IQ

Investment Quarterly
Summer 2019

NEUBERGER | BERMAN

INVESTING DEEP IN THE CYCLE

AS THE U.S. ECONOMIC EXPANSION MOVES PAST THE DECADE MARK, WE OFFER THREE IDEAS TO HELP KEEP PORTFOLIOS ON COURSE.

JOHN F. GEER, JR., *Managing Editor*

Rebounds, Records and Uncertainty

A reminder about investment principles emerges in a transitional environment.

The fourth quarter of 2018 and its aftermath in 2019 will likely be talked about for years to come. The reason comes down to math: If you sold after the S&P 500's 13.5% fourth-quarter decline, you would have missed out on the subsequent 18.5% recovery through June. Similar to past market swings (e.g., late 2015 and early 2018), this brings to mind the enduring wisdom that overreacting to current volatility can be detrimental to long-term investment health. By the same token, staying invested consistent with individual goals and risk tolerance, while engaging where feasible in portfolio "tilts" to capitalize on short-term market conditions, can provide a solid foundation for portfolio growth potential.

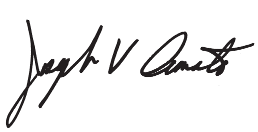
The first-half market turn was especially remarkable given that the current U.S. economic cycle recently became the longest in modern history—over 10 years starting in mid-2009. How much further can it go? That's the object of considerable debate. Recent pressures include a slowing global economy and U.S.-China trade tensions, which at times have dominated market sentiment. Corporate earnings, supported by the 2017 stimulus for much of last year, look to be in the low single digits for 2019. Meanwhile, the inverted yield curve, although imperfect in projecting recessions, is reflecting the bond market's economic pessimism.

That said, this year's equity rally has largely been about policy rates, and the Federal Reserve may be entering a phase of rate reductions designed to offset trade hazards—something that for now could help risk assets, particularly "high-beta" stocks like small caps that stand to benefit from overall market strength as well as non-U.S. equities, which have recently trailed U.S. counterparts.

More broadly, it's worth considering how the current stage in the economic expansion may affect market opportunities and risks. In this edition of *Investment Quarterly*, our cover story provides three ideas on approaching late-cycle investing. Other topics include yield benefits of preferred securities, Fed policy choices and U.S.-China trade dynamics, as well as a midyear update on our "Ten for 2019" investment outlook. On the planning front, we look at saving for education and establishing domicile. I hope you enjoy this issue of *IQ*.

On a final note, I am pleased to welcome Stephanie Luedke, who recently joined the firm as Head of Private Wealth Management. Stephanie will guide the strategic integration of broader investment choices and expanded wealth management services—part of our ongoing efforts to meet the evolving needs of our clients.

As always, please do not hesitate to contact your Neuberger Berman team with any questions about the markets or your portfolio.



JOSEPH V. AMATO
President and Chief Investment Officer—Equities

Asset Matters

Investing Deep in the Cycle

As the U.S. economic expansion moves past the decade mark, we offer three ideas to help keep portfolios on course.

JOSEPH V. AMATO — *President and Chief Investment Officer—Equities*
ERIK L. KNUTZEN, CFA, CAIA — *Chief Investment Officer—Multi-Asset Class*
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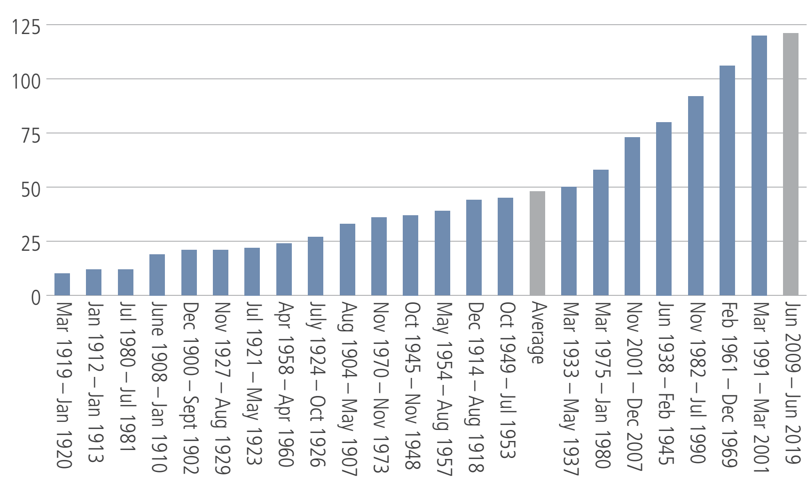
Investors are beginning to think about when and how the current, exceptionally long, business cycle will end, and what it could mean for their portfolios. The expansion began in 2009, and despite some fits and starts has endured with the help of generous monetary stimulus and, in recent years, the support of tax cuts and deregulation in the U.S. But nothing lasts forever. And although our base case is for a "soft landing" and extension of global growth, there are near-term dangers including trade tensions, slowing globalization and the potential for monetary mistakes. As a result, we believe it's prudent to think about positioning should we in fact be nearing a slowdown.

A CYCLE TO REMEMBER
U.S. economic expansions since 1900, ranked by length in months



Source: National Bureau of Economic Research, OECD. Data as of June 2019.

Theoretically, the approach of an economic downturn implies the need to allocate less to "risk assets" like equities and lower-quality bonds, and more to "save-haven" assets like government bonds. But it's a balance. Such a reduction in risk exposure may mean missing out on potential bursts of leverage-driven economic activity and earnings growth, and resulting market surges that sometimes happen late in a cycle. Meanwhile, volatility associated with an aging expansion may actually increase correlations between stocks and bonds, reducing the value of the diversification designed to help mitigate against market weakness.

