CHIEF INVESTMENT OFFICE

Viewpoint

The Volatility Vice

March 2020

IN BRIEF

- The Coronavirus (Covid-19) outbreak has imparted a big deflationary shock to the global economy that is depressing world gross domestic product (GDP) and inflation. Given the ongoing outbreak of the virus, we believe that the reacceleration in global economic growth that we had expected for 2020 has been delayed.
- Our base case is that earnings per share (EPS) growth for the S&P 500 should weaken in the first quarter due to this virus outbreak, before stabilizing later in 2020, if the fallout from this outbreak is limited.
- We prefer equities over fixed income as valuations are more modest, especially compared to bonds, investor sentiment has moderated, and accommodative monetary and fiscal policy initiatives could provide tailwinds. We prefer U.S. equities relative to the rest of the world.
- Diversification is paramount through periods of great uncertainty. Long-term investors might soon consider plans for rebalancing, given recent market movement having shifted allocations and valuations across assets.

We have experienced the quickest correction in the history of financial markets with the Dow Jones Industrial Average plunging more than 13 percent in a week, or over 3,500 points, snapping back up over 1,200 and dropping close to another 1,000 points on March 3 (a "Volatility Vice" last experienced over a decade ago). From our perspective, it is critical "to know what we know and what we don't know" and then step back and assess what the underlying causes of the severe volatility are and, equally, what the markets are already discounting for the foreseeable future. In other words, what environment is likely to unfold in the next couple of quarters; through the balance of 2020; and then over a longer time frame?

The significant move lower in Treasury yields to record levels (U.S. 10-year Treasury yield fell below 1% on March 3), the fall in cyclical shares, tourism and travel based stocks, high growth/momentum industries in the equity markets, and the stability expressed in the more defensive areas such as Utilities, indicates a market backdrop that is concerned about both a supply and demand shock to the global economy. Both shocks

CIO ASSET CLASS VIEWS:

The Global Wealth & Investment Management Investment Strategy Committee did not make any tactical asset allocation adjustments this month, but we reaffirm our positive view on equities, with an emphasis on U.S. large-cap relative to the rest of the world, and our negative view on fixed income. Investors should prioritize diversification during periods of uncertainty and consider developing plans to rebalance portfolios.

Listen to the audio cast

Asset Class	CIO View				
	Under-weight		Neutral		Over-weight
Equities	•	•	•	●	•
U.S. Large Caps	•	•	•	●	•
U.S. Mid Caps	•	•	●	•	•
U.S. Small Caps	•	•	•	●	•
International Developed	•	●	•	•	•
Emerging Markets	•	•	●	•	•
Fixed Income	•	●	•	•	•
U.S. Investment Grade Taxable	•	●	•	•	•
International	●	•	•	•	•
Global High Yield Taxable	•	●	•	•	•
Alternative Investments*	see CIO Asset Class Views				
Hedge Funds					
Private Equity					
Real Estate					
Tangible Assets / Commodities					
Cash					

* Many products that pursue Alternative Investment strategies, specifically Private Equity and Hedge Funds, are available only to pre-qualified clients.

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are driven more by the uncertainty around the Coronavirus (Covid-19) than the upcoming elections. As we previously discussed in prior reports, this type of uncertainty is too difficult and too unknown at this stage to be able to fully model in the ultimate effect to economic growth.

Therefore, markets are simply trying to find their perceived equilibrium prices based upon sparse information. At this time, they are at their most volatile levels with investor fear at its highest. Equity markets seem to be pricing in zero earnings growth for the S&P 500 in 2020, negative Chinese Q1 economic growth, and are only a few percentage points away from pricing in a global recession, in our view.

Given what we know at this time, the BofA Global Research team recently downgraded various GDP growth assumptions for 2020 with global growth expected to reach 2.8% (previously expected 3.1%)—a level last experienced in 2009. U.S. GDP growth was also downgraded by one-tenth percentage point to 1.6% (2016 levels) from 1.7%. At present, we are not of the view that a prolonged economic recession materializes but investors should not dismiss the possibility of a global recession developing later in the year. Clearly, the level of growth for the rest of the year will depend on the length of Covid-19 and how quickly we snap back from supply chain disruptions and any consumer sentiment deterioration. We do expect second half growth and the expansion to re-emerge from the effects if the current situation of the containment ultimately proves to be manageable. This re-emergence could be quite quick and sharp, in our opinion. This would likely be due to the fact that a major growth slump would be self-induced (i.e. cocooning effect) versus one driven by a financial event or policy error. In addition, the significant stimulus already filtering through the system plus the recent coordinated monetary and fiscal policy adjustments should create a large reflationary wind at the economy's back.

Trying to select a bottom in equity markets when fear is at its highest levels is not a successful strategy, in our view. We need to stick to the facts and gain more insight into the severity and duration of this virus outbreak.

Amid this chaos there are some near- and long-term positives. We acknowledge these will likely remain under pressure in the weeks ahead, but could ultimately cushion ongoing economic weakness prior to a potential second-half snap back.

