SPECIAL UPDATE

NEUBERGER BERMAN

Asset Allocation Committee Outlook 2Q20

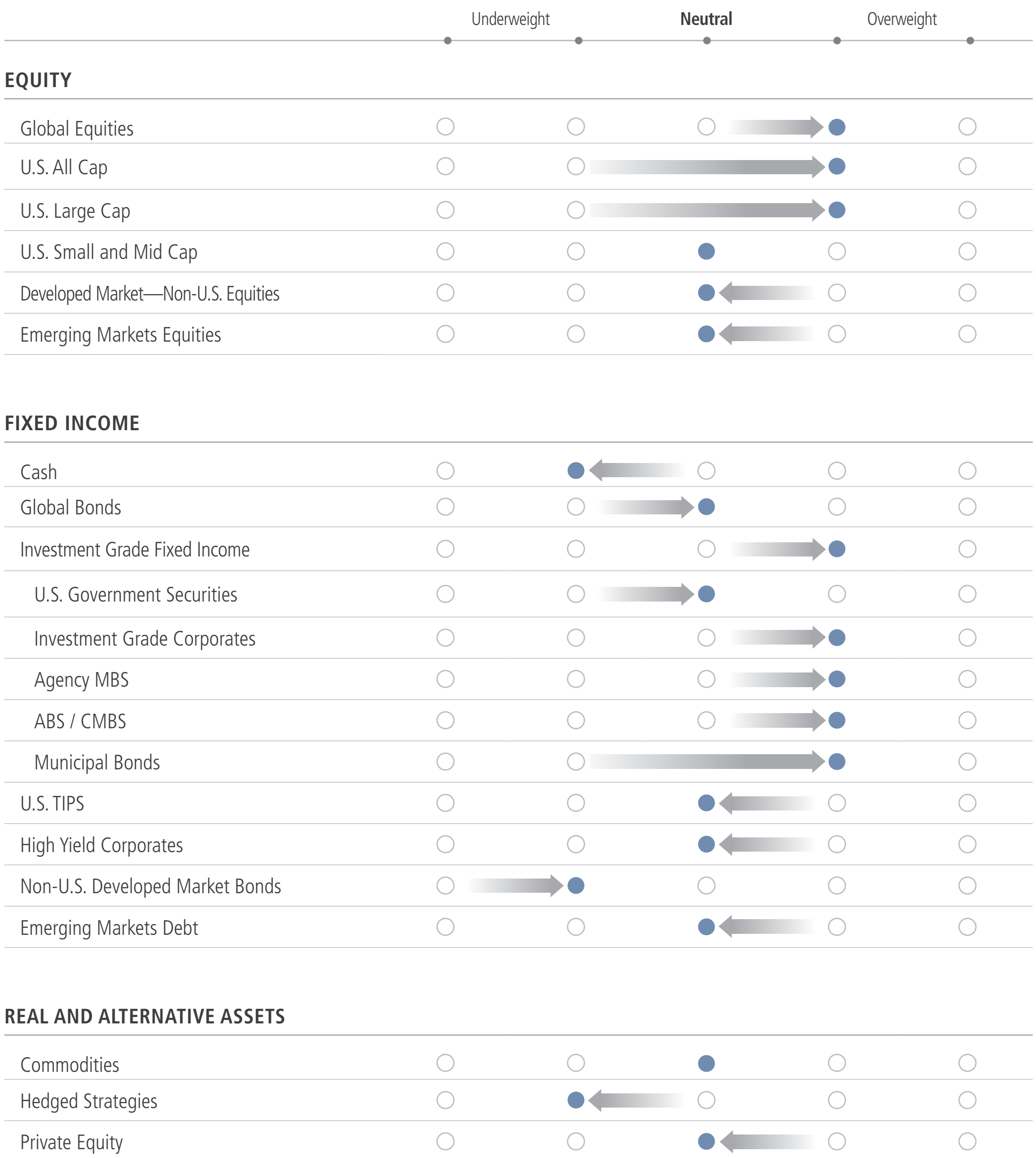
Special Update: At the Peak of the Curve

When our Asset Allocation Committee ("AAC" or "Committee") met in late March to set out its scenarios for the COVID-19 crisis, the global lockdown was just getting underway and financial markets were plummeting. Six weeks later, while data on the economy and the virus has been consistent with the base-case scenario we set out, financial markets appear to have assumed something more like our bull case. In this special update, the AAC re-endorses its initial base-case scenario and investment views, but notes that increasing bifurcations within its preferred categories of large-cap stocks, credit and private markets are beginning to change the nature of the opportunity set.

