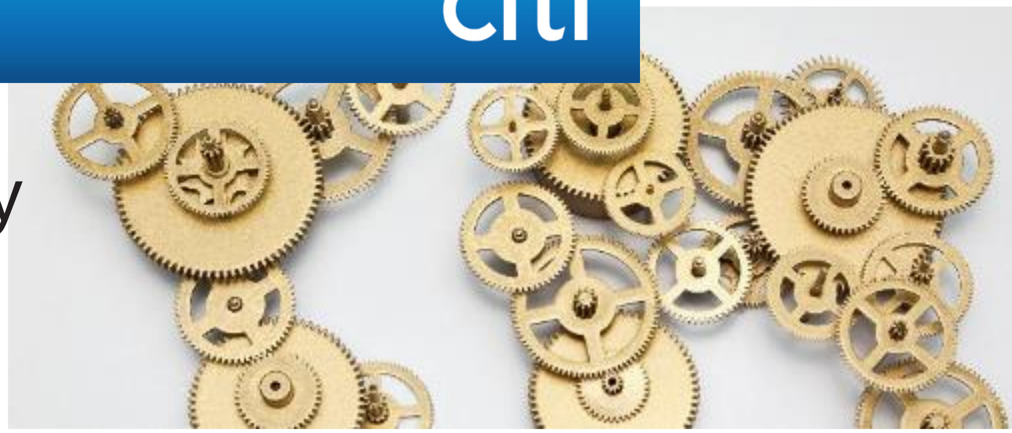
Private Bank



CIO Strategy Bulletin

February 21, 2021

Beware the Cash Thief

David Bailin, Chief Investment Officer
Steven Wieting, Chief Investment Strategist and Chief Economist
Joe Fiorica, Head – Global Equity Strategy
Joe Kaplan, Fixed Income Strategy
Maya Issa, Global Investment Strategy

- **Developed Markets central banks are actively seeking to "tilt up" the trend pace of inflation for the first time in at least a half century. This requires investors to consider "inflation drag" in a new way, as real cash yields and real long-term government bonds are priced for negative returns.**
- **Near-term economic recovery prospects are far more certain than the long-term inflation outlook. Lasting inflation requires persistent *excess* demand relative to supply. This would in turn require monetary policy (and possibly fiscal policy) staying forcefully accommodative long after the present downturn ends.**
- **Equity markets have enjoyed sharp upward revisions to growth expectations. Bond valuations are now playing "catch up," with 10-year *real* yields rising about 25 basis points from record lows. While no disaster, growth stock valuations are beginning to see some pressure, in line with our long-held views.**

The Little Cash Thief and the Big Cash Thief

Having cash and being safe are closely related in the minds of investors. Access to immediate liquidity is assumed to be prudent, allowing for a good night's sleep without the diminishment of one's wealth and for being prepared for opportunity (or, at least the dreamy "idea" of buying on dips). In retrospect, having cash for the past forty years achieved the first objective, if not the second. Cash yields have been above the rate of inflation rate during most of the last four decades. On the other hand, most investors would have been far better off by being fully invested. And, certainly, almost no investors have been good at timing their investments, losing money regularly versus the "stay invested" crowd (see figures 1 and 2.)

But what if, every night, a little cash thief took just a tiny bit of your cash away, so that by the end of just a few years, your $1 was worth 94 cents? How much cash would you want to keep under your pillow then? How well would you sleep? Those are the questions investors should be asking themselves looking forward.

The US Federal Reserve and nearly all other Developed Markets central banks have said they want inflation to speed up. This is the first time anything like this has been considered in more than a half century. Therefore, investors should reexamine their biases and expectations when analyzing what's to come.

Figure 1: S&P 500, 10-Year US Treasury and 3-Month T-Bill Total Returns Adjusted for Inflation (logarithmic scale)

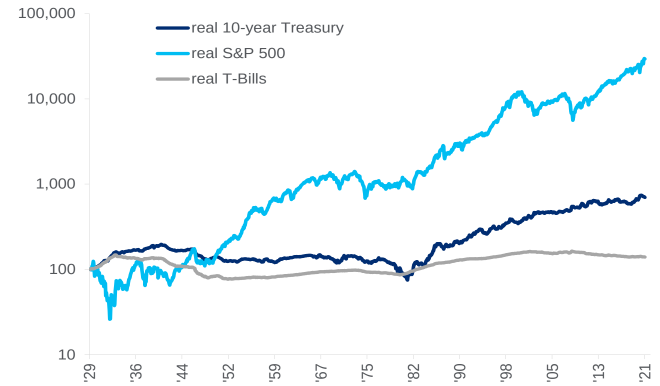


Figure 2: Cash Total Return Adjusted for Inflation (3-Month US Treasury Bill Less CPI)

Source: Haver Analytics as of February 12, 2021. All forecasts are expressions of opinion and are subject to change without notice and are not intended to be a guarantee of future events. 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.

