

OUTLOOK | 2021

The new economic cycle:
Investing for a
post-COVID world

Private Bank



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1 Overview

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1.1

Resilience, optimism and a call for investor action

DAVID BAILIN - Chief Investment Officer

The new economic cycle is set to strengthen in 2021. Investors need to take action to prepare portfolios for a post-COVID world.

- We believe this is an important time to be an investor, and it requires you to act
- We see a confluence of four important factors: a quicker-than-usual recovery, accelerating innovation, the mispricing of many securities, and a period of structurally low interest rates
- A key part of our advice is to put any excess cash in your core portfolio to work and stay fully invested
- As the new economic cycle strengthens, our tactical positioning is bullish

We believe this is an important time to be an investor.

As COVID departs, the new economic cycle that has already begun will accelerate. The investment opportunities in this expansion will reflect new realities, shaped by the numerous impacts of technology upon our lives as well as upon the values that we share.

In a word, what we are experiencing is resilience. In just a few short weeks after the pandemic hit, many businesses went remote. The global financial system kept functioning smoothly. Governments made major decisions to provide financial support to individuals and businesses. New technologies substituted for old. And the scientists went to work, developing vaccines in record time.

As we look back on 2020, we see that the world has had an opportunity to “test drive” the future - and it looks bright. Four of our **Unstoppable trends** - [Digitization](#), [The rise of Asia](#), [Greening the world](#), and [Increasing longevity](#) - were all in force before the pandemic struck. However, we did not fully appreciate their worth in our lives or portfolios. We have now experienced their inherent value, their “unstoppability.”

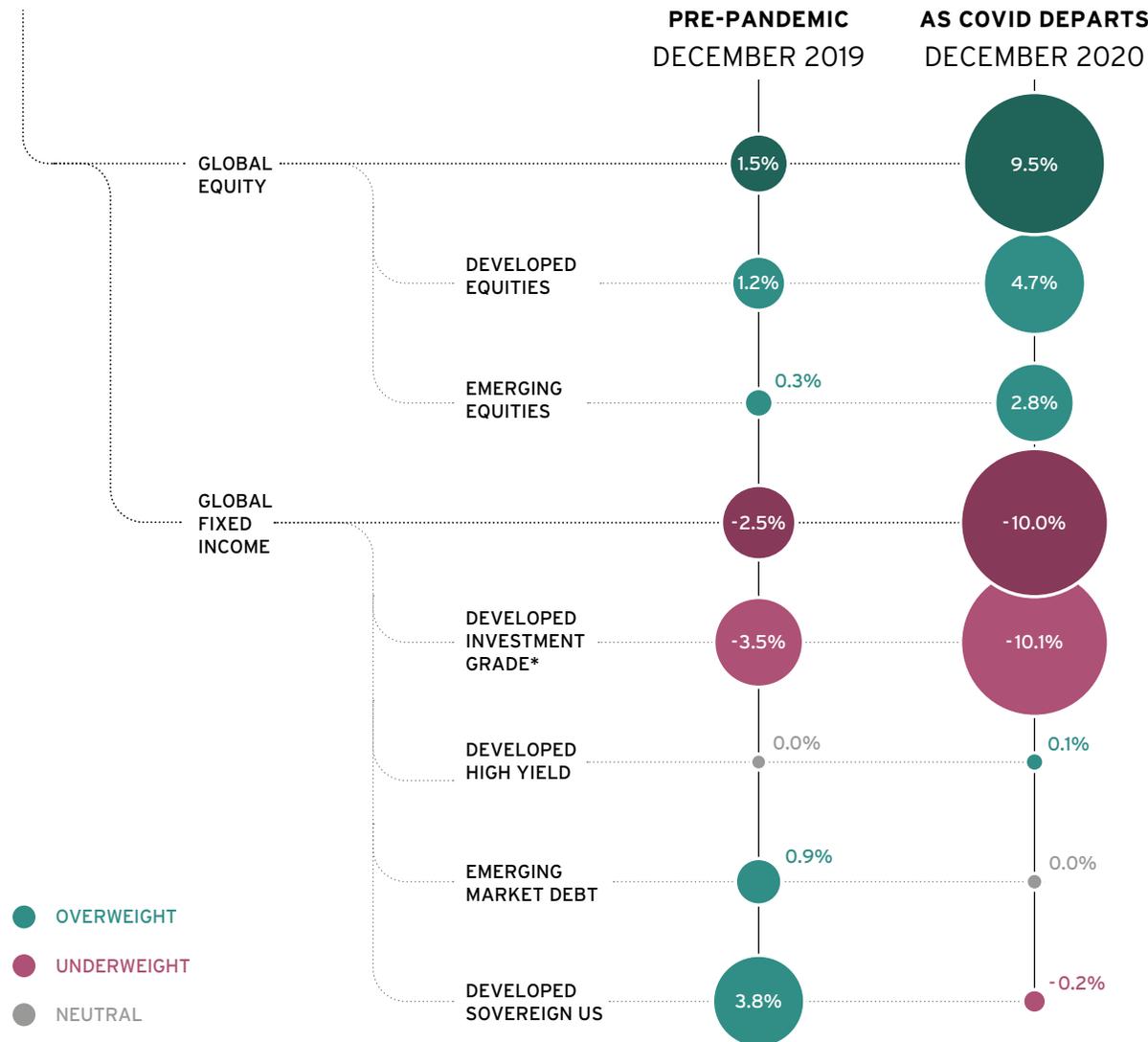
Four reasons to act

What makes this an especially important time for investor action is the confluence of four factors:

- The global economy will recover more quickly and robustly from the COVID recession than after a more typical large downturn. The virus was an exogenous shock, whose effects were far more unevenly spread than in other crises. Parts of the global economy were largely spared and some benefited mightily. Governments are providing the necessary fuel to support the recovery. Employment and spending will rebound faster as a result.
- Innovation will accelerate. So will the adoption of technology. The impact of this next industrial revolution will generate great value for investors and for society. Environmental, social and governance solutions will direct capital to companies whose actions are consonant with values that will make the world healthier - see [Greening your portfolio as the world goes green](#).
- A period of structurally low interest rates is upon us. When rates are held below normal levels for extended periods of time, the value of cash and many fixed income investments is diminished. Earning negative real returns is harmful to portfolios - see [Overcoming financial repression](#).
- The mispricing of securities caused by COVID will be reversed. The present extent of the mispricing is underappreciated and presents an alpha creation opportunity that seldom appears in markets this broadly - see [Exploiting mean reversion](#).



Our positioning



Office of the Chief Investment Strategist,
Citi Private Bank, as of 28 Nov 2020

*Factors in non-US Developed Market Investment Grade underweight

Opportunities

GLOBAL SMALL- AND MID-CAP EQUITIES

SELECT BEATEN-DOWN NATIONAL AND REGIONAL MARKETS

COVID CYCLICALS INCLUDING FINANCIALS, INDUSTRIALS AND REAL ESTATE

PRIVATE EQUITY STRATEGIES FOCUSING ON SMALL- AND MID-CAP FIRMS UNABLE TO ACCESS PUBLIC MARKETS

DISTRESSED REAL ESTATE STRATEGIES, PARTICULARLY FOCUSING ON HOSPITALITY ASSETS

REPLACING SOME LOW- AND NEGATIVE-YIELDING BONDS IN PORTFOLIOS WITH:

- GLOBAL "DIVIDEND GROWER" AND SELECT HIGH DIVIDEND YIELD EQUITIES
- SELECT FIXED INCOME ASSETS, INCLUDING MORTGAGE CREDIT AND BOND-LIKE ALTERNATIVES
- CERTAIN ALTERNATIVE STRATEGIES THAT MAY PROVIDE RECURRING DISTRIBUTIONS
- CAPITAL MARKETS STRATEGIES THAT SEEK INCOME FROM VOLATILITY

HYPER-CONNECTIVITY INVESTMENTS, INCLUDING 5G SUPPLIERS AND BENEFICIARIES

EXPOSURE TO THE ONGOING RISE OF ASIA

INNOVATIVE HEALTHCARE-RELATED PROVIDERS LINKED TO AGING POPULATIONS

RENEWABLE ENERGY

A new economic cycle begins

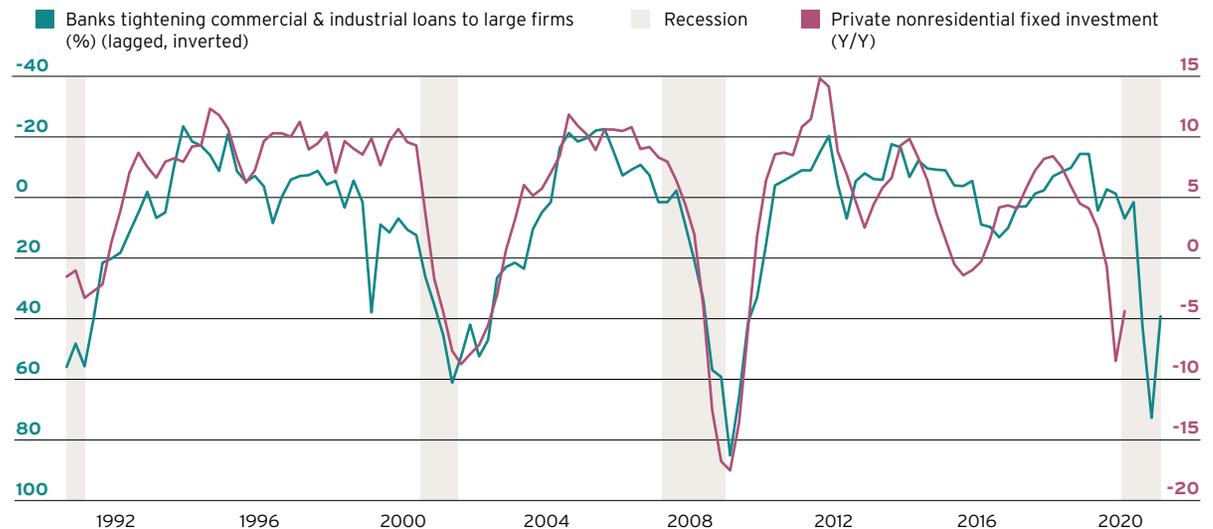
The backdrop for our optimistic outlook is the remarkable health of the global economy despite the pandemic. Financial institutions are strong. Household saving rates remain high. And confidence levels among businesses and consumers alike demonstrate a growth mindset. These positive circumstances are surprising for a world coming out of the worst global healthcare crisis since 1918, but they are as real as the virus itself.

Innovative digital business models from e-commerce to telemedicine have not only been effective, but they have saved lives and provided a better experience for users. Asian countries and governments responded to the pandemic with very different and highly effective policies. As a result, many fewer people will have died across Asia as a whole compared with the West. We expect increased competition between the East and West in the coming decade in healthcare and technology, in particular - see [The rise of Asia: Asian development in a “G2 world”](#).

The healthcare crisis itself has brought to the world’s attention that there are collective issues, such as climate change and the delivery of healthcare, which will require global innovation, cooperation and significant expenditure. Finally, we have just passed a tipping point, at which renewable energy options across industries are also the most cost-effective solutions, without subsidies - see [Unstoppable trends: Greening the world](#). For each of the trends we have identified, the post-pandemic period will afford investors an opportunity to build stronger portfolios by increasing exposure to the major beneficiaries of this new economic cycle.

There are other structural reasons for investment optimism, at least for equity investors. The Federal Reserve’s decision to hold interest rates at atypically low levels to encourage a full recovery reminds us of the period from 1945 to 1965 when such a policy devalued cash and bond holdings intentionally. Now, governments worldwide have followed suit. About four-fifths of the world’s investment grade debt yields 1% or less. Interest rates in emerging economies are falling, too. We classify this as a period of “financial repression” - see [Overcoming financial repression](#) - and it calls for substantial changes to core portfolios.

FIGURE 1. AS LENDING STANDARDS EASE, CAPITAL INVESTMENT RISES



Source: Haver, as of 26 Nov 2020.



A bullish environment for equities

Investing in productive assets will be necessary to earn real returns. That is especially good for equities. With the cost of capital low, smart managers are likely to use technology to improve and expand the operation of their companies - **FIGURE 1**. In turn, the providers of that software and hardware will benefit. For investors, winning providers and users of that technology will drive revenue and profit growth over time. And some equities will also serve as fixed income alternatives by providing meaningful dividend income. This is one reason why our asset allocation - see [Our positioning](#) - has materially changed as we enter the new economic cycle. As of early December 2020, our Global Investment Committee is 9.5% overweight global equities and 10% underweight global fixed income. That's bullish.

We have written extensively about the impact that COVID-19 had upon financial markets and the relative pricing of securities. Although equity market indices in the US and China are near all-time highs, the dispersion of performance within those markets reflects which industries were pandemic beneficiaries and which suffered. Investors infrequently get an opportunity to exploit "mean reversion" globally. The opportunity is clear: as this crisis ends, the relative pricing of securities will return to more typical relative valuations anticipating broad vaccine use.

At this moment, the pricing ascribed to different industries and regions remains distorted and there are many ways and places for investors to gain exposure to undervalued assets. Emerging markets, from Southeast Asia to Latin America, are mispriced on an historical basis. So, too, are some cyclical industries like banking and energy. Around the globe, small- and mid-cap companies are still generally undervalued. And within the alternative investment marketplace, private equity investors and hedge funds alike are still able to buy assets more cheaply - sometimes much more cheaply - than prior to the pandemic.

Finally, we believe that even after the pandemic departs, even after the pricing distortions unwind, that the relative attractiveness among asset classes will continue to be impacted by the pandemic, the interest rate environment and the prior performance of markets for years to come - see [The long-term outlook for asset classes: What's changed for 2021 and beyond](#).

There are risks to this collective optimism, of course. Although the vaccine cavalry has arrived, we need to understand the safety and longevity of the vaccines themselves. With a new US government, there is hope for more normalized trade and international relations, but the very composition of governments from the Americas to China to Brazil may limit the ability to achieve much. And without sustained low rates, the recovery itself may be imperiled. These risks all must be carefully monitored and considered.

A call for investors to act now

So, given all this, what do we advise that investors do now?

The strengthening of a new economic cycle in 2021 requires thought, analysis and action on the part of all investors. Here are some important and timely suggestions:

First, we suggest that you think deeply about the amount of “strategic cash” you truly need to hold for the next five to ten years. During the decade from 2010, investors held too much cash, always waiting for a “better time to invest” or for a “better entry point - see [The critical importance of staying fully invested](#). This foolish and profit destroying behavior is well worth avoiding in the next decade. So, decide on what needs to be set aside for safety purposes and invest the rest.

Second, alter the composition of your portfolios in four ways:

- The ratio of equity to debt should be modified to reflect this period of financial repression.
- The exposure of portfolios to **Unstoppable trends** should be increased as a proportion of overall equity exposure.
- The ability to capture “alpha” as markets normalize coming out of the pandemic can be added as a tactical opportunity. In short, mean reversion will take time and portfolios can be positioned for it.
- Fixed income portfolios should only reflect the best yield opportunities across the globe and, for qualified investors, include capital markets strategies that can create income from market volatility

And, finally, seek advice continuously. We offer you tools that you can use regularly to compare your portfolio’s holdings and performance with those of the asset allocation we recommend for you - see [Keeping your portfolio strong: Introducing the gap analysis](#). These tools are available by consulting your Private Banker or Investment Counselor and requesting them. Get a “tele-financial” check-up regularly. It is smart portfolio medicine in a post-COVID world.

We wish you and your family a healthy, prosperous and (soon) more proximate 2021.

David Bailin,
Chief Investment Officer, Citi Private Bank



1.2

As COVID releases its grip

STEVEN WIETING - Chief Investment Strategist and Chief Economist

With an end to the pandemic coming into view, we highlight the key considerations for investing for a new economic cycle.

- As COVID retreats, we look for large-scale rotation into certain sectors and regional markets
- We stress replacing particular bonds in portfolios with income-producing substitutes
- We continue to stress long-term exposure to Unstoppable trends, including those related to digitization that have performed strongly amid the pandemic



“Our ‘new cycle investment strategy’ is to retain or expand exposures to the best-valued income-generating investments and long-term growth opportunities while adding exposure to depressed assets that will be deemed undervalued a year or more from now.”

That is what we wrote in our Mid-Year Outlook 2020 at the start of June, reiterating our investment strategy for the COVID crisis and beyond. It has helped us achieve both absolute and improved relative investment performance in 2020, but more importantly, has allowed clients to maintain investment discipline through an unprecedented shock. We expect it to guide us as conditions evolve further.

COVID is the first true global pandemic in more than a century. As we discuss throughout Outlook 2021, COVID’s eruption in early 2020 tore through global markets, altering the price of every asset in the world. Even after the discovery of two or more potential vaccines, it seems less well accepted that COVID’s departure will reprice all assets again as it leaves.

The most important investment chart that had emerged by March 2020 remains the most important one as of early December 2020 - **FIGURE 1**. The adaptation and substitution of various kinds of economic activity boosted around half of the world’s asset prices, an effect that was amplified by enormous fiscal and monetary easing. By contrast, the other half fell. As we await the mass distribution of the recently-discovered vaccines against COVID within 2021, sizeable changes in long-term interest rates and industry composition will arise. This will generate

large-scale rotation into certain sectors and regional markets, as we explore in our [Exploiting mean reversion](#) theme.

The deliberate, widespread suspension of daily life in response to COVID-19 generated the most rapid economic declines in recorded history. The world economy shrank 10% almost in an instant in March as leaders of nations great and small ordered the closure of “non-essential” businesses and the “sheltering in place” of much of the world’s population. Unprecedented policy easing steps followed to help “bridge the chasm” of the shock. While the US was among the slowest to act

to stem the spread of COVID, it was the fastest in its dramatic fiscal and monetary easing response. Given the US dollar’s role as a trade, finance and reserve currency, this assisted widespread easing across the world.

Aside from easing fiscal and monetary policy, there were other reasons global financial markets were able to absorb the COVID shock better than many had expected. First - and as we anticipated - long-term investors treated the pandemic as a discrete exogenous shock, not as a rare, but more typical deep recession precipitated by a set of internal economic maladies. Second, healthcare

FIGURE 1. MEAN REVERSION IN STORE

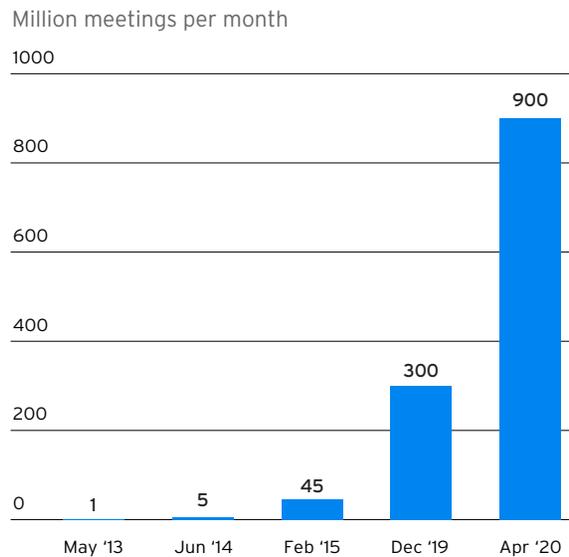


Source: Bloomberg and FactSet as of 16 Nov 2020. COVID cyclicals: Financials, industrials, energy, materials, real estate, consumer discretionary ex–Amazon COVID defensives: IT, healthcare, communication services, consumer staples, utilities, Amazon Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Index returns do not include any expenses, fees or sales charges, which would lower performance. For illustrative purposes only. Past performance is no guarantee of future results. Real results may vary. All forecasts are expressions of opinion and are subject to change without notice and are not intended to be a guarantee of future events.

policy was poorly prepared for the arrival of a pandemic, with certain countries performing worse than others. In contrast, technology was serendipitously ready to help the world face the challenge - **FIGURE 2** - and [Unstoppable trends are changing the world](#) and [Increasing longevity: The healthcare opportunity](#).

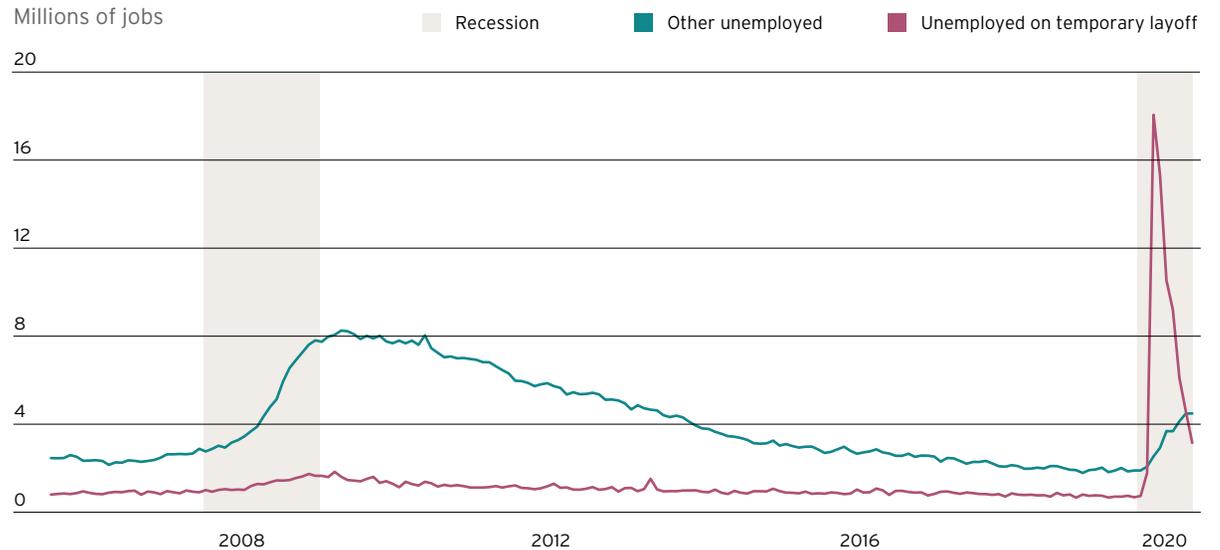
Beyond these reasons, the world economy was not positioned for a downturn, but rather poised for a stronger recovery after the “trade war” years of 2018-2019 - see **Outlook 2020**. Of course, that did not prevent the subsequent economic contraction. However, it did assist in

FIGURE 2. THE RISE OF THE VIDEO MEETING



Source: Zoom, as of 1 Nov 2020

FIGURE 3. TEMPORARY AND PERMANENT JOB LOSSES



Source: Haver, as of 31 Oct 2020.

making the contraction period much shorter. Once again, if world policy makers act collectively, or simply do not not inflict collective harm, the world is poised for a stronger recovery within 2021.

Despite the announcement of two or more effective vaccines in November 2020 - and others in late-stage clinical trials - the discrete nature of the present shock, and strong grounds to expect a cyclical recovery in 2021, we see central bankers embarking on a non-traditional course.

The Fed's new position

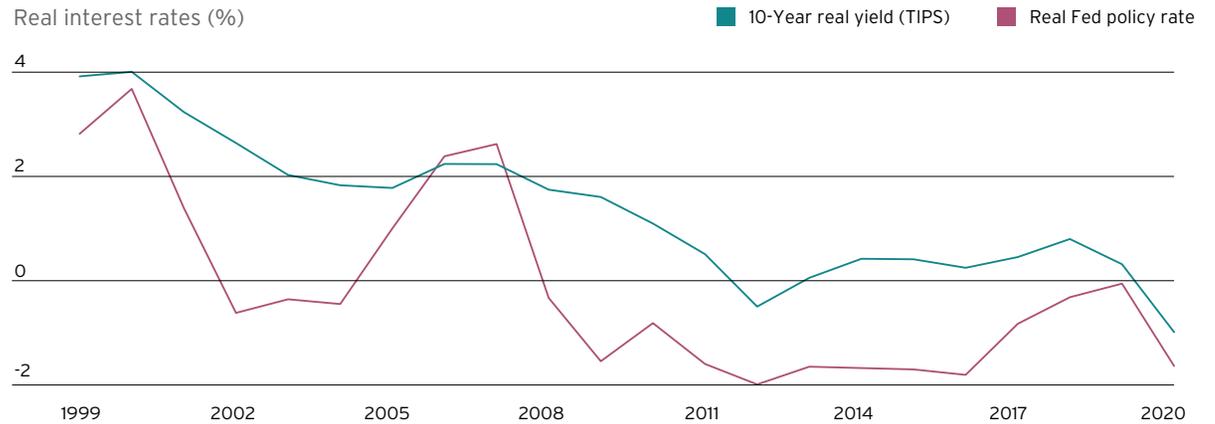
In the last cycle, the Federal Reserve kept its key policy rates close to zero for seven years. In this cycle, we see the underlying recovery dynamics of the US and world economy quite differently from the housing bubble period's long-term challenges. However, the Fed has again strongly signaled a zero interest rate policy for the next three years at a minimum. This is even as it expects a cumulative 9.5% gain in real GDP and a drop to a 4% unemployment rate over that time.

The Federal Reserve announced in August that it has changed its framework for inflation to allow for “catchup” periods, so that inflation would average 2%, not simply hit that target. This came after the Fed’s preferred inflation measure - which allows for more frequent substitution of goods and services than the well-known Consumer Price Index (CPI) - rose at an average 1.6% pace in the past ten years. This measure has long trended 0.3% lower annually than the CPI. Some might call the Personal Consumption Expenditures Price Index “the CPI for what you can still afford.”

Current US 10-year real interest rates are near a record low -1%. The Fed’s policy target rate would be about -2% in real terms through 2023 if the Fed sticks to its guidance - **FIGURE 4**.

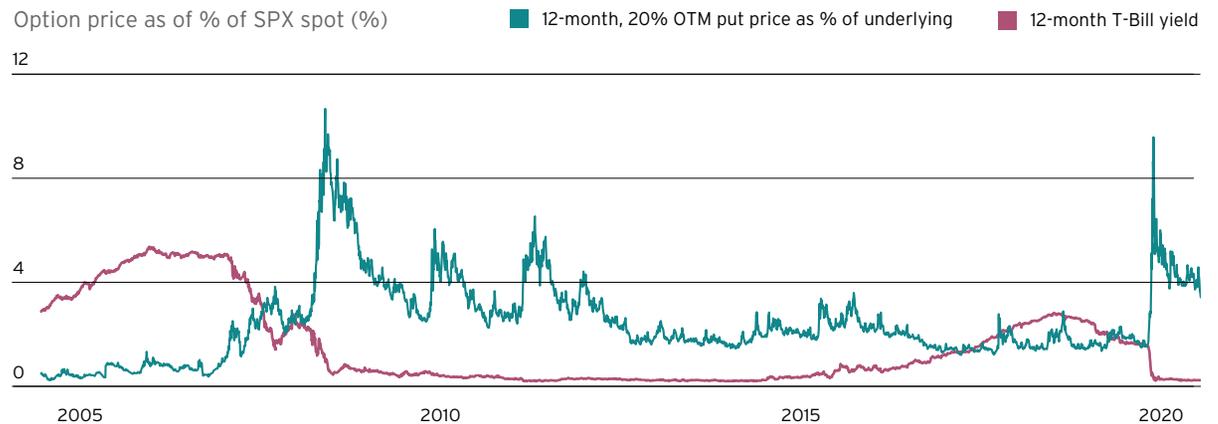
As global bond yields have fallen to a record low of 1% - including emerging markets and high yield - there is a predominant view that central banks have extinguished volatility in markets. This is certainly true in fixed income markets, where overall US bond market implied volatility - the range of asset price expectations derived from buyers and sellers of options - has fallen to an all-time low. Implied volatility in high yield bonds is barely above that of the investment grade bond market. However, equity-implied volatility has remained about double its historical average level - **FIGURE 5**. The income that can be derived from volatility buyers - that is, hedgers - in the equity asset class, equity dividends, alternative investments and relatively attractive credit risk premia that remain in credit markets are all components of our strategy for [Overcoming financial repression](#).

FIGURE 4. NEGATIVE REAL RATES



Source: Haver, as of 15 Nov 2020. Past performance is no guarantee of future results. Real results may vary. All forecasts are expressions of opinion and are subject to change without notice and are not intended to be a guarantee of future events.

FIGURE 5. S&P 500 20% OUT OF THE MONEY VS 1-YEAR T-BILL YIELD



Source: Haver, as of 20 Nov 2020. Past performance is not indicative of future returns. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only. Past performance is no guarantee of future returns. Real results may vary.

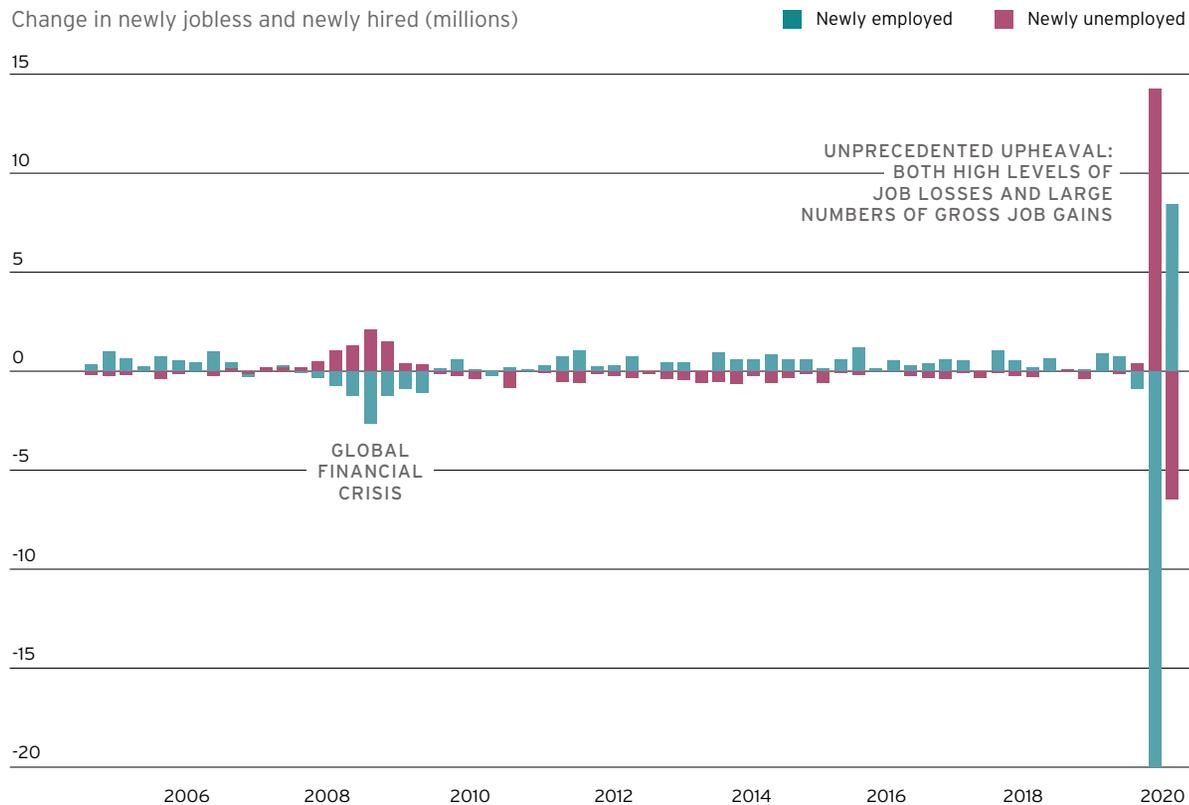
Near-term winners and long-term winners

Despite the external nature of the pandemic and its massive but short-term effects, the nature of business cycle recoveries always demands more time for rebuilding than for demolition.

The smallest businesses bore the true brunt of the crisis. And despite large up- and downswings in aggregate employment, many of these firms could simply not outlast COVID. The Partnership for New York, for example, expects as many as one-third of the city's businesses - mostly small enterprises - never to reopen. Employment overall has remained remarkably dynamic, with new job openings shifting to industries that have helped the economy cope with the virus - FIGURE 6. However, it still takes time for new business formations to make up for a loss of this magnitude.

With this in mind, political and scientific developments have shifted the world significantly towards combining fiscal stimulus with investments to combat climate change. Well before the pandemic, technological change was making new energy and battery technology both greener and cheaper, presenting a secular threat to fossil fuels - see **Unstoppable trends** in **Outlook 2020**. In [Greening the world](#), we see the large investments in green infrastructure in both Eastern and Western economies as a new driver.

FIGURE 6. QUARTERLY CHANGES IN US NEWLY JOBLESS AND NEWLY HIRED



Source: Haver, as of 31 Oct 2020.

Malcolm Spittler and Joseph Fiorica contributed to this article

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Watchlist

Are you positioned for the new economic cycle?

With COVID-19's departure in 2021, we expect the new economic cycle to strengthen.

However, many clients still have portfolios positioned for 2020, and almost all hold too much cash.

Our Outlook 2021 report sets out strategies to help you get positioned for 2021 and beyond.

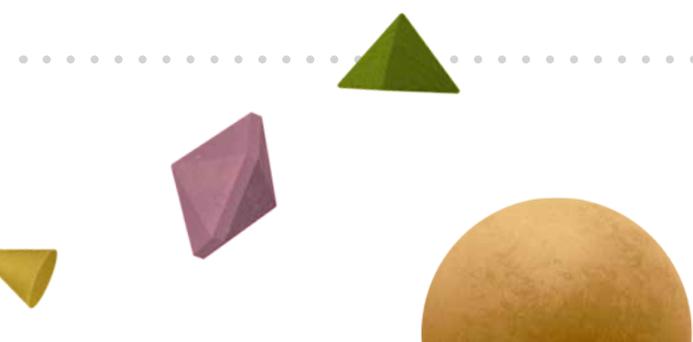
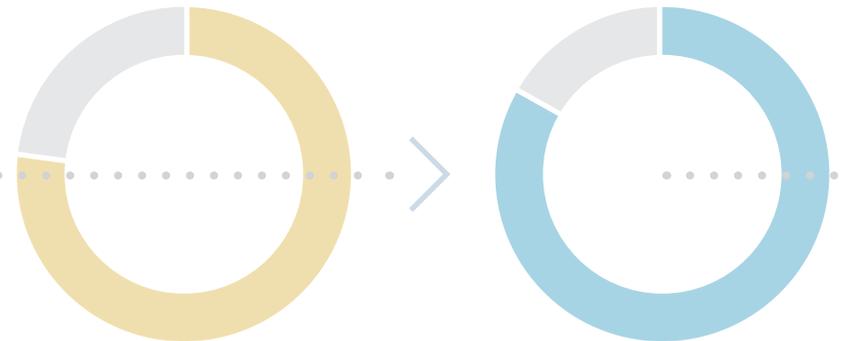
And our Outlook Watchlist presents a customized view of your portfolio's positioning in relation to our themes.



