IQ

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NEUBERGER | BERMAN

Moving Through Rocky Waters

VARIOUS HAZARDS ARE MAKING FOR NEAR-TERM TURBULENCE, BUT SMOOTHER CONDITIONS ARE LIKELY DOWNSTREAM EVEN AS MARKET DYNAMICS CHANGE.

IN THIS ISSUE

JOHN F. GEER, JR., CFP®
Managing Editor

New Day, New View

With pandemic worries starting to ease, a more balanced array of issues and opportunities may await investors.

It is hard to believe that the second anniversary of the COVID-19 outbreak is just around the corner. From the initial shocks of lockdowns and a frozen economy, to the market collapse and rebound, to the question of vaccine creation, followed by distribution and (uneven) reopening and recovery—it has been a long haul.

You would think that the seeming peak of the virus would bring with it a sense of relief, and it does to some degree, except that we are now navigating the residual effects on the country, economy and markets, and it is hard not to feel a bit shellshocked.

Part of the challenge, ironically, is the successes we have experienced so far—the breathtaking gains in risk assets, the stellar post-lockdown growth surge. Pent-up demand, fueled by loose monetary policy and fiscal stimulus, is causing unprecedented demand across a range of goods—triggering disruptions in the supply chain, a surge in commodity prices and higher prices overall.

We frequently get asked about inflation and whether it is "transitory." As you will note in Joe Amato's article this quarter, *Moving Through Rocky Waters*, we believe that higher inflation could last longer than expected by those in the transitory camp, but that it is likely to remain manageable and avoid derailing the recovery. Joe also covers timely topics such as the recent softening in China's growth, on-again, off-again negotiations regarding potential new federal spending and taxes, and struggles over the debt ceiling and government funding. Despite all of these factors, we are reasonably confident about the coming 12 months, but expect more volatility along the way.

To me, this is a time when the convergence of asset management and planning becomes particularly important to address key issues: where to seek opportunities, generate yield potential and soften the impacts of inflation, and how to allocate assets for the short and long term, and approach estate and tax planning at a time of deep uncertainty.

In this issue of the *Investment Quarterly*, we wade through a number of these issues, presenting our investment outlook, exploring the likely blurring lines between public and private fixed income, and highlighting the appeal of an after-tax orientation to portfolios and planning.

Given the importance of laying a strong foundation, I am delighted to announce the arrival of the newest member of our team. Sam Petrucci has joined us as Head of Advice, Planning and Fiduciary Services, overseeing all aspects of financial, trust and estate planning, as well as philanthropic advisory. Elevating these functions is essential to our ability to deliver comprehensive wealth management solutions, and I look forward to Sam's contributions in working to achieve that goal.

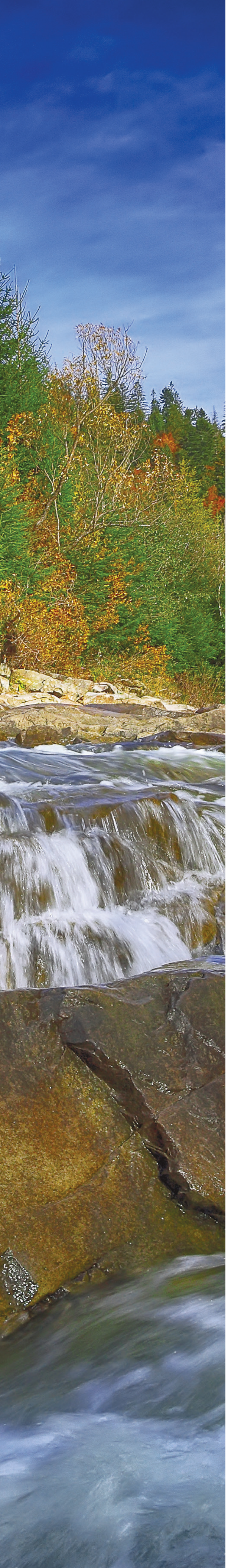
I hope you enjoy this issue of *IQ*. As always, please contact your Neuberger Berman team if you have questions about the markets, portfolios or planning issues.

Sincerely,

Stephanie B. Luedke

STEPHANIE B. LUEDKE, CFA
Head of Private Wealth Management

Market Focus



Moving Through Rocky Waters

Various hazards are making for near-term turbulence, but smoother conditions are likely downstream even as market dynamics change.

JOSEPH V. AMATO

President and Chief Investment Officer—Equities

The path and nature of a river are generally dictated by a confluence of geology, weather and water, leading to glassy smoothness in some stretches and churning rapids in others. Similarly, markets may be influenced by both structural issues and passing conditions that either accelerate forward progress or combine to accentuate volatility and uncertainty.

Today, the obstacles before the market rest on the key foundational notions of supply and demand—the force of a well-resourced populace emerging from the pandemic and the constraints of global industry in overcoming supply chain limitations, and labor and materials shortages, which are contributing to higher prices on a global basis. These dynamics are introducing new uncertainties around the longevity of elevated inflation, the impacts of pending pullbacks in fiscal and monetary support, and an investment environment where interest rates are likely to move upward from near-record lows.

The summer did not begin with a market focus on these strains to the global economic engine, but rather on optimism beyond near-term worries over the seemingly endless pandemic—including a resurgence in under-inoculated pockets of the U.S. and areas of Europe that had previously emerged from lockdowns. Broad gains against the virus, a generally rejuvenated economy and encouraging earnings results helped continue the positive trajectory of equity markets.

Ironically, as U.S. COVID-19 peaked and generally began to recede from investor psychology, the interrelated issues of strained supply chains, labor shortages, spiking prices and new talk about tightening weighed on markets. So too did political noise around the debt ceiling, government spending, and the dual Biden proposals on infrastructure ($1.2 trillion) and social and climate spending (initially $3.5 trillion but now under $2 trillion). The net result for the S&P 500 was retrenchment back to June levels and ongoing volatility into the fourth quarter.

Today, the economy appears to be at an inflection point, moving from the rapid expansion from COVID lockdowns to a more sustained but slower "midcycle" growth period. Typically, such a transition creates some turbulence in markets, as companies stress to ramp up production, raw material prices increase and labor becomes more successful in seeking wage gains, while central banks may move to ramp up tightening and limit inflationary excesses. However, in current circumstances, the challenges are in some ways more severe than usual.

SUPPLY CHAINS UNDER STRAIN

The current pressure on supply chains is unprecedented in the modern era. Forced to scale back operations during the pandemic, many companies and their logistics partners faced the task of rapidly ramping back up, but in many cases lacking the required equipment, materials and ready employees to do so. The recent backlog of container ships in Long Beach, CA, served as a poster child for supply issues, as more than 70 ships (at the peak) waited to unload because of capacity issues. Bottlenecks, large and small, exist throughout the global system, from Hong Kong to Amsterdam to Sao Paolo, and the situation could take some time to get better.

Many multinationals had already been rethinking supply chains in light of heightened geopolitical tensions and the perception that "just-in-time" operations, while often cost-effective, may introduce additional vulnerability in light of climate change and other risks. Rather than have a single supply chain moving through China, a business may look for two or three redundant systems across various countries and regions. This process is ongoing, and it appears that many players have not yet completed it, likely contributing to the sluggish reaction to renewed demand.

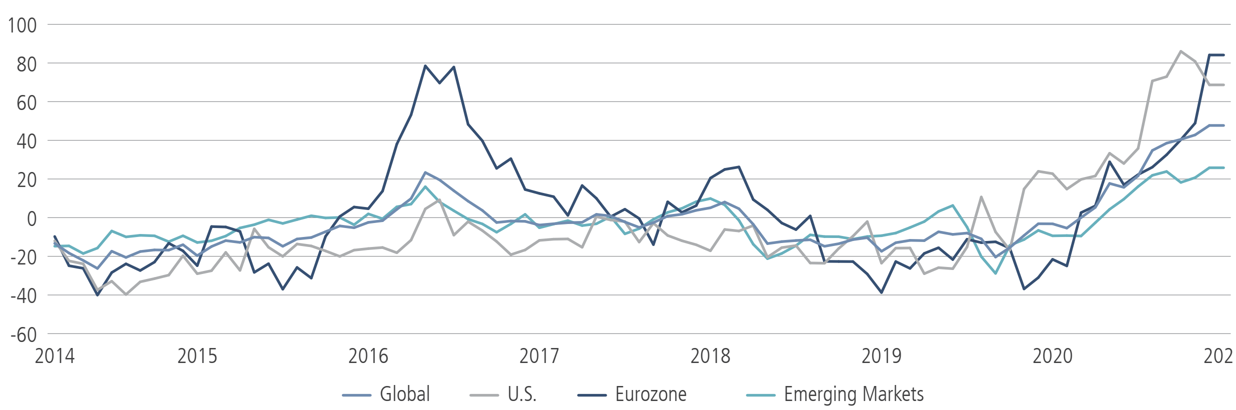
INFLATION LOOKS MORE LASTING NOW

For much of the past year, the Federal Reserve has argued that current inflation trends are largely transitory, due to the unique pressures associated with emerging from a pandemic. However, recent data suggest that higher price trends may be stickier than anticipated. Energy and commodity prices have skyrocketed, as cuts in production and extraction in reaction to early COVID trends led to shortages when economies reaccelerated. Complicating the energy story is the trend toward sustainability, which has discouraged the flow of capital to carbon-heavy fuels in favor of alternative energy, which does not yet appear to have the capacity to take up the slack.

For many American companies, the persistence of labor shortages continues to be a concern, as the number of openings remains far larger than the number of unemployed, and has helped accelerate (pre-inflation) wage gains. The inability of businesses to attract candidates may have multiple causes, including natural attrition during the pandemic, a skill mismatch between workers and positions, and disincentives created by expanded government benefits.

Beyond these issues, the accelerated demand has simply led to shortages and increased prices for needed goods. Semiconductors are scarce, due not only to production curbs, but also mishaps at manufacturing facilities, which have contributed to a severe undersupply of cars and turbocharged prices for used vehicles. Those who look through half-filled shelves in search of paper towels, detergent and cat food, or experienced sticker shock for beef, natural gas or used cars, will recognize the impacts of the current crisis.

SURGING INFLATION IS A GLOBAL STORY
Citi Inflation Surprise Indices



Source: Bloomberg, as of September 30, 2021. For illustrative purposes only. Nothing herein constitutes a prediction of future economic or market environments. Due to a variety of factors, actual events, including the characteristic of economic or market environments may vary significantly from any views expressed. **Past performance is no guarantee of future results.**

MONETARY WINDS ARE SHIFTING

Inflation increases have been sustained for months, with consumer inflation at 5.4% in September (4%, excluding food and energy). With concern around the durability of price changes and potential behavioral shifts tied to expected inflation, the Federal Reserve has recently taken a more hawkish tone, signaling that it could begin to fade its $120 billion in monthly bond purchases this year and raise its overnight rate sometime in late 2022 or 2023. The European Central Bank has also signaled policy stiffening, while various less influential central banks have already raised interest rates.

Still, the balance for monetary authorities is delicate, as they want to avoid reinforcing higher inflation while avoiding clamping down too hard given the uncertain dynamics of COVID and the ability of outbreaks and associated lockdowns to stifle economic progress. A key question is the actual power that banks may wield.

Back at the worst of the outbreak last year, we believe it was imperative for central banks to support the economy and markets, and it has been useful to maintain loose money even as some price excesses have emerged. Today, many are arguing that the time to curb policy will soon arrive, but there is concern that some aspects of higher inflation—supply chains, materials shortages—are not easily influenced by central banks, and that moving too fast could reduce available capital to address them. For our part, we believe that higher inflation could last longer—and at higher levels—than originally expected, but is likely to remain manageable and avoid derailing the current recovery.

CHINA'S BUMPY TRANSITION

After years as the world's "growth engine," China is accelerating its transition to slower but more sustained expansion with emphasis on reduced income inequality. This means less reliance on infrastructure, low-cost manufacturing and real estate, and a cooling of excesses across the Chinese economy, including in the often-speculative property market—suggested in regulators' recent willingness to tolerate failures at some prominent companies.

Meanwhile, the country has moved forward with a slew of measures aimed at curbing the power and influence of large tech businesses, going so far as to limit the hours of video games played by teenagers, as well as becoming more assertive in regional geopolitics. China's new economic role could mean slower expansion globally, but also lessen the damper on global inflation it often provided with low-cost goods. In the nearer term, while further limiting growth prospects (we currently estimate 2021 China GDP at around 8%), recent damage to the China property sector appears relatively contained and unlikely to foment broader market volatility.

