businesses to make rent continue to keep the sector depressed. What's more, with Federal grants focused on payroll it remains to be seen the impact the coronavirus will have on real estate of all kinds. Stay tuned.





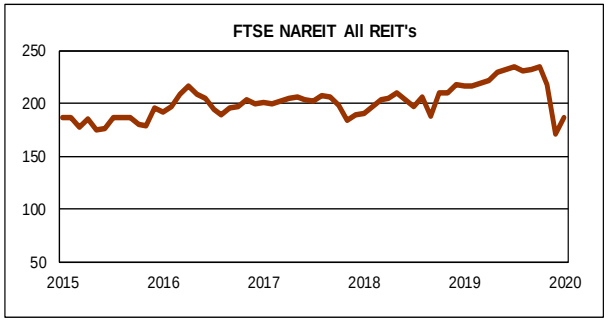




Hedge Funds

Name	MTD	QTD	YTD	1 Year	3 Year	5 Year
Global Hedge	2.49%	2.49%	-4.53%	0.41%	0.14%	-0.20%
Convertible Arbitrage	3.86%	3.86%	-2.11%	1.74%	1.98%	2.33%
Equity Hedge (L/S)	3.76%	3.76%	-10.07%	-6.67%	-1.39%	-1.28%
Equity Market Neutral	-0.99%	-0.99%	-8.71%	-9.45%	-4.58%	-2.49%
Event Driven	2.31%	2.31%	-3.32%	4.98%	-1.20%	0.27%
Macro	0.72%	0.72%	-0.47%	4.07%	1.43%	-0.43%
Merger Arbitrage	4.68%	4.68%	-3.14%	-1.25%	-1.07%	1.30%
Relative Value Arbitrage	2.61%	2.61%	-2.97%	0.55%	1.57%	0.25%
Absolute Return	1.80%	1.80%	-4.11%	-0.76%	0.65%	0.85%

Note: Price Return, Returns as of 04/28/20



Spot Rates

Description	Current	1 Month Ago	3 Months Ago	6 Months Ago	1 Year Ago
CAD / USD	1.39	1.41	1.32	1.32	1.34
JPY / USD	107.18	107.54	108.35	108.03	111.42
USD / GBP	1.26	1.24	1.32	1.29	1.30
USD / EUR	1.10	1.10	1.11	1.12	1.12

S&P 500 Index (SPX) – Standard and Poor's 500 Index is a capitalization-weighted index of 500 stocks. The index is designed to measure performance of the broad domestic economy through changes in the aggregate market value of 500 stocks representing all major industries.

S&P 500 Sector Indices (S5COND, S5CONS, S5ENRS, S5FINL, S5HLTH, S5INDU, S5INFT, S5MATR, S5TELS, S5UTIL, S5RLST) – The S&P 500 is broken down into eleven sub-indices according to the Global Industry Classification Standard (GICS) sectors. These eleven sectors include Consumer Discretionary, Consumer Staples, Energy, Financials, Health Care, Industrials, Information Technology, Materials, Communication Services, Utilities, and Real Estate.

S&P 400 Mid Cap Index (MID) – Standard and Poor's Mid Cap 400 Index is a capitalization-weighted index, which measures the performance of the mid-range sector of the U.S. stock market.

S&P 600 Small Cap Index (SML) – Standard & Poor's Small Cap 600 Index is a capitalization-weighted index that measures the performance of selected U.S. stocks with a small market capitalization.

S&P 500/Citigroup Growth Index (SGX) – The S&P 500/Citigroup Growth Index is a market capitalization-weighted index. All the stocks in the underlying parent index are allocated into value or growth. Stocks that do not have pure value or pure growth characteristics have their market caps distributed between the value & growth indices.

S&P 500/Citigroup Value Index (SVX) – The S&P 500/Citigroup Value Index is a market capitalization-weighted index. All the stocks in the underlying parent index are allocated into value or growth. Stocks that do not have pure value or pure growth characteristics have their market caps distributed between the value & growth indices.

MSCI AC World Index (MXWD) – The MSCI AC World Index is a free float-weighted equity index. The index includes both emerging and developed world markets.

MSCI EAFE Index (MXEA) – The MSCI EAFE Index is a capitalization-weighted index that monitors the performance of stocks from developed markets in Europe, Australia-Asia, and the Far East.

MSCI Emerging Market Index (MXEF) – The MSCI Emerging Market Index is a free-float weighted index that is designed to measure the equity performance of international emerging markets.