We can also offer you customized analyses to help you to:

- Get a holistic view of all your investments held at Citi and elsewhere
- Understand whether your cash is working hard enough
- Determine your portfolio's environmental, social and governance impact
- Gauge your positioning relative to your peer group's portfolios

To receive the analyses of your choice, please ask your relationship team.



1.3

The long-term outlook for asset classes: What's changed for 2021 and beyond

GREGORY VAN INWEGEN

Global Head of Quantitative Research and Asset Allocation, Citi Investment Management

Our strategic asset allocation methodology flashes a warning-sign for certain fixed income investment categories and lowers expected returns from others. Find out where the risks and opportunities are.

- Determining an appropriate mix of global asset classes to hold in your portfolio is the most important decision you take as an investor
- The worst pandemic in over a century unleashed unprecedented disruption in global financial markets, with some impacts that will long outlast COVID-19
- The Strategic Return Estimate for equities from emerging markets is well above that for developed markets



Determining your strategic asset allocation - an appropriate mix of global asset classes to hold in your portfolio - is the most important decision you take as an investor. Over the long term, it will shape both your returns and the amount of risk you take.

So, how should you go about it? Citi Private Bank believes that the answer depends predominantly on the outlook for individual asset class returns over the next decade.

Our own strategic asset allocation methodology - Adaptive Valuation Strategies (AVS)¹ - forecasts returns for asset classes over a ten-year horizon. We call these asset class forecasts Strategic Return Estimates or SREs. AVS calculates SREs based on the current valuation of different asset classes. Over time, low current valuations have tended to be followed by high returns and, as you might expect, high valuations by low returns. Other things being equal, AVS then recommends larger allocations to asset classes with higher SREs and smaller allocations to those with lower SREs.

So, what does AVS currently say about the outlook for returns between now and 2030? The most striking message concerns fixed income - **FIGURE 1**. The global pandemic unleashed unprecedented disruption in global financial markets. Some of these impacts will long outlast COVID-19.

Central banks flooded markets with liquidity, causing a decline in fixed income SREs worldwide and the SRE for US Cash to drop to 0.7% - see [Overcoming financial repression](#). The SRE for Developed Investment Grade Fixed Income - bonds from advanced economies like the US and Europe - is just 1.2%. That is well below the long-term average return of 5.6%. High Yield Fixed Income - lower quality debt from advanced economies - is forecast to return an annualized 3.9%. Again, this is 2.7% below the historic average of 6.6%. The SRE for Emerging Fixed Income is 3.6%.

FIGURE 1. STRATEGIC RETURN ESTIMATES (%)

GLOBAL DEVELOPED EQUITY	5.0
GLOBAL EMERGING EQUITY	9.2
GLOBAL DEVELOPED INVESTMENT GRADE FIXED INCOME	1.2
GLOBAL HIGH YIELD FIXED INCOME	3.9
GLOBAL EMERGING FIXED INCOME	3.6
US CASH	0.7
HEDGE FUNDS	4.0
PRIVATE EQUITY	14.2
REAL ESTATE	8.8
COMMODITIES	1.2

Source: Citi Private Bank Asset Allocation team, preliminary estimates as of 31 Oct 2020. Strategic Return Estimates are in US dollars; all estimates are expressions of opinion and are subject to change without notice and are not intended to be a guarantee of future events. Strategic Return Estimates are no guarantee of future performance.

¹ To read about more about our methodology, see [Adaptive Valuation Strategies - A New Approach to Strategic Asset Allocation: 2020 Annual Update](#)

The strong run up in equities globally, as the world recovers from the depths of the pandemic induced crash, has led to today's historically high valuations. The SRE for Global Developed Equity - which includes the US, Europe, and Japan - is 5.0%, is less than half the long-term average realized return for this asset class. By contrast, Global Emerging Equity - shares from developing economies like China and Brazil - has an SRE of 9.2%, indicating meaningful opportunities for return growth by adding emerging markets into a balanced portfolio allocation - see [Exploiting mean reversion](#).

For investors willing to sacrifice liquidity and increase risk, Real Estate is an attractive asset class, with an SRE of 8.8%. However, Private Equity is a standout, benefiting from pandemic related dislocations, with an annualized SRE of 14.2%. Given the depressed level of forecasted returns in traditional asset classes, the forecast premium of Private Equity relative to these asset classes is the highest of the last 30 years. Finally, Hedge Funds - which can play an important role as a portfolio hedge during cyclical downturns -

are estimated to return 4.0%. This is consistent with expected returns after a down-cycle has ended.

Given this broad range of SREs, some investors inevitably ask us why they should not build portfolios exclusively from the asset classes where potential returns are highest. Citi Private Bank would not advocate such an approach. While our methodology does recommend greater allocations to asset classes and regions with higher SREs, there are still diversification benefits from having exposure to asset classes with historically low SREs. That is because different asset classes gain and lose value at different times, reducing the volatility in portfolios overall. Given the post-COVID environment, we continue to stress the value of globally diversified multi-asset class portfolios for safeguarding wealth in 2021 and beyond.

Paisan Limratanamongkol, Andy Zhu, Gene Desello, Xin He and Wenjing Wu also contributed to this article.



1.4

The critical importance of staying invested

DAVID BAILIN
Chief Investment Officer

GREGORY VAN INWEGEN
Global Head of Quantitative Research and Asset Allocation, Citi Investment Management

STEVEN WIETING
Chief Investment Strategist and Chief Economist

Trying to time the market in 2020 was almost impossible. Sitting on the sidelines in cash reduced portfolio returns as the year went on. For 2021, we recommend you put your core portfolio's excess cash to work.

- Many investors waiting on the sidelines for better market entry points have failed to invest and have missed the first phase of the pandemic recovery
- Given our view of market opportunities in a post-COVID world, investors should maintain cash balances based on their portfolio requirements and establish or maintain full core positions
- The onset of financial repression means that cash will earn even less
- We recommend you seek to invest fully, in line with your customized long-term plan, emphasizing the wide range of opportunities that the post-COVID world presents



As the new economic cycle begins, how much of your core portfolio consists of cash and very short duration bonds? For many wealthy families, the answer might easily be 20% or even more. In many instances, this has been the case for much of the last decade. Such investors have typically positioned themselves in this way to be “safe” or to fund a future entry into risk assets that has never happened. However, waiting in cash for a “better time” to buy has almost never been advisable. And in the coming years, in a period of financial repression, it may prove harmful to wealth.

The COVID-19 pandemic period has provided a stark reminder of the perils of market timing. As the markets plunged in March, some perturbed investors liquidated equity holdings and retreated to the perceived safety of cash. Aside from crystalizing their losses, many believed they could time their re-entry into equities and other risk assets at lower levels in due course. When the turnaround arrived, however, it came sooner and more sharply than anyone might have anticipated. In 2020, being on the sidelines for the S&P 500 Index’s strongest two up-days - which occurred just around the bear market’s lows - reduced an investor’s return by 19.3%.

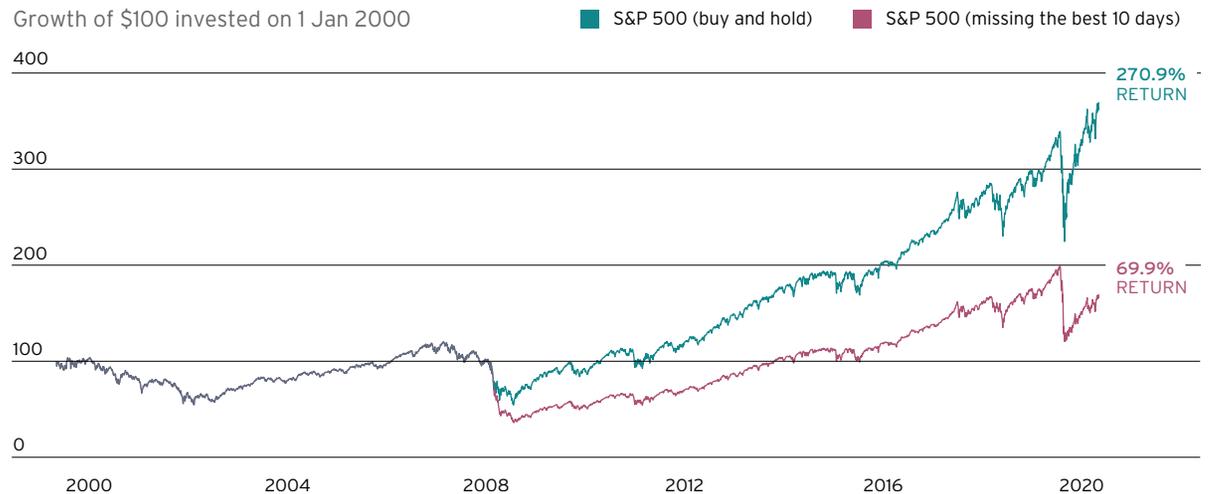
No less damaging are the typical results of market timing over longer periods. **FIGURE 1** shows the returns on the S&P for a market timer who missed the ten strongest up-days between January 2000 and October 2020. Including reinvested dividends, such an investor would have achieved a return of 60.7% for the entire period. By contrast, an investor who stayed fully invested in the S&P for the same period would have achieved a return of 250.7%.

With US and global equities having recovered to all-time highs in the months since March, you may feel tempted to await a dip in valuations before

putting any excess cash to work. The underlying fear here is typically that investing immediately will be poorly timed and result in imminent losses. This fear outweighs the fear of foregoing returns from “just waiting.” Over the long run, though, the clear lesson is that what matters most is not choosing the lowest entry-point at which to invest, but having a fully invested core portfolio at all times.

The cost of waiting could be about to become even more painful. In recent decades, it has typically been possible to earn some positive return on cash after inflation. This allowed

FIGURE 1. THE PERILS OF MARKET TIMING



S&P 500 total returns with and without the 10 best days (1 Jan 2000 - 21 Oct 2020) Source: Global Asset Allocation, Global Investment Lab, Bloomberg, as of 24 Nov 2020. Past performance is no guarantee of future results. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only. Past performance is no guarantee of future returns. Real results may vary.

investors to preserve and even grow their purchasing power, albeit by a lot less than if they had had a fully invested core portfolio. In the period ahead, this may no longer be true. In much of the world, we expect a toxic combination of very low or negative interest rates and higher inflation, or “financial repression.” In such an environment, holding excess cash as well as many low-yielding bonds results in an erosion of purchasing power. An investment held in cash from 1945 would have taken 38 years to earn a positive return – see [Overcoming financial repression](#).

Get fully invested – and stay that way

As you think about investing in 2021 and thereafter, we urge you to address two vital issues. The first is how much cash you really need to hold for the next five to ten years. This requires you to determine the liquid resources you truly need to maintain for a rainy day or rainy year. We stand ready to help you do so. Next, the question is how to allocate your capital in your core portfolio. The long-term investment plan that we customize for you provides our answer to this.

The methodology that we use to create your long-term plan – [The long-term outlook for asset classes: What’s changed for 2021 and beyond](#) – is founded on certain key principles. These include keeping you fully invested throughout economic cycles and eschewing market timing. They also

include global multi-asset class diversification and regular rebalancing to keep your portfolio in line with your plan. Risk reduction is based on diversification and not market timing.

To implement your long-term plan in your core portfolio, we then recommend appropriate strategies for you. In today’s new economic cycle, it is extremely important for investors with an average risk profile and return goals to hold a substantial core portfolio, allocated predominantly to equities with both growth and income prospects. Among the higher equity allocations should be certain categories of stock that we believe can serve as fixed income substitutes. Dividend equities, focused on companies that have strong earnings prospects and a history of maintaining dividend payouts, are one example. These portfolio additions are important in a period of financial repression.

At a lower allocation, we favor mortgage REITs that offer much higher income returns for investors willing to endure higher volatility. And there are preferred stocks that can serve as a fixed income proxy during periods when rates are being held down artificially. We discuss some of these possibilities in [Overcoming financial repression: How dividend equities work overtime in your portfolio](#) and [Finding yield in a repressed world](#). We also recommend long-term exposure to our other themes of [Unstoppable trends](#) and [Exploiting mean reversion](#).

So, what should you do next? A good first step is to ask us to carry out an analysis of your core investment portfolio. We can then highlight any excess cash and other areas where your portfolio is not following your long term plan, including its alignment to our investment themes. Your Investment Counselor can then work with you to get your core portfolio fully invested and keep it that way. Building wealth over time requires planning and patience, not market timing.



1.5

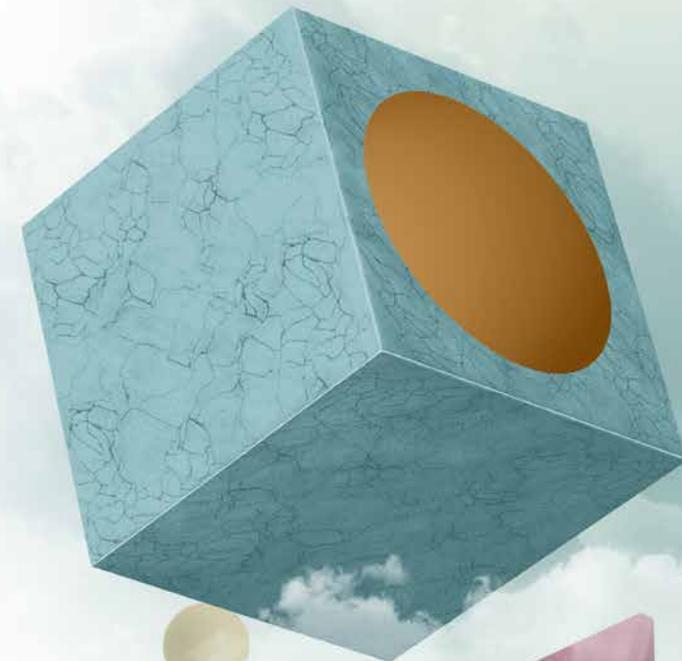
Keeping your portfolio strong: Introducing the gap analysis

PHILIP WATSON - Head of the Global Investment Lab

VISWANATHAN VENUGOPALA - Head of the Lab for Family Offices

Following a plan is vital to your long-term investment performance. A gap analysis can help determine whether your core portfolio is on track.

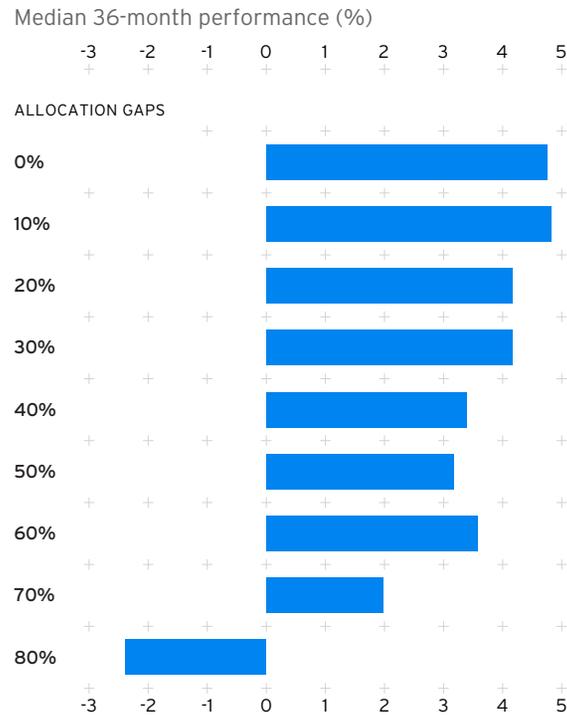
- Core portfolios that follow a customized, robust long-term plan are likelier to achieve risk and return objectives than those that do not
- A gap analysis can highlight divergences between your core portfolio and your customized plan
- As well as your overall asset class positioning, a gap analysis explores your core portfolio's exposures and can identify risks due to macroeconomics, concentrations and other factors
- Having identified gaps in your portfolio construction, we can suggest strategies to help realize your plan



Behind every great investment portfolio is a carefully constructed plan. Over many decades, both financial theory and practical experience have demonstrated the critical value of creating and then adhering to such a plan. Investors who follow their plan for their core portfolios are much likelier to meet their long-term objectives than those that do not. Specifically, following the plan can achieve higher returns and take less risk than would otherwise be the case.

Despite the importance of developing and following a plan, many investors fail to do so. Although we customize a long-term investment plan for each client, we regularly see instances where core portfolios deviate significantly from these plans. Ignoring entire asset classes or regions of the world, holding concentrated positions in a security or sector, and hoarding excess cash are some of the destructive behaviors that we encounter most often.

FIGURE 1.
THE IMPORTANCE OF FOLLOWING YOUR PLAN



Source: Citi Private Bank Global Investment Lab, as of 31 Oct 2020. Divergence from our recommended allocation is represented here by allocation gaps. Allocation gaps measure the degree to which clients' portfolios follow our recommended allocations at all risk levels. The lower the gap percentages, the more aligned the portfolios with our recommended allocations. A reading of 0% indicates full alignment with our recommendation. This information is drawn from the Private Bank's proprietary data covering 6,000 continuing client portfolios whose reference currency is US dollars. Past performance is no guarantee of future returns. Real results may vary.

Here is some useful evidence that illustrates why this is such a serious matter. Our analysis of some 6,000 client portfolios over the three years to October 2020 finds that the portfolios that have most closely followed the globally diversified asset allocations we recommended have generally outperformed those that have not over that three-year period - **FIGURE 1**. The difference in average returns between portfolios that followed their plans and those that did not was substantial. By missing returns over time, clients increase their risk, reduce returns and can make portfolios less resilient in times of stress.

How a gap analysis works for you

So, is your core portfolio following a plan or not? To answer this question, we can turn to gap analysis. Gap analysis is a detailed diagnostic exercise designed to uncover gaps between your plan and your portfolio. As well as deviations from the weightings recommended in your plan, gap analysis can highlight particular biases, hidden risk exposures, inefficiencies and other shortcomings of which you might have been unaware.

A thorough gap analysis scrutinizes your core portfolio's current positioning in light of your return objectives, risk appetite and other preferences, as set out in your investment policy statement. It will ask whether your current portfolio is consistent with the pursuit of those objectives. The most important element here is obviously your core portfolio's positioning compared to the strategic asset allocation - or long-term investment plan - that we customize for you using our own methodology. (For our methodology's latest ten-year return estimates - see **The long-term outlook for asset classes: What's changed for 2021 and beyond.**)

Having an appropriate mix of asset classes from global markets can help enhance your returns and mitigate your risks. A gap analysis first addresses any deviations between the asset classes you actually own and those defined by your plan, as well as the size of each allocation. It may well be that you have exposure to all the recommended asset classes, but that your holdings have drifted away from their target weights over time. The powerful performance of technology equities in 2020, for example, has left

many investors with a larger long-term weighting than we would advise.

Exposure to our multi-year investment themes is another important consideration for your core portfolio. Every year, we make a customized Outlook Watchlist report available to you to highlight whether your asset allocation has exposure to our themes. The Watchlist is a gap analysis that addresses this element within your core portfolio. A full gap analysis can identify shortfalls in portfolio construction and thematic exposures.

Having determined your broad asset class and thematic exposures, a gap analysis can drill down into the characteristics of your holdings in each asset class. For example, it can highlight your exposure to equity return drivers such as size (large- versus small-cap), growth and value, quality and momentum. It can also identify exposure to macroeconomic factors, including interest rate and currency risks within an otherwise high-quality fixed income allocation. These are less readily observable than broad asset class exposures, but play an important part in your core portfolio's performance, both in the shorter and longer term. The larger and more complex your core portfolio, the more likely it is that you may have inadvertently built up an outsized exposure to certain individual securities or sectors.

Cash is not king

Some portfolio gaps are less obvious, but the "gap" caused by having too much cash is one that is often assumed to enhance portfolio safety. Can



one even have too much cash? The answer is yes. And the main reasons are two-fold. First, cash during a period of financial repression is an asset that loses value relative to inflation. Second, the opportunity cost of too much cash is the absence of a return one would have earned over time. For example, if a fully invested portfolio would have earned 2% more per annum over an investment cycle, that portfolio is inherently riskier.

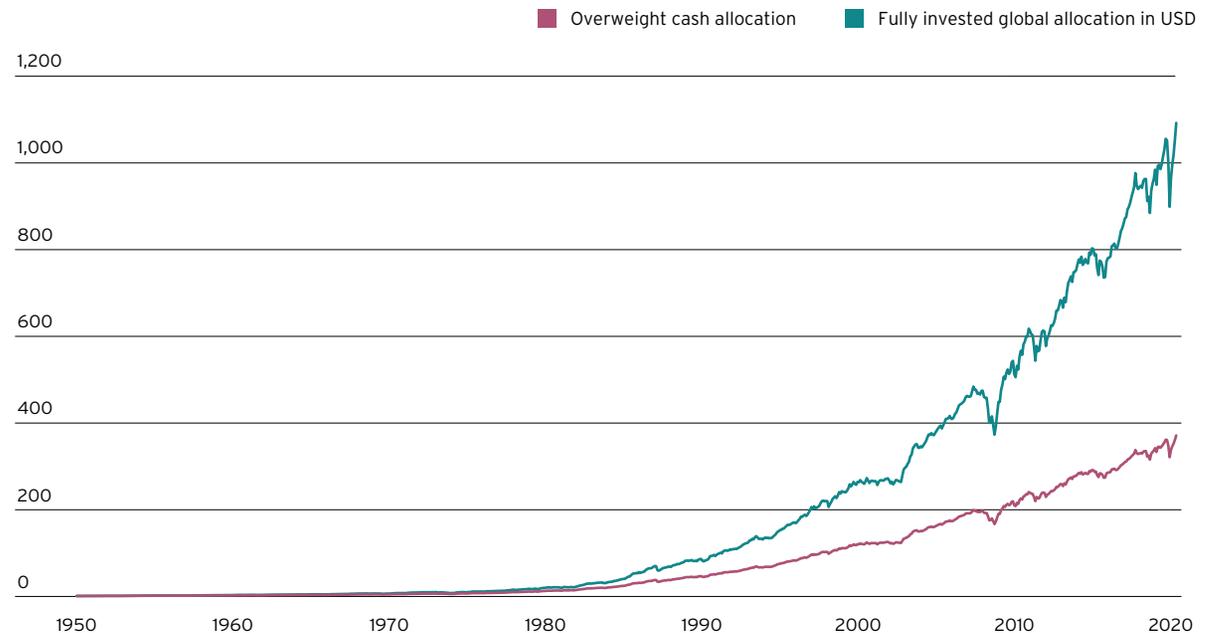
Excess cash weightings are all too common in core portfolios. Indeed, we frequently see portfolios with a 30% weighting in cash and sometimes more. FIGURE 2 compares the performance of a fully invested global multi-asset class allocation to an allocation with a large cash overweight position. The greater your excess cash holding, the bigger the drag on your performance over time. Sitting on the sidelines is a costly strategy - see [The critical importance of staying fully invested](#). In the coming years, we believe it could become even more hazardous for your wealth, given the likelihood of continued negative real interest rates - see [Overcoming financial repression](#).

From minding the gap to filling the gap

Performing a gap analysis upon your core portfolio is an essential exercise. But it is also only the first step. Having rigorously identified gaps through an annual review, you need to take action to fill them. Based on your core portfolio's specific needs, your relationship team - working in partnership with our Managed Investments and Capital Markets specialists - can suggest suitable

strategies. We can then help keep your customized plan implemented in your portfolio going forward. Please ask your Private Banker or Investment Counselor about getting a gap analysis of your core portfolio.

FIGURE 2. FULLY INVESTED ALLOCATIONS HAVE TROUNCED CASH-HEAVY ALLOCATIONS OVER TIME



The US\$ portfolio cash overweight, a historical allocation on an asset class level assumes 42% equity and 28% fixed income proportions and 30% cash, rebalanced on an annual basis. The Global US dollar allocation represents AVS Risk Level 3, the 31 Dec 2019 allocations. They include allocations to equities, fixed income, commodities, cash and hedge funds. Risk levels are an indication of clients' appetite for risk. Risk Level 3 - Seeks modest capital appreciation and, secondly, capital preservation. Source: Global Investment Lab, Citi Private Bank, as of 31 Oct 2020. The returns shown were calculated at an asset class level using indices and do not reflect fees, which would have reduced the performance shown. Past performance is no guarantee of future returns. Real results may vary. Diversification does not ensure against loss of investment.

2 Exploiting mean reversion

CONTENTS

- 2.1 Reversion to the mean and what it means for portfolios
- 2.2 Capitalize on distressed opportunities

2.1

Reversion to the mean and what it means for portfolios

STEVEN WIETING - Chief Investment Strategist and Chief Economist

JOSEPH FIORICA - Head of Global Equity Strategy

KRIS XIPPOLITOS - Head of Global Fixed Income Strategy

The arrival of the worst global pandemic in more than a century moved every asset price in the world, and its departure will do the same. It is time to position portfolios to exploit what comes next.

- COVID-19 has caused huge economic and financial market disruption, but it is neither unstoppable nor a trend
- Instead, we believe the pandemic's impacts are temporary, causing massive valuation distortions in 2020 that will unwind in 2021
- Many asset prices and relationships between assets have strayed far from their long-term relationships
- Just as COVID moved every asset price in the world, the same will occur as it departs
- We expect a "reversion to the mean," in which certain sectors will be major beneficiaries
- These include COVID-cyclical sectors, small-cap equities and some of the most beaten-down national and regional markets
- After the most significant dispersion of asset prices in history, exploiting this mean reversion will be crucial to your portfolio's return opportunities in 2021



COVID-19 has split the world's companies into winners and losers. The eruption of the pandemic and the unprecedented steps taken to combat its spread disrupted economic activity and everyday life profoundly. Demand surged for certain companies' goods and services but collapsed for others. Roughly half the world's asset prices experienced a major boost, while the other half suffered. Enormous monetary and fiscal stimulus has helped support markets as a whole, but fiscal actions did not narrow the gap in performance between COVID beneficiaries and COVID underdogs.

To be clear, there are good reasons why certain markets, sectors and companies should have outperformed during a major health crisis. However, COVID-19 is not one of our **Unstoppable trends**. While it will undoubtedly leave some permanent impacts, it will not be a new driver of secular growth or decline for many years to come.

The relationships between many asset prices have stretched very far from their long-term mean levels - too far in our view. Financial history holds a clear lesson for us here. When relationships between asset prices reach extremes such as these, reversion to the mean ultimately follows.

We believe that mean reversion for many financial assets could begin soon. In 2021, we believe the shock of the pandemic's economic effects will fade, with broader economic growth accelerating as healthcare solutions to COVID are introduced. As a new economic growth cycle takes hold, traditional forces will reset asset

prices for 2021. This is not to say that all high-performing assets during the pandemic will suffer when it leaves. While some may indeed fall, many of them may enjoy further gains. The issue is largely about relative performance. Many of the pandemic's weakest performers could become the strongest performers in the recovery that will begin in 2021.

In our view, most investors are unprepared for this mean reversion. Many have made good returns from technology, media and other substitutes that have allowed the world to maintain its economic equilibrium far better than one might have expected during the pandemic. But as investors, we must not be complacent. We must assess what is likely to lie ahead and make smart portfolio decisions. As prices between assets normalize as COVID departs, exposures to last year's losers might be a winning strategy.



COVID's temporary distortions

The economic distortions created by COVID-19 are all around us. For example, demand for single-family homes, do-it-yourself building materials and furnishings, and consumer staples has surged. So too has demand for digital solutions that allow us to work from home and consume while remaining socially distant. In contrast, “socially close” activities including travel, eating out, traditional shopping and office work have had to be dramatically curtailed to limit the spread of the virus.

COVID's huge hit to economic growth - and policy steps to mitigate those effects - have similarly generated an unprecedented and pervasive divergence in asset prices. To highlight the distortion, we divide the world's equities into “COVID cyclicals” and “COVID defensives,” depending on the virus's effects upon their businesses. COVID defensives include “stay-at-home” beneficiaries, such as digital entertainment, online retail, and consumer staples. COVID cyclicals include “leave-your-home” beneficiaries, such as hotels, restaurants, airlines and office REITS. The distortion can be seen in global equity performances and in the sovereign credit performance of predominately “COVID-cyclical” national economies - FIGURES 1 and 2.

While information technology has traditionally been classified as a cyclical industry, we designate it as a COVID defensive. Despite big booms and busts in the past, communications technology has transformative long-term growth properties - see [Digitization: The age of hyper-connectivity is upon us](#) in **Unstoppable trends**.

FIGURE 1. COVID DEFENSIVES OUTPERFORMING COVID CYCLICALS

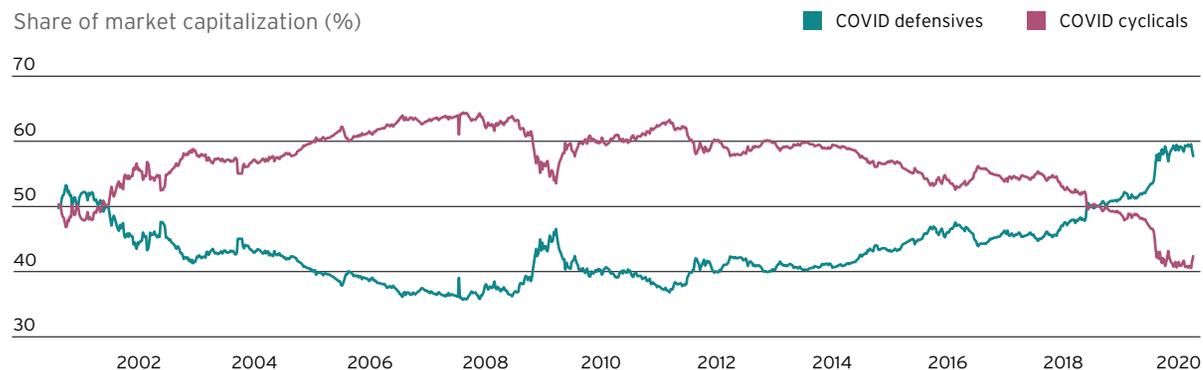
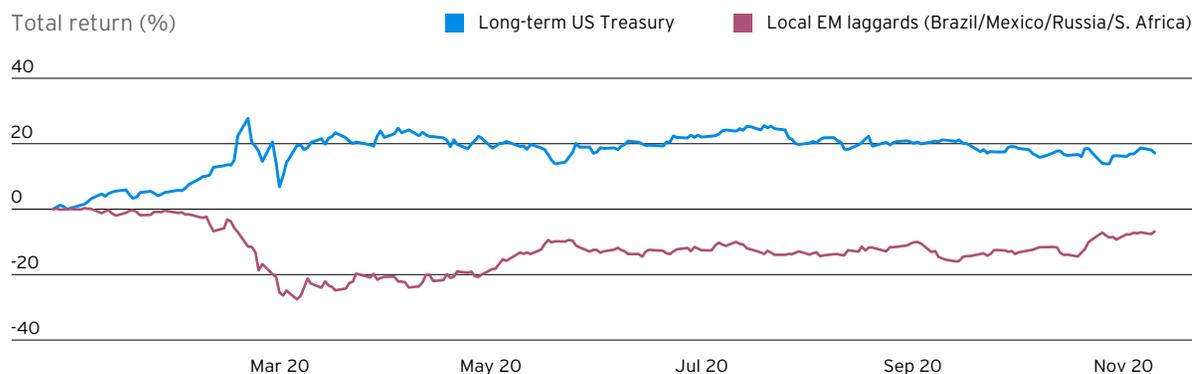


FIGURE 2. US TREASURIES OUTPERFORMING EMERGING SOVEREIGNS



Source: Bloomberg and FactSet as of 15 Nov 2020. Local EM laggards represented by Bloomberg Barclays indices. COVID cyclicals: Financials, industrials, energy, materials, real estate, consumer discretionary ex-Amazon COVID defensives: IT, healthcare, communication services, consumer staples, utilities, Amazon. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Index returns do not include any expenses, fees or sales charges, which would lower performance. For illustrative purposes only. Past performance is no guarantee of future results. Real results may vary. All forecasts are expressions of opinion and are subject to change without notice and are not intended to be a guarantee of future events.

In 2020, those properties allowed the economy to adapt to COVID restrictions in ways that would not have been possible had the crisis struck in any previous decade.

We have similarly reclassified real estate as a COVID-cyclical sector. That is as a result of the unique negative effects of social distancing upon key components of the sector, such as shops and office properties. The industries most negatively affected by COVID have created negative spillovers for the banks that have lent to them. Firms that have suffered huge revenue falls as they “wait out” the crisis have seen their balance sheets deteriorate, worsening their credit. Thus, financials are also part of the COVID cyclicals.

As dramatic as the distortions have been - both in the economy and in asset prices - they are temporary. By contrast, though, many investors may be positioning for these distortions to endure for much longer.

**FIGURE 3:
US MARKET HAS MOST COVID DEFENSIVES**

	COVID CYCLICALS (%)	COVID DEFENSIVES (%)
US	32.8	67.2
CHINA	40.6	59.4
EM ASIA EX-CHINA	41.4	58.6
EUROPE EX-UK	48.3	51.7
UK	55.4	44.6
JAPAN	56.3	43.7
LATAM	64.4	35.6
CEEMEA	70.5	29.5
ASIA EX-JAPAN	75.2	24.8

COVID cyclicals: Financials, industrials, energy, materials, real estate, consumer discretionary ex-Amazon. COVID defensives: IT, healthcare, communication services, consumer staples, utilities, Amazon. Source: FactSet as of 26 Nov 2020. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Index returns do not include any expenses, fees or sales charges, which would lower performance. For illustrative purposes only. Past performance is no guarantee of future results. Real results may vary.

