Agenda Item 16

MEETING DATE: June 17, 2020

SUBJECT: Education: Global Markets Update

SUBMITTED FOR: ___ Consent ___ Deliberation and Action ___ Receive and File

RECOMMENDATION

Staff recommends the Board receive and file the education presentation provided by BlackRock, Inc., summarizing the macroeconomic environment and global investment outlook.

PURPOSE

This item supports the 2020 Annual Investment Plan to provide education sessions to the Board by leveraging the resources of SCERS’ investment service providers to gain access to their specialized knowledge and expertise.

SUMMARY

The global expansion ground to a halt toward the end of February when the impact from COVID-19 resulted in countries across the globe restricting activity and shuttering their economies in an attempt to minimize spread of the disease. The global shutdown resulted in steep equity market declines, with global equity markets declining over 30% in the less than one month. The economic impact has been extreme, with unemployment levels and declines in GDP reaching levels not seen since the Great Depression.

Faced with a dire economic situation, government policy response was swift and resulted in historic stimulus measures, led by the U.S., which passed multiple monetary and fiscal packages amounting to over $10 trillion of support to financial markets and the economy. Following the passage of stimulus measures, financial markets began to stabilize and recover in late March and April, in spite of economic turmoil that continued in the second quarter and has resulted in over 40 million people filing for unemployment in the U.S. There are signs of economic improvement as re-opening of economies has occurred, such as declining initial jobless claims and better than expected unemployment levels.

Despite the strong market recovery, which has resulted in broad equity indices down less than 10% year-to-date, there remains considerable uncertainty about the lasting economic impact
from COVID-19 and the path of recovery going forward. Expectations for GDP in the second quarter are for a sharp decline, with a wide range around expectations for the third quarter and beyond. There also remains considerable uncertainty around the path of the disease and how it may evolve as countries move toward re-opening their economies and reduce social distancing measures. Another consideration is the outcome of potential vaccine development and treatment options, which has historically taken several years, but hope remains that the timeframe for development could be compressed as significant medical resources are devoted to the effort.

Against this backdrop, SCERS has invited BlackRock, Inc., to provide insight into the macroeconomic environment. BlackRock, Inc., including its subsidiaries, is one of the world’s largest investment managers with over $7 trillion in assets under management. With its extensive global investment and research platform, which spans across geographies and asset classes, BlackRock is in a unique position to evaluate the economic and investing impact from COVID-19. BlackRock currently manages investments within SCERS’ Private Credit, Real Assets, and Absolute Return portfolios and previously managed assets within SCERS’ Real Estate portfolio.

The Board will hear from the Global Chief Investment Strategist for BlackRock, Mike Pyle, CFA, Managing Director. In this role, Mr. Pyle is responsible for developing and delivering thought leadership on asset allocation, including actionable views across asset classes based on proprietary insights and the views of our investment community. Mr. Pyle represents BlackRock’s views on the investment outlook across client channels and in the media. Prior to his current role, Mr. Pyle was the Deputy Chief Investment Officer of BlackRock’s Multi-Asset Strategies platform and a portfolio manager on the firm’s global tactical asset allocation (GTAA) team.

Before joining BlackRock, Mr. Pyle served for five years at the center of President Obama’s economic team. Most recently, he worked at the White House as a Special Assistant to the President for Economic Policy, following roles earlier in the Administration at the Treasury Department and the Office of Management and Budget. In these capacities, Mr. Pyle advised the President as well as every member of his senior economic team, and he participated first-hand in many of the most significant international and domestic economic policy challenges of President Obama’s first term in office, including the Administration’s response to the Eurozone crisis, its management of the U.S.-China financial and economic relationship, its design and passage of the landmark health reform law and the economic recovery act, and its overall approach to U.S. fiscal and budget policy.

Mr. Pyle graduated with a degree in economics summa cum laude from Dartmouth College and earned a law degree from Yale Law School. He also studied graduate economics and law at Cambridge University as a Keasbey Scholar.

**ATTACHMENT**

- BlackRock Global Outlook, June 2020
Prepared by:

/S/

______________________________  _______________________
Brian Miller        Eric Stern
Investment Officer  Chief Executive Officer

Reviewed by:

/S/       /S/

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Steve Davis        Eric Stern
Chief Investment Officer  Chief Executive Officer
2020 investment themes update

**Activity standstill** – The coronavirus shock is sharper than what we saw in 2008 - but we believe its cumulative hit to growth is likely to be lower. The main risk to our view: policy needed to bridge businesses and households through the shock is not delivered in a successful and timely fashion, causing lasting economic damage.

