ABBOT DOWNING

ABBOT DOWNING STRATEGY REPORT

Tales of the Tails

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In this issue:

Opening Commentary: Tales of the Tails **3**

Assume Nothing **7**

Key Market Events **9**

Notable Observations **16**

Dynamic Allocation Summary **17**

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Tales of the Tails

> *"It is our choices, Harry, that show what we truly are, far more than our abilities."*
>
> Albus Dumbledore, Harry Potter and Chamber of Secrets by J.K. Rowling

Extremes. In market terms, the extremes when markets are behaving really well, or really poorly, can be intensely emotional as participants vacillate between greed and fear. Market theorists have often suggested that long-term returns should be normally distributed with 95% of them falling between two standard deviations of the average of all observations *(refer to Chart A: S&P 500 Quarterly Returns page 5)* This implies that markets should spend very little time at such extremes. Yet theory has often failed in the short-term, with markets driving above or below average more frequently than a "normal" distribution would project.[1] In statistical parlance, these "fat tail" experiences can leave participants' adrenaline taxed and stomachs raw as the intensity of such seemingly abnormal behavior wear on our trend reverting psyches. We are hardwired to crave predictability and stability and thrusts too far away from the ordinary leave us exhausted.

The past few months have whipsawed markets from deep in one tail to deep in the other (and back again), racking up historical records both for the extent and rapidity of movement. Similarly, economic statistics have been at or near records for both "best" and "worst" of times in similarly short order…a matter of weeks rather than the typical recovery taking years to complete. The unemployment rate, for example, went from a 50 plus year low of 3.5% in February, 2020 to a seventy year high of over 14% in less than three months *(refer to Chart B: U. S. Unemployment Rate on page 5)*. While the stock market engaged in one of the speediest drops on record -33.9% as measured by the S&P 500 which peaked on 2/19/20 and troughed (so far) on 3/23. Only to be followed by the fastest and strongest rebound on record—up 44.5% between 3/23 and 6/8[2] *(refer to Chart C: S&P 500 Index-Price Movement on page 6)*. The drop was obviously correlated to the global cessation of the vast majority of economic activity as most countries shut their borders and sent citizens to shelter in place to slow the spread of the novel coronavirus.

The nearly 45% equity market rebound that has happened in recent weeks, however, recouping much of the loss and bringing the NASDAQ to new highs has little corroborating economic or fundamental evidence to support and leaves many scratching their heads as to its voracity and sustainability.

Amidst such volatility, the choices we each make are likely to have far more long-term import on our financial outcomes than the market moves themselves. And it actually matters less how great our long term "abilities" or market experience are relative to how rationally we assess and adjust individual responses. The ability to think carefully, separate noise from potentially lasting impact, and respond appropriately for your particular situation are even more critical than before. So what lessons can be gleaned from this year's market action? What tales can be gleaned from the time in the tails?

- **FOMO ("Fear of Missing Out") and TINA ("There is No Alternative") are not adequate rationales for investing.** Buying just because an asset class is increasing in value often does not yield the wisest long term decisions. In any purchase or sale, the fundamental driver of value is a perceived disconnect between the present value of all potential cash flows of your investment relative to the current price. That basic valuation assessment is often missing when knee-jerk or emotion-pressured decisions are undertaken during market duress. Similarly, being forced to sell (or buy) because of margin calls or excess capital that needs to be invested can often also prompt hasty, biased decision making. Certain tranches of the market were subjected to just such anomalies during the recent downturn when certain more liquid slices of fixed income markets were indiscriminately sold to meet margin calls in other areas. For those with sufficiently flush balance sheets, stress in certain market niches can present once in a "blue moon" type opportunities. We expect markets to stay volatile in the months (and perhaps years) ahead as the progress of combating COVID-19 proceeds in fits and starts and the global economy moves back toward a new normal—likely providing more such opportunities for the watchful and diligent.

Tales of the Tails (Continued)

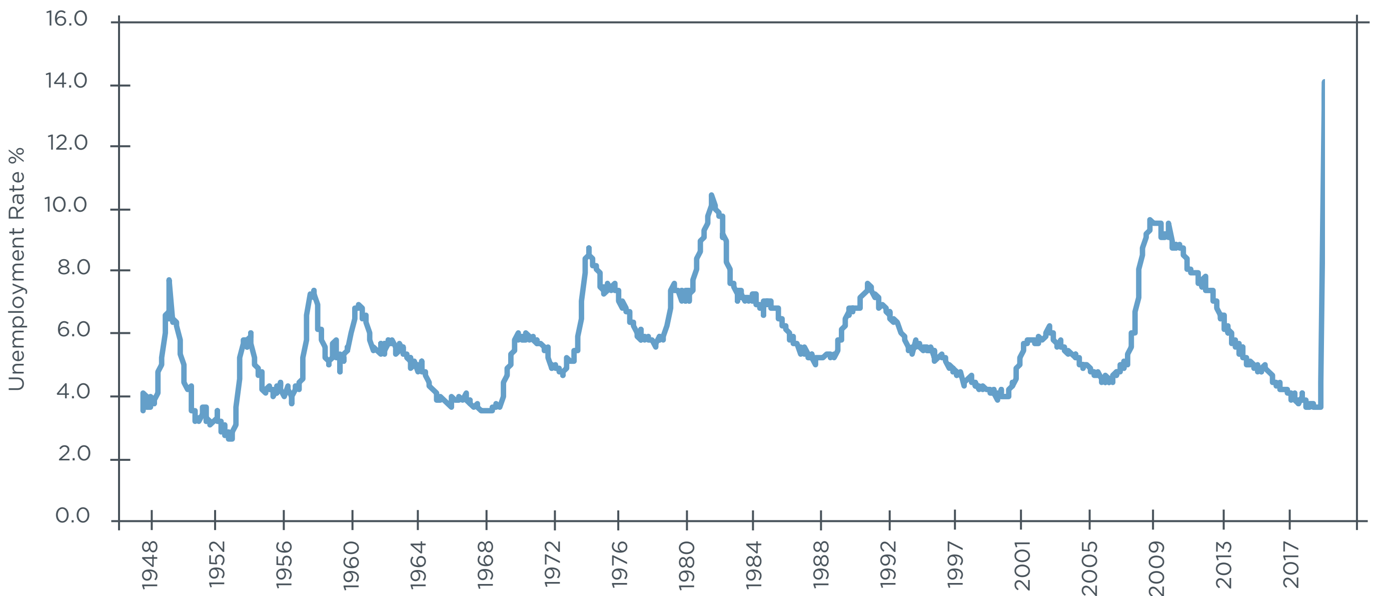
- **Volatility can be used constructively** both for rebalancing and to "stress test" your own tolerance for such variability. Rebalancing is a core tool we use to regularly reapportion our managed portfolios back to long term targets. There have been ample opportunities to undertake such rebalancing given 2019's record stock and bond market returns, followed by the sharp divergence in performance in 2020 Q1 as bonds rose and stocks fell. Surprisingly, there was yet another opportunity to rebalance yet amidst the surprisingly strong market retracement into early June. Volatility can thus provide helpful interim entrance-for-new-cash opportunities as well as chances to raise capital for upcoming funding needs or simple psychological comfort. During the recent rebound it was helpful to pause to reflect upon one's reaction and visceral feelings during the recent rout and recalibrate asset allocation targets or cash balances accordingly.
- **Reassess and reaffirm your investment objectives**—both qualitative and quantitative. What level of cash? Gifting? Active and Passive? Which options for liquid, semi-liquid or private capital feels most appropriate? Given the ebbs and flows of various markets individual sectors, and various asset classes, there have been ample opportunities to ease into or out of asset classes as markets ebbed and flowed. Staying attentive for opportunity rather than becoming immobilized has been an important skill set to foster. At a minimum, regularly rebalancing portfolios back to long term targets to take advantage of repositioning and/or tax loss harvesting has been a viable risk control choice.
- **Reassess and reaffirm your timelines and your tolerance for illiquidity**—do you have portions of your portfolio segmented off (either psychologically or in separate accounts) and matched against specific short- intermediate- or long-term income or cash flow needs? Were you relatively calm watching market gyrations or did it make you realize you need more in or out of various asset classes? If unsettled by the daily gyrations and your situation supports, would you prefer to shift more into less liquid assets that 1) may be able to capitalize on unique and uncorrelated niches; and 2) don't reprice multiple times a day but enforce greater capital discipline via longer lock up periods?
- **Leverage and cash flow matters**—for both companies and individuals. As the global shut down loomed, corporations moved quickly to raise cash by cutting dividends, suspending share buybacks and drawing down credit lines. As markets stabilized, record levels of fixed income have been issued and even more recently, secondary and primary stock offerings. Individuals too were reminded of the need to have readily available cash stored someplace considered relatively more safe and liquid in order to meet known and potential emergency situations. The market rebound gave many a second chance to assess that readiness.
- **Ignore the headlines**—and arm yourself with as many long term facts as you can muster—This can be tough especially in the current situation where the globe's economies were shifted 180 degrees due to a medical emergency rather than a fiscal or monetary one. One of the activities we regularly deploy is assessing the "weight of the evidence". In this process we have a variety of indicators in core segments like economic progress; consumer, business, or investor sentiment; market technicals; the relationships between the price of gold and bond spreads; the pace of the dollar and other currencies; commodity prices; U.S. Federal Reserve Policy and commentary as well as that from other central banks; and a variety of other factors. In watching these and weighting their signals in aggregate we are able to better understand what markets are hinting at rather than be tossed about by headlines which can easily swing from one extreme to another with seemingly no rhyme nor reason.

