

DISCONNECTING ... OR RECONNECTING?

The first half of the year has seen unprecedented volatility. We saw both the fastest bear market ever and the best 50-day return since 1933 in one single contiguous time period from late February to early June.

It took a mere six trading days to descend into a bear market from the market peak on February 19. The S&P 500 index bottomed out on March 23 at a decline of -34% and the immediate subsequent rebound saw it gain +40% by June 3. As a result of this frenetic price action, the first two quarters produced remarkably symmetrical, but opposite returns of -19.6% and +20.5% respectively.

The stock market rally from the March lows has been driven by policy responses and medical advances. And yet, headline news continues to remain negative. The first wave of the coronavirus pandemic shows no sign of abating, unemployment remains high, bankruptcies continue to mount and job losses are becoming more permanent. At the same time, political tensions, income inequality and civil unrest are all on the rise.

The divergence between Main Street and Wall Street has created uncertainty and confusion in investors' minds. We address this dichotomy by framing the issue along a continuum of time.

Is the stock market disconnecting from today's reality ... or is it reconnecting to a new state of future reality?

We share our thoughts and perspectives on this topic and also present our current stock market outlook.

STOCK MARKET AND THE REAL ECONOMY

We begin to demystify today's disconnect between fundamentals and prices by revisiting the stock market's inherent discounting mechanism.

The stock market is continuously looking ahead in time to anticipate events in the real economy. It then incorporates those *future* views into *current* prices. These observations set up the following truism: stock prices

"The divergence between Main Street and Wall Street has created uncertainty and confusion in investors' minds."

"We address this dichotomy through the lens of time and assess which future states of reality may be discounted into today's prices. Our outlook is based on the omens of optimism and causes for concern that we identify."

are generally more connected to perceptions of future reality than they are to the reality of the current state.

Investors are always mindful of this fundamental relationship. And yet, most of the time, they do not focus intensely on the distinctions between the future and the present ... for one simple reason.

Very rarely is the future perceived to be dramatically different in six to nine months than today. In most instances, this future is just an extension of the present – maybe incrementally better or worse, but not meaningfully different.

The coronavirus pandemic was one of those rare events in history where the ensuing range of economic and market outcomes was extremely wide. Right from its onset, investors have struggled with how to assess the future ... precisely because it had the potential to be quite different from both the present and the past.

The same is true today. Although the range of possibilities today is narrower than it was in March, it is still quite dispersed. Contrast this uncertainty with what happened during the last recession. Even as the Global Financial Crisis was unfolding, we did not see wildly fluctuating odds of wide-ranging outcomes in the near term.

So on one hand, investors instinctively understand that there is a temporal divide between the real economy and the stock market. Main Street is reflecting the current economic pain from the fallout of the pandemic. And Wall Street is focusing instead on a potential recovery that could heal global economies in the months ahead.

On the other hand, because the future being priced by the market is so different than the present, investors continue to fixate on the journey to get from here to there.

How much better will the future be? How viable is this better future? How exactly do we get to it? And how soon can we get there?

The sheer magnitude of outcomes in the economy and the stock market so far may also contribute to the lack of clarity.

- The coronavirus is widely acknowledged to have delivered one of the biggest economic shocks the world has ever seen.
- The U.S. economy experienced a deep recession in the second quarter of 2020. As of mid-July, second quarter GDP and corporate profits are expected to decline by -35% and -45% respectively.
- Despite dismal fundamental projections of such proportion, the U.S. stock market has produced counter-intuitive gains of more than +40% from late March to mid-July.

And here is one final perspective that adds to consternation for investors — we have a well-formed investment heuristic from prior experience that deep recessions don't end overnight. Why and how could this deep recession end quickly?

Let's examine the validity of the stock market's current view that the future is likely to be better than the present.

OMENS OF OPTIMISM

We believe there are some valid reasons for optimism about the future. We highlight three potential catalysts for a continued economic recovery that could lead to a better future than today.

- Ample liquidity
- Medical advances
- Exogenous shock

Ample Liquidity

One of the most visible and powerful drivers of a future recovery comes from the actions taken by governments and central banks to combat the pandemic.