**Implication**: We are mostly sticking to benchmark holdings on an asset class level; prefer credit over equities; and favor rebalancing into the risk asset decline.

**Bold policy action** – We believe the required policy response includes drastic public health measures to stem the outbreak. A decisive, pre-emptive and coordinated policy response needed to stabilize financial markets is taking shape, particularly in the U.S. The key: policies to forestall any cash flow crunches among small businesses and households that could lead to financial stresses and tip the economy into a crisis.

**Implication**: Coupon income is crucial in an even more yield-starved world, including corporate credit and dividend income in selected equity sectors.

**Resilience rules** – Valuations of developed market government bonds look stretched given our economic outlook, but we still see them providing diversification potential – albeit less so with some yields near levels we consider to be their lower bounds. Quality equities and a focus on sustainability also can help provide resilience.

**Implication**: We prefer U.S. Treasuries over lower-yielding peers as portfolio ballast but see risks of a diminishing buffer.

The opinions expressed are as June 2020 and are subject to change at any time due to changes in market or economic conditions.
Stringent measures have helped in slowing the spread

The rate of growth in virus cases looks to be slowing in many regions as stringent shutdown measures take effect. A key question: Can the measures be lifted without a major second wave of cases?

Stringency measures and trajectory of the virus spread, 2020

Sources: BlackRock Investment Institute, with data from the University of Oxford’s Covid-19 government response tracker and Johns Hopkins. Data as of 1 June 2020. Notes: The chart on the left maps the University of Oxford’s Stringency index that aims to capture the severity of each respective government’s response. The index is based on publicly available indicators such as school closures, travel bans and public event cancellations as well as financial indicators such as fiscal or monetary measures. Full details are available https://www.bsg.ox.ac.uk/research/research-projects/oxford-covid-19-government-response-tracker. The chart on the right tracks the number of active cases per capita in respective regions and countries. The data is available here: https://gisanddata.maps.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e9ecf6.
Economic freeze
Activity has ground to a near-halt. The nature of the rebound will depend on the path of the outbreak, effective delivery of policy response and potential changes to consumer and corporate behaviors.

Composite PMIs of developed and emerging markets, 2006–2020

Sources: BlackRock Investment Institute, and IHS-Markit, with data from Refinitiv Datastream, June 2020. Notes: The chart shows the seasonal adjusted composite purchasing managers’ indexes (PMIs) for developed and emerging economies.
Financial conditions have tightened
Central bank easing is targeting the tightening of financial conditions. But given limited monetary space left, fiscal policy needs to be an explicit part of the coordinated response toolkit.

U.S. and euro area growth implied by BlackRock financial conditions indicators, 2010–2020

Source: BlackRock Investment Institute, with data as of 29 May 2020. Notes: The chart shows our financial conditions indicators (FCI) for the U.S. and euro area. Our FCIs give a forward view of where our Growth GPS may head and are expressed in GDP terms, based on its historical relationship with our Growth GPS. The FCI inputs include policy rates, bond yields, corporate bond spreads, equity market valuations and exchange rates. Forward-looking estimates may not come to pass. Read details of the methodology on our macro dashboard: https://www.blackrock.com/corporate/insights/blackrock-investment-institute/interactive-charts/macro-dashboard#financial-conditions
Gauging the shock
Global economic activity is not simply contracting – it is deliberately being frozen. Yet the cumulative economic impact over time– the key for asset prices – will be likely less this time than after 2008.

Hypothetical hit to U.S. trend GDP in coming years compared with the GFC experience

Sources: BlackRock Investment Institute, with data from Haver Analytics, June 2020. Notes: These stylized charts show how GDP can evolve relative to trend after a shock. The dotted lines show what trend GDP would have looked if there had been no shock. We compare the 2007-2008 global financial crisis to the current coronavirus shock. In 2007-2008, the initial shock – 2.3% of GDP from Q3 2008 to Q1 2009 – was not as large as the current one we expect. The GFC shock propagated through debt deleveraging that served as a longer-term drag on pre-trend potential growth. The chart on the right shows that the GDP shortfall from this shock is front-loaded, and if containment measures are lifted there can be a quicker recovery with limited permanent damage to the pre-shock growth trend. For illustrative purposes only. There is no guarantee that any forecasts made will come to pass. The hypothetical scenario is subject to significiation limitations, in particular that this is an evolving situation and we are still trying to understand the potential for more extensive activity shutdowns due to the virus.
Understanding the shock and GDP shortfall

Economists have quickly slashed forecasts to assume a record contraction in the second quarter. The wide range of forecasts shows the uncertainty on the virus outbreak and its economic fallout.

