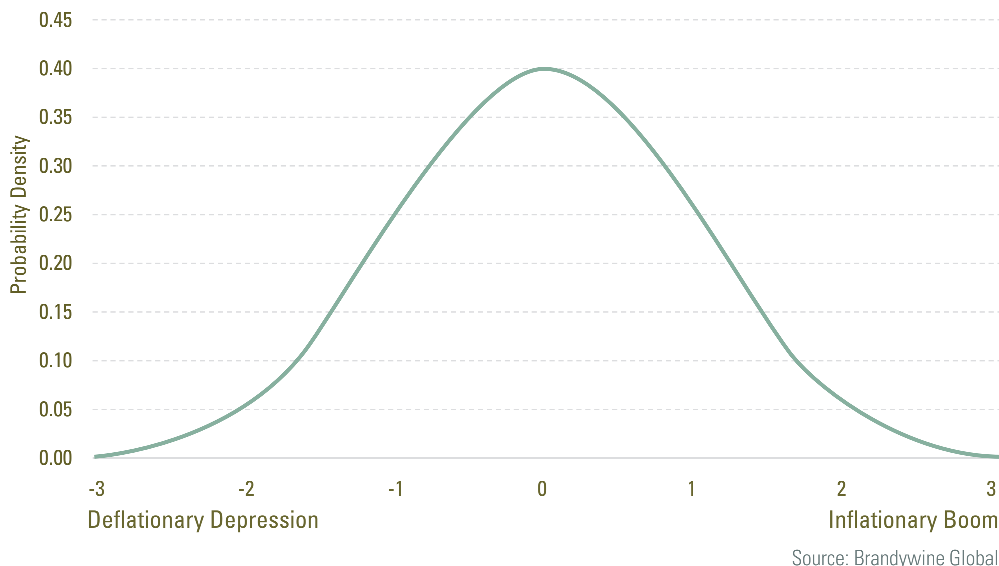
COVID-19 Research Update

Global Fixed Income Themes & Market Conditions

We have been thinking about the coronavirus in terms of time. At this juncture, we want to know how quickly economies will reopen, and in particular, how long it would take for the U.S. economy to normalize to a pre-coronavirus peak. In order to answer this question, we'll be observing and measuring any rebound in consumption and inflation amidst a backdrop of structurally high unemployment. The period of time this takes and the related rate of change will eventually determine what happens when the U.S. economy reaches a tipping point.

As the economy approaches an intersection, local politicians must consider the risk of keeping the economy closed, while the federal government and central bank must provide countercyclical support. There is clearly a tradeoff between addressing a public health crisis at the expense of economic activity, but the broader issue is determining what that opportunity cost will be as a result of an extended lockdown. We believe this support must be in proportion to the risks of a deflationary depression and big enough to risk a reflationary boom. **Figure 1** provides a hypothetical representation of how the current environment falls within a normal distribution, making a depression and boom both fat-tail events.

Figure 1 Hypothetical Distribution of Deflationary & Reflationary Outcomes
Graphical Representation



Source: Brandywine Global

The deflationary risk is how far and fast nominal prices fall; that risk increases the longer it takes the U.S. economy to get back to where it was prior to the outbreak. In general, deflation could be a very real risk to the global economy, particularly if central banks do not do enough to support growth. However, we believe that central banks have done enough, to the point where a robust rebound is possible and could eclipse the risk of deflationary pricing.

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In other words, we can't afford to have sluggish real global growth of 2%, plus a secular excess of capital, inventory, and labor that could cause 3% deflation to become embedded into the pricing structure of the global economy. **Figure 2** depicts the decline in GDP caused by depression and **Figure 3** shows the secondary effect of the 25% decline in prices which patterned out during the Great Depression. What makes the current era different is that this time, senior government officials understand the potential risks and have responded in a thorough and constructive way.