- U.S. labor market is solid with unemployment rate at a historically low level.
- U.S. household debt serviceability is at historic highs as rates hit all-time lows.
- Housing market is strong helped by rising household formation and a lack of supply, and record low mortgage rates.
- Global central banks are easing monetary policy further. Previous policy easing is still working through the economy.
- Governments are considering fiscal stimulus plans. Globally, corporate taxes are being lowered and infrastructure plans are being considered.
- The innovation cycle is still accelerating with artificial intelligence, cloud infrastructure, and robotics deployment.

Given the expected policy responses, the turnaround data regarding highly volatile times historically, and our continued focus on the long-term prospects, we believe the long-term investor should consider developing plans to rebalance portfolios given the large overvaluation in fixed income (namely U.S. Treasuries) and the overshoot to the downside in equities. As we gain a better understanding of the overall economic effect from this virus and if the short-term extreme fear subsides in the coming weeks, we would look to deploy rebalancing plans across a few episodes. Investors can point to

important technical and fundamental levels within the equity markets to keep in mind when rebalancing. At 2900, the S&P 500 is currently discounting zero earnings growth in 2020 or an approximate 10 percent pullback on original profit expectations. This seems extreme (for the longer-term investor) even in the face of such uncertainty. The newly revised fair value target for the S&P 500, according to BofA Global Research, is 3100 (down from 3300) based on adjusted S&P 500 earnings of $169 (4% increase year-over-year versus 8-9% growth originally expected). Equities are a long-duration asset that over time are likely to accumulate profits that are lost in any one-given year. Equity prices ultimately begin to discount this once the level of uncertainty begins to fade.

We will be analyzing the price trends of more cyclical industries—particularly those more exposed to the global supply chain such as semiconductors; the price pattern of copper and gold; and, the consumer-based industries in the travel, leisure, and entertainment space. We expect more clarity in the next few weeks and will be looking for opportunities to rebalance portfolios during this time.

Environments of greatest uncertainty is when diversification begins to show its largest potential strength.

CIO INVESTOR DASHBOARD

Given the ongoing Covid-19 virus outbreak, we believe that the reacceleration in global economic growth that we had expected for 2020 has been delayed. This is especially true for regions that are heavily exposed to Chinese demand and global supply chains such as Europe and Emerging Markets (EMs). As a result, we expect that corporate earnings expectations will be revised lower in the coming weeks and guidance from management teams will continue to reflect caution on the near-term outlook. As this virus fear eventually fades and global economic momentum starts to recover, corporate earnings growth should begin to pick up later in the year.

In the meantime, activity in the housing sector continues to improve, along with the consumer, which should help to support the current economic expansion in the U.S. The yield on the 10- and 30-year Treasury bonds recently hit all-time lows, portions of the yield curve are inverted and markets are pricing in multiple rate cuts from the Federal Reserve (Fed). Corporate credit spreads have also moved noticeably wider in recent days, especially high yield. Given the recent selloff across global financial markets, equity and bond market volatility in the U.S. have picked up substantially, while measures of investor sentiment like the BofA Global Research Bull & Bear Indicator have become more pessimistic. The BofA Global Research Global Fund Manager Survey indicates that positioning has also shifted toward bonds and away from Banks and Energy suggesting that investors are pricing in the potential for lower inflation, interest rates and commodity prices.

Current readings on the key drivers of equities for investors to consider, with arrows representing the recent trend.

Factor	Implication for Equities (Negative – Neutral – Positive)	CIO View
1. Earnings		Corporate earnings expectations are likely to be revised lower, especially for cyclical industries like travel & leisure, transportation, retail and technology. Guidance from management teams will continue to reflect caution on the near-term outlook, especially among companies that are dependent on global supply chains and Chinese demand.
2. Valuations		Valuations for U.S. equities have become more attractive in recent weeks given ongoing concerns about Covid-19.
3. U.S. Macro		Activity in the housing sector continues to improve along with the consumer which should help to support the current economic expansion in the U.S. The Institute for Supply Management Purchasing Managers Index has risen to back above 50 but the manufacturing sector could be disrupted by the ongoing Covid-19.
4. Global Growth		**Shifted from Neutral to Negative:** The ongoing Covid-19 outbreak represents a major disruption to global growth, especially areas that are dependent on demand from China. BofA Global Research has lowered their 2020 global economic growth forecast to 2.8%.
5. Federal Reserve/ Inflation		Inflation expectations remain well below the Fed's 2% target, and the market is now pricing in additional interest rate cuts for 2020. We believe that if growth fears continue to pick up, the probability of additional Fed rate cuts will rise in the coming months. The March 17-18 meeting should provide more clarity on Fed policy and any possible new developments.
6. Trade/ Fiscal Policy		We are encouraged by the recent signing of the "Phase One" trade deal between the U.S. and China, and are monitoring any signs progress toward "Phase Two". We're also watching ongoing trade tensions between the U.S. and the European Union (EU), particularly related to a potential digital tax and/or auto tariffs.
7. Corporate Credit		**Shifted from Positive to Neutral:** High yield credit spreads recently hit their widest level since January 2019 amid concerns about the effect Covid-19 has on the global economy, while investment-grade spreads have widened more modestly. Demand remains robust given the lack of alternatives for yield-sensitive investors, especially foreign buyers.
8. Yield Curve		**Shifted from Neutral to Negative:** Portions of the yield curve recently inverted as markets price in interest rate cuts from the Fed. The yield on the 10- and 30-year Treasury Bonds recently hit all-time lows as market-based inflation expectations continue to move lower.
9. Technical Indicators		Equity and bond market volatility have jumped in recent days on concern about Covid-19. The percent of NYSE equities above their 200-day moving average has fallen sharply over the past week, but at 27% is still much higher than in late 2018 (8%).
10. Investor Sentiment		Investors have become less optimistic on the outlook for financial markets, with the BofA Global Research Bull & Bear Indicator falling to 4.6. The BofA Global Research Global Fund Manager Survey shows that investors have added to bonds and decreased positioning in Banks and Energy sectors suggesting that they are concerned about the potential for lower inflation, interest rates and commodity prices.