Tables Turned: Easy Money for Borrowers, Not Lenders

From 1980-2008, US cash savers earned a 3% yield on average *above* the inflation rate. You can thank Fed Chairman Paul Volcker for that. To fight inflation beginning in 1980, Volcker drove nominal cash yields above 15% and real cash yields to 6 ¾%. This tactic drove inflation downward sharply. It also made fixed income investing highly rewarding in the period that followed. While coupon yields averaged 5.9%, the total returns on 10-year US Treasuries, were 8% per annum on average since 1980. Starting from a position of great value, bonds appreciated for decades (see figures 3-4). However, real US Treasury yields have fallen from a high of 9% in 1983 to the present -1%. Such past returns are now virtually impossible to replicate (please see our Outlook 2021 theme "Financial Repression).

Figure 3: 10-Year US Treasury Yield Less Inflation (Yield less 12-month Change in Consumer Price Index)

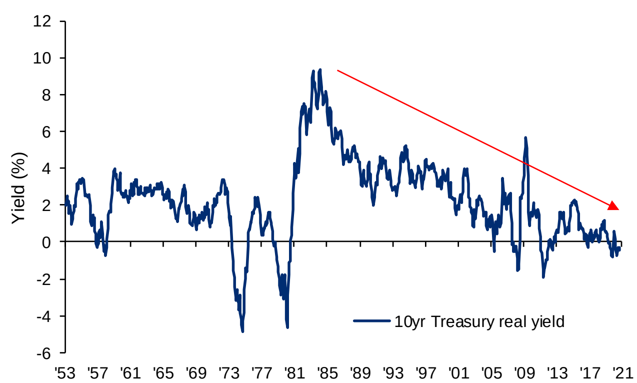


Figure 4: How Much Do you Pay for a 10-Year US Treasury Note Relative to Its Annual Yield?

Source: Haver Analytics as of February 12, 2021. All forecasts are expressions of opinion and are subject to change without notice and are not intended to be a guarantee of future events.

Since the Global Financial Crisis, with a few small interludes, real cash yields have been negative. Cash has lost 1.2% per year to inflation as measured by the US Consumer Price Index since 2009. This diminution in value is likely to get worse. With expected long-term trend inflation now rising and the Fed likely to hold its nominal yield near 0.0% through 2023, the "cost of cash" is likely to accelerate.

The bigger Cash Thief is now "in the house"

For three decades, the Fed and other central banks practiced what they called "opportunistic disinflation." They would use every recession to "lock in" a lower trend inflation rate cycle over cycle. In the aftermath of the Global Financial crisis, when the employment recovery from a severe recession was very slow, the Fed and other developed central banks abandoned this policy, but did not explicitly seek a higher pace of inflation.

Now, the Fed is the first central bank to raise its inflation target, if only modestly. We are taking the Fed at its word and assume that it will seek and create an upward "tilt" in the trend pace of inflation. Fed policy will likely be aimed at overall CPI readings averaging 2.5% over many years given technical differences in its preferred inflation gauge and the US Consumer Price Index. We also expect the Fed actions will also deliberately lag behind inflation risks, rather than seek to *preempt* a rise in inflation. Thus, we think there may be fears from time to time that the Fed will lose control of inflation in a disruptive way.

Cash Worth Less

What all this means is simple from the point of view of someone holding cash. Cash is likely to be worth less, year over year, and to lose value at an increasing rate. Measured over the next 10 years, the expected US real government bond return is close to -0.9% per annum (see figure 5).

We do not expect that bonds will remain as richly priced as they are now in the face of central bank actions to accelerate inflation. Unlike 2020, broad fixed income returns have been negative in 2021 with the global bond aggregate off -1.4% year-to-date. This has been led by safer bonds, with the US Treasuries across the curve at -2.1% in total return.

With a post-COVID recovery likely, we think there will be some slippage of value and further yield curve steepening ahead. We expect 10-year nominal yields to rise into a 1.5%-2% range during the second half of this year. We also believe markets will move moderately further to assume a higher long-term rate of inflation than at present (see figure 6).