NEUBERGER | BERMAN

Market Views

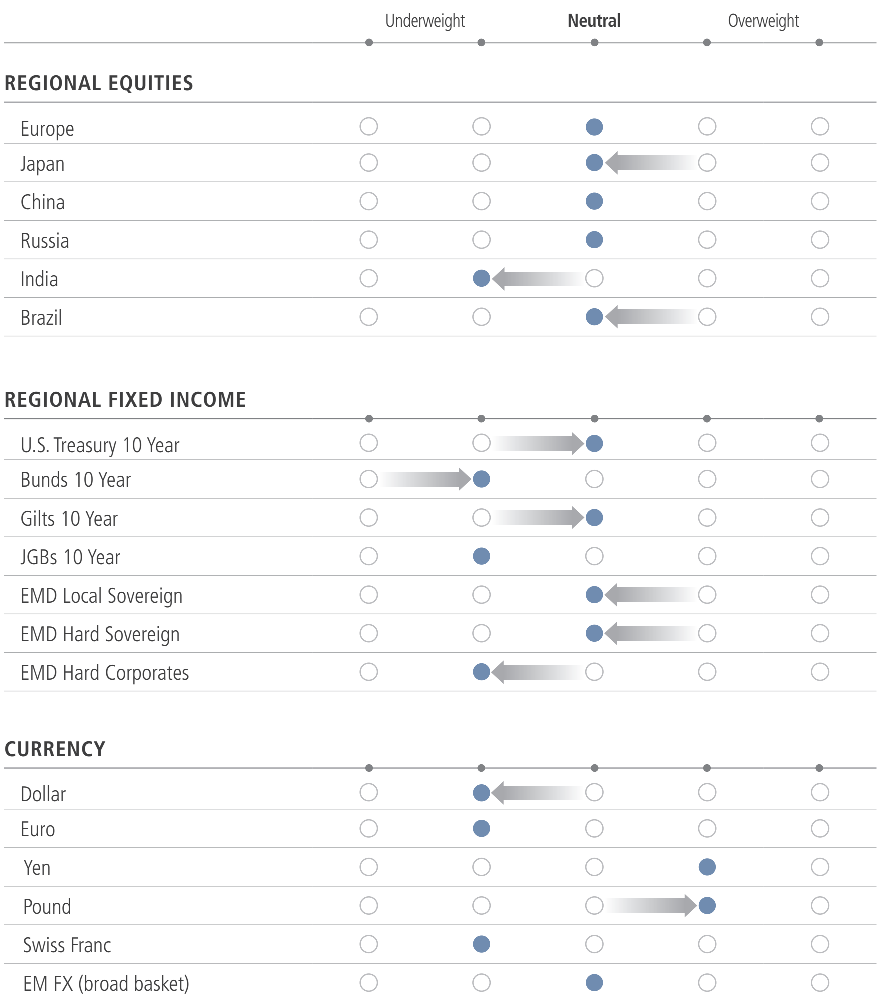
Based on 12-Month Outlook for Each Asset Class



As of 2Q 2020. Views shown reflect near-term tactical asset allocation views and are based on a hypothetical reference portfolio. Nothing herein constitutes a recommendation, investment advice or a suggestion to engage in or refrain from any investment-related course of action. See disclosures at the end of this publication, which includes additional information regarding the Asset Allocation Committee and the views expressed.

Regional Focus

Equities and Currency



"A company's ability to adapt is critically important right now, and the U.S. arguably has more of the innovative companies that will succeed in negotiating everything that's going on than anywhere else. Only China has anything like that capacity to adapt and respond."

Brad Tank | Chief Investment Officer—Fixed Income

As of 2Q 2020. Views shown reflect near-term tactical asset allocation views and are based on a hypothetical reference portfolio. Nothing herein constitutes a recommendation, investment advice or a suggestion to engage in or refrain from any investment-related course of action. See disclosures at the end of this publication, which includes additional information regarding the Asset Allocation Committee and the views expressed.

"Markets have moved faster than expected to differentiate between high-quality, defensive businesses that are well positioned to survive the crisis, and those that are more vulnerable or dependent on a strong economic recovery. That has played to the views we held in March, but also reminds us that investors could reposition rapidly should data begin to play into our bull-case scenario—potentially toward cyclical or value-oriented large caps and quality small and mid caps, if not markets outside the U.S. and China."

Erik L. Knutzen, CFA, CAIA
Chief Investment Officer—Multi-Asset Class

Special Update: At the Peak of the Curve

When our Asset Allocation Committee ("AAC" or "Committee") met in late March to set out its scenarios for the COVID-19 crisis, the global lockdown was just getting underway and financial markets were plummeting. Six weeks later, infections may have started to peak in Europe and the U.S., we are seeing the evidence of the economic damage caused by the virus, and significant monetary and fiscal stimulus programs have been announced. While that has been consistent with the base-case scenario we set out, financial markets appear to have assumed something more like our bull case, or else have moved rapidly to price in the entire 12-month view of our base case. Our second-quarter *Outlook* and the accompanying investment Playbook we developed advocated a focus on risk management in the near term, with a bias toward U.S. large company stocks and investment grade credit as we watched for signs of a recovery gaining a firmer footing. In this special update, the AAC re-endorses its initial base-case scenario and investment views, but notes that increasing bifurcations within its preferred categories of large-cap stocks, credit and private markets are beginning to change the nature of the opportunity set.