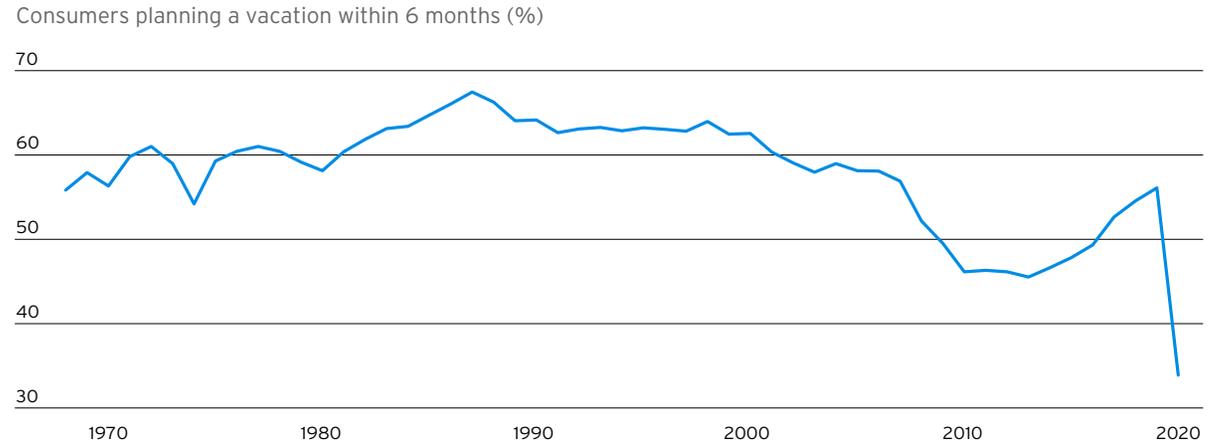


How COVID's distortions will unwind

We expect a prolonged but multi-faceted victory over COVID-19 - see **Resilience, optimism and investor action**. The victory will be won by an army of vaccines, monoclonal antibody treatments and rapid delivery systems all designed to stop the pandemic through large-scale health interventions. As the new economic cycle takes hold in 2021, therefore, investors will look forward to what might be possible once again. Pent-up demand is building in the economy after so much of life went "on hold" in 2020. We believe the world's consumers will be keen to plan vacations once they feel safe to do so - **FIGURE 4**. Retail goods sales have been rising relative to services. Goods demand has been outpacing production. Thus, we see two sources of growth as inventories and supply lines refill. We expect a further ramping up of trade and industrial activity in 2021 - **FIGURE 5**. We also see travel, tourism and hospitality industries acting like a coiled spring wound tight, ready to expand strongly once COVID is no longer a threat.

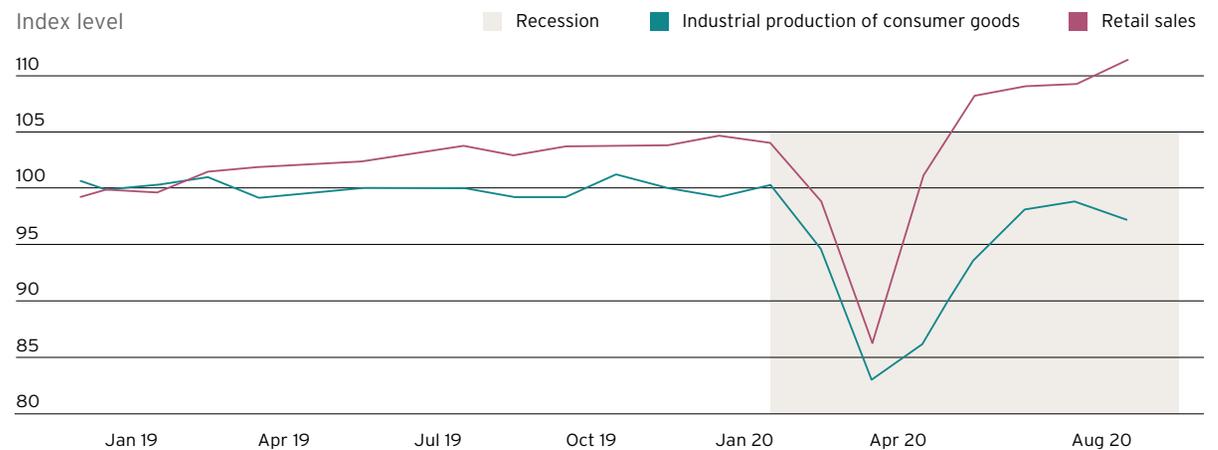
The US Federal Reserve has joined with other developed world central banks in actively seeking a higher inflation rate by maintaining an unusually easy monetary policy - see [Overcoming financial repression](#). This will cause rates to rise along the yield curve over time. However, effective COVID vaccines will be an even more powerful trigger for stronger immediate economic growth, relieving the need for more drastic easing measures.

FIGURE 4. US CONSUMERS' VACATION INTENTIONS



Source: Haver Analytics as of 8 Oct 2020.

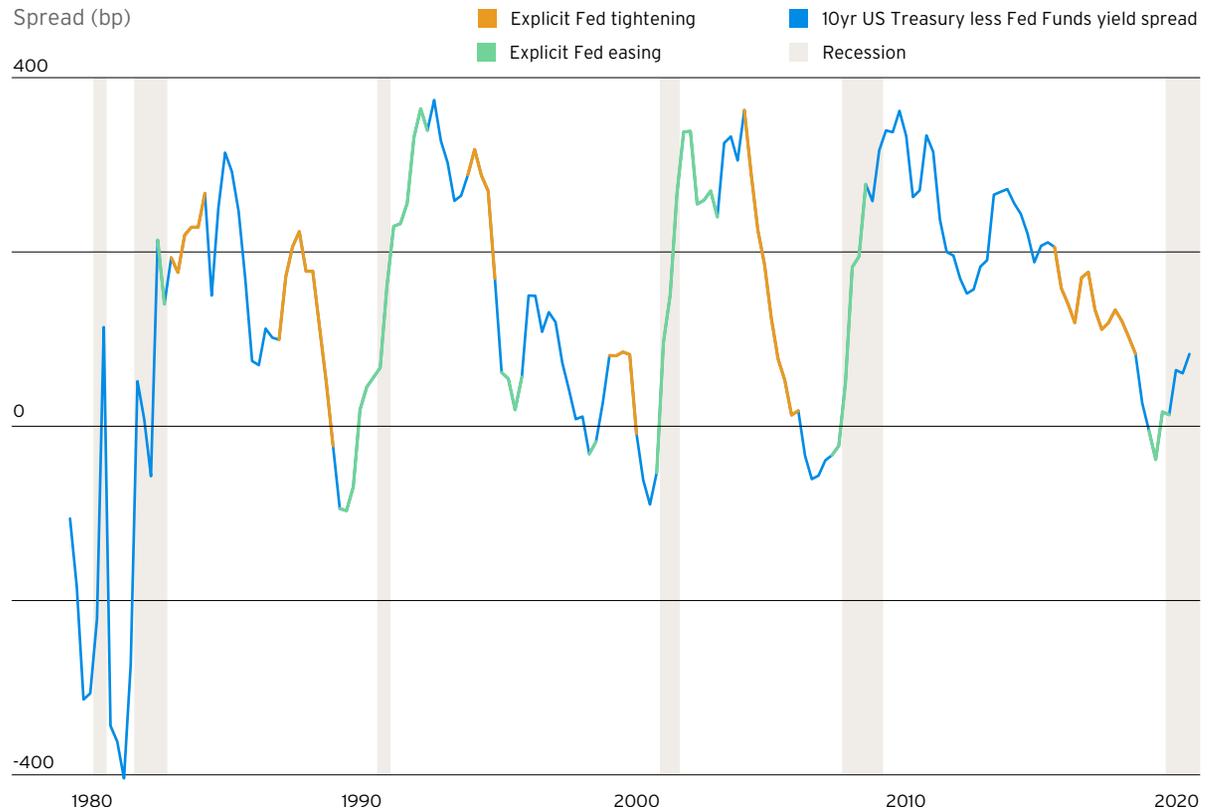
FIGURE 5. US GOODS PRODUCTION NOT KEEPING UP WITH DEMAND



Source: Haver Analytics as of 8 Oct 2020.

Prolonged Fed easing tends to steepen the US yield curve - **FIGURE 6**. So too would an economic recovery after COVID. Ten-year US Treasury yields could plausibly rise materially - albeit to a mere 1.5% - a year from now, leaving some bond investors nursing negative returns. The economic recovery from COVID will strengthen COVID cyclical corporate debt - **FIGURE 7**. We also expect it to instill recovery in the depressed financial sector. As the yield curve steepens, history says that COVID-cyclical financials may outperform tech - **FIGURE 9**. The same healthcare solutions will improve the fundamentals of commercial real estate credit.

FIGURE 6. FED EASING STEEPENS THE YIELD CURVE



Source: Haver Analytics, as of 25 Nov 2020.

FIGURE 7. US HIGH YIELD COVID DEFENSIVES VS COVID CYCLICALS

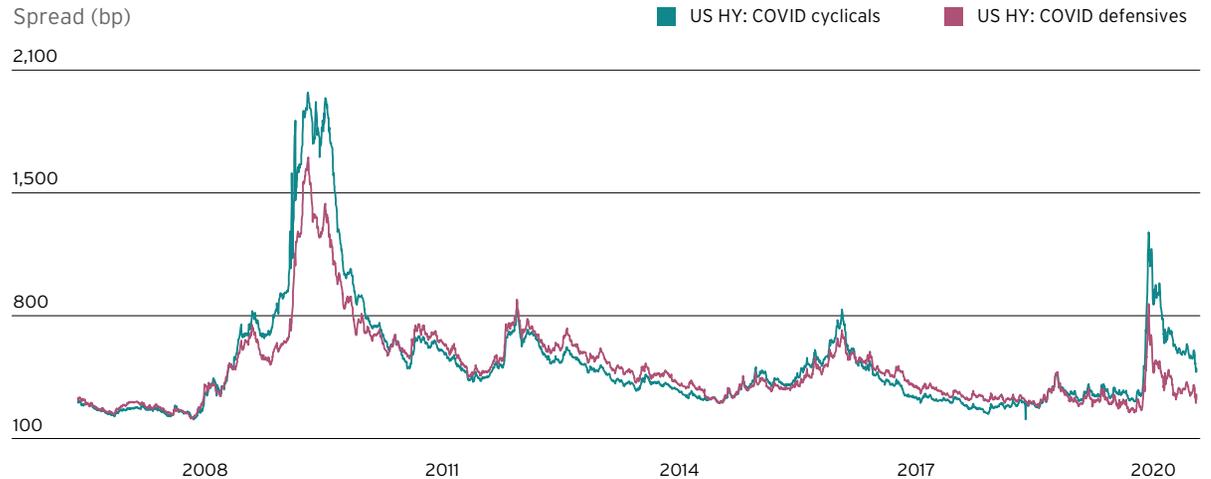
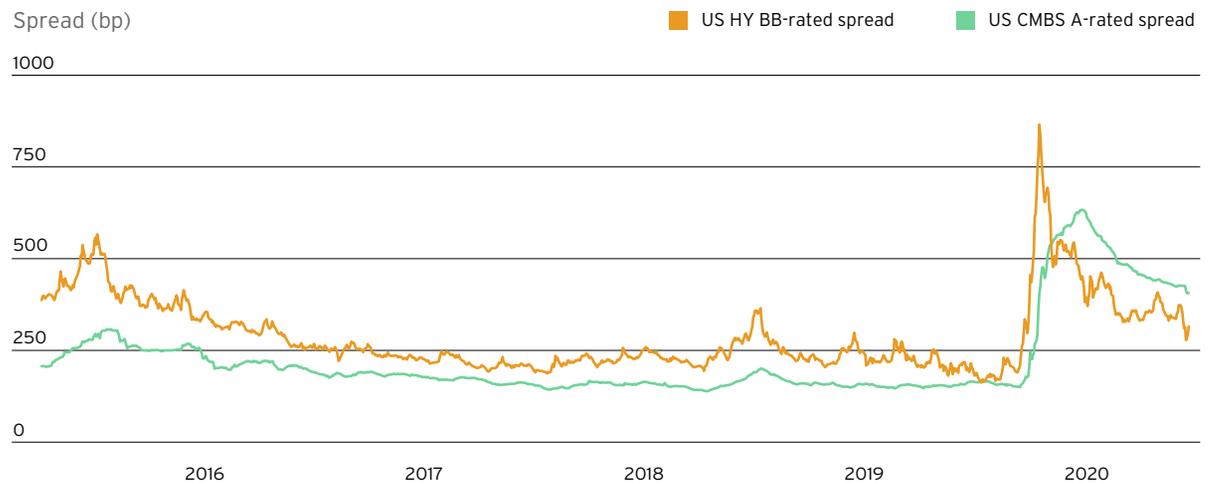


FIGURE 8. US 'A'-RATED CMBS VS BB-RATED CORPORATE SPREADS VS TREASURY



Source: Bloomberg and FactSet as of 15 Nov 2020.

COVID cyclicals: Financials, Industrials, Energy, Materials, Real Estate, Consumer Discretionary ex–Amazon.

COVID defensives: IT, Healthcare, Communication Services, Consumer Staples, Utilities, Amazon

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FIGURE 9. STEEPER YIELD CURVE POINTS TO FINANCIALS OUTPERFORMING TECH



Financials and tech represented by S&P 500 Financials and Technology indices. Source: Bloomberg, as of 31 Oct 2020. Past performance is not indicative of future returns. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Index returns do not include any expenses, fees or sales charges, which would lower performance. For illustrative purposes only.

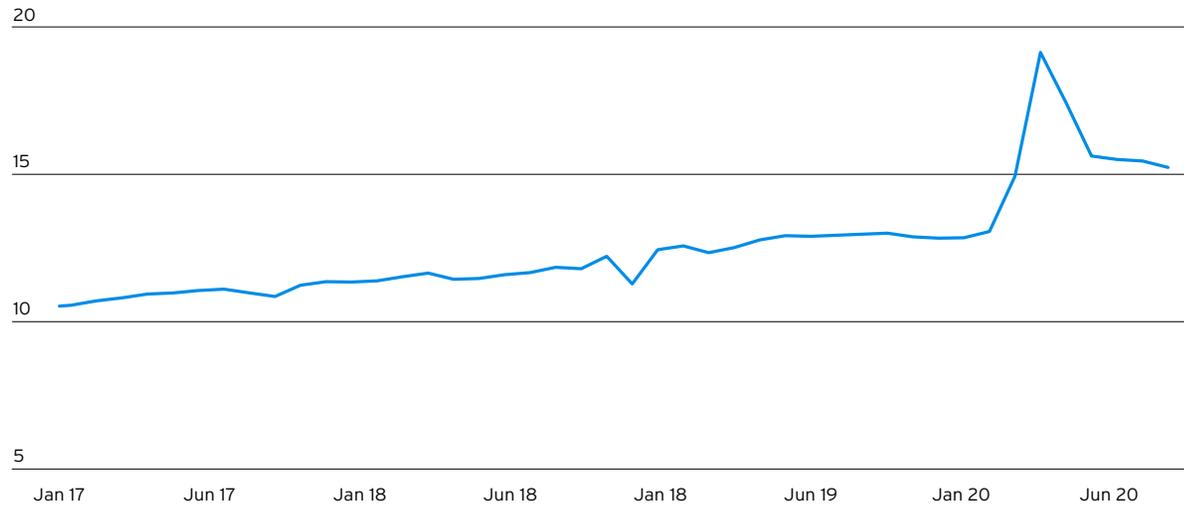
Technology: Stay invested but avoid excessive exposure

The same technology that keeps family members staring at their smartphones during dinner has helped retain many millions of services jobs. Thanks to powerful digital communications networks, the banking system has continued functioning without disruption. And consider how many more people might have caught COVID-19 if they had had to shop in crowded stores rather than receiving home deliveries. Had this virus struck twenty years ago, with the technology of the time, the current economic and health calamities would have been far worse.

COVID has thus accelerated the digital economy's advance, a shift that will not be unwound once the health crisis ends. Demand for office space and business travel will probably never return completely to pre-pandemic normality, with digital services gaining in share.

FIGURE 10. US E-COMMERCE GRABS MARKET SHARE

Online & non-store retail share of market (%)



Source: Haver, as of 19 Aug 2020

However, we should consider how the COVID distortions have altered life and raised valuations for certain assets to unusually rich levels. As **FIGURE 10** shows, the share of e-commerce retail sales grew most strongly when bricks-and-mortar stores had to shutter. Yet, when given a chance, a large share of buyers will return to stores. Recognizing that e-commerce is a much more efficient business model compared to traditional retail, it will not achieve total dominance due to the pandemic. In 2020, Amazon's market capitalization has risen to more than \$1.5 trillion from \$900 billion at the start of the year, adding an amount equivalent to the value of entire

companies such as American Express on any given day. Of course, this is also a reflection of its rapid growth in web services, not just its retail operations. However, we do not expect traditional retailers to claw back market share, nor Amazon's wider business to deteriorate. Even were its market capitalization to increase further in the coming year, Amazon's year-to-date gain of 90% already represents an unsustainable level of appreciation. Simply put, some more depressed assets also deserve a place in portfolios. Passive investor portfolios have only followed markets into extrapolating the COVID impact as a lasting trend. This weakens both their diversification and likely returns in 2021.

Macroeconomic policy has also affected valuations in 2020. Consider that interest rates are set for the aggregate condition of the economy. Rates cannot go low enough for those companies in the greatest distress. For those with strong fundamentals, a one-off valuation surge is possible. This is what we saw in 2020, which will have consequences for returns in 2021.

Firms with above-average valuations and faster-than-average trend growth rates are particularly sensitive to movements in interest rates. In 2020, plunging rates help explain a sharp valuation gain for growth equities relative to value equities - **FIGURE 11**. Given its high proportion of COVID-defensive businesses and the strong balance sheets typical of large firms, the technology-heavy NASDAQ 100 Index rose to highs relative to the Russell 2000 Index only surpassed in the late 1990s tech bubble - **FIGURE 12**. The latter is dominated by smaller US firms far more impacted by COVID.

We think there is a risk that investors may extrapolate current exaggerated trends beyond the present “COVID-impact period.” We do not see the fundamental performance of “digitization” sector firms challenged. Unlike other periods when we have needed to soothe investor fears, tech equities have surged in this crisis period.

We believe that you should still hold secular growth leaders from the COVID defensives in your portfolio. However, it is very important to avoid excessive concentration in individual equities and too great a weighting overall in such holdings. Within a globally diversified multi-asset class core portfolio that includes private market alternatives, we suggest that US large-cap technology shares be limited to 20% of total holdings. Technology, media and telecom sectors (TMT) should be limited to 50% of US equity holdings. In our view, this still provides ample long-term exposure to just one of our four **Unstoppable trends**.

FIGURE 11. FALLING BOND YIELDS, RISING GROWTH STOCKS

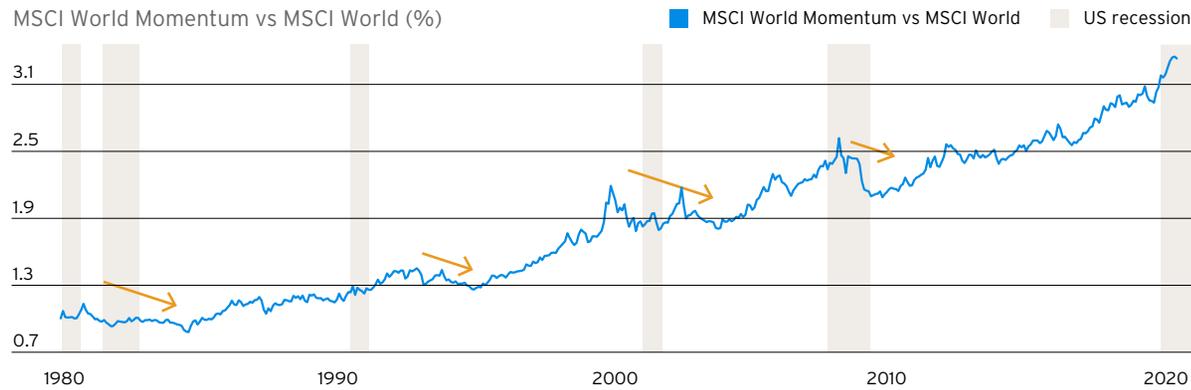


FIGURE 12. TECH SOARS VERSUS SMALL-CAPS



In Figure 11., US Pure Growth Factor is the Bloomberg US Pure Growth Index. Sources for figures 11 and 12: Haver Analytics and FactSet as of 15 Nov 2020. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Index returns do not include any expenses, fees or sales charges, which would lower performance. For illustrative purposes only. Past performance is no guarantee of future results. All forecasts are expressions of opinion and are subject to change without notice and are not intended to be a guarantee of future events.

FIGURE 13. GLOBAL MOMENTUM RELATIVE PERFORMANCE

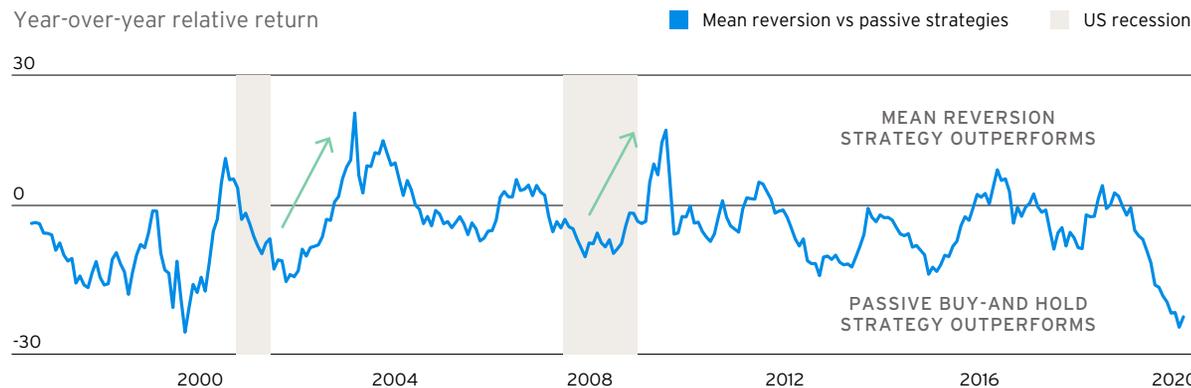


What if momentum investing loses momentum?

As the new economic cycle becomes further established in 2021, we expect long-lasting trends to be challenged. The strength of momentum investing is one of these. Over the past four decades, a simple approach of buying equities that had already done well recently has outperformed global equities - FIGURE 13.

Such returns are testament to the persistence of secular winners. Identifying these is a key part of our approach to helping you build a core portfolio. However, momentum is not guaranteed to be sustained, especially in the environment we foresee. This was most obviously the case in the late 1990s technology bubble period. Early in new economic and market cycles, the worst performing sectors most frequently see a reversion to the mean. This means a bounce-back in the worst-performing sectors as well as the potential for underperformance in prior leaders - FIGURE 14.

FIGURE 14. MEAN REVERSION STRATEGIES HAVE WORKED AROUND CYCLE TRANSITIONS



Source: Bloomberg as of 15 Nov 2020. Passive buy-and-hold strategy represented by buying and holding MSCI AC World Index. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Index returns do not include any expenses, fees or sales charges, which would lower performance. For illustrative purposes only. Past performance is no guarantee of future results. Real results may vary.

COVID cyclicals' comeback

In the present day, we see no fundamental negative developments for “digitization.” But cyclical sectors such as financials, industrials and the traditionally defensive but now “COVID cyclical” sector real estate, are likely to rebound from collapse to recovery in 2021. This includes “leave-your-home” beneficiaries, such as hotels, restaurants, airlines and office REITS. We look also for a revival in beaten down small companies across the world, and the most COVID-impacted regions.

The Global Financial Crisis was a good example of the comeback we may see. The most negatively impacted crisis zones of 2008 provided the strongest returns of 2009 - FIGURE 15. This was before investors even understood that the worst had passed. We believe the same could apply to many of 2020's hardest hit regional markets - FIGURE 16.

FIGURE 15. RETURNS IN AND AFTER THE GLOBAL FINANCIAL CRISIS

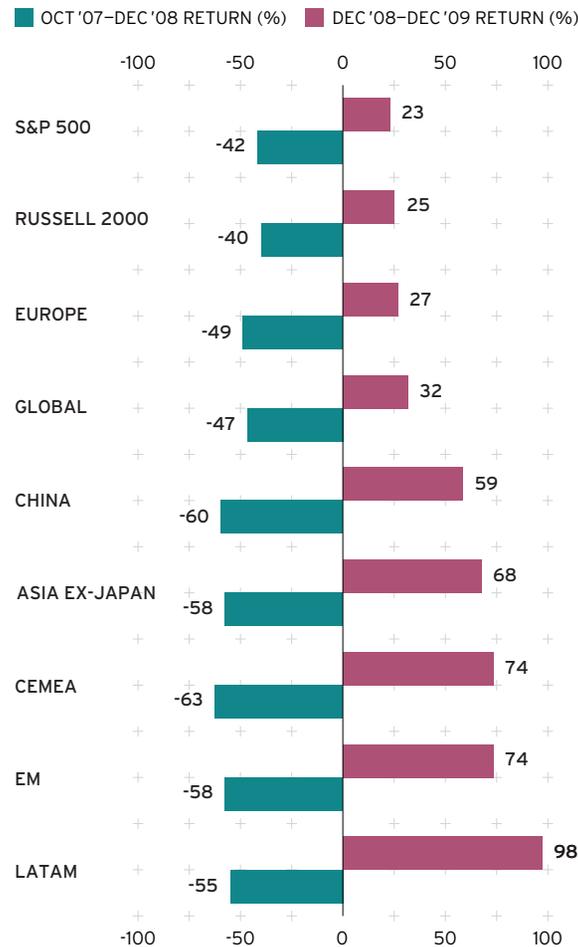
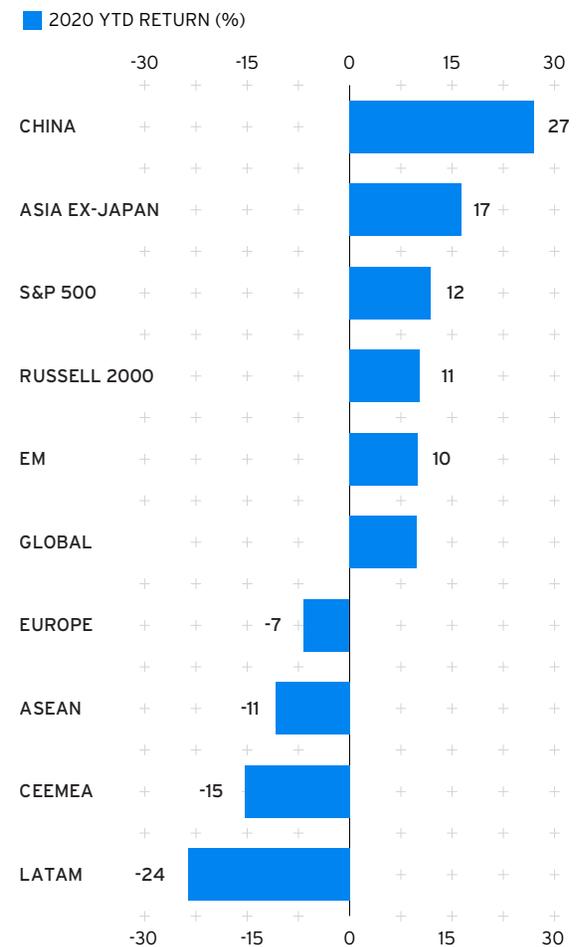


FIGURE 16. EQUITY PERFORMANCE AMID COVID-19



Indices shown are MSCI Indices, except for S&P 500. Source: FactSet, through 26 Nov 2020. Past performance is no guarantee of future results, and future results may not meet our expectations due to a variety of economic, market and other factors. Real results may vary. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only.

2.2

Capitalize on distressed opportunities

DANIEL O'DONNELL - Global Head of CIM Alternatives

JEFFREY LOCKE - Head of Private Equity and Real Estate - Americas

MARC RUCINSKI - Head of Private Equity and Real Estate - Asia

COVID's distortions have left various sectors facing widespread financial distress. This creates an opportunity for private market strategies to capitalize as returns and valuations revert to the mean over time.

- There are growing signs of financial distress within sectors hit hardest by the pandemic
- Such distress can provide investment opportunities accessible via certain private equity and real estate strategies
- In real estate, we see potential among hospitality assets
- In private equity, we are attracted to particular small- and mid-cap firms that are unable to access the public markets



COVID-19 has created some of the most extreme conditions that many businesses have ever endured, including a profoundly dire combination of collapsing revenues and high fixed costs. The difficulties were most acute in “socially close” industries, where the situation may not normalize fully any time soon. These harsh conditions have left many thriving businesses struggling to survive. In order to do so, they will likely require a capital injection or further restructuring of their balance sheets.

For cash-rich investors with a medium-term view, this sharp, short distress may potentially present attractive investment opportunities. We believe that some of the most compelling investments are not available via public markets. Instead, they are accessible via select private equity managers - especially in real estate in the hospitality sector - and in traditional/distressed private equity. As distorted operating conditions return gradually to more pre-COVID levels, we expect depressed profits to revert to their mean in 2022 or 2023. Distressed valuations will recover as well, enabling investors who are willing and able to sacrifice liquidity over a multi-year horizon to capitalize.

Real estate: A long recovery, but ripe for investment

Few segments within real estate have suffered more amid the pandemic than hospitality. Indeed, hotels are set to register their worst ever operating performance in 2020. In the US, revenue per available room - the industry's favored metric - is forecast to have fallen by 53% on average in 2020. That is more than three times greater than the previous record decline, which occurred during the Global Financial Crisis (GFC).¹ Financial distress for owners, developers and investors is already broadly in evidence, and is likely to intensify in the coming years. This creates opportunities for new investors who specialize in distressed opportunities and turnarounds.

Initially, we expect to see bank foreclosures. Thereafter, some property owners will decide that they are unwilling or unable to navigate the four- or five-year period leading to full recovery. Some will find themselves unable to adapt to potentially lasting changes in property demand. These include reduced business travel frequency, as more firms rely on technological alternatives

such as videoconferencing. In the US alone, there are \$15bn of hotel loans outstanding.² Hospitality investors who can provide structured solutions to recapitalize distressed assets will be well positioned in the environment.

Hospitality is already seeing nascent signs of a recovery. Total US occupancy rebounded from around 20% in early April 2020 to over 50% in August 2020, driven primarily by leisure demand in drive-to markets.³ Nonetheless, hotel operating fundamentals may well not fully recover to pre-pandemic levels until 2023 or 2024. That is longer than the recoveries after the GFC and the 9/11 terrorist attacks.⁴ Meanwhile, the recovery is likely to occur unevenly across the various guest cohorts of leisure, business, and group travel. We look for leisure - which represented some 70% of travel expenditure in 2019 - to drive the recovery initially.

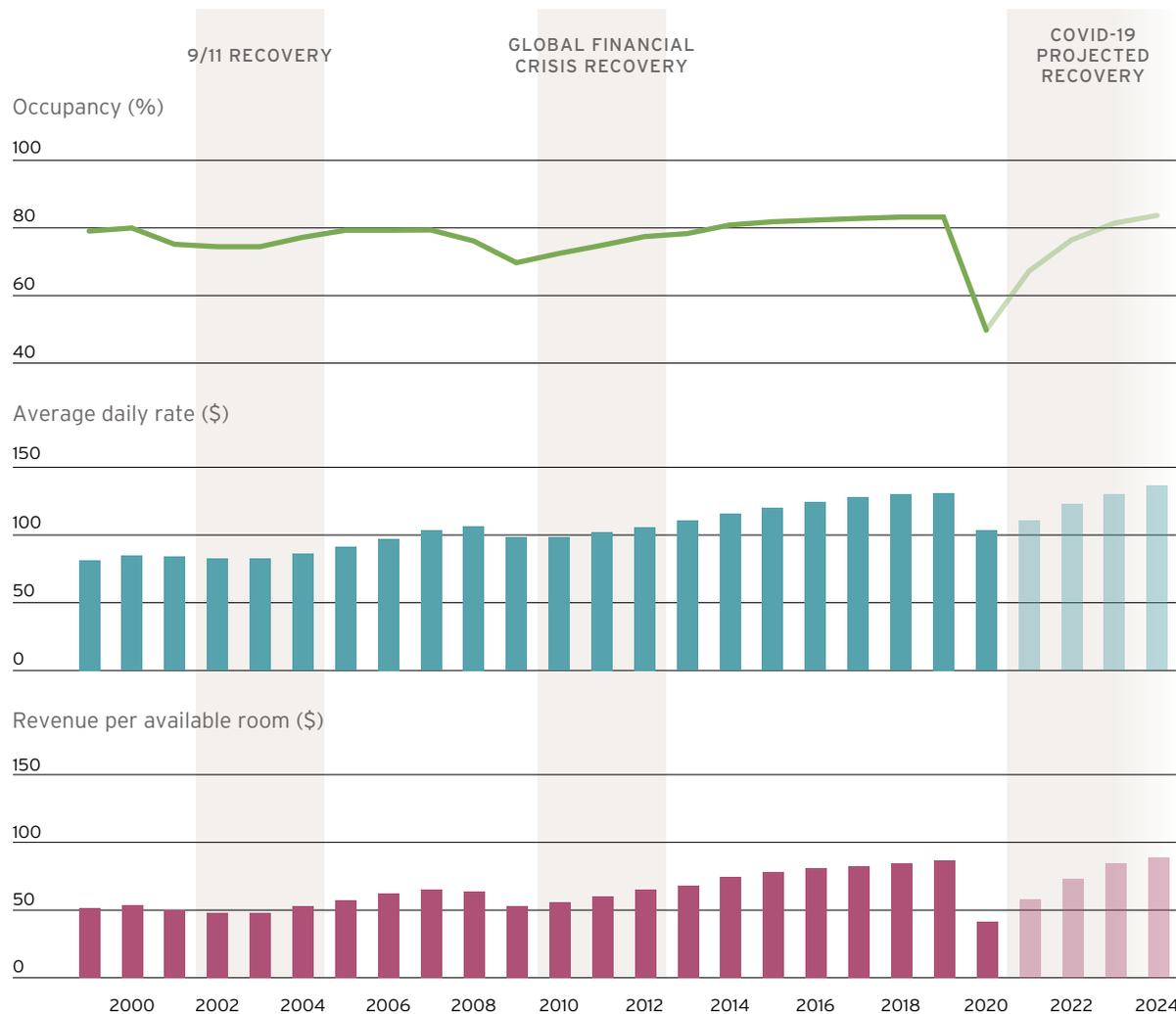
¹ CBRE, US Hotel Outlook, July 2020

² Estimated hotel loan principal outstanding as of 31 Dec 2019. Source: Company filings accessed May 2020

³ Source: STR data through Aug 2020

⁴ Source: CBRE, US Hotel Outlook, Jul 2020

FIGURE 1. TOTAL US HOTEL MARKET: HISTORICAL AND PROJECTED PERFORMANCE



Historically, hotel property values have often begun to recover before operating fundamentals. That is due to advance bookings that can give potential hotel buyers a clear snapshot of demand twelve to eighteen months ahead. In the post-GFC period from 2010 to 2015, full-service hotels and limited-service hotels in the US experienced compound annual growth in values of 12.3% and 4.8% respectively.⁵

To capitalize upon the opportunity we see, we recommend seeking partners with demonstrable value-add hospitality experience of investing across cycles. We believe such managers are well-positioned to work on improving operating performance, reducing costs, and repositioning assets for the post-pandemic recovery.