As you step back to consider how your own situation has evolved this year are you comfortable with where your portfolios are at, or do the tales they tell need to be adjusted?

Chart A: S&P 500 Quarterly Returns, 1946–March 2020

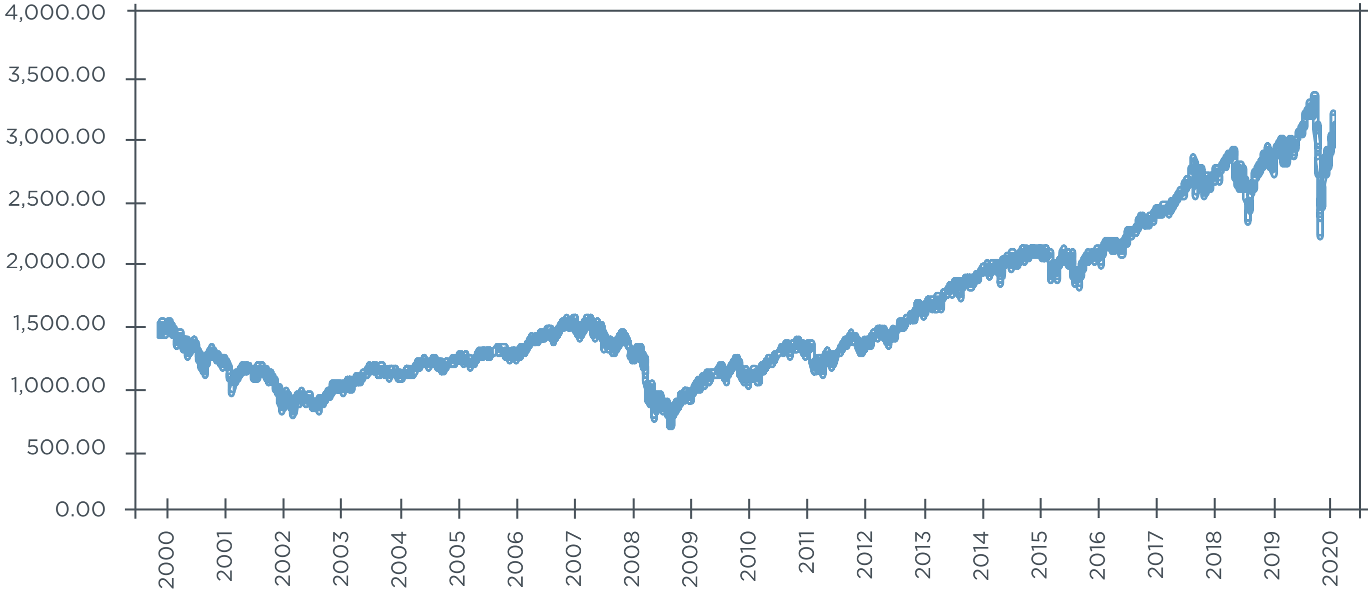
Source: Abbot Downing, Morningstar

Chart B: U. S. Unemployment Rate



Source: U.S. Bureau of Labor Statistics, Unemployment Rate [UNRATE], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/UNRATE, June 15, 2020.

Chart C: S&P 500 Index-Price Movement



Source: Factset

Assume Nothing

> *"Once is happenstance. Twice is coincidence. Three times is enemy action."*
>
> Ian Fleming, Goldfinger

Fleming was the celebrated author of the James Bond novels. Luckily for fans of his work, he was recruited at the age of 31 out of a relatively obscure life as a banker, to be the personal assistant to Rear Admiral John Godfrey, Director of Naval Intelligence. That was the start of a wildly interesting and prolific career in the service until he retired in 1952. In less than a year from then he had written his first Bond novel, Casino Royale, kicking off what would become a series of 11 novels, two collections of short stories, and a movie franchise that continues to this day. In the novel Goldfinger, the lead villain Auric Goldfinger, recites the line above to Bond after having met Bond for the third time. Goldfinger was wise to recognize that three times does suggest that something broader is afoot.

Once, Twice, Three Times

Persistence is one of the most singularly sought after characteristics in active management. Outperformance relative to a benchmark can happen for an active manager quite easily over a one year period. What is substantially more difficult is the ability to replicate that outperformance over a number of years through different market environments. Maintaining that over decades can be nearly impossible. According to S&P Indices Versus Active (SPIVA) scorecard over the 15 year period ending June 2019, 90% of large cap, mid cap and small cap funds underperformed their respective benchmarks.

We have written at length about the strength of our rigorous due diligence process—particularly as it relates to our alternative investment platform. Alternative investments is a broad category. At Abbot Downing we categorize hedge funds and private capital as alternatives. These investments are less liquid and less transparent. It can be more difficult to identify which managers in the alternatives space have the ability to outperform with persistence. Additionally, the dispersion of outcomes around the median in alternatives is much wider than in traditional asset classes; meaning outperformers tend to meaningfully outperform, and underperformers tend to meaningfully underperform. As a result, outperformance over a benchmark for several years, when compounded, can provide a tremendous amount of value. Which is why we put significant effort and resources into finding those managers—and into making sure we don't end up investing with those bottom quartile managers.

Because of the unique nature of alternative investments, in order to know what you own (or are considering owning) you need to expand beyond the traditional areas of inquiry of people, process, philosophy and performance. For example, background checks are often done on key individuals. If a manager has disclosed everything we find in the background checks, it indicates a willingness to be honest and transparent. It doesn't happen often, but if we do uncover items that managers have not disclosed it can represent a risk, reflect a degree of dishonesty, or at the very least reflect an item that could keep that manager from fully being able to focus on the business.

Service providers represent excellent resources as well. The collapse of Bernie Madoff made everyone aware of the need to diligence a funds legal, bookkeeping, accounting and tax partners. The back office and operational components to some of the more complicated alternatives strategies require sufficient resources applied. Knowing that a firm has hired a top-level fund administrator is reassuring, but we also expect for sufficient staff to be dedicated to the fund. Our experience across multiple strategy types has taught us that we'd want to see substantially more personnel servicing a complex, credit-related strategy with frequent cash flow activity than a fairly straightforward long/short equity fund.

Assume Nothing (Continued)

Well performing funds, taking advantage of unique opportunities in the market are good sources of added value in client portfolios. But it is also important to establish that the firm itself is well run. We analyze the financials of the General Partner to ensure the business model is being well executed. Management fees and carried interest represent the bulk of an alternative asset management firms revenues. These flows, particularly the carried interest, can be very lumpy. Losses in an early vintage fund can sometimes push compensation out several years. Firms without the ability to fund or manage through these periods could suffer from major talent departures.

Conclusion

The alternative investing landscape is loaded with managers that can produce periods of outperformance. The critical piece is uncovering what forces are at work in generating that outperformance, and how persistent those forces are. Ian Fleming's background in intelligence would have made him well suited for this type of investigative work. Fleming's quote above has been informally added to what are known as the Moscow Rules—a set of unwritten lessons taught to all CIA spies in the Cold War. After the Cold War was over, the International Spy Museum in Washington, D.C. produced a written set that represents an interesting read. The first on that list is particularly useful for our business: Assume Nothing.

Key Market Events *(Updated as of 6-19-20)*

Listed below are key upcoming events and/or accelerating trends we're watching especially closely, as well as a few comments related to how they may impact short-term markets.

Market Volatility Update

Global equity markets have spiked markedly from the lows of March 23rd and narrowed year-to-date hits. The Tech-heavy NASDAQ is actually up over 10% year-to-date:[3]

	Since 3/23	Year-to-date (thru 6/18)
S&P 500	39.9%	-2.7%
Russell 2000	42.9%	-13.9%
MSCI EAFE	34.5%	-10.1%
MSCI EM	32.1%	-9.8%
NASDAQ	45.3%	11.4%

The sharp rebound since March 23 is based on but not limited to the following factors:

- Unparalleled monetary and fiscal stimulus actions put in place by governments and central banks worldwide.
- Improving data regarding the COVID-19 virus:
  - Overall cases in the U.S. have risen (probably due to protests), but fatalities and hospitalizations are clearly down.[4]
  - Unexpected jump in U.S. payrolls during May, with the unemployment rate falling from 14.7% to 13.3%.
  - Global PMI data beginning to show signs of a recovery.

Still, uncertainties surrounding a possible "second wave" of COVID-19 cases, along with incoming economic data has continued to produce extreme market volatility. To wit, the Dow fell 1800 points (-6.8%) on growing fears of more coronavirus infections on June 12, followed by a 526 point gain a week later based on a record retail sales rebound in May.