FTSE 100 Index (UKX) – The FTSE 100 Index is a capitalization-weighted index of the 100 most highly capitalized companies traded on the London Stock Exchange. The equities use an investability quotient weighting in the index calculation.

Nikkei 225 Stock Average Index (NKY) – The Nikkei-225 Stock Average is a price-weighted average of 225 top-rated Japanese companies listed in the First Section of the Tokyo Stock Exchange.

Hang Seng Index (HSI) – The Hang Seng is a free-float capitalization-weighted index of selected companies from the Stock Exchange of Hong Kong. The components of the index are divided into four sub-indexes: Commerce and Industry, Finance, Utilities, and Properties.

Shanghai Stock Exchange Composite Index (SHCOMP) – The Shanghai Stock Exchange Composite Index is a capitalization-weighted index. The index tracks the daily price performance of all A-shares and B-shares listed on the Shanghai Stock Exchange.

MSCI USA Extended ESG Focus Index- The Index is designed to maximize exposure to positive environmental, social and governance (ESG) factors while exhibiting risk and return characteristics similar to those of the MSCI USA Index.

MSCI EAFE Extended ESG Focus Index- The Index is designed to maximize exposure to positive environmental, social and governance (ESG) factors while exhibiting risk and return characteristics similar to those of the MSCI EAFE Index.

MSCI Emerging Markets Extended ESG Focus Index- The Index is designed to maximize exposure to positive environmental, social and governance (ESG) factors while exhibiting risk and return characteristics similar to those of the MSCI Emerging Markets Index.

MSCI ACWI ex USA Index (MXWDU) – The MSCI ACWI ex USA Index is a free-float weighted index.

MSCI ACWI ex USA Sector Indices– The MSCI ACWI ex USA Index is broken down into eleven sub-indices according to the Global Industry Classification Standard (GICS) sectors. These eleven sectors include Consumer Discretionary, Consumer Staples, Energy, Financials, Health Care, Industrials, Information Technology, Materials, Communication Services, Utilities, and Real Estate.

MSCI EMU Index (MXEM) – The MSCI EMU (European Economic and Monetary Union) Index is a free-float weighted equity index.

Bloomberg Barclays Global Treasuries USD Hedged Index (LGTRTRUH)– The Bloomberg Barclays Global Treasury Index tracks fixed-rate, local currency government debt of investment grade countries. The index represents the treasury sector of the Global Aggregate Index and contains issues from 37 countries denominated in 24 currencies.

Bloomberg Barclays Municipal Bond Index (LMBITR)– The Bloomberg Barclays Municipal Bond Index covers the USD-denominated long-term tax exempt bond market. The index has four main sectors: state and local general obligation bonds, revenue bonds, insured bonds, and prerefunded bonds.

Bloomberg Barclays U.S. Government Index- Bloomberg Barclays US Government Bond Index is compromised of the US Treasury and US Agency Indices. The index includes US dollar-denominated, fixed-rate, nominal US Treasuries and US agency debentures (securities issued by US government owned or government sponsored entities, and debt explicitly guaranteed by the US government).

Bloomberg Barclays EM Hard Currency Aggregate Index (LG20TRUU)- The Bloomberg Barclays Emerging Markets Hard Currency Aggregate Index is a hard currency Emerging Markets debt benchmark that includes USD-denominated debt from sovereign, quasi-sovereign, and corporate EM issuers.

Bloomberg Barclays U.S. Aggregate Bond Index (LBUSTRUU)- The Bloomberg Barclays US Aggregate Bond Index is a broad-based benchmark that measures the investment grade, US dollar-denominated, fixed-rate taxable bond market. The index includes Treasuries, government-related and corporate securities, MBS (agency fixed-rate and hybrid ARM pass-throughs), ABS and CMBS (agency and non-agency).

Bloomberg Barclays U.S. Corporate Index (LUACTRUU)- The Bloomberg Barclays US Corporate Bond Index measures the investment grade, fixed-rate, taxable corporate bond market. It includes USD denominated securities publicly issued by US and non-US industrial, utility and financial issuers.

Bloomberg Barclays U.S. Corp High Yield Index (LFTR
ML U.S. Corporate Index (C0A0) – The Bloomberg Barclays US Corporate High Yield Bond Index measures the USD-denominated, high yield, below-investment grade fixed-rate corporate bond market.

S&P Green Bond Select Index (SPGRSLLT)- The S&P Green Bond Select Index is a market value-weighted subset of the S&P Green Bond Index that seeks to measure the performance of green-labeled bonds issued globally, subject to stringent financial and extra-financial eligibility criteria.