GAUGING CHANGE IN CHINA …From the Asset Allocation Committee

China has introduced a flurry of social and business policy announcements—what could be behind it all?

Following years of competition with the U.S. and increasing wealth inequality, China appears to be doubling down on policies that promote a higher birth rate, "common prosperity" and internal self-reliance.

Policies aimed at sports, internet games and gambling, e-cigarettes, and the centralized procurement of pharmaceuticals and medical equipment seek to promote good health and reduce medical expenses, which could encourage young people to take advantage of the country's new "three-child" rule. Policies aimed at education and real estate, as well as measures to increase the tax liability of internet companies, are meant to foster economic equality. And policies for developing alternative energy and IT hardware have domestic as well as geopolitical goals.

Although this has created business uncertainty, in our view, it also marks China's likely transition from a high-growth to medium-growth economy. While President Xi Jinping's interest in a third term is likely to make the government and central bank wary of allowing too rapid a slowdown, over the longer term, China's rapidly aging and slow-growing population likely means that it can now prioritize social and political cohesion over job-creating growth.

Overall, the long-term investment case for China may be changing rather than fading away, and current volatility could even be a source of opportunity. For example, alternative energy, wind power, smart vehicles and semiconductors could be set to develop into high-growth industries for China, while 5G connectivity could help drive enhancements that move the country up the manufacturing value chain.

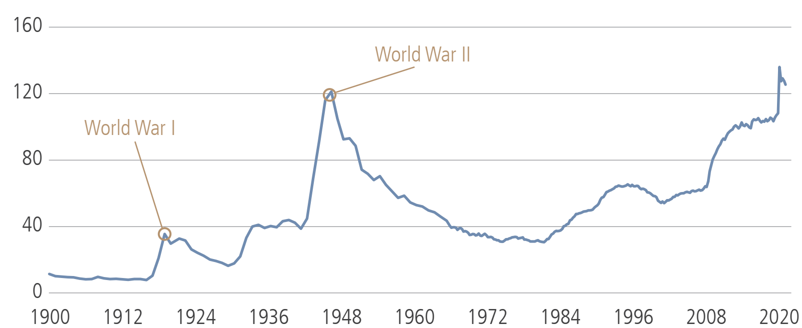
Adapted from *Clearing the Hurdles: Neuberger Berman Asset Allocation Committee Outlook, 4Q 2021.*

TODAY'S COMBINATION OF STRESSES CREATES UNUSUAL NEAR-TERM CHALLENGES FOR INVESTORS, BUT WE BELIEVE THE BROAD PICTURE REMAINS REASONABLY CONSTRUCTIVE OVER THE NEXT YEAR.

DOMESTIC AGENDA FOMENTS UNCERTAINTY

As I write, Congressional Democrats continue to negotiate on the parameters of Joe Biden's infrastructure and social/climate spending packages, and related tax proposals. At this point, it appears that the topline on "Build Back Better" is coming down, although moderates and progressives disagree on many specifics, and the longer talks continue, the greater the likelihood of failure. That said, we continue to believe that some agreement is likely, with possible increases in corporate and individual tax rates. Passage of the bipartisan infrastructure plan could provide greatly needed support for our strained transportation systems at a time when their weaknesses are painfully clear. Programs that help reduce poverty and narrow wealth gaps should, in our view, help the economy over time, although, to the extent they add to inflationary pressures and introduce new taxes that diminish capital investment and spending, they could detract from productivity and long-term growth potential.

COULD PENDING LEGISLATION WORSEN THE DEBT LOAD?
U.S. Federal Total Debt / GDP Ratio



Source: Longtermtrends, as of September 27, 2021. For illustrative purposes only. Nothing herein constitutes a prediction of future economic or market environments. Due to a variety of factors, actual events, including the characteristic of economic or market environments may vary significantly from any views expressed. **Past performance is no guarantee of future results.**

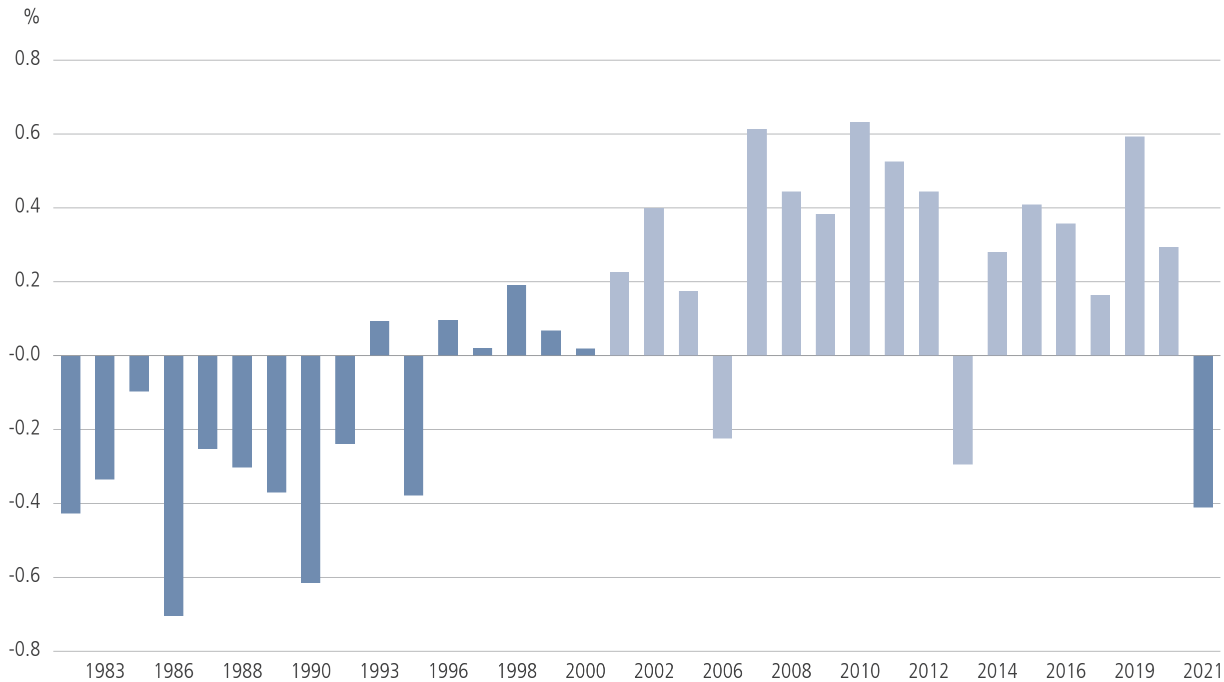
OUTLOOK AND POSITIONING

Today's combination of stresses creates unusual near-term challenges for many investors, but we believe the broad picture remains reasonably constructive over the next year. At this point, U.S. economic growth is expected to come in at 5.9% for this year, 4.1% for 2022 and 2.4% for 2023—diminishing, but all above the long-term trend.[1] With inflation at elevated levels, we will be looking loosely at earnings results and guidance to see how companies' costs are affected, and to what degree they can be passed along to end customers. Earnings trends remain strong, but given extended valuations and potential for disappointment, our Asset Allocation Committee (AAC) has moved to an underweight view of large-cap U.S. stocks. Still, the AAC sees continued potential in U.S. mid- and small caps in light of their greater exposure to cyclical economic gains, and non-U.S. developed market and emerging market stocks, where valuations appear more reasonable. More broadly, we believe that exposure to thematic growth opportunities such as 5G or fintech may help investors seek long-term return opportunities amid potential headwinds.

[1] Source: Bloomberg, as of September 30, 2021.

U.S. TREASURIES: A WEAKENING DIVERSIFIER?

Average U.S. 10-year Treasury Return on Days When S&P 500 Declined More Than 2%



Source: Bloomberg, For illustrative purposes only. Nothing herein constitutes a prediction of future economic or market environments. Due to a variety of factors, actual events, including the characteristic of economic or market environments may vary significantly from any views expressed. Indexes are unmanaged and are not available for direct investment. Investing entails risks, including possible loss of principal. **Past performance is no guarantee of future results.**

Within fixed income, the yield difference between Treasuries and many investment grade bonds has narrowed significantly, while correlations with stocks have increased, reducing their diversification benefits (see display). Thus, for those who are seeking to de-risk portfolios, adding to cash may be preferable to building Treasury exposure for the time being. More opportunity may be available in high yield and bank loans, as well as selectively in emerging markets debt. Municipal bonds continue to offer tax advantages that may prove useful should the tax regime shift to higher rates. Overall, we believe the threat of continued higher inflation and the potential for monetary tightening are real, suggesting that limiting duration (or exposure to interest rate fluctuations) is prudent.

Given these unusual dynamics, some investors may wish to consider employing multi-asset fixed income strategies, with increased flexibility to overweight a variety of potential opportunities in multiple markets and sectors while managing risk. Across equity and debt, looking to private markets may also be a way to seek incremental return and yield opportunities, as managers often have a greater ability to influence company operations and strategies, and seek deal terms that could enhance potential return in exchange for relative illiquidity. Meanwhile, exposure to commodities may function as an effective inflation hedge in today's environment.

IN THE CURRENT, OUT OF THE SHALLOWS

The ongoing transition from faster early-cycle growth to slower, steadier midcycle growth may be rocky at times. Some investors may be unfamiliar with the corrosive impacts of inflation, both on portfolio returns and purchasing power. Multiple other hazards—spanning legislation, geopolitics, logistics and health—may lurk beneath the market surface. In our view, setting a course in deep waters, to capitalize on the natural flow of economic trends but avoid colliding with such risks, is essential to achieve investment success as we move forward.

See disclosures at the end of this publication, which are an important part of this article.

Asset Matters

Public/Private Investing: Fixed Income at a Crossroads

As the line between public and private debt markets appears to blur, the ability to draw on the full suite of fixed income asset classes can help investors navigate a wide range of market environments—through complementary sources of risk and return prospects, enhanced diversification and improved return potential.

INVESTMENT STRATEGY GROUP

The low-rate environment of the past decade has reached extremes in the context of the COVID-19 pandemic, while financial asset valuations appear full, driving down potential return outlooks across fixed income and equity asset classes. Further, the ability of investment grade fixed income to quell equity volatility in portfolios has come into question due to the low "starting point" of interest rates and the potential risk that they could move higher. Given these conditions, investors continue to look for ways to enhance total return potential and improve diversification while managing risk in a prudent manner. In our view, this has led many to move beyond traditional sources such as investment grade bonds to publicly traded high yield bonds, leveraged loans, emerging market debt, preferred stock and other, higher-yielding options.

The opportunity set continues to expand in private markets as well, driven by post-Global Financial Crisis (GFC) financial regulations that made certain risk exposures untenable for traditional banks, resulting in a structural shift toward nonbank market participants for funding. This has contributed to a threefold surge in private debt assets since 2008 to roughly $1 trillion as of 2020.[1]

While the funding source has shifted, often the underlying type of private debt—corporate, consumer and small business lending, among others—is a relatively mature segment that is familiar to public market investors. What private market investment managers generally bring to the table is an ability to capture risk premia not

[1] See display on page 11.

available in the public markets, such as for liquidity and complexity, resulting in the potential to add incremental return opportunities and diversification. As such, we think private assets have evolved to become a potential core holding in many client portfolios. Indeed, we believe that, moving forward, investors will increasingly look to both public and private markets to achieve their goals. In our view, investing in a range of sectors across both segments can greatly enhance the flexibility and risk/reward framework of fixed income portfolios.

