COVID-19 Research Update

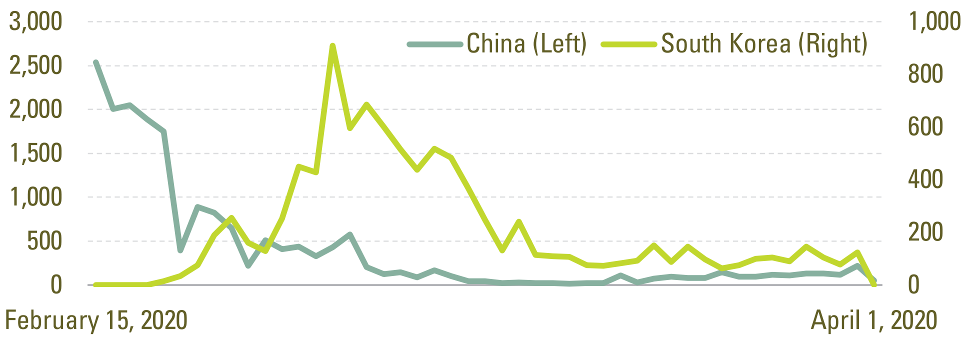
Global Fixed Income Themes & Market Conditions

With markets quickly adapting to changes in information about COVID-19, we are sharing a few charts that illustrate how the Global Fixed Income team is assessing the macro landscape.

INTERPRETING COVID-19 DATA

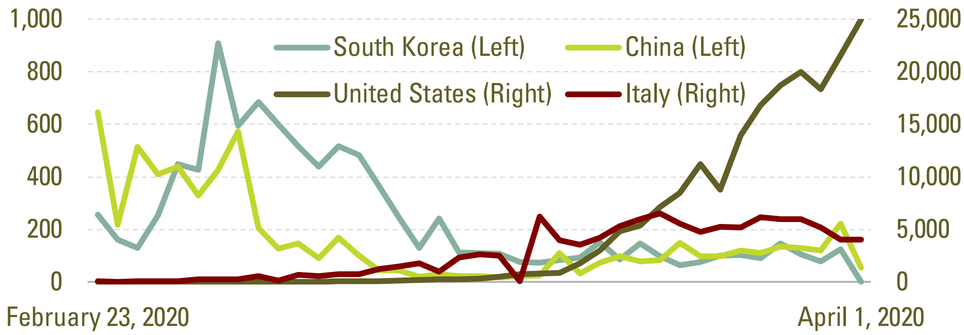
- As suggested in our March 26 update, China has subsequently reported an uptick in imported new cases as customs restrictions eased. We will continue to monitor new cases, whether they are attributed to imported illness or as the workforce returns.

Figure 1 New Cases in China versus South Korea
As of 4/1/2020



Source: Macrobond, ECDC

Figure 2 Novel Coronavirus (COVID-19) Confirmed Cases
As of 4/1/2020



Source: Macrobond, ECDC

- One constructive sign is that Italy has managed to control new domestic outbreaks, though the country's mortality rate has increased.
- We previously viewed the higher-than-expected mortality rates as a function of aging populations or weaker healthcare systems; however, as new information is disclosed about the actual death toll in China, we are preparing for a cascade of new cases and mortality rates across advanced economies. Since the virus is deadlier than expected, investors and U.S. policymakers are now factoring more pessimism into their models and projections.

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For Institutional Investors Only

- Any data from China will be heavily scrutinized by our Global Fixed Income team, though we will rely on it to gauge the potential echo effect of the virus.
- South Korea has remained our model for containing the virus and resuming economic activity.
- We continue to believe that economic activity in Korea will rebound earlier than the rest of the world. Therefore, we have increased our exposure to the country, while reducing positions in economies with nearly inextricable economic ties to China, such as Australia.
- As expected in our last update, the number of new cases in the U.S. continued to rise substantially as testing increased. This trend should extend to other countries like the U.K, which are in the earlier stage of the outbreak.