We expect heightened volatility to continue as data feeds remain unpredictable. Progress on a vaccine and reopening will be watched closely, as will economic stats and the rapidity with which economic progress resumes. Volatility can actually provide unique opportunities and reassessment/reaffirmation of long term investment objectives. Regular rebalancing, a core pillar of our investment process, can help smooth the ride and is a wise risk mitigation strategy for the long run.

Federal Reserve

On March 23rd, the Federal Reserve (Fed) essentially stated it will do whatever it takes to support Treasuries, mortgage-backed securities (including commercial mortgage-backed securities), and corporate bonds. In subsequent comments they also reiterated they have "many tools" at their disposal.

The FOMC also announced it was re-starting the following programs it created during the financial crisis.[5]

- Money-Market Mutual Fund Liquidity Facility (MMLF) to support money market funds and commercial paper, including variable rate notes that are issued by municipalities.
- Term Asset-Backed Securities Loan Facility (TALF), through which the Fed will support bond markets that are securitized by student loans, auto loans, and credit card loans.
- Primary Market Corporate Credit Facility (PMCCF) to support the issuance of investment grade corporate bonds.
- Secondary Market Corporate Credit Facility (SMCCF) aimed at providing liquidity in the investment grade corporate bond market.

The Fed then followed up three weeks later with an unprecedented $2.3 trillion expansion of its lending and bond-buying operations to offer a liquidity lifeline for non-investment grade corporate bonds and real estate investment trusts. Another new measure is the Main Street Lending program, which will make four-year loans to businesses that have up to 10,000 employees or revenues of less than $2.5 billion. At the June FOMC meeting, Fed officials signaled plans to keep interest rates near zero for years and said they were studying how to provide more support to the U.S. economy.

An accommodative Fed busy pulling out all the stops seems to have reignited investors' confidence in risk assets which continue to surge ahead. Such emerging exuberance can lead to investor complacency however and anomalies (e.g. the IPO of a bankrupt company?!) that reiterate our adherence to assessing a variety of indicators to indicate market and economic prospects weight of the evidence process and regular rebalancing to help mitigate risk.

Global Central Bankers

Major central banks overseas have also intervened to help their respective economies battle the coronavirus.

The European Central Bank (ECB) launched a 750 billion euro ($813 bn) program to buy government and corporate debt, essentially acting as a backstop for governments that are spending huge amounts to keep businesses from going bankrupt and jobs from being lost. The ECB's bond-buying has been concentrated in sovereign debt of Spain and Italy, two of the countries hardest hit by the pandemic. In June, the ECB scaled up its bond buying program to 1.35 trillion euro in a bold move that put its stimulus efforts in line with that of the Federal Reserve.

The Bank of Japan (BOJ) boosted its coronavirus lending program to more than $1 trillion but kept monetary policy on hold in late June as governor Haruhiko Kuroda signaled that it would be years before there would be another rise in interest rates.

The Bank of England (BOE) cut rates by 50 basis points to 25 basis points during an unscheduled policy meeting. They also launched a new Term Funding Scheme with incentives for banks to lend to small and medium sized enterprises. The Financial Policy Committee reduced the capital buffer rate to 0% of banks' exposure to UK borrowers. The capital buffer rate was 1%, so this frees up banks to lend more, especially to U.K. borrowers.[6] The BOE recently stated that it is willing to contemplate negative interest rates as a potential tool to support the U.K. economy as it emerges from the COVID-19 lockdown.

Many investors believe that a global central bank "put" is firmly in place with the balance sheets of four major central banks expected to grow by $4.3 trillion between March and September.[7] Leading global investors to lean into the "risk on" trade.

Oil

The price of West Texas Intermediate (WTI) crude oil took a deep dive into negative territory (-$37.63) on April 20, largely driven by the fact that it was the last day before expiration of the May 2020 futures contract. Typically, contract holders who are not able to receive delivery of physical oil simply roll over positions into the next month. But on the last trading day of April 20, these contract holders were met with a lack of willing buyers and prices collapsed. A key factor behind the lack of willing buyers leading to the price collapse was that supply reductions to date have not matched the demand destruction caused by the COVID-19 breakout, resulting in excess supply with limited storage capacity.[8]

Since WTI's collapse of April 20, oil prices have rebounded vigorously up to $40 per barrel based on the following:

- Reopening of global economies from the COVID-19 lockdown, which has led to increased demand. Jet fuel and diesel demand have stabilized, while gasoline demand is in a clear uptrend.
- OPEC and its allies, which agreed in April to limit production by 9.7 million barrels a day through June, recently agreed to extend cuts another month.
- Decline in new oil drilling activity. The U.S. is expected to produce around 10 million barrels a day (MBPD) by year-end, down from the peak of 13 MBPD earlier in 2020.

Despite the overall decline in U.S. oil production, the recent spike in crude prices has led several shale producers to reopen spigots, complicating the crude market's recovery. The commodity's stress could put undue financial pressure on sector balance sheets as already highly levered operators seek to re-up cash in the next few years.

Fiscal Stimulus

President Trump signed a roughly $2 trillion economic rescue package into law after it passed overwhelmingly in the House and Senate. The bill is the largest in U.S. history and extends aid to many struggling Americans through direct payments and extended unemployment insurance. The package also provides loans and grants to businesses, aid to state/local governments, and resources to health-care providers. A summary of the key components of the bill shows the following:[10]

- $500 billion of cash payments to individuals.
- $375 billion of loans to small businesses.
- $250 billion of social safety nets (extended unemployment insurance and benefit enhancements).
- $425 billion of a loan facility through the Treasury's Exchange Stabilization Fund (ESF-backstop Federal Reserve facilities to support credit markets and individual companies).
- Approximately $300 billion to $425 billion of special purpose vehicles, including support for health care, aid to state and local governments, funding for education, and corporate tax changes.

Lawmakers are already discussing what could be needed in a subsequent economic-relief package, which would be the fourth to address the health crisis.

We believe that both the fiscal and monetary stimulus packages should be viewed as a stop-gap effort to contain the pandemic's economic fallout—to prevent a credit freeze that businesses experienced in 2008–2009, rather than as a means of boosting economic growth. Notably, much of the aid has been aimed directly at consumers and citizens in an effort to prop up personal balance sheets and income. Another big difference between the coronavirus response today versus the GFC is the government's response time to the crises. Washington accomplished in weeks what took a year and a half back in 2008–2009. Markets have obviously responded well to these steps and appear to have confidence that they will be able to stave off the worst of the economic hardship until the economy is more broadly "reopened for business."

Testing Capabilities for COVID-19

Testing for COVID-19 in the U.S. has ramped up significantly since the end of February, from about 8,000 to roughly 500,000 daily tests. To date, more than 23 million tests have been performed. Testing in the U.S. needs to accelerate further to fully open the U.S. economy, but considerable progress has been made. The U.S. has also made progress in the area of "at-home" testing, the next wave of coronavirus diagnostics following tests given by doctors at offices and hospitals. The U.S. Food and Drug Administration has authorized the emergency use of six coronavirus at-home collection kits. The tests promise to expand diagnosis to people with disabilities, comprised immune systems or limited access to transportation.[9] Further, the American Red Cross has announced that as of June 15th, they will be testing all donated blood for antibodies.

In addition to ramping up testing capacity, federal and state officials are seeking to build contact-tracing teams. Contract tracers locate confirmed COVID-19 patients in an attempt to determine who they were in contact with before the onset of the symptoms, so as to stem the spread of the virus. In a nutshell, when local hot spots arise, mayors and governors must work to trace outbreaks to their origin and be ready to curtail specific activities that are sources of spread.

Headlines related to progress in the search for a vaccine and testing capabilities could continue to sway the markets in both directions depending upon the daily information flow, exacerbating the volatility trend already in place.

Potential New Drugs to Fight COVID-19

Although aggressive testing, tracking, and isolation are deemed essential to the eventual defeat of coronavirus, the development of a therapeutic drug in the near term would be transformative as well. The FDA last month approved Gilead's antiviral remdesivir for emergency use after a phase one trial found that the drug reduced recovery times in hospitalized patients. The approach behind the remdesivir drug involves targeting the virus to block its replication.

In terms of antibody drugs, the biotech company Regeneron has an antibody drug for COVID-19 that it is beginning to test in humans this month (June). Regeneron successfully developed an antibody drug to treat Ebola as well as one against MERA, a deadly coronavirus similar to COVID-19.

To be sure, a vaccine could beat the virus, but there probably won't be one until next year at the earliest (which would still be a record setting pace). Still, the biotechnology company Moderna, Inc. has begun human testing, and if clinical studies succeed, it could be ready for use in early 2021, depending upon ability to ramp production quickly. Indeed, the federal government plans to fund and conduct studies of three coronavirus vaccines this summer. Moderna Inc.'s vaccine is set to be first, starting in July, followed in August by one co-developed by Oxford University and AstraZeneca PLC and in September by Johnson & Johnson's.

The timetable suggests researchers are making relatively rapid progress advancing their vaccines through earlier stages of testing. Anthony Fauci, the administration's leading infectious disease specialists expressed cautious optimism that several successful vaccine candidates would prove effective "within a reasonable period of time."