The current environment only makes such a transition more difficult. Bond yields are much lower than in past cycles. As a result, the reduction in long-term return profile for rebalancing from equities to bonds (assuming we avoid a near-term market decline) could be substantial. Moreover, the economy has changed structurally—suggesting that we could be in for longer, less extreme ups and downs than in the past. This could mean a soft landing followed by an eventual economic downturn that is mild but relatively long in duration.

Recessions have typically started in a number of ways: with economic malaise or some kind of geopolitical event.[1] However, factors that can make them worse appear less impactful today: Inflation shocks are less likely due to global supply chains and labor markets, aging populations and automation; energy shocks are less of a danger now that we rely less on OPEC countries for fuel; and a shift to services and just-in-time manufacturing supply chains have reduced the likelihood and impact of inventory imbalances. At the same time, something that might reduce the length and severity of downturns may not be as readily available: With the extensive monetary easing after the financial crisis, the Federal Reserve has less room to cut rates to help lift the economy out of recession (see "Unlocking Inflation" on page 31). For better or worse, the net result appears to be the potential for longer, less extreme market cycles.

RECESSIONS HAVE TYPICALLY STARTED IN A NUMBER OF WAYS: WITH ECONOMIC MALAISE OR SOME KIND OF GEOPOLITICAL EVENT. HOWEVER, FACTORS THAT CAN MAKE THEM WORSE APPEAR LESS IMPACTFUL TODAY.

How might investors adjust? Keep in mind that the foundation of an investment plan is a well-considered strategic asset allocation, matched to your personal goals and risk tolerance. In addition, you may choose to apply tactical portfolio tilts to capitalize on current market dynamics. Within that planning framework, here are three ideas that can help you navigate an evolving market.

LATE-CYCLE: PARTICULARLY CHALLENGING FOR INVESTORS

MARKET CONDITIONS		PORTFOLIO POSITIONING VIEWS	
EQUITY VALUATIONS	Full & Rising	**EQUITIES**	**Overweight** (but tilted to growth/quality)
CREDIT SPREADS	Tight	**CREDIT**	**Underweight** (but look to earn illiquidity premia and high cash flows)
BOND CURVES	High & Flat	**BONDS**	**Underweight** (as yields are lower than in past cycles)
VOLATILITY	High	**HEDGE FUNDS & UNCORRELATED**	**Overweight** (but focus on genuinely uncorrelated strategies)

Source: Neuberger Berman. Overweight and underweight positioning views reflect portfolio positioning views and are for illustrative purposes only. See end disclosures for additional information regarding the Neuberger Berman Multi-Asset Class team and Asset Allocation Committee views expressed.

[1] See "Preparing for the Next Downturn," *Investment Quarterly*, Fall 2018.

IDEA 1: DISTINGUISH SIGNALS FROM NOISE

When looking at the transition from late-cycle to end-cycle, investors often consider data from two places: the real economy and financial markets.

Financial markets are forward-looking. That is why, in the past, equity and credit markets have often sold off and government bond yield curves have often flattened and inverted well in advance of a downturn in GDP growth or corporate earnings. All three of these indicators were flashing red at the end of 2018, but we think they are compromised as economic forecasters. Markets are more liquid nowadays, so selling associated with de-risking can actually accentuate market declines without a real-world basis.

Back in 2016, many investors focused on volatile financial market conditions when, in order to see where the economy was actually going, they should have been paying more attention to robust-looking U.S. fundamental data, such as housing starts or consumer confidence.

Today, economic indicators paint a mixed picture. The table below shows data points that are often considered indicators of the potential for imminent downturns. Several suggest that the economy is still mid- or in some cases even early-cycle. Looking at conditions outside the U.S., the data trends suggest that the end of the cycle is even further away: Recoveries in European employment, wage growth, inflation and industrial activity still lag those in the U.S., for example, potentially leaving room for further improvement.

SIGNALS FROM REAL ECONOMY REMAIN LARGELY REASSURING

	What's Happening?	Signaling Risk?
U.S. Weekly Initial Jobless Claims	Resumed declines this year after rising slightly at the end of 2018.	○ ● ○
U.S. ISM Manufacturing Index	May have peaked in August 2018, but still in expansion territory.	○ ● ○
Conference Board U.S. LEI	Slow improvement until a somewhat negative reading in June.	○ ● ○
U.S. Output Gap	Marginally positive and still rising.	○ ○ ●
U.S. Household Debt-to-Income Ratio	Settled in a 75–80% range since 2012, a level last seen in 2003 and well below the 105% peak seen in 2009.	○ ○ ●
Net Debt-to-EBITDA Ratio (U.S. ex-Financials)	The current level of 1.6x is lower than the 1.8x before the dotcom bubble bear market, but higher than the 1.4x before the financial crisis.	○ ● ○
Global Earnings Per Share	Still only 10% higher than the previous peak.	○ ○ ●
M&A (prev. 12 mo. as % of market cap)	The current level of 5.5% is only half the level reached before the previous two recessions.	○ ○ ●
IPOs (prev. 12 mo. as % of market cap)	The current level of 0.2% is less than half the level reached before the previous two recessions.	○ ○ ●

Source: Citi Research, Institute for Supply Management, Conference Board, Federal Reserve Bank of St. Louis. Data as of June 30, 2019. For illustrative purposes only. Historical trends do not imply, forecast or guarantee future results. 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.

Eyes on Corporate Debt, China and Trade

There are some areas to watch. Investment-grade companies are carrying more debt, particularly in the lower-rated BBB bond sector. But much of this is in traditionally defensive, non-cyclical sectors to take advantage of very low, long-term interest rates, and many issuers are planning to reduce their debt levels. In high yield bonds and loans, the picture is mixed; a longer-but-shallower downturn would likely imply a higher default rate than in previous cycles, and lower recovery levels. That makes a strong case for a quality-focused, fundamentals-driven approach to credit. But we believe the workout of imbalances in the credit markets is likely to be a long process rather than a sudden shock that could spark an economic decline.