Hypothetical U.S. GDP decline and overall shortfall from 2019 levels, 2020–2021

Source: BlackRock Investment Institute and Reuters News, June 2020. Notes: These charts show hypothetical U.S. GDP quarterly annualized changes through Q4 2021 and the total shortfall of U.S. GDP relative to 2019 levels over the next two years based on a Reuters poll of economists. We use the Reuters poll of economists published on 20 April 2020 but trim the overall sample by taking the estimates within the 20th and 80th percentiles to reduce extreme outliers or stale forecasts (dark grey shaded band). We derive our range of estimates and median from this adjusted sample of 37 out of the original 60 forecasts. The light-gray shaded area on the left-hand growth chart illustrates the full range of estimates from the 60 forecasts, while the most pessimistic estimate in the right-hand charts shows the lower quintile of forecasts to help us gauge the size of the policy response needed to the shock.
Policy rates pushed near their lower bounds
Global policy rates are converging with the Fed’s recent cut to zero – and current market pricing shows they are expected to stay there for some time.

Central bank policy rates and market expectations, 2018–2020

Sources: BlackRock Investment Institute, with data from Refinitiv Datastream as of 29 May 2020. Notes: The solid lines show the market pricing of policy rates in overnight index swaps on a one-year horizon starting in one year’s time. Dotted lines show policy rates for each region; we use the midpoint of the fed funds target range for the U.S.
Fed has used its full range of tools – and created new ones

Central banks – especially the Fed – have deployed their full range of tools and invented new ones in a far shorter timeframe than in 2008. The Fed’s actions will dwarf those taken during and after the GFC.

Contributors to Federal Reserve balance sheet changes in billions USD, 2008–2014 and 2020

Source: BlackRock Investment Institute and Federal Reserve, with data from Haver Analytics, June 2020. Notes: The chart shows what the Fed’s balance sheet could look like by the end of 2020 with the new facilities launched in the past two months compared with March 4 – just before it began its interventions. The balance sheet at the end of 2020 is based on estimates made by BlackRock’s Global Fixed Income economics team. We assume that the Fed may have to increase its planned support for its Payroll Protection Program loan facility, and potentially expand its support for states and municipalities, together by several hundred billion dollars compared with the initial announcements. By comparison, the Federal Reserve pledged as much as $2.3 trillion in loans to support the economy in its April 9 announcement. (See here: https://www.federalreserve.gov/newsevents/pressreleases/monetary20200409a.htm). Estimates of the expected increase and December 2020 totals are rounded. The funding facilities in the green area are funded with credit loss protection provided by the U.S. Treasury and lending by the Federal Reserve. These programs also include the Term Asset-Backed Securities Loan Program and Municipal Liquidity Facility. Forward looking estimates may not come to pass.
Extraordinary policy response for an unprecedented shock
Central bank policy has moved from alleviating the dysfunction of market pricing and tightening of financial conditions to ensuring credit flows to businesses and local governments.

Major central bank balance sheets and projection, 2006–2021

Source: BlackRock Investment Institute, with data from Refinitiv Datastream, June 2020. Notes: The chart shows changes in major economy central bank balance sheets and our projections of growth this year based on announcements made so far. Forward-looking estimates may not come to pass.
Large-scale fiscal stimulus is being rolled out

We expect governments to significantly ramp up fiscal spending – far beyond what was already estimated in 2020 – on health systems and to provide support to small businesses and households.

Global fiscal impulse from G3 and China, 2003–2020

There is no guarantee that any forecasts made will come to pass. Past performance is no guarantee of future results.

Sources: BlackRock Investment Institute, IMF, OECD and the European Commission, with data from Bloomberg, June 2020. Revised estimated is as of 15 April 2020. Notes: The chart shows the annual change in the cyclically adjusted government primary balance (fiscal balance net of interest payments) weighted by GDP in purchasing power parity terms. The bars show the fiscal impulse from each region relative to the size of the global economy. The 2020 estimates are for discretionary spending and do not include increasing support from various social security programs. Initial estimates are as of the start of the year.
Funding the fiscal support

The sheer size of the fiscal support measures in the U.S. and Europe has major implications for debt trajectories, interest rates and also excess global savings, especially if guaranteed loans sour.