Non-U.S. Overview

Europe

Europe has so far avoided a significant resurgence in COVID-19 cases even though most countries have emerged from lockdown and restarted chunks of their economies. The average daily rate of new infections in Europe at the beginning of June was down 80% from its April peak according to the European Center for Disease Prevention and Control.

The European Union set out a $2 trillion euro coronavirus response plan that, if approved, would deepen the bloc's economic union. The proposal—a 750 billion euro recovery plan and 1.1 trillion euro budget over the next seven years—aims to lift the region from its economic slump, and would establish significant new transfers of wealth among members, funded by commonly issued debt. Economic output in the region is likely to shrink by 8.7% this year before rebounding by 5.2% next year.[11]

Japan

Unlike the U.S. and Europe, Japan chose to keep its economy running close to normal during the initial virus outbreak. For much of March, stores, restaurants and offices in Japan were largely open as usual. After infections surged, Prime Minister Abe switched course on April 7th by declaring a state of emergency in Tokyo and other big cities. In declaring a nationwide state of emergency, Mr. Abe asked businesses to close or reduce hours voluntarily and white collar workers to work from home. In late May, Japan fully lifted the state of emergency and declared success in checking the new coronavirus. The "Japan Model", in contrast to many other developed countries, didn't include broad testing. Instead, health officials focused on identifying the origin of the cases, and took steps to test and isolate as necessary.

Global investors seem focused more on the pace of reopening and resumption of growth than focusing on the precise depth of how bad things get this year.

U.K.

A three- month lockdown followed by three months of partial restrictions in the UK will likely trigger an economic decline of 6.5% in 2020 according to the IMF. Borrowing costs to fight may cause the U.K. budget deficit to exceed 14% of GDP,[12] but would help limit any long-term damage to the economy. Under this scenario, unemployment would hit 10%, from its current 3.9% rate, before easing to around 7.3% at the end of the year.[13]

Non-U.S. Overview (Continued)

China

After contracting 6.8% year-over-year in Q1, with a 9.8% pullback from the previous quarter (first contraction since official record keeping began in 1992), China's economy continues to recover rapidly with many indicators now pointing to a genuine V-shaped recovery. The Caixin China manufacturing PMI improved to 50.7 in May, while the services PMI jumped to 55 from 43 in April. Exports have rebounded strongly and Beijing has boosted agricultural purchases from the U.S. Indeed, China is the only major world economy likely to post positive growth this year, according to recent World Bank forecasts.

Despite China's claims of success in battling the coronavirus, Beijing experienced a new cluster of infections in mid-June—forcing the government to cancel hundreds of flights and renewed closures of businesses and schools. Outside of Beijing, four provinces—Hebei, Liaoning, Sichuan and Zhejiang—have also reported new cases.

Developing Markets ex-China

Economic output in emerging markets is forecast to fall 1.7% this year, the first decline since reliable records began in 1951.[14] Poorer countries have far fewer tools to cushion economic blows, and their economies are less diversified—significantly relying on commodities and tourism.

Latin America is among the world's most vulnerable regions. The IMF forecast that its GDP would shrink by 5.2% this year, far worse than the contraction of 1.6% for sub-Saharan Africa or 2.8% for the Middle East and central Asia.

India's economy is expected to shrink by 0.5%, with unemployment there already at 6.5%, its highest in three decades.[15]

The plunge in crude oil prices earlier this year will also have a negative effect on certain emerging countries. For example, Russia's economy is expected to contract 2.7% this year—mostly due to falling oil prices, while oil accounts for 65% of Nigeria's federal budget.[16]

Two months ago, the G-20 agreed to suspend debt payments for the world's poorest countries, but falls short of what is needed to help the plight of developing economies who are struggling to cope with COVID-19, according to the IMF. A managing director for the IMF stated that $2.5 trillion was a conservative estimate of the financing needs of the world's 165 low-income and emerging economies.

Investors remain concerned regarding the coronavirus' potential hit to EM countries. Stress on global supply chains from varying approaches to border closings and shelter in place exacerbated already fraying relationships or infrastructure brought on by two years of trade wars. Investors have taken note: a record $82 billion has been pulled from emerging markets since January 21, according to the IMF. Year-to-date the MSCI Emerging Market Index is down -9.8%, versus -5.5% for ACWI.

Politics

President Trump's handling of COVID-19 and the tragic death of Michael Floyd have significantly reduced his polling numbers versus Joe Biden, the Democratic Party's presumptive nominee. Mr. Biden has recently shifted to the left on some policies, including backing a free college plan for many students and favoring certain elements of the Green New Deal.

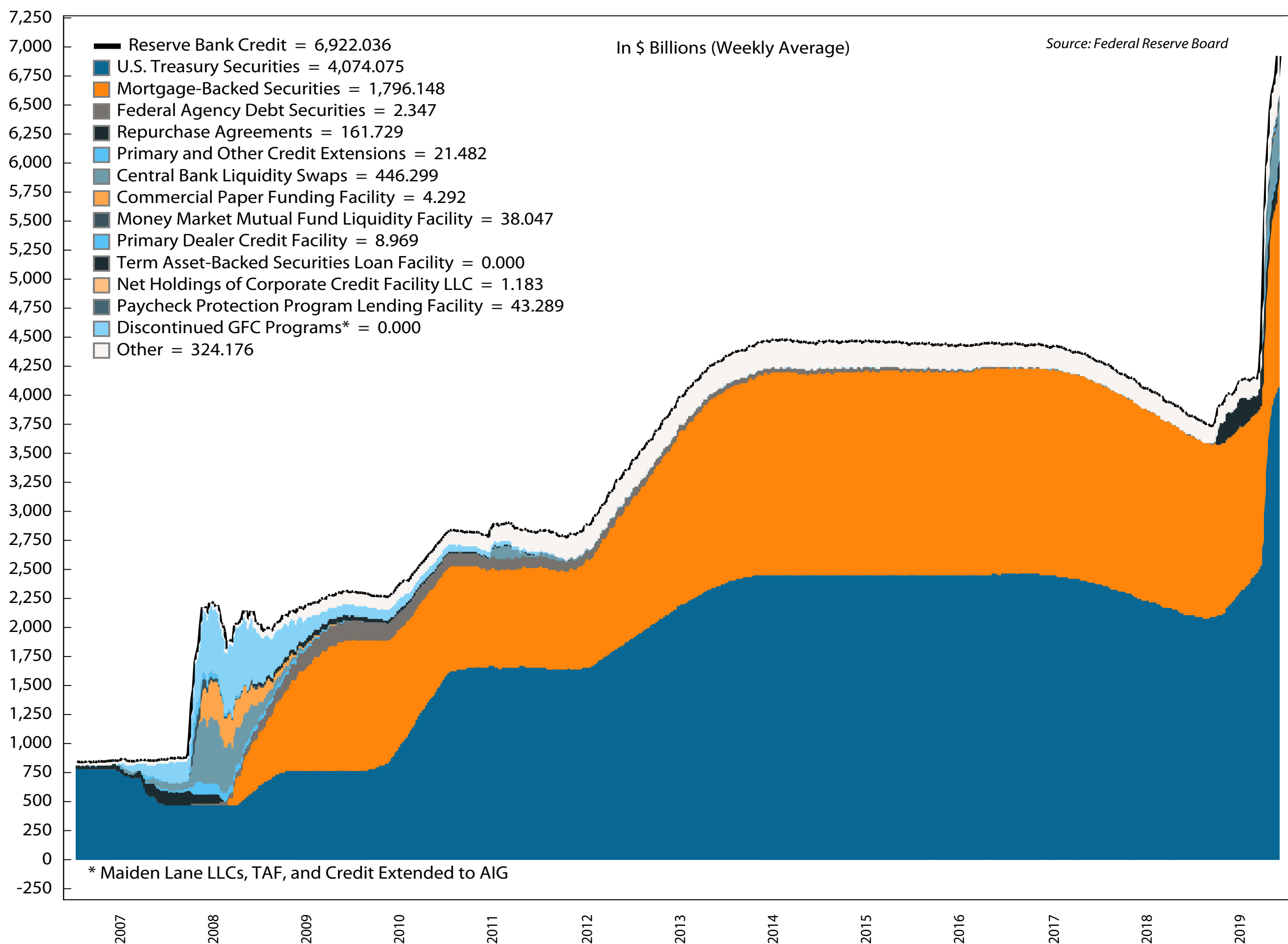
Although President Trump is down in the polls, the contest is expected to be close, with the eventual impact of COVID-19 (in terms of reopening the country) probably being the deciding factor. A potential Biden presidency influenced by left-leaning policies of Bernie Sanders supporters will likely present an additional risk to the markets as the election season swings into high gear. Should a democratic sweep occur, there is some reason to believe that high on the agenda would be increased corporate tax rates—a potentiality we do not believe most investors have discounted to any significant degree.