Figure 2 U.S. Real GDP* $Billions, 1921-1950

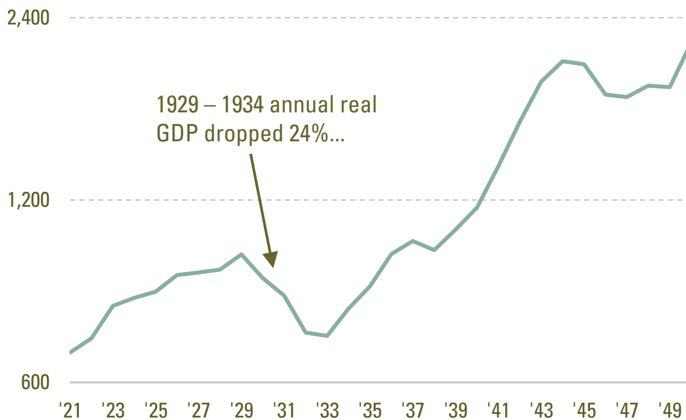
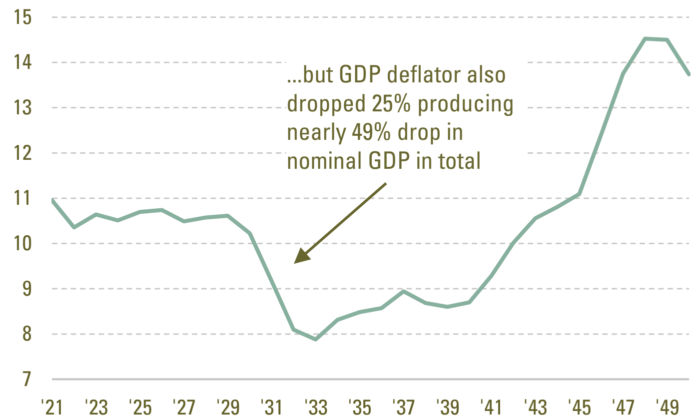


Figure 3 U.S. GDP Deflator 1921-1950

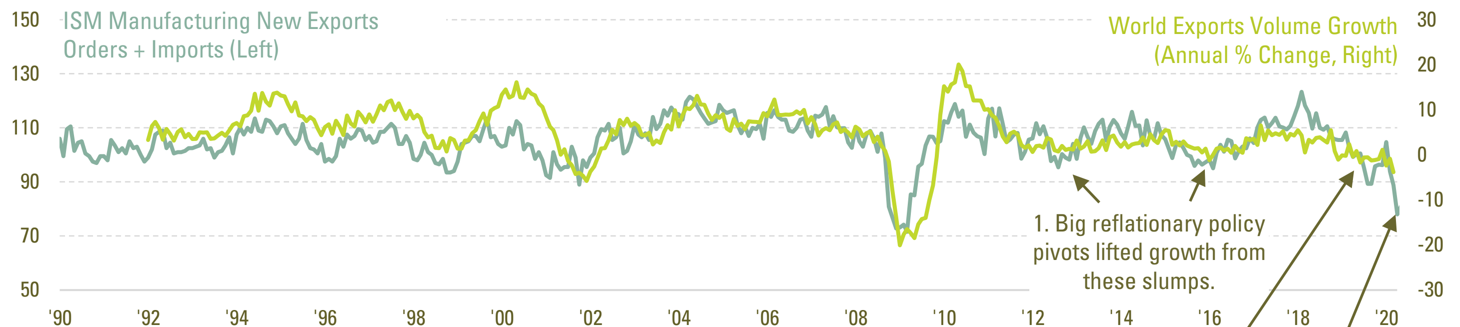


*2005 Prices
Source: Brandywine Global

The Federal Reserve (Fed), along with other global central bankers, have responded to the COVID-19 crisis with unusual agility and reflexivity rather than waiting until conditions deteriorate into a financial crisis—as they have done in the past. Most notably, the Fed has reacted broadly and swiftly to prevent both dollar and credit liquidity crises. The Fed rolled out a playbook that was simply breathtaking—more than doubling its balance sheet to $7.5 trillion with no end in sight. Fed Chair Jerome Powell stated the central bank would not raise its policy rate before 2022. In our opinion, a zero-bound rate environment over the next two years could remove the risk of credit spreads widening and dismantles a significant pillar of support for the aging U.S. dollar bull market. A weaker dollar is a key catalyst to pump liquidity into the global economy and eventually support a bull market in commodity prices.