Figure 5. US Yield Curve: 10-Yr UST less Fed funds rate

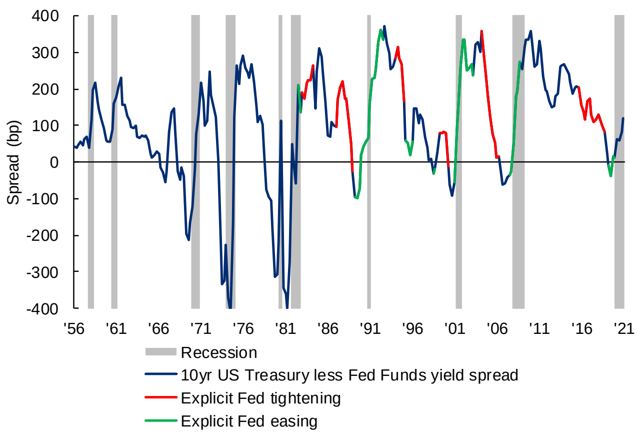
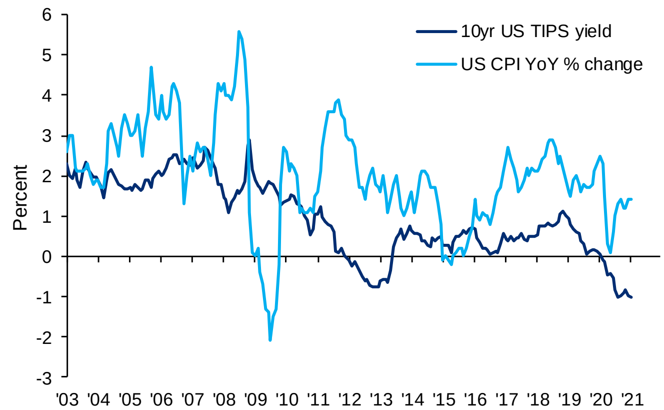


Figure 6: US 10-Year Treasury Inflation Protected Security Yield and CPI Y/Y%



Source: Haver Analytics as of February 12, 2021.

Of course, we also think that there will be some forces that work to arrest a faster decline in bond values. High levels of un-used global savings and deeply depressed yields in non-US Developed Markets will make US bonds attractive by comparison. We also expect any rapid rise in yields to influence the prices of other asset classes, cooling the pace of appreciation in the most expensive ones, like US technology equities. Along with "jaw boning" and "hand-holding" from the Fed, this may help stabilize core bond markets for a while. However, gradual increases in nominal yields are more likely to win out, in our view.

The Recovery and The Fed: How Far Will Inflation Go?

We have high confidence in the prospects for recovery from the COVID-led recession. We have stated that GDP growth in the US in the second half of 2021 and first half 2022 may exceed 5%. The strength of the recovery depends on the successful, rapid deployment of vaccines and the subsequent development of new vaccines that are effective in treating new Covid-19 variants likely to arise in the future (figures 7 and 8). We also expect the passage of unprecedented further US stimulus, with 1.9 trillion proposed by the Biden administration. If passed, the direct income supports in the measure would likely boost US growth in the coming year by 2% alone.

Figure 7: New COVID Infections as % of Global Population

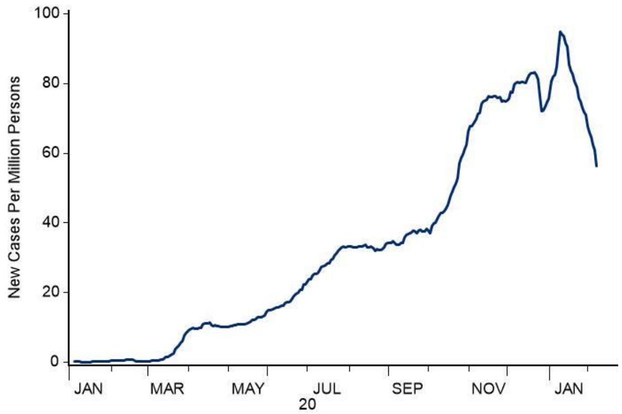
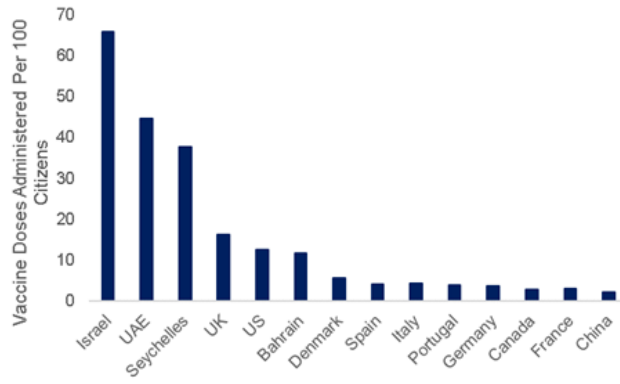


Figure 8: Snapshot of current % of population receiving first vaccine dose by country



Source: Haver Analytics as of February 12, 2021.