Notable Observations *(Updated as of 6-19-20)*

Composition of the U.S. Federal Reserve Balance Sheet Assets

In the wake of the Great Financial Crisis, the U.S. Federal Reserve stepped in with a series of liquidity inducing moves to buy various fixed income securities and place them on its balance sheet. At the time, though the moves were commonly regarded as necessary to avoid an even more dire economic outcome, much consternation existed around the $4 trillion size the balance sheet ballooned to. Recent years saw the Fed start to allow roll off of some of these securities and a gradual reduction in balance sheet size. Then the novel coronavirus pandemic hit and the Fed once again stepped in to provide monetary aid. The resultant expansion has nearly doubled the size of the Fed's balance sheet already, even though a significant portion of the Fed's stated purchase intentions has not yet been completed.

Federal Reserve Bank Credit and its Components



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Dynamic Allocation Summary

Global Equities Outlook Overview

U.S. Large Cap Equities

Outlook: Mixed Positive

Macro and fundamental inputs continue to favor U.S. large-cap equities relative to other equity classes. The S&P 500 has significant weightings in technology and telecommunication services, two sectors that are outperforming in the current environment of weak global output and COVID-19.

	Outlook Ratings			
	Positive	Mixed Positive	Neutral	Negative
Macro		■		
Fundamentals			■	
Valuations			■	
Market Environment		■		
Outlook		■		

U.S. Small Cap Equities

Outlook: Neutral

We are underweight domestic small cap equities. Valuations are deemed expensive relative to larger companies, and lower profit margins make this equity class more vulnerable during an economic downturn. Active management is favored to generate alpha in this space.

	Outlook Ratings			
	Positive	Mixed Positive	Neutral	Negative
Macro			■	
Fundamentals			■	
Valuations				■
Market Environment			■	
Outlook			■	

Developed Market Equities

Outlook: Neutral

We are underweight on developed market equities. Economic growth in Europe and Japan is expected to decelerate significantly due to COVID-19, but recover later in the year. There remains a wide valuation gap between U.S. and developed market equities.

	Outlook Ratings			
	Positive	Mixed Positive	Neutral	Negative
Macro			■	
Fundamentals			■	
Valuations		■		
Market Environment			■	
Outlook			■	

Emerging Market Equities

Outlook: Neutral

Emerging markets are more vulnerable to falling commodity prices, but China has experienced some green shoots as its economy has reopened from the COVID-19 shutdown. Valuations remain attractive relative to other equity sectors. We remain underweight DM equities.

	Outlook Ratings			
	Positive	Mixed Positive	Neutral	Negative
Macro			■	
Fundamentals			■	
Valuations	■			
Market Environment				■
Outlook			■	

Dynamic Allocation Summary (Continued)

U.S. Investment Grade Fixed Income

Outlook: Neutral

High quality municipal and investment grade corporate bond spreads are wide, as Treasury yields have plunged due to COVID-19 and aggressive Fed easing.

Outlook Ratings	Positive	Mixed Positive	Neutral	Negative
Macro			■	
Fundamentals			■	
Valuations		■		
Market Environment			■	
Outlook			■	

Non-Investment Grade Fixed Income

Outlook: Neutral

We have become more constructive on high yield (muni/ corporate) and preferred stock securities due to widening spreads and expectations that interest rates will remain low for an extended period of time.

Outlook Ratings	Positive	Mixed Positive	Neutral	Negative
Macro			■	
Fundamentals			■	
Valuations		■		
Market Environment			■	
Outlook			■	

International Fixed Income

Outlook: Negative Developed Market, Neutral Emerging Market

We believe near zero to negative yields on many developed country sovereign debt issues warrant caution for this sector. Emerging market bond spreads have become more attractive but the space has been subject to capital outflows.

Outlook Ratings	Positive	Mixed Positive	Neutral	Negative
Macro			■	
Fundamentals			■	
Valuations				■
Market Environment			■	
Outlook				■

Real Estate Investment Trusts (REITs)

Outlook: Neutral

We have downgraded REITS to underweight, as they have become more sensitive to interest rate moves, and the inevitable markdown of real estate valuations due to the coronavirus panic.

Outlook Ratings	Positive	Mixed Positive	Neutral	Negative
Macro			■	
Fundamentals			■	
Valuations			■	
Market Environment			■	
Outlook			■	

Master Limited Partnerships (MLPs)

Outlook: Neutral

We have downgraded MLPs to neutral due to the plunge in oil prices. Current MLP yields of near 10% are attractive on both an absolute and relative basis.[17] Finally, active management is favored in this space as higher quality companies are outperforming in this volatile environment.

Outlook Ratings	Positive	Mixed Positive	Neutral	Negative
Macro				■
Fundamentals			■	
Valuations	■			
Market Environment				■
Outlook			■	

Disclosures

Risk Considerations

Past performance does not indicate future results. The value or income associated with a security or an investment may fluctuate. There is always the potential for loss as well as gain. Investments discussed in this report may be unsuitable for some investors depending on their specific investment objectives and financial position.

Asset allocation and diversification do not assure or guarantee better performance and cannot eliminate the risk of investment losses. Your individual allocation may be different than the strategic long-term allocation above due to your unique individual circumstances but is targeted to be in the allocation ranges detailed. The asset allocation reflected above may fluctuate based on asset values, portfolio decisions, and account needs.

Investing in **commodities** is not suitable for all investors. Exposure to the commodities markets may subject an investment to greater share price volatility than an investment in traditional equity or debt securities. Investments in commodities may be affected by changes in overall market movements, commodity index volatility, changes in interest rates or factors affecting a particular industry or commodity. Products that invest in commodities may employ more complex strategies which may expose investors to additional risks.

Convertible securities are subject to the same interest rate, price and credit risks as regular debt securities. Prices tend to be inversely affected by changes in interest rates. In addition, a convertible security is also subject to the risks associated with common stocks. The return and principal value of stocks fluctuate with changes in market conditions.

Alternative investments*,* such as hedge funds, carry specific investor qualifications which can include high income and net worth requirements as well as relatively high investment minimums. They are complex investment vehicles which generally have high costs and substantial risks. The high expenses often associated with these investments must be offset by trading profits and other income. They tend to be more volatile than other types of investments and present an increased risk of investment loss. There may also be a lack of transparency as to the underlying assets. Alternative investments are subject to fewer regulatory requirements than mutual funds and other registered investment company products and thus may offer investors fewer legal protections than they would have with more traditional investments. Additionally, there may be no secondary market for alternative investment interests and transferability may be limited or even prohibited. Other risks may apply as well, depending on the specific investment product. Please carefully review the prospectus, private placement memorandum or other offering documents for complete information regarding terms, including all applicable fees, as well as risks and other factors you should consider before investing.

Investments in **fixed-income securities** are subject to interest rate and credit risks. Bond prices fluctuate inversely to changes in interest rates. Therefore, a general rise in interest rates can result in the decline in the bond's price. Credit risk is the risk that an issuer will default on payments of interest and principal. High yield fixed income securities are considered speculative, involve greater risk of default, and tend to be more volatile than investment grade fixed income securities. Municipal bonds offer interest payments exempt from federal taxes, and potentially state and local income taxes. They are subject to credit risk and potentially the Alternative Minimum Tax (AMT). Quality varies widely depending on the specific issuer. All fixed income investments may be worth less than their original cost upon redemption or maturity.

Mortgage-related and asset-backed securities are subject to prepayment risks. Changes in prepayments may significantly affect yield, average life and expected maturity.

Currency hedging is a technique used to seek to reduce the risk arising from the change in price of one currency against another. The use of hedging to manage currency exchange rate movements may not be successful and could produce disproportionate gains or losses in a portfolio and may increase volatility and costs.

Investing in **foreign securities** presents certain risks that may not be present in domestic securities. For example, investments in foreign, emerging and frontier markets present special risks, including currency fluctuation, the potential for diplomatic and potential instability, regulatory and liquidity risks, foreign taxation and differences in auditing and other financial standards.

Master Limited Partnerships (MLPs) involves certain risks which differ from an investment in the securities of a corporation. MLPs may be sensitive to price changes in oil, natural gas, etc., regulatory risk, and rising interest rates. A change in the current tax law regarding MLPs could result in the MLP being treated as a corporation for federal income tax purposes which would reduce the amount of cash flows distributed by the MLP. Other risks include the volatility associated with the use of leverage; volatility of the commodities markets; market risks; supply and demand; natural and man-made catastrophes; competition; liquidity; market price discount from Net Asset Value and other material risks.

There are special risks associated with investing in **preferred securities***.* Preferred securities are subject to interest rate and credit risks and are generally subordinated to bonds or other debt instruments in an issuer's capital structure, subjecting them to a greater risk of non-payment than more senior securities. In addition, the issue may be callable which may negatively impact the return of the security. Preferred dividends are not guaranteed and are subject to deferral or elimination.

Private debt has speculative characteristics that include potential default, limited liquidity and the infrequent availability of independent credit ratings for private companies.

Disclosures (Continued)

There are risks associated with investments in **private companies**. Such companies are not subject to SEC reporting requirements and are not required to maintain effective internal controls over financial reporting. These companies may have limited financial resources; shorter operating histories; more asset concentration risk; narrower product lines and smaller market shares that larger companies. In addition, securities issued by private companies are typically illiquid and there may be no readily available trading market for such securities.