UNDERSTANDING POTENTIAL RISKS IN INVESTMENT GRADE FIXED INCOME MARKETS

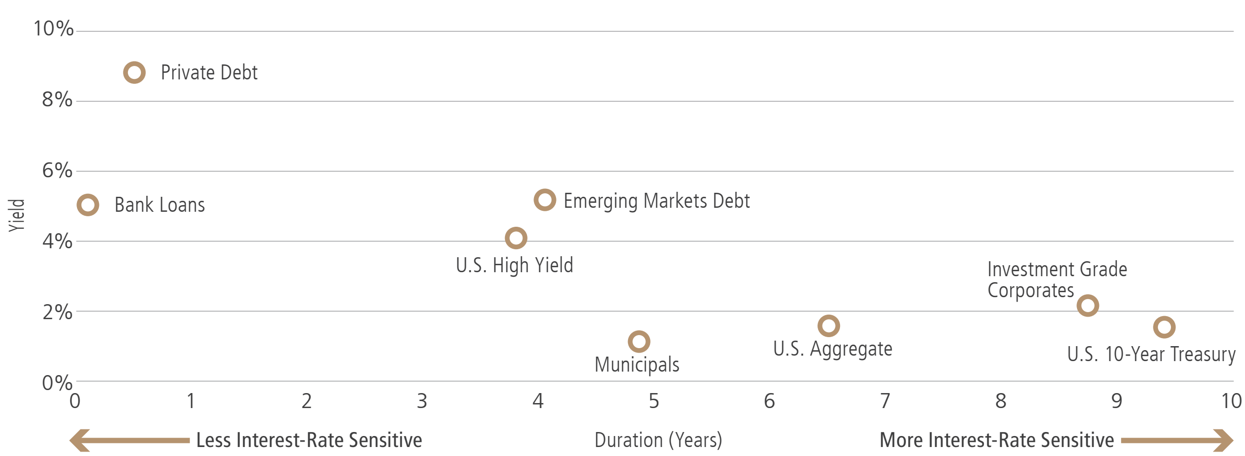
We like to think of fixed income assets largely in terms of the stability they have historically offered portfolios (offsetting riskier assets like stocks), their diversification value, steady income generation and liquidity to meet cash flow needs. We believe investment grade fixed income continues to play an integral role in diversified portfolios—as a source of stability and diversification—as was on display during the 2008 GFC and the pandemic-related market turbulence of 2020. For many years, the income function was supported by generous yields. However, those yields dwindled in the decades-long bond bull market, and were reduced to minimal levels as part of last year's monetary easing and intervention in the credit market by the Federal Reserve. There are now some $13.4 trillion in negative-yielding bonds worldwide,[2] while the yield advantage over Treasuries (or spread) for many other bonds is near record lows. Further, investment grade bonds now have greater-than-historical sensitivity to interest rate swings (or duration), in large part because of currently low yields. In our view, this could prove a headwind to bond portfolios should interest rates increase off current low levels, and, coupled with bonds' recent increased correlations with equities, could weaken their benefit as a diversifier in the coming years.

Given this backdrop, we believe it has become especially important to broaden fixed income investment options to seek more favorable yield opportunities, while enhancing diversification through differentiated sources of risk premia (across public and private arenas) and limiting interest rate risk in the process. The display below plots various fixed income options based on their yield and duration, including private debt.

For some investors, it may make sense to draw on multisector fixed income strategies that provide diversified exposure across these various publicly traded sub-asset classes in one vehicle. By accessing these exposures in a single fund, we believe investors may benefit from the experience of fixed income professionals that can quickly and efficiently rotate portfolios into areas of opportunity and away from areas of risk based on relative valuation and bottom-up security selection. In our view, this flexibility is increasingly important in today's rapidly shifting investment landscape.

Further, we think many investors may be under-allocated to the rapidly growing private markets. We seek to demystify this asset class in the following section.

VARIED CHARACTERISTICS REINFORCE FIXED INCOME DIVERSIFICATION
Yield and Duration*



*Data as of September 30, 2021, except for private debt, which is June 30, 2021.
Source: Bloomberg. Asset classes are represented as follows: municipals, Bloomberg Municipal Bond Index; U.S. aggregate, Bloomberg Barclays U.S. Aggregate Bond Index; investment grade corporates, Bloomberg Barclays IG Corporate Bond Index; high yield, Bloomberg Barclays High Yield Index; bank loans, S&P/LSTA Leveraged Loan Index; emerging markets debt, EMBI Global Diversified Bond Index; private debt, Cliffwater Direct Lending Index. Benchmark performance is presented for illustrative purposes only to show general trends in the market for the relevant periods shown. The investment objectives and strategies of each fund in a benchmark may be different from the investment objectives and strategies of a particular private or public fund and may have different risk and reward profiles. It should not be assumed that any correlations to a benchmark based on historical returns would persist in the future. Indices are unmanaged and not available for direct investment. Investing entails risks, including possible loss of principal. **Past performance is not indicative of future results.**

[2] As of October 4, 2021.

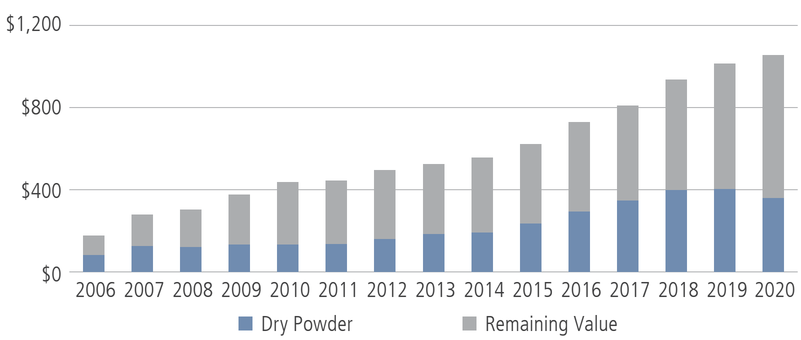
PRIVATE DEBT: EVOLUTION OF AN ASSET CLASS

Despite the historical treatment of private debt as an "alternative" asset class, we believe it has evolved to become a core holding in many client portfolios, acting as a complement to existing public fixed income exposure.

What is private debt? Simply put, it involves entities (including private companies, consumers and small businesses) borrowing from nonbank lenders such as investment firms or fintech platforms rather than from banks, or issuing debt in the public markets. These investments are often not registered with the Securities and Exchange Commission and typically carry a reduced liquidity profile.

DESPITE THE HISTORICAL TREATMENT OF PRIVATE DEBT AS AN 'ALTERNATIVE' ASSET CLASS, WE BELIEVE IT HAS EVOLVED TO BECOME A CORE HOLDING IN MANY CLIENT PORTFOLIOS.

HISTORICAL GROWTH OF PRIVATE DEBT MARKET
Assets Under Management ($ Billions)



Source: PitchBook. As of December 31, 2020. For illustrative purposes only. Nothing herein constitutes a prediction of future economic or market environment. Due to a variety of factors, actual events or market behavior may differ significantly from any views expressed. Investing entails risks, including possible loss of principal. **Past performance is not indicative of future results.**

Private debt is a broad term that includes categories such as direct corporate lending, asset-backed lending, specialty finance, consumer lending and residential mortgage lending. This discussion focuses on corporate lending, which is the largest segment of private debt.[3] Although the sector has been around since the beginnings of the high yield market in the 1980s, it really took off in the wake of the GFC in 2008 – 09, when regulators clamped down on lending provided by traditional banks. Particularly among smaller, private equity-backed companies, managements have looked to private, nonbank lenders for access to capital and flexible terms. Also driving growth has been the boom experienced by private equity generally. The increase in supply has been met with enthusiasm on the demand side. While investors' search for yield in the post-GFC low-interest-rate environment has provided a tailwind to private debt adoption, we believe the shift is more long term in nature, as investors recognize the opportunity to diversify their fixed income exposure and capture risk premia that are more readily available in private markets.

Private debt risk premia come through in the form of enhanced yield opportunities, which compensates for the additional complexity of customized, negotiated transactions, as well as a reduced liquidity profile. As shown in the display on page 10, this tends to result in an attractive yield versus public market counterparts despite similar, and often reduced, credit and interest rate risk. In addition to enhanced yield potential, private debt offers several other attractive structural features:

[3] Source: PitchBook, June 2021.

- Seniority in the capital structure helps reduce default risk and, in the event of default, increase recovery rates.
- Low interest rate sensitivity due to a floating-rate debt feature in most investments that can efficiently hedge the risk of rising interest rates.
- An extended investment period, often three to four years, allowing private debt funds to deploy capital over time, increasing the ability to take advantage of a shifting investment landscape.
- Limited liquidity, while an important consideration for investors in sizing private debt, can help to mitigate volatility during market sell-offs, as investors are less affected by "mark-to-market" volatility and can avoid becoming forced sellers. Instead, private debt valuations are typically affected only by permanent impairment of capital through fundamental adjustments to valuation and/or default. As such, security and manager selection is key in the space.
- Negotiated transaction terms can lead to a customized risk and return profile with improved investor risk mitigation.

The structural features outlined above come with some considerations prior to making an allocation to private debt markets—including liquidity profile, (often below-investment-grade) credit risk, smaller company size than public market high yield, current valuations and transaction terms. On balance, we believe these considerations can be effectively managed through appropriate sizing of private debt exposure and thoughtful security and manager selection.

DURABILITY IN DIFFICULT TIMES

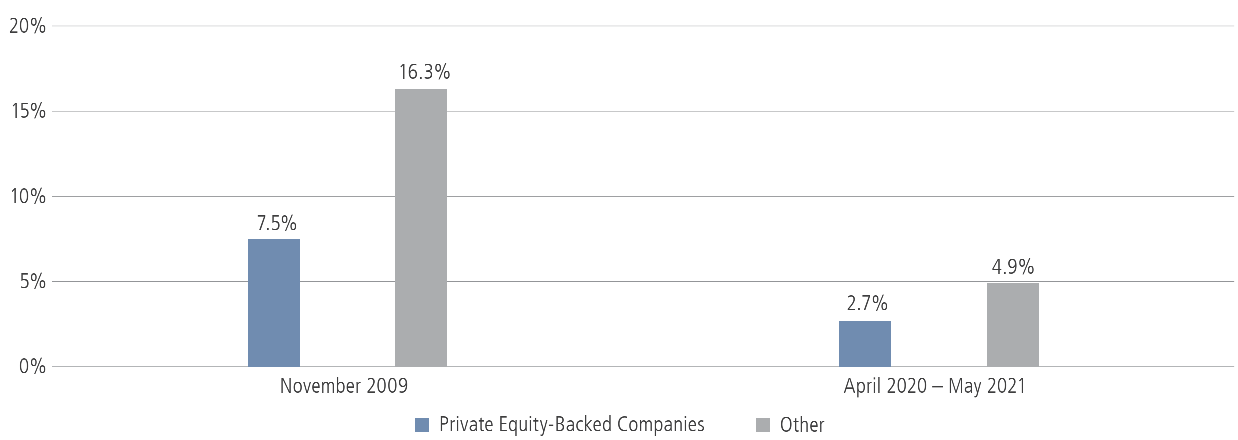
The period during the COVID pandemic has reinforced the durability of the private debt asset class, with borrowing businesses showing resilience in the face of revenue and operational challenges, and benefiting from government stimulus and continued support of the Federal Reserve. Moreover, we believe that the involvement of private equity managers in many borrowing companies has also been an advantage, as we have seen private equity funds provide additional capital where needed to support operations and liquidity, as well as to become actively involved in the strategic and tactical direction of the business. This has resulted in significantly reduced default rates for private equity-backed companies over time, particularly during times of acute distress, as reflected in the display below.

Along with other fixed income sectors, private equity's yield over Treasuries (or spread) has narrowed, but we see a number of trends that should be reassuring to investors.

Although deals have generally become more friendly to borrowers (in terms of documentation and covenants), Neuberger Berman's Private Debt team believes they have largely moved back to pre-COVID norms, while leverage levels for borrowers are consistent with late 2019. The team also believes the quality and growth prospects of these companies have improved versus previous investment cycles. This reflects an industry-wide shift from the early days of private equity, which focused on financial engineering involving the addition of significant leverage to steady, low-growth businesses. Instead, many private equity firms are currently focused on topline

DEFAULT RATES DURING CRISIS: LOWER FOR PRIVATE EQUITY-BACKED COMPANIES

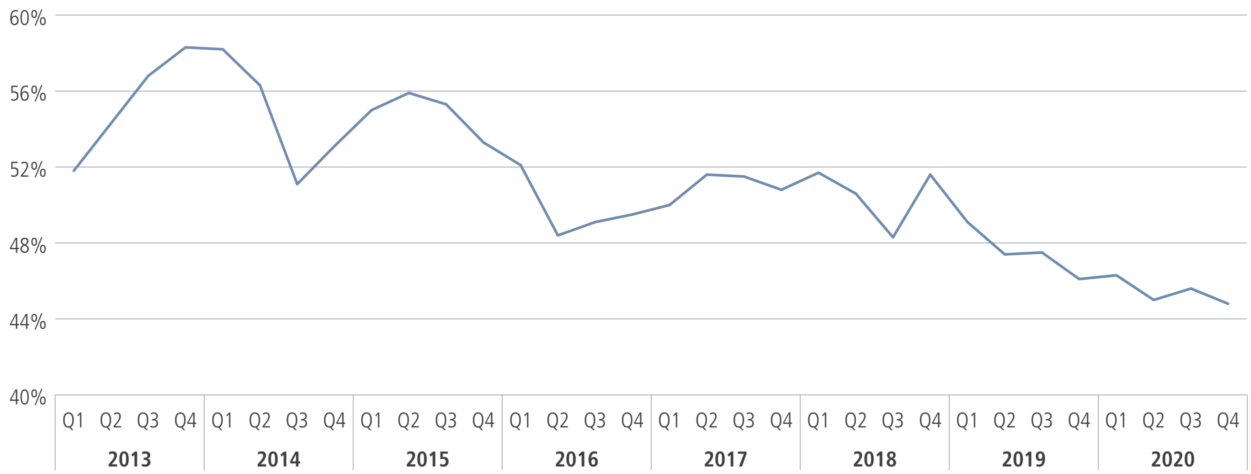
Peak Default Rates



Source: S&P LCD. Includes default rates of leveraged loans for all companies in the S&P LCD Index. For illustrative purposes only. Nothing herein constitutes a prediction of future economic or market environment. Due to a variety of factors, actual events or market behavior may differ significantly from any views expressed. Indices are unmanaged and not available for direct investment. Investing entails risks, including possible loss of principal. **Past performance is not indicative of future results.**

MULTIYEAR LOW IN PRIVATE EQUITY-BACKED COMPANY DEBT LEVELS

Median U.S. Buyout Debt-to-Enterprise Value Ratio (Rolling 4-Quarter Periods)



Source: PitchBook, U.S. PE Breakdown Q1 2021. For illustrative purposes only. Nothing herein constitutes a prediction of future economic or market environment. Due to a variety of factors, actual events or market behavior may differ significantly from any views expressed. Investing entails risks, including possible loss of principal. **Past performance is not indicative of future results.**

revenue growth potential and effecting material improvements in the underlying operations of high-quality businesses.