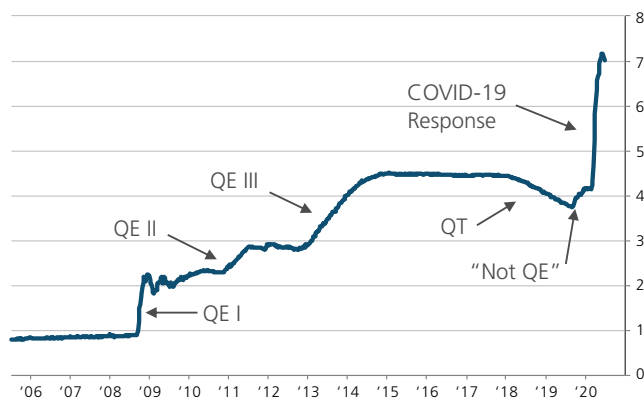
Policy responses in the form of monetary and fiscal stimulus have been swift, aggressive and universal. They have created abundant liquidity that should support global markets and economies.

Central banks all over the world have slashed interest rates and also increased their scale of “quantitative easing” (QE) during the coronavirus pandemic.

The Fed immediately cut rates to zero and then embarked on its most aggressive asset purchase program ever. The latest round of QE from the Fed is conspicuously different in that it is positioned as being “unlimited” in size. The Fed is willing to buy as many different bonds, in as many tranches, as is needed to support the U.S. economy.

Figure 1 shows just how dramatic the Fed’s bond purchases have been so far.

Figure 1: Federal Reserve Balance Sheet (\$ trillions)



Source: FactSet, Federal Reserve Board

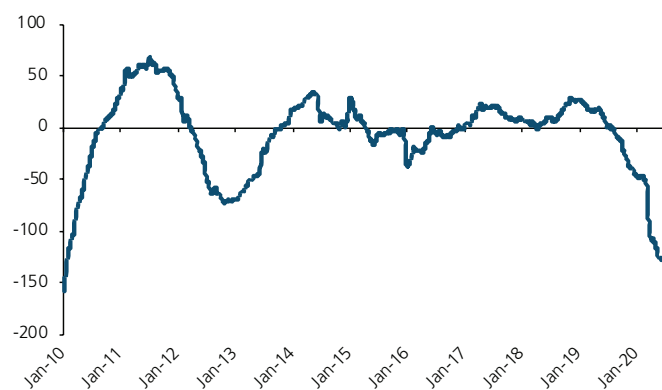
The Fed balance sheet has already grown from around \$4 trillion to \$7 trillion in the last 4 months. It is projected to grow by an additional \$1 trillion by the end of the year.

If that comes to pass, the Fed will have grown its balance sheet by the same \$4 trillion that it did during the Global Financial Crisis (GFC) ... with one big difference. It will have done it in less than 1 year this time around instead of the 6 years that it took in the GFC!

This unprecedented injection of liquidity by the Fed has not only supported the smooth functioning of markets, it has also avoided a credit crisis that could have significantly extended the depth and duration of the current recession. Among the more notable actions from the Fed have been the extension of its lending facilities to small businesses and municipalities and its purchases of corporate bonds and high yield ETFs.

The Fed has not been alone in undertaking drastic actions. Global central banks have also reacted with the same alacrity to deliver monetary stimulus.

Figure 2: Global Short Term Interest Rates (4-week moving average, Y/Y change in basis points)



Source: Evercore ISI

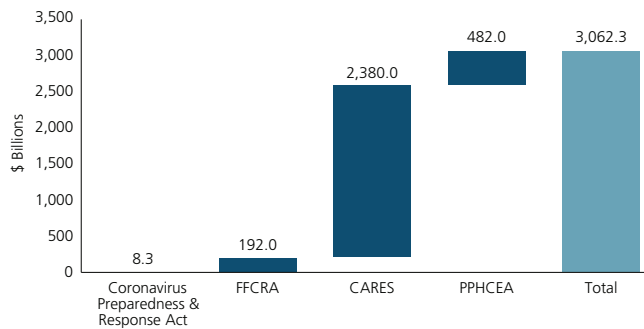
Figure 2 shows that short term rates continue to decline globally. Central banks around the world have cut rates by almost 100 basis points, through more than 200 different rate cuts, since the onset of the pandemic.