Source: CBRE, US Hotel Outlook, as of Jul 2020. All forecasts are expressions of opinion and are subject to change without notice and are not intended to be guarantees of future events.

⁵ Source: Real Capital Analytics www.rcanalytics.com, as of May 2020.

Private equity: A buyer's market in some sectors

The financial distress arising from the COVID-19 economic downturn has created investment opportunities across a wide range of industries of interest to both the traditional buyout and distressed private equity markets. Industries such as healthcare and technology have proved more resilient to the pandemic's fallout. Indeed, some companies are experiencing growth. By contrast, "socially close" activities including travel, leisure, and traditional shopping have suffered enormously.

Despite the rebound in public markets, corporate revenues are still declining. In turn, we are seeing more defaults, continued credit rating downgrades, and attractive entry multiples for buyout transactions. This is why such periods present an unusual opportunity set for investors. While public prices are "up", private equity entry prices are "down" based on lower current EBITDA and declining sales. This is evidenced by credit market action. The rolling 12-month ratio of credit rating downgrades-to-upgrades for the S&P's Leveraged Loan Index stands at 7.87 as of September 2020. That is 48.8% above the GFC peak of 5.29 in February 2009. Also, the trailing 12-month institutional loan default rate reached 4.17% at the end of September, the highest level since 2009.

In terms of pricing, implied EV/EBITDA multiples⁶ of enterprise value-to-earnings before interest tax depreciation and amortization in the third quarter of 2020 decreased by more than 20% from their year-earlier level of 15.7.⁷ They remain favorable compared to recent years.

While this disruption is impacting businesses in different ways, companies across several industries are in need of capital in order to bolster balance sheets and find a path back to growth in a recessionary landscape. In particular, the small- and mid-cap market has languished. And it continues to underperform the broader market significantly. This has created an opportunity for sponsors to provide flexible solutions to companies unable to access the public markets. More importantly, this has also created new opportunities for managers to acquire companies that would not have required additional capital but for the health crisis. Admittedly, some companies have addressed their immediate liquidity needs. But as the pandemic continues to unfold, these companies could need further capital and many more will require funding to remain viable or to grow.

⁶ EV/EBITDA divides a company's enterprise value (EV) - the combined value of a company's equity and debt - by its earnings before interest tax depreciation and amortization (EBITDA).

⁷ Source: Pitchbook



3 Overcoming financial repression

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- 3.1 The return of financial repression
- 3.2 How dividend equities work overtime in your portfolio
- 3.3 Finding yield in a repressed world
- 3.4 Taking alternative paths to portfolio income
- 3.5 Creating yield from volatility: What to do when the stars align



3.1

The return of financial repression

STEVEN WIETING - Chief Investment Strategist and Chief Economist

Financial repression - artificially low interest rates combined with higher inflation - represent a threat to your core portfolio. Focus on assets that offer positive real income streams and diversification.

- Highly indebted governments may use “financial repression” to reduce their debt burdens in the years ahead
- Financial repression involves keeping interest rates artificially low while allowing inflation to erode the real value of cash and bonds
- Such policies will make it even harder to earn vital income in core portfolios
- We urge investors with excess cash to put it to work or risk losing purchasing power
- Financial repression calls for a major shift in asset allocation towards substitute strategies involving dividends, capital markets, alternative investments, and select fixed income assets, but not complete divestment from very low-yielding bonds

Earning income is vital to core portfolios. Over time, reinvested income has been the single biggest contributor of portfolio returns, ahead of capital growth for many diversified portfolios. A regular flow of income also helps to stabilize portfolio performance, especially at times of market turbulence. And income can also supply liquidity to pursue other opportunities, be they in financial assets or private investments.

Traditionally, high-quality bonds have been the largest source of core portfolio income. For some years, though, they have struggled to fulfill their historic role. Very low or even negative interest rates have seen the yield on bonds from the most creditworthy companies and governments all but disappear - see **Escaping the negative yield trap** in **Outlook 2020**. However, the challenge for investors is now getting even tougher.

Enter financial repression

Over the coming years, we expect various leading central banks globally to pursue a policy of “financial repression.” This involves deliberately keeping interest rates artificially low for an extended period. As well as trying to encourage more economic growth, the aim is to generate more inflation. Specifically, financial repression seeks a rate of inflation that exceeds the level of interest rates. The impact of such policies erodes the value of cash and certain bonds.

Such negative real interest rates have certain obvious attractions for governments right now. Artificially low interest rates make it easier for governments to pay interest on their debts, and ideally help private borrowers too. Many find themselves with even heavier debt burdens following emergency fiscal measures during the pandemic. In many nations, the authorities hope to borrow and spend significantly to stimulate recovery, for example by investing in infrastructure - see [Unstoppable trends: Greening the world](#).

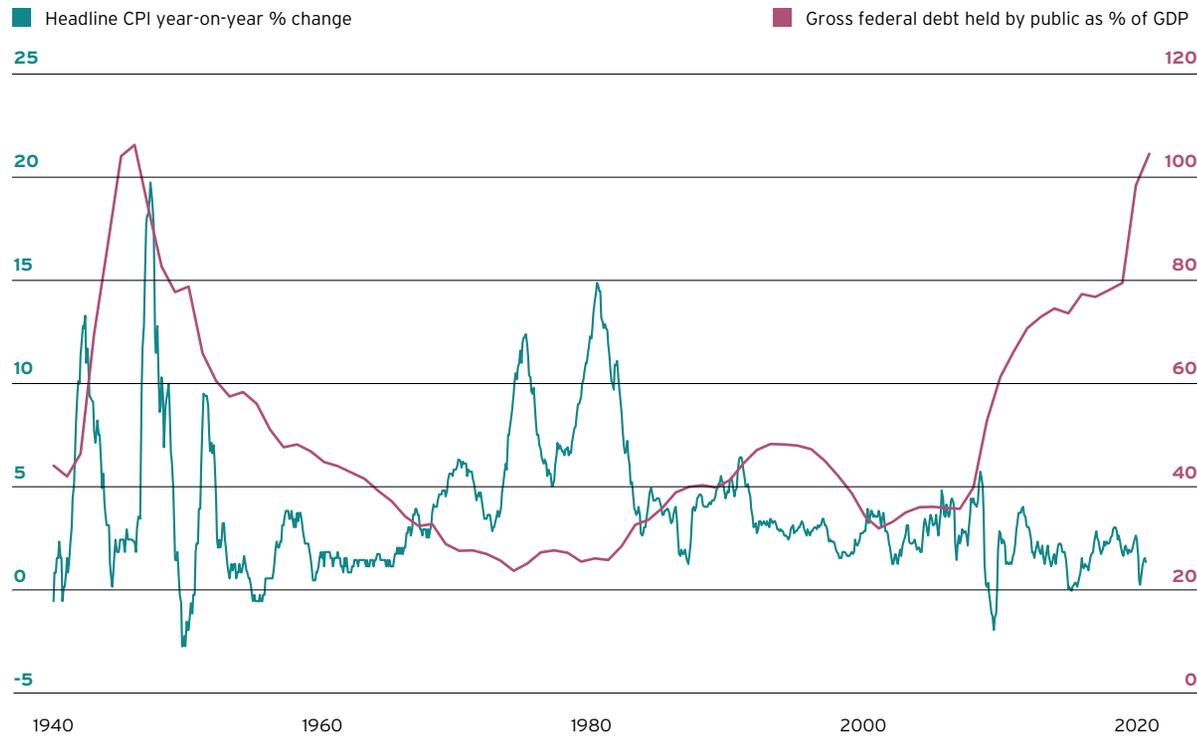
But there is another reason that central banks are likely to keep rates artificially low. While they do not readily admit to it, inflation rates that exceed interest rates erode the real value of their debts. So, not only do governments pay lower interest rates on their borrowings, but ultimately find debt repayment easier because inflation has eroded the value of those debts. In other words, financial repression is a forced transfer of wealth from bondholders and other savers to borrowers.

In other words, financial repression is a forced transfer of wealth from bondholders and other savers to borrowers.

As a policy, financial repression is far from new. It was widely used in the decades following World War II, as governments sought to reduce the unprecedented debt burdens they had accumulated to finance their war effort. In the US, for example, government debt as a share of GDP was at levels similar to today's - FIGURE 1.

In response, the US Federal Reserve explicitly capped long-term interest rates from 1942 to 1951. During this period, bouts of high inflation at levels well above those capped rates eroded the real value of the US government debt. As inflation swelled nominal GDP, the debt burden - as measured by the debt-to-GDP ratio - began to fall sharply.

FIGURE 1. US FEDERAL DEBT NEARS WARTIME PEAK



Source: Haver Analytics as of 23 Oct 2020. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Past performance is no guarantee of future results. Real results may vary.

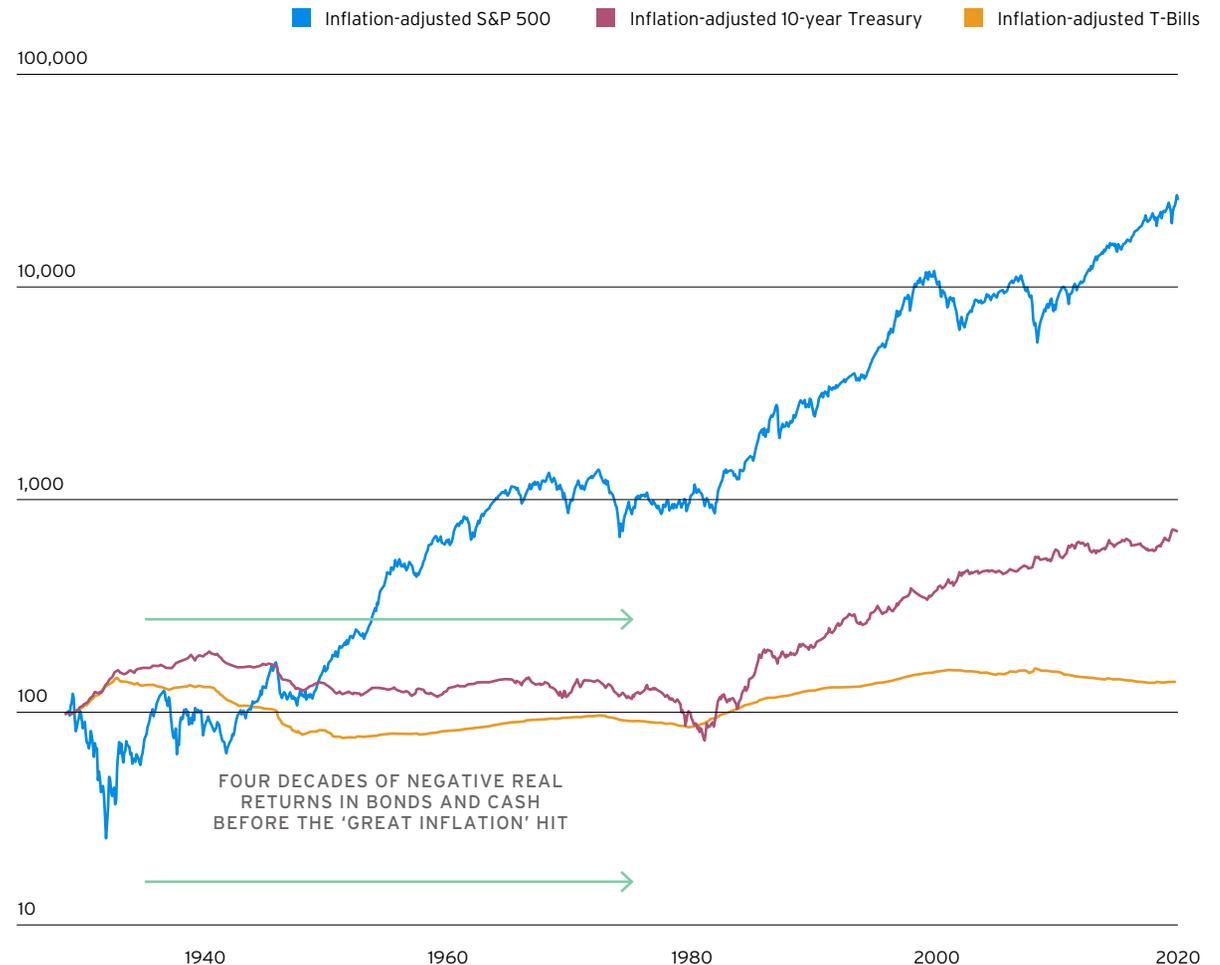
This gain for the US government and other borrowers came at the direct expense of bondholders and cash savers. An investment in US 10-year Treasury bonds or held in cash at the end of World War II in 1945 would have taken 40 years and 38 years respectively to begin netting a positive inflation-adjusted return - FIGURE 2. In other words, it was a period when it did not pay to wait on the side-lines holding cash. Missing the long rebound in equities from the Great Depression and World War II would have proved very, very costly - FIGURE 3.

We believe the present period has parallels to the years after 1945. The Fed and other central banks are likely to keep shorter-term interest rates atypically low for years. It is possible that the Fed will allow some level of market forces to drive intermediate and long-term interest rates higher to encourage a steeper yield curve. However, it will still be likelier to intervene significantly if tightening financial conditions impede economic growth.

Managing portfolios wisely during financial repression

We believe the coming age of financial repression has major implications for your core investment portfolio. US Treasuries, many other high quality fixed income assets, and cash are all at risk of suffering negative real returns. It is certainly possible that inflation, whether mild or severe, will cause some losses for the owners of long-term bonds. This is even if policymakers veer away before repeating the double-digit inflation rise of the 1970s.

FIGURE 2. EQUITIES OUTPERFORMED DURING THE LAST FINANCIAL REPRESSION



Source: Haver Analytics as of 23 Oct 2020. Note: Log scales are used in each figure. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Past performance is no guarantee of future results. Real results may vary. All forecasts are expressions of opinion and are subject to change without notice and are not intended to be guarantees of future events.

Despite the prospect of negative real returns, we see many investors holding large amounts of cash in their core portfolios. Most often, they tell us that they intend to put it to work, but are waiting for a more attractive entry-point. Such attempts at market timing almost never work out - see [The critical importance of staying invested](#). However, sitting and waiting on the sidelines in cash is even more dangerous during a period of financial repression. Not only do you miss out on potential upside in equities and other risk assets, but your wealth actually declines in real terms as inflation eats away at your buying power.

Overcoming financial repression: A major shift in asset allocation is necessary

Even if your core portfolio is fully invested, however, financial repression still poses a major challenge. Asset allocation is much harder under these conditions. Traditionally safer bonds can no longer be relied upon to provide a real return. We believe this calls for a major shift in asset allocation.

To be clear, however, we are not calling for complete divestment from all very low-yielding investment grade bonds. As of December 2020, for example, the Global Investment Committee retains a full or neutral allocation to US intermediate Treasuries and investment grade corporates - see [Our positioning](#). Given our expectation of financial repression, this may seem strange. However, we would emphasize

FIGURE 3: US IG RETURNS DURING YEARS OF EQUITY DECLINES

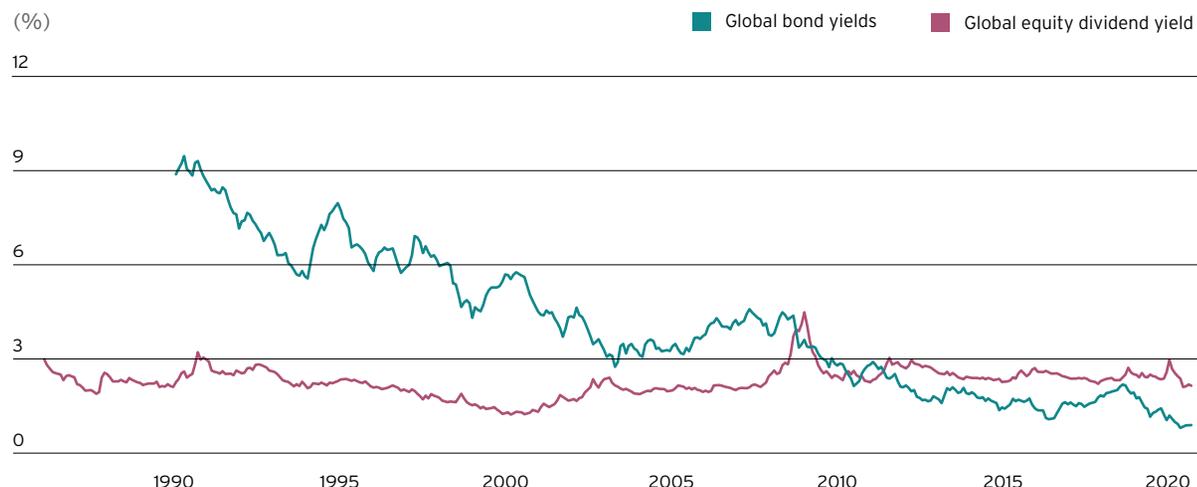
	S&P 500 TOTAL RETURN INDEX	INDEX DURATION: 7.2YRS BLOOMBERG BARCLAYS US TREASURY INDEX	INDEX DURATION: 8.3YRS BLOOMBERG BARCLAYS US CORPORATE INDEX
1974	9.2	2.2	18.9
1977	9.4	3.1	18.3
1981	5.3	2.8	16.3
1990	5.7	3.7	11.6
2000	10.7	1.7	35.3
2001	11.2	1.5	18.9
2002	6.5	2.0	14.4
2008	12.2	3.1	23.9
2018	10.9	1.3	29.6
CORRELATION TO EQUITIES IN DECLINE YEARS		-0.51	0.45

Source: FactSet as of 18 Nov 2020. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Past performance is no guarantee of future results. Real results may vary.

that such bonds may still provide diversification benefits, even at their present very low yields.

Over time, long duration government bonds have consistently served as portfolio hedges in years when equities have fallen - FIGURE 3. Notably, they did so even during the 1970s period of financial repression, when inflation frequently ran at uncomfortably high levels. US investment grade corporate bonds, meanwhile, have provided positive returns in all but the most severe of equity market declines.

Of course, nominal yields on such bonds were considerably higher in the 1970s than they are today. Lacking any yield "cushion," we might well ask whether they would offer similar diversification potential. The more recent experience of Japanese and German fixed income suggests that they might well. Yields on these countries' highest quality bonds hit record lows in the period following the Global Financial Crisis. However, their correlations to equities nonetheless also decreased. In other words, their diversification properties actually strengthened. As equities and other risk assets plunged amid the COVID turbulence of early 2020, the highest

FIGURE 4. GLOBAL DIVIDEND YIELDS ARE NOW ABOVE BOND YIELDS

Indices shown are FTSE All World and Bloomberg Barclays Global–Aggregate Bond. Source: Bloomberg, Citi Private Bank as of 10 Nov 2020. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only. Past performance is no guarantee of future returns. Real results may vary.

quality bonds also held up well. We therefore reiterate that they still have a role to play in portfolios, albeit a reduced one. But we must also broaden our search for sources of income.

Broadly speaking, equities are now more of an income-generating asset class than high quality fixed income. The dividend yield on global equities is now twice the global bond aggregate yield - **FIGURE 4**. We therefore believe that dividends can substitute for some of the portfolio income that many bonds no longer provide. We set out our favored strategies in [How dividend equities work overtime in your portfolio](#).

Global dividend yields are now above bond yields

Another possibility for seeking income employs certain capital markets strategies that can extract yield from the price that investors pay to hedge. With equity-implied volatility roughly twice the historic average level and interest rates far below average, this is an attractive yield-generating strategy - see [Creating yield from volatility: When the stars align](#).

While financial repression targets fixed income directly, we still see potential for seeking positive real returns and diversification benefits within this asset class. In addition to dividend equities, there are certain shares that generate income and are likely to benefit from a period of sustained low real yields. Mortgage REITs, certain types of business development companies (BDCs) and preferred shares of healthy companies all can add real income and substitute for bonds. However, these are also more volatile at times and are an imperfect replacement. We also identify attractive assets and markets within high yield as well as in investment grade fixed income - see [Finding yield in a repressed world](#).

We do not confine our quest to overcome financial repression to the public markets. For qualified investors who are willing to sacrifice liquidity and assume more risk, certain alternative strategies may provide opportunities to receive recurring distributions, as well as help diversify portfolios - see [Taking alternative paths to portfolio income](#).

Financial repression may seem like an unfamiliar and daunting challenge for your core portfolio. As we have seen, though, there are many positive steps you can take to prepare for it. By putting your excess cash to work and shifting your asset allocation, you can seek vital income and diversification where they are most needed. Don't get repressed. We can help you strengthen portfolios to overcome financial repression.



3.2

How dividend equities work overtime in your portfolio

JOE FIORICA - Head of Global Equity Strategy

Amid financial repression, we believe that certain dividend equities can play a valuable role in generating portfolio income

- We believe dividends can substitute for a portion of the portfolio income that many bonds no longer provide
- As the global economic recovery becomes entrenched, we expect “dividend grower” equities to resume their long-term, lower-volatility outperformance
- We therefore favor combining dividend grower equities with select high dividend yield equities
- We advocate global dividend exposure, as well as a mix of cyclical and defensive sector exposure

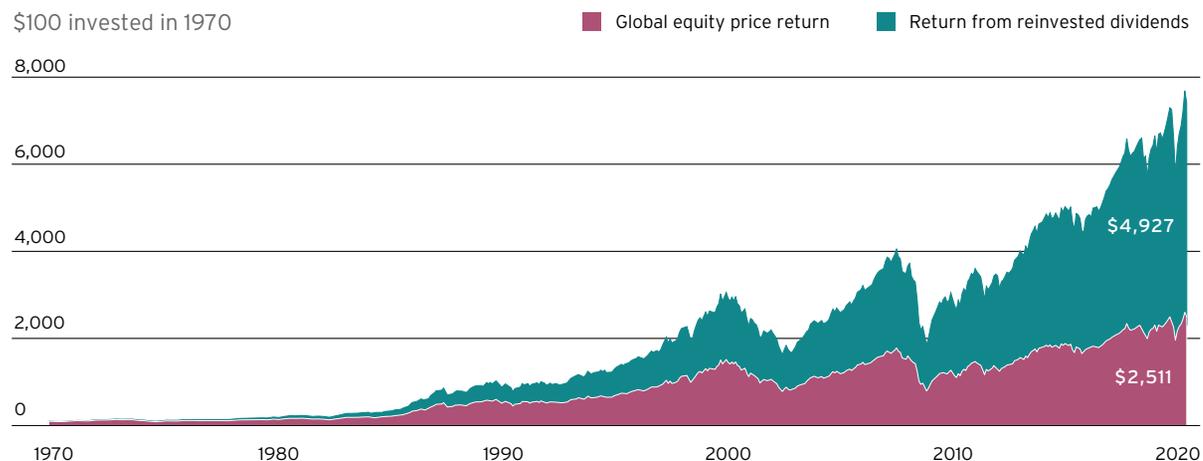
Earning a reasonable yield on high quality fixed income assets has rarely been harder. Amid today's financial repression, the average yield on global developed investment grade fixed income is just 0.88% after inflation. This situation seems unlikely to improve in the near future, while any move higher in rates would mean lower bond prices in the process. Against this backdrop, we believe that equities can play a dual and vital role in building diversified, income-oriented portfolios.

Put simply, our case is that dividends can substitute for some of the portfolio income that many bonds no longer produce. However, we do not advocate buying just any old dividend-paying equities. Instead, we recommend seeking out quality equity income. So, what does quality equity income consist of?

"Dividend growers" are companies that have consistently grown their dividend payments over time. Companies that emphasize dividend growth as a goal are courting investors who want a total return based upon cash payments and earnings growth that drives their equity price higher over time. As these companies' dividend payments represent a sustainable proportion of their profits, they are not maximizing payouts or taking on unsustainable levels of debt to enable them. Consistent dividend growth is obviously an attractive feature for income seeking investors. Companies that deliver it are likelier to have growing businesses and be financially robust.

By allocating to dividend growers - along with certain other dividend equities - we believe that you can mitigate some of the risks inherent in replacing bonds with broad equity exposures.

FIGURE 1. REINVESTED DIVIDENDS: THE MAIN DRIVER OF LONG-TERM RETURNS



The chart shows the performance of the MSCI World Total Return Index, broken down into its price return and reinvested dividends components. Source: Bloomberg, as of 24 Nov 2020. Past performance is no guarantee of future returns. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. See Glossary for definitions.

Dividend equities can work overtime for you

Traditionally, diversified portfolios have relied upon equities to provide long-term growth and upon bonds for stable income and diversifying equity risk. With bond yields so low, however, equities are increasingly having to "work overtime" to perform both of these portfolio roles. We believe that they are up to this task. As FIGURE 1 shows, reinvested dividends have made a greater contribution to long-run returns than simple price appreciation since 1970. Dividends

also tend to be the most stable component of equity valuation, whereas earnings and multiples tend to fluctuate much more from year to year.

2020 created intense difficulties for some companies and sectors that had traditionally been among the most consistent of dividend payers. These include businesses in finance and energy. Many found themselves having to cut or suspend payouts for the first time in years as lockdowns caused their profits to shrivel, especially those with greater indebtedness and more cyclical businesses. Their equity prices suffered accordingly. During the severe liquidity

crunch of March and April, investors sought out equities in companies that held high levels of cash. They simultaneously shunned equities that had historically returned some of their cash to shareholders.

Some of 2020's best performing equities - and those that have driven the broader indices' recovery after their sharp sell-off - have been in sectors such as technology and internet media. These sectors' businesses have either been insulated from the pandemic's effects or have even benefited from them. As growth businesses, they often pay small or no dividends.

In 2021, however, we think returns may come from different sources and companies. History reminds us that periods of dividend equity underperformance are rare and typically short-lived. Dividend growth stocks - as measured by the S&P Dividend Aristocrats Index - have outperformed in twenty-four of the last thirty-one years. Among the seven years of underperformance, two came amid the frenzy of the late 1990s "dot com" bubble, and the third during 2020's COVID-driven tech rally. In other words, the period coming up may be favorable for these shares.

With many technology and internet equities trading at stretched valuations amid the ongoing pandemic, there is the potential for dividend strategies to outperform as we look ahead. We think the likely mass distribution of a COVID vaccine should enable reopening of much more of the global economy in 2021. Among dividend-paying equities, we believe those that have been able to maintain their dividend payouts without

having to sacrifice capital expenditures will emerge from this crisis in a stronger position than many of their competitors.

Balance dividend growth and current yield

In the years ahead, we expect dividend growth stocks to resume their long-run trend of outperformance with lower volatility. However, given our need to supplement dwindling yield opportunities on the bond side of portfolios, the approach we now recommend is to combine dividend growth with a more traditional dividend strategy that targets companies that pay higher, but still sustainable yields. Such a strategy will likely involve increasing exposure to more cyclical dividend payers that intend to maintain high payouts going forward. It would also seek to avoid historically reliable dividend payers in industries under secular pressure, such as traditional energy - see [Unstoppable trends: Greening the world](#)).

The first consideration here is high relative dividend yields. In the US, high dividend indices are yielding 4.3%. That compares to 2.6% for dividend growers and just 1.6% for equities overall. Also, high dividend yield equities trade at a 25% discount to dividend growers. Finally, they are more orientated towards sectors that we expect to benefit from an economic recovery in 2021.

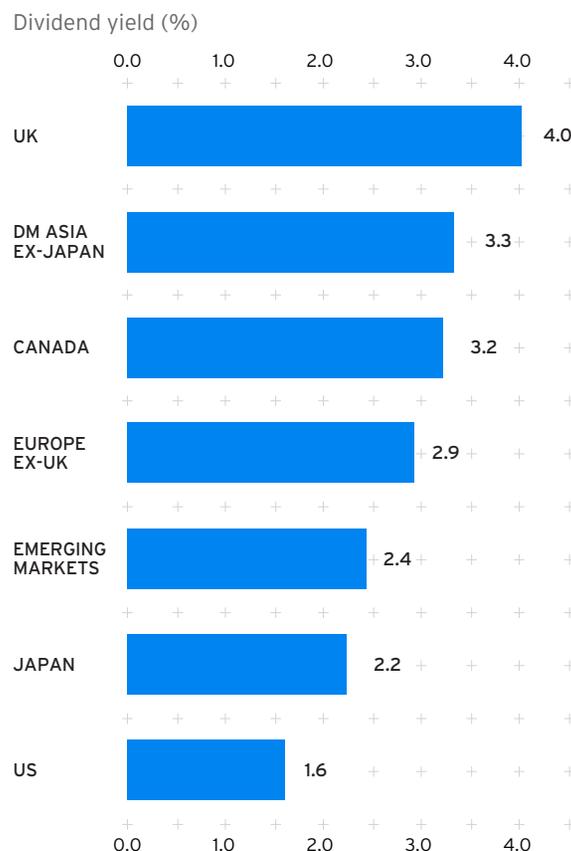
Our favored strategies for seeking dividends

Seeking sustainable dividends while trying to minimize risk requires looking beyond those regions and sectors that outperformed in 2020, such as the US and technology. Looking at dividend payouts by region underscores the importance of seeking equity income globally - FIGURE 2. The prospective dividend yield on European and developed Asian equities is on average twice that of their US counterparts.

We also believe that having a mix of cyclical and defensive sector exposure can help capture both yield and price upside, while mitigating downside risks. Indeed, among the highest yielding global industry groups, we see an array of COVID-winners and losers. Owning a combination of both is key for building income portfolios, as the goal of these core assets is to boost overall portfolio yield, rather than trying to time when future market shifts might occur.

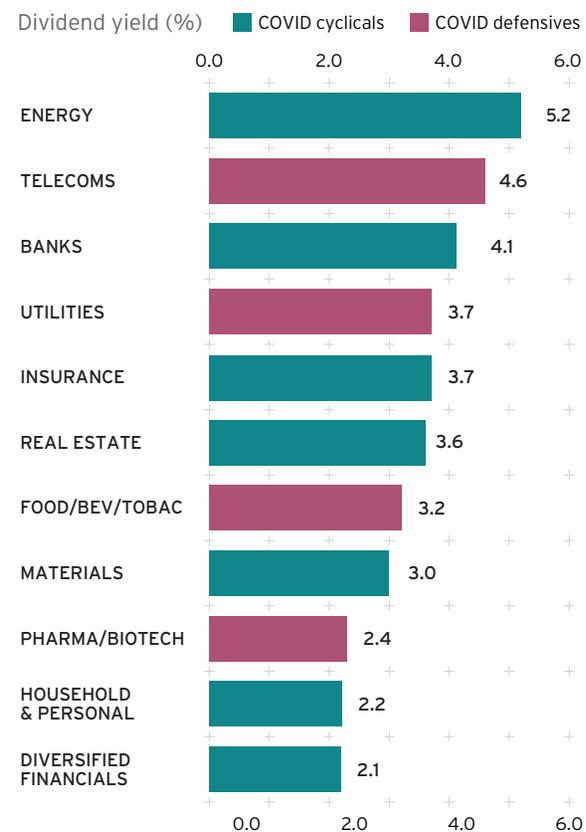
In particular, we see real estate as encapsulating the importance of this diversification. A few decades ago, the sector was dominated by retail, office, and multifamily REITs. Now, though, the current public real estate universe is much more diverse, with an increasing mix of “new economy” areas, including cell towers, industrial complexes, research centers, student housing and data centers. REITs are uniquely designed to be income-oriented assets, as they must pay out the vast majority of their accounting profits in order to maintain their tax-advantaged status. As the economy’s landlord, we believe the real estate

FIGURE 2.
DIVIDEND YIELDS BY REGION



The chart shows estimated 2021 dividend yields for MSCI Indices. Source: Bloomberg, as of 24 Nov 2020. Past performance is no guarantee of future returns. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. See Glossary for definitions.

FIGURE 3. GLOBAL CYCLICALS AND DEFENSIVES:
AMONG THE HIGHEST YIELDERS



The chart shows estimated 2021 dividend yields for MSCI All Country World sector indices globally. Source: Bloomberg, as of 24 Nov 2020. Past performance is no guarantee of future returns. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. See Glossary for definitions.

sector is likely to continue to recover alongside the global economy in 2021, while maintaining above-market dividends along the way.

Dividends to help overcome financial repression

Today's interest-deprived environment poses a special challenge for investors. However, we believe the sort of dividend equities discussed herein are well placed to meet this challenge. But how best to reflect this approach in your portfolio? Given the unusual short- and long-term effects of the pandemic on many companies and industries, we think selectivity is essential. For that reason, we favor active managers focusing on dividend grower and high yield equities. We also think that capital markets strategies can help you target specific income outcomes in relation to dividend growers, high yield and other equities.

As the global economic recovery gathers pace in 2021 and beyond, we recommend getting dividend equities to work overtime in your portfolio. Both income and price appreciation will be possible.





3.3

Finding yield in a repressed world

KRIS XIPPOLITOS - Head of Global Fixed Income Strategy

Financial repression puts many fixed income assets right in the firing line. But we still see potential for seeking positive real returns and diversification benefits within this asset class.

- Negative real interest rates make it harder to seek returns from many bonds
- Despite this environment, we still see potential for seeking yield in select parts of the fixed income market
- This includes opportunities in investment grade, high yield, preferred securities, and other assets

Financial repression hurts fixed income more than any other asset class. As fixed income yields get driven lower, future cash flows to bondholders are reduced. If inflation causes the real yield to turn negative, the total value of the capital borrowed is also reduced.

For borrowers such as highly indebted governments, the benefits are clear. They pay lower servicing costs on their debt and may repay much less than they borrowed in real terms at maturity. Their gains, however, are at bondholders' direct expense.