Using the private equity universe as a proxy (given its overlap with private debt), some 65% of companies where Neuberger Berman's Co-Investment team committed capital in the first six months of 2021 projected an annual earnings growth outlook of 10% or more, compared to just 26% six years ago. Further, a combination of added equity cushion from increased valuations and a subdued increase in absolute debt levels has resulted in a significant improvement in private company balance sheets (see display above). Given the high position of private debt in companies' capital structure, we believe this provides added reassurance regarding preservation capital even in dire circumstances.

IMPLEMENTATION

Although conceptually a part of fixed income, as a practical matter private debt often remains an "alternative" asset class—that is, typically subject to asset or income qualification levels, as well as relatively high investment minimums and multiyear fund lives. However, as outlined in our paper, "Private Equity in Focus,"[4] new investment structures are providing broader access to private markets, including that of private debt. In addition, fixed income portfolios are increasingly incorporating public and private elements based on the opportunities available across both areas—a trend we see becoming more prevalent. Even for those investors where private and public are in separate formal buckets, we believe a sensible approach is to consider aggregate portfolios from multiple perspectives—volatility, duration, income, liquidity, etc.—which can better identify the potential impact of an asset like private debt overall, while clarifying broad positioning in relation to overarching portfolio goals.

FINAL THOUGHTS

In our view, the array of challenges facing fixed income markets require that investors take a flexible approach to generating yield opportunities and limiting potential risk. As a first step, this may entail drawing on multiple sectors and geographies, and potentially leveraging investment strategies that can pivot to opportunities and away from hazards. It may also include a broadening of the investment universe to private markets, which can offer a unique set of characteristics and return/yield potential. In our view, fixed income markets are at a crossroads, where investors will increasingly draw on both public and private options in seeking to achieve their goals. Careful planning and an understanding of the potential risks and benefits of both segments can help surmount current obstacles and set the table for performance over time.

[4] July 2021.

Financial Fitness

Adopting an After-Tax Mindset

A potential shift in the federal tax regime merits a multifaceted approach to limiting the impact of taxes on return and overall wealth.

PRIVATE WEALTH MANAGEMENT

For much of 2021, Washington, DC, has wrangled over potential changes in the tax code to pay for spending ambitions. Multiple proposals have circulated, with different components and priorities—from higher top ordinary income tax rates, to new treatment of capital gains, to a reduced estate tax exemption to higher corporate rates. The extent of the changes (assuming they happen at all) may depend on the ultimate size of the spending program, with moderates advocating for the more subdued numbers. However, given the $4.5 trillion already devoted to COVID rescue and stimulus, and the $1.2 trillion targeted for Senate's bipartisan infrastructure plan, even if President Biden's social spending package is reduced (it now stands at under $2 trillion), we believe that some level of higher taxes is possible—whether due to today's frenzied legislative environment or down the road.

As a result, we think that investors may need to devote more attention to taxes than they may have in recent years. This is not simply a question of accounting or specific strategies, but rather continually viewing assets through the prism of potential after-tax results. Such a systematic approach may take place from multiple perspectives, and involve tax-efficiency, investment choice, asset location/use of tax-advantaged accounts, and effective estate planning.

TAX-EFFICIENT INVESTING

Across multiple tax proposals, those with the largest potential impact on equity portfolios involve higher marginal income tax rates, as well as increased levies on capital gains (25% under a House of Representatives proposal and equal to ordinary income tax rates under the President's plan).[1] The impact could be meaningful, which is why we think the prospect of higher personal taxes strengthens the case for tax-efficiency in investment portfolios.

[1] One late proposal would introduce an annual tax on billionaires' *unrealized* gains, although details remain limited.

DURING THE LIFETIME OF A PORTFOLIO, WE BELIEVE THE TWO MOST IMPORTANT ASPECTS OF TAX MANAGEMENT ARE TAX LOSS HARVESTING AND TAX DEFERRAL.

During the lifetime of a portfolio, we believe the two most important aspects of tax management are tax loss harvesting (realizing a loss by selling a security, which can then offset a taxable gain from another security) and tax deferral (delaying taxation so that money remains invested and continues to generate return opportunities). These tax management strategies can generate a difference between after-tax and pre-tax return that we call "tax alpha."

In a study released last year, Neuberger Berman's TaxM portfolio management team ran hypothetical Monte Carlo simulations to offer a sense of the tax alpha that tax loss harvesting strategy could generate, through different 10-year stock-market return and volatility scenarios, given the current federal tax regime.

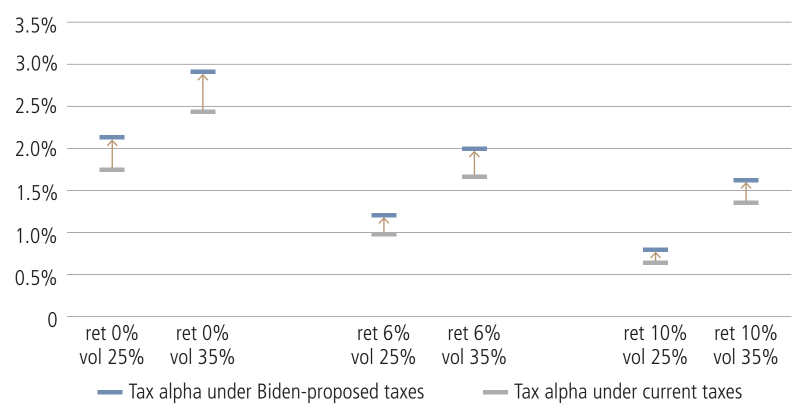
The team started with an equally weighted portfolio of 500 stocks. They assumed three different market return levels (0%, 6% and 10% annualized) and two stock volatility levels (25% and 35% annualized), and correlation between stocks of 0.3, which is similar to the level observed historically between constituents of the S&P 500 Index. The threshold for tax loss harvesting was a loss of greater than two standard deviations of the volatility of the stock, in which case the stock was sold and, avoiding "wash sales," a stock with very similar risk-factor characteristics was immediately purchased to replace it.

The team's hypothetical portfolio analysis demonstrated that tax alpha was highest when market return was lower and stock volatility was higher. For example, the average annualized tax alpha from 1,000 simulations, when the market return was 6% and stock volatility was 25%, was 1.0%; when the return was set at 0% and stock volatility was 35%, average tax alpha was 2.4%.

What changes did we see with the hypothetical tax alpha findings when the President's initial tax proposals were plugged in instead of the current regime? The results are shown below.

THE BIDEN TAX PROPOSALS AND AVAILABLE 'TAX ALPHA': HYPOTHETICAL BACKTESTED PORTFOLIO ILLUSTRATION

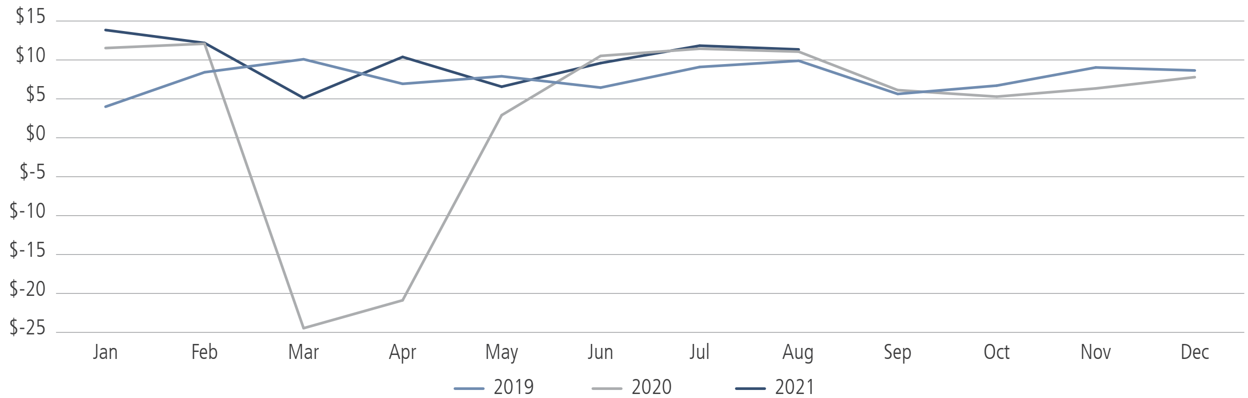
Average tax alpha from 1,000 Monte Carlo simulations for each market-return and stock-volatility scenario, for the current and Biden's initially proposed federal tax regimes



Source: Neuberger Berman. Hypothetical results shown are for illustrative purposes only. They are not intended to represent, and should not be construed to represent, a prediction of future rates of return. Tax Alpha figures assume an investment that is taxed at 50% short-term and 50% long-term rates (40.8% and 23.8%, respectively for current-taxes scenarios 40.8% for both under Biden proposals). The correlation to the S&P 500 is assumed to be 0.3 with 500 stocks in the portfolio and a dividend yield of 2%. Fees are assumed to be 0.35% over a typical passive portfolio, with no transaction costs and monthly rebalancing. A loss of 5% is the assumed threshold for harvesting. The illustration does not reflect the fees and expenses associated with managing a portfolio. If such fees and expenses were reflected, results shown would be lower. Investing entails risks, including possible loss of principal. **Past performance is no guarantee of future results.** PLEASE SEE IMPORTANT "HYPOTHETICAL BACKTESTED PERFORMANCE DISCLOSURES" AT THE END OF THIS PUBLICATION.

RUSH INTO MUNICIPALS

Net Flows Into Municipal Funds ($ Billions)



Source: Lipper. Data through August 2021. For illustrative purposes only. Nothing herein constitutes a prediction or projection of future events or future market behavior. Due to a variety of factors, actual events or market behavior may differ significantly from any views expressed. Investing entails risks, including possible loss of principal. Indexes are unmanaged and are not available for direct investment. **Past performance is no guarantee of future results.**

In the updated hypothetical analysis, average tax alpha increased under Biden's tax proposal across all six of our return and volatility scenarios, by between 20% to 30%. Keep in mind that some tax proposals are less severe than the President's (although some are more so). However, in our view the lesson is unmistakable: The higher taxes are, the more scope there is to save money by offsetting taxes with portfolio losses.

CHOICE OF ASSETS

Many choices go into the development of an asset allocation and its implementation, but we believe one key consideration should be the tax implications of a given asset class or strategy. For example, longer holding periods employed by some fundamental equity investors could have the effect of lowering immediate taxes and making more assets available to compound. Within fixed income, investment in municipal bonds has historically been an effective way to shelter income from federal, state and, in some instances, local taxes.

In our view, the appeal of municipal bonds should increase as tax rates move higher to close budget gaps. Moreover, an increase in the corporate tax rate (although not currently anticipated) could further increase demand for municipal bonds from banks and some insurance companies, benefiting many investors in the space.

That said, for much of 2021, many investors have taken note of monetary/fiscal support for states and localities, the strong economy, and the generally improving fundamentals of many issuers, while also anticipating this potential change in tax regime. As a result, municipal prices have rallied and yields have declined to where we believe many bonds are fully valued.