Fiscal policymakers can only redistribute resources, often borrowing from the future, or most ideally, providing public goods that make the private sector more productive. The largest share of the proposed spending would fortify balance sheets of state and local governments. Such an action has two main benefits, increasing employment and forestalling tax increases that may result from damaged state and local coffers.

It is our view that once the economy has fully recovered from COVID distortions – once production, supply and sector "bottlenecks" have been cleared – the real question for inflation is "what will policymakers do then?" We can only assess the long-term path of inflation by assessing the actions of central banks in the years that follow the present crisis. This is when the underlying trajectory for the New Economic Cycle will begin to become evident.

If Cash Is Not King, then What for Equities?

The final quarter of 2020 unleashed positive news for the world economic outlook while yields dropped. Now, the debt cost of capital for firms is firming, creating a slightly higher "hurdle" for equity markets which had just recently enjoyed the best of all worlds (see figure 9).

Over the past seven days, we have seen a 25 basis point rise in inflation-adjusted 10-year yields that spooked markets for a bit. The pause in equities follows a favorable three month period for stocks during which vaccine breakthroughs, fiscal policy developments and cyclical forces helped push up strong revisions in expected corporate earnings and economic growth (see figure 10).

Figure 9: US Long-Term Corporate BBB-Rated Yield (%)

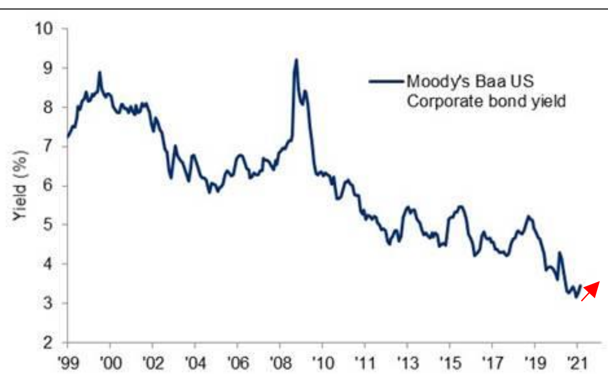
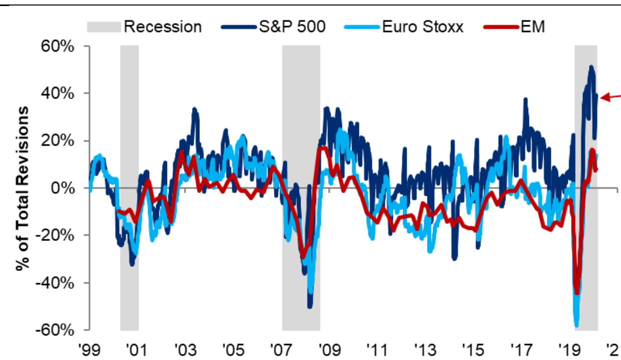


Figure 10: Upward EPS Forecast Revisions as % of All Revisions



Source: Haver Analytics as of February 12, 2021. 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 our view, the rise in the cost of debt capital has been quite modest. Remember that in December of 2019, the 10 year was priced at a yield of 1.9% and the economy was operating normally. We believe that expectation for rates need to be reset given the probability of an above average rate of economic growth beginning this Summer.

Pay Attention to Actual Earnings

In fact, we believe the bigger hurdles for stock markets are actual versus expected economic growth and corporate earnings rather than rate levels. The views of economists, analysts (and CIO Bulletin authors) have already largely been priced in during the sharp rebound in many equities markets for 10 months. That these gains in equities came before the economic rebound is normal, but now we need to see the results arrive (please see our bulletin of January 10 for discussion). If we sustain expansion beyond the rebound from the COVID slump as we expect, the bull market for equities will have more fuel, not less.

In short, the likelihood of persistent growth over the next several years, along with negatively priced cash and dearly priced fixed income, keep us strongly overweight many equities in our asset allocation. Some have strong value creation potential, while others, like tech, need to be assessed to see if their strong implied revenue and cash flow prospects will materialize.