Investing in **real estate** involves special risks, including the possible illiquidity of the underlying property, credit risk, interest rate fluctuations and the impact of varied economic conditions.

The prices of **small cap and mid cap company stocks** are generally more volatile than large cap company stocks. They often involve higher risks because smaller companies may lack the management expertise, financial resources, product diversification and competitive strengths to endure adverse economic conditions.

Technology and internet-related stocks, especially of smaller, less-seasoned companies, tend to be more volatile than the overall market.

Treasury Inflation-Protected Securities (TIPS) are subject to interest rate risk, especially when real interest rates rise. This may cause the underlying value of the bond to fluctuate more than other fixed income securities. TIPS have special tax consequences, generating phantom income on the "inflation compensation" component of the principal. A holder of TIPS may be required to report this income annually although no income related to "inflation compensation" is received until maturity.

There is no assurance that any of the target prices or other forward-looking statements mentioned will be attained.

Index and Other Definitions

An index is unmanaged and not available for direct investment

Inflation is the change in the **Consumer Price Index (CPI)**. The CPI measures the price of a fixed basket of goods and services purchased by an average consumer.

Core inflation is the change in the core **Consumer Price Index (CPI)**. The core CPI measures the price of a fixed basket of goods and services—excluding the volatile food and energy components—purchased by an average consumer.

Alpha is a coefficient measuring the risk-adjusted performance, considering the risk due to the specific security, rather than the overall market. A large alpha indicates that the stock or mutual fund has performed better than would be predicted given its beta (volatility).

Beta measures a security's or group of securities' (portfolio's) volatility relative to a benchmark. A result greater than 1.0 implies that the security or portfolio is more volatile than the benchmark; a result less than 1.0 suggests that the security or portfolio is less volatile than the benchmark. Betas may change over time.

Conference Board's Leading Economic Index (LEI) is a composite economic index designed to signal peaks and troughs in the business cycle. The leading economic index is essentially a composite average of several individual leading indicators. They are constructed to summarize and reveal common turning point patterns in economic data in a clearer and more convincing manner than any individual component—primarily because they smooth out some of the volatility of individual components.

Consumer Confidence Index® (CCI) is a barometer of the health of the U.S. economy from the perspective of the consumer. The index is based on consumers' perceptions of current business and employment conditions, as well as their expectations for six months hence regarding business conditions, employment, and income.

Markit Manufacturing Purchasing Managers Index (PMI) tracks manufacturing and service sector activity in the Eurozone. An Index value over 50 indicates expansion; below 50 indicates contraction. The values for the index can be between 0 and 100.

PMI Surveys, such as the **Eurozone Manufacturing PMI**, track sentiment among purchasing managers at manufacturing, construction and/or services firms. An overall sentiment index is generally calculated from the results of queries on production, orders, inventories, employment, prices, etc.

The Producer Price Index (PPI) program measures the average change over time in the selling prices received by domestic producers for their output.

The Market Volatility Index (VIX) is an index designed to track market volatility as an independent entity. The index is calculated based on option activity and is used as an indicator of investor sentiment, with high values implying pessimism and low values implying optimism.

The Institute of Supply Management (ISM) Manufacturing Index® is a composite index based on the diffusion indexes of five of the indexes with equal weights: New Orders (seasonally adjusted), Production (seasonally adjusted), Employment (seasonally adjusted), Supplier Deliveries (seasonally adjusted), and Inventories. An Index values over 50 indicate expansion; below 50 indicates contraction. The values for the index can be between 0 and 100.

The U.S. Dollar Index (USDX, DXY) is an index (or measure) of the value of the United States dollar relative to a basket of foreign currencies, often referred to as a basket of U.S. trade partners' currencies.

Real economic growth is the change in the gross domestic product (GDP) adjusted for inflation—that is, the volume of services and goods produced in the United States.

Disclosures (Continued)

West Texas Intermediate Crude Oil is a light, sweet (i.e., low sulfur) crude oil which is the main type of U.S. crude oil traded in U.S. futures markets.

Brent Crude Oil is a light, sweet crude oil extracted from the North Sea. It serves as a major benchmark price for purchases of oil worldwide.

Bond credit rating. A grade given to bonds that indicates their credit quality. Private independent rating services such as Standard & Poor's, Moody's and Fitch provide these evaluations of a bond issuer's financial strength, or its the ability to pay a bond's principal and interest in a timely fashion. The general meaning of these credit rating opinions are as follows:

AAA—Extremely strong capacity to meet financial commitments. Highest Rating.

AA—Very strong capacity to meet financial commitments.

A—Strong capacity to meet financial commitments, but somewhat susceptible to adverse economic conditions and changes in circumstances.

BBB—Adequate capacity to meet financial commitments, but more subject to adverse economic conditions.

Global Fixed Income Representative Indices

Global Multiverse Fixed Income: Bloomberg Barclays Multiverse Index provides a broad-based measure of the global fixed-income bond market. The index represents the union of the Global Aggregate Index and the Global High-Yield Index and captures investment grade and high yield securities in all eligible currencies. Standalone indices such as the Euro Floating-Rate ABS Index and the Chinese Aggregate Index are excluded. The Multiverse Index family includes a wide range of standard and customized sub-indices by sector, quality, maturity, and country. JP Morgan Global Ex United States Bond Index is a total return, market capitalization weighted index, rebalanced monthly consisting of the following countries: Australia, Germany, Spain, Belgium, Italy, Sweden, Canada, Japan, United Kingdom, Denmark, Netherlands, and France.

U.S. Inv Grade Taxable Fixed Income: Bloomberg Barclays U.S. Aggregate Bond Index is composed of the Bloomberg Barclays Capital U.S. Government/Credit Index and the Bloomberg Barclays Capital U.S. Mortgage-Backed Securities Index, and includes Treasury issues, agency issues, corporate bond issues, and mortgage-backed securities.

U.S. Treasury Bills Fixed Income: Bloomberg Barclays U.S. Treasury Bills includes all publicly issued zero-coupon U.S. Treasury Bills that have a remaining maturity of less than three months and more than one month, are rated investment grade, and have $250 million or more of outstanding face value. In addition, the securities must be denominated in U.S. dollars and must be fixed rate and non-convertible.

Short, Intermediate and Long Term Fixed Income: Bloomberg Barclays U.S. Aggregate Bond Index is made up of the Bloomberg Barclays U.S. Government/Corporate Bond Index, Mortgage-Backed Securities Index, and Asset-Backed Securities Index, including securities that are of investment grade quality or better, have at least one year to maturity, and have *an outstanding par value of at least $100 million.*

U.S. Treasury Fixed Income: Bloomberg Barclays U.S. Treasury Index includes public obligations of the U.S. Treasury with a remaining maturity of one year or more.

U.S. Corporate Fixed Income: Bloomberg Barclays U.S. Corporate Bond Index includes publicly issued U.S. corporate and Yankee debentures and secured notes that meet specified maturity, liquidity, and quality requirements.

U.S. Municipal Fixed Income: Bloomberg Barclays U.S. Municipal Bond Index represents municipal bonds with a minimum credit rating of at least Baa, an outstanding par value of at least $3 million, and a remaining maturity of at least one year. The Index excludes taxable municipal bonds, bonds with floating rates, derivatives, and certificates of participation.

U.S. TIPS Fixed Income: Bloomberg Barclays Treasury Inflation Protected Securities (TIPS) Index includes all publicly issued, investment-grade U.S. TIPS with an outstanding face value of more than $250 million and that have at least one year to maturity.

U.S. High Yield Fixed Income: Bloomberg Barclays U.S. High Yield Bond Index is an unmanaged index that tracks the performance of below investment grade U.S.-dollar-denominated corporate bonds publicly issued in the U.S. domestic market.

Developed ex. U.S. Fixed Income: JPMorgan GBI Global ex-U.S. (Unhedged) in USD is an unmanaged index market representative of the total return performance in U.S. dollars on an unhedged basis of major non-U.S. bond markets.

Emerging Market Spread: Bloomberg Barclays EM USD Aggregate Index is a flagship hard currency Emerging Markets debt benchmark that includes USD denominated debt from sovereign, quasi-sovereign, and corporate EM issuers. The index is broad-based in its coverage by sector and by country, and reflects the evolution of EM benchmarking from traditional sovereign bond indices to Aggregate-style benchmarks that are more representative of the EM investment choice set. Country eligibility and classification as an Emerging Market is rules-based and reviewed on an annual basis using World Bank income group and International Monetary Fund (IMF) country classifications. This index was previously called the Bloomberg Barclays U.S. EM Index and history is available back to 1993.

Emerging Market Bond (U.S. Dollar): JP Morgan Emerging Markets Bond Index (EMBI Global) currently covers 27 emerging market countries. Included in the EMBI Global are U.S.-dollar-denominated Brady bonds, Eurobonds, traded loans, and local market debt instruments issued by sovereign and quasi-sovereign entities.

Preferred Stock: S&P Preferred Stock is an unmanaged index consisting of U.S.-listed preferred stocks.