Source: Chief Investment Office. Data as of February 27, 2020.

EQUITIES

- **We expect equities to outperform fixed income**: Global equities have endured dramatic recent selloffs on the Covid-19 uncertainty. The situation remains fluid and the near-term "tug of war" is between fear of a global pandemic and a significant global slowdown versus fiscal and monetary policy easing plus a better understanding by authorities of how to ultimately contain the outbreak. In the near term, we expect cuts to GDP growth and profit forecasts given an ongoing pronounced slowdown in China, factory shutdowns, travel and work restrictions, general consumer hesitation and lost or postponed sales. An acceleration in global growth, which was our base case for 2020, has been delayed to the second half of 2020 as a result of the outbreak. Encouragingly, the markets look oversold, equity valuations are more reasonable especially compared to bonds, investor sentiment has moderated and policy makers may be on the cusp of more monetary and fiscal stimulus. For now, investors should stay diversified and tilt toward higher-quality. We prefer U.S. large-cap equities relative to International Developed and EMs; however, we maintain a slight underweight allocation to International Developed and are neutral EM equities. As this virus fear

fades and stimulus efforts are successful in mitigating a significant global slowdown, then we could see international equities benefit with improvements in trade and export activity, higher interest rates and a stable to weaker dollar.

- **We are overweight U.S. equities**: We maintain our constructive view on U.S. equities relative to the rest of the world, on the basis of stronger real economic growth and corporate profits. However, Covid-19 fears could continue to weigh on investor sentiment in the near-term while the U.S. presidential election cycle can also create uncertainty. Our base case is that EPS growth for the S&P 500 should weaken in the first quarter due to this virus outbreak, before stabilizing later in 2020, if the fallout from this outbreak is limited. We are closely monitoring commentary from management teams about the potential effect of this outbreak, particularly for companies/industries that are dependent on global supply chains and demand from China. As a result of the ongoing slowdown, the fair value estimate for the S&P 500, according to BofA Global Research, has been revised from 3,300 to 3,100, based on expected EPS of $169, implying 4% earnings growth for 2020 compared to 8-9% previously. In the near-term, lower interest rates and growth estimates will pressure cyclical industries. As economic activity stabilizes, we expect those industries within Consumer Discretionary, Financials, Industrials and Technology to ultimately lead the market.

  The recent sharp selloff in U.S. equity markets has brought the 12-month forward price-per-earnings (P/E) for the S&P 500 to about 16.6x as of February 28, which is higher than the historical average of 15.7x but lower than more recent highs. When assessing valuations, we also take into account the secular change in composition of the U.S. equity market toward technology, a lower level of global interest rates and a decline in volatility of economic growth and inflation as potential drivers supporting higher multiples relative to past periods. Given our expectation for higher volatility, we recommend higher-quality exposure such as large- over small-caps and U.S. over international allocations. In an environment with low interest rates in many parts of the world, income-seeking investors could consider supplementing their portfolios with selective exposure to dividend-paying equities. We also maintain a balanced view of Growth versus Value, both being supported by the economy's ongoing digital transformation and extreme discounts offered by certain cyclical areas of the equity market.

- **We are neutral emerging market equities**: Disruptions to global manufacturing, trade, supply chains and tourism will likely weigh heavily on economic and profit growth among EMs over the near-term. In particular, slower economic growth in China for the first quarter is likely to weigh on corporate earnings in the region, since China accounts for around 38% of revenues for the MSCI Emerging Market Index. EMs would be among the main beneficiaries of a U-shaped recovery in global growth, as well as potential weakness in the dollar on the containment of this virus at some point this year. Key risks for this asset class include China's slowdown, in part due to the secular migration of supply chains elsewhere, as well as potential economic fallout from this virus but monetary and fiscal support should help cushion the decline. The continued rise in EM consumer spending remains a big reason why investors should still consider maintaining a strategic allocation to EM equities. The developing world now constitutes about 41% of global personal consumption expenditures (PCE) according to the United Nations. This should support GDP growth and corporate earnings in emerging economies, as broad equity indices such as the MSCI EM Index shift toward more consumer-oriented sectors (especially in China). We favor active management* when investing in EMs given that countries have differentiated fundamental drivers based on growth composition, political risk, exposure to trade and commodities, fiscal health and other factors.