Be Wary of Interest Rate Sensitive Sectors and Shares

While rate rises have been modest, certain sectors have been strongly boosted by falling rates in the year past. As figure 11 shows, US growth stocks have come slightly off their highs, negatively mirroring the rise in US yields. This is consistent with other periods where interest rate sensitive stocks, like financials, begin to outperform technology shares as the US yield curve steepens, benefiting the spreads earned by banks when lending volumes rise (see figure 12).

For the bulk of the technology sector, we would expect persistent revenue and/or EPS gains to cushion returns. The valuation of tech stocks are likely to come down as growth improves, typical of prior recovery periods. Yet, this time around, with some of their valuations temporarily bolstered by the impacts of the “stay at Home” COVID economy, there are pockets of stocks displaying “hyper growth” expectations. **As figure 13 shows, 10 of the large cap US growth stock index constituents trade at 18.9X their most recent annual sales. This compares to roughly 2.9X for S&P 500 firms and 1.7X for world equities outside the US.**

In looking at this $1.4 trillion group, there are some firms likely to dominate large sectors or become large drivers of whole new industries. Yet, as we have seen before, it takes real execution and some good fortune for trillions in value to be created and maintained. In our view, this is one of those rare times when future growth prospects have been dearly priced.

Why Interest Rate Rises Matter to Technology and Other Highly Valued Shares

As interest rates rise, higher immediate current income opportunities tend to compete more strongly against distant promises. Given present levels of interest rates, we see room for both growth and value equities in portfolios. However, a larger share of our tactical positions are international and value-oriented investments.

Figure 11: 10-Year US Treasury Yield, Gold, US Equity Growth Factor

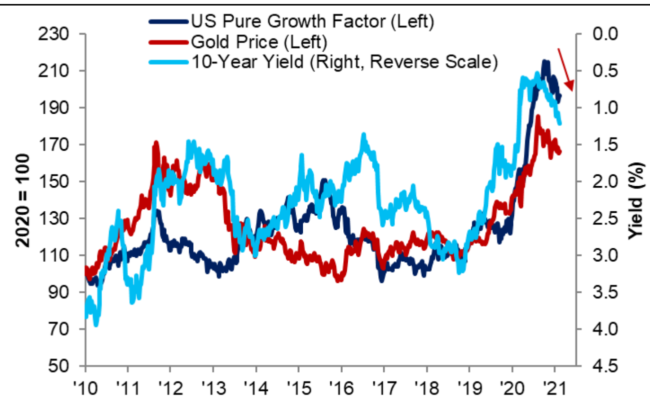
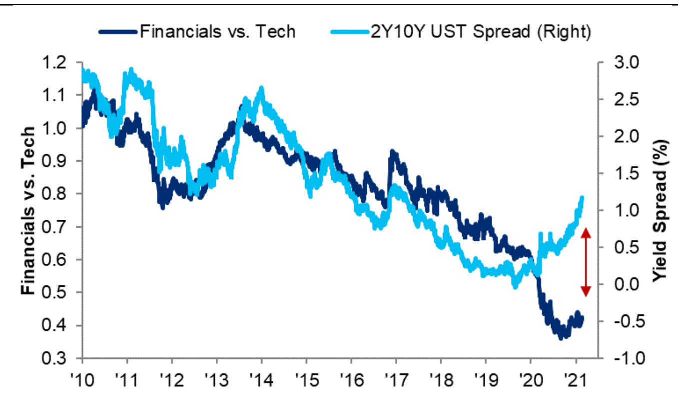


Figure 12: US Yield Curve vs US Financials/Tech Relative Performance



Source: Bloomberg as of February 21, 2021. 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.

Figure 13: 10 US Growth Stock Index Constituent Valuations

Name	Market Cap ($Bn)	P/S
Tesla Inc	749,933.54	23.7
Netflix Inc	239,260.88	9.7
Snap Inc	98,824.08	36.6
Zoetis Inc	76,026.62	12.0
Roku Inc	59,316.35	36.2
Vertex Pharmaceuticals Inc	53,816.93	9.0
Teladoc Health Inc	42,402.47	25.6
IAC/InterActiveCorp	23,270.30	7.4
Neurocrine Biosciences Inc	10,638.18	10.3
ACADIA Pharmaceuticals Inc	8,223.94	18.7
Total/Average	**1,361,713.28**	**18.9**

Source: Bloomberg and Factset as of February 19, 2021

How to Defeat the Cash Thief (and Financial Repression)

With the probability of a “hot economy” post-Covid, the possibility that rates will raise faster than investors expect is real. And while we do not expect that rates will hold back economic growth for the next few years, given the Fed’s stated goals, the value of cash is likely to diminish at a faster rate than some might expect. Similarly, bonds will likely underperform. That said, while it would take quite a rise in yields to generate strong, sustained fixed income returns, we continue to hold select fixed income securities to dampen portfolio volatility and improve risk-adjusted returns with negatively correlated asset holdings.