Foreign central banks have also engaged in quantitative easing. The Bank of Japan and the European Central Bank together have expanded their balance sheet by more than \$3 trillion since March.

Governments around the world have also done their share to augment central bank responses by providing fiscal stimulus. A common fiscal policy tool is for governments to take on more debt and underwrite more deficit spending to spur sagging demand.

The House, Senate and the administration have come together on four fiscal stimulus packages so far. These are shown progressively in Figure 3.

Figure 3: U.S. Fiscal Stimulus Programs



Source: Congressional Budget Office

The biggest of these programs, the CARES Act, was announced by the U.S. government at the end of March.

The CARES Act was broad and comprehensive. Among other things, it included one-time stimulus checks for individuals, enhanced unemployment benefits, loans to distressed businesses, small business relief and direct aid to state and municipal governments.

At \$2.4 trillion dollars, it constituted almost 12% of U.S. GDP. U.S. fiscal stimulus has since grown to around \$3 trillion.

How impactful has fiscal stimulus been? Very. It is no coincidence that consumer spending has picked up in tandem with the implementation of fiscal stimulus.

Even as several provisions of the CARES Act are set to expire in the third quarter, a 5th stimulus package of \$1-2 trillion is currently being discussed.

And again, the U.S. is not acting alone. Germany's fiscal stimulus has been even larger. At more than 20% of its GDP, it is bigger than the U.S. package in percentage terms.

The global policy intervention to negate the pandemic has helped soften economic damage so far. Its continued effectiveness on a lagged basis also sets the stage for a sustainable recovery going forward ... if medicine can control and hopefully conquer the coronavirus.

Medical Advances

The world's medical community has devoted significant time, energy and resources towards remedies for coronavirus (COVID-19: also Covid). Research and testing in labs and clinical trials continues to proceed at breakneck speed. Regulators have also done their part with "fast track" approval for promising drug and vaccine candidates.

The medical front is evolving so rapidly that it is hard to keep pace with the latest development. We offer a brief recap of notable milestones.

The biggest medical breakthrough would obviously come in the form of a reliable vaccine. A number of vaccines are under development globally; more than 30 of them are already in early stage human trials.

Here is a summary of the generic approaches to vaccine development and some of the companies involved in each category.

- Whole virus vaccines – inject the entire virus, either attenuated or inactive; SinoVac
- Protein subunit vaccines – inject specific immunogenic portion of the virus; GSK/Sanofi
- Genetic vaccines – inject genetic material encoding certain immunogenic portion of the virus
 - mRNA vaccines – inject mRNA; Moderna, BioNTech, CureVac
 - DNA vaccines – inject plasmids of DNA to nucleus of cells; Inovio
 - Virally vectored vaccines – use modified virus to deliver DNA into cell; CanSino, AstraZeneca/Oxford, J&J

Source: Bernstein Research

The most promising results so far have come from the genetic vaccine category. We highlight some of the key milestones that companies in this area have achieved so far.

- Moderna was among the first to report early encouraging news when all 45 Phase 1 participants produced binding antibodies with tolerable side effects. A large subset also achieved a significant threshold of neutralizing antibodies. Moderna is slated to begin a Phase 3 trial on July 27 with 30,000 participants.
- Pfizer and BioNTech were given fast track designation status by the FDA for two of their vaccine candidates. The companies also received a \$2 billion order from the U.S. government for their vaccines should they receive regulatory approval.
- AstraZeneca/Oxford reported early results which showed both neutralizing antibody levels similar to those seen in recovered Covid patients and T-cell immune responses believed to be important in preventing infections.

In addition to the race for a Covid vaccine, there is also progress in the development of drugs and therapies for treatment of the disease. Antiviral drugs inhibit the replication of the virus. Gilead Sciences' drug in this category, Remdesivir, is already approved for use after showing a reduced risk of death in patients.