As well as seeing their potential portfolio performance suffer, investors are also exposed to more risks when and if rates rise. That said, bonds with very low or negative yields can still react favorably in "risk-off" periods, so they may still provide diversification value. For this reason, we do not advocate complete divestment from such bonds.

Built in losses?

Today's low fixed income yields are already well below the current rate of inflation. Using Treasury Inflation Protected Securities (TIPS) as a measure of current inflation expectations, real US Treasury yields - i.e. adjusted for inflation - are deeply into negative territory - **FIGURE 1**. This creates big problems for investors who are seeking to generate returns greater than the rising value of money. Either investors need to consider extending duration to obtain positive real yields, or add risk, or both.

FIGURE 1. US TREASURY YIELDS ARE NEGATIVE AFTER INFLATION

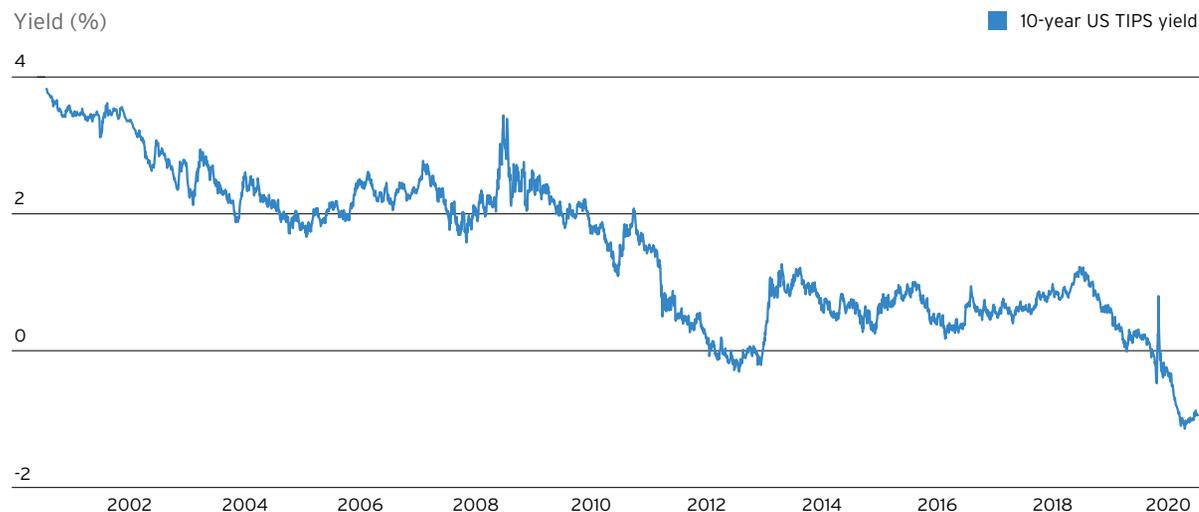


Chart shows 10-year US Treasury Inflation Protected Securities (TIPS) yield.

Source: Bloomberg as of 1 Nov 2020. Past performance is no guarantee of future results. Real results may vary

In our view, interest rate risks are elevated. With the discovery of effective vaccines, interest rates are already heading higher and may even double from present levels. If so, it could have severe negative price impacts within portfolios. Low coupons offer little to protect total returns. At the same time, we hold a constructive view on the post-COVID economic recovery. In certain parts of the global credit market, fundamentals will likely improve as economies do. Considering that credit markets offer wider yield premiums, we see them as better positioned to withstand a rise in risk-free rates.

Given the likelihood of intensifying financial repression, which areas within fixed income market might we favor in portfolios?

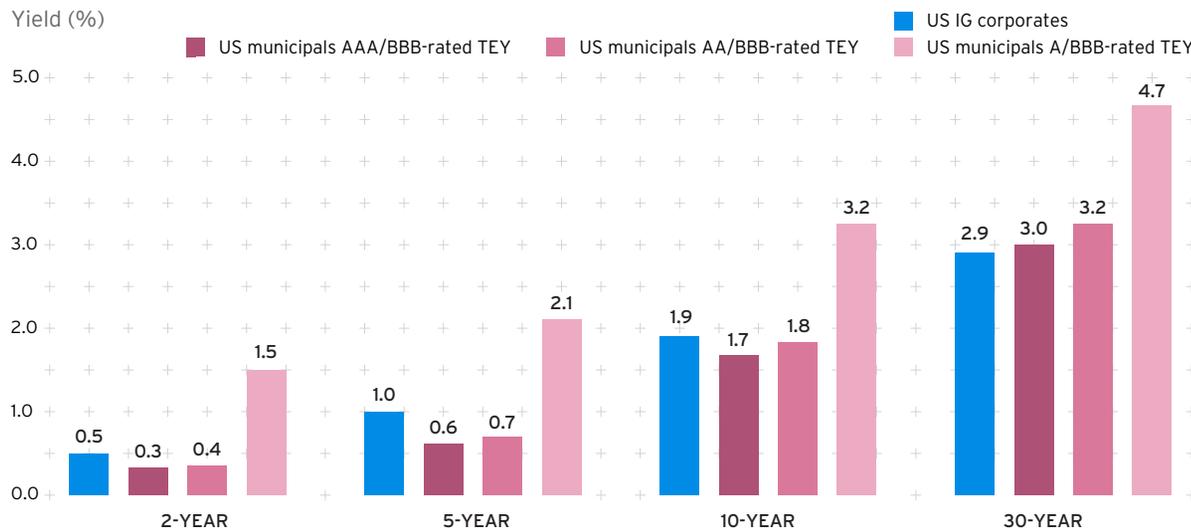
Investment grade bonds

Investment-grade (IG) corporate bonds have been a part of the European Central Bank’s (ECB) quantitative easing program for many years. Beginning in May 2020, the US Federal Reserve joined the party, accumulating \$13 billion in exchange-traded funds (ETFs) and individual corporate bonds through their Secondary Market Corporate Credit Facility (SMCCF). As a result, the spreads of corporate yields over government yields have narrowed substantially and absolute yields have fallen to historical lows.

We favor select opportunities among US dollar-denominated BBB-rated issuers, which yield 2.1% and where spreads have some scope for additional tightening. Although the Federal Reserve’s credit facilities are set to expire upon the New Year, its accommodating stance on broader monetary policy will likely remain supportive for the market. In Europe, BBB-rated euro-denominated bonds only yield 0.75%, on average. However, this is relatively attractive given that negative rates predominate in the euro-area.

For US investors, we also favor a “down-in-quality” bias within municipal bonds. In some instances, this is out of necessity, as taxable-equivalent yields for particular high quality tax-exempt municipal - or “muni” - bonds may not exceed those of taxable IG corporates - FIGURE 2. This dynamic is unlikely to change, as we expect the demand for tax-free debt to remain elevated. Political outcomes and the impact on future income tax rates are a consideration. Indeed, if income tax rates were to rise, it could fuel even greater demand for muni bonds.

FIGURE 2. US MUNICIPAL TAXABLE EQUIVALENT YIELDS VS. US IG CORPORATES



Source: Bloomberg as of 30 Oct 2020. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Past performance is no guarantee of future results. Real results may vary

High yield

Unlike the ECB, the Fed has been a buyer of certain high yield (HY) bonds. This has helped HY markets fully recover from their pandemic sell-off in early 2020. Despite that impressive turnaround, spreads are still relatively attractive, with average yields near 4.8%. Of course, these valuations imply exposure to some of the riskiest parts of the HY market. While we welcome lower-quality idiosyncratic exposure found in sectors within the broader market HY strategies, we prefer to complement with opportunities in the fallen angel (FA) market.

Fallen angels - or IG bonds downgraded to HY - can offer compelling total return opportunities, as their prices tend to fall prior through the downgrade. This creates attractive valuations for high yield managers. In many instances, fallen angels attempt to improve their balance sheets in order to become “rising stars” in the future. This dynamic has allowed fallen angels to outperform the broader high yield market 17 of the last 23 years, including 2020.

Preferred securities

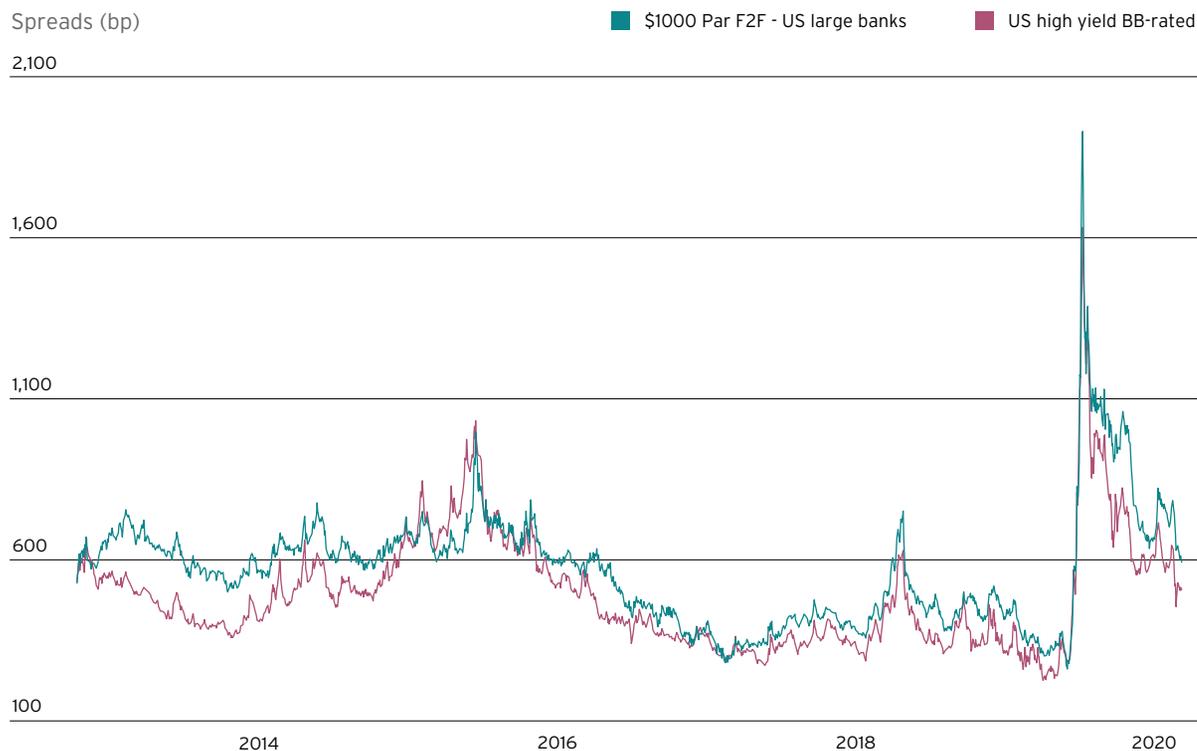
Preferred stocks have historically been a good source of high current yield. In the capital structure - the order in which investors get repaid in the event of bankruptcy - preferred stocks ranked above equity but below bonds. Due to the lack of new issuance and the demand for higher yields, preferred stock valuations have risen over the years, i.e. their yields have fallen. However, with US preferred yields averaging 4% and European yields 5%, we believe that value still exists. In many instances, preferred shares' valuations are comparable with similarly rated HY bonds - FIGURE 3. To be sure, while many bank preferreds' credit ratings are below those of IG, however, the parent ratings are firmly in investment grade territory.

Mortgage credit

Securities backed by consumer loans, commercial loans, or residential mortgages offer interesting yield propositions with varying degrees of risk. The quality of each opportunity is dependent on the bonds' priority to receive principal and interest from the underlying loans. One area less affected by the COVID-19 shutdown is the US housing market. As a result, the non-agency residential mortgage-backed securities (RMBS) market stands to benefit. Again, credit risk can vary, but the non-agency RMBS market can offer yields near 4%.

While the aforementioned opportunities can stand on their own merits, we believe these

FIGURE 3. US PREFERRED YIELDS OFFER VALUE



Source: Bloomberg and Bloomberg Barclays Indices as of 10 Nov 2020. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Past performance is no guarantee of future results. Real results may vary.

markets work best when combined together in a diversified portfolio. Other income generating ideas, such as emerging market debt, mortgage and real-estate investment trusts, and dividend growth stocks can all provide a level of uniqueness to income-focused investors.

Combining these opportunities within core portfolios can lower correlations, which can lower overall portfolio volatility and better help investors navigate the current low-yield world.

Bond-like alternatives

Mortgage real-estate investment trusts (MBS REITS) are companies whose investments are focused within the mortgage backed security (MBS) market. Some of these companies specialize in US government agency MBS debt like Fannie Mae and Freddie Mac, while others invest in private non-agency residential MBS or commercial mortgage-backed securities (CMBS) of various ratings and structures. Due to the high percentage of leverage used to fund these investments, dividend yields and the associated volatility tend to be high.

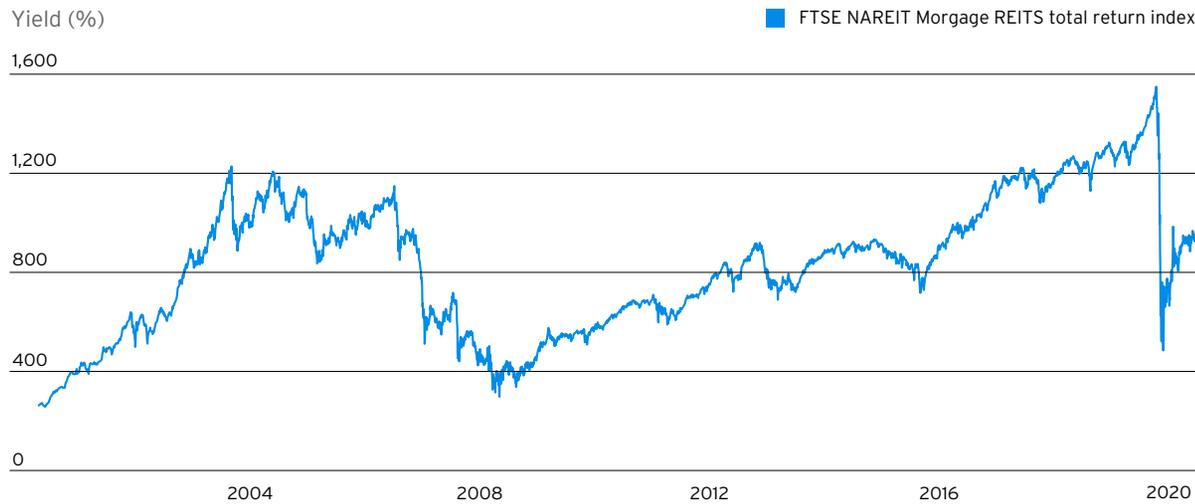
It should come as no surprise that this market was hit hard last March, with the broader US MBS REIT market falling 70%. However, despite US equity markets fully recuperating, the MBS REIT sector remains heavily depressed - FIGURE 4. This weakness can certainly be attributed to the pandemic's impact on the hotel and retail property sectors.

The Federal Reserve is expected to buy at least \$40 billion of agency MBS every month in 2021. Other Fed facilities have been orchestrated to keep financial conditions easy and markets calm. With policy rates at the zero bound, and likely

to stay there for the next few years, leveraged financing will remain cheap. Our expectation for a steeper US yield curve can also increase the value proposition for carry trades, which can support MBS REIT dividends.

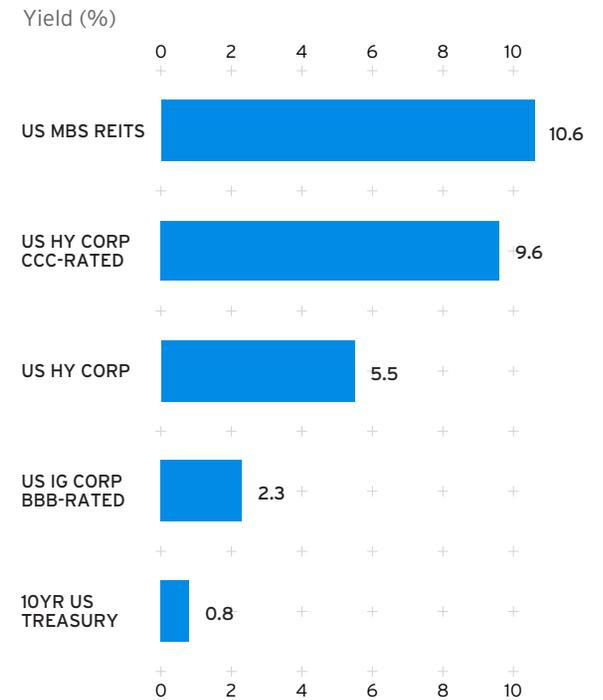
Joseph Kaplan also contributed to this article.

FIGURE 4. MBS REIT SECTOR STILL DEPRESSED



Source: Bloomberg and Bloomberg Barclays Indices as of 10 Nov 2020. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Past performance is no guarantee of future results. Real results may vary.

FIGURE 5. THE MBS YIELD OPPORTUNITY



Source: Bloomberg and Bloomberg Barclays Indices as of 10 Nov 2020. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Past performance is no guarantee of future results. Real results may vary.



3.4

Taking alternative paths to portfolio income

DANIEL O'DONNELL - Global Head of Citi Investment Management Alternatives

ALEX RIZEA - Private Equity and Real Estate Research Director

MICHAEL YANNELL - Hedge Fund Research Director

Certain private equity, real estate, and hedge fund strategies offer distributions, diversification and profit potential. Qualified investors should consider taking such alternative paths to overcoming financial repression.

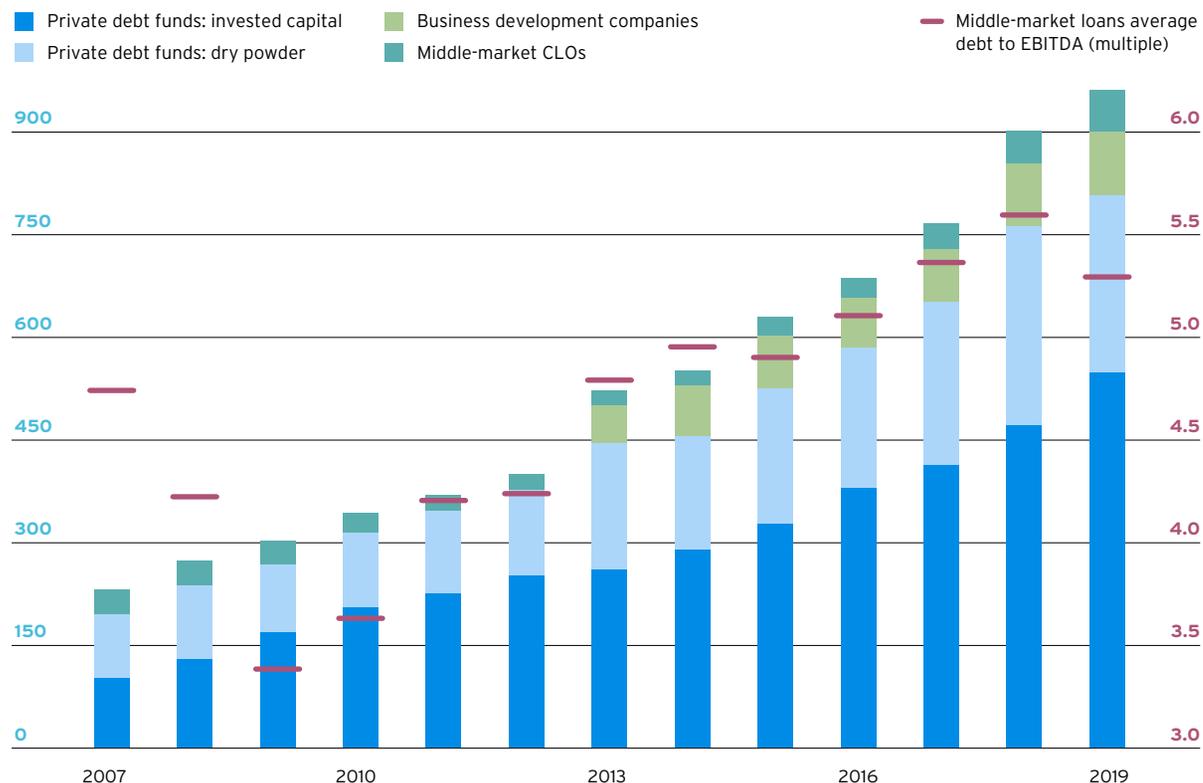
- For qualified investors willing to sacrifice liquidity and assume more risk, we recommend certain alternative strategies
- These strategies may provide opportunities to receive recurring distributions, as well as helping to diversify portfolios
- The distributions are not income in the traditional sense, as they may be paid intermittently, but their effect can be similar
- We highlight possibilities in corporate direct lending, structured credit, and fixed income relative value
- In public markets, we favor select hedge fund strategies, including structured credit managers and relative value fixed income managers

Financial repression forces us to consider replacing certain high-quality bonds in our portfolios. However, there is no single substitute for such bonds with the combination of income and diversification that they once offered. Instead, we advocate trying to replace them with investments from various asset classes. For qualified investors who are willing to sacrifice liquidity and assume more risk, certain alternative strategies may provide opportunities to receive recurring distributions, as well as help to diversify portfolios. The distributions are not income in the traditional sense, as they may be paid intermittently. However, their effect can be similar. Here, we set out some alternative paths that we have identified for overcoming financial repression.

Trends in the private debt market

Following the Global Financial Crisis of 2008-09, new regulations forced banks to boost their capital and liquidity levels. This reduced their ability to keep their newly issued loans on their balance sheets. Increasingly, they have relied instead upon an originate-to-distribute model, where loans are written and then sold to third parties. At the same time, the size of the non-bank financial intermediation market has increased 75% to \$51 trillion globally since 2010.¹ This has allowed non-bank financial institutions such as private debt and collateralized loan obligation (CLO) managers to become increasingly important players in the market.

FIGURE 1. THE GLOBAL PRIVATE DEBT MARKET'S GROWTH



The left-hand axis shows billions of US dollars. The right hand axis shows multiple of average debt to EBITDA. Source: IMF, S&P LCD, Preqin. As of Apr 2020. See Glossary for definitions.

Capitalizing on the secular shift towards private markets, the global private debt market has now reached almost \$1 trillion, more than four times its size in 2007² - FIGURE 1. Non-bank direct lending has replaced bank lending particularly for mid-market corporates, but has also created

¹ Financial Stability Board, Global Monitoring Report on Non-Bank Financial Intermediation 2019, January 2020

² IMF, Global Financial Stability Report, April 2020

opportunities in real estate lending. We believe that these trends are likely to accelerate after the COVID-19 pandemic.

Corporate direct lending

Alongside the entry of increasing numbers of private lenders in recent years, the amounts of capital raised have also increased significantly. As a result, many are sitting on substantial amounts of “dry powder,” or capital yet to be lent out, as FIGURE 1 also shows. With more lenders with more capital available to lend, transactions have become more leveraged. Middle market corporate borrowers’ average leverage globally – as measured by the ratio of debt to their earnings before interest, tax, depreciation and amortization (EBITDA) – has risen from a depressed low of 3.41 in 2009 to 5.31 in 2019. While this obviously means increased risk, the amount of equity backing these loans has also risen, thanks to rising equity valuations in the US and Europe.

Amid the more competitive environment, margins – the spread of average loan rates over government bond yields – have tightened somewhat. Since 2010, US middle market direct lending senior financing margins reduced by approximately 150 basis points (bps) to between 550bps and 650bps. The European direct loan market took longer than the US market to start growing after the Global Financial Crisis. But since it did so in 2013, margins have also tightened by around 100bps to 600-700bps. Fees have remained relatively constant at between

250 to 300 bps.³ However, while spreads may have tightened over the last decade, we continue to view them as attractive, particularly given the considerable premium over public market spreads.

The shock of the COVID-19 pandemic has caused a partial reversal of these trends. Covenants have tightened, leverage multiples have fallen, and spreads have risen marginally. However, significant spread widening has not yet materialized. This is due to private debt managers’ focusing upon the most resilient corporates, with companies in the most pandemic-stricken sectors struggling to raise capital. One result could be opportunities for private debt funds to finance companies that, despite their strong fundamentals, no longer have access to the public markets. A further result could be opportunities for funds looking to provide supportive capital for challenged balance sheets.

Structured credit

Structured credit markets have also evolved since the financial crisis. This includes regulatory improvements such as risk retention, which require securitization sponsors to retain a portion of the credit risk. By forcing sponsors to keep some “skin the game,” there is a better alignment of interest with investors. While the universe of securities issued pre-2009 has declined, this has been offset by growth in new issuance. Structured credit markets now represent nearly \$4 trillion in securities outstanding.⁴ Despite this expansion,

regulatory capital changes have driven net dealer positions down by more than 60% since the beginning of 2014.⁵ The reduction in dealer capacity has resulted in greater inefficiency and illiquid gaps in the market, of which opportunistic hedge funds can take advantage.

As well as market dynamics, borrower profiles have also improved. For example, after the housing bubble burst, US consumers meaningfully reduced their leverage, with household debt-to-GDP declining by more than 20% since 2008.⁶ Over the same period, debt-to-income ratios and consumer credit scores for residential mortgages have improved too. For example, homeowners taking out 60-80% loan-to-value mortgages between 2009 and 2018 had weighted average FICO scores and debt-to-income ratios of 752 and 34% respectively, versus 726 and 39% for the 2005-2008 period.⁷

Despite these improved fundamentals, the COVID-19 crisis caused a dislocation in non-agency residential mortgage backed securities (RMBS). Investors found themselves forced into selling, while the Federal Reserve did not step in,

³ LCD’s High-End Middle Market Lending Review – 3Q 2020, Cliffwater 2020 Q2 Report on US Direct Lending, CPB PERE Research team market observations.

⁴ SIFMA, data excluding agency MBS, as of Dec 2019

⁵ Federal Reserve Bank of New York, data as of Sep 2020

⁶ Source: Bloomberg, as of Oct 2020

⁷ Fannie Mae, Connecticut Avenue Securities Investor Presentation, Jul 2020

as it did in other markets including investment grade and high yield corporates. While prices have somewhat recovered, yields are undistorted by central bank buying and remain elevated compared to pre-pandemic levels. We see this as a potential opportunity.

Fixed income relative value

In government bond markets, US Treasuries have witnessed significant issuance growth to help fund fiscal stimulus to address the pandemic. Much of that supply has been absorbed by the Federal Reserve, whose holdings in Treasuries have increased to over \$4 trillion as part of quantitative easing.⁸ The growth in issuance combined with the presence of large, price insensitive participation has created increased trading opportunities in liquid fixed income instruments. Relative value and arbitrage trades identified by hedge funds in these markets can produce consistent return streams that are uncorrelated with risk assets, with potentially elevated returns during periods of rate movements and volatility.

Getting exposure to alternatives

For qualified clients willing to sacrifice liquidity, we favor opportunistic private debt managers with flexible mandates who invest throughout the capital structure. Such managers have the potential to deliver attractive relative and absolute returns and yields. In public markets, hedge fund strategies can help pursue portfolio yield objectives. These include structured credit managers who can combine trading with credit analysis to take advantage of higher yields and market inefficiency, and fixed income managers with robust trading capabilities that can take advantage of relative value opportunities within government bond markets.

⁸ Federal Reserve Bank of New York, data as of Sep 2020

Alternative investments (hedge funds and private equity) referenced in this article are speculative and entail significant risks that can include losses due to leveraging or other speculative investment practices, lack of liquidity, volatility of returns, restrictions on transferring interests in the fund, potential lack of diversification, absence of information regarding valuations and pricing, complex tax structures and delays in tax reporting, less regulation and higher fees than mutual funds and advisor risk.



3.5

Creating yield from volatility: What to do when the stars align

IAIN ARMITAGE - Global Head of Capital Markets

We expect equity volatility to remain elevated.
Convert this volatility into a valuable source of income.

- Investor fearfulness as expressed by higher volatility has been running above long-term average levels
- We advise clients who are willing to increase their risk level to use strategies that generate income from that volatility
- As well as seeking income, such strategies may enable buying into equities at lower levels



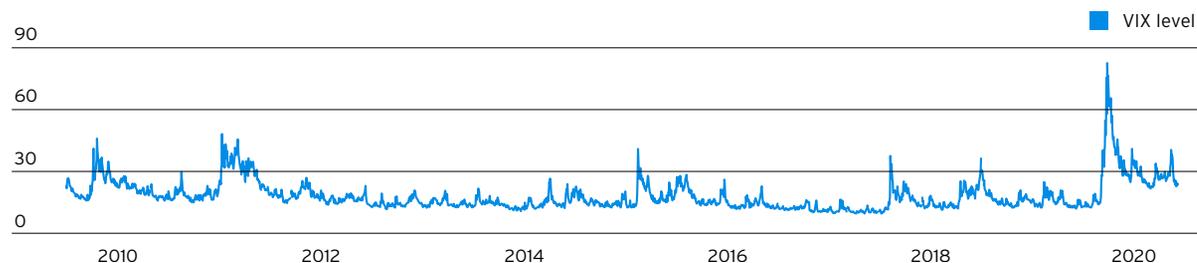
Every now and then, the planets and stars align in beautiful and unusual ways. Likewise financial market conditions occasionally align in a way that seems either especially favorable or detrimental for investors. Financial repression is an example of the negative alignment of the stars for bond investors - see [The return of financial repression](#). However, for some yield-seeking strategies we see the potential for a more positive outcome. And the opportunity that we identify is clear and material.

Over the last twelve months, we have consistently argued that elevated volatility in equity markets has offered an attractive opportunity. (See for example **What smart families are doing in capital markets in Mid-Year Outlook 2020**.) We have advised clients who are willing to increase their risk level to use strategies that generate income from that volatility, while offering the potential for them to buy equities at lower levels.

Today, we continue to see a strong case for harnessing investor fearfulness as expressed by higher volatility to generate portfolio income. And what's even better is that one doesn't have to be a rocket scientist to do this.

Equity market volatility has remained stubbornly elevated in 2020, as a result of COVID-19 and geopolitics among other factors, as illustrated by the VIX Index, an option market based estimate of the expected volatility of the S&P 500 Index. Admittedly, its recent readings have been well below March's record high of 81% and June's secondary peak of 41%. However, it now seems anchored in the mid-20s and looking back over many moons, that is double the pre-COVID long-

FIGURE 1. ELEVATED VOLATILITY



Source: Bloomberg 7 Nov 2020. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only. Past performance is no guarantee of future returns. Real results may vary.

term average of approximately 13% - FIGURE 1. We should therefore recognize this elevated volatility environment as a planet-sized shift from the long-term average.

What makes the opportunity particularly compelling at this time, however, is that another financial market celestial body has moved into alignment: interest rates. Global central banks' monetary easing has pushed rates across the yield curve even lower. And there is a widespread expectation that they will do even more to keep rates lower for longer.

This creates a challenge for investors who rely on traditional fixed income assets for income. As one wag quipped recently, "Fixed income assets are great. It's just that right now, they are not particularly fixed and they don't give any income."

As such, the relative value of seeking income from volatility, and "being paid to wait," before possibly buying into the equity market at lower levels, is particularly compelling right now. Investors who are currently sitting on the sidelines, waiting for an opportunity to buy equities if they dip, might do well to receive an income from the market in the meantime, instead of holding zero-yielding cash.

Once in a blue moon, the alignment of the stars occurs so investors hoping to receive coupon 2021 do not have to be living on another planet.

4 Unstoppable trends

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- 4.1 Unstoppable trends are changing the world
- 4.2 Greening the world
- 4.3 Digitization: The age of hyper-connectivity is upon us
- 4.4 The rise of Asia: Asian development in a “G2 world”
- 4.5 Increasing longevity: The healthcare opportunity

4.1

Unstoppable trends are changing the world

STEVEN WIETING - Chief Investment Strategist and Chief Economist

Unstoppable trends are reshaping the world around us. As well as transforming the ways we live and work, they are creating long-term opportunities and risks for portfolios.

- Unstoppable trends are powerful multi-year phenomena that are transforming business and everyday life
- As disruptive forces, they create both risks and opportunities for your core and opportunistic portfolios
- Our latest trends focus upon this new era of 5G-enabled “hyper-connectivity” and the transition to a more sustainable world
- We continue to advocate the existing trends of The rise of Asia and Increasing longevity



Amid the worst pandemic in more than a century, it might seem counterintuitive to focus upon anything apart from COVID-19 and its fallout. After all, the virus and the measures in response to it have affected almost every aspect of life in 2020. In financial markets, COVID's eruption moved every single asset price in the world, and its departure will likely do the same. Despite the pandemic's present influence, though, there are many forces that will have a much greater bearing upon portfolios over time. We call these "Unstoppable trends."

An Unstoppable trend is a major, multi-year phenomenon that is more than likely to transform the world around us. These trends take many forms, including technological advances, demographic developments and new behaviors. They often appear comparatively slow moving, but tend to gather force and influence over time. In the process, they increasingly present a fundamental challenge or threat to the status quo, ultimately impacting every industry and every investment portfolio.



Over the last two years, we have recommended that you build portfolio exposure to a variety of Unstoppable trends:

The rise of Asia addresses the steady shift in global economic power from West to East, driven by the region's urbanization, growth of the middle class, and advancements in home-grown technologies.

Increasing longevity explores how the aging of the world's population will impact future growth and consumption patterns, with an emphasis on healthcare.

Digitization recognizes how digital innovation is revolutionizing companies and industries, shaking up long-established ways of doing business. Artificial intelligence, automation, robotics, cybersecurity and fintech are among the elements that we have highlighted.

The future of energy highlights how we expect advancing technologies to drive global adoption of alternative energy while fossil fuels gradually fade.

By their very nature, these trends are multi-year and powerful. As such, they continue to evolve throughout economic cycles. In turn, having portfolio exposure to the likely beneficiaries of these trends can provide resilient growth potential. By the same token, we also advise limiting exposure to businesses and sectors that are most likely suffer as these disruptive forces take hold and accelerate.

The events of 2020 have certainly reinforced our case for investing in Unstoppable trends. Many of the assets that relate directly to our existing themes have performed strongly amid in the pandemic. In fact, technologies developed over the past ten years served as substitutes for entire economic ecosystems when the pandemic collapsed part of the global economy. For the most part, **digitization** companies such as online retailers, telemedicine providers, teleconferencing providers, social media and digital entertainment providers have enjoyed increased demand owing to social distancing and lockdown measures.