The Virus

What we said at the end of Q1:

"Our base case is that reported COVID-19 infections will likely peak in the U.S. in May or June… It is encouraging to see reported new cases trail off in China, where the outbreak started, and several other Asian countries succeed in containing the disease. The virus also appears to be peaking in some parts of Europe. The unprecedented international efforts to develop therapeutics to treat the illness and a vaccine to prevent it in the future allow us to hope that we can avoid a severe second wave of infections."

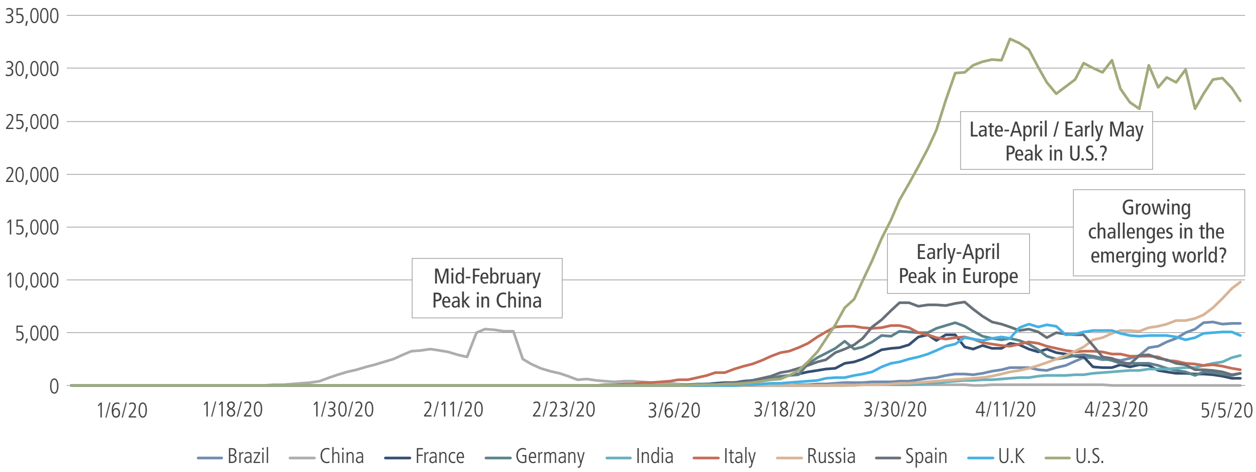
More or less stringent lockdown policies across the world appear to have successfully flattened the curve of new infections of SARS-COV-2, the virus that causes COVID-19. While the challenges faced by some large emerging countries are perhaps only now being uncovered, a peak had already passed in China by mid-February; the hardest-hit parts of Europe appear to have reached a peak in early April; and there are encouraging signs that the U.S. may be over the worst by mid-May.

This would be a slightly better outcome than we anticipated, and it creates a foundation for the re-opening of economies, supported by testing-and-tracing programs, once new cases have fallen low enough. Nonetheless, keeping the virus suppressed remains a formidable logistical challenge, and while impressive progress has been made toward medical treatments and a vaccine for SARS-COV-2, it remains unlikely that either will be effective before the end of this year.

Stage one of the fight against COVID-19 may be passing, but it is likely to be many months before life, and the economy, settles into its "new normal."

AT THE PEAK OF THE CURVE?

Daily New Reported COVID-19 Cases, 5-Day Moving Average



Source: European Centre For Disease Prevention And Control. Data as of May 6, 2020.

The Economy

What we said at the end of Q1:

"[Central banks] re-opened the 2008 playbook, led by the U.S. Federal Reserve… these moves had calmed Treasuries but left more work to do in credit markets… It was critical that the fiscal response be just as rapid, and that it focus on small businesses and individuals… Most [AAC members] agreed that, as long as fiscal support prevents unemployment from exceeding low double figures, and supply chains remain intact, there could be potential for powerful pent-up demand to drive renewed consumption growth in the second half of the year…"