Heading into the coronavirus lockdown, global PMIs were in the early stages of a V-shaped recovery, supported by a year of aggressive interest rate cuts, rising new order books, and led by emerging market economies. See **Figure 4**.

Figure 4 ISM Manufacturing & World Trade
As of 3/31/2020



Source: Brandywine Global, Haver Analytics

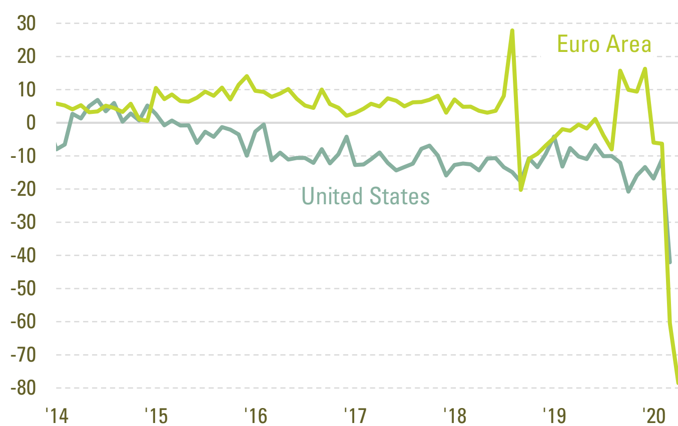
Figure 5 suggests that heading into 2020, emerging markets were poised to lead the world in growing new export orders and trade volume. Interest rates were aggressively cut, the order book was building, and emerging market currencies had depreciated enough to reflect conducive monetary conditions. **Figure 5** also depicts a classic economic relationship: interest rates fall, and with an 18-month lag, PMIs recover. We think a sharp recovery could occur because of the slow-or-no growth expectations that have been widely baked into corporate outlooks. This sentiment should keep inventories low, so companies will need to ramp up raw materials purchases and output quickly when business conditions improve, lest they remain flat-footed to keep up with demand.

Figure 5 Global PMI and U.S. 10 Year Yield 2-Year Change
As of 6/9/2020

Source: Brandywine Global, Macrobond, Haver Analytics

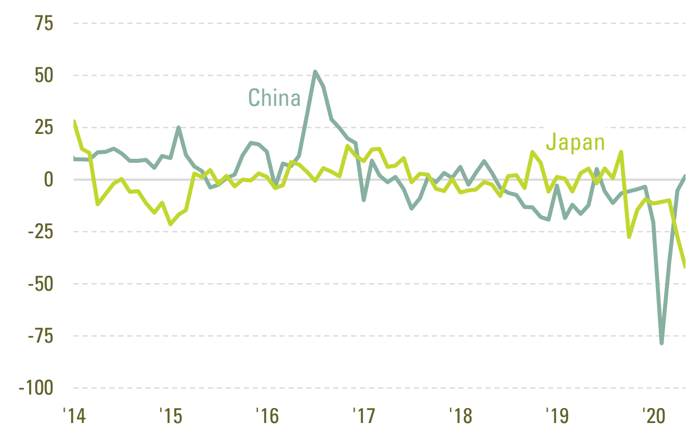
Therefore, we are trying to develop a roadmap for what an economic recovery could look like; the rate of resumption in retail and auto sales should help us gauge a rate of change in overall activity. The risk is that the longer an economy remains shut down, the more dire the picture becomes. For example, **Figure 6** shows the U.S. and eurozone in free fall, while V-shaped rebounds are captured in **Figure 7** as restrictions were lifted in China and Japan. The U.S. is about 8 weeks behind China in fighting the virus, so restrictions being lifted there and in other parts of Asia serve as a model for what activity could look like in the Western hemisphere.