U.S. and euro area debt-to-GDP ratios under different assumptions, 2006-2023

Sources: BlackRock Investment Institute, IMF, Congressional Budget Office and European Commission, with data from Haver Analytics, June 2020. Notes: This chart shows BlackRock’s estimates for the debt-to-GDP ratios for the U.S. and euro area (represented by the top-four economies Germany, France, Italy and Spain) for two different scenarios: first, where 100% of loan guarantees announced so far are counted as gross debt (orange line); and second, where 25% of loan guarantees are counted as gross debt (black line). The yellow line shows the IMF’s projections from October 2019. There is no guarantee that any forecasts made will come to pass.
The “short-shift” effect
Economies with policies that enable workers to remain in their jobs – albeit while working fewer hours – are likely to perform better coming out of this crisis, as they did following the 2008 financial crisis.

Permanent employment vs. output in selected OECD countries, Q3 2008 to Q3 2009

Source: BlackRock Investment Institute, with data from the OECD, June 2020. Notes: This chart shows how short-shift policies - where workers reduced their average working hours and were compensated by the government for part of their lost income – fared through the global financial crisis. The chart shows that employment fell alongside output yet the countries with existing or new short-shift policies fared better than those without in terms of the change in permanent employment.
U.S. unemployment poised to surge with jobless claims

U.S. labor market is experiencing some of its biggest turmoil in modern times with the shutdown of many parts of the service sector. We see the unemployment rate surging, tracking jobless claims.

U.S. unemployment rate and continuing jobless claims, 2000–2020

Sources: BlackRock Investment Institute, U.S. Bureau of Labor Statistics and National Bureau of Economic Research, with data from Refinitiv Datastream, June 2020. Notes: The chart shows U.S. continuing jobless claims and the U.S. unemployment rate. The unemployment rate projection is stylized to illustrate how a sharp increase can unwind quickly in the recovery phase given the unique nature of the macro shock. The shaded areas indicate U.S. recessions. Forward looking estimates may not come to pass.
U.S. household balance sheets may be vulnerable

Delinquency rates on consumer loans are close to their pre-crisis average. But rising unemployment may make a substantial number of households vulnerable to a drop in income.

U.S. unemployment rate and consumer loan delinquency rate, 1980–2020

Sources: BlackRock Investment Institute, U.S. Bureau of Labor Statistics, American Bankers Association and the National Bureau of Economic Research, with data from Haver Analytics, June 2020. Notes: The chart shows the U.S. unemployment rate and the delinquency rate on U.S. consumer loans more than 30 days past due. The delinquency rate is lagged by six months. The shaded areas indicate U.S. recessions.
### Directional views
Six to 12-month tactical views on major global asset classes, June 2020

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<th>Asset</th>
<th>Underweight</th>
<th>Neutral</th>
<th>Overweight</th>
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<td><strong>Equities</strong></td>
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<tr>
<td>We are neutral on global equities. Global economic activity has been almost halted in order to stem the spread of the coronavirus. Overwhelming and aggressive policy action both fiscal and monetary help support the asset class. We prefer an up in quality stance, and like economies with ample policy room.</td>
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<td><strong>Credit</strong></td>
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<td>We have upgraded credit to modestly overweight. Extraordinary measures by central banks including purchases of corporate debt provide a favorable backdrop. Developed market central bank actions should pave the way for lower volatility in interest rates, providing a stable environment for credit spreads to narrow. The risk of temporary liquidity crunches remains. Yet valuations have cheapened and coupon income is crucial in a world starved for yield.</td>
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<td><strong>Govt bonds</strong></td>
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<td>We stay neutral overall on global government bonds. They act as ballast against risk off episodes. Additional easing by major central banks has become more likely, in our view. We favor U.S. Treasuries over government bonds in other regions, but see risks of a diminishing buffer against equity market selloffs and a snap back in yields from historically low levels.</td>
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<td><strong>Cash</strong></td>
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<td>We maintain our neutral position on cash for risk mitigation. We also see cash as a robust buffer against risks around regime shifts, especially those triggered by a negative supply shock that could drive both stocks and bonds lower together.</td>
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Note: Views are from a U.S. dollar perspective as of June 2020. This material represents an assessment of the market environment at a specific time and is not intended to be a forecast of future events or a guarantee of future results. This information should not be relied upon by the reader as research or investment advice regarding any particular funds, strategy or security.
## Granular tactical views

Six to 12-month tactical views on selected assets vs. broad global asset classes by level of conviction, June 2020

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<tr>
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<td><strong>Equities</strong></td>
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<td>Emerging markets</td>
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<td>Asia ex Japan</td>
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<td><strong>Fixed Income</strong></td>
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<td>U.S. Treasuries</td>
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<td>Treasury Inflation-Protected Securities</td>
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<td>German bunds</td>
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<td>Euro area peripherals</td>
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<td>Global investment grade</td>
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<td>Global high yield</td>
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<td>Emerging market – hard currency</td>
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<td>Emerging market – local currency</td>
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<td>Asia fixed income</td>
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We are overweight U.S. equities for their relative quality bias and the sizable policy response: large fiscal stimulus coupled with the Federal Reserve’s commitment to keep rates low and markets functioning.