China also bears scrutiny, and not just because it is the world's second-largest economy. It has been in a slowdown in recent years, exacerbated recently by its trade dispute with the U.S. The government has responded with stimulus, and we are anticipating signs of recovery as the year progresses. More broadly, investors should keep an eye on the overall impacts of trade conflict, as tariffs and a resulting chilling effect for global companies are offsetting many of the economic gains from tax relief two years ago.

A key, however, is to consider the underlying fundamental data as a more reliable window into economic health than more volatile financial markets.

IDEA 2: REASSESS ASSET ALLOCATION

The fundamental late-cycle investing challenge is to maintain exposure to growth potential without losing control of overall portfolio risk. Diversification is key, but as mentioned this is much more difficult amid low bond yields.

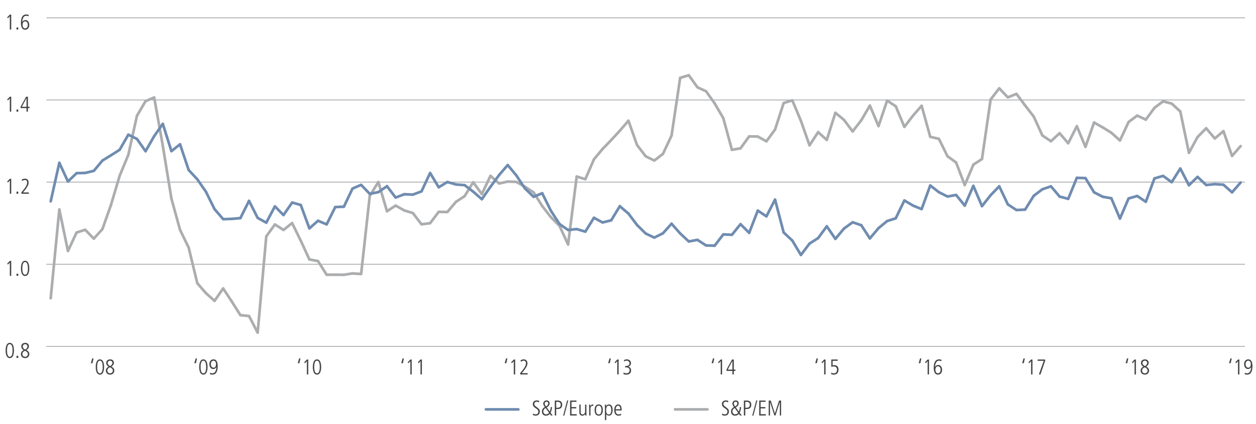
Inflation-related strategies. Of the risks facing bonds, a central one is inflation. For structural reasons, we think the probability of long periods of high inflation is low, but it is prudent to expect some increase during the mature part of a business cycle. That lends support to a case for inflation-protected bonds, as well as carefully selected floating-rate bank loans. Beyond bond markets, commodities have often performed well during inflation spikes and the later stages of the cycle, as have publicly traded real estate securities. Because inflation expectations are so muted, many of these markets remain attractively priced.

Different return sources. In seeking genuine diversification, we think it's worth looking at hedge funds (whether as private vehicles or "liquid alternative" mutual funds). Many of the most popular strategies, such as long-short equity, can reduce one's equity market exposure in a portfolio. And "uncorrelated strategies" derive substantially all their returns from market-agnostic trading approaches; these include equity market-neutral, trend-following, macro, volatility and arbitrage strategies.

Private markets also offer significant diversification benefits. Buyout strategies, although fully priced, can provide exposure to operational improvements in businesses and innovative products, as well as lower volatility and an illiquidity premium. Other areas of interest include venture and growth-capital funds, the less-expensive European buyout markets, and idiosyncratic opportunities via co-investment and secondaries, as well as cash-flow-generative niches such as private debt, trademarks and royalty streams.

Broader regional exposures. While we may speak of the late-cycle dynamics of the global economy, the fact is that different regions appear to be at different points in their cycles—and China and other emerging markets are navigating their own megacycles of economic development and fiscal reform. That may explain investment opportunities such as lower equity price-to-earnings ratios in Europe than in the U.S., or higher-rated emerging markets sovereign bonds trading with credit spreads similar to those of riskier U.S. and European high yield corporate bonds.

EQUITY MARKETS APPEAR CHEAPER OUTSIDE THE U.S.
Price/Earnings of U.S. Equities vs. Europe and Emerging Markets



Source: Bloomberg. Data as of June 30, 2019. S&P 500, MSCI Europe and MSCI Emerging Markets (EM) indices.

Within the U.S., where late-cycle characteristics are more evident, we would broadly favor a tilt toward larger, more-liquid stocks and higher-quality businesses. Investors may also want to consider regional cyclical differences when allocating domestically: If the rest of the world is lagging the U.S. in this cycle, it makes a case for U.S. companies with high non-U.S. dollar sales.

IDEA 3: IDENTIFY 'THROUGH-CYCLE' THEMES

One way of dealing with cyclical investment challenges is to look for investments whose performance is not primarily determined by the business cycle, or whose dynamics supersede or "look through" that cycle.

WHILE ECONOMIC CYCLES VARY AND EACH STAGE OF A CYCLE IS DIFFERENT, WE THINK THE NOTIONS OF LOOKING PAST MARKET 'NOISE' TO FUNDAMENTALS, ALLOCATING THOUGHTFULLY AND SEEKING STRATEGIC OPPORTUNITIES ARE USEFUL AT ANY TIME.