* Active management seeks to outperform benchmarks through active investment decisions, such as asset allocation and investment selection.

- **We are slightly underweight international developed market equities**: We recently moved to a smaller underweight as the outlook for Europe and Japan had improved given early signs of stabilization in global manufacturing activity and reduction in Brexit uncertainties. The European Central Bank (ECB) has engineered easier financial conditions with their interest rate cuts and quantitative easing (QE), while monetary policy remains accommodative in Japan which should help to support growth. At the same time, given the prevalence of negative interest rates in both regions, increased fiscal spending would also be well-received. Structural reforms in Europe will be tough given the political fragmentation of mainstream parties across the region, but we continue to monitor the recent increased fiscal spending urge. Japan introduced a $120B spending plan last year; European budgets imply around 40 basis points of fiscal impulse; further positive catalysts could come if Germany were to loosen their tight budgetary strings; and, U.K. Prime Minister Boris Johnson implements infrastructure spending promised during recent election campaigns. Valuation levels for International Developed markets are fair on an absolute basis but cheap relative to bond yields, while there is scope for positioning to rise in investor portfolios and fund flows to improve if the global economy regains momentum. We note one of the biggest risks to this asset class remain a slowdown in China, simmering trade tensions with the U.S., and investors' skepticism of major structural reforms. The ongoing Covid-19 outbreak is also a risk for consumer spending, with confirmed cases in Japan rising and reports that numerous towns across Italy are under quarantine. Japan could potentially enter into a technical recession after growth came in weaker than expected in the fourth quarter while European growth will likely come under pressure due to weaker demand from China.

EQUITY WATCH LIST

- Economic data (especially manufacturing), management guidance and earnings revisions
- Commentary from key central bank officials
- Incoming reports on the status of the Covid-19, particularly its effect on global supply chains
- Trends in consumer and business confidence, capital expenditures (capex) and corporate profit margins
- U.S. trade negotiations with China and the European Union (EU)
- Trends in wage growth, productivity and consumer prices, which could affect the longevity of the business cycle
- Developments surrounding potential fiscal stimulus measures in Europe, especially Germany, and Japan

FIXED INCOME

- **We are slightly underweight fixed income**: We are neutral duration, balancing very low rates against the possibility of a lower-for-longer fed funds rate path and even lower rates if global growth weakens significantly. Despite low yields, longer-dated Treasurys still provide ballast against risk-off sentiment, as evidenced by the year-to-date total returns. Investment-grade corporates, mortgage-backed securities (MBS), and municipals have also been effective diversifiers. While the Fed recently added enough liquidity to help alleviate funding market strains, the market expects a more accommodative Fed to deal with the risks to global growth. Currently, the market is pricing in three more rate cuts by the beginning of 2021. Furthermore, the Federal Open Market Committee (FOMC) has re-committed that the Fed wants to see inflation "returning to" the Fed's 2% inflation target and seems to be more resolute in dealing with persistent global disinflation, a risk that has become even more pronounced with Covid-19.

Within fixed income, we are overall neutral on credit and have a slight preference for short-dated investment-grade corporates—particularly banks—and municipals on the intermediate-to-long portion of the yield curve. We caution investors to remain diversified across high-quality fixed-income sectors, including MBS.

Investment-grade credit spreads are near fair value, but on the tighter end even after widening out a modest amount in February. Spreads have been fairly resilient amid the current virus fears and several negative ratings actions of large issuers. Fundamentals should remain stable over the near-term—while demand remains robust given the lack of alternatives for yield-sensitive investors, especially from foreign buyers. We believe the shorter-end of the corporate curve still presents the best risk-adjusted value.

Muni yields have declined in line with the drop in Treasury yields. Yields on AAA tax-exempt munis are now below 1% for maturities up to 10 years. Muni valuations have benefited, which has accentuated municipal fund inflows, as well as still-limited tax-exempt, new issue volume. Longer-dated municipals are more attractive than shorter-term munis, given higher muni-to-Treasury yield ratios.

We are neutral on MBS, as spreads are at the wide end of a six-year trading range, exhibit positive value relative to corporate spreads, and can be a generally defensive sector versus other spread products. Headwinds—higher supply, interest rate volatility and refinancing activity—still exist, but, relative to other asset classes trading at tighter levels, MBS are fairly valued now and offer less price risk at these levels. Conservative positioning with a slightly shorter duration is still warranted.

- **We are slightly underweight high yield (HY)**: Higher leverage and weaker covenants portend greater credit losses than are typical once the credit cycle turns, and high yield – as expected – has not diversified equity risk. Within HY, some allocation to leveraged loans is advisable due to secured status and relative value in terms of spread and yield versus unsecured bonds. HY bonds offer less-than-average value currently, even as spreads and yields have widened significantly; spreads and yields may tighten if the risk-off environment subsides, but the risk/return would still favor equities in that situation. Given our overweight equities positioning, our slight underweight to HY reflects prudent risk management. The significant underperformance of CCC bonds has been moderating this year.