We stay underweight on European equities. We see greater upside elsewhere in an eventual recovery. Europe is more dependent on foreign trade.

We are underweight Japanese equities. The country has limited monetary and fiscal policy space to offset the outbreak’s impact.

We are neutral on EM equities. Valuations have cheapened, but the global economic freeze and lower oil challenge many EM economies. The outbreak also is a big test for weak public health systems.

We are overweight Asia ex-Japan equities on prospects of an eventual growth uptick. We see China as in the early stages of restarting its economy and having more policy space to revive activity.

We are neutral on momentum. The factor has outperformed in the growth slowdown, partly due to its exposure to “secular growers” in the tech industry as well as dividend paying bond proxies.

We remain underweight value. Value has historically performed best in periods of accelerating growth, and we now see the coronavirus outbreak posing downside risks to the economy.

We like min-vol for its defensive properties in a growth slowdown. The factor has historically performed well late in the cycle.

We hold quality as an overweight. We like that it has been resilient in late-cycle periods, despite relatively high valuations.

We like U.S. Treasuries. Low rates reduce their ability to cushion against risk asset selloffs, but we see greater room for long-term yields to fall further in the U.S. than in other developed markets.

We are neutral on TIPS. After a huge decline in rates that makes the entry point less attractive. We still see potential for higher inflation over time and like TIPS in strategic allocations.

We remain underweight bunds. They provide little cushion against major risk events but would not add to our underweight after recent underperformance versus U.S. Treasuries.

Our overweight in euro area peripheral government bonds is under review. A recent German constitutional court’s ruling could potentially limit the size of the ECB’s bond buying program.

We like global investment grade credit. Renewed asset purchases by central banks and the prospect of a stable rates backdrop support the sector at a time when valuations have cheapened.

We stay overweight high yield as a source of income despite recent underperformance. We avoid energy as lower oil prices challenges the ability of issuers to refinance near-term maturities.

We stay neutral on hard-currency EM debt due to the heavy exposure to energy exporters and limited policy space among some EMs. Default risks may be underpriced.

We are neutral on local currency EM debt as we see a risk of further currency declines in key markets amid monetary and fiscal easing. This could wipe out the asset class’s attractive coupon income.

We stay overweight based on a slowdown in the spread of the virus, Chinese monetary easing, low energy exposure and reasonable relative value. We see demand from Chinese and regional investors.

**Past performance is not a reliable indicator of current or future results. It is not possible to invest directly in an index.** Note: Views are from a U.S. dollar perspective as of June 2020. This material represents an assessment of the market environment at a specific time and is not intended to be a forecast of future events or a guarantee of future results. This information should not be relied upon by the reader as research or investment advice regarding any particular funds, strategy or security.
Implied volatility has started to settle from its spike

Coronavirus-driven uncertainty had spurred higher implied volatility across asset classes. Central bank actions have helped tame fixed income markets, yet equity volatility remains elevated.

**Cross-market implied volatility, 2007–2020**

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Sources: BlackRock Investment Institute, CBOE and Bank of America-Merrill Lynch, with data from Refinitiv Datstream, June 2020. Data as of 29 May 2020. Notes: The chart shows the Z-score, or standard deviation relative to a long-term mean, of the CBOE VIX Volatility Index of S&P 500 implied volatility and the Bank of America Merrill Lynch MOVE Index of U.S. Treasury implied volatility.
Preferring credit
We like sources of coupon income from higher-yielding asset classes. We maintain overweights in investment grade and high yield bonds because of central bank buying support.

Selected fixed income yields, 2019–2020

Past performance is not a reliable indicator of current or future results. Indexes are unmanaged and not subject to fees. It is not possible to invest directly in an index. Sources: BlackRock Investment Institute, with data from Refinitiv Datastream, Bloomberg Barclays and J.P. Morgan, as of 29 May 2020. Notes: The bars show the range in yields for each index from the start of January 2019. Indices used: Refinitiv 2-year and 10-year benchmark U.S. Treasury index, Bloomberg Barclays Pan-European Corporate index, Bloomberg Barclays U.S. Corporate Investment Grade index, J.P. Morgan GBI-Emerging Market Index, J.P. Morgan EMBI-Global Diversified Index, Bloomberg Barclays U.S. Corporate High Yield Index and the Bloomberg Barclays Pan-European Corporate High Yield index.
High yield default fears appear overblown

Implied default rates across the U.S. high yield market appear extreme in our view, with the likely exception of the energy sector.