Emerging Markets

With emerging markets, on the one hand we are dealing with an asset class that appears highly sensitive to the business cycle because of its importance in global supply chains. On the other hand, emerging markets are also navigating their own megacycles: moving up the world's value chain, becoming consumers as well as its producers, and adopting fiscal, monetary-policy, economic and financial reforms.

Should China's stimulus measures fail to gain traction or the U.S. dollar continue to strengthen, neither would be positive for emerging markets. But they are now better able to absorb such stresses, as shown during the 2008 – 09 financial crisis, when many of their economies fared much better than those of developed market economies.

Thematic Opportunities

Similar long-term investment themes are available elsewhere. Some, such as mitigating the impact of climate change, represent both vast challenges to society and billions of dollars' worth of growth-investment potential. Others, such as Big Data, artificial intelligence, 5G connectivity and autonomous vehicles, have the potential to drive change in many parts of our lives.

These themes could be sources of resilient earnings growth during a period of widespread earnings deterioration; volatility around companies within a theme is typically driven by news flow around the theme rather than, say, U.S. dollar strength or other economic data. Of course, investors who look through cycles too blithely can get sucked into bubbles—particularly during the later stages of a cycle. So, it's important to have confidence that a given theme is real, and that pricing has a relationship to tangible fundamentals.

Bottom Line: Back to Basic Fundamentals

While economic cycles vary and each stage of a cycle is different, we think the notions of looking past market "noise" to fundamentals, allocating thoughtfully and seeking strategic opportunities are useful at any time. A keen understanding of risk will be important in the coming months and years, as will the ability to be nimble, to help minimize vulnerabilities and to capitalize on dislocations and value opportunities when they occur. More broadly, maintaining a steady approach, consistent with your particular circumstances and balancing risk and reward, can help keep your portfolio grounded regardless of whatever the point within the economic cycle.

For further details, read our white paper, *Survive and Thrive: Robustness, Flexibility and Opportunism in Late-Cycle Investing at www.nb.com/latecycle.*

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

The Preferred Income Advantage

In an environment of exceptionally low bond yields, preferred shares may provide an opportunity to boost income.

INVESTMENT STRATEGY GROUP

At one time, preferred securities were part of the regular vocabulary of total-return-oriented investors. After some years of disinterest, they now are seeing a renaissance and increased issuance. This is in part due to changes in bank capital rules, which allow these securities to be considered as equity and additive to bank excess capital. It is also tied to the low-yield environment and the "qualified dividend income" tax treatment that many preferred issuances receive.

Preferred securities offer their unique structure, often higher credit quality, moderate exposure to interest rate fluctuations versus some other types of fixed income securities, and generous after-tax yields. In particular, we believe they can be appropriate for allocations within fixed income as a way to enhance overall yield.

PREFERRED SECURITIES IN A NUTSHELL

Preferred securities are equities with bond-like characteristics. Like common stock, they represent an unsecured interest in the issuing company with no scheduled principal maturity date (although they are often callable). Their dividend is generally higher than for those of common shares and must be paid before them. Like bonds, they are issued at a par value (often $25 for traditional preferred), and they typically trade like fixed income instruments.

Investors should be aware of certain variations:

Fixed Rate: A traditional form of preferred securities offering a fixed rate of income in perpetuity. Although sharp changes in credit conditions affect price movements (as they would a corporate bond), in normal times they tend to be sensitive to Treasury rate fluctuations.

Fixed to Floating Rate: Make fixed-rate payments for a set period (often 10 years), after which the issuer can call the bonds or change them to a floating rate. This feature limits interest-rate sensitivity.

Variable Rate: Similar to floating rate loans, payments are usually tied to a short-term benchmark like Libor. This makes them particularly insulated from rising rates, though susceptible to lower rates as well.

Fixed to Fixed Rate: Pay a fixed interest rate that resets every five years if the security is not called at par (capital returned to investors) by the issuer, which reduces interest-rate sensitivity. These securities are generally only available to institutional investors.[1]

IMPLICIT CREDIT QUALITY

In a low-rate environment, bond investors often stretch for yield by moving down the quality spectrum. For example, the spread between Treasury and high yield bond yields has narrowed in the wake of the long expansion, and carries risk if the economy loses momentum.

Preferred securities have traditionally offered attractive yields because of their unsecured status and the ability of companies to suspend or eliminate dividends. As such, the securities may carry credit ratings that are non-investment grade or at low levels of investment grade. However, the issuers are often investment-grade quality, and their overall balance sheets and cash flows are generally strong. Many issuers are in the financial sector, and while this represents industry concentration risk, rarely have banks been better capitalized than today, following strengthened government regulations that mandate higher levels of reserve capital and lower levels of balance sheet leverage.

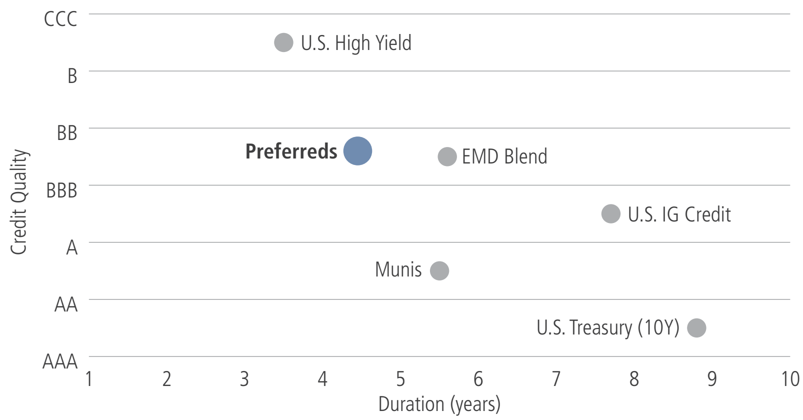
[1] In addition to those listed, "convertible preferred" securities provide an option to convert to the issuer's common stock at a certain ratio after a certain date. We did not include convertibles in the main body of our discussion because of their convertibility features, which make them a qualitatively different investment asset from other preferreds.