Antibody drugs actually fight the virus. Regeneron, the company which successfully developed antibody drugs for Ebola and MERS, has already started the first clinical trial for its dual antibody drug combination for treatment and prevention.

We appreciate the difficulties that lie ahead in a developing a full-fledged vaccine solution. Vaccines normally take many years for development and large-scale manufacturing. No genetic vaccine has ever been approved for human use. Our conservative assumption here is that a safe, effective, durable and scalable one-shot vaccine may still be a year or more away.

We, nonetheless, share the market's optimism that medical innovation and human adaptability will mitigate the impact of Covid on public health and global economies going forward.

Exogenous Shock

One final note of optimism comes from an observation which specifically addresses a key question we raised earlier. Why and how could this deep recession end quickly?

Most recessions are caused when endogenous imbalances build up inexorably to a point where they can no longer be sustained. The roots of these recessions tend to be systemic and pervasive. These causal imbalances take a long time to build up; they also take a long time to get resolved.

The hallmark of conventional recessions is that they are initially indeterminate in their intensity and longevity. The deeper the recession, the longer it is likely to be. The longer it lasts, the less visibility it offers for the eventual recovery.

We believe this current recession is different. This recession was not set into motion by endogenous imbalances. It came instead from an exogenous shock to an otherwise healthy economy.

The decision to enforce a global shutdown, and, therefore, underwrite an economic recession, was made out of public health safety considerations. The recession started because of a virus. And so it stands to reason that it will also end with the virus. The key is to significantly mitigate the impact of the virus before it causes too much harm to the global economy.

This framework may now offer more visibility for why and how this deep recession could end. Similar to recovering from a natural disaster, the more relevant question here might be "when," and not so much "if."

CAUSES FOR CONCERN

Even as we understand the positive implications of ample liquidity and medical advances, we believe that the path forward is still uncertain. The range of future outcomes is still wide and difficult to predict. Unfortunately, history offers us little precedents or guidance for recovering from a pandemic.

We highlight some of the more significant risks that still persist and are worth keeping an eye on.

Fiscal Cliff

We discussed how the \$2+ trillion U.S. rescue package helped individuals and corporations make up for lost incomes during the shutdown. However, a number of the provisions within the program came with specific termination dates. Unless these get renewed or extended, investors are looking at an impending “fiscal cliff” beyond which stimulus will start to wane.

Here are some of the looming deadlines.

- *Unemployment Insurance*

The CARES Act added \$600 per week in enhanced jobless benefits to those routinely provided by each state. These payments of almost \$100 billion a month went a long way to boost household incomes and, as a result, consumer spending.

To put the numbers in perspective, these unemployment benefits are more than 14% of income from wages and salaries. In sharp contrast, they have averaged about 2% in prior recessions.

These additional unemployment benefits are due to expire at the end of July.

- *Business Payroll Support*

Passenger airlines received \$25 billion in payroll support to retain staff until the end of September. A number of airlines have already announced plans

to furlough or terminate a large number of employees beginning October 1.

Small businesses still have a chance to apply for loans through the Payroll Protection Plan. The loans have a provision for forgiveness if the funds are used to support payroll at pre-Covid levels for a period of 24 weeks. However, beyond that time window, small businesses can revert back to job cuts and layoffs.

- *Mortgage Borrowers and Renters*

The CARES Act imposed a freeze on evictions through July 25 for multi-family properties whose mortgages are financed by Federal agencies. Lenders and servicers were prohibited from foreclosing on properties until August 31. Forbearance programs for federally insured mortgages were estimated to generate about \$50 billion in savings.

- *Student Loans*

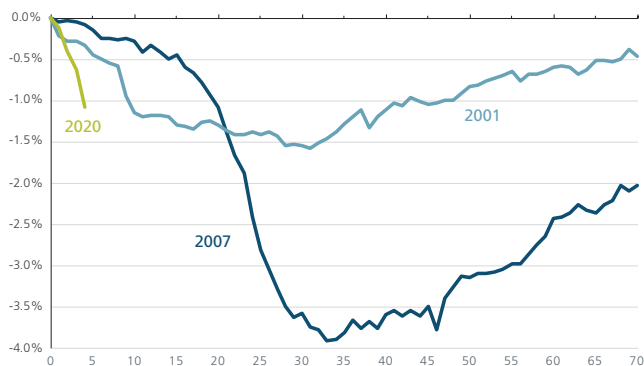
The CARES Act froze repayments on student loans owned by the federal government until the end of September. Savings from this provision were estimated to be between \$5-10 billion.