Some of the key markets and sectors linked to **The rise of Asia**, meanwhile, have also shown notable resilience in 2020. This is especially true of China, whose total equity market capitalization made a new all-time record high in October 2020. Likewise, renewable energy sources have continued to perform better than global equities in general and traditional energy in particular, in line with **The future of energy**.

Admittedly, the strong performance of many assets related to our unstoppable trends during the pandemic has left many of them very highly valued. When COVID-19 retreats, many of the



economic and market distortions that it has created are likely to unwind. Some companies and sectors that have proved most vulnerable to lockdowns and social distancing may continue to outperform in 2021 and beyond, but others may see revenue growth slow or even reverse. We advise that you position portfolios accordingly - see [Exploiting mean reversion](#).

To be clear, though, we recommend maintaining core portfolio exposure to our existing unstoppable trends for five to ten years or more. We very much expect these trends to persist, both in the near term and over the long term. Indeed, the pandemic may have accelerated some of them. However, we also caution against excessive exposure at this point. Price gains for technologies in 2020 have resulted in many full allocations to digital disruptors from becoming very large overweight positions. This calls for rebalancing, rather than complete divestment.

For 2021 and beyond, we present two new unstoppable trends:

As part of **Digitization**, we highlight the rollout of fifth generation or 5G wireless data technology. We believe this development will mark a new phase of the digital revolution, enabling a vast increase in the number of devices connected to the internet. In [Digitization: The age of hyper-connectivity is upon us](#), we make the case for investing in both the enablers and beneficiaries of 5G.

[Greening the world](#) concerns the world's transition to a more sustainable existence. In 2020, electricity from renewable energy became cheaper than that from key fossil fuels for the first time ever. This is likely to hasten the greening of energy use over the coming years. We see potential arising from further technological advances, electrification and an energy efficiency drive.

As before, our latest trends are offered as additions to - rather than replacements for - our existing trends. We therefore take the opportunity to update and reiterate key elements of [The rise of Asia](#) and [Increasing longevity](#).



4.2

Greening the world

MALCOLM SPITTLER - Investment Strategist

JOSEPH FIORICA - Head of Global Equity Strategy

Market forces - rather than government mandates alone - are now powering the switch from fossil fuels to renewables. The investment case for renewables just became even more compelling.

- The “greening” of energy supplies is now being driven by market forces more than legislation
- We expect further gains in technological innovation, electrification and efficiency in coming years
- We identify multiple potential beneficiaries such as electric carmakers, battery makers, infrastructure suppliers and installers, and smart appliance makers
- By contrast, fossil fuel energy companies are likely to come under increasing pressure over the coming decades

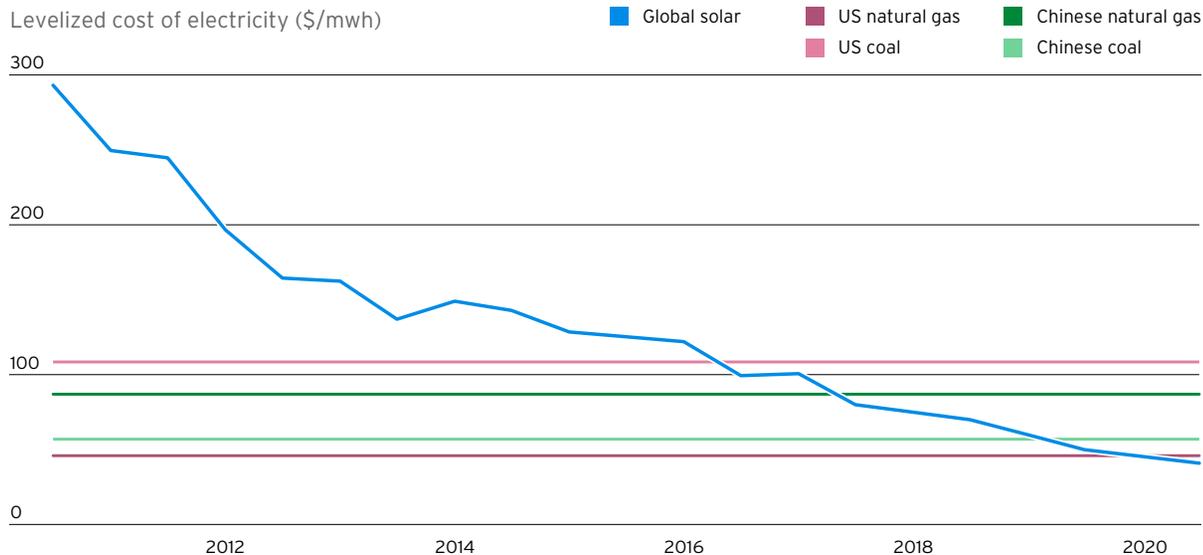
While the world has been preoccupied with the worst pandemic in more than a century, the business of renewable energy has passed a major tipping point. Throughout its entire history, the adoption and use of renewables has been supported by incentives, good intentions and legislative mandates, rather than market forces. In 2020, however, clean energy became the cheapest new source of electricity in most of the world - FIGURE 1. It achieved that progress despite dramatic falls in the price of oil, for which demand collapsed amid the economic downturn.

Some day, of course, there will be a floor to the cost of solar and other forms of renewable energy. That said, previous energy revolutions, like the transition from whale oil to petroleum, have resulted in paradigm shifts in the production and usage of energy that contemporary observers could never have predicted. We believe that the same will likely be true with this latest energy revolution. Once economics drive the adoption of renewables, the model for their delivery and financing change as well, further accelerating the substitution of better and cleaner forms of energy for dirtier technologies.

Today, there are actually three complementary energy shifts occurring simultaneously. As well as technological innovation and rollout of new sources of energy, electrification and a great efficiency drive are underway. Together, we believe these three forces form part of a much bigger unstoppable trend. We call this trend “greening the world,” a multi-faceted transition to a more sustainable world.

In 2021 and beyond, we believe these trends will accelerate, driven by market forces and mandates. The need to rebuild from the economic damage of COVID-19 has seen Europe, China and some policymakers in the US make concrete plans to reduce emissions and “greening” their power grids.

FIGURE 1. CLEANER ENERGY IS NOW CHEAPER TOO



Note: Fossil fuel energy prices are depicted at their 2020 levelized cost for clarity. Source: Bloomberg as of 28 Oct 2020.

Renewables accelerate

Renewable energy is now the cheapest new source of power in most of the world’s major economies. For example, solar is the least expensive new source in the US, China and India. In nations with less abundant sunlight such as the UK and Germany, wind is the least expensive new source. A notable exception is Japan, where coal remains the least expensive source of new electricity generation. Herein lies an important point about energy generation: no single source will be the most economical everywhere, as the natural endowments of sun, wind, geothermal and hydro vary widely according to location.

For investors seeking exposure to renewable technology, this multi-source dynamic is not a

major issue. The manufacturers of both solar technology and wind turbines can both prosper as market forces determine the right technology for each location. However, investors should be wary of projects that are not well suited to a particular location.

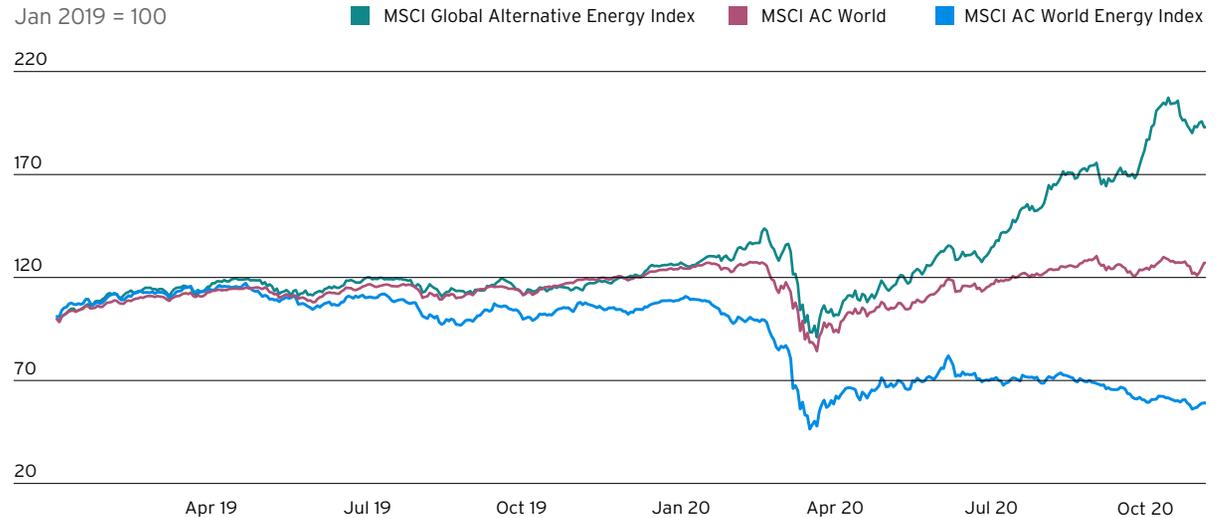
The main winners from the transition to renewable energy sources are likely to be energy consumers, both households and companies. The biggest losers will be within the traditional fossil fuel industries. We also see potential winners among energy producers. In 2020 to date, the MSCI Global Alternative Energy Index has outperformed world equities. And it has outperformed the traditional energy sector to an even greater extent - FIGURE 2.

An electrifying trend

As the price of electricity falls, end-users of energy will find it less expensive to use electricity instead of traditional fuels. This transition will require new technologies in areas as diverse as vehicles, heating and large-scale manufacturing. It is the innovators of these new techniques who are most likely to thrive in our greener energy future, as firms that cling to traditional methods find themselves facing a shrinking market and an unsustainable cost curve.

Burning fuel releases energy in the form of heat. It is then possible to harness and convert that heat into electricity. For many applications, however, the process ends earlier. When heating buildings, for example, there is no need to go

FIGURE 2. RENEWABLES' SHINING PERFORMANCE



Source: Bloomberg, as of 4 Nov 2020. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only. Past performance is no guarantee of future returns. Real results may vary.

through the trouble of converting fuel to heat, heat to electricity, and finally back into heat. Using oil or natural gas boilers and furnaces avoids this costly round trip. Likewise, in many industrial settings - such as chemicals manufacturing - energy is utilized as either heat or movement without ever passing through a wire. Heat, motion and electricity are all forms of energy, but it is expensive in terms of waste to transform one type into another so factories have had an incentive to use their energy sources wisely. For instance using fuel to spin a steam turbine and then using the defuse heat to accelerate a chemical reaction. These sorts of solutions have been built up over generations,

and will require creative new technologies to take advantage of abundant clean electric power.

In transportation, the example is crystal clear. Battery-powered electric car sales are rapidly ramping up. New industries, like charging station vendors, have arisen. Markets have taken note, with the equity value of global electric vehicle producers and their suppliers rocketing up in 2020. The most prominent example is Tesla, whose market capitalization stands at more than one-third of the MSCI Global Auto Sector Index, despite selling only a little over 0.5% of all cars worldwide in 2019.

Among new heating technologies, improved heat pumps are also changing the game. Rather than the notoriously inefficient process of creating new heat from electricity, these pumps move heat around instead, effectively functioning as air conditioners running in reverse. New air and geothermal heat pumps are approaching cost parity with fossil fuels for heating and are already less expensive than traditional compression-based air conditioners.

For industrial applications, electrification will likely find a mix of solutions with heat pumps, electric motors and existing hydrogen turbines powered by green sources of hydrogen. While governments around the world may pass laws and green energy targets, falling prices will ultimately drive the mass electrification of industry, as producers can otherwise relocate to avoid higher taxes and tougher regulations.

Likely beneficiaries of electrification include electric carmakers, battery makers and, eventually, heavy industry innovators.

Efficiency: Batteries now included

As more appliances and vehicles undergo electrification, energy efficiency will become increasingly important. This means getting the most out of batteries and helping utilities manage dramatically higher usage.

A prior case that shows how efficiency improvements might play out is through the straightforward shift to LED lighting. Early iterations of this technology were often inferior to traditional lightbulbs, combining odd shades of light, humming transformers and high upfront price points. However, market forces and technological improvements have since solved these teething problems.

Even as the emerging green energy revolution drives down the price of electricity, efficiency gains are likely to continue rapidly. Part of this has to do with how much efficiency is due to improvements in mobile computing as computers require less power to perform well. Likewise, one of the key factors behind electric cars' growing appeal is their ability to achieve similar or better performance with far less energy.

Battery technology remains a relatively expensive link within the electrification chain. Getting the most out of the least electricity will continue to drive down power usage even in the face of falling electricity prices. Efficiency gains often come accompanied by a host of other improvements, making use of cheap computing to establish "smart grids" that can efficiently toggle power to lower overall usage, or just reducing heat waste and the need for additional cooling in industrial spaces and data centers alike.



Emerging technologies in residential and commercial buildings have enabled two-way communication between grids and appliances, enabling some appliances to be "turned off" when they are not needed. In addition, tightly regulated heat pumps and other heating, ventilation and air conditioning systems will make for more comfortable and attractive residential, commercial and industrial spaces. Faced with the opportunity to make structural improvements while offices remain empty during the present pandemic, a number of commercial real estate investment trusts (REITs) have sought to undergo large-scale efficiency upgrades. Their aims are to lower costs and increase the attractiveness of their properties.

Likely beneficiaries include the suppliers and installers of residential and commercial infrastructure, as well as battery makers, "smart" appliance manufacturers, and select REITs.

A greener future post-COVID

There is a growing consensus that the world needs to find new and better ways of doing things once the pandemic is defeated. Switching to cleaner and more sustainable sources of energy is an obvious example of how we can do this. At the same time, there is a belief that many governments will probably borrow and spend more in order to stimulate growth in the coming years. Capital investment in renewable energy and related infrastructure will likely play a prominent role in such initiatives.

The European Union's €750bn recovery fund will have a green emphasis, both in terms of focus as well as fundraising. The EU has promised to raise 30% of the required debt by issuing green bonds. In addition, it has pledged that all of the spending must contribute to its emission-cutting goals. In addition, a number of EU-wide green taxes are under consideration to support the eventual repayment of the fund.

As part of its COVID recovery plan, China in April announced an extension of electric car subsidies and tax breaks through 2022. Previously, these were set to expire in 2020. What is more, China has started spending \$1.5bn to grow its electric car-charging network by 50% in 2020. President Xi Jinping lately announced China's goal of reaching carbon neutrality by 2060, planning investments of more than \$5 trillion in renewable power generation, while shuttering coal-fired plants or retrofitting them with carbon capture technology.

Make your portfolios greener, too

There are many wise ways that you can build exposure to the greening of the world in portfolios. Targeting firms at the cutting edge of new energy development, electrification, or energy efficiency can offer exposure to this unstoppable trend.

At the same time, shifting out of fossil fuel assets could avoid the negative impact from the most obvious losers of the transition. That said, the benefits from fossil fuel divestment have diminished as traditional energy has fallen to below 3% of global equity market capitalization. To date, most publicly-traded innovators in green technology tend to skew towards European- and Chinese-listed firms, while many US opportunities are in the private space or at the project level.

Finally, while we see many areas that the green revolution is only beginning to touch, we suggest a strong focus on cost and quality. Green energy and transportation did not become Unstoppable trends until they were price and quality competitive. With global policy aligning with improving economics, we see the global winds blowing towards a decade or more of intense investment and innovation in renewable technologies.



Greening your portfolio as the world goes green

HARLIN SINGH UROFSKY
Global Head of Sustainable Investing

The switch from fossil fuels to renewables is integral to the process of “greening the world.” However, it is also only one facet of our transition to a more sustainable existence. This is as true for investors as it is for the whole of society. The emergence of a greener world has implications for the ways that we approach every investment. Indeed, as companies move more aggressively to adopt new, greener standards, we are able to identify attractive possibilities across every asset class. These leading companies can enable us to build entire core and opportunistic allocations that reflect sustainable principles. We might describe process as “greening your portfolio.”

As the world goes greener, the opportunities for investors are likely to multiply over the coming years. The opportunities extend beyond the companies that develop or deliver the infrastructure for the green revolution. They include firms that are making commitments to lower their emissions, raise environmental and ethical standards throughout their supply chains, and explore new forms of financing, such as green bonds, so as to attract a different investor base.

We see multiple drivers for the drive to go green. Legislation remains an important influence, with initiatives such as the European Union’s “carbon

border tax,” a proposed levy on imports coming into the EU based on carbon emissions during production. Increasingly aware consumers are also demanding change through their buying patterns, forcing corporations to rethink how they operate. Importantly, the baseline economic case is strengthening. As in the case of renewable energy, embracing sustainability is no longer simply the right thing to do, but also best for business.

The way you invest can also make the world greener by influencing the value of green companies relative to others. As well as helping to effect positive societal change, greening your portfolio has the potential to support investment and social outcomes. We see more opportunities here than ever before. For example, green bonds - which fund sustainable infrastructure and new technologies - could serve as part of a core portfolio’s fixed income allocation. Equities relating to renewable energy and the circular economy could provide targeted thematic exposure for a core portfolio or alpha-seeking potential within your opportunistic portfolio. The possibilities extend beyond the public markets, with many innovative private companies seeking funding from sophisticated investors who seek returns and diversification, while also serving the greater good.

Your relationship team stands ready to help you explore the possibilities for greening your portfolio.



4.3

Digitization: The age of hyper-connectivity is upon us

JOE FIORICA - Head of Global Equity Strategy

MALCOLM SPITTLER - Investment Strategist

5G wireless data technology will help bring about an age of hyper-connectivity. We recommend portfolio exposure to its enablers and other beneficiaries.

- The full scale rollout of fifth generation (5G) wireless data networks will begin in 2021
- New wireless technologies will enable a large increase in connected devices, with a vast acceleration in data produced
- We seek investment opportunities among near-term beneficiaries including those involved in the rollout of 5G
- We also favor longer-term beneficiaries in areas such as autonomous driving, telemedicine, and “smart cities”



The world is in the midst of a digital revolution that is about to enter a new phase. Over recent decades, digitally disruptive innovations have brought about a transformation of how we live and work. In particular, internet connectivity has led to profound shifts in how businesses sell goods and services, organize themselves and their workforces, and gather information. Likewise, the ways that individuals communicate, consume, enjoy entertainment and even find love are now dramatically different. As far-reaching as these changes have been, the digital revolution has far to go. And we believe it is about to take another great leap forward, as emerging technologies enable faster and wide-ranging coverage across the globe.

Hyper-connectivity: High speeds and broader reach

Fifth generation - or 5G - wireless networking technology is the latest standard for broadband cellular networks. In dense urban cores, and critical locations such as hospitals, 5G may enable download speeds up to 100 times faster than those available on existing 4G networks. What is more, in these locations communication latency - the delay between an input or request for data and the network's response - is only one-tenth of existing cellular levels. For dense urban cores, 5G has the potential to boost performance substantially, with far more connections available and revolutionary faster speed. For most users, the technology will be more of an evolution, with a small boost in speed and improvement in latency.

FIGURE 1. EMERGING HYPER-CONNECTIVE TECHNOLOGIES AND THEIR BENEFICIARIES

TECHNOLOGIES	BENEFICIARIES
ULTRA-FAST WIRELESS (HIGH-BAND 5G)	AUTONOMOUS VEHICLES, WEARABLES, "SMART CITIES", AUGMENTED REALITY
WIDER COVERAGE (MEDIUM- AND LOW-BAND 5G, SATELLITE)	FINTECH, E-COMMERCE, EDUCATION TECHNOLOGY, CYBER SECURITY

Source: Office of the Chief Investment Strategist, Citi Private Bank, as of 31 Oct 2020

While 5G has been available for a couple of years, we think 2021 will be the true start of the rollout of fifth generation or "5G" wireless data. Apple and Android have both launched flagship phones that can fully utilize 5G, while the number of cell towers that can support 5G standards is increasing in the most important markets in the US, China and Europe. But while 5G sounds like a consolidated new technology, it is actually simply an umbrella standard, encompassing a basket of technologies that have radically different costs and benefits. While many commentators and marketing campaigns will focus on the benefits of ultra-fast high band wireless, the more stable but much less speedy 5G protocols will enable millions of users first-time access to reliable internet connectivity, ultimately benefiting digitally-focused innovators across a range of industries.

While 5G will revolutionize broadband speed in dense urban areas, another emerging technology

has the potential to offer reliable coverage to areas yet unreached by high-speed internet providers. Satellite internet constellations such as Starlink could become a significant disruptor, with large numbers of low-earth orbit satellites being launched to provide broadband access. This could result in high-speed internet in remote parts of both the developed and developing worlds for the first time.

The big winner from hyper-connectivity: Making data more valuable

The benefits of this hyper-connectivity could be extensive. Many more machines within factories could start communicating with one another, helping to maximize output, reduce downtime and minimize waste. Farmers will be able to monitor

their crops' condition effortlessly and tend to them from afar. Buildings will automatically calibrate their own energy use based on real-time occupancy, while power suppliers will manage supply and demand more efficiently - see [Greening the world](#). Healthcare providers will be able to track the well-being of hundreds of millions of people simultaneously, receiving early warnings of heart attacks and strokes before they strike.

The lifeblood of all of this potential is data. Hyper-connectivity will involve the generation, capture and analysis of data on an unprecedented

scale. The volume of data created globally could reach 175 zettabytes by 2025 - eighty-eight times the amount from just a decade ago - **FIGURE 2**. This data will be staggering in both scope and detail, logging everything from machines' production cycles, internet searches, driverless cars' signals, to heartbeats of smartwatch wearers. Once analyzed, this data will help producers and consumers make better decisions. Faster growth and a more productive, healthier population, better-educated learners, greater personal convenience, and a cleaner environment could follow.

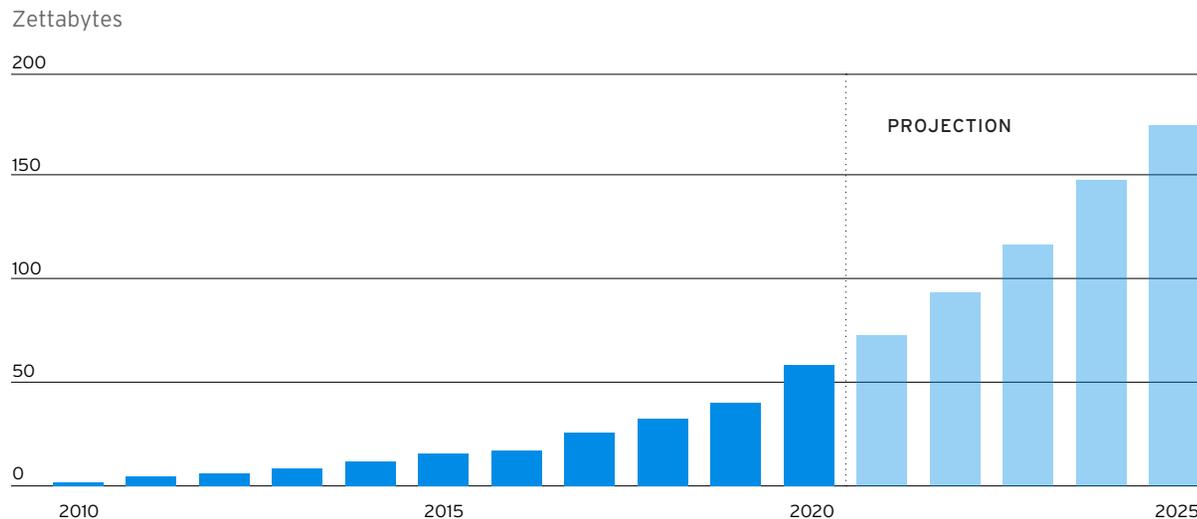
Investing in broader, faster internet coverage

As fifth generation towers, routers, and chips become increasingly pervasive, we believe the longer-term beneficiaries will be those emerging industries that can capitalize on speedy wireless, especially in dense urban areas. Autonomous cars, augmented reality, and wearables should advance in sophistication once they can quickly communicate incoming signals to remote data centers, essentially enabling mini supercomputers "within" everyday devices. Artificial intelligence can then mine that data, helping improve commute times, more efficiently manage sprawling energy grids, or identify early signs of an impending acute health crisis.

However, the 5G rollout, and the competing advancements in satellite internet, will be as much about internet coverage as about speed. The incoming Biden administration in the US has proposed investments in rural broadband in an effort to empower Americans living in more remote areas. 5G and satellite investment in emerging markets such as China and India will bring millions of people online, increasing the flow of data and the demand for digital services like fintech, e-commerce, and education technology. Governments and private corporations are likely to continue to spend on cybersecurity, as the exponential growth in private data will need protecting.

We therefore view the 5G rollout investment cycle as a relatively near-term opportunity, with the second-order beneficiaries like autonomous

FIGURE 2. THE PROLIFERATION OF DATA



Source: Data Age 2025, sponsored by Seagate with data from IDC Global DataSphere, May 2020. All forecasts are expressions of opinion and are subject to change without notice and are not a guarantee of future events

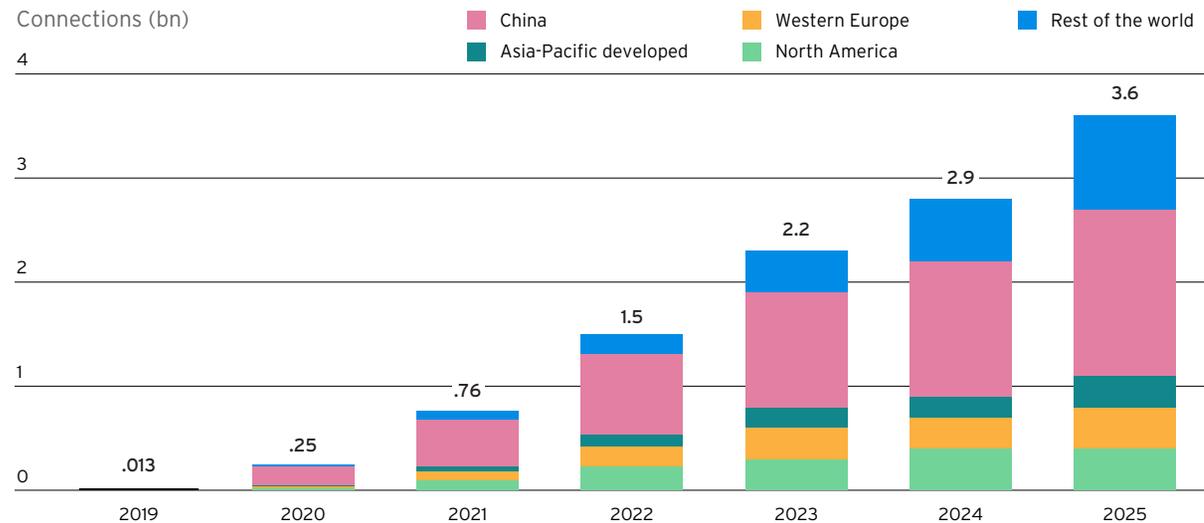
driving, telemedicine, and “smart cities” as longer-term winners. Like the telegraph, telephone, and dial-up internet before it, 5G is simply the next step in a centuries-long process that has dramatically improved communications across borders and geographies. It is with that framework in mind that we look forward to the benefits of the 5G rollout ahead, but we see the wider Unstoppable trend of Digitization as likely to long outlive the next generation of internet delivery.

Digitization drives other unstoppable trends

We also expect hyper-connectivity to accelerate some of our other **Unstoppable trends**. Most obviously, this includes other elements of digital disruption. For example, the vast increase in data we foresee will need to be stored securely, out of reach of cyber-criminals and others. This stands to benefit cyber-security specialists – see **Cybersecurity: Safeguarding the data revolution**. Likewise, we expect 5G to enable increasing adoption of artificial intelligence and robotics, including driverless cars – see **Digital disruption: Artificial intelligence**.

At the same time, hyper-connectivity is critical to [The rise of Asia](#). 5G investment in emerging markets like China and India will bring millions more people online, increasing the flow of data and the demand for digital services. 5G smartphone adoption is set for rapid growth in the region over the next few years – **FIGURE 3**.

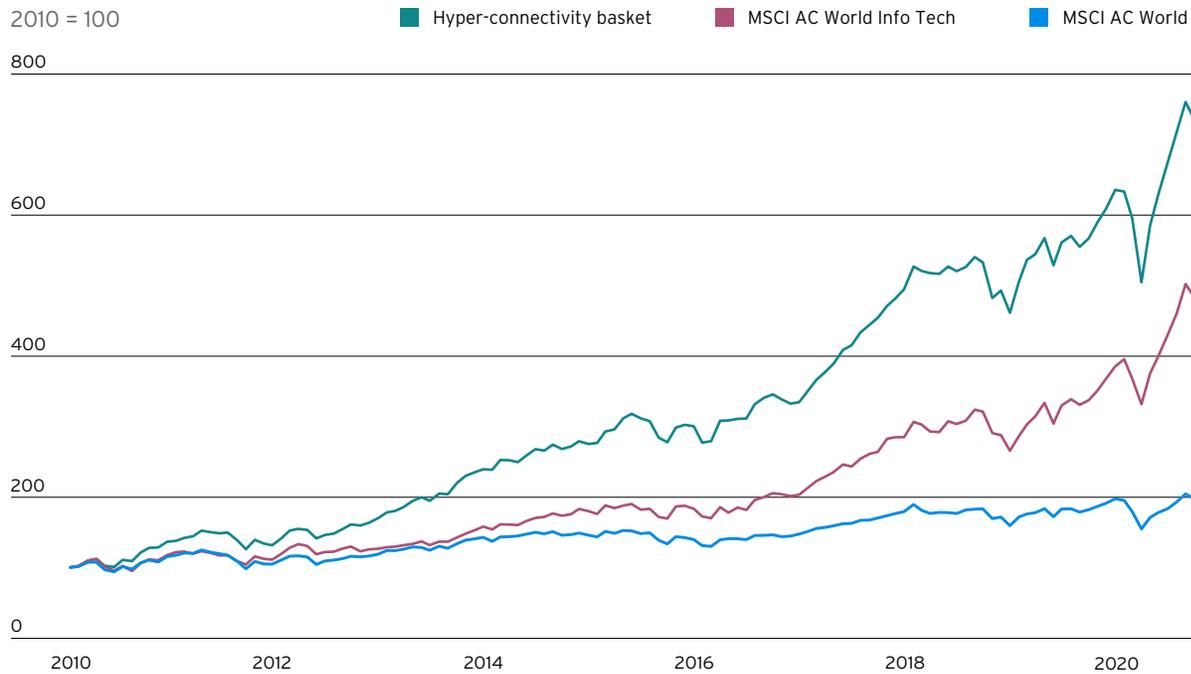
FIGURE 3. 5G CONNECTIONS WORLDWIDE



Source: CCS Insight as of 25 Nov 2020.

All forecasts are expressions of opinion and are subject to change without notice and are not a guarantee of future events.

FIGURE 4. HYPER-CONNECTIVITY HAS OUTPERFORMED



Note: Hyper-connectivity basket leverages Citi Research Theme Machine and includes companies with high exposure to the following categories: mobile network transition, data storage, cloud computing, internet of things, e-commerce, artificial intelligence, fintech, cyber security, wearable tech, smart mobile devices demand, virtual reality, automation/robotics. Source: Bloomberg and Citi Private Bank (OCIS) as of 6 Nov 2020. Past performance is no guarantee of future results. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only. Past performance is no guarantee of future returns. Real results may vary.

The development of smart cities - urban areas that use data and sensors to make better decisions about resources and improve residents' lives - will help drive to the region's ongoing urbanization. Likewise, 5G's applications in telemedicine, remote surgery and geriatric care are central to today's world of [Increasing longevity](#). Also, the boom in connectivity and data processing enabled by the 5G revolution will likely aid the smarter more efficient power grid we see emerging from [Greening the world](#).

4.4

The rise of Asia: Asian development in a “G2 world”

DAVID BAILIN - Chief Investment Officer

KEN PENG - Head of Asia Investment Strategy

With Asia’s importance in the world economy rising, we also expect continued strategic competition between the US and China. Both developments offer compelling potential investment opportunities.

- We expect a continuing shift in economic power towards Asia over the coming decades
- Deglobalization led by the decoupling of the US and China - the “G2 powers” - is also likely
- A “G2 world” where the two super-powers compete for clients across two divergent ecosystems may allow global investors to build more diversified portfolios
- We see a broad range of opportunities linked to the emergence of separate technological standards, the acceleration of middle class consumption in Asia, and supply chain diversification away from China



Asia is on the rise. Its comparative success in managing the pandemic is just the latest example of its prowess. Using extensive testing, contact tracing, temperature monitoring and enforcement of its regulations through technology, many countries in the region had lower incidence of the disease and large parts of their economies recovered more quickly.

The past year stands also as a milestone in Asia-Pacific's economic achievements. In 2020, the region's gross domestic product in purchasing power parity terms will overtake that of the rest of the world combined for the first time since the nineteenth century. And we expect it to pull further ahead over the coming decades. Asia is set to account for the vast majority of growth of the world's middle class by 2030, or some 1.5 billion people in total. It will likely add a hundred cities with a population of above one million. It is also home to the world's largest free trade area recently setup under the Regional Comprehensive Economic Partnership (RCEP).

For these reasons and more, we believe [The rise of Asia](#) represents an unstoppable trend - see **Outlook 2019**.

As Asia's global economic and political significance continues to grow, we see increasing tension between the world's two foremost powers, the US and China. The recent trade wars between the two is merely an obvious manifestation of this conflict. China is seeking to rival the US in industries where the latter has been dominant for decades. China's growing military might and

assertiveness within Asia, as well as its growing economic ties to other nations, represent further challenges to the US.

The US is likely to respond to China differently under a Biden administration. In fact, unlike the "go it alone" strategy employed by President Trump, it is probable that President-elect Biden will rally like-minded nations to pressure China on issues such as intellectual property protection, fairness in trade terms and conditions, and access to markets among other issues. Thus, while negotiations may lead to a better partnership on some issues, like climate change, it is likely that competition and the different standards of their two spheres of influence will cause investors to consider where to put their capital.

We believe that the ongoing G2 polarization, Asia's continued rise, and the interplay between the two have important implications for global investors. We therefore consider various potential scenarios and the opportunities and risks that we see for your portfolio.



G2 polarization: Can a realignment of economic interests reduce risks?