Cumulative five-year default rates implied by high yield bond spreads versus historical

Source: BlackRock, with data from Bloomberg as of 13 April 2020. Note: Spread implied defaults ranges (in orange) calculate default implied probabilities based on US HY cash index spreads, adjusted for a liquidity premium using the cash-CDS basis. For this calculation, we assume a recovery range of $30-40. The actual historical speculative grade (“SG”) cumulative default rates shown (i.e. the 25th best percentile, median, 75th worst percentile and maximum) are based on an annual time series of actual 5Y cumulative default rates realized for U.S. speculative grade back to 1990. This material represents an assessment of the market environment at a specific time and is not intended to be a forecast of future events or a guarantee of future results. This information should not be relied upon by the reader as research or investment advice regarding any funds, strategy or security in particular.
High yield has held up even during periods of energy stress

U.S. high yield spreads have held up during periods of energy sector stress. We avoid energy as low oil prices challenge the ability of issuers to refinance near-term maturities.

Selected high yield spreads, 2000–2020

Past performance is not a reliable indicator of current or future results. It is not possible to invest directly in an index. Sources: BlackRock Investment Institute, with data from Refinitiv Datastream and Bloomberg Barclays, May 2020. Data as of 29 May 2020. Notes: The spread is the difference between the yield of a certain index and that of corresponding comparable-duration government bonds. The indexes used are the Bloomberg Barclays U.S. Corporate High Yield, U.S. High Yield ex Energy and High Yield Energy Index.
Eyes on oil
Crude oil prices have plummeted because of a double-whammy of a supply glut and falling demand, hitting energy-related assets particularly hard. We mostly steer away from energy assets.

Performance of crude oil and energy-related assets vs. peers, 2020

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Not all EM economies are created equal
Higher-quality EM countries, with lower external vulnerabilities and greater policy space, have seen their currencies depreciate less. See our interactive emerging markets marker here.

EM current account balances vs. currency performance, 2020

Past performance is not a reliable indicator of current or future results. It is not possible to invest directly in an index. Sources: BlackRock Investment Institute, with data from Refinitiv Datamart and IMF, June 2020. Notes: The Dots show the IMF estimate of the current account balance as a share of GDP for the current year (on the horizontal axis) and the change in spot currency exchange rate against the U.S. dollar so far in 2020 (on the vertical axis). More details available on our emerging markets marker.
Increased risk priced into global equities

Equity risk premia have risen with the market slide, offering more compensation for risk, yet they remain far short of peaks seen in the 2008 crisis.

**Equity risk premia, 1995-2020**

Past performance is not a reliable indicator of current or future results. It is not possible to invest directly in an index.

Sources: BlackRock Investment Institute, data as of 14 April 2020. Notes: We calculate the equity risk premium based on our expectations for nominal interest rates and the earnings yields for respective equity markets. We use MSCI indices as the proxy for the markets shown. We use our BlackRock expectations for interest rates so the estimate is not influenced by the term premium in long-term bond yields.
Low earnings visibility

Corporate earnings estimates have cratered, with the spread of estimates the largest since the financial crisis. Profit estimates are holding up in the tech, communications and healthcare sectors.

Global equities spread of analysts’ estimates around average, 1995–2020

Sources: BlackRock Investment Institute, with data from Refinitiv Datastream, May 2020. Notes: Line shows the aggregate standard deviation of analyst earnings estimates around the average. Higher values indicate a greater level of analyst uncertainty. The shaded areas show U.S. recessions.
Historic fiscal support

Fiscal policy action to bridge the economic impact of the coronavirus is starting to be implemented, led by the U.S. We expect more to come as the virus propagates and economic damage increases.

Global fiscal spending and loan guarantee measures as a percentage of GDP, 2020

Sources: BlackRock Investment Institute and finance ministries, June 2020. Notes: The chart shows actual and expected fiscal spending measures and actual loan guarantees across selected developed market economies. We add an area of potential increase to the U.S. loan guarantee bar because the structure of the U.S. programs means they can be scaled to be larger than what has been formally announced. Forward looking estimates may not come to pass.
Why we favor U.S. equities

We like U.S. equities for the relatively high concentration of quality companies. In addition, the country’s overwhelming policy support outweighs the scale seen in many other developed economies.