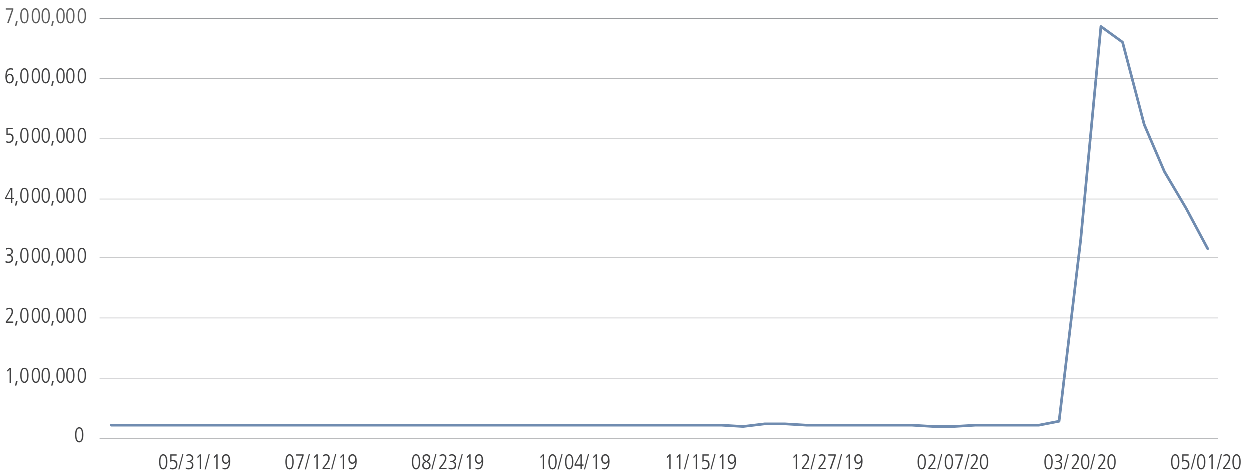
Central banks have continued to expand their response to the crisis through April. In particular, the U.S. Federal Reserve has made a range of interventions to ensure the flow of credit and funds for Main Street (Paycheck Protection Program Liquidity Facility, Main Street Lending Program, Municipal Liquidity Facility), Wall Street (Commercial Paper Funding Facility, Primary Dealer Credit Facility, Money Market Mutual Fund Liquidity Facility, Primary and Secondary Market Corporate Credit Facilities, Term Asset Backed Securities Loan Facility) and the international monetary system (Central Bank Liquidity Swaps, Temporary Foreign and International Monetary Authorities Repo Facility). These actions eased the surging U.S. dollar and stabilized credit markets such that April saw record new issuance of investment grade corporate bonds and even a re-opening of the primary high yield market.

Other central banks have intervened aggressively, some even edging closer to direct financing of fiscal deficits. The more constrained European Central Bank (ECB) introduced a €750 billion Pandemic Emergency Purchase Program on top of its existing quantitative easing measures and significantly loosened eurozone banks' capital requirements and access to funding.

If anything, the fiscal response has been still greater. The Breugel think tank has tracked the direct fiscal impulses, tax deferrals and other liquidity provisions and guarantees made by the European

A SURGE IN JOBLESS CLAIMS IN THE U.S.

Initial jobless claims, weekly



Source: U.S. Department of Labor. Data as of May 8, 2020.

Union (E.U.) countries, the U.K. and the U.S.: it finds that, so far, the U.S. stimulus amounts to 14.3% of 2019 GDP, the U.K. stimulus 20.8% and Germany's an astonishing 51.9%.[1] The one note of disappointment, in our view, has come from the eurozone, where tensions over a joint fiscal response have re-emerged, compounded by a decision from Germany's Constitutional Court that was unusually critical of both the European Court of Justice (ECJ) and the ECB.

Unemployment surged through April, but not in excess of our base-case expectations, which we had raised to above 15% for the U.S. after the last Committee meeting. Some Committee members raised concerns that wage relief and other benefits might be lifted faster than jobs recover, as well as the longer-term distortive effects of labor market interventions. Overall, however, the AAC was encouraged to see U.S. consumer sentiment measures revised upwards in April, while U.S. real disposable income remains higher today than it was this time last year.

What we said at the end of Q1:

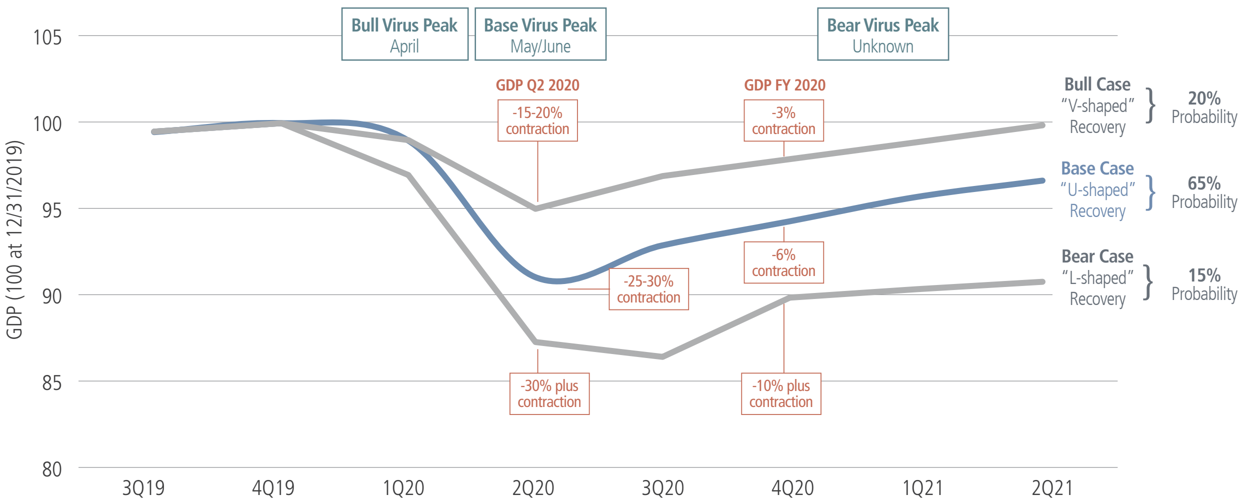
"Full-year GDP growth could be -6% for the U.S., -8% for Europe, -6% for the U.K., -3% for Japan and +1% for China… The sell-side consensus for full-year S&P 500 earnings growth is -22%, on average, but ranging from -8% to -33%… The market implied high yield default rate for 2020 is 10.8%, or 9.1% ex-Energy."

"[During Q2] we think there could be a decline of -25% or more in S&P 500 earnings expectations for 2020…"

Economists' growth estimates have been in line with the base-case view set out in our last *AAC Outlook* and Playbook. For example, the International Monetary Fund (IMF) has forecast 2020 GDP growth of -5.9% for the U.S., -7.5% for the eurozone, +1.2% for China and -3% globally. Our base case of a "U-shaped" recovery agrees with the emerging consensus.

[1] "The Fiscal Response to the Economic Fallout from the Coronavirus", last updated May 6, at https://www.bruegel.org/publications/datasets/covid-national-dataset/

WHAT WE SAID AT THE END OF Q1: OUR THREE SCENARIOS FOR THE ESTIMATED PATH OF U.S. GDP GROWTH



Source: Neuberger Berman. GDP quarterly growth is presented annualized. For illustrative and discussion purposes only. Nothing herein constitutes a prediction or projection of future events or future market or economic behavior. The duration and characteristics of past market/economic cycles and market behavior, including length and recovery time of past recessions and market downturns, is no indication of the duration and characteristics of any current or future market/economic cycles or behavior. Due to a variety of factors, actual events or market behavior may differ significantly from any views expressed or any historical results.

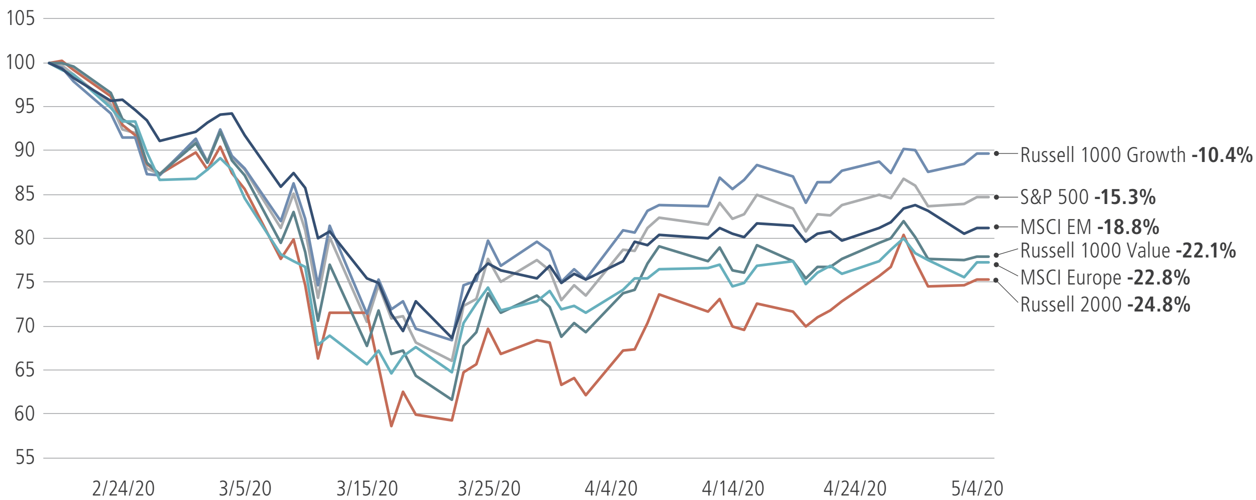
Hard data covering the lockdown period is only beginning to come in. The U.S. economy shrank by -1.2% in the first quarter and the eurozone by -3.8%. China's GDP was down -9.8%, which was worse than expected and offers an indication of the damage the rest of the world can anticipate for Q2. Faster-moving soft data such as April's Purchasing Managers' Indices (PMIs) added to the grim picture, particularly in Europe and in services: historic lows were reached, although it has been a relief to see some upward revisions to preliminary surveys and a few pessimistic expectations being bettered.