Unemployment, Bankruptcies and Defaults

Weekly unemployment claims spiked dramatically at the onset of the pandemic. They have declined steadily since peaking in March but still remain high. In the meantime, more than 16 million Americans are still filing for continuing unemployment claims.

Even as jobs are being added back with the re-opening of businesses, a disturbing trend is beginning to emerge in the area of layoffs. Most of the early job losses had been classified as temporary. In recent weeks, the number of permanent layoffs have been increasing. We compare the trajectory of permanent layoffs here with those observed in previous recessions.

Figure 4: Permanent Layoffs as % of Peak Employment



Source: FactSet, Calculated Risk

Permanent layoffs are increasing at a steeper rate than they did in the last two recessions. It becomes harder to lower the unemployment rate as job losses become more permanent. It takes longer for permanently laid off workers to retain skills or acquire new ones to find employment again.

We are monitoring this trend carefully as we track the economy.

Bankruptcies have started to spread from small businesses to larger companies. Larger bankruptcies have ranged from retailers like Neiman Marcus, J.C. Penney and Brooks Brothers to energy companies such as Whiting Petroleum and Chesapeake Energy.

The six biggest U.S. banks recently added almost \$36 billion to their loan loss reserves as they gear up for more corporate bankruptcies and consumer defaults.

The recovery so far has been supported by massive stimulus. It remains to be seen if liquidity and medicine can halt and then reverse the impact of unemployment, bankruptcies and defaults.

OUTLOOK

We summarize the discussion so far in our current outlook for the economy and the markets.

- We are cautiously optimistic that global economies will continue to heal gradually; however, the road to recovery is likely to remain bumpy.
- While volatility will continue to persist, we are unlikely to retest the March lows when markets were pricing in a worst case scenario.
- We continue to emphasize broad diversification, adequate liquidity and high quality in client portfolios.

WHITTIER TRUST COMPANY

South Pasadena 1600 Huntington Dr., South Pasadena, CA 91030 | 626.441.5111

Newport Beach 4695 MacArthur Ct., Ste 1500, Newport Beach, CA 92660 | 949.216.2200

San Francisco 505 Montgomery St., Ste 1200, San Francisco, CA 94111 | 415.283.1850

THE WHITTIER TRUST COMPANY OF NEVADA, INC.

Reno 100 W. Liberty St., Ste 890, Reno, NV 89501 | 775.686.5400

Seattle 520 Pike St., Ste 1415, Seattle, WA 98101 | 206.332.0836

Portland 111 S.W. Fifth Ave., Ste 3150, Portland, OR 97204 | 503.444.3428

Investment and Wealth Management Services are provided by Whittier Trust Company and The Whittier Trust Company of Nevada, Inc., state-chartered trust companies, which are wholly owned by Whittier Holdings, Inc., a closely held holding company. All of said companies are referred to herein, individually and collectively, as "Whittier".

The views expressed by the Author are as of a particular point in time and are subject to change without notice. This document is provided for informational purposes only and is not intended, and should not be construed, as investment, tax or legal advice. Please consult your own legal and/or tax advisors in connection with financial decisions. This document does not purport to be a complete statement of approaches, which may vary due to individual factors and circumstances.

Certain information contained in this document may constitute "forward-looking statements." No representations or warranties are made as to the accuracy or completeness of such statements, and actual events or results may differ materially from those reflected or contemplated herein. Company references are provided for illustrative purposes only and should not be construed as investment advice or a recommendation to purchase, sell or hold any security. Although the information provided is carefully reviewed, Whittier is not responsible for any direct or incidental loss resulting from applying any of the information provided. Past performance is no guarantee of future results and no investment or financial planning strategy can guarantee profit or protection against losses. These materials may not be reproduced or distributed without Whittier's prior written consent.