Relative weight in global equity quality index by country/region, 2020

Sources: BlackRock Investment Institute with data from MSCI as of 7 April 2020. Notes: The bars show the weights of the regional markets in the MSCI ACWI Quality Index minus those on the MSCI ACWI Index. Indexes are unmanaged. You cannot invest directly in an index.
We still like quality
We still favor the quality equity style for its resiliency despite its muted performance this year. We previously downgraded the value factor and upgraded min vol as we moved to a risk neutral stance.

Equity style factor performance, October 2019 – May 2020

Past performance is not a reliable indicator of current or future results. Indexes are unmanaged. You cannot invest directly in an index.
Sources: BlackRock Investment Institute, with data from Refinitiv Datastream, June 2020. Notes: The bars show risk-adjusted returns of MSCI World Momentum, Quality, Minimum volatility and Value indexes from 1 October 2019 to 17 January 2020, and from 20 January (when China confirmed that the coronavirus could spread from person to person) to 29 May. We used the MSCI World Index as the benchmark in this analysis. The risk-adjusted returns are calculated by subtracting a factor index’s return for a given period from the total return of the benchmark, then dividing that result by the tracking error, or the standard deviation of the difference between individual index and benchmark returns.
Impact on long-term asset returns

Lower expected returns for government bonds diminish our preference for the asset class. Year-to-date price moves lift our expected risk asset returns, credit more so on a risk-adjusted basis.

**Estimated changes in our five-year CMAs for selected assets, April 2020**

<table>
<thead>
<tr>
<th>Asset Class</th>
<th>Change in expected returns</th>
<th>Change in expected return per unit of risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>US Treasuries</td>
<td>-2.0%</td>
<td>US Treasuries</td>
</tr>
<tr>
<td>UK gov't bonds</td>
<td>-40.0%</td>
<td>UK gov't bonds</td>
</tr>
<tr>
<td>US TIPS</td>
<td>0.0%</td>
<td>US TIPS</td>
</tr>
<tr>
<td>EM debt - local</td>
<td>-20.0%</td>
<td>EM debt - local</td>
</tr>
<tr>
<td>US credit</td>
<td>0.0%</td>
<td>US credit</td>
</tr>
<tr>
<td>Euro area govt bonds</td>
<td>2.0%</td>
<td>Euro area govt bonds</td>
</tr>
<tr>
<td>Japan equity</td>
<td>4.0%</td>
<td>Japan equity</td>
</tr>
<tr>
<td>Euro area credit</td>
<td>-2.0%</td>
<td>EM equity</td>
</tr>
<tr>
<td>UK credit</td>
<td>0.0%</td>
<td>US equity</td>
</tr>
<tr>
<td>EM equity</td>
<td>2.0%</td>
<td>Pacific ex Japan equity</td>
</tr>
<tr>
<td>Euro area inflation-linked bonds</td>
<td>4.0%</td>
<td>Euro area credit</td>
</tr>
<tr>
<td>US equity</td>
<td>-40.0%</td>
<td>Europe equity</td>
</tr>
<tr>
<td>Pacific ex Japan equity</td>
<td>-20.0%</td>
<td>Euro area inflation-linked bonds</td>
</tr>
<tr>
<td>Global high yield</td>
<td>0.0%</td>
<td>Global high yield</td>
</tr>
<tr>
<td>Europe equity</td>
<td>2.0%</td>
<td>EM debt - hard</td>
</tr>
<tr>
<td>EM debt - hard</td>
<td>4.0%</td>
<td></td>
</tr>
</tbody>
</table>

Past performance is not a reliable indicator of current or future results. It is not possible to invest directly in an index. Forward looking estimates may not come to pass. Indexes do not include fees. It is not possible to invest directly in an index. Sources: BlackRock Investment Institute, June 2020. Notes: The left chart shows the change in our five-year US dollar CMAs for select asset classes between 31 December 2019 and 14 April 2020. The right panel shows the change in each asset’s expected returns relative to its risk. Risk is defined as our forward-looking view on the asset’s long-term expected volatility as laid out in the Assumptions at a glance section of our capital market assumptions website (for institutional investors only). Index proxies are listed in the Appendix.
The nature of resilience has changed
Government bonds helped cushion the equity market sell-off, albeit less so than in the past with some yields near their lower bounds. Portfolio resilience has to go beyond nominal government bonds.

Government bond performance and hypothetical allocations, April 2020

Past performance is not a reliable indicator of current or future results. It is not possible to invest directly in an index.