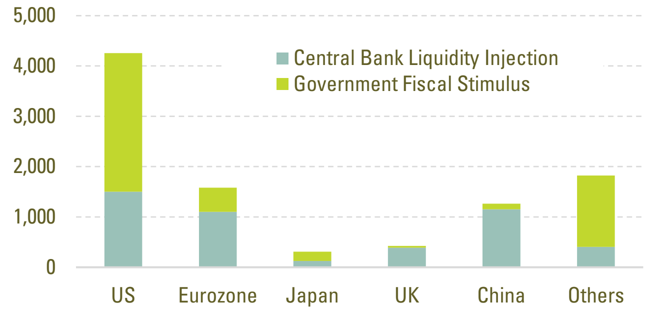
POLICY RESPONSES

- The policy response to this outbreak has been tremendous thus far; stimulus targeting to the corporate sector and small-to-medium-sized enterprises (SMEs)—in addition to households—should be constructive (see **Figure 3**).
- In the U.S., the Federal Reserve (Fed) has increased the scope of its asset purchases and has implemented a number of significant tools aimed at the corporate sector, including the Primary and Secondary Corporate Credit Facilities. The central bank is also expected to introduce a lending program specifically for SMEs.
- The European Central Bank has undertaken its own quantitative easing program, relaxed capital requirements, and lowered rates on the targeted- and long-term refinancing operations.
- We are increasingly optimistic that central bankers around the world will do whatever it takes to help offset the impact of the virus.

THE U.S. DOLLAR, TREASURYS, AND THE STOCK MARKET

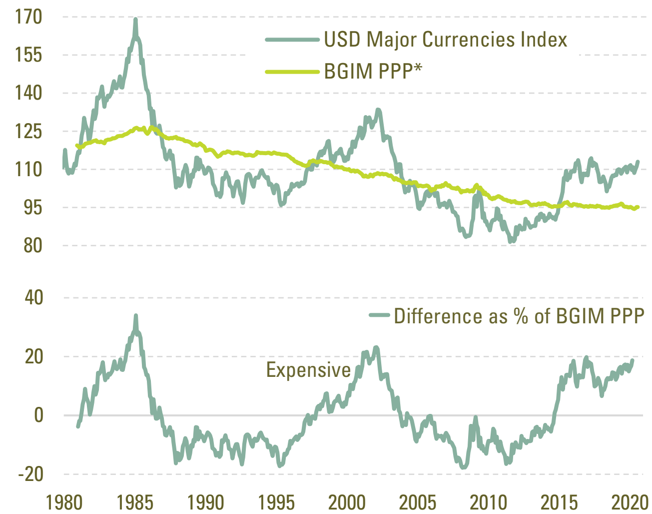
- The Federal Reserve (Fed) has introduced new programs to globally increase dollar liquidity, whether it's through swap lines to other central banks or the repo facility recently introduced on March 31.
- Although we expect the U.S. dollar to gradually drift lower, global demand has pushed the currency's valuation higher (see **Figure 4**).
- The U.S. Treasury market has shown preliminary signs of returning to functional, and we do not expect nominal yields to turn negative (see **Figure 5**).
- While both the U.S. dollar and longer-dated Treasurys are trading at expensive valuations, we may opportunistically add to either of these exposures, given the downgraded base case for a COVID-19 recovery.

Figure 3 Central Bank Liquidity and Fiscal Stimulus
Billion USD, 2/1/2020 - 3/31/2020



Source: Cornerstone Macro

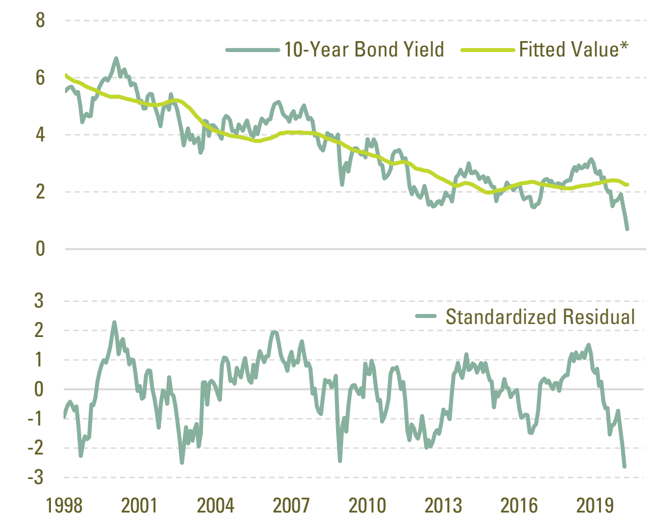
Figure 4 U.S. Dollar Valuation
As of 3/31/2020