For those with a suitable risk profile, it can make sense to move down in quality somewhat given the generally supportive backdrop, in order to pick up additional income potential. High yield municipals have rallied with the rest of the market, but a muni portfolio averaging a BBB rating and seven-year maturity still may provide a 2% yield (or about 4% after-tax equivalent), which our municipal team considers attractive in the current climate. However, in our view, any move down the quality spectrum should be carefully considered and grounded in fundamental analysis. Should Treasury yields move up further (reducing bond prices), the ability to harvest losses within a separate account could also prove beneficial to the municipal investor.

Importantly, we believe saving taxes should not be the sole driver of any investment decision. Within a municipal portfolio, it could be that a non-tax-exempt municipal may provide a better after-tax yield than some tax-advantaged securities. More broadly, we believe that investors should take a flexible approach to their fixed income exposure to capture the range of opportunity that may be present in public and private fixed income markets, albeit considering the tax ramifications of various options (see article on page 9).

ASSET LOCATION/TAX-ADVANTAGED VEHICLES

An important aspect of an after-tax framework is to take advantage of retirement accounts where possible, to grow assets on a tax-deferred basis in the case of traditional IRAs and 401(k)s, and a tax-free basis in the case of Roth accounts. This may involve not only maximizing contributions to the accounts, but also choosing appropriate assets for them; for example, higher-turnover or dividend-oriented investments that typically generate significant ordinary income may be better suited to a retirement account, while low-turnover assets may work best in the taxable context.

Where possible we believe investors should capitalize on all of the tax-advantaged accounts that may be available to them—for example, health spending accounts, which may be used by those with high-deductible health plans for medical expenses, have three levels of tax benefits: deductible contributions, tax-free compounding and tax-free withdrawals if used for qualified expenses. Meanwhile, 529 accounts permit after-tax contributions to grow tax-free if used for qualified education expenses, including for secondary school. It's common to contribute up to the $15,000 per-year exclusion (per donor per recipient) from gift tax.[1] Under current law, owners can choose to bundle up to five years of exclusion amounts into one annual contribution, for a total per couple per beneficiary of $150,000, without cutting into the lifetime exemption.

In addition, we should mention Roth conversions. As many are aware, Roth retirement accounts offer the potential for tax-free growth, but unlike traditional retirement vehicles, do not require distributions by the participant or his/her spouse to begin at a certain age. Although Roth accounts have tight income limits on direct contributions, investors can currently convert traditional IRAs to Roths on an unlimited basis, with the conversion amount subject to ordinary income taxes (and ideally paid from assets outside the IRA to maximize its benefits). The House proposal would curtail the use of after-tax funds in ("back-door") conversions starting in January, and eliminate so-called "mega-Roth" techniques where participants maximize their after-tax 401(k) contributions and then immediately convert them to Roth status.[2] Given this proposal and the possibility of higher tax rates, it may make sense to maximize your assets in Roth vehicles now to take advantage of current tax rates, and also to enable heirs to potentially inherit IRA balances that will be income-tax-free to them at the withdrawal stage (up to 10 years after your death).[3] To the extent that Congress continues to allow Roth conversions, their use is likely to remain compelling, along with the broader employment of retirement accounts where not limited by income or asset levels.

Longer term, life insurance and annuities could enjoy a comeback in the wake of tax reform. These insurance-based tax deferral vehicles could see a rise in popularity in coming years given the favorable tax treatment provided to cash value in life insurance products and the tax deferral offered by annuities. Annuities can also be considered tax-advantaged as distributions are taken pro-rata between basis and earnings. It's important to consider fees and policy details in assessing insurance products.

ESTATE PLANNING

Estate planning has been especially challenging this year in the run-up to tax reform, given the wide-ranging and sometimes extreme outcomes that have been discussed, and uncertainty as to what will actually become law and when it will become effective.

The current House plan dispenses with President Biden's proposed elimination of the "step-up" in basis at death, but would reduce the estate and gift tax exemption from the current $11.7 million to about $6 million next year (it's currently scheduled to sunset to that level, indexed for inflation, in 2026) and introduces some limitations to certain irrevocable grantor trusts. Senate proposals have indicated more drastic limitations to the exemption and trusts, and would increase estate tax rates at higher asset levels, while, in contrast, the Biden proposal leaves the estate, gift and generation-skipping regime largely unscathed.

In the Spring *Investment Quarterly,* we explored "Estate Planning in Advance of Tax Changes," emphasizing that, where feasible, readers should consider acting now to lock in potential advantages associated with the currently favorable tax code, and we highlight some of these ideas in the accompanying "Action Plan for Year-End 2021" (see page 20). These include gifting to capitalize on the current exemption amount, and creating trusts that may be curtailed in the future. Although variable in scope, the general themes of limiting tax advantages for the wealthy and curtailing strategies perceived as abusive appear likely to remain part of the public policy landscape moving forward.

INTO THE FUTURE

Looking beyond the current transition, it is difficult to predict with precision the overall thrust of the pending tax changes, let alone the details that gradually allow for nuanced planning and investment strategy. Tax regimes tend to begin with certain central ideas, but over time, portfolio managers and planners have generally been able to identify new opportunities for savings based on incentives created by legislators for certain priorities, purposeful advantages to offset hardships associated with new taxes, and inadvertent changes that open up whole new areas for consideration.

Although conventional (and reasonable) wisdom is that taxes should never drive investment decisions, they are a factor that we believe should be taken into account, and could become increasingly important in the coming years. Rather than think of them from one static perspective, we believe that multiple ideas can be employed to limit tax impact and enhance potential after-tax results.

[1] Contribution limits are determined under state law.
[2] The legislation would eliminate, 10 years from now, all back-door Roth conversions for individuals with income of $400,000 or more.
[3] Roth accounts are included in the estate of the participant and may be subject to estate tax.

PERSONAL TAX PROPOSALS: HIGHLIGHTS

Congress continues to consider an array of potential tax changes to pay for infrastructure and social spending ambitions. Below are some key recommendations from the U.S. House Ways and Means Committee, as well as other sources where noted.* Historically, many proposals that have failed to become law in one year have been reintroduced later and may bear watching as debates over taxation continue in the future.

Area of Impact	Current	Proposed Change
Ordinary Income Tax	Top marginal rate of 37% on income over $523,600 for individuals and $628,301 for married couples.**	Top marginal rate of 39.6% on income over $400,000 for individuals and $450,000 for married couples, plus a 3% surcharge on modified adjusted gross income (AGI) over $5 million. Biden's latest framework calls for a 5% surcharge on income over $10 million, and an additional 3% levy on income over $25 million.
Net Investment Tax	3.8% tax on passive income from passthrough entities.	Broader application to those earning over $400,000, likely including active owners of passthrough entities.
Carried Interest	Taxed at long-term capital gains rates if held more than three years.	Extends the holding period to receive long-term capital gains treatment to five years, except for real estate trades or businesses, and those earning less than $400,000.
Qualified Small Business Stock	Receives generous capital gains exclusion if 80% invested in a qualified trade or business and held over five years.	Eliminates the 75% and 100% capital gains exclusion for those with AGI of $400,000 or more; baseline 50% exclusion will remain in place for all taxpayers; applies to sales/exchanges after September 13, 2021, subject to "binding contract" exception.
Retirement Accounts	Unlimited accumulation within contribution limits. Income caps on direct funding of Roth accounts, but extensive use of conversions of pre- and after-tax assets in traditional retirement accounts to Roths.	Caps IRA contributions where aggregate retirement accounts total more than $10 million for individuals earning $400,000 or more; substantial required minimum distributions designed to reduce account balances above $10 million; prohibits conversion of after-tax retirement contributions to Roth accounts at all income levels starting on January 1, 2022; ends conversions of pre-tax dollars in 10 years for those earning over $400,000; prohibits IRAs from holding assets requiring accredited investor status after 2021, with a two-year transition for IRAs that already have them.†
Qualified Dividend/ Capital Gains Tax	Top rate of 20%, plus the 3.8% Affordable Care Act surcharge, or 23.8%.	Top rate of 25% plus 3.8% Affordable Care Act tax, or 28.8%, applied at current bracket levels, retroactive to September 2021. 3% surtax on AGI over $5 million, beginning January 2022 (see Ordinary Income Tax, above).
Step-Up of Basis, Recognition of Gains	Step-up in tax basis at death; gifts not taxable below exemption amount, donee receives basis of donor.	Step-up in tax basis remains in place, with no income tax incurred at death by gifting; Biden would eliminate the step-up on capital gains above the first $1 million, or at the time of gifting.
Billionaire Tax	No tax on wealth or unrealized capital gains at any level.	A recent proposal would create an annual tax on billionaires' imbedded capital gains on financial assets; details are limited and the idea may be subject to Constitutional challenge.
Estate/Gift/GST Tax Exemption	$11.7 million exemption.**	Reduces the exemption to about $6 million for 2022, in contrast to Biden's proposal, which leaves the current estate tax regime in place.
Estate/Gift Tax Rate	40% top rate.	No change. Senator Bernie Sanders had called for an increase to 45% – 65% graduated rates.
Annual Gift Tax Exclusion	$15,000 per recipient, per donor each year.	No change. Sanders would limit annual exclusion gifts to qualified trusts to $30,000 per donor.
Like-Kind Exchange	Real estate like-kind exchanges may be entitled to capital gains tax deferral.	No change. Biden would eliminate like-kind exchanges for taxpayers with income over $400,000.
Trusts, Valuation Discounts	Flexibility on terms, use of exemptions, allows for effective wealth transfer.	Grantor trusts (non-grandfathered) included in estate; distributions to beneficiaries, conversions to non-grantor trusts would be taxable gifts. Curbs on discounts, GRATs.

Source: The Tax Foundation, news reports. As of October 28, 2021.
*Certain Biden campaign proposals did not make it into the President's Build Back Better tax package, nor ultimately the House plan. Various senators introduce relatively severe measures, but those are not generally considered "in play" at this time.
**Set to expire after 2025 under the Tax Cuts and Jobs Act of 2017.

See disclosures at the end of this publication, which are an important part of this article.

Action Plan for Year-End 2021

In a changing market and tax environment, assessing your wealth plan and considering potential action steps may be especially useful.

STEPHEN P. POLIZZI, CFP®, *Director of Wealth Planning*

The world has experienced a strong economic recovery this year, even while facing continued challenges tied to the coronavirus. Supported by fiscal and monetary stimulus, many stock indexes have posted sharply positive year-to-date returns. However, prospects remain uncertain, given current inflationary pressures, Federal Reserve contemplation of "tapering" bond purchases, and the possibility of tax increases tied to the President's economic plan. In this environment, we feel it is especially important to assess personal wealth plans and to consider potential action steps before year-end—with the caveat that the nature and exact timing of tax changes remain unclear. We share some ideas in this article.

REVIEW YOUR PORTFOLIO

In an environment of attractive topline equity results, market dynamics have continued to shift, with value and growth style leadership changing hands over the course of the year, while bond yields remain exceptionally low despite a recent uptick tied to increased inflation. Given these dynamics, as well as changing personal circumstances, it may be prudent to revisit your asset allocation to make sure your investments remain in line with your long-term goals and objectives, and to help avoid taking unnecessary risks.

HARVEST LOSSES

Consult with your wealth manager and/or portfolio manager as to whether you have any significant capital gains or unrealized losses in this calendar year. You can offset any realized capital gains and up to $3,000 of ordinary income with losses, whether realized in 2021 or carried over from previous years. Be sure to abide by "wash sale rules," which apply if you purchase the same or substantially identical securities (or acquire a contract or option to do so) within 30 days before or after the sale resulting in a loss.

ASSESS YOUR GAINS

Current legislative proposals could lead to an increase in capital gains tax rates. Although it's generally said that taxes should not drive investment decisions, now may be a time to consider trimming some holdings that might already be candidates for sale. Short-term losses are typically more valuable than long-term losses due to tax/loss "netting" rules and the potential ability to offset gains taxed at higher rates. Note that proposed capital gains tax increases would take effect retroactively (although this may change), making it important to avoid accelerating sales if the tax or portfolio impact would otherwise be negative.

As a more general proposition, new retirees often see a reduction in taxable income that lasts until the start of required minimum distributions (RMDs) from retirement accounts, now at age 72. In such cases, it may also be worth looking at your capital gains tax rate (and whether it could be higher in the future) to see if accelerating the sale of appreciated securities could be appropriate.

MAXIMIZE RETIREMENT CONTRIBUTIONS

Use of retirement savings vehicles can provide significant opportunities for investment growth over time. The limit on annual employee 401(k) plan contributions is $19,500 for 2021 (plus an additional $6,500 for those over 50); and you can contribute up to $6,000 to a traditional individual retirement account (IRA) in 2021 ($7,000 if you are 50 years of age or older), though the tax deductibility of your IRA contribution may be reduced or disallowed if you also participate in a retirement plan at work and your earnings exceed certain thresholds.