This means that real assets, from stocks to private equity to commodities and real estate, will provide better returns both pre- and post-inflation. We would anticipate reducing our underweight to fixed income only when real yields become significantly more attractive.

Volatility during periods of major transition -- from “very low rates” to “low rates” and from a distorted COVID economy to one that has a more normal composition of goods and services demand – is something investors should expect. As figures 14-15 shows, it is typical to see one 10% equity correction per year, with 5% pullbacks three times more frequent. In return for accepting that volatility, long-term equity holders earn a direct stake in real, inflation-adjusted economic growth.

Figure 14: Frequency of US Equity Market Corrections by Size

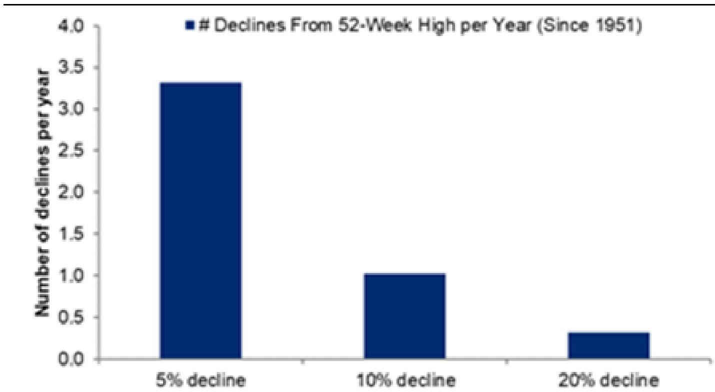


Figure 15: World Equity and Bond Total Return Since End 2009

Source: Haver and Factset as of Jan 8, 2021. 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.

The revised Federal Reserve inflation targets created some complexities for our long-term portfolio assumptions. While we always allocate across a wide range of assets for global investors with a “medium” level of risk tolerance, real wealth will build in assets that grow with world economic output or have truly limited quantities, such as real estate[1]. This considers present valuations, as emerging market equities have lagged deeply behind the US in particular and now benefit from the Fed’s more liberal monetary policy (see figure 16).

With all that said, it is best to have just the amount of cash one needs strategically, for real medium-term needs. A fully invested and diversified portfolio is likely to do best during the initial phases of a new economic cycle. Diversification internationally and into pro-cyclical sectors that benefit from higher growth rates, higher interest rates or both is prudent. Beware the cash thief.

Figure 16 Citi Private Bank Strategic Return Estimates and Inflation Adjustments Assuming a 2.5% US CPI Trend

	Strategic Return Estimates (SRE) %				
	Nominal	Inflation-adjusted	10-year Cumulative Inflation-adjusted	Amount of time to double inflation-adjusted wealth at SRE	Amount of time to halve inflation-adjusted wealth at SRE
Global Developed Equity	5.0	2.5	28.0	28 years	
Global Emerging Equity	9.2	6.7	91.0	11 years	
Global Developed IG	1.2	-1.3	-12.3		53 years
Global HY	3.9	1.4	14.9	50 years	
Global EM fixed income	3.6	1.1	11.6	63 years	
US Cash	0.7	-1.8	-16.6		38 years
Hedge Funds	4.0	1.5	16.1	47 years	
Private Equity	14.2	11.7	202.4	6 years	
Real Estate	8.8	6.3	132.4	11 years	
Commodities	1.2	-1.3	-12.3		53 years

Source: Citi Private Bank Asset Allocation team, preliminary estimates as of February 19, 2021.
Note: Amount of time to double wealth calculated by counting the number of years it takes for compounded inflation-adjusted Strategic Return Estimates to reach 100% return. Amount of time to halve wealth calculated by counting the number of years it takes for compounded inflation-adjusted Strategic Return Estimates to reach -50% return. Inflation-adjusted subtracts estimated 10 year CPI rate of 2.5%. 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. The private market returns also assume embedded leverage and illiquidity. Estimated levels shown as an illustration may not be achieved.

[1] The private market returns also assume embedded leverage and illiquidity.