Figure 6 Euro Area and U.S.: Passenger Car Registration
OECD Countries, Retail Trade, Annual % Change, As of 4/30/2020



Source: Brandywine Global, Macrobond

Figure 7 Japan and China: Passenger Car Registration
OECD Countries, Retail Trade, Annual % Change, As of 5/31/2020



Source: Brandywine Global, Macrobond

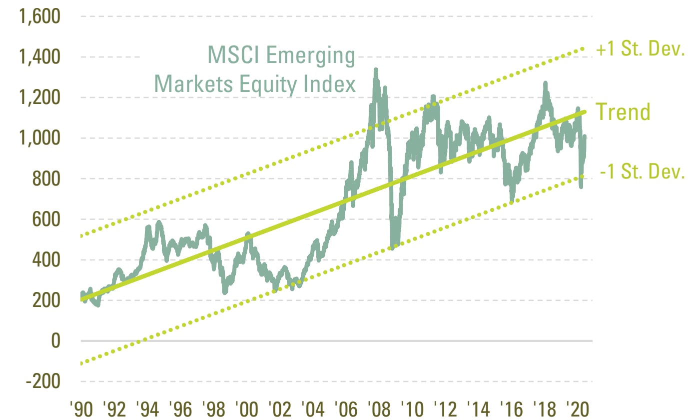
Figure 7 also shows that vehicle registration in China has already rebounded as its economy reopened and the central bank significantly eased policies. The takeaway here is that there is hope when looking at China and Asia as a roadmap to recovery; it appears that the U.S. and Europe are in the early stages of the V-shaped recovery. This could take 6-9 months, and what shape that recovery takes thereafter will be harder to predict, since there isn't a historic roadmap to follow. This is a significant reason why we think the recovery will be determined by the fiscal and monetary policy response and how it drives confidence in returning to the new normal.

So when could consumer and business sentiment turn positive and prompt an increase in spending? **Figures 8** and **9** show where commodity prices and emerging market currencies are trading—which is about 1-standard deviation below their respective means on a two-decade chart.

Figure 8 Real Commodity Prices
As of 6/9/2020

*Goldman Sachs Commodity Index deflated by U.S. CPI
Source: Brandywine Global, Macrobond

Figure 9 Emerging Markets Equity
As of 6/9/2020



Source: Brandywine Global, Macrobond

These markets felt the brunt of the March 2020 crash in oil prices, coronavirus lockdowns, and overall standstill in global economic activity. The information risk of a depression is priced into the commodity and currency markets. The fear of policy failure is the bet that the sellers of these assets are making. The conundrum is that when emerging market currencies are trading at this type of discount we would expect their valuations to create a positive feedback loop. A cheap currency with low rates is a prescription for growth; however, sellers are questioning where that growth could come from, when these countries are in the midst of a managed depression.

We are taking the other side of this view, and believe the groundwork is currently being laid for future growth. Our reflation call is summed up in **Figure 10**. The Fed's balance sheet has exploded—and if history is a guide—the dollar shortage in the recent past should turn into a dollar surplus. These improvements to global dollar liquidity should allow the currency to decline. With the Fed recently pledging to keep rates zero bound through 2022, the potential for the central bank to triple the size of its balance sheet to $9T, and a federal fiscal deficit of $4T are not only breathtaking but are the collective factors that should drive the dollar lower.