The G2 struggle has escalated since we addressed it in Mid-Year Outlook 2019. In particular, the US has applied a variety of measures to exclude certain Chinese technology companies from the US and restrict China's access to supplies of US-dominated strategic technologies. Ideological differences over issues such as human rights have sharpened. COVID-19's origins in China have heightened the standoff, and have persuaded some countries to fall in behind the US.

We expect that the US will actively re-engage with European allies, Japan, Australia and others to create common goals and standards for trade, technology, climate and health policies. China, too, will develop its own standards and practices.

Our base case for G2 relations is based upon an increase in strategic competition – **FIGURE 1**. We believe this will be characterized by moderate escalations in trade and corporate restrictions, but no military confrontation between the US and China or their proxies. Of course, there are other possible scenarios, but we believe that completely decoupling the economic ties between the two countries would be prohibitively costly and hence unlikely.

China's economic ties with certain countries could still strengthen further, even as polarization with the US continues. The signing of the RCEP with 14 other nations including Japan and Australia is an example of such ties. There is a widespread

FIGURE 1. WHAT NEXT FOR G2 RELATIONS?

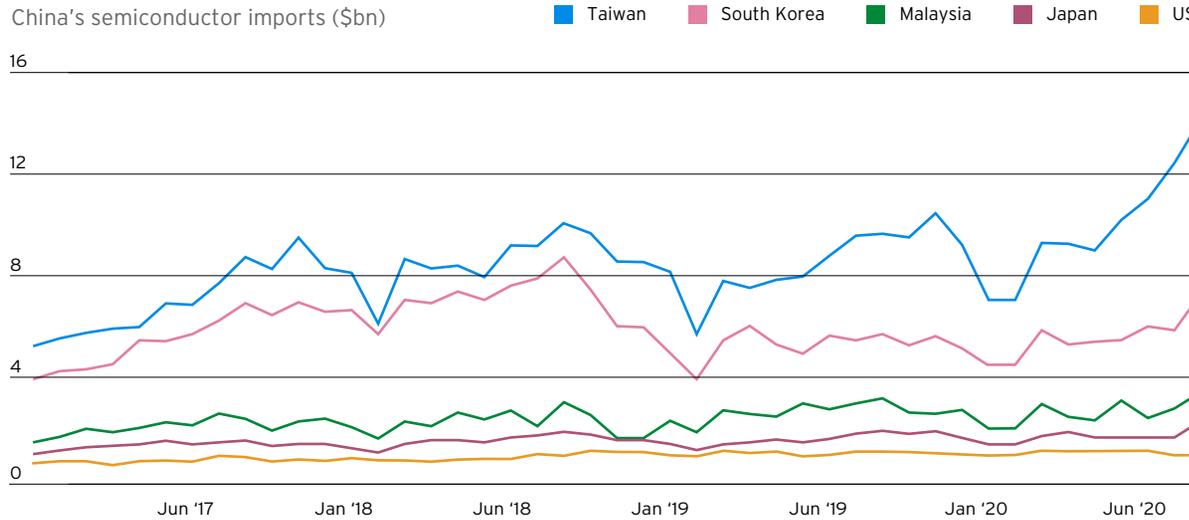
SCENARIO	FEATURES	MARKET IMPLICATIONS
STRATEGIC COMPETITION (BASE CASE)	<ul style="list-style-type: none"> Strategic competition in the technology and security realm Moderate escalations in trade and corporate restrictions No military conflict 	Invest in domestic and regional demand, dual tech standards, extra infrastructure, supply chain relocation
EASING TENSIONS (BULL CASE)	<ul style="list-style-type: none"> More diplomatic engagement China adapts friendlier foreign policies Return of multilateral trade deals No escalation in economic restrictions 	Positive global growth, stable international trade
INTENSIFIED DECOUPLING (BEAR CASE)	<ul style="list-style-type: none"> Proxy military engagement, likely in South China Sea Severe disruptions of supply chains and commercial activity 	Invest in defense, gold, avoid South China Sea

Source: Office of the Chief Investment Strategist, Citi Private Bank, as of 8 Nov 2020.

belief that China is now going to refocus inwards to drive its development. While this is true, it is not the full story. President Xi has emphasized that China is "open for business" and will become more so. The nation is running pilot schemes in the Greater Bay Area to ease work visa policies, increase foreign ownership and broaden the industries open for foreign investment. Critically, capital account convertibility will be tested, which would be a critical step towards making the Chinese yuan a more accepted reserve currency.

Stronger Chinese economic ties with the rest of the world will allow more investors to share in the country's growth. We believe this is likely even as the US and China decouple further. Whether China's efforts to open up will prove sufficient will remain unclear. In the past, though, the Chinese leadership has successfully adjusted policies at times of international tension. Further opening up to share its growth potential with more outsiders is the right place for China to start this time.

FIGURE 2. SOURCES OF CHINA'S SEMICONDUCTOR IMPORTS



Note: % shown as of China's total semiconductor imports, semiconductor imports include those under HS code of 8541 Light-Emit Diodes and 8542 Integrated Circuits. Source: Haver Analytics, Bloomberg, as of 12 Nov 2020.

The G2 technology divide

Technology has become a key battleground in the G2 world. Increasingly, we may see the emergence of two separate rival internets and different technology platforms that overlap in selected markets globally. Despite US efforts to cut China off from US technology, we believe that over time, China can find alternative sources - FIGURE 2 - and increasingly develop homegrown substitutes.

The US's current chokehold is in semiconductor chip design and fabrication equipment. This will

remain a huge advantage in the age of 5G, and create significant issues for China's advances in areas from high-end smartphones to its space exploration program.

In the coming decade, however, the US advantage here may fade. Advances in modern computing have been about shrinking the size of silicon based transistors so more can fit on ever smaller chips, as posited in "Moore's Law". But further increases in density will run into limits in the coming decade. Further gains in computing power would thus require alternatives, such as quantum computing, extremely strong and thin graphene,

or energy conserving nanomagnets. Both China and the US have already made early progress in quantum computing technology, which has become a priority in China's \$2 trillion 2025 technology investment plan. These technologies are still in their infancy, with no obvious leader in setting standards, which may level the playing field between the G2 powers in the future.

Positioning for the rise of Asia and a G2 world

With the rise of Asia and G2 polarization both set to endure, we believe that you should position core portfolios for both trends. Meaningful allocations to China and Asia more broadly can help make globally diversified portfolios more resilient. Since we highlighted the rise of Asia as an Unstoppable trend in 2018, the MSCI Asia ex-Japan has returned 36%, while MSCI China and CSI 300 indices recorded 58% and 78% respectively, compared to 47% for the S&P 500.

Importantly for investors, ongoing G2 polarization may represent a favorable development. As the US and China decouple, with the emergence of separate supply chains across two distinct centers of economic gravity, correlations between assets on each side may decrease. This would be helpful from the perspective of building diversified portfolios.

Sustaining two separate standards in technology would require greater capital investment in infrastructure and research on each side. Among

the beneficiaries could be semiconductor makers that are neither from the US nor China. These include semiconductor equipment makers from Taiwan, Korea and Europe. Likewise, 5G infrastructure and cybersecurity providers globally might also see increased demand. Southeast Asia (SEA) is likely to be among key beneficiaries of capital investment from both the US and China.

Indeed, SEA has already benefited from companies diversifying their supply chains away from China, both in technology and beyond. Such activity picked up pace in 2018 amid the escalating trade war. Naturally, SEA wishes to continue serving both Chinese and US markets. To do so, the region will need to make greater investment in traditional infrastructure. Likely beneficiaries include companies involved in construction, industrial automation, shipping commodities, and real estate.

In China, we see numerous opportunities related to its continuing development, as articulated in the 14th Five Year Plan. Domestically, the objectives are self-sufficiency in core technologies and developing domestic demand through new urbanization. Industries such as consumer brands, e-commerce, logistics, travel & leisure, healthcare, insurance and wealth management stand to gain.

At the same time, we recommend exposure to China's ongoing "opening-up." Greater capital market activity is essential for the adoption of the Chinese yuan into a true international reserve currency, as well as adding reasons to attract to foreign capital. Wealth management, brokerage,

real estate, healthcare and education are areas that are likely to see most positive impact from this.

As to the global challenge of climate change, Asian countries and companies are already playing a major role. Many are developing and installing infrastructure that changes how energy is produced and consumed. Investments in companies with high environmental, social and governance (ESG) standards may receive additional attention. Building up ESG standards can help foreign investors overcome their lack of knowledge in the local business environment. This is likely to favor alternative energy, electric vehicles, and firms with strong governance - see also [Unstoppable trends: Greening the world](#).



4.5

Increasing longevity: The healthcare opportunity

JOE CORDI - Equity Analyst, Citi Investment Management

ARCHIE FOSTER - Co-Head of Global Equities, Citi Investment Management

WIETSE NIJENHUIS - Senior Portfolio Manager, Global Equities, Citi Investment Management

The rapid aging of the world's population presents many challenges for society, particularly related to healthcare. For a variety of innovative companies, we believe this represents an opportunity.

- The world's elderly population is growing quite rapidly
- Addressing the healthcare needs of this population poses many challenges, highlighted by the COVID-19 pandemic
- For the providers of innovative healthcare-related solutions, we see increasing longevity as an opportunity
- We recommend core portfolio exposure to personalized medicine and cancer treatment, healthcare infrastructure and pandemic preparedness, and remote monitoring and devices



The world is facing an unprecedented demographic shift. As of 2019, the global population aged over 65 stood at 703 million, or one in every eleven people. By 2050, this is set to have more than doubled to 1.5 billion, or one in every six people. The “very senior” cohort - those aged over 80 - is likely to increase even more rapidly, from 143 million to 426 million. This pattern is the result of many decades of improving life expectancy and declining fertility. As we set out in Outlook 2019, we see increasing human longevity as an Unstoppable trend and opportunity.

Such dramatic aging of the global population has far-reaching implications for the economy, business, social relations, voting patterns and more. Meeting the healthcare needs of many more elderly people will be a particularly pressing priority worldwide. Currently, more than three-quarters of those aged 65 and over have at least two chronic conditions. Spending per capita on healthcare in developed nations for someone aged over 85 can be as much as six times greater than for a 59-year old. But while the increase in future healthcare needs represents a challenge for society, we believe it creates opportunities for a wide range of innovative companies.

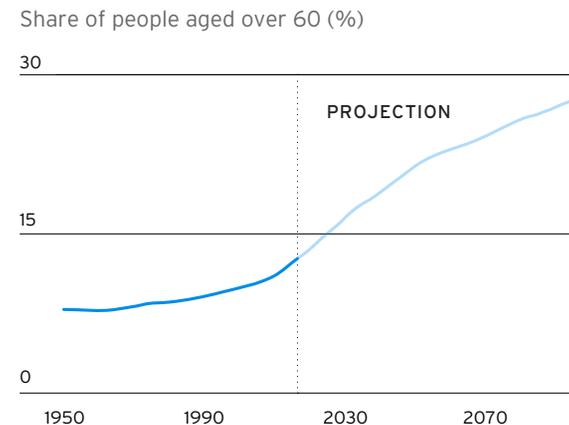
The COVID-19 pandemic has put renewed focus upon both aging and healthcare. The virus has disproportionately affected the elderly in every country, while highlighting the vulnerability of existing healthcare systems. At the same time, the exceptional circumstances have accelerated the adoption of innovative technologies and treatments. We believe technological adoption will outlast the pandemic, benefiting both

patients and healthcare innovators alike. In particular, we see various opportunities across three areas relating to this Unstoppable trend.

Personalized medicine and cancer treatment

Cancer is already the second-leading cause of death worldwide. Its prevalence increases with advancing age: four-fifths of new cancers occur after the age of 55, with over a quarter of new cancer diagnoses among those aged 65 to 74.¹

FIGURE 1. THE GRAYING OF THE WORLD



Source: United Nations, 2019 Revision of World Population Prospects Report. As of August 2019. Accessed December 2019. All forecasts are expressions of opinion and are subject to change without notice and are not intended to be a guarantee of future events.

As a result, case numbers could increase significantly over the coming decades.

Personalized medicine is likely to help to address this looming challenge. Throughout history, healthcare has typically focused upon treating people with one-size-fits-all remedies only once they fall sick. However, breakthroughs in our understanding of DNA will increasingly enable a more preventative approach based on an individual's genetic make-up. Personalized medicine seeks to identify an individual's susceptibility to disease, prevent disease if possible, detect problems earlier on, and then customize treatment. We are already seeing the benefits of personalized medicine across several therapeutic areas, particularly for cancer treatment.

An important and novel diagnostic tool within personalized medicine is the liquid biopsy. Whereas traditional biopsies extract tissue, a liquid biopsy relies upon screening bodily fluids for tumor DNA. As well as the potential for earlier detection, this non-invasive test enables better real-time assessment following diagnosis. The liquid biopsy represents one of the most important clinical advancements in cancer detection. In the US alone, the addressable market opportunity could reach \$30bn to \$130bn in the years ahead.²

¹ National Cancer Institute, Cancer Treatment and Survivorship Facts and Figures, 2017

² Citi GPS, Disruptive Innovations VI, August 2018

We also see opportunity on the therapeutic side. Drug companies are increasingly seeking to develop novel therapies that seek to change the way we treat certain conditions. Immunoncology, for example, takes advantage of the body's immune system to fight cancer. CAR-T - chimeric antigen receptor T-cell - therapy reprograms an individual patient's immune-system cells to resist the cancer, which can work effectively even in certain advanced cases.

Healthcare infrastructure and pandemic preparedness

Public and private healthcare and biopharmaceutical spending have increased over the last few years. However, the COVID-19 pandemic has highlighted the still-significant under-resourcing of healthcare systems across the world, particularly in diagnostic testing capacity. In response, we believe that capital expenditure on diagnostics and testing will rise meaningfully in the years ahead.

We also expect greater government support for vaccine development and additional pressure to improve vaccination rates. We believe that vaccination rates and pricing power will broadly move higher in the years ahead. Rather than investing in the biopharmaceutical vaccine makers themselves, our preferred exposure to this area is through life sciences companies that provide tools for vaccine development and manufacture, as well as the makers of vaccine packaging and providers of transport.

Telehealth enabled patients to get necessary treatment during the pandemic, while greater internet speed and software have enhanced the remote consultation experience. Patients have saved traveling and waiting time, as well as costs. More and more insurers have agreed to reimburse policyholders for virtual medical visits. We expect continued strong growth in the years ahead.





Remote monitoring and devices

During 2020's lockdowns, the need for and use of remote monitoring via innovative devices has grown. Wearable technologies - such as smart watches - are helping to give early warnings of health and fitness issues, as well as monitoring existing conditions and events. These include cardiovascular disorders, diabetes, epileptic fits, and falls suffered by the elderly at home.

For elderly users and for society as a whole, there are numerous potential benefits of wearable technologies. They can help users, home care helpers and healthcare providers monitor for the correct and timely ingestion of medicines, and for the early identification of silent, but potentially fatal emergencies health, including arrhythmias and pre-stroke brain activity. Wearable technologies can thus help elderly users remain independent, easing the pressure on often-stretched social care systems and families. We have long regarded the wearables market as having significant growth potential and the pandemic has only reinforced our view.

There may also be significant potential in non-wearable technology. Significant progress has occurred in the development of products that improve patient outcomes as well as diagnosis rates. Some of the products in development - including a small artificial intelligence enabled "pill" - have the potential to detect certain disorders and cancers. The deployment of less invasive diagnostic tools will increase mass screening and save many lives.

Increasing longevity

The investment opportunities arising from the Unstoppable trend of Increasing longevity extend well beyond the large-cap pharmaceutical companies. They include many nimble innovators that also relate to our other unstoppable trends, such as **Digitization** and **The rise of Asia**. Given the specialized nature of the opportunity set, actively managed strategies may provide a targeted way to build exposure, rather than broad-based passive exposure. Over a full economic cycle, we believe that such exposure could help improve your core portfolio's risk-adjusted returns, enhancing its overall resilience.

5 Regional asset class previews

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- 5.1 Asia: The post-COVID recovery takes hold
- 5.2 Europe: Positioning for a potential post-COVID snapback
- 5.3 Latin America: A modest bounce amid the global recovery
- 5.4 North America: A resilient economy accelerates

5.1

Asia: The post-COVID recovery takes hold

KEN PENG - Head, Asia Investment Strategy

KRIS XIPPOLITOS - Global Head of Fixed Income Strategy

The pandemic drove sharp divergences in economic and market performance in 2020. We highlight the markets that could bounce back

- The growth of Asia will resume robustly. We expect above-trend growth of 6.2% across Asia in 2021
- In equities, we emphasize searching for value amid a cyclical recovery
- We identify opportunities in Asian fixed income where credit spreads may narrow
- The Japanese yen and Chinese yuan are our favored regional currencies



Our favored Asian markets

EQUITIES EPS GROWTH FORECAST ¹

JAPAN		30.7%
ASEAN		35.1%
HONG KONG		33.0%

SECTORS EPS GROWTH FORECAST

INDUSTRIALS		40.1%
CONSUMER DISCRETIONARY		66.1%

FIXED INCOME YIELD ²

ASIA IG USD CORPORATE		3.31%
ASIA HY USD CORPORATE		7.86%
CHINA SOVEREIGN		3.26%
INDONESIA		6.17%

Sources: 1 – FactSet consensus estimates, as of 26 Nov 2020; 2 – The Yield Book, as of 26 Nov 2020. Past performance is no guarantee of future returns. Real results may vary. Indices are unmanaged. An investor cannot invest directly in an index. All forecasts are expressions of opinion and are subject to change without notice and are not intended to be a guarantee of future events

Overview

Having grown at 4.1% in 2019, GDP in Asia including Japan may shrink by 1.5% in 2020 owing to the COVID-19 pandemic. However, this top-line figure conceals stark differences among different economies, driven by their handling of the virus. Those that have managed more effectively – including China and Taiwan – are likely to see average growth of 2% for 2020. Those who proved more vulnerable – such as India – could see contractions of 5 to 9%, more consistent with the COVID experience in the West.

For 2021, we expect above-trend growth throughout Asia, with regional growth rebounding to 6.2%, followed by a return to trend-like growth of 4 to 4.5% in 2022. Once COVID is defeated, China is likely to continue leading Asia's recovery, potentially registering 8% growth in the full year that follows. While this represents a notable pick-up from 2.1% in 2020, it is also less pronounced than the potential swing from -5.4% to 2.3% for Japan, or the massive bounce from -6.5% to 7% expected for the “vulnerable” group in emerging (EM) Asia.

We expect effective vaccines and treatments to become widely available in the first half of 2021. However, even if delays arise, we would still expect ongoing progress towards a full economic re-opening. This goes not only for the economies that managed the pandemic most effectively, but also in the “vulnerable” group, where economies remained open despite high infection rates. The more pronounced recoveries in Southeast Asia and Japan will likely translate into asset price performance.

Equities

Asian equity market performance showed major divergences in 2020, and we believe some reversals are likely in 2021.

In 2020, China (up 27%), Korea (11%) and Taiwan (13%) led equity performance not just in the region, but also globally, compared to the 12% gain in US equities. Effective pandemic management and heavy local weightings in technology drove these results. These advantages may fade in a broader recovery in 2021.

Meanwhile, Southeast Asia – down 15 to 30% year-to-date – and Japan – down 2% – have lagged. This may give them more room for upside surprises in 2021. Regional exports have already rebounded by 9% year-on-year in the third quarter of 2020, with further gains likely. We believe that this points to 20-30% growth in corporate earnings in these markets for 2021.

Japan is increasingly returning to global investors' radars. While it experienced a milder pandemic, it is nevertheless a clear recovery beneficiary, especially given its low valuations. Reforms in recent years have broadened its labor force by increasing female participation, and have also improved corporate governance, making Japan more attractive for both corporate and portfolio investors.

We also like Singapore and Hong Kong for their dividend yields and moderate valuations - **FIGURE 1.** The “travel bubbles” that the two cities have set up in late 2020 - enabling movement between the two without quarantine amid the pandemic - are likely to add to their economic activity in early 2021. Political uncertainties in Thailand and Malaysia have weighed upon their equity markets, but the weakness in 2020 has already priced in much of this risk.

India is the regional economy hit hardest by COVID, but its equities were the best performing among vulnerable markets, and valuations are lofty by global standards. We are more cautious on India despite its prospects for economic recovery.

Cyclical sectors in Asia had lagged even before the pandemic. However, they are poised to outperform in the coming year on recovery prospects. We prefer travel and leisure, consumer brands, Macau gaming, select industrials and materials, as well as insurance and wealth management. While we continue to see positive long-term prospects for tech, their 2021 performance may be held back by difficult comparisons to the 2020 earnings boom, high valuations, potentially rising long-end bond yields, and the return of pandemic-impaired activities.

FIGURE 1. ASIA VALUATIONS AND OUR FAVORED ASIA EX-JAPAN SECTORS

	FREE MC US\$bn	PE		EPS YoY%		P/B 20E	ROE 20E	DY (%) 20E	CAPE 10yr
		21E	22E	21E	22E				
JAPAN	3762.9	17.4	14.6	30.7	19.3	1.3	5.8	2.2	20.3
ASIA PAC EX JP	7342.9	15.7	13.6	23.7	15.3	1.8	9.2	2.2	18.9
AUSTRALIA	1001.5	18.8	17.5	16.5	6.9	2.1	9.4	3.1	18.3
HONG KONG	493.3	16.7	14.5	33.0	15.1	1.2	5.3	2.8	16.3
SINGAPORE	156.8	13.8	11.5	32.8	19.6	1.0	5.7	3.7	11.6
NEW ZEALAND	46.0	37.7	32.4	4.4	16.2	4.2	10.7	1.7	35.3
CHINA	2925.3	15.1	12.9	19.3	16.7	2.0	11.2	1.5	18.9
KOREA	869.1	11.7	9.9	42.1	18.7	1.1	6.5	2.0	14.4
TAIWAN	879.5	16.4	14.8	13.6	10.3	2.3	12.2	3.1	23.9
INDIA	567.2	22.1	18.0	28.3	23.1	3.1	10.9	1.3	29.6
THAILAND	132.9	18.7	14.8	33.0	17.7	1.6	6.4	2.4	13.8
INDONESIA	97.5	16.3	13.5	30.6	20.3	2.3	10.9	2.9	17.9
MALAYSIA	116.2	15.6	15.2	39.4	1.8	1.6	7.5	2.8	15.4
PHILIPPINES	56.3	18.3	15.2	39.9	20.2	1.8	7.0	1.7	20.4
CONSUMER DISC.	1339.2	25.5	20.2	66.1	26.6	3.7	8.6	0.5	23.8
INDUSTRIALS	402.7	13.8	11.3	40.2	19.2	1.2	6.0	2.3	14.5
FINANCIALS	1460.2	10.2	9.2	13.9	11.5	1.0	9.0	3.3	12.1

Source: Citi Research, Worldscope, MSCI, FactSet, data as of 13 Nov 2020. Note: The above data are compiled based on companies in MSCI AC World Index. The market capitalization for regions, markets and sectors are free-float adjusted. P/E, EPS Growth, P/B, Dividend Yield and ROE are aggregated from FactSet consensus estimate (calendarized to December year end) with current prices. CAPE is calculated by current price divided by 10-year average EPS based on MSCI index-level data. NM = Not Meaningful; NA = Not Available.

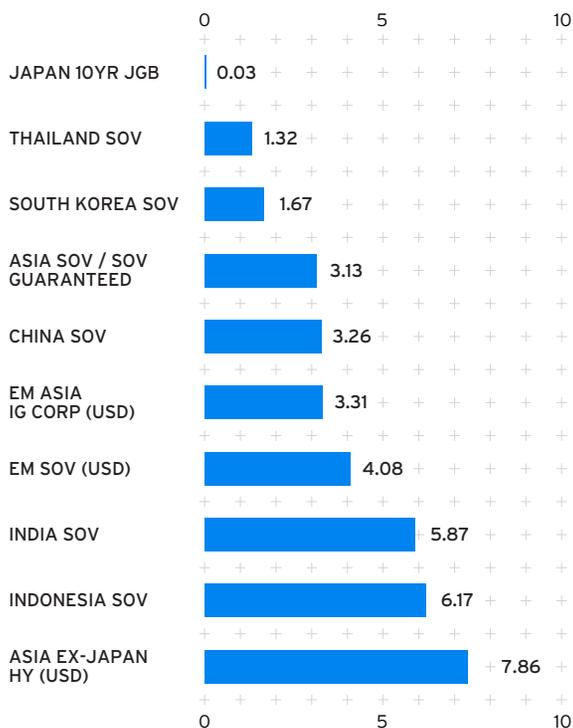
Fixed income

Asian US dollar-denominated credit had been less volatile than its US and European counterparts in 2020. The overall drawdown during the deep market sell-off in March was less pronounced. By the same token, the recovery was also less extensive, as Asia does not enjoy the direct buying of corporates endorsed by the US Federal Reserve and European Central Bank. Investment grade (IG) returns in Asian US dollar credit benchmarks amounted to 5.7% at the end of October, lower than the 7.0% returns in the US. Meanwhile, Asian high yield (HY) credit has actually outperformed with a 2.9% year-to-date gain, versus 1.2% in the US HY index.

Looking into 2021, we continue to see better relative value in US dollar Asian credit. In IG corporates, benchmark spreads average 180 basis points (bps), which is 55bps wider than US IG. Current valuations are also associated with much less interest rate risk, as the average duration of the Asian IG market is under half that of the US (4.0 vs. 8.6). This could lead to outperformance over US corporates if long-term Treasury rates rise in 2021, as we expect.

In Asian HY, an index spread of 780bp is nearly 300bp wider than its US counterparts, and well above its five-year average relationship. This gap is partly due to the lack of central bank purchases of Asian credit, but largely driven by recent widening in China's property and state-owned enterprise (SOE) space.

FIGURE 2: ASIA FIXED INCOME YIELDS (%)



Source: Bloomberg, as of 26 Nov 2020. Notes: All the sovereign bonds are based on generic 10yr bonds in local terms, unless otherwise indicated as USD bonds. Past performance is no guarantee of future returns. Real results may vary.

In our view, recent defaults of several SOEs reflect greater tolerance to let some SOEs fail and reduce moral hazard, thereby improving allocation of capital. In the property sector, spread pressure was more of an idiosyncratic corporate problem than a systemic one, while property sales remain healthy. These developments are likely to limit the extent to which monetary policy can tighten. We would expect rates to be capped, as a result. Defaults are likely to continue, but unlikely to become a systemic problem.

In local markets, Asia holds the lowest average yield among all EM regions at 2.8%. However, Indonesia sovereigns are among the most attractive in nominal and real terms, with 5-year yields near 5.5%. We expect an extended period of US dollar weakness to support Asian currencies - see Currencies section below - which could boost performance for unhedged investors. China local bonds are also of a particular area of interest, given their attractive carry (yields are around 3%), low sovereign risk, and rising global investor appetite.



Currencies

Asian currencies - as represented by the Bloomberg JP Morgan Asia Dollar Index - have risen by 8% since their March lows. That is the highest since late 2017, although still 2% below the 10-year average. The collapse of US interest rates in the wake of the pandemic brought massive inflows and drove Asian currency strength, especially in the onshore Chinese yuan. The surge in US government indebtedness and the resulting financial repression - see [Overcoming financial repression](#) - are likely to keep pressure on the US dollar and thus support Asian currencies in the coming years. We favor the Chinese yuan and Japanese yen.

The outperformance of the Chinese yuan this year was attributable to a wider bond yield gap with the US, relative economic strength, and the inclusion of Chinese bonds in fixed income benchmarks. The gap between Chinese and US 5-year government bond yields has widened from under 50bps to almost 300bps, consistent with a level of 6.3 in the dollar/yuan exchange rate. We see local currency bonds as an opportunity in 2021.

The Japanese yen also outperformed in 2020, appreciating 4% as of 31 October. The gap between US and Japanese 10-year yields has collapsed to 50bps from as much as 300bps in 2018. Pressure for a stronger yen is substantial, with limited scope for additional easing from the Bank of Japan. The Thai baht, Indonesian rupiah, Indian rupee and Singapore dollar have underperformed based on different downside risks to their respective recoveries. However, all are likely to stay stable and gradually revive amid the weaker dollar environment and economic recovery from COVID-19.

Cecilia Chen contributed to this article.

5.2

Europe: Positioning for a potential post-COVID snapback

JEFFREY SACKS - Head of EMEA Investment Strategy

KRIS XIPPOLITOS - Head of Global Fixed Income Strategy

Thanks to coordinated stimulus, European economies could rebound convincingly next year. We identify various opportunities in both European and UK equities.

- Growth expectations in Europe may be exceeded in 2021. We look for 4% growth aided by fiscal and monetary stimulus
- Given their strong cyclical bias, European equities have good recovery potential in 2021
- We see more attractive value in European credit than in ultra-low yielding investment grade debt
- We see better support for both the euro and British pound relative to the dollar



Our favored markets

EQUITIES EPS GROWTH FORECAST ¹

UK		34.2%
FRANCE		26.5%
GERMANY		63.1%
SWITZERLAND		15.5%

SECTORS EPS GROWTH FORECAST

ENERGY		308.2%
INDUSTRIALS		64.9%
HEALTHCARE		9.4%
FINANCIALS		23.0%

FIXED INCOME YIELD ²

EUROPEAN HIGH YIELD		3.8%
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Sources: 1 – FactSet consensus estimates, as of 26 Nov 2020; 2 – The Yield Book, as of 26 Nov 2020. Past performance is no guarantee of future returns. Real results may vary. Indices are unmanaged. An investor cannot invest directly in an index. All forecasts are expressions of opinion and are subject to change without notice and are not intended to be a guarantee of future events

Overview

Europe is poised for a meaningful recovery in 2021. We forecast 4% GDP growth in Europe ex-UK for 2021. Our key assumption here is that policy support will remain accommodative as markets recover from COVID-19. At a national level, the core countries of the Eurozone – Germany and France – have already committed fiscal spending of around 9.5% of their GDP, and are likely to increase this further. This is because there is now acceptance that doing too little to combat the pandemic's fallout would pose a bigger risk in the long term. The peripheral Eurozone countries cannot commit much more at the national level, and will be highly reliant on grants and loans from the European Union's (EU) Recovery Fund. The Fund is likely to be ratified by year-end, and is significantly positive in several respects. It demonstrates EU solidarity and will be partly financed through the issuance of EU sovereign bonds, which will support flows into the region.

Three factors could lead to long-term sustainable growth in the region. Firstly, the presidency of Joe Biden is likely to see a return to positive US engagement with Europe. In particular, various trade-related tensions – including steel and aluminum tariffs, Airbus/Boeing subsidies, digital taxes, and the US 232 investigation into the car sector – will probably ease gradually and support the manufacturing sectors. Secondly, further vaccine progress is likely to see improving services sectors by the middle of 2021. Thirdly, Europe and the UK are making alternative energy a key priority. This is likely to put further impetus behind working with the Biden administration towards the next global climate change conference, due to be held in Glasgow in 2021.

We expect regional equities to perform well in both relative and absolute terms in 2021, driven by ongoing fiscal and monetary support. We prefer corporate high yield bonds, given that valuations are stretched in sovereigns and investment grade corporate bonds. A reduction in risks relating to Brexit and a breakup of the Eurozone should be helpful for currencies.

Equities

Even as the battle to suppress the pandemic rages on, we have a favorable outlook for regional equities for 2021. Underpinning this expectation, though, is ongoing fiscal and monetary policy support. Fundamentals, valuations, and technical factors are all favorable for a future recovery.

The GDP growth rebound should feed into broad market EPS growth of at least 30%. Within this estimate, there will be substantial dispersion favoring the industries and sectors we prefer at a global level. More than half of Europe's equity market capitalization is in cyclical sectors such as energy, financials, consumer staples, and industrials. Increased Asian demand for imports is already having a positive impact on industrial order books. We believe many of these sectors are undervalued, particularly financials. European mid-cap companies should also perform well as the new cycle gathers momentum. Dividends are now stabilizing, with an average yield of almost 3% looking favorable versus other equity markets and versus European fixed income.

Owing to ongoing political concerns and sluggish growth that has lingered for several years, European equities are under-owned by global investors. A catalyst for this to change could be a firming of the euro, which should mean less need for hedging by external buyers of European equities.

In particular, the valuation of UK equities has fallen for the past four years, down to what we

FIGURE 1. EUROPE VALUATIONS AND OUR FAVORED EUROPEAN SECTORS

	FREE MC US\$bn	PE		EPS YoY%		P/B 20E	ROE 20E	DY (%) 20E	CAPE 10yr
		21E	22E	21E	22E				
EUROPE	9,330	16.7	14.3	30.1	16.7	1.8	8.2	2.8	18.6
UK	2,030	14.2	12.1	34.2	17.5	1.5	8.2	3.6	13.9
EUROPE EX-UK	7,300	17.6	15.1	28.8	16.4	1.9	8.2	2.5	20.8
FRANCE	1,689	17.9	14.8	63.1	20.8	1.6	5.6	2.5	20.7
SWITZERLAND	1,464	18.0	16.4	15.5	10.0	2.9	14.1	2.8	25.0
GERMANY	1,359	15.4	13.0	26.5	18.5	1.5	7.8	2.6	17.3
NETHERLANDS	655	21.3	18.4	22.7	16.1	2.5	9.6	1.8	28.3
SWEDEN	503	17.6	16.9	0.5	3.8	2.2	12.6	2.5	22.1
SPAIN	372	16.1	13.0	23.3	23.4	1.2	5.9	3.5	12.7
DENMARK	368	25.3	22.4	17.9	12.7	4.9	16.3	1.4	38.2
ITALY	353	13.8	11.1	63.9	23.5	1.1	5.0	3.4	17.6
FINLAND	151	19.6	17.6	11.3	11.5	2.2	10.2	3.0	23.5
BELGIUM	149	21.7	18.0	10.4	17.0	1.5	6.1	2.1	18.0
IRELAND	103	22.7	19.9	6.8	14.2	2.2	9.3	1.3	38.3
ENERGY	396	14.4	9.2	308.2	56.4	0.9	1.6	6.0	9.2
INDUSTRIALS	1,379	21.8	18.2	64.9	19.6	3.4	9.6	1.9	26.0
HEALTHCARE	1,391	17.0	15.3	9.4	10.8	3.8	20.2	2.7	26.0
FINANCIALS	1,452	11.0	9.2	23.0	18.6	0.8	5.6	3.7	11.8

Source: Citi Research, Worldscope, MSCI, FactSet, data as of 20 Nov 2020. Note: The above data are compiled based on companies in MSCIAC World Index. The market capitalization for regions, markets and sectors are free-float adjusted. P/E, EPS Growth, P/B, Dividend Yield and ROE are aggregated from FactSet consensus estimates (calendarized to December year end) with current prices. CAPE is calculated by current price divided by 10-year average EPS based on MSCI index-level data. NM = Not Meaningful; NA = Not Available.

believe is a very attractive forward multiple of earnings of 12.5. In addition, their average dividend yield of almost 4% is the highest of all developed markets. With a resolution of Brexit on the docket, we expect a year of local recovery in 2021, driven by a “bare-bones” trade deal with the EU, gradual control over the pandemic, and further economic stimulus led by infrastructure spending. The UK is a value play.