FIXED INCOME WATCH LIST

- How the Fed reacts to the current environment and the significant easing (3+ rate cuts) factored in by the market
- Change in credit cycle sentiment due to slowing global growth
- For municipals: weakening in the technical environment and/or credit risk from issuers with large, unfunded pension or other post-retirement benefit liabilities
- Significant inflation—unlikely, very contrarian and would catch the market offside, hence why it is a risk (forces the Fed to choose between maximum employment and price stability)

ALTERNATIVE INVESTMENTS

Given the differences in liquidity characteristics between alternative investments (AI) and traditional investments, the AI portfolio positioning and Chief Investment Office (CIO) asset class views have been neutral-rated versus our strategic allocations. These types of investments, in our opinion, should not be viewed at the asset class level on a tactical basis, but rather the tactical positioning should be expressed at the sub-asset class level.

We will continue to provide strategy-level guidance for qualified AI investors. We believe allocations to AI can introduce differentiated returns that can help complement existing traditional holdings by potentially enhancing returns, reducing risk and capitalizing on opportunities not available through traditional investments.

- **We favor a strategic approach when allocating to hedge funds**: We believe the environment for active management*, and hence hedge funds, remains favorable given recent dynamics around correlations and volatility resulting from tension between the current macro backdrop and individual company fundamentals. As such, we continue to recommend incremental allocations to equity long/short and equity market-neutral strategies as part of a diversified portfolio of hedge fund strategies. Additionally, we continue to monitor the macro space for emerging opportunities given the uncertainty on the geopolitical front, trade negotiations, and the U.S. presidential election.

- **We favor a strategic approach when allocating to private equity** and view these strategies as long-term potential portfolio return enhancers with unique access to specialized deals unavailable to traditional investors. We recommend that investors plan a disciplined, multiyear commitment strategy that builds portfolio diversity among different managers, styles, geographies and, importantly, vintages. Within the broad private equity universe, we continue to favor special-situation strategies that can benefit from pockets of dislocation led by market volatility, ongoing trade concerns and disruptive technologies and offer potential important diversification benefits (due in part to their counter-cyclicality) to a strategic private equity program.

- **We favor a strategic approach when allocating to private real estate**: Strong consumer confidence, a robust labor market, a positive trend in U.S. household formation and low real interest rates should support demand in the near term. There are continuing signs that the markets for rentable space are generally in balance across the country, with a few property type and market exceptions, such as regional malls and power centers in the retail category, and in some multifamily and central business district (CBD) office markets.

- **We remain neutral on commodities**: Commodity prices tend to rise later in economic expansions as global demand approaches cycle- peak levels. The deflationary shock from the Covid-19 epidemic has sent commodity prices back to the low end of their ranges. Stabilizing global growth should eventually support cyclical commodities. Reflationary policy and lower real interest rates also support commodity prices. Gold is currently benefiting from heightened geopolitical uncertainty. The 2020 outlook for oil continues to revolve around excess supply, but a flat-to-lower dollar, stronger demand growth and heightened geopolitical risks suggest somewhat higher Brent prices than in 2019.

- **The dollar**: The dollar is expensive versus most major currencies, so to the extent the Fed eases more than other central banks and monetary easing leads to an eventual pickup in global growth, we believe the dollar should be a bit softer.

- **Tangible assets**: Over the long term, we expect tangible assets—such as real estate, timber, and farm and ranch land—to benefit portfolios through increasing diversification, helping to provide a hedge against the corrosive effects of inflation, generating cash flows, and providing potentially favorable social impact opportunities.

CIO DUE DILIGENCE VIEWS

Given the variability in the hedge fund space, a wide dispersion of returns during the recent bout of volatility wasn't entirely unexpected. On a positive note, managers in the managed futures, global macro, and municipal bond spaces were reportedly able to protect capital, or even generate positive returns, in an otherwise challenging period. In managed futures, recent losses from a long-equity bias were offset by gains in bonds, gold and the U.S. Dollar. Exposure to global fixed income markets also helped macro managers who, despite historically low yields, continued to allocate to this area given the perceived elevated risks in the investment environment. Managers in this space, in addition to municipal strategies, likely did well as yields moved sharply lower.

Equity hedge strategies posted mixed performance in February. Though fundamental equity long/short managers generally outperformed their long-only counterparts, lower-net managers potentially benefitted more than those with directional biases as their hedged profile appears to have cushioned losses during the drawdown. A small number of managers currently saw positive idiosyncratic gains in their portfolios (from their short book or individual positions). Some quantitative long/short managers found the environment to be particularly difficult. These types of strategies are typically built around investment themes and factor exposures and become challenged when factors behave in ways that models may not predict or fully account for.

* Active management seeks to outperform benchmarks through active investment decisions, such as asset allocation and investment selection.