MODERATE INTEREST RATE RISK

As mentioned, the terms of preferred securities vary, with different levels of interest rate risk. For investors who want yield with lower rate sensitivity, holding a component of variable rate preferreds (fixed to floating, floating rate) will help keep duration (sensitivity to rates) in check.

Preferred securities' current combination of high underlying issuer credit quality and limited duration is supported in the display below.

CREDIT RISK AND INTEREST RATE RISK
As of June 30, 2019

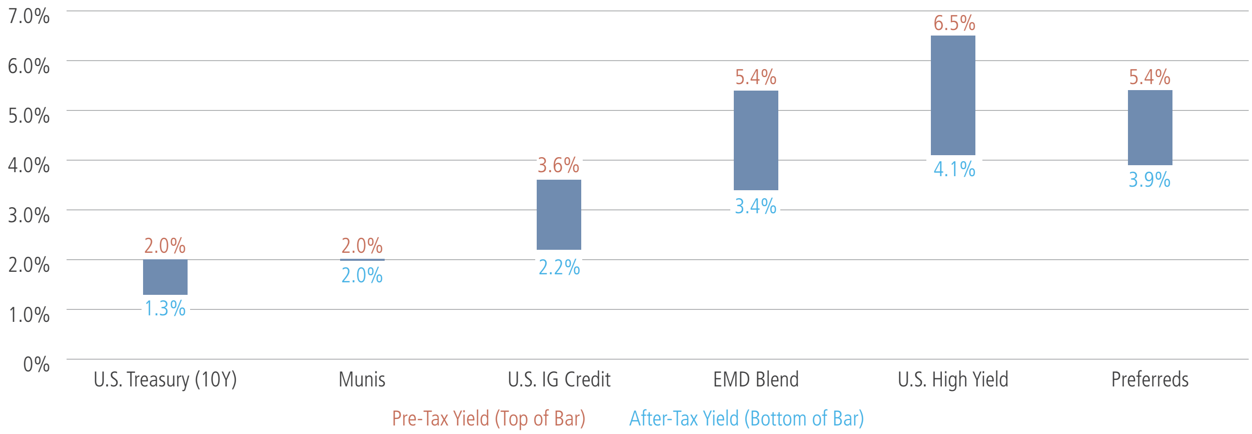


Source: Bloomberg, JP Morgan. Indices as follows: U.S. Treasury: U.S. Generic Government 10-Year Yield; Munis: Bloomberg Barclays Municipal Index; U.S. IG Credit: Bloomberg Barclays Investment Grade Credit Index; Preferreds: ICE BAML Core Fixed Preferred Index; High Yield: Bloomberg Barclays High Yield Index; EMD Blend: 50% JPMorgan GBI Emerging Markets Global Diversified, 25% JPMorgan EMBI Global Diversified and 25% JPMorgan CEMBI Diversified.

HEALTHY AFTER-TAX YIELDS

Like common stock, many preferred securities provide qualified dividend income (QDI) that is taxed at capital gains rates rather than ordinary income tax rates, which tends to result in a yield advantage compared to many yielding instruments, as shown in the chart on the following page. Higher income tax rates apply not only to high-quality Treasuries and corporate bonds, but also to lower-quality assets like high yield bonds, as well as to emerging markets debt (EMD), which has tended to carry a higher yield than other fixed income investments of similar quality. Preferred securities now fare especially well on an after-tax basis when compared with municipal bonds, which experienced a surge in price (and a reduction in market yields) after tax reform increased the perceived value of federally nontaxable investment income. This could be worth noting for many individual investors who rely on municipals for income generation in retirement.

PRE- AND AFTER-TAX YIELD
As of June 30, 2019



Source: Bloomberg, JP Morgan. Indices as follows: U.S. Treasury: U.S. Generic Government 10-Year Yield; Munis: Bloomberg Barclays Municipal Index; U.S. IG Credit: Bloomberg Barclays Investment Grade Credit Index; Preferreds: ICE BAML Core Fixed Preferred Index, High Yield: Bloomberg Barclays High Yield Index; EMD Blend: 50% JPMorgan GBI Emerging Markets Global Diversified, 25% JPMorgan EMBI Global Diversified and 25% JPMorgan CEMBI Diversified. After-tax yields based on 37% tax rate, applied to all taxable asset classes except Preferreds; Preferreds taxed at 23.8% QDI tax rate for 60% of the portfolio and 37% for 40% of the portfolio. 60/40 split based on the proportion of the BAML index that is/is not eligible for QDI tax treatment.

CAVEATS

Preferred securities have compelling advantages, but investors should understand the risks:

- Although issuers are often investment grade, the securities are subject to credit risk that should be assessed as part of a research process and priced accordingly.
- While similar to bonds in many respects, preferreds' unsecured place in the capital structure can make them behave like equities at times should an issuer or market fundamentals deteriorate.
- Preferreds tend to concentrate in the financial sector (around 60% of issuers) due to regulatory and structural benefits to issuers. The good news is that financial companies are much more financially sound than they were a decade ago, but diversifying within subsectors is worthwhile.
- As mentioned, various types of preferreds have different rate sensitivity, so depending on your investment profile, favoring variable rate securities can make sense to offset this risk.
- Another risk is the price decline to par value that some of these issuers experience as they approach their call date, if they are redeemable by the issuer.
- Finally, the tax-advantaged status of preferred securities makes them vulnerable to changes in regulation or tax treatment. No changes are on the table currently, but the political winds could change.