Overall, the AAC saw no reason to change its base case or the probabilities assigned to its three scenarios. There is still considerable uncertainty about how economies will re-open. Much will likely depend upon on-the-ground practicalities and human behavior, such as the productive capacity of manufacturing under social-distancing rules or whether more secure cash flow will be enough to restore consumer confidence.

Turning to corporate earnings, our equity teams currently estimate that S&P 500 Index earnings per share for 2020 will be $110, more than 30% lower than 2019. They put an estimate of $140 on 2021 earnings and $125 for the next 12 months. Even after a decline of -15% in first-quarter earnings has led to widespread downgrades, the consensus sell-side estimate remains much more optimistic, at $133 per share for 2020 and $144 for the next 12 months. Following the rally in the S&P 500 through April, the Index trades at around 27 times our 2020 estimate and 23 times our estimate for the next 12 months. Even if we accept the consensus estimate for 2020, it is still trading at 22 times earnings.

That appears expensive. There are some signs that analysts' revisions may be forming a trough—for example, the proportion making upgrades has begun to rise and earnings estimates for defensive companies are now declining more than those for cyclicals. The record number of companies withdrawing guidance and the general level of uncertainty make it difficult to put much store in these data, however.

IN EQUITIES, U.S. LARGE-CAP GROWTH PROVES MOST RESILIENT SINCE THE SELL-OFF BEGAN



Source: FactSet. Data as of May 5, 2020.

The Markets

What we said at the end of Q1:

"Markets are likely to anticipate the economic recovery, probably around the time of the peak in U.S. infections… A -25% decline in 2020 earnings, combined with an early-2009 level of equity risk premium, and a moderate valuation level, leads us to estimate a potential low point of 2,000 – 2,100 for the S&P 500 Index."

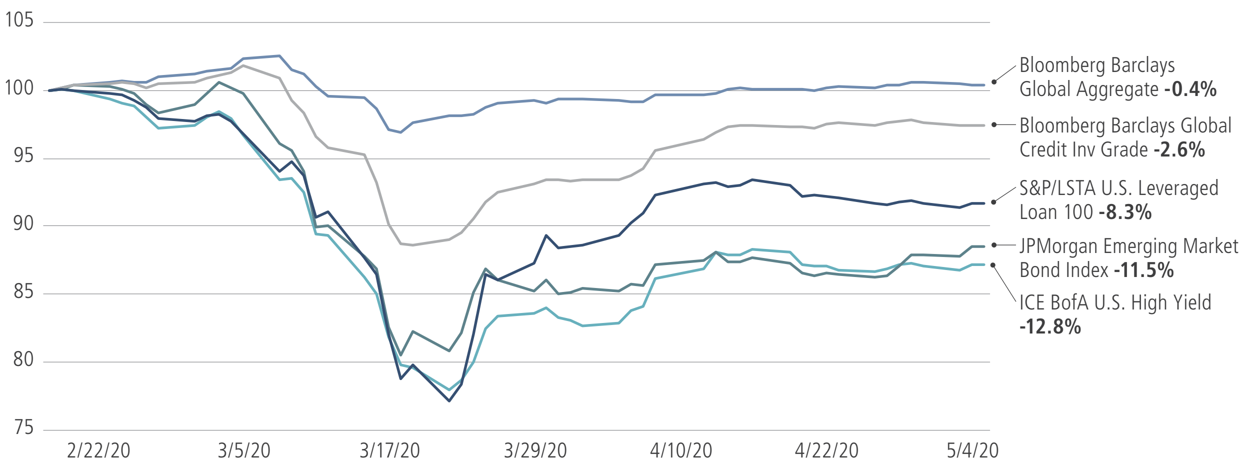
So far during this crisis, the S&P 500 has not breached 2,200. Moreover, the rally through April has already brought it close to the 2,900 – 3,100 range we set for the Index on a 12-month view.

The Index-level rebound may be misleading, however. Much of it has come from defensive and growth-oriented technology and consumer staples stocks—precisely the U.S. large-cap "quality" exposures that we favored in our last *AAC Outlook* and Playbook. Cyclical and value stocks, smaller companies and non-U.S. markets have all lagged substantially.

Credit markets in general have lagged equities in the rebound—another characteristic of cautious rallies. The investment grade sectors that we favored in early April have led, but still offer attractive value. In high yield, our fixed income teams find a similar bifurcation to that in equity markets. The high-quality issuers most likely to survive the crisis are now trading in a yield range of 6 – 8% and we believe they are unlikely to come much lower than 5%. The issuers still offering the most attractive yields carry considerable default risk at a time when defaults have not yet started meaningfully to rise.