Sources: BlackRock Investment Institute, with data from Refinitiv Datastream, June 2020. Notes: The left chart shows the rebased performance in total return terms of government bond indices between 13 Jan 2020 – the date of the first reported coronavirus case outside China – and 24 March 2020. The right chart show how our government bond allocations in a hypothetical unconstrained, U.S.-dollar based portfolio on a 10-year horizon stack up against an allocation based purely on a market-cap weighting. The market-cap weighting is calculated on BlackRock’s Aladdin as of 6 November 2019. The left chart shows only the fixed income part of our unconstrained portfolio, scaled up to 100. The chart on the right shows the results after running our robust optimisation on our CMAs and incorporating our asset class views. Hypothetical data results are based on criteria applied retroactively with the benefit of hindsight and knowledge of factors that may have positively affected its performance. The actual performance of a strategy or fund may vary significantly from index performance due to transaction costs, liquidity or other market factors. An inherent limitation is that the hypothetical allocations were not made under actual market conditions and, therefore, cannot completely account for the impact of financial risk in actual portfolio management. The performance shown does not represent any existing portfolio, and as such, is not an investible product.
Tectonic shift to sustainable investing

We see funds flowing into sustainable assets for decades, rewarding sustainable investing strategies. Investors rebalancing portfolios after the risk asset selloff may consider leaning into such exposures.

Growth in ESG funds under management in U.S. dollars, 2010–2019

Sources: BlackRock Investment Institute, with data from the IMF, June 2020. Notes: Data are based on IMF staff calculations using Bloomberg Finance data. The data for 2019 are as of June, the latest available set. The chart shows global ESG mandated funds only.
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## Appendix

### Macro assumptions for an alternative economic scenario

Comparison of fundamental assumptions for hypothetical scenario vs. our base case outlined here.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Change relative to core scenario</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inflation</td>
<td>5-year expected CPI and breakeven inflation increases by 20-50bps p.a. across regions</td>
<td>Increased expected inflation driven by a reorganization of global supply chains as well as a larger reliance on fiscal policy</td>
</tr>
<tr>
<td>Interest rates</td>
<td>In 5 years’ time, expected cash rates are 30-70bps lower and 10-year government bond yields are 60-70bps lower across regions</td>
<td>Following rate cuts in response to the corona virus outbreak, central policy rates remain lower over the next five years. Higher inflation results in lower real yields rather than higher nominal yields.</td>
</tr>
<tr>
<td>Credit spreads</td>
<td>Expected credit spreads in 5 years’ time are 10-30bps wider for investment grade and 70-100bps wider for high yield bonds</td>
<td>Higher macroeconomic uncertainty and market volatility result in wider spreads</td>
</tr>
<tr>
<td>Earnings</td>
<td>5-year average earnings per share growth is 2-3% lower and net profit margins narrow</td>
<td>Major disruptions result in 0% EPS growth in 2020, lowering the five-year average. Higher inflation and more supply chain realignment squeeze profit margins</td>
</tr>
<tr>
<td>Distribution of returns for bonds</td>
<td>For government bonds and investment grade credit, the distribution of simulated return pathways around the central path is restricted to exclude pathways consistent with government yields falling below an effective lower bound, ranging from 0% to -1%</td>
<td>Given the fall in spot yields and policy rates, interest rates are now in closer proximity to effective lower bounds, beyond which policy rates no longer stimulate the economy. The level of a lower bound is difficult to identify, however, at current spot yields we believe the distribution of outcomes for some government bond markets is asymmetric. To account for this, we exclude outcomes consistent with yields beyond approximate lower bounds</td>
</tr>
</tbody>
</table>
Appendix

Indexes

Global government bonds = Bloomberg Barclays Global Treasury index
Japan government bonds = Bloomberg Barclays Global Treasury Japan Index
Euro area credit = ICE BofA Merrill Lynch 10+ Year Euro Corporate Index
Global high yield = ICE BofA Merrill Lynch Global High Yield Index
Euro area government bonds = Bloomberg Barclays Euro Aggregate Treasury Index
U.S. credit = Bloomberg Barclays U.S. Credit Index
Global IG credit = Bloomberg Barclays Global Aggregate - Corporate
Inflation-linked bonds = ICE BofA Merrill Lynch Global Inflation-Linked Government Index
Euro area inflation-linked bonds = ICE BofA ML EMU Direct Government Inflation Linked Index
U.S. TIPS = Bloomberg Barclays US Government Inflation-Linked Bond Index
EM debt, local = JP Morgan GBI-EM Index
EM debt, hard = JP Morgan EMBI Global Diversified Index
Japan equities = MSCI Japan index
European equities = MSCI Europe index
EM ex-China equities = MSCI Emerging Markets ex-China index
DM equities = MSCI World index
EM equity = MSCI Emerging Markets Index
Onshore Chinese equities = MSCI China A Inclusion NET Index
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