Don't forget that your nonworking spouse can use your earnings to contribute to an IRA, in which case income-based phase-outs take place at higher levels than those for the working spouse. Moreover, you and/or your spouse can still contribute to a nondeductible IRA or convert a traditional IRA to a Roth IRA.

TRUSTS TO CONSIDER

Various trusts and other techniques are available under current law, allowing a donor to transfer wealth while retaining either an interest in or indirect access to the transferred assets, if needed. Depending on the outcome of current legislative activity, some of these techniques could be curtailed or prove less useful.

Spousal Lifetime Access Trust (SLAT)

A SLAT allows couples to retain access to assets while capitalizing on the gift tax exemption prior to its reduction by sunset after 2025 or by Congressional action. The grantor typically creates an irrevocable trust for the ultimate benefit of his or her descendants that permits the other spouse (or significant other) to draw on the assets at the discretion of the trustee, if needed. Additionally, a SLAT is typically considered a "grantor trust," which means that the grantor bears the income tax burden of any trust earnings, allowing the trust assets to grow tax free and potentially to experience greater appreciation. The other spouse can be provided with a special power of appointment at death to transfer the trust assets within a group of beneficiaries, including the grantor spouse, enabling continuing access for the grantor should the other spouse predecease him/her. If structured properly, the trust removes the assets from the estates of both spouses and can potentially capitalize on the generation-skipping tax exemption to benefit heirs over time without additional transfer taxes.

Grantor Retained Annuity Trust (GRAT)

A GRAT is an irrevocable trust to which the grantor transfers property and retains an annuity stream for the term of the trust with the remainder passing to heirs (or trusts for their benefit). Typically, the annuity is equal to the value of the property when originally transferred, plus interest, computed using the applicable IRS interest rate in effect at the time of the funding of the trust. Accordingly, upon creation of the trust, when any gift is determined, there is deemed to be no remainder to pass to the heirs—hence no gift. However, if the assets in the trust increase in excess of the IRS interest rate, there will be a trust remainder, which will pass to the heirs gift-tax-free at the end of the trust term. This strategy is particularly compelling when the IRS interest rate is low, as is the case today. Keep in mind that the grantor must survive the term of the GRAT to get the most out of this strategy. Note that GRATs could be affected by potential new rules affecting grantor trusts generally.

'Freezing' Your GRAT

With market performance over the past 18 months since the pandemic lows, many GRATs may now have significant appreciation well above initial "hurdle rates." Therefore, it may make sense to consider locking in these values and substituting lower-risk, less volatile assets, potentially with a higher tax basis to reduce the imbedded tax liability faced by beneficiaries. This may be accomplished by simply swapping in assets from the grantor (if allowed by trust provisions) or via a sale to the grantor, which would not trigger any tax consequences since the grantor is considered the owner of the trust for tax purposes.

MAKE ANNUAL GIFTS

Under current law, you can give up to $15,000 ($30,000 as a married couple) gift-tax-free to as many individuals as you like in 2021, without using your lifetime federal gift tax exemption. Although this is not included in the President's plan, proposals in the U.S. House and Senate would cap gifting amounts at lower levels.

All of your gifts, including those made directly to children via taxable investment accounts and/or UTMAs, 529 college savings accounts and, indirectly, to life insurance trusts to cover annual premiums, must be coordinated to ensure you don't inadvertently exceed the annual gifting limits for any one person. Also, you can pay your children's (or anyone else's) tuition directly to an educational institution, or medical expenses/health insurance premiums directly to the service providers, in unlimited amounts without dipping into the annual exclusion or lifetime gift exemption.

CONTRIBUTE TO A 529 PLAN

A potentially effective way to use the annual gift exclusion is to contribute to a 529 account on behalf of a family member or other individual. It's possible to front-load up to five years of exclusions in one 529 contribution. Although the contribution isn't tax deductible at the federal level, account assets grow tax free, and withdrawals are also not taxable if they are used for qualified education expenses, including both college and private K – 12. Many states provide a limited income tax deduction for residents who contribute to a 529. However, keep in mind that the range of investments available in the different plans can be quite limited and program specifics—and quality—vary.

CONVERT YOUR TRADITIONAL IRA TO A ROTH

For higher income earners, it may be advantageous to consider a Roth conversion this year to capitalize on current tax rates—especially with the potential for tax increases moving forward. Conversions are taxed in the year they take place and are typically considered most attractive if you believe your current tax rate will be lower than your rate when you retire (or start taking taxable distributions from a traditional IRA). Also, post-conversion, there is no requirement that you or your spouse take any withdrawals from a Roth IRA, thereby permitting the funds to continue to grow tax free for both lifetimes. Note that, under the SECURE Act,[1] most non-spouse recipients of inherited IRAs must fully withdraw their holdings within 10 years of the decedent's death. Depending on the active date of proposed tax legislation, an IRA conversion this year can capitalize on relatively low tax rates, reduce your estate for tax purposes and avoid a tax bill for beneficiaries, potentially during their peak earnings years, down the road.

ASSESS YOUR CHARITABLE GIVING

Year-end is typically an active time for charitable donations, and individuals can make deductible charitable gifts in cash of up to 100% of their adjusted gross income for 2021 (up from 60% previously).[2] Giving away appreciated securities can be an effective way to benefit from capital gains, with the donation of long-term public holdings providing a deduction of market value (compared to cost for short-term gains), up to 30% of adjusted gross income. Some individuals have chosen to bunch donations in a particular year to overcome the high standard deduction and allow for itemization of the gifts.

If you are age 70½ or older, you can donate up to $100,000 of your retirement distribution to charity this year and avoid paying taxes on those dollars. Rather than counting as a deduction, the amount gifted directly from your IRA to charity is simply excluded from income (although you must note the contribution on your income tax return). This makes the strategy particularly beneficial for those who take the standard deduction instead of itemizing.

TIME YOUR DEDUCTIONS AND INCOME

Politicians from various high-tax states are advocating the removal or increase of the $10,000 cap on state and local tax deductions, which would allow more individuals in those states to itemize. Although the outcome and timing are unclear, it may make sense to postpone payment of those taxes into 2022 to potentially capitalize on such a change. By the same token, acceleration of income to this year may be appropriate to benefit from the currently favorable tax environment, although its possible (though unlikely) that increases would be retroactive. Consult with your advisors for guidance.

MAKE SURE YOU AND YOUR FAMILY ARE PROTECTED

Consider reviewing your risk management program (i.e., your insurance policies) to ensure you have no gaps in coverage should you or your family members be party to a lawsuit or legal judgment. One specific type of coverage that is often overlooked and is critically important in providing overall protection is excess personal liability (umbrella) insurance. This kind of policy provides a backstop in the event you are sued for amounts in excess of the regular liability coverage offered by homeowner and automobile policies. As a general rule of thumb, you should consider coverage of up to your net worth to properly protect your family's assets.

Also, assess whether you might benefit from coverage for future long-term care, which can be a particularly costly outlay late in life. Individuals typically begin to consider whether or not to have this type of coverage between the ages of 50 and 70. Eligibility and premiums are a function of the applicant's health and age at the time of application, as well as the type of policy and features selected.

[1] Setting Every Community Up for Retirement Enhancement Act of 2019.
[2] Some states may not allow the deduction permitted at the federal level.

Finally, consider reviewing your life insurance coverage. Low interest rates and related dividend crediting rates are contributing to underperformance in some policies, creating potential for lapse if not addressed. In our view, it would be prudent to request in-force illustrations from the insurance carrier every couple of years to make sure there are no surprises down the road.

COVER YOUR BASES

Part of your late-year review should be simply to make sure you have addressed issues across your financial situation. To note some examples:

- Are the beneficiary designations correct on insurance and retirement accounts, particularly where you might have designated a trust for planning reasons?
- Do your payroll withholdings need to be adjusted?
- Are your Flexible Spending Account withholdings realistic, and are you on track to eliminate balances by the deadlines?
- If you are enrolled in a high deductible health plan, have you fully funded a health savings account?
- Have you reviewed your cash management strategy? Consider maximizing your earned interest rates while ensuring that you adhere to FDIC limits where applicable.
- Have you taken the opportunity to restructure your debt balances in light of low interest rates?
- Have your circumstances changed in any way that might require a reassessment of your asset allocation, or a fresh look at your estate planning?
- Are the individuals named in your estate planning documents, such as trustees, executors or attorneys-in-fact, still appropriate?
- Is your home adequately insured, given that valuations and rebuilding costs have increased substantially in many markets around the country?
- Have you taken steps to protect your personal and financial data? This may include a review of your credit report to address inaccuracies or identify unusual activity.

CONSULT WITH ADVISORS NOW

As we prepared this document, Congress was actively considering measures, some alluded to in this publication, that could change the tax picture for wealthier Americans. Combined with shifting market dynamics, this makes it especially important to work with your advisors to make sure that your accounts and planning are in line with your individual needs and can fully capitalize on currently available wealth strategies. We will provide further insights as the situation in Washington, DC, develops. Please contact your Neuberger Berman team with any questions about your portfolio or any topics covered in this article.

CAPITALIZING ON THE LIFETIME EXEMPTION

Although not targeted in the President's American Families Plan, it is possible that the current, historically high lifetime federal exemption of $11.7 million per person (or $23.4 million per married couple) from estate and gift tax may be reduced. The exemption is set to revert to pre-2018 levels after 2025 (a reduction of about 50%), but under some proposals that reduction (or more severe cuts) could occur in 2022 or even (although less likely) retroactively. For those who are able, we believe gifting above the historical exemption amount of $5 million (indexed from 2010) per person could be an effective way to move assets out of your estate on a gift-tax-free basis.* If you are uncomfortable with (or it's not feasible to make) such a transfer, gifting borrowed assets, lending assets to heirs, or employing certain trust vehicles may be worth considering. As part of this assessment, you may need to consider the level of your state tax exemption, if any.

*Connecticut remains the only state that currently imposes a gift tax.

Sector Spotlight

Here Come the Super Apps

All-in-one platforms are gaining traction globally, but can they break through in the U.S.?

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SCOTT WOODCOCK — *Senior Research Analyst, Global Equity Research Team*

People are becoming used to having multiple apps on their phones, but what could they think about having essentially all they need in one large application? It's a question that is gaining relevance with the acceleration of digital commerce during the pandemic, and as companies seek to gain the hearts and minds of mobile users in the years ahead.

The so-called "super app" means different things to different people. Blackberry founder Mike Lazaridis, who first coined the term, said it was "a closed ecosystem of many apps that people would use every day because they offer such a seamless, integrated, contextualized and efficient experience." In other words, it lets you do a lot of different things, and theoretically you become comfortable enough that you don't feel the need to leave the app to manage your life. However, the array of companies calling themselves or striving to be super apps varies, hailing from multiple industries, all with unique approaches to capturing this brass ring.

Where did "super apps" first emerge? Founded in 2003, one of the world's first leading super apps was Alibaba's AliPay payment service, which became omnipresent in China with the advent of smart phones, and allows members access to myriad third-party applications. It boasts 900 million users worldwide. Tencent's WeChat platform hit the scene in 2011, branching out from instant messaging to telephony and social media, as well as shopping, food delivery, payment and more. It has about a billion users worldwide.

THE APPEAL OF SUPER APPS HASN'T BEEN LOST ON THE WORLD AT LARGE. MANY PLAYERS, LARGE AND SMALL, HAVE WITNESSED THE EXPLOSION OF THE CHINESE SUPER APPS AND HAVE SOUGHT TO MIMIC THEIR SUCCESS.