After "following the Fed" in the wake of the central bank's interventions in credit markets, investors appear to have moved quickly to differentiate the strong from the vulnerable, reminding us of the importance of robust fundamental research in the current environment.

IN CREDIT, DEVELOPED MARKETS INVESTMENT GRADE LEADS SINCE THE SELL-OFF BEGAN



Source: FactSet. Data as of May 5, 2020.

Asset Allocation

What we said at the end of Q1:

"In the very near term, while infection rates continue to rise, we would focus on risk management and diversification. Should the market recovery gain firmer footing, likely coinciding with the peak in infections, we would favor stepping into riskier assets, but with a bias toward quality and yield."

Markets arguably moved to step two of our asset allocation plan sooner than we anticipated, but they have been focused on quality and yield, and the ongoing level of uncertainty leads us to believe that there may still be further volatility ahead.

What we said at the end of Q1:

"The Committee upgraded U.S. large caps to an overweight… Smaller companies are generally more leveraged and also more vulnerable to the economic impact of the COVID-19 outbreak. Given current levels of uncertainty and valuations, the AAC does not think it will be necessary to chase the most economically sensitive investment sectors in the early stages of the market recovery."

This has proven to be the case through April as larger, more defensive and growth-oriented stocks have led the equity rebound. Nonetheless, the speed of that rebound has been faster than the AAC anticipated, leading us to re-assess our equity market view in light of the new context for sentiment and relative valuation.

In terms of sentiment, the rally has been cautious and reported cash holdings remain high, supporting the recent "buy-the-dips" dynamic. Net exposures and leverage among hedge funds remains conservative. At the Index level, the S&P 500 appears expensive given the downward revisions to earnings expectations, but it would be possible for bullish sentiment to be expressed via a rotation into smaller and more cyclical or value-oriented stocks, and for that to result in flat or even negative performance at the Index level. That rotation could be given further impetus as the downward revisions to earnings estimates for defensive stocks begin to overtake those for cyclicals and as analysts broaden the number of companies they identify as resilient or adaptive to post-COVID trading conditions.

Faced with this delicate balance, the AAC ultimately chose not to adjust its asset class-level views, while acknowledging the need to remain vigilant of emerging data on both the virus and the economy. Any evidence that these data are edging toward the AAC's bull-case scenario could support taking very selective positions in large-cap cyclical and value stocks and high-quality small and mid caps.

What we said at the end of Q1:

"An environment of low rates and conservative management of corporate balance sheets will be supportive of credit markets in general… Nonetheless, U.S. high yield, in particular, could be one of the sectors hardest hit by the COVID-19 fallout, the current oil price war and the liquidity crunch in markets... Investment grade may be a more attractive place to take credit risk for the time being."

Credit markets have stabilized markedly since the Federal Reserve intervened in March and April, but this remains our governing view. While the steadiness of investment grade spreads in the face of changing COVID-19 and economic data has encouraged some extension of risk into high yield and emerging markets debt, this has so far appeared to favor the highest-quality issuers. With the vast majority of defaults to come, the AAC still sees the most attractive risk-adjusted yields in U.S. investment grade.

The one adjustment to our asset class views since the end of the first quarter is in fixed income, however: the AAC downgraded its view on Treasury Inflation Protected Securities (TIPS) from overweight to neutral. The COVID-19 crisis has introduced near-term disinflation risks, not least in the collapse in the oil price, but should wage inflation hold up there is still a role for longer-duration TIPS to play in portfolios.

What we said at the end of Q1:

"The Committee moved from an overweight to a neutral view [on non-U.S. equity and credit markets]… for now markets have re-priced to such an extent that the potential value in the lower-risk U.S. market is equally attractive… Many emerging countries appear vulnerable to a crisis in healthcare systems, disruption in supply chains and commodity market weakness... There may be opportunities among countries with stronger institutions, exposure to the earlier signs of recovery in China, and industries that consume rather than produce commodities."

The AAC saw no reason to change its regional views. There was some acknowledgement that the European market appears attractively valued, that European social safety nets and wage-guarantee schemes are among the strongest in the world, and that individual countries have made substantial fiscal interventions. The general view, however, was that Europe's industry lacks the adaptability of U.S. companies and that rising political tensions over a joint fiscal response and the role of the ECB introduces unpalatable tail risk. PMI data out of Europe have been exceptionally weak.

Emerging markets got a more receptive hearing—and the AAC sees opportunity in China, which will likely be the first economy to recover from the crisis and where onshore markets have shown notable resilience. Ultimately, however, the Committee agreed that a shift in its view would require a higher probability assigned to its bull-case, "V-shaped" recovery scenario. Operational leverage is higher in Europe and the emerging world, and in sector terms these markets are essentially long financials and short technology and healthcare—and therefore, in our view, vulnerable to any deterioration in sentiment or return to volatility. When the time is right, Japan may be a source of regional cyclicality with less tail risk.