MACRO STRATEGY

- The Covid-19 outbreak has imparted a big deflationary shock to the global economy that is depressing world GDP and inflation. Despite this setback, trade and Brexit headwinds have eased, and the U.S. economy is still healthy, in our view led by the consumer. Overall global growth should eventually stabilize with both domestic and international commerce set to improve. Lower inflation will allow more accommodative monetary policy around the world to eventually start a positive, self-reinforcing growth dynamic, helping to boost profits and extending the economic cycle. We believe this is a positive backdrop for equities.
- Inflation pressures have fallen sharply since peaking in the summer of 2018 with an additional deflationary shock as this virus has hit oil, copper and risk asset prices hard. The Fed's 2018 interest rate hikes and strong U.S. productivity growth combined with the trade war headwind have pushed inflation further below the target rate and caused the Fed to shift to an easier policy in 2019, helping to assuage worries about a recession. The latest deflation shock has inverted the yield curve and raised the odds the Fed would have to cut rates more this year.
- Volatility has picked up with the risk-off shock from this virus. While easier Fed policy suggests below-average volatility will resume as the epidemic dissipates, we believe there is potential for more episodic volatility in 2020 around long-term U.S.-China relations and the U.S. presidential election cycle.

Economic and Market Forecasts (as of 03/03/20)

	Q2 2019A	Q3 2019A	Q4 2019A	2019A	Q1 2020E	2020E
Real global GDP (% y/y annualized)	–	–	–	2.9	–	2.8
Real U.S. GDP (% q/q annualized)	2.0	2.1	2.1	2.3	1.0	1.6
CPI inflation (% y/y)	1.8	1.8	2.0	1.8	2.2	2.0
Core CPI inflation (% y/y)	2.1	2.3	2.3	2.2	2.3	2.3
Unemployment rate (%)	3.6	3.6	3.5	3.7	3.5	3.5
Fed funds rate, end period (%)	2.40	1.90	1.55	1.55	0.88	0.63
10-year Treasury, end period (%)	2.01	1.66	1.92	1.92	1.80	1.80
S&P 500 end period	2942	2977	3231	3231	–	3100
S&P earnings ($/share)	41	42	42*	163*	38.5	169
Euro/U.S. dollar, end period	1.14	1.09	1.12	1.12	1.08	1.15
U.S. dollar/Japanese yen, end period	108	108	109	109	110	103
Oil ($/barrel, avg. of period, WTI**)	60	56	57	57	51	49

The forecasts in the table above are the base line view from BofA Global Research. The Global Wealth & Investment Management (GWIM) Investment Strategy Committee (ISC) may make adjustments to this view over the course of the year and can express upside/downside to these forecasts. **Past performance is no guarantee of future results. There can be no assurance that the forecasts will be achieved. Economic or financial forecasts are inherently limited and should not be relied on as indicators of future investment performance.**
A = Actual. E/* = Estimate. S&P 500 represents a fair value estimate for 2020. **West Texas Intermediate. Sources: BofA Global Research; GWIM ISC as of March 3, 2020. BofA Global Research is research produced by BofA Securities, Inc. ("BofAS") and/or one or more of its affiliates. BofAS is a registered broker-dealer, Member SIPC, and wholly owned subsidiary of Bank of America Corporation.

When assessing your portfolio in light of our current guidance, consider the tactical positioning around asset allocation in reference to your own individual risk tolerance, time horizon, objectives and liquidity needs. Certain investments may not be appropriate, given your specific circumstances and investment plan. Certain security types, like hedged strategies and private equity investments, are subject to eligibility and suitability criteria. Your financial advisor can help you customize your portfolio in light of your specific circumstances.

CIO ASSET CLASS VIEWS

Asset Class	CIO View					Comments
	Under-weight		Neutral		Over-weight	
Equities	•	•	•	●	•	We retain our bullish view on equities based upon favorable relative valuations and our expectation that global economic momentum eventually recovers once the Covid-19 is contained. Policy easing in response to the outbreak may help cushion equities. We remain overweight the U.S., are neutral EMs, and are slightly underweight non-U.S. Developed, in line with our expectations for a slightly weaker U.S. dollar and a reacceleration of growth once uncertainty begins to abate.
U.S. Large Caps	•	•	•	●	•	Given our expectation for episodic volatility, we recommend higher-quality exposure, which leads us to favor large-cap over small-cap equities. We remain with a balanced mix of Growth and Value. At the sector level, we recommend being selective, with a preference for technology and discretionary for the exposure to innovation and the healthy consumer base in the U.S. and those offering cyclical value such as financials and industrials.
U.S. Mid Caps	•	•	●	•	•	Mid-cap firms tend to have stronger fundamentals than small-caps, and valuations appear attractive for an investor with a long time horizon.
U.S. Small Caps	•	•	•	●	•	Small caps have more leverage in this cycle and weaker earnings trends. Large caps should be preferred for higher quality as economic uncertainty remains high.
International Developed	•	●	•	•	•	We are slightly underweight International Developed markets. Europe and Japan stand to benefit given early signs of stabilization in global manufacturing activity, however Covid-19 concerns overshadow the progress. Finally, there is scope for positive fund flows and increased investor positioning.
Emerging Markets	•	•	●	•	•	We are neutral EM equities as they stand to benefit from an uptick in global growth, but will be challenged by the virus outbreak in the near-term. The setup for a weaker U.S. dollar and the "Phase One" U.S.-China trade deal could eventually spur improved sentiment. Consumption trends from the emerging consumer provide a secular tailwind but near-term risk from the potential economic fallout of Covid-19 provides a headwind.
International						
North America	•	•	•	●	•	The U.S. is our preferred region based on improving growth and profits. Equity valuations relative to bonds are attractive.
Eurozone	•	●	•	•	•	The ongoing Covid-19 outbreak could negatively impact economic and profit growth in the region. The European Central Bank remains accommodative. Ageing demographics and the slow pace of reforms in Germany are structural headwinds.
U.K.	•	•	●	•	•	Exit from the European Union single market is a headwind for medium-term growth with potential offsets from pro-market government policy agenda and large international revenue exposure. High dividend yield is a possible support for total return.
Japan	•	•	●	•	•	Prefer Japan over Europe given more attractive valuations, monetary and fiscal stimulus working in unison and higher exposure to technology and automation theme. We also expect the yen to weaken.
Pac Rim*	•	•	●	•	•	Region to benefit from recent easing of monetary policy in Australia, Hong Kong and Singapore, particularly given significant market weights in real estate and financials. Large export exposure to China means growth could remain sensitive to outlook for mainland Chinese demand. Ongoing idiosyncratic risk from political uncertainty in Hong Kong and potential economic fallout from Covid-19.