U.S. Dollar Index (USDX) measures the value of the U.S. dollar relative to majority of its most significant trading partners. This index is similar to other trade-weighted indexes, which also use the exchange rates from the same major currencies.

Disclosures (Continued)

Global Equity Representative Indices

Global Market Equity: MSCI AC World Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed and emerging markets. The Index consists of 46 country indices comprising 23 developed and 23 emerging market country indices. The developed market country indices included are: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Hong Kong, Ireland, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, United Kingdom, and the United States. The emerging market country indices included are: Argentina, Brazil, Chile, China, Colombia, Czech Republic, Egypt, Hungary, India, Indonesia, Israel, Korea, Malaysia, Mexico, Morocco, Peru, Philippines, Poland, Russia, South Africa, Taiwan, Thailand, and Turkey.

Dow Jones Industrial Average is a price-weighted index of 30 "blue-chip" industrial U.S. stocks.

NASDAQ Composite Index measures the market value of all domestic and foreign common stocks, representing a wide array of more than 5,000 companies, listed on the NASDAQ Stock Market.

Large Cap Equity: S&P 500 Index is a capitalization-weighted index calculated on a total return basis with dividends reinvested. The index includes 500 widely held U.S. market industrial, utility, transportation, and financial companies.

Large Cap Equity (Growth): Russell 1000® Growth Index measures the performance of those Russell 1000® companies with higher price-to-book ratios and higher forecasted growth values.

Large Cap Equity (Value): Russell 1000® Value Index measures the performance of those Russell 1000® companies with lower price-to-book ratios and lower forecasted growth values.

Mid Cap Equity: Russell Midcap® Index measures the performance of the 800 smallest companies in the Russell 1000® Index, which represent approximately 25% of the total market capitalization of the Russell 1000® Index.

Small Cap Equity: Russell 2000® Index measures the performance of the 2,000 smallest companies in the Russell 3000® Index, which represents approximately 8% of the total market capitalization of the Russell 3000® Index.

Developed Market ex. U.S. Equity: MSCI EAFE Index (Europe, Australasia, Far East) is a free float-adjusted market capitalization index that is designed to measure the equity market performance of developed markets, excluding the U.S. and Canada. The Index consists of the following 21 developed market country indexes: Australia, Austria, Belgium, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, the Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, and the United Kingdom.

Emerging Markets: MSCI Emerging Markets Index is a free float-adjusted market capitalization index that is designed to measure equity market performance of emerging markets. The MSCI Emerging Markets Index consists of the following 23 emerging market country indexes: Brazil, Chile, China, Colombia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Korea, Malaysia, Mexico, Peru, Philippines, Poland, Qatar, Russia, South Africa, Taiwan, Thailand, Turkey, and United Arab Emirates.

Frontier Market Equity: MSCI Frontier Markets Index is a free float-adjusted market capitalization index that is designed to measure equity market performance of frontier markets. The MSCI Frontier Markets Index consists of the following 24 frontier market country indexes: Argentina, Bahrain, Bangladesh, Bulgaria, Croatia, Estonia, Jordan, Kenya, Kuwait, Lebanon, Lithuania, Morocco, Kazakhstan, Mauritius, Nigeria, Oman, Pakistan, Romania, Serbia, Slovenia, Sri Lanka, Tunisia, Ukraine, and Vietnam. The MSCI Saudi Arabia Index is currently not included in the MSCI Frontier Markets Index but is part of the MSCI Gulf Cooperation Council (GCC) Countries Index. The MSCI Bosnia Herzegovina Index, the MSCI Botswana Index, the MSCI Ghana Index, the MSCI Jamaica Index, the MSCI Palestine IMI, the MSCI Trinidad & Tobago Index, and the MSCI Zimbabwe Index are currently stand-alone country indexes and are not included in the MSCI Frontier Markets Index. The addition of these country indexes to the MSCI Frontier Markets Index is under consideration.

Disclosures (Continued)

Global Real Assets Representative Indices

Global REITs: FTSE EPRA/NAREIT Developed Index is designed to track the performance of listed real-estate companies and REITs in developed countries worldwide.

Domestic REITs: FTSE NAREIT U.S. All Equity REITs Index is designed to track the performance of REITs representing equity interests in (as opposed to mortgages on) properties. It represents all tax-qualified REITs with more than 50% of total assets in qualifying real estate assets, other than mortgages secured by real property that also meet minimum size and liquidity criteria.

International REITs: FTSE EPRA/NAREIT Developed ex-U.S. Index is designed to track the performance of listed real estate companies in developed countries worldwide other than the United States.

MLPs: Alerian MLP Index is a composite of the 50 most prominent energy Master Limited Partnerships (MLPs) that provides investors with an unbiased, comprehensive benchmark for this emerging asset class. The index, which is calculated using a float-adjusted, capitalization-weighted methodology, is disseminated real-time on a price-return basis and on a total-return basis.

Commodities (S&P GSCI): S&P Goldman Sachs Commodity Index is a trade-weighted index of commodity sector returns representing unleveraged, long-only investment in commodity futures that is broadly diversified across the spectrum of commodities. The index includes futures contracts on 24 physical commodities, of which Energy represents nearly 70%.

Commodities (BCOM): Bloomberg Commodity Index represents futures contracts on 19 physical commodities. No related group of commodities (e.g., energy, precious metals, livestock and grains) may constitute more than 33% of the index as of the annual reweighing of the components. No single commodity may constitute less than 2% of the index.

Commodities (RICI): The Rogers International Commodity Index is a U.S. dollar based index representing the value of a basket of commodities consumed in the global economy. Representing futures contracts on 37 physical commodities, it is designed to track prices of raw materials not just in the U.S. but around the world.

Global Infrastructure: S&P Global Infrastructure Index provides liquid and tradable exposure to 75 companies from around the world that represent the listed infrastructure universe. To create diversified exposure, the index includes three distinct infrastructure clusters: utilities, transportation and energy.

Global Alternative Investments Representative Indices

Global Hedge Funds: HFRI Fund Weighted Composite Index. A global, equal-weighted index of over 2,000 single-manager funds that report to HFR Database. Constituent funds report monthly net-of-all-fees performance in U.S. Dollars and have a minimum of $50 million under management or a 12-month track record of active performance. The HFRI Fund Weighted Composite Index does not include Funds of Hedge Funds.

Relative Value Arbitrage: HFRI Relative Value (Total) Index. Strategy is predicated on realization of a valuation discrepancy in the relationship between multiple securities. Managers employ a variety of fundamental and quantitative techniques to establish investment theses, and security types range broadly across equity, fixed income, derivative, or other security types. Fixed income strategies are typically quantitatively driven to measure the existing relationship between instruments and, in some cases, identify attractive positions in which the risk adjusted spread between these instruments represents an attractive opportunity for the investment manager. RV position may be involved in corporate transactions also, but as opposed to ED exposures, the investment thesis is predicated on realization of a pricing discrepancy between related securities, as opposed to the outcome of the corporate transaction.

Arbitrage: HFRI RV: Fixed Income Sovereign Index. Includes strategies predicated on realization of a spread between related instruments in which one or multiple components of the spread is a sovereign fixed income instrument. Strategies employ an investment process designed to isolate attractive opportunities between a variety of fixed income instruments, typically realizing an attractive spread between multiple sovereign bonds or between a corporate and risk-free government bond. Fixed Income Sovereign typically employ multiple investment processes including both quantitative and fundamental discretionary approaches and relative to other Relative Value Arbitrage sub-strategies, these have the most significant top-down macro influences, relative to the more idiosyncratic fundamental approaches employed.

Long/Short Credit: HFRI RV: Fixed Income—Corporate Index. Includes strategies predicated on realization of a spread between related instruments in which one or multiple components of the spread is a corporate fixed-income instrument. Strategies are designed to isolate attractive opportunities between a variety of fixed income instruments, typically realizing an attractive spread between multiple corporate bonds or between a corporate and risk-free government bond. They typically involve arbitrage positions with little or no net credit market exposure, but are predicated on specific, anticipated idiosyncratic developments.

Disclosures (Continued)

Structured Credit/Asset Backed: HFRI RV: Fixed Income—Asset Backed Index. Includes strategies predicated on realization of a spread between related instruments in which one or multiple components of the spread is a fixed-income instrument backed by physical collateral or other financial obligations (loans, credit cards) other than those of a specific corporation. Strategies are designed to isolate attractive opportunities between a variety of fixed income instruments specifically securitized by collateral commitments, which frequently include loans, pools and portfolios of loans, receivables, real estate, machinery, or other tangible financial commitments. Investment thesis may be predicated on an attractive spread given the nature and quality of the collateral, the liquidity characteristics of the underlying instruments and on issuance and trends in collateralized fixed-income instruments, broadly speaking. In many cases, investment managers hedge, limit, or offset interest-rate exposure in the interest of isolating the risk of the position to strictly the disparity between the yield of the instrument and that of the lower-risk instruments.