*Based on GDP Weighted PPI of 6 Countries: Euroland, Japan, UK, Canada, Switzerland, Sweden

Source: Brandywine Global

Figure 5 10-Year Treasury Bond Model
As of 3/31/2020



*Estimation interval: 1998M1 – 2020/02

Source: Brandywine Global

- The U.S. stock market has continued to react to new information, including the prospect that new cases and the mortality rate in the U.S. could be higher than previously projected. The U.S. equity market has also taken positive information into account, posting consecutive rallies after the Fed introduced emergency measures to support the corporate sector, including small-to-medium-sized enterprises (see **Figure 6**)
- Given the rapid change in information and global scope of the contagion, the stock market may behave as it previously has in wartime as opposed to a financial crisis.

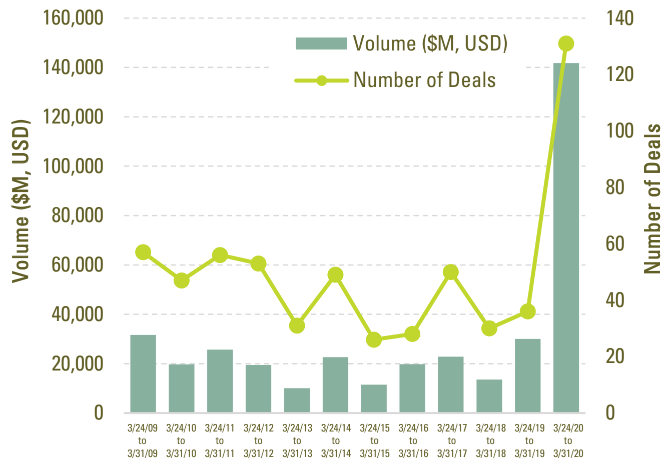
INVESTMENT GRADE CORPORATE DEBT

- Investor interest in U.S. investment grade credit was solid throughout March, ending the month on a strong note (see **Figure 7**).
- Investment grade new issuance in March was at its highest level in the period following the Great Financial Crisis (see **Figure 8**).
- In light of the dysfunction in the Treasury market, investors instead snapped up high-quality corporate credit that was trading at an approximate 250 basis point (bp) spread to U.S. Treasurys.
- Spreads on investment grade cash bonds have already compressed by about 100 bps as a result of strong demand.
- We continued to participate in primary new issuance within the investment grade universe, though we have generally avoided the energy sector.
- Given the swift collapse in spreads, the valuation opportunity within investment grade corporates should be temporary, which is why we opportunistically allocated to this universe.

Figure 6 S&P 500 Index
As of 3/31/2020

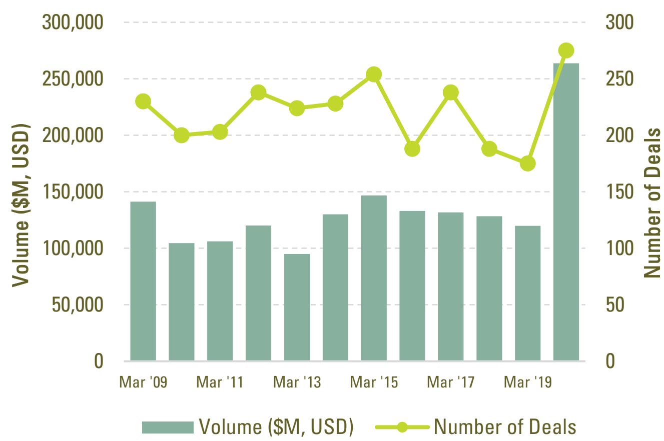
Source: Bloomberg (© 2020, Bloomberg Finance LP)

Figure 7 Week-to-Date U.S. Investment-Grade New Issuance
As of 3/31/2020



Source: Bloomberg (© 2020, Bloomberg Finance LP)

Figure 8 Year-Over Year U.S. Investment-Grade New Issuance
As of 3/31/2020



Source: Bloomberg (© 2020, Bloomberg Finance LP)

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