* Pacific Rim refers to the geographic area surrounding the Pacific Ocean. The Pacific Rim covers the western shores of North America and South America, and the shores of Australia, eastern Asia and the islands of the Pacific.

Asset class table continued on the next page →

Asset Class	CIO View	Comments
	Under-weight / Neutral / Over-weight	
Fixed Income		Bonds provide portfolio diversification, income and stability. Neutral duration is warranted, balancing low US interest rates against the global rate environment, market volatility and a lower-for-longer rate environment.
U.S. Investment Grade Taxable		Slight preference for credit to Treasurys, emphasizing corporates—particularly banks—as the relative value of credit is moderate. Short-end provides the best risk-reward profile given the flat yield curve. Some allocation to Treasurys for liquidity and relative safety is advised as a buffer to risk-off sentiment.
International		Compressed yields and risk premiums around the globe compared to the U.S., combined with potentially higher volatility in non-U.S. markets, present unfavorable risk/reward conditions for non-U.S. fixed income, justifying an underweight position.
Global High Yield Taxable		Valuations have improved slightly. Fundamentals have improved but leverage remains elevated; high-quality high yield is expensive but the weakness in the lowest-rated sectors has been abating. Loans are attractively priced versus high yield bonds; an allocation to floating-rate loans is advised.
Alternative Investments*		Given the differences in liquidity characteristics between AI and traditional investments, the AI portfolio positioning and CIO asset class views have been neutral rated versus our strategic allocations. These types of investments, in our opinion, should not be viewed at the asset class level on a tactical basis, rather the tactical positioning should be expressed at the subasset level. We will continue to provide strategy-level guidance for qualified AI investors and believe allocations to AI can introduce differentiated returns, which can help complement existing traditional holdings by potentially enhancing returns, reducing risk and capitalizing on opportunities not available in traditional investments.
Hedge Funds		We believe the environment for active management is currently favorable, and we recommend incremental allocations to equity long/short and equity market neutral strategies. If recent trends persist, performance will likely be manager-specific in 2020; we believe a diversified approach when investing in hedge fund strategies is most prudent for qualified investors.
Private Equity		We view private equity strategies as long-term potential portfolio return enhancers for qualified investors. We continue to favor special-situation strategies that can benefit from pockets of dislocation led by market volatility, ongoing trade concerns and disruptive technologies, and offer potential important diversification benefits (due in part to their counter-cyclicality) to a strategic private equity program.
Real Estate		General economic conditions remain good for commercial real estate. We place emphasis on direct investments in well-located properties in strong regions of the country that exhibit attractive rent-roll and cash-flow characteristics, and have the potential to bridge into the next cycle, providing a long-term hedge against inflation.
Tangible Assets / Commodities		Stabilizing global growth should eventually support cyclical commodities. Reflationary policy and lower real interest rates also support commodity prices. Gold is currently benefiting from heightened geopolitical uncertainty. The 2020 outlook for oil continues to revolve around excess supply, but a flat-to-lower dollar, stronger demand growth and heightened geopolitical risks suggest somewhat higher Brent prices than in 2019.
Cash		

Tactical qualitative investment strategy weightings are relative in nature versus the strategic weightings for a fully diversified portfolio. Weightings are based on the relative attractiveness of each asset class. Tactical strategy weightings are for a 12- to 36-month time horizon. Because economic and market conditions change, recommended allocations may vary in the future. Asset allocation cannot eliminate the risk of fluctuating prices and uncertain returns. All sector and asset allocation recommendations must be considered in the context of an individual investor's goals, time horizon and risk tolerance. Not all recommendations will be suitable for all investors. **Alternative investments such as derivatives, hedge funds, private equity funds and funds of funds can result in higher return potential, but also higher loss potential. Changes in economic conditions or other circumstances may adversely affect your investments. Before you invest in alternative investments, you should consider your overall financial situation, how much money you have to invest., your need for liquidity and your tolerance for risk.**
* Many products that pursue Alternative Investment strategies, specifically Private Equity and Hedge Funds, are available only to pre-qualified clients.
Source: Global Wealth & Investment Management Investment Strategy Committee.