BUILDING PREFERRED SECURITIES INTO A PORTFOLIO

In discussing the characteristics of preferred securities, our point is not that they act as a one-for-one substitute for any other asset class. Treasuries still can provide ballast in market panics or economic slowing. Municipal bonds remain a cornerstone of individual portfolios in light of credit quality and federal and state tax-advantaged income. Treasury inflation-protected securities (TIPS) currently offer value in light of lowered inflation expectations. And EMD, high yield bonds and floating rate loans, while carrying their own risks, can offer valuable diversification and yield benefits. However, preferred securities can provide a rare combination of yield and credit quality that bears considering in an environment where investment income is hard to come by.

Financial Fitness

Planning for Your Child's Education

Getting a jump on savings and capitalizing on tax-advantaged vehicles can help you reach important educational goals for your children.

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

Education is top of mind for many families, who wonder how they will garner the resources necessary to fund college for their children. In my view, developing a comprehensive plan is essential to understand the nature of future obligations and set a framework for meeting them. It involves not just calculations of saving and growth potential, but intelligent use of the available—and often valuable—investment vehicles established by federal and state laws.

In this article, I lay out key concepts to think about, as well as specific tools often used for education savings, as you embark on this important journey for your family.

CREATING A PLAN

Ideally, the development of an education plan begins early, with the caveat that you typically don't know how the strengths, weaknesses and interests of your young child (or children) will evolve over time or, more broadly, how your personal situation will change.

Costs

As best you can, you should put a number on the potential cost of education, and multiply that by the number of children you have (or plan on having). If their college attendance will overlap, you should consider how that may affect cash flows. Will you pay for all levels of education, or cut off or curtail spending at graduate school? Will your children share some of the cost burden all along? Your choices may be a function of necessity or philosophy: Some families prefer that their adult children have "skin in the game." Finally, your plans may include private elementary or secondary education, which obviously will increase the overall expense.

It may be wise to be conservative in your assumptions. For example, with rapid increases in tuition, consider applying education inflation at 5% (compared to perhaps 2.5% for CPI), and assume private, rather than public, university and the absence of merit scholarships.

Resources

Capacity to pay for education varies. Perhaps your compensation level will easily accommodate college costs, so planning is essentially about setting aside dollars on a regular basis. If you are not in this position, more nuanced thinking may be in order. Consider your needs as a whole and where education costs appear on the priority list. With earnings capacity typically growing over time, you may wish to allocate fewer dollars to education early on, in favor of saving for a home or other near-term priorities, and then accelerate savings as your kids get closer to college. On the other hand, saving early will provide more opportunity for capital appreciation, which could ultimately reduce your outlays. If you think your parents or other relatives may wish to contribute, consider reaching out to them as part of your planning process. You may want to at least assess the potential viability of financial aid as well.

GENERATING THE NUMBERS

Your wealth advisor should be able to help quantify your potential education costs and resources, and highlight how certain variables may help or undermine your goals. To illustrate, let's create a hypothetical scenario assuming a single child, age five, who is bound for four-year private college with a current annual cost of $60,000 for tuition, room and board. We assume an education inflation rate of 5% a year and an annual investment return of 5% (which, historically, has corresponded to a long-term conservative mix of stocks and bonds).

NO TIME TO WASTE

Hypothetical College Cost and Savings Requirement for a Young Child

Age of Child	Current Annual Cost of College	Inflation Rate	Projected Cost of First Year	Funding %	Projected Total Cost (Four Years)	Rate of Return	Monthly Savings (Inflated at 3% per Annum)
5	$60,000	5%	$113,139	100%	$487,643	5%	$1,725
				50%	$243,821		$863
				25%	$121,911		$432

Source: Neuberger Berman. Assumes college attendance in 2032 – 2035. First-year cost increases 3% per year in order to cover the total projected cost of the 100% funding scenario. Hypothetical scenarios shown are for informational and educational purposes only. Examples are based in part on various assumptions, projections or other information generated by Neuberger Berman regarding investment outcomes. Growth rate assumptions and projections are hypothetical in nature, and do not reflect actual investment results and are not guarantees of future results. Changes in assumptions would impact the hypothetical results shown. Assumed returns should not be used, or relied upon, to make investment decisions. Actual results may vary significantly and actual growth rate may be higher or lower, including negative growth (i.e., investments lose value), than any hypothetical scenarios shown.

As shown in the display, the child's total hypothetical projected cost of college is $487,643, or $1,725 per month (increased at 3% annually) for the next 12 years. Add in multiple children, and graduate school, and your costs could increase sharply. Of course, reducing the portion that you will need to fund from savings will reduce your monthly burden. In our single-child hypothetical, a cut of 50% reduces the monthly payment for a four-year college to $863.

Planning in Stages

With some sense of the variables associated with your education costs, you will need to start thinking about how to meet them. The nature of your planning may change depending on the age of your children. In early years, the focus is typically on savings/accumulation, with an eye toward producing enough cash flows to fund accounts and capitalizing on tax-effective savings vehicles to maximize available assets. With that foundation in place, the focus of planning then moves toward specific strategies for payment, including not just savings, but also (if applicable) financial aid and debt management, both of which are beyond the scope of this article. Across all periods, parents often find that tax-advantaged investment accounts can play an important role in reaching goals, as discussed in the next section.

PLANNING PRIORITIES MAY CHANGE DEPENDING ON YOUR CHILD'S AGE

Age of Child	0 – 14	15 – 22
Primary Focus	Saving for college	Paying for college
Planning Strategies	• Taxes • Cash flow	• Taxes • Cash flow • Debt management • Financial aid

Source: AICPA.