What we said at the end of Q1:

"The [private markets] industry came into this crisis with a lot of un-invested dry powder, and larger deals in particular have been done with limited or no debt covenants. This will likely buy the best general partners and their portfolio companies time to ride out the economic slump… Together with an emerging opportunity set in distressed strategies, this persuaded the Committee to downgrade only to a neutral view."

Large funds are being raised to add to the existing volume of dry powder, but so far very few deals are being done in private markets—whether debt or equity, primary or secondary. Our private markets team reports that, where deals are being assessed, a similar bifurcation to that in the public equity and credit markets is evident. Companies perceived to be sheltered from or potential beneficiaries of COVID-19 and its effects are being valued at pre-crisis levels, while anything remotely vulnerable or even cyclical is simply not on the agenda. Even the distressed opportunity set appears limited: quality second-lien loans trading at distressed levels in March and early April have already snapped back, leaving highly risky plays in companies that are exposed to the crisis but require full recovery to generate reasonable returns.

We think the most attractive opportunities are now in niche deals, such as General Partner-led restructurings that put existing portfolio companies into new vehicles with fresh capital and more work-out time, and select co-investment opportunities. The AAC maintained its neutral view on private markets with a bias to these types of deals.

The COVID-19 Story is Far From Over

The unprecedented nature of the COVID-19 crisis, as well as the speed and size of the market moves through April, presented a strong case for an extraordinary meeting of the AAC.

In the event, the Committee was able to re-endorse its base-case scenarios for both the course of the virus and its economic impact, as well as virtually all the asset allocation implications it had drawn in late March.

There were important nuances in the AAC's debate. Markets have moved faster than expected to differentiate between high-quality, defensive businesses that are well positioned to survive the crisis, and those that are more vulnerable or dependent on a strong economic recovery. That has played to the views we held in March, but also reminds us that markets could reposition rapidly should data begin to play into our bull-case scenario—potentially toward cyclical or value-oriented large caps and quality small and mid caps, if not markets outside the U.S. and China.

For now, however, the Committee remains cautious and poised for volatility as economic data continue to come in and governments attempt to lift their lockdowns. Impressive though the market rally has been, we believe the COVID-19 story is far from over.

ABOUT THE
ASSET ALLOCATION COMMITTEE

Neuberger Berman's Asset Allocation Committee meets every quarter to poll its members on their outlook for the next 12 months on each of the asset classes noted and, through debate and discussion, to refine our market outlook. The panel covers the gamut of investments and markets, bringing together diverse industry knowledge, with an average of 28 years of experience.

COMMITTEE MEMBERS

Joseph V. Amato
Co-Chair, President and Chief Investment Officer—Equities

Erik L. Knutzen, CFA, CAIA
Co-Chair, Chief Investment Officer—Multi-Asset Class

Ashok Bhatia, CFA
Deputy Chief Investment Officer—Fixed Income

Thanos Bardas, PhD
Global Co-Head of Investment Grade

Timothy F. Creedon, CFA
Director of Global Equity Research

Alan H. Dorsey, CFA
Chief Investment Officer of Neuberger Berman Trust Company

Ajay Singh Jain, CFA
Head of Multi-Asset Class Portfolio Management

David G. Kupperman, PhD
Co-Head, NB Alternative Investment Management

Ugo Lancioni
Head of Global Currency

Robert Surgent
Senior Portfolio Manager—Multi-Asset Class

Brad Tank
Chief Investment Officer—Fixed Income

Anthony D. Tutrone
Global Head of Alternatives

FIRM HEADQUARTERS

New York
800.223.6448

REGIONAL HEADQUARTERS

Hong Kong
+852 3664 8800

London
+44 20 3214 9000

Tokyo
+81 3 5218 1930

PORTFOLIO MANAGEMENT CENTERS

Atlanta
Beijing
Bermuda
Boston
Buenos Aires
Chicago
Dallas
Hong Kong
London
Los Angeles
Milan
New York
Paris
San Francisco
Shanghai
Singapore
The Hague
Tokyo
Toronto

OFFICES

AMERICAS

Atlanta
Bermuda
Bogota
Boston
Buenos Aires
Chicago
Dallas
Los Angeles
New York
San Francisco
Sao Paulo
Tampa
Toronto
West Palm Beach
Wilmington

EUROPE, MIDDLE EAST & AFRICA

Dubai
Dublin
Frankfurt
London
Luxembourg
Madrid
Milan
Paris
Rome
The Hague
Zurich

ASIA PACIFIC

Beijing
Hong Kong
Melbourne
Seoul
Shanghai
Singapore
Sydney
Taipei
Tokyo

NEUBERGER | BERMAN

Neuberger Berman
1290 Avenue of the Americas
New York, NY 10104-0001

www.nb.com