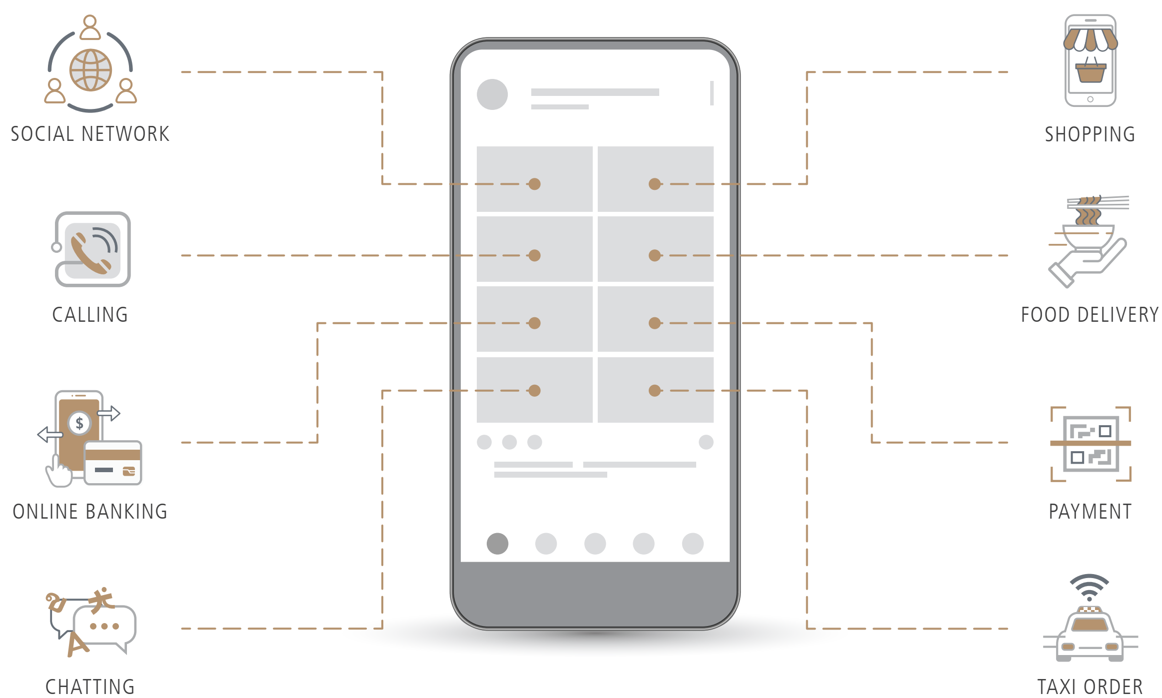
Central to the initial success of AliPay and WeChat was a lack of traditional internet access in China, so that when mobile phones became popular, there were fewer electronic competitors or established players to deal with. Many individuals didn't have access to banks, so electronic payments and banking services caught on quickly, even in the most remote locations in the country. The Chinese mobile phones available at the time were also relatively light on memory, thus reinforcing the appeal of having just a few apps on your phone with many smaller components, rather than multiple full-scale and dedicated apps. Finally, there's the matter of regulation. For many years, Chinese authorities gave their mega-tech companies free rein to operate and build on their unique economies of scale—something that appears to be changing (see below).

IMITATION GAME

Today, various dynamics favor the development of super apps in other parts of Asia and much of the emerging markets. The lack of legacy infrastructure has allowed companies in these regions to leapfrog on-premises mainframe-based technology and go directly to mobile solutions. The dissemination of cheap mobile phones has given underserved populations access to many services that were previously unavailable to them, including bank accounts and credit. Beyond expansion of the customer base, the business model also offers remarkable potential for deep relationships with customers, who may be engaged with super apps for hours at a time, throughout the day. Super apps can not only sell goods and services (or act as middlemen), but they can also access incredibly detailed customer data and use it for their benefit or share it at a price with other companies.

The appeal of super apps hasn't been lost on the world at large. Many players, large and small, have witnessed the explosion of the Chinese super apps and have sought to mimic their success in their particular markets within Asia and other emerging economies. Although they may be approaching the task from different industries, the core idea that they typically share is to employ a dominant service as their base and capitalize on that popularity to add services and revenue generators.

EVERYTHING YOU NEED?
Sample Super App Interface



For illustrative purposes only.

One standout is Grab, a Singapore-based company that began as a taxi service with a locations-based app to connect riders and drivers. To encourage engagement, the company purchased mobile phones for its drivers, who became very active users of an array of services offered within the app. The company expanded to include various ride-sharing services, and moved into food and package delivery, as well as investments, insurance and banking, where it poses a significant threat to traditional banks given their rich customer data and increasing brand loyalty. Other well-known names include MercadoLibre, a Latin American super app that began as a payment platform; Go-To Group, a recent combination of Indonesian ride-hailing and e-commerce startups; and Paytm, another payment platform that offers multiple mini-apps along the model developed by Chinese early actors. Many other companies across regions are working to gain traction as super apps.

WHAT ABOUT THE U.S.?

Even as Asian and Latin American players speed into the super app model, the going is much slower in the U.S. and Western Europe. These geographies tend to have a well-established technology infrastructure, limiting the need for mobile-based alternatives. In addition, players are entrenched and competition is fierce, with many financial companies looking to protect their territory and multiple technology names vying for the consumer from different vantage points.

Amazon is probably the closest thing to a super app in the U.S., given its omnipresence across the retail and publishing landscape, its role in entertainment and its thriving cloud business. However, the array of services it provides in one platform remains limited compared to some foreign counterparts, and the company would probably prefer not to call itself a super app for fear of attracting further regulatory scrutiny. Apple and Google also come to mind, but again their platform-based consumer offerings are not as comprehensive, and they have different priorities. Apple is more about combining its software and hardware to reinforce and expand its customer ecosystem; Google's far-flung operations certainly have extensive consumer components, but rather than drawing on a single app, the company seeks to leverage advantages in search, advertising, cloud and data to expand its reach.

In contrast, payments giant PayPal is clearly aspiring to be a financial super app, recently releasing an all-in-one digital wallet and payment application. PayPal got its start over 20 years ago in peer-to-peer (P2P) money transfer, and over time built its platform among merchants and consumers to become one of the largest branded e-commerce wallets globally—but to date has focused primarily on payments. The new app will feature a broader suite of financial services, such as high-yield savings accounts, coupons/deals and cryptocurrency trading, with the idea of selling multiple products to consumers on the platform, but also to increase the frequency of their engagement. Square is following a similar strategy, trying to capitalize on the traction it has with consumers in P2P with its Cash App to include additional financial offerings (stock and Bitcoin trading, debit card, buy now/pay later). Other well-known companies could have the ability to leverage their core platform to build a broader offering. For example, Airbnb has a trusted brand associated with lodging, which plausibly could extend into a broader array of travel-related services. Ride-sharing leaders Uber and DoorDash have already expanded into food and package delivery, while Intuit is looking to be an all-encompassing platform for small business.

UP-AND-COMING SUPER APPS

Grab (Singapore): Originally a ride-hailing service, added digital wallets in 2018; ticket sales, hotel bookings, food delivery, business loans, etc.; 187 million users.

Go-To Group (Indonesia): Merger of Go-Tek, a multi-service app that began as a motorcycle ride-hailing business, and Tokomedia, an e-commerce marketplace; over 100 million users and 2 million drivers.

Paytm (India): Largest mobile payments platform in India; food delivery, transport, travel booking and more; 60 million bank accounts and 350 million users.

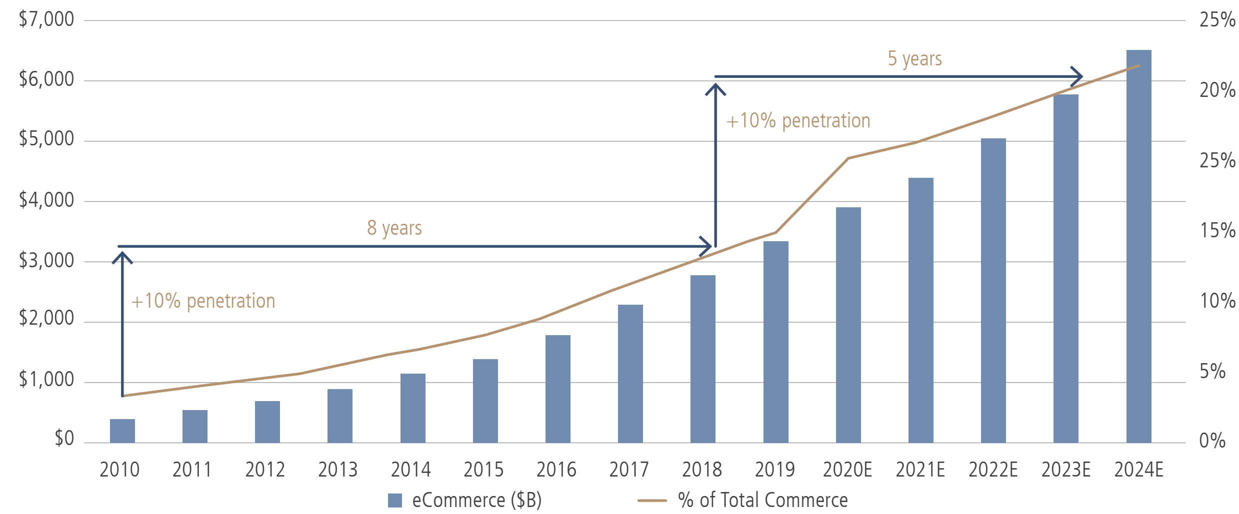
MercadoLibre (Argentina): Online marketplace matching buyers and sellers; real estate, payment, shopping; 132 million users.

PayPal (U.S.): Payment company with new digital wallet and payment application; 403 million active users.

Source: Rapyd.net, as of March 2021 (Grab and Paytm); Reuters (Go-To) as of May 2021; Statista, as of July 2021 (MercadoLibre) and June 2021 (PayPal).

THE DIGITAL TAKEOVER CONTINUES

Global Business-to-Consumer eCommerce Sales ($ Billions)



Source: eMarketer, KeyBanc Capital Markets Inc., Kohls.com. As of December 15, 2020.

CLOUD OF REGULATION

Although there are regional differences in the progress of super apps, one issue of general concern is regulation of technology companies and whether that may inhibit further growth and innovation. China was long willing to give tech leaders relatively free rein in light of their important role in modernizing the country. But increasingly wary of tech companies' concentrated power, the government has recently initiated a range of restrictions, freezing a high-profile initial public offering and enforcing anti-monopoly rules focused on the "platform economy."

Beyond the implications for Chinese companies, a key question is whether other governments will likely become more heavy-handed when it comes to tech regulation. For businesses operating within more democratic, less centrally planned regimes, there may be less danger and a greater ability to navigate the fine line of partnership with government and independence on operations and data. In some cases, for example, super apps have been able to facilitate vaccinations, albeit at the expense of reduced user privacy.

In the U.S., the issues of concentration and personal privacy have raised red flags across the political spectrum, and led to investigations and legal actions involving top technology companies. Although they certainly want to grow their businesses, Amazon, Google, Apple and Facebook in particular understand that they are under scrutiny, and face criticism regarding alleged uncompetitive practices from rivals and partners. Thus, the appeal of stepping out of their already substantial "lanes" must be carefully weighed against potential blowback. That said, less high-profile names may look for opportunities to build out their platforms and be less reticent about proclaiming their "super" status.

BOTTOM LINE

When it comes to technology, language can be less than precise. And while the term "super app" sounds exciting, to some degree it is more about marketing than reality. Could a company with a limited footprint be a super app because it says so? Or does the fact that a technology giant may not fill every last niche of the human experience somehow not make it super?

Labels aside, we believe that the development of broadly encompassing applications that incorporate many capabilities is a trend with legs, particularly in those geographies where companies have been able to move into mobile services directly and there is minimal legacy infrastructure to get in the way. This includes various emerging markets where the super apps are multiplying. Whether the narrowly defined super app gains traction in the U.S. and Europe remains an open question for us, but we believe it may be less interesting than how companies evolve to provide services that please consumers and minimize regulator angst.

See disclosures at the end of this publication, which are an important part of this article.

Trust Company Corner

Exploring Revocable Trusts

Working in concert with a will and other documents, revocable trusts offer valuable planning flexibility.

ELIZABETH M. SOMMER — *Chief Fiduciary Officer, Head of Personal Trust, New York, Neuberger Berman Trust Company*

Estate planning typically begins with the creation of a will or a revocable trust, but their respective roles are not always understood. Wills are what people typically think of when it comes to putting their affairs in order and controlling how their assets are distributed at death. Revocable trusts, together with a simple "pour-over" will, are a widely employed alternative that can accomplish similar goals and more. Although individual circumstances vary, we believe that the benefits of a revocable trust and pour-over will structure can often outweigh those of a will alone, and can make a real difference to heirs.

KEY FEATURES: WILLS AND REVOCABLE TRUSTS

A will takes effect at your death and covers property held in your name except for that which passes by other means, for example, jointly owned property, retirement accounts with named beneficiaries, life insurance proceeds with named beneficiaries and transfer-on-death (TOD) accounts. Wills must be executed in accordance with the formalities prescribed by state law. After your death, the will is presented to the probate court for authentication, and an executor is appointed who will then administer your estate and ultimately distribute your assets as provided in your will.