CAPITALIZING ON EDUCATION SAVINGS VEHICLES

Developing an education funding plan is similar to other planning tasks: assessing costs and resources, and then using investments as a way to build capital and preserve assets. With education, however, the use of tax-advantaged savings vehicles can be especially potent. Here are some common vehicles that may be worth considering:

529 College Savings Plan

529 College Savings accounts are among the most appealing education savings vehicles due to their flexibility, tax-free accumulation and high account limits.

The accounts are run by the states, which often outsource portfolio management to private firms. Traditionally designed to fund college and graduate school, under the 2017 federal tax reform, 529s can now also cover up to $10,000 per year of tuition expenses at public, private or religious elementary and secondary schools.[1]

Contributions must be in cash rather than securities or other assets. However, 529 plans impose very high limits on contributions and you can typically accumulate as much as $300,000 within one account for a given beneficiary. (If that happens, you can continue accumulating by opening a 529 account in another state.)

Because a 529 contribution is considered a taxable gift, it is common to limit contributions to the annual federal estate tax exemption of $15,000 per recipient per donor ($30,000 for a donating married couple).

Note that 529s provide the opportunity to frontload five years of contributions without triggering gift taxes.[2] For couples, that can translate into an initial payment of $150,000 (5 x $30,000). However, you cannot make subsequent gifts until those five years are up; if you die any earlier, the balance attributable to future years is pulled into your estate. Since most states allow a tax deduction for 529 funding, it's common to limit contributions to the maximum deduction amount.

What happens if your child doesn't need all the funds in a 529, for example because she wins a scholarship? It's easy to designate a different family member as beneficiary (limited to one change every 12 months). Making that change does not affect the state tax deductions you've received or the gift/estate tax characterization of the original gift.

Morningstar ranks 529 savings programs, while Savingforcollege.com provides their contribution rules, restrictions and prospectuses.

[1] Such expenses qualify for favorable state-level tax treatment in most states.
[2] Pursuing this strategy will require a gift-tax filing for tracking and reporting purposes.

529 COLLEGE SAVINGS ACCOUNTS ARE AMONG THE MOST APPEALING EDUCATION SAVINGS VEHICLES DUE TO THEIR FLEXIBILITY, TAX-FREE ACCUMULATION AND HIGH ACCOUNT LIMITS.

Rolling Over, Choosing Among Plans

If you move from one state to another, you can (but don't have to) roll over existing 529 assets to your new state's plan. That said, if the new state's plan is more attractive (and if it's allowed) you might consider rolling over funds up to the new state's annual tax deduction on contributions. For example, with a $50,000 balance in Ohio, you and your spouse could transfer $10,000 each year to New York (your new state), and deduct the whole amount over five years, versus only deducting $10,000 if you made a one-time transfer of the entire balance.[3]

That said, your assessment of individual 529 plans should include more than taxes. States have varying fee structures, and lower costs may eventually offset the benefits of deductions (see display below).

HOW LOW FEES CAN TRUMP DEDUCTIBILITY
Hypothetical Portfolio

	Plan A	Plan B
Initial Contribution	$10,000	$10,000
Assumed State Income Tax Deduction	$10,000	N/A
Assumed State Income Tax Rate	6%	N/A
Total Assumed Annual Asset-Based Fees	0.99%	0.17%
Assumed Rate of Return	5%	5%
Current Value of State Income Tax Deduction	$600	NA
Value of State Income Deduction Invested (10 Years Later)	$977	NA
Value of 529 College Savings Plan (10 Years Later)	$14,802	$16,027
Total Net Value (10 Years Later)	$15,780	$16,027

Source: Neuberger Berman. Hypothetical scenarios shown are for informational and educational purposes only. Examples are based in part on various assumptions, projections or other information generated by Neuberger Berman regarding investment outcomes. Growth rate assumptions and projections are hypothetical in nature, and do not reflect actual investment results and are not guarantees of future results. Changes in assumptions would impact the hypothetical results shown. Assumed returns should not be used, or relied upon, to make investment decisions. Actual results may vary significantly and actual growth rate may be higher or lower, including negative growth (i.e., investments lose value), than any hypothetical scenarios shown.

Underlying investment options vary as well. Investments are often categorized by risk (conservative, moderate, aggressive), and may be allocated to stocks and bonds based on age, with increasing fixed income exposure as the child nears 18. What states consider "moderate," for example, may be quite different, while the allocations assigned to the same age band often vary. In addition, the age classifications may not be appropriate if you plan to use the money for K-12 rather than just college, given shortened investment timeframes (e.g., a nine-year-old may have just four years until private high school versus eight until college).

Coverdell Education Spending Accounts

Formerly known as Education IRAs, Coverdell accounts allow $2,000 in annual contributions per recipient (from all sources) for use in higher education or qualified K-12 schools. Contributions are after tax, but distributions for qualified expenses are tax-free.

Owners are subject to income phase-outs of $95,000 – $110,000 (singles) and $190,000 – 220,000 (married filing jointly), which, along with contribution caps, limits the usefulness of these accounts for higher earners.

Even so, there are a couple of workarounds. Students typically have limited incomes, and as a result have little difficulty qualifying to fund the accounts—potentially with gifts from older generations. And grandparents or other relatives who fall below the income phase-out may be able to make contributions to a Coverdell (potentially using gifted assets from a parent who doesn't qualify).

Also, funding provisions are more flexible than for a 529. Virtually any kind of asset can be used, including cash, securities and real estate. Unlike a 529 account, Coverdells can be established at many investment firms. Similar to a 529, it is easy to change beneficiaries.