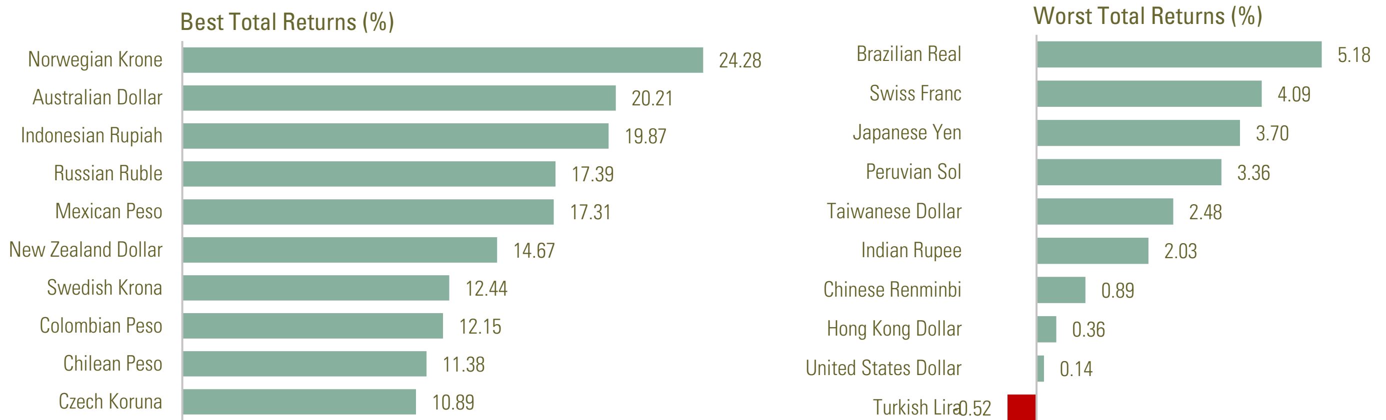
Figure 10 U.S. Liquidity vs. DXY
As of 5/1/2020

Source: Brandywine Global, Bloomberg, Macrobond

When thinking about that hypothetical bell curve in **Figure 1** (**Page 1**), we are evaluating the probabilistic outcomes of reflation and depression tail risks. Our investment outlook and portfolio positioning are aligned with the reflationary set of outcomes because of the scope of the fiscal and

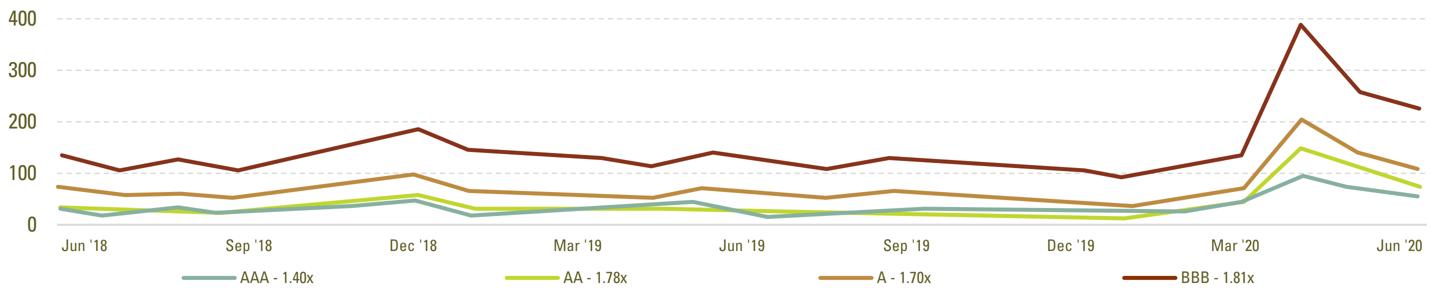
monetary responses; the amount of stimulus being pumped into the U.S. and global economies is historically unprecedented. **Figure 11** provides a snapshot of how many currencies have performed against the U.S. dollar since the global pandemic. Their performance, coupled with the data in **Figure 10** (**Page 4**), suggests that government and monetary authorities have been ahead of the curve during this crisis. The fairly swift collapse in investment grade corporate credit spreads, as shown in **Figure 12**, signals that policymakers—especially central bankers—have implemented the right prescriptive policies to date.

Figure 11 Country Spot Total Returns
As of 6/10/2020



Source: Bloomberg (© 2020, Bloomberg Finance LP)

Figure 12 U.S. Credit Spreads by Quality
As of 5/28/2020



Source: BofA Merrill Lynch

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