Fixed income

Western European bond markets have the unfortunate distinction of being the lowest yielding of all developed regions. Aggregate benchmarks now yield a meager 0.07%. The Eurozone is a significant contributor, as four years of negative interest rate policy and massive quantitative easing has inflated bond prices. Through October, the average yield of all euro-denominated sovereign bonds is -0.2%, with nearly 10% of euro investment grade (IG) corporate bond market trade on a negative yield.

In our view, European Central Bank (ECB) policy will keep Eurozone bond yields low throughout

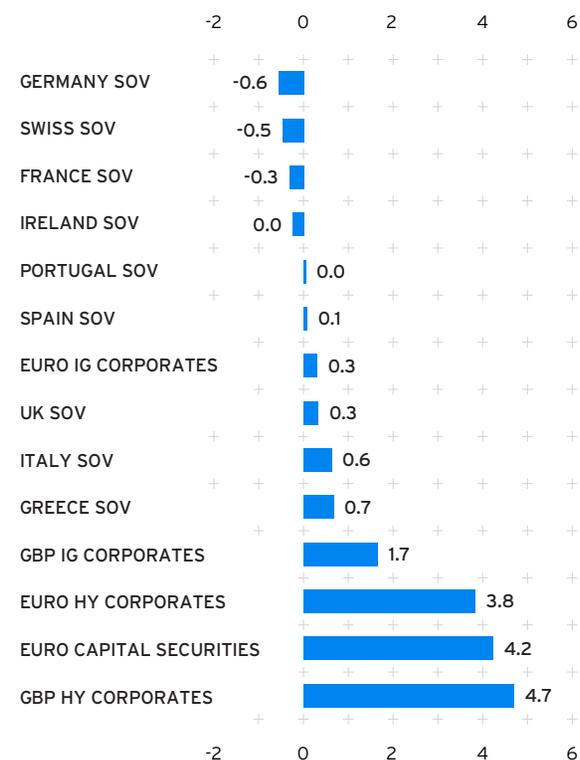
2021. In fact, market pricing implies deposit rates remaining negative for the next three years. This plays into our [Overcoming financial repression](#) theme. The ECB's €1.35 trillion Pandemic Emergency Purchase Programme will also likely apply downward pressure on longer-term yields, even as the regional economy recovers. Peripheral Eurozone countries will mostly benefit, especially Italy. Once mired in deep fiscal concerns, Italy has now seen 10-year bond yields drop to historical lows and the national credit rating outlook improve. Indeed, S&P has raised its BBB-rating on Italy from “negative” to “stable.”

UK rates are also likely to stay low for longer, or maybe move even lower. With the Bank of England considering setting negative interest rates, longer-term UK sovereign bond or “gilt” yields could drop below current levels. Indeed, gilt yields out to five years' maturity are already below zero.

For income-oriented investors, Eurozone sovereign bonds and UK gilts offer limited value and we remain deeply underweight. In our view, credit markets offer better value, specifically in high yield corporates. Euro high yield spreads of 480bp equate to an absolute yield of 4.5%. These valuations also come with very little exposure to energy, which has helped limit defaults. Euro HY default rates have indeed risen, but remain well below the US HY market at 4.3%.

Our expectation for a cyclical recovery should also bode well for the banking sector. Additional Tier 1 (AT1) securities or contingent convertibles - or “CoCos” - also offer very attractive yields. Depending upon the issuer or structure, yields

FIGURE 2: EMEA FIXED INCOME YIELDS (%)



Source: Bloomberg Barclays, Bloomberg and The Yield Book, as of 20 Nov 2020. Past performance is no guarantee of future returns. Real results may vary.

on AT1 securities can range between 5 and 6%. Over the last decade, banks have done a good job rebuilding their capital base to weather the current downturn. While common dividends have been suspended temporarily, we believe preferred dividends from most European banks are safe.

Currencies

Following this summer's weakness in the trade-weighted US dollar, we look for further dollar downside in 2021 based on US-related factors. However, we see additional local support drivers for both the euro and British pound.

The Eurozone no longer faces potential break-up risk, which removes a significant overhang from the euro. The EU Recovery Fund is likely to provide economic support to the weaker peripheral countries, while the ECB bond buying program now includes more peripheral bonds, including those of Greece. The lessened Eurozone risks are best reflected in the spread of the Italian 10-year sovereign bond yield over that of 10-year German Bunds. This has fallen from 160 basis points at the start of the year to 121 basis points as of 13 November.

Sterling is cheap in real-exchange rate terms. The main catalyst for improved performance could be a possible "bare-bones" trade deal with the EU. There are signs of pent-up demand for UK assets, including equities and property, which should slowly increase inflows and sterling buying. Further momentum could develop during the year as the economy slowly recovers from the worst of the pandemic.

Shan Gnanendran contributed to this article.



5.3

Latin America: A modest bounce amid the global recovery

JORGE AMATO - Head, Latin America Investment Strategy

KRIS XIPPOLITOS - Head, Global Fixed Income Strategy

Latin American assets have suffered heavily amid the pandemic, which has created tactical opportunities in select national markets for the coming year.

- We look for a relatively modest bounce back in Latin American GDP of 4.5% in 2021
- We see beaten-down regional equities as an attractive way to add exposure to the global cyclical recovery
- In fixed income, we prefer diversified exposures in Latin American corporates
- The Mexican peso, Colombian peso and Brazilian real are candidates for appreciation



Our favored markets

EQUITIES EPS GROWTH FORECAST ¹

BRAZIL	174%
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SECTORS EPS GROWTH FORECAST

REAL ESTATE	0%
ENERGY	56%
FINANCIALS	19%

Sources: 1 – FactSet consensus estimates, as of 22 Nov 2020; 2 – The Yield Book, as of 26 Nov 2020. Past performance is no guarantee of future returns. Real results may vary. Indices are unmanaged. An investor cannot invest directly in an index. All forecasts are expressions of opinion and are subject to change without notice and are not intended to be a guarantee of future events

Overview

Latin America's GDP could contract as much as 8% in 2020, the most of any global region. The COVID-19 pandemic has had a profound impact, exacerbated by the region's weak institutions, high inequality, widespread poverty, poor healthcare system and lack of social safety nets. Latin America's GDP growth rate from 2015 to 2020 averaged only 0.7% annually. This meager performance compares with 2.5%, 6.7% and 1.9% for the US, China and the Eurozone respectively, over the same period. The lack of absolute and relative growth opportunities has manifested itself in social unrest and increased risks of political instability. The latter needs careful monitoring, given 2021's intense regional electoral calendar.

In 2021's recovery, Latin America's economy could grow by 4.5%. Fiscal and monetary support programs have been aggressive through most of the region, with the most notable exception of Mexico. Such support should help drive recovery but also creates fiscal and debt sustainability pressures. A lack of clear direction and a path to sustainable growth is likely to put Latin America at a long-term disadvantage compared to other emerging regions like Asia.

Sluggish growth, higher fiscal deficits, and social discontent provide the regional backdrop for 2021, amid a strong global recovery. While the economic conditions do not yet favor aggressive exposure to the region's depressed financial markets, tactical positions in select national markets could yield attractive excess returns to diversified and opportunistic portfolios over the coming 12 to 18 months.



The pandemic has had a profound impact, exacerbated by the region's weak institutions, high inequality, widespread poverty, poor healthcare system and lack of social safety nets.

Equities

Latin American equities suffered the worst performance of any global region in 2020. With the MSCI Latin America Index down nearly 40%. Brazil and Colombia were the year's worst performing countries, with energy, financials and real estate the worst sectors. Consumer staples, consumer discretionary and healthcare have fared relatively better.

After a likely collapse of 60% in 2020, consensus expectations are for Latin American corporate earnings per share (EPS) to rebound 150% in 2021. This could take MSCI Latin America EPS back roughly to its average level of the last five years, which could trigger a sharp reversal in equity performance.

Since regional central banks have lowered benchmark rates to their lowest historical levels, equities are looking more attractive relative to fixed income. With Latin American equities down 38%, we believe they represent an attractive opportunity to add geographic diversification to the global cyclical recovery play.

In particular, Brazil's equity market presents an attractive combination of characteristics under our primary assumption that fiscal orthodoxy will be maintained. The country's large size and scale, an undervalued exchange rate, a stable monetary and external account framework, lack of local alternatives for sizable domestic savings, a quiet electoral calendar and reasonable valuations make it an attractive target for large international institutional investors. Moreover, the country has embarked in an aggressive fiscal

FIGURE 1. LATIN AMERICA VALUATIONS AND FAVORED SECTORS

	FREE MC	PE		EPS YoY%		P/B	ROE	DY (%)	CAPE
	US\$bn	21FWD	22FWD	21E	22E	21E	21E	21E	10yr
MSCI EM LATAM	568.2	13.2	11.8	147%	12%	1.8	7.9	2.5	18.3
ARGENTINA	8.6	106.3	29.6	116%	210%	2.0	-7.7	0.5	24.6
BRAZIL	364.0	12.5	11.2	174%	9%	2.1	3.8	2.4	21.1
MEXICO	127.0	14.0	12.8	69%	11%	1.4	12.9	2.5	16.2
CHILE	38.0	16.2	13.8	83%	19%	1.3	9.1	2.7	11.9
COLOMBIA	12.5	10.7	8.4	107%	36%	0.9	4.8	3.5	10.7
PERU	18.0	15.7	13.4	272%	21%	2.0	8.7	3.5	16.1
REAL ESTATE	5	8.8	10.5	12%	0%	0.7	1.2	5.3	8.2
ENERGY	53	12.8	8.2	157%	56%	1.0	-9.4	1.8	18.5
FINANCIALS	146	11.6	9.8	31%	19%	1.8	12.3	3.2	13.1

Source: Bloomberg and FactSet as of 30 November 2020

support program, at around 8% of GDP, which has helped support the economy and resulted in the strongest V-shaped recovery in the region.

Meanwhile, Colombia and Chile are trading at depressed 2022 multiples, and trade on some of the region's lowest 12-month forward price/book ratios in the region. An implicit favorable outlook for nominal exchange rates is embedded in our constructive view of these equity markets.

Fixed income

Investors in Latin American fixed income have had more to deal with than just a global pandemic in 2020. While the region heavily suffered from the spread of COVID-19, Argentina, Ecuador and Venezuela all faced their own idiosyncratic crises. While fiscal and political tensions had been building, default and subsequent debt restructuring had significant impacts on sovereign and corporate bond prices. On average, the three countries have lost 40% in 2020, as of 28 October.

Latin American fixed income does not have an easy path ahead. COVID-19, fiscal deficits and weak growth are likely to be headwinds over the first half of 2021. However, attractive exchange rates, low local yields and an expected global economic recovery should help stabilize fundamentals over time. President-elect Joe Biden is also likely to have a smoother diplomatic relationship with the region, promoting cooperation and partnership. This too could have a relative calming effect on markets and improve investor sentiment.

In external US dollar markets, sovereign bonds offer relative value in a low-yield world. However, we cannot describe Latin American sovereigns as cheap. Excluding the most troubled countries, the average regional US dollar sovereign bond yield is 3%. This represents the tightest relationship to US Treasuries since 2012. We prefer diversified exposures in Latin American corporates, where the average yield is closer to 4%. Lower-quality cyclical sectors may remain under near-term pressure, though EM defaults of 3.1% have still

been significantly less than the 6.3% reported in developed countries.

In local markets, Mexico (5.5%) and Brazil (5.4%) offer the most attractive yields. However, Brazilian sovereign yields remain closer to the historical low reached in July 2020. A 2% policy rate and low expected real rates are unlikely to attract significant inflows. Mexican local yields still have room to fall, as economic pressures soften. For both countries, however, unhedged performance will likely be predicated on the movement in local currency, for which the outlooks seems positive.

Currencies

Amid the pandemic, Latin American free-floating exchange rates suffered sharp depreciations. The Brazilian real, for example, was 50% down at its low point. However, unlike during every previous externally triggered shock in the region, inflation expectations have remained well contained.

Given improved external competitiveness, equivalent to implicit higher risk premia, some currencies have room to recover further in nominal terms. While we are unlikely to see large foreign investor inflows into local bonds given the low level of interest rates, some building of equity exposure may occur in the coming months, thus supporting currencies.

The overall levels of real exchange rates do not seem consistent with the lack of external imbalances typically associated with such sharp depreciations and hence we expect currencies to

FIGURE 2: LATIN AMERICA FIXED INCOME YIELDS (%)



Source: Bloomberg, as of 26 Nov 2020. Notes: All the sovereign bonds are based on generic 10yr bonds in local terms, unless otherwise indicated as USD bonds. Past performance is no guarantee of future returns. Real results may vary.

stabilize and some even appreciate from current levels. Amid global economic recovery in 2021, the Brazilian real and the Colombian peso are the likeliest to see nominal appreciation. The Mexican peso could see further appreciation. However, medium term uncertainty investors could consider unwinding exposure below 20 to the US dollar. Similarly, the Chilean Peso near 750 might not be fully pricing in the risks embedded in the redrafting of the constitution nor general elections in 2021.



5.4

North America: A resilient economy accelerates

CHARLIE REINHARD - Head, North America Investment Strategy

KRIS XIPPOLITOS - Global Fixed Income Strategy

Amid an ongoing economic reopening in 2021, we see select opportunities in regional equity and fixed income

- In North America, we expect 3.9% growth in the US and 5.1% in Canada in 2021
- US industrials, small- and mid-caps, and COVID-cyclicals are among the equity opportunities we see in the near term and the US will present investment opportunities for many “Unstoppable trends”
- North American fixed income still offers some of the world's most attractive yields
- Over time, we look for a weaker US dollar and a stronger Canadian dollar

Our favored markets

SECTORS EPS GROWTH FORECAST

INDUSTRIALS		33.1%
HEALTHCARE		11.9%
FINANCIALS		22.3%
REAL ESTATE		5.9%

FIXED INCOME YIELD ²

US HIGH YIELD		5.0%
FIXED-TO-FLOATING RATE PREF		4.0%
RESIDENTIAL MORTGAGE CREDIT		4.0%

Sources: 1 – FactSet consensus estimates, as of 22 Nov 2020; 2 – The Yield Book, as of 26 Nov 2020. Past performance is no guarantee of future returns. Real results may vary. Indices are unmanaged. An investor cannot invest directly in an index. All forecasts are expressions of opinion and are subject to change without notice and are not intended to be a guarantee of future events

Overview

In spite of its poor management of COVID, the US has shown economic resilience. Now, with the arrival of effective vaccines, we look for the US economy to grow by 3.9% in 2021 and 3.2% in 2022. If we are correct, US output will exceed its pre-pandemic size before too long. Inflation is likely to remain tame, limiting the degree to which 10-year Treasury yields may rise. Meanwhile, the Federal Reserve is set to keep its policy rate at zero through 2023.

In Canada, we expect 5.1% GDP growth in 2021 off a depressed 2020 base, followed by 2.2% growth in 2022. The Bank of Canada is also expected to leave its policy rate unchanged for a prolonged period.

Following the 2020 US election, policymakers in Washington have two primary goals. The first is to guide the country through the remainder of the COVID-19 pandemic until vaccines, treatments and best practices see the restoration of a more normal way of life. The second is a substantial reduction in the rate of unemployment. While the composition of the Senate is still in doubt, one can imagine that some level of fiscal stimulus will emerge given the poor winter one sees for North America amid the pandemic.

Further COVID developments, post-election policy actions including the winding down of pandemic-era central bank funding programs, US-China relations and energy prices for Canada are among the risks we are monitoring.



Equities

The US equity market suffered its fastest-ever 30% or greater correction in March 2020, followed by the fastest-ever recovery from such depths. By contrast, we expect a slower ascent in 2021 with only moderate pullbacks along the way. Starting from subdued levels, corporate earnings per share (EPS) are poised to grow by more than 20% in 2021 and above 15% in 2022. Our base-case scenario is for equities to rise more slowly than earnings, allowing the US forward price-earnings multiple to come down. Canada's market trades on a lower forward earnings multiple, given their higher weighting of value-oriented financials, materials and energy sectors. We have neutral or "full" weightings in both countries' large-cap equities.

As inoculation activity gets underway, COVID cyclicals offer catch-up potential to the COVID defensives that held up well or benefited during the pandemic. Divided government in the US - when the presidency and both houses of Congress are not controlled by the same party - has also been historically helpful for equities. Since 1928, US large-cap equities have posted an average annualized gain of 9% under divided government, compared to 5.7% under unified government. Divided government looks the likeliest scenario for 2021 and 2022.

We see particular opportunities in US small- and mid-cap equities that have traditionally performed best early in a new cycle. The same goes for select industrials, given that global purchasing manager surveys point towards renewed manufacturing growth. Real estate

FIGURE 1. NORTH AMERICA VALUATIONS AND OUR FAVORED NORTH AMERICAN SECTORS

	FREE MC	PE		EPS YoY%		P/B	ROE	DY (%)	CAPE
	US\$bn	21E	22E	21E	22E	20E	20E	20E	10yr
NORTH AMERICA	30,474	20.1	17.6	21.4	16.0	3.5	14.2	1.8	30.3
USA	29,134	20.5	17.7	20.9	16.2	3.7	14.8	1.7	31.1
CANADA	1,340	14.4	14.9	30.4	11.4	1.6	8.9	3.4	19.5
INDUSTRIALS	2,395	20.4	17.0	33.1	19.4	4.2	15.9	1.7	27.0
HEALTHCARE	4,066	15.7	14.3	11.9	9.6	4.2	23.7	1.7	35.1
FINANCIALS	2,780	12.0	10.2	22.3	17.5	1.2	7.9	2.8	17.3
REAL ESTATE	806	44.1	37.9	5.9	16.4	2.8	6.1	3.3	43.2

Source: Citi Research, Worldscope, MSCI, FactSet, as of 25 Nov 2020. *Note: The above data are compiled based on companies in MSCI AC World Index. The market capitalization for regions, markets and sectors are free float adjusted. P/E (Price/Earnings), EPS growth (Earnings per share), P/B (Price/Book), Dividend yield and RoE (Return on Equity) are aggregated from FactSet consensus estimates (calendarized to December year end) with current prices. CAPE is calculated by current price divided by ten-year average EPS based on MSCI index level data. NM = Not Meaningful; NA = Not Available. Indices all from MSCI. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only. Past performance is no guarantee of future returns. Real results may vary. All forecasts are expressions of opinion and are subject to change without notice and are not intended to be a guarantee of future events.

investment trusts (REITs) should continue to benefit as people return to offices, consume data, schedule health procedures, and shop online, the latter increasing demand for warehouse space. The rapid development of COVID vaccines is a reminder of the innovation taking place every day in healthcare where an aging population is also a

tailwind - see [Increasing longevity](#) in **Unstoppable trends**. In financials, lenders should benefit as we return to a more normal way of life. Financials were not impacted in 2020 the way they were in the Global Financial Crisis which bodes well for their shares as well as the economy in general.

Fixed income

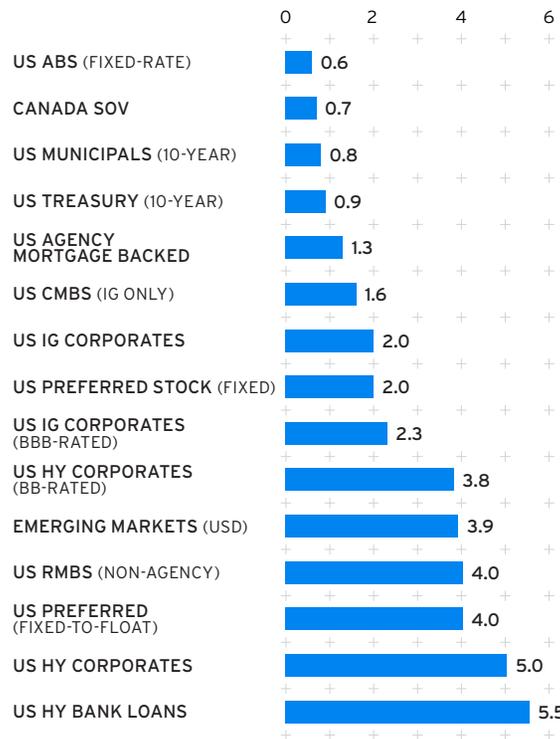
US fixed income markets continue to offer some of the most attractive yield opportunities in the world. Credit and consumer-based markets look especially interesting, as low interest rates provide cheap financing for corporations and allow individuals to reduce borrowing costs.

Unique to the COVID-driven economic downturn has been the Fed’s intervention in the corporate bond market. Using established credit facilities, the Fed has purchased over \$13 billion in corporate bonds and exchange-traded funds. Although relatively small, the purchases injected confidence into the market, helping to narrow spreads and boost investor demand. As a result, corporate issuers were able to raise a record amount via new bonds in 2020.

Accommodative monetary policy and a growing US economy bode well for lower-quality corporates. High yield bonds yield 5.1%, which represents a spread of 435 basis points over US Treasuries, above the average of the last three years. Since current valuations include the most risky issuers, an active approach is encouraged. Ratings downgrades are likely to slow as the recovery continues, although fallen angels - bonds that have lost their investment-grade ratings - can still provide additional opportunities in high yield portfolios.

The financial sector should improve alongside the economy. We therefore remain comfortable moving down the capital structure for higher yields in preferred securities. Depending on the issuer or structure, preferreds could offer

**FIGURE 2:
NORTH AMERICA FIXED INCOME YIELDS (%)**



Source: Bloomberg Barclays, Bloomberg and The Yield Book, as of 12 Nov 2020. Past performance is no guarantee of future returns. Real results may vary

investors yields between 4 and 5%. New issuance is limited, which also creates a strong technical environment. We favor the more liquid \$1000 par institutional fixed-to-floating rate securities. That said, we would be willing to give up some yield for structures that have larger floating-rate spreads.

Larger “back-end” spreads can help relative performance if the issuer does not redeem the security at its first call date, as it thus begins to pay floating-rate income.

Housing has proved a resilient area of the US economy. Indeed, household leverage entered the current downturn from a relatively low level. Low rates also help home affordability. This environment is supportive for the non-agency residential mortgage-backed security (RMBS) market, in our view. Yields can vary depending on the underlying real estate or credit score, but their average is near 4%.

For most high-income earners in the US, tax-exempt municipal bonds will continue to be a core portfolio holding. Absolute yields may be near historically low levels, however, the relative proposition to taxable bonds remains attractive and we look to take advantage of any material weakness. Similar to corporates, the best value in “munis” is down in quality. We will monitor post-election COVID relief efforts to assist state and local governments and any changes in tax policy that could enhance the attractiveness of tax-exempt bonds.

Currencies

Given large trade and fiscal deficits, alongside a 0% policy rate, the US dollar should weaken further over time. The US dollar softened coming out of each of the last two recessions, when the demand for perceived safe-haven currencies declined. By contrast, we expect the Canadian dollar to strengthen.

Glossary

ASSET CLASS DEFINITIONS:

Cash is represented by US 3-month Government Bond TR, measuring the US dollar-denominated active 3-Month, fixed-rate, nominal debt issues by the US Treasury.

Commodities asset class contains the index composites – GSCI Precious Metals Index, GSCI Energy Index, GSCI Industrial Metals Index, and GSCI Agricultural Index – measuring investment performance in different markets, namely precious metals (e.g., gold, silver), energy commodity (e.g., oil, coal), industrial metals (e.g., copper, iron ore), and agricultural commodity (i.e., soy, coffee) respectively. Reuters/ Jeffries CRB Spot Price Index, the TR/CC CRB Excess Return Index, an arithmetic average of commodity futures prices with monthly rebalancing, is used for supplemental historical data.

Emerging Markets (EM) Hard Currency Fixed Income is represented by the FTSE Emerging Market Sovereign Bond Index (ESBI), covering hard currency emerging market sovereign debt. Global Developed Market Corporate Fixed Income is composed of Bloomberg Barclays indices capturing investment debt from seven different local currency markets. The composite includes investment grade rated corporate bonds from the developed-market issuers.

Global Developed Market Equity is composed of MSCI indices capturing large-, mid- and small-cap representation across 23 individual developed-market countries, as weighted by the market capitalization of these countries. The composite covers approximately 95% of the free float-adjusted market capitalization in each country.

Global Developed Investment Grade Fixed Income is composed of Barclays indices capturing investment-grade debt from twenty different local currency markets. The composite includes fixed-rate treasury, government-related, and investment grade rated corporate and securitized bonds from the developed-market issuers. Local market indices for US, UK and Japan are used for supplemental historical data.

Global Emerging Market Fixed Income is composed of Barclays indices measuring performance of fixed-rate local currency emerging markets government debt for 19 different markets across Latin America, EMEA and Asia regions. iBoxx ABF China Govt. Bond, the Markit iBoxx ABF Index comprising local currency debt from China, is used for supplemental historical data.

Global High Yield Fixed Income is composed of Barclays indices measuring the non-investment grade, fixed-rate corporate bonds denominated in US dollars, British pounds and Euros. Securities are classified as high yield if the middle rating of Moody's, Fitch, and S&P is Ba1/BB+/BB+ or below, excluding emerging market debt. Ibbotson High Yield Index, a broad high yield index including bonds across the maturity spectrum, within the BB-B rated credit quality spectrum, included in the below-investment-grade universe, is used for supplemental historical data.

Hedge Funds is composed of investment managers employing different investment styles as characterized by different sub categories - HFRI Equity Long/Short: Positions both long and short in primarily equity and equity derivative securities; HFRI Credit: Positions in corporate fixed income securities; HFRI Event Driven: Positions in companies currently or prospectively involved in wide variety of corporate transactions; HFRI Relative Value: Positions based on a valuation discrepancy between multiple securities; HFRI Multi Strategy: Positions based on realization of a spread between related yield instruments; HFRI Macro: Positions based on movements in underlying economic variables and their impact on different markets; Barclays Trader CTA Index: The composite performance

of established programs (Commodity Trading Advisors) with more than four years of performance history.

High Yield Bank Loans are debt financing obligations issued by a bank or other financial institution to a company or individual that holds legal claim to the borrower's assets in the event of a corporate bankruptcy. These loans are usually secured by a company's assets, and often pay a high coupon due to a company's poor (non-investment grade) credit worthiness.

Private Equity characteristics are driven by those for Developed Market Small Cap Equities, adjusted for illiquidity, sector concentration, and greater leverage.

INDEX DEFINITIONS:

The Bloomberg Barclays Global Aggregate Bond Index is a flagship measure of global investment grade debt from twenty-four local currency markets. This multi-currency benchmark includes treasury, government-related, corporate and securitized fixed-rate bonds from both developed and emerging markets issuers.

Bloomberg Barclays US Corporate Bond Index measures the investment grade, fixed-rate, taxable corporate bond market. It includes US dollar denominated securities publicly issued by US and non-US industrial, utility and financial issuers.

Bloomberg Barclays US Treasury Index measures US dollar-denominated, fixed-rate, nominal debt issued by the US Treasury.

Bloomberg-JP Morgan Asia currency index is a spot index of the most actively traded currency pairs in Asia's emerging markets valued against the US dollar.

FTSE All-World Index is a stock market index representing global equity performance that covers over 3,100 companies in 47 countries starting in 1986.

The **FTSE Nareit Mortgage REITs Index** is a free-float adjusted, market capitalization-weighted index of US Mortgage REITs. Mortgage REITs include all tax-qualified REITs with more than 50 percent of total assets invested in mortgage loans or mortgage-backed securities secured by interests in real property.

MSCI AC Asia ex-Japan Index captures large and mid-cap representation across 2 of 3 Developed Markets (DM) countries* (excluding Japan) and 9 Emerging Markets (EM) countries* in Asia. With 1,187 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

MSCI China Index captures large and mid-cap representation across China A shares, H shares, B shares, Red chips, P chips and foreign listings (e.g. ADRs). With 704 constituents, the index covers about 85% of this China equity universe.

MSCI Emerging Markets Index captures large- and mid- cap representation across twenty-four Emerging Markets (EM) countries. With 837 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

MSCI Emerging Markets (EM) Latin America Index captures large and mid-cap representation across five Emerging Markets (EM) countries in Latin America. With 113 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

The **MSCI Global Alternative Energy Index** includes developed and emerging market large-, mid- and small-cap companies that derive 50% or more of their revenues from products and services in Alternative energy.

The **MSCI AC World Automobiles Index** is composed of large- and mid-cap automobile stocks across emerging and developed countries.

The **MSCI World Information Technology Index** tracks the large- and mid-cap IT segments across 23 developed markets countries.

The **MSCI World Index** covers large- and mid-cap equities across 23 Developed Markets countries. With 1,603 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

Nasdaq 100 is a large-cap growth index consisting of 100 of the largest US and international non-financial companies listed on the Nasdaq Stock Market based on market capitalization.

The **Russell 2000 Index** measures the performance of the small-cap segment of the US equity universe. The Russell 2000 Index is a subset of the Russell 3000 Index representing some 10% of the total market capitalization of that index.

The **S&P 500 Index** is a capitalization-weighted index that includes a representative sample of 500 leading companies in leading industries of the US economy. Although the S&P 500 focuses on the large-cap segment of the market, with over 80% coverage of US equities, it is also an ideal proxy for the total market.

The **S&P Global Dividend Aristocrats** is designed to measure the performance of the highest dividend yielding companies within the S&P Global Broad Market Index (BMI) that have followed a policy of increasing or stable dividends for at least ten consecutive years.

The **VIX** or the Chicago Board Options Exchange (CBOE) Volatility Index, is a real-time index representing the market's expectation of 30-day forward-looking volatility, derived from the price inputs of the S&P 500 index options.

OTHER TERMINOLOGY:

Adaptive Valuations Strategies is Citi Private Bank's own strategic asset allocation methodology. It determines the suitable long-term mix of assets for each client's investment portfolio.

Correlation is a statistical measure of how two assets or asset classes move in relation to one another. Correlation is measured on a scale of 1 to -1. A correlation of 1 implies perfect positive correlation, meaning that two assets or asset classes move in the same direction all of the time. A correlation of -1 implies perfect negative correlation, such that two assets or asset classes move in the opposite direction to each other all the time. A correlation of 0 implies zero correlation, such that there is no relationship between the movements in the two over time.

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Bond rating equivalence

Alpha and/or numeric symbols used to give indications of relative credit quality. In the municipal market, these designations are published by the rating services. Internal ratings are also used by other market participants to indicate credit quality.

Bond credit quality ratings	Rating agencies		
	Moody's ¹	Standard and Poor's ²	Fitch Ratings ²
Credit risk			
Investment grade			
Highest quality	Aaa	AAA	AAA
High quality (very strong)	Aa	AA	AA
Upper medium grade (strong)	A	A	A
Medium grade	Baa	BBB	BBB
Not Investment grade			
Lower medium grade (somewhat speculative)	Ba	BB	BB
Low grade (speculative)	B	B	B
Poor quality (may default)	Caa	CCC	CCC
Most speculative	Ca	C	CC
No interest being paid or bankruptcy petition filled	C	D	C
In default	C	D	D

¹ The ratings from Aa to Ca by Moody's may be modified by the addition of a 1, 2, or 3 to show relative standing within the category.

² The ratings from AA to CC by Standard and Poor's and Fitch Ratings may be modified by the addition of a plus or a minus to show relative standing within the category.

choose to borrow money at a lower interest rate, while paying off its previously issued bonds. As a consequence, underlying bonds will lose the interest payments from the investment and will be forced to reinvest in a market where prevailing interest rates are lower than when the initial investment was made.

(MLP's) – Energy Related MLPs May Exhibit High Volatility. While not historically very volatile, in certain market environments Energy Related MLPs may exhibit high volatility.

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political, and regulatory concentration.

Mortgage-backed securities ("MBS"), which include collateralized mortgage obligations ("CMOs"), also referred to as real estate mortgage investment conduits ("REMICs"), may not be suitable for all investors. There is the possibility of early return of principal due to mortgage prepayments, which can reduce expected yield and result in reinvestment risk. Conversely, return of principal may be slower than initial prepayment speed assumptions, extending the average life of the security up to its listed maturity date (also referred to as extension risk).

Additionally, the underlying collateral supporting non-Agency MBS may default on principal and interest payments. In certain cases, this could cause the income stream of the security to decline and result in loss of principal. Further, an insufficient level of credit support may result in a downgrade of a mortgage bond's credit rating and lead to a higher probability of principal loss and increased price volatility. Investments in subordinated MBS involve greater credit risk of default than the senior classes of the same issue. Default risk may be pronounced in cases where the MBS security is secured by, or evidencing an interest in, a relatively small or less diverse pool of underlying mortgage loans.

MBS are also sensitive to interest rate changes which can negatively impact the market value of the security. During times of heightened volatility, MBS can experience greater levels of illiquidity and larger price movements. Price volatility may also occur from other factors including, but not limited to, prepayments, future prepayment expectations, credit concerns, underlying collateral performance and technical changes in the market.

Alternative investments referenced in this report are speculative and entail significant risks that can include losses due to leveraging or other speculative investment practices, lack of liquidity, volatility of returns, restrictions on transferring interests in the fund, potential lack of diversification, absence of information regarding valuations and pricing, complex tax structures and delays in tax reporting, less regulation and

higher fees than mutual funds and advisor risk.

Asset allocation does not assure a profit or protect against a loss in declining financial markets.

The indexes are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Index returns do not include any expenses, fees or sales charges, which would lower performance.

Past performance is no guarantee of future results.

International investing entails greater risk, as well as greater potential rewards compared to US investing. These risks include political and economic uncertainties of foreign countries as well as the risk of currency fluctuations. These risks are magnified in countries with emerging markets, since these countries may have relatively unstable governments and less established markets and economics.

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