Index Definitions

Securities indexes assume reinvestment of all distributions and interest payments. Indexes are unmanaged and do not take into account fees or expenses. It is not possible to invest directly in an index. Indexes are all based in dollars.

S&P 500 Index includes a representative sample of 500 leading companies in leading industries of the U.S. economy. Although the index focuses on the large-cap segment of the market, with approximately 75% coverage of U.S. equities, it is also an ideal proxy for the total market.

MSCI EM Index is an index used to measure equity market performance in global emerging markets. It is just one index created by MSCI, which has been constructing and maintaining them since the late 1960s.

Purchasing Managers' Index (PMI) is an index of the prevailing direction of economic trends in the manufacturing and service sectors.

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Investments have varying degrees of risk. Some of the risks involved with equity securities include the possibility that the value of the stocks may fluctuate in response to events specific to the companies or markets, as well as economic, political or social events in the U.S. or abroad. Small cap and mid cap companies pose special risks, including possible illiquidity and greater price volatility than funds consisting of larger, more established companies. Bonds are subject to interest rate, inflation and credit risks. Municipal securities can be significantly affected by political changes as well as uncertainties in the municipal market related to taxation, legislative changes, or the rights of municipal security holders. Income from investing in municipal bonds is generally exempt from federal and state taxes for residents of the issuing state. While the interest income is tax-exempt, any capital gains distributed are taxable to the investor. Income for some investors may be subject to the Federal Alternative Minimum Tax. Investments in high-yield bonds (sometimes referred to as "junk bonds") offer the potential for high current income and attractive total return, but involves certain risks. Changes in economic conditions or other circumstances may adversely affect a junk bond issuer's ability to make principal and interest payments. Treasury bills are less volatile than longer-term fixed income securities and are guaranteed as to timely payment of principal and interest by the U.S. government. Mortgage-backed securities are subject to credit risk and the risk that the mortgages will be prepaid, so that portfolio management may be faced with replenishing the portfolio in a possibly disadvantageous interest rate environment. Investments in foreign securities (including ADRs) involve special risks, including foreign currency risk and the possibility of substantial volatility due to adverse political, economic or other developments. These risks are magnified for investments made in emerging markets. Investments in a certain industry or sector may pose additional risk due to lack of diversification and sector concentration. Investments in real estate securities can be subject to fluctuations in the value of the underlying properties, the effect of economic conditions on real estate values, changes in interest rates, and risk related to renting properties, such as rental defaults. There are special risks associated with an investment in commodities, including market price fluctuations, regulatory changes, interest rate changes, credit risk, economic changes and the impact of adverse political or financial factors.

Alternative investments such as derivatives, hedge funds, private equity funds, and funds of funds can result in higher return potential but also higher loss potential. Changes in economic conditions or other circumstances may adversely affect your investments. Before you invest in alternative investments, you should consider your overall financial situation, how much money you have to invest, your need for liquidity, and your tolerance for risk. Alternative investments are speculative and involve a high degree of risk. An investor could lose all or a substantial amount of his or her investment. There is no secondary market nor is one expected to develop, and there may be restrictions on transferring fund investments. Alternative investments may be leveraged, and performance may be volatile. Alternative investments have high fees and expenses that reduce returns and are generally subject to less regulation than the public markets. The information provided does not constitute an offer to purchase any security or investment or any other advice.

Hedge funds are speculative and involve a high degree of risk. An investor could lose all or a substantial amount of his or her investment. There is no secondary market nor is one expected to develop for investments in hedge funds, and there may be restrictions on transferring fund investments. Hedge funds may be leveraged, and performance may be volatile. Hedge funds have high fees and expenses that reduce returns.

Private equity investments involve a significant degree of risk and should be regarded as speculative. They are only made available to qualified investors under the terms of a private offering memorandum. Holdings in a private equity fund may be highly leveraged and, therefore, more sensitive to adverse business or financial developments. Private equity investments are long term and unlikely to produce a realized return for investors for a number of years. Interests in a private equity investment are not transferable. The holdings of a private equity pool may be illiquid—very thinly traded or assets for which no market exists. A private equity investment may use leverage, which even on a short-term basis can magnify increases or decreases in the value of the private equity investment. The business of identifying private equity investment opportunities is competitive, and there is no assurance that the private equity pool will be able to complete attractive investments or fully commit its capital. In addition, a private equity fund's high fees and expenses may offset the fund's profits. Private equity investments should be discussed with financial, tax and legal professionals in light of an individual's objectives, liquidity needs and tolerance for risk.

References to indices, or other measures of relative market performance over a specified period of time (each, an "index"), are provided for illustrative purposes only and do not represent a benchmark or proxy for the return or volatility of any particular product, portfolio, security holding or alternative investments. The figures for the index reflect the reinvestment of dividends but do not reflect the deduction of any fees or expenses which would reduce returns. Merrill does not guarantee the accuracy of the index returns and does not recommend any investment or other decision based on the results presented.

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