Macro: HFRI Macro (Total) Index. Encompass a broad range of strategies predicated on movements in underlying economic variables and the impact these have on equity, fixed income, hard-currency, and commodity markets. Managers employ a variety of techniques, both discretionary and systematic analysis, combinations of top-down and bottom-up theses, quantitative and fundamental approaches and long- and short-term holding periods. Although some strategies employ RV techniques, Macro strategies are distinct from RV strategies in that the primary investment thesis is predicated on predicted or future movements in the underlying instruments rather than on realization of a valuation discrepancy between securities. In a similar way, while both Macro and equity hedge managers may hold equity securities, the overriding investment thesis is predicated on the impact movements in underlying macroeconomic variables may have on security prices, as opposed to EH, in which the fundamental characteristics on the company are the most significant are integral to investment thesis.

Systematic Macro: HFRI Macro: Systematic Diversified Index. Diversified strategies employing mathematical, algorithmic and technical models, with little or no influence of individuals over the portfolio positioning. Strategies are designed to identify opportunities in markets exhibiting trending or momentum characteristics across individual instruments or asset classes. Strategies typically employ quantitative processes which focus on statistically robust or technical patterns in the return series of the asset, and they typically focus on highly liquid instruments and maintain shorter holding periods than either discretionary or mean-reverting strategies. Although some strategies seek to employ counter-trend models, strategies benefit most from an environment characterized by persistent, discernible trending behavior. Typically have no greater than 35% of portfolio in either dedicated currency or commodity exposures over a given market cycle.

Discretionary Macro: HFRI Macro: Discretionary Thematic Index. Strategies primarily rely on the evaluation of market data, relationships and influences, as interpreted by individuals who make decisions on portfolio positions; strategies employ an investment process most heavily influenced by top-down analysis of macroeconomic variables. Investment Managers may trade actively in developed and emerging markets, focusing on both absolute and relative levels on equity markets, interest rates/fixed income markets, currency and commodity markets; they frequently employ spread trades to isolate a differential between instrument identified by the Investment Manager as being inconsistent with expected value. Portfolio positions typically are predicated on the evolution of investment themes the Manager expects to develop over a relevant time frame, which in many cases contain contrarian or volatility-focused components.

Event Driven: HFRI Event Driven (Total) Index. Maintains positions in companies currently or prospectively involved in corporate transactions of a wide variety including mergers, restructurings, financial distress, tender offers, shareholder buybacks, debt exchanges, security issuance or other capital structure adjustments. Security types can range from most senior in the capital structure to most junior or subordinated and frequently involve additional derivative securities. Exposure includes a combination of sensitivities to equity markets, credit markets and idiosyncratic, company-specific developments. Investment theses are typically predicated on fundamental (as opposed to quantitative) characteristics, with the realization of the thesis predicated on a specific development exogenous to the existing capital structure.

Activist: HFRI ED: Activist Index. Strategies may obtain or attempt to obtain representation on the company's board of directors in an effort to impact the firm's policies or strategic direction and in some cases, may advocate activities such as division or asset sales, partial or complete corporate divestiture, dividends or share buybacks, and changes in management. Strategies employ an investment process primarily focused on opportunities in equity and equity-related instruments of companies that are currently or prospectively engaged in a corporate transaction, security issuance/repurchase, asset sales, division spin-off, or another catalyst-oriented situation. These involve both announced transactions and situations in which no formal announcement is expected to occur. Activist strategies would expect to have greater than 50% of the portfolio in activist positions, as described.

Disclosures (Continued)

Distressed Credit: HFRI ED: Distressed/Restructuring Index. Strategies focus on corporate fixed-income instruments, primarily corporate credit instruments of companies trading at significant discounts to their value at issuance or obliged (par value) at maturity as a result of either formal bankruptcy proceedings or financial-market perception of near-term proceedings. Managers are typically actively involved with the management of these companies; they are frequently involved on creditors' committees in negotiating the exchange of securities for alternative obligations, either swaps of debt, equity or hybrid securities. Managers employ fundamental credit processes focused on valuation and asset coverage of securities of distressed firms; in most cases portfolio exposures are concentrated in instruments that are publicly traded, in some cases actively and in others under reduced liquidity but in general for which a reasonable public market exists. Strategies employ primarily debt (greater than 60%) but also may maintain related equity exposure.

Merger Arbitrage: HFRI ED: Merger Arbitrage Index. Strategies primarily focus on opportunities in equity and equity-related instruments of companies that are currently engaged in a corporate transaction. Merger Arbitrage involves primarily announced transactions, typically with limited or no exposure to situations in which no formal announcement is expected to occur. Opportunities are frequently presented in cross-border, collared, and international transactions that incorporate multiple geographic regulatory institutions, typically with minimal exposure to corporate credits. Strategies typically have over 75% of positions in announced transactions over a given market cycle.

Equity Hedge: HFRI Equity Hedge (Total) Index. Equity Hedge Investment Managers who maintain positions both long and short 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 on specific sectors and can range broadly in terms of levels of net exposure, leverage employed, holding period, concentrations of market capitalizations and valuation ranges of typical portfolios. EH managers would typically maintain at least 50% exposure to, and may in some cases be entirely invested in, equities, both long and short.

Directional Equity: HFRX EH: Multi-Strategy Index. Managers maintain positions both long and short 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 on specific sectors and can range broadly in terms of levels of net exposure, leverage, holding period, concentrations of market capitalizations, and valuation ranges of typical portfolios. Managers typically do not maintain more than 50% exposure to any one Equity Hedge sub-strategy.

Equity Market Neutral: HFRI EH: Equity Market Neutral Index. Strategies employ sophisticated quantitative techniques to analyze price data to ascertain information about future price movement and relationships between securities. These can include both Factor-based and Statistical Arbitrage/Trading strategies. Factor-based investment strategies include strategies predicated on the systematic analysis of common relationships between securities. In many cases, portfolios are constructed to be neutral to one or multiple variables, such as broader equity markets in dollar or beta terms, and leverage is frequently employed to enhance the return profile of the positions identified. Statistical Arbitrage/Trading strategies consist of strategies predicated on exploiting pricing anomalies which may occur as a function of expected mean reversion inherent in security prices; high-frequency techniques may be employed; trading strategies may also be based on technical analysis or designed opportunistically to exploit new information that the investment manager believes has not been fully, completely, or accurately discounted into current security prices. Strategies typically maintain characteristic net equity market exposure no greater than 10% long or short.

Cambridge Associates LLC U.S. Private Equity Index® is an end-to-end calculation based on data compiled from 1,152 U.S. private equity funds (buyout, growth equity, private equity energy and mezzanine funds), including fully liquidated partnerships, formed between 1986 and 2014. Pooled end-to-end return, net of fees, expenses, and carried interest. The latest published returns data are as of September 30, 2014.

Note: While the HFRI Indices are frequently used, they have limitations (some of which are typical of other widely used indices). These limitations include survivorship bias (the returns of the indices may not be representative of all the hedge funds in the universe because of the tendency of lower performing funds to leave the index); heterogeneity (not all hedge funds are alike or comparable to one another, and the index may not accurately reflect the performance of a described style); and limited data (many hedge funds do not report to indices, and, therefore, the index may omit funds, the inclusion of which might significantly affect the performance shown. The HFRI Indices are based on information hedge fund managers decide on their own, at any time, whether or not they want to provide, or continue to provide, information to HFR Asset Management, L.L.C. Results for funds that go out of business are included in the index until the date that they cease operations. Therefore, these indices may not be complete or accurate representations of the hedge fund universe, and may be biased in several ways. Returns of the underlying hedge funds are net of fees and are denominated in USD.

Disclosures (Continued)

Abbot Downing Investment Objectives

Conservative: This objective seeks to obtain relative stability of principal and current income. The portfolio will experience some fluctuation in market value even with limited exposure to investments focused on growth.

Moderate/Conservative: This objective seeks to obtain relative stability of principal and current income. The portfolio will experience some fluctuation in market value with modest exposure to investments focused on growth.

Moderate: This objective seeks to obtain a relative balance between stability and growth of principal. The portfolio will experience fluctuation in market value with moderate exposure to investments focused on growth.

Moderate/Aggressive: This objective seeks to obtain growth of principal over stability of principal. The portfolio will experience fluctuation in market value with meaningful exposure to investments focused on growth.

Aggressive: This objective seeks to obtain growth of principal over stability of principal. The portfolio will experience fluctuation in market value with significant exposure to investments focused on growth.

Citations

1. For an interesting and interactive look at actual market index observations over varying time periods and the resultant shifts in normal distribution curves, see "Distribution of Monthly Returns of IFA Index Portfolios: https://www.ifa.com/articles/with_stock_returns_normally_distributed/
2. Factset, Price change for the S&P 500 Index
3. Bloomberg
4. Fundstrat 6/18
5. WFII
6. WFAM
7. CSM
8. WFII
9. FDA, WSJ-6/03
10. WFII
11. ECB
12. https://www.theguardian.com/business/2020/may/14/uk-budget-deficit-to-rise-to-300bn-this-year-obr-says
13. Office of Budget responsibility-UK
14. WFII
15. WSJ, Nomura Bank
16. WSJ, BCS Global
17. Alerian MLP Index

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