A revocable trust, also known as a living trust, takes effect when you sign it, and is "revocable" because you have the ability to change it or revoke it at any time during your life. Ideally, assets in your individual name should be retitled into the trust name. Typically, you are named as the sole trustee during your life, so that you maintain control of and access to your assets within the trust as before. At your death, the trust becomes irrevocable, and assets in it (together with those assets added by a pour-over will or beneficiary designation) are distributed according to the trust terms. A pour-over will transfers to the trust any assets you did not transfer during your lifetime. Beneficiary designations (for retirement accounts, for example) also can provide that payments be made to any trusts created under the agreement upon your death.

BENEFITS OF A REVOCABLE TRUST

Both revocable trusts and wills are important documents, so what are some benefits to centering your planning on a revocable trust?

1. Protection in Incapacity

During your lifetime, a revocable trust can permit a co-trustee or successor trustee to step in and administer the assets in the trust in the event you become incapacitated, without the need for a court to establish a guardianship or conservatorship. Although a durable power of attorney can provide similar authority, there may be difficulties or delays in establishing them with financial institutions.

2. Timely Control of Assets

A commonly cited issue with wills is that they are subject to probate. While probate often isn't an ordeal, it still can result in a delay—an issue that has intensified recently, with pandemic-related closures in some court systems causing multiweek delays in probating wills. Until the will is admitted to probate and the executor is appointed, all of your accounts are frozen. In contrast, the assets transferred to your revocable trust are not controlled by your will, and the co-trustee or successor trustee has authority over those assets immediately. This is important for several reasons, including the ability to provide funds that family members rely on for support, and the ability to actively manage assets in light of market conditions (something that may be particularly valuable in times of increased market volatility tied to factors such as rising rates, trade conflicts and concerns about global growth).

3. Privacy
Wills are public documents that are filed with the court for everyone to see. While a court may ask to look at a revocable trust, it may not be placed in the public records. This is an advantage for publicity-shy celebrities, and for all those who value their privacy.

4. Planning Equal to Wills
Generally, all of the planning you can accomplish with a will can take place through a revocable trust, including the establishment of additional trusts such as a generation-skipping or credit shelter trusts. In other words, a revocable trust can be the foundation of your whole estate plan.

5. Ease of Administration
Trusts can provide administrative ease that wills cannot. For example, if you need to change the trustee of a trust created under your will, a formal court proceeding is required. With a revocable trust (which becomes irrevocable at your death), the change of a trustee for any "sub-trusts" can generally be accomplished with relatively simple paperwork.

6. Reduced Exposure to Multiple Probates
For those with property in multiple states, placing those assets in a revocable living trust can be a way to avoid multiple "ancillary" probate proceedings.

CONSIDERATIONS

While revocable living trusts have substantial benefits, there are issues to consider.

1. Costs typically aren't lower. Revocable trusts are not designed to save on taxes or fees while you are alive. Because the trust is revocable, all the income to the trust continues to be taxable at individual rates on your Form 1040, and the trust assets remain in your taxable estate at death. Moreover, the setup costs of a revocable trust and pour-over will structure are generally comparable to those of a will. Again, all of the planning contained in a will also can generally be accomplished through a revocable trust.

2. The paperwork adds up. To take full advantage of a revocable trust, you need to transfer assets into the trust during your life. And that means changing titles on various accounts, including those with banks and investment firms, which is an effort that is sometimes neglected.

3. Revocable trusts are not designed for creditor protection or Medicaid planning (but a will isn't, either).

4. Not all assets need to or can be transferred to your revocable trust. Although titles to bank and investment accounts are easily changed to your revocable trust, for some it may not be practical or cost-effective to transfer real estate because additional legal work is required (though it may be worth doing if you own property in several states, as noted above). IRAs and other retirement accounts cannot be transferred to a trust during your life and will pass according to the beneficiary designation (although the beneficiary can be one of the continuing trusts); "transfer-on-death" (TOD) accounts will automatically pass to named beneficiaries.

5. Assets slip through the cracks. As useful as revocable trusts can be, it's almost inevitable that some assets will be left out, whether because they are inconvenient, inappropriate or simply because they've been forgotten.

FITTING TRUSTS INTO YOUR PLAN

The likelihood that all your assets will not wind up in the trust during your life is a key reason to also have a pour-over will, which allows for the transfer of those assets to the trust. Certain other actions also must be accomplished through a will, including naming of a guardian for minor children.

Keep in mind that, like a will, revocable trusts should fit with other aspects of your estate plan—for example coordinating with beneficiary designations for retirement or TOD accounts. As part of your planning you should also have in place other key documents, including a health care proxy, "living will" and durable power of attorney. Even if you have a revocable trust, a durable power of attorney is also advisable. A power of attorney can be used to transfer assets to the revocable trust, sign tax returns and handle real estate closings for assets not in the trust, among other tasks. Finally, it will be important to keep your revocable trust up-to-date and make any changes as needed, depending on revisions to tax laws, changes in assets or significant life events.

In sum, we believe the various benefits of revocable trusts, including continuity and efficiency, make them well worth discussing with your attorney and other advisors, as part of your overall estate planning.

See disclosures at the end of this publication, which are an important part of this article.

Highlights 4Q 2021

FROM THE ASSET ALLOCATION COMMITTEE

Our outlook for the next 12 months is cautiously positive, although short-term market volatility appears likely given worries about supply disruption, inflation, financial tightening and China growth.

Equities: U.S. small-cap stocks, as well as non-U.S. developed and emerging markets, appear to provide value relative to U.S. large caps, which were downgraded to a 12-month underweight view. Across U.S. equities, we lean toward value and cyclicals, with defensive and growth stocks providing balance to portfolios.

Fixed Income: With low yields and a likely upward bias in interest rates, investment grade bonds generally offer limited return potential. We favor high yield and floating-rate loans, while emerging market debt valuations remain appealing.

Commodities: Commodities could provide exposure to a surge in pent-up demand, as well as a hedge against elevated inflation. Gold and other precious metals could serve as a safe haven during near-term uncertainty.

Private Equity and Real Estate: While private equity valuations appear elevated, a focus on operational improvements to businesses may create value away from potential public market volatility. Private real estate is enjoying tailwinds from economic reopening and inflationary pressures.

All views are over the next 12 months unless otherwise stated. See disclosures at the end of this publication, which include additional information regarding the Asset Allocation Committee and the views expressed.

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The views expressed herein may include those of the Neuberger Berman Multi-Asset Class (MAC) team, Neuberger Berman's Asset Allocation Committee and Neuberger Berman's Investment Strategy Group (ISG). The Asset Allocation Committee is comprised of professionals across multiple disciplines, including equity and fixed income strategists and portfolio managers. The Asset Allocation Committee reviews and sets long-term asset allocation models, establishes preferred near-term tactical asset class allocations and, upon request, reviews asset allocations for large, diversified mandates. Tactical asset allocation views are based on a hypothetical reference portfolio. ISG analyzes market and economic indicators to develop asset allocation strategies. ISG consists of five investment professionals and works in partnership with the Office of the CIO. ISG also consults regularly with portfolio managers and investment officers across the firm. The views of the MAC team, the Asset Allocation Committee and ISG may not reflect the views of the firm as a whole, and Neuberger Berman advisers and portfolio managers may take contrary positions to the views of the MAC team, the Asset Allocation Committee and ISG. The MAC team, the Asset Allocation Committee and ISG views do not constitute a prediction or projection of future events or future market behavior. This material may include estimates, outlooks, projections and other "forward-looking statements." Due to a variety of factors, actual events or market behavior may differ significantly from any views expressed or any historical results. Nothing herein constitutes a prediction or projection of future events or future market or economic behavior. The duration and characteristics of past market/economic cycles and market behavior, including length and recovery time of past recessions and market downturns, is no indication of the duration and characteristics of any current or future market/economic cycles or behavior.

A bond's value may fluctuate based on interest rates, market conditions, credit quality and other factors. You may have a gain or loss if you sell your bonds prior to maturity. Of course, bonds are subject to the credit risk of the issuer. Neither Neuberger Berman, nor its employees provide tax or legal advice. You should consult your accountant, tax adviser and/or attorney for advice concerning your particular circumstances. This information should not be construed as specific tax or investment advice. Please contact a tax advisor regarding the suitability of tax-exempt investments in your portfolio. If sold prior to maturity, municipal securities are subject to gains/losses based on the level of interest rates, market conditions and the credit quality of the issuer. Income may be subject to the alternative minimum tax (AMT) and/or state and local taxes based on the investor's state of residence.

IMPORTANT: The projections and other information generated by a Monte Carlo analysis tool regarding the likelihood of various investment outcomes are hypothetical in nature, do not reflect actual investment results and are not guarantees of future results.

A Monte Carlo analysis runs multiple simulations of your wealth analysis against future market conditions. The result of introducing random investment volatility to the analysis produces a range of values that demonstrates how changing investment markets may impact your wealth. Tools such as the Monte Carlo analysis will yield different results depending on the variables inputted, and the assumptions underlying the calculation.

Hypothetical Annual Tax Alpha by Return Regime

The returns presented reflect hypothetical performance an investor would have obtained had it invested in the manner shown and does not represents returns that any investor actually attained. Neuberger Berman calculated the hypothetical results by running a model portfolio on a backtested basis using the methodology described below. Certain of the assumptions have been made for modeling purposes and are unlikely to be realized. No representation or warranty is made as to the reasonableness of the assumptions made or that all assumptions used in achieving the returns have been stated or fully considered. Changes in the assumptions may have a material impact on the hypothetical returns presented.

Methodology

The investment process represented in the NB BH Tax Alpha Model: The model is based on assumption that the annualized return is 0%, 6% and 10% while the annualized volatility is 25% and 35%. Tax alpha figures assume an investment that is taxed at 50% short-term and 50% long-term rates (40.8% and 23.8%, respectively, under the current tax regime and 40.8% for both under the Biden proposal scenario.) The correlation to the S&P 500 is assumed to be 0.3 with 500 stocks in the portfolio and a dividend yield of 2%. Fees are assumed to be 0.35% over a typical passive portfolio, with no transaction costs and monthly rebalancing. A loss of 5% is the assumed threshold for harvesting.

When calculating after-tax returns, the model applies the highest U.S. federal tax rates. For short-term gains, the highest U.S. federal marginal income tax rate is 43%. For long-term gains, the highest U.S. capital gains tax rate is 23%. These assumed tax rates are applied to both net realized gains and losses in the portfolio. Applying the highest rate may cause the after-tax performance shown to be different from an investor's actual experience. Investors' actual tax rates, the presence of current or future capital loss carry forwards, and other investor tax circumstances will cause an investor's actual after-tax performance to be over or under model estimates presented here. In periods when net realized losses exceed net realized gains, applying the highest tax rates to our calculations illustrates the highest after-tax return that could be expected of the portfolio, and assumes the maximum potential tax benefit was derived. Actual after-tax returns will vary. As with all after-tax performance, the after-tax performance reported here is an estimate. In particular, it has been assumed that the investor has, or will have sufficient capital gains from sources outside of this portfolio to fully offset any net capital losses realized, and any resulting tax benefit has been included in the model's computation of after-tax performance.

The investment process represented in the Russell 1000 (Simulated) model portfolio has multiple steps: Benchmark after-tax returns are simulated for the portfolio using a hypothetical, after-tax benchmark portfolio with the same inception date, cash flows, cost basis, and tax rates as the client portfolio. The after-tax benchmark's capital gain realization rate is based on the average turnover rate of the pre-tax benchmark and ending gain or loss of the after-tax benchmark for each period. After-tax benchmark returns are hypothetical, do not reflect actual trading, and may not be relied upon for investment decisions.

Hypothetical backtested returns have many inherent limitations. Unlike actual performance, it does not represent actual trading. Since trades have not been actually been executed, results may have under- or over-compensated for the impact, if any, of certain market factors, such as lack of liquidity, and may not reflect the impact that certain economic or market factors may have had on the decision-making process. Hypothetical backtested performance also is developed with the benefit of hindsight. Other periods selected may have different results, including losses. There can be no assurance that the Neuberger Berman will achieve profits or avoid incurring substantial losses. Neuberger Berman managed accounts in the manner reflected in the models during a portion of the backtested time periods shown.

Unless otherwise indicated, results shown reflect reinvestment of any dividends and distributions. Unless otherwise indicated, the hypothetical performance figures are shown gross of fees, which do not reflect the deduction of investment advisory fees, transaction costs and other expenses. If such fees and expense were reflected, returns referenced would be lower. Please note that there is no comparable reduction from the indices for the fees. Indexes are unmanaged and are not available for direct investment. The use of tools cannot guarantee performance. Investing entails risks, including possible loss of principal. **Past performance is no guarantee of future results.**

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Hypothetical growth examples are for informational and educational purposes only.

For more information on COVID-19, please refer to the Centers for Disease Control and Prevention at cdc.gov.

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