ML U.S. Corporate Index (C0A0) – The Merrill Lynch U.S. Corporate Index tracks the performance of U.S. dollar denominated investment grade corporate debt publicly issued in the U.S. domestic market.

ML U.S. High Yield Index (H0A0) – The Merrill Lynch U.S. High Yield Index tracks the performance of U.S. dollar denominated below investment grade corporate debt publicly issued in the U.S. domestic market.

FTSE NAREIT All REITs Index (FNAR) – The FTSE NAREIT All REITs Index is a free float adjusted market capitalization-weighted index that includes all tax qualified REITs listed in the NYSE, AMEX, and NASDAQ National Market.

Bloomberg Commodity Index (BCOM) – Bloomberg Commodity Index (BCOM) is calculated on an excess return basis and reflects commodity futures price movements. The index rebalances annually weighted 2/3 by trading volume and 1/3 by world production and weight-caps are applied at the commodity, sector and group level for diversification. Roll period typically occurs from 6th-10th business day based on the roll schedule.

U.S. Dollar Index (DXY) – The U.S. Dollar Index (USDX) indicates the general int'l value of the USD. The USDX does this by averaging the exchange rates between the USD and 6 major world currencies. The ICE US computes this by using the rates supplied by some 500 banks.

HFRX Global Hedge Fund Index (HFRXGL) – The HFRX Global Hedge Fund Index is designed to be representative of the overall composition of the hedge fund universe. It is comprised of all eligible hedge fund strategies.

HFRX Convertible Arbitrage Index (HFRXCA) – The HFRX Convertible Arbitrage Index is designed to reflect the general performance of strategies in which the investment thesis is predicated on realization of a spread between related instruments in which one or multiple components of the spread is a convertible fixed income instrument.

HFRX Distressed Securities Index (HFRXDS) – The HFRX Distressed Securities Index is designed to reflect the general performance of strategies focused on corporate fixed income instruments, primarily on corporate credit instruments of companies trading at significant discounts to their value at issuance of obliged (par value) at maturity as a result of either formal bankruptcy proceeding or financial market perception of near term proceedings.

HFRX Macro Index (HFRXM) – The HFRX Macro Index reflects the general performance of strategies in which the investment process is predicated on movements in underlying economic variables and the impact these have on equity, fixed income, hard currency, and commodity markets.

HFRX Equity Hedge Index (HFRXEH) – The HFRX Equity Hedge Index is designed to reflect the general performance of strategies that maintain both long and short positions in primarily equity and equity derivative securities. A wide variety of investment processes can be employed to arrive at an investment decision, including both quantitative and fundamental techniques. Strategies can be broadly diversified or narrowly focused.

HFRX Equity Market Neutral Index (HFRXEMN) – The HFRX Equity Market Neutral Index is designed to reflect the general performance of strategies that employ sophisticated quantitative techniques of analyzing price data to ascertain information about future price movement and relationships between securities.

HFRX Event Driven Index (HFRXED) – The HFRX Event Driven Index reflects the general performance of strategies that maintain positions in companies currently or prospectively involved in corporate transactions of a wide variety including, but not limited to, mergers, restructurings, financial distress, tender offers, shareholder buybacks, debt exchanges, security issuance, or other capital structure adjustments.

HFRX Merger Arbitrage Index (HFRXMA) – The HFRX Merger Arbitrage Index reflects the general performance of strategies which employ an investment process primarily focused on opportunities in equity and equity related instruments of companies which are current engaged in a corporate transaction.

HFRX Relative Value Arbitrage Index (HFRXRVA) – The HFRX Relative Value Arbitrage Index reflects the general performance of strategies that maintain positions in which the investment thesis is predicated on realization of a valuation discrepancy in the relationship between multiple securities.

Economic Data Sources:
PPI & CPI – Bureau of Labor Statistics
Unemployment Rate – Bureau of Labor Statistics
Consumer Confidence – Conference Board
S&P/Case-Shiller Composite 20 – Case-Shiller
Industrial Production – Federal Reserve
Capacity Utilization – Federal Reserve
Retail Sales – U.S. Census Bureau
Housing Starts – U.S. Department of Commerce
Factory Orders – U.S. Census Bureau
Leading Indicators – Conference Board
Unit Labor Costs – Bureau of Labor Statistics
GDP – Bureau of Economic Analysis
Wholesale Inventories – U.S. Census Bureau
MBA Mortgage Applications – Mortgage Bankers Association
4-Week Moving Average of Initial Claims, SA – Bureau of Labor Statistics

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