UTMAs and UGMAs

Accounts established under the Uniform Transfers to Minors Act and Uniform Gifts to Minors Act are custodial savings accounts often set up for minor children. Whether you open an UTMA or UGMA depends on what's available in your state. These accounts are more flexible than 529s in terms of investment choice: UTMAs allow almost any investment, while UGMAs can include cash, securities and certain insurance products.

[3] Before taking any action, it's important to review each state's plan rules regarding deductibility.

However, beneficiaries can't be changed once the account is created and funded. Moreover, the timing of liquidation can be an issue, as the beneficiary must receive trust assets when he legally comes of age—sometimes as young as 18, depending on the state. Most parents will agree that kids often can't handle money well at that age. So, depending on the circumstances, it may be better to create a flexible trust, for education and other purposes, which can stipulate at what age the beneficiary receives the assets.

Another consideration is tax inefficiency. Under the 2017 tax reform, "kiddie tax" rules that apply to UGMA and UTMA income (as well as other income attributed to minor children) have become far less attractive. Before, investment earnings beyond a certain level were assessed at the parents' rate. Now, they are treated as follows: The first $1,050 is tax-free, the next $1,050 is taxed at the child's rate, and any amount above that is taxed at applicable trust rates—which reach their highest marginal level of 37% above $12,750 of income.

Individual Retirement Accounts

Most of us think of IRAs as a retirement vehicle, but they can be effective for education, too. Like Coverdells, you can invest in a variety of assets with many investment firms. The annual contribution limit for IRAs is $6,000 per year ($7,000 at age 50 and older). For traditional IRAs, contributions are fully deductible if neither you nor your spouse participates in an employer-sponsored retirement plan, but are subject to income phase-outs if you do; withdrawals in retirement are taxed at ordinary income tax rates.

Roth IRA contributions are after tax, but qualified withdrawals after age 59½ are tax-free. Roths are subject to phase-outs at certain income limits, but owners who do not qualify can convert traditional IRAs to Roths by paying current taxes on the value of the IRA.

Normally, withdrawals that occur before age 59½ are subject to a 10% penalty, but if made for education are exempt. (This is different from 401(k)s, which do not offer such a benefit.) Taxes apply to all early withdrawals from a traditional IRA, but only to investment earnings for Roths, which are only taxed after all investor capital has been depleted.

Setting up a Roth for a child can provide a head start for her retirement or education funding. If she has a summer job or does work at home (assuming you follow formalities like filing a Form 1099 and paying FICA taxes), you can set up a Roth IRA on her behalf to the extent of earnings. She will likely pay little if any tax on those earnings, and growth will eventually be withdrawn tax-free. If she does not need the proceeds for college, she will have a head start in seeking long-term capital appreciation.

Other Options

Equity Line of Credit. With your home as collateral, the interest rate on a line of credit may be lower than on student loans, but under the 2017 federal tax reform, interest costs unrelated to home purchase or improvement aren't deductible. Moreover, adjustable rates carry the risk of higher payments should market interest rates rise. This option should therefore be considered carefully.

Taxable Accounts. They are often overlooked in planning for education, but your taxable accounts will likely come into play once tax-advantaged accounts are used up. As with all education-related assets, you will want to tie your asset allocation to the timing of liabilities. For example, if your children are young, it often makes sense to have more equities and other risk assets to improve potential for growth. But as payments approach, you may want to increase your fixed income and cash allocations.

The Big Picture

Education funding may be one of many goals that you have for your assets. As a result, it should be considered within the broad context of your financial life, and prioritized in relation to spending needs, home purchase costs and, ultimately, retirement. You should not neglect any of these key areas and you may need to compromise in order to address them. Being realistic about resources and return potential, and thorough in considering all your options, will help in seeking positive outcomes for you and your children—both for their education and broader well-being.

A NOTE ON FINANCIAL AID

The financial aid system in this country is complex and worthy of its own article. Here, I will just mention that each of the education funding vehicles has implications for financial aid eligibility. 529 accounts are considered parental assets, which carry less of a penalty than student assets, while distributions are ignored from a financial aid perspective. However, it's often overlooked that distributions from a 529 account that is owned by a non-custodial parent or grandparent do count as income to the student, and can substantially reduce eligibility in future years. It's therefore common to wait until after the student's last financial aid assessment year to make such withdrawals. Coverdell accounts are held by the parent and are assessed at lower levels. IRAs and taxable investments will be attributed to whoever owns the account. In contrast, UTMAs and UGMAs are deemed student assets, and some individuals have preferred to liquidate them in advance of the financial aid process.

EDUCATION ACCOUNTS: A COMPARISON

Feature	Account Type				
	529 Plan	**UGMA/UTMA**	**Coverdell Savings Account**	**IRA**	**Taxable Investment**
Maximum Investment	Established by the program; accumulations up to $300,000 or more per beneficiary in some states	No limit	$2,000 per beneficiary per year combined from all sources	$6,000 per investor ($7,000 if over 50)	No limit
Internal Investments	Menu of options	Based on state law	Large range of securities and certain other investments	Flexible	No restrictions
Qualified Expenses	Tuition, fees, books, supplies and equipment, room & board if half-time student. K-12 in most states	Funds must be used for the benefit of a minor	Similar to 529	Unlimited after age 59½ but specified exceptions for early withdrawals, including education	No restrictions
Non-Qualifying Expenses	Withdrawn earnings subject to federal income tax and 10% penalty	Funds must be used for the benefit of the minor	Withdrawn earnings subject to federal income tax and 10% penalty	Traditional IRA: all withdrawals taxable and subject to 10% penalty. Roth IRA: earnings taxable, 10% penalty applies	No restrictions
Current Taxation on Earnings	Withdrawn earnings are tax-free if used for qualified expenses	"Kiddie tax" rules apply to children under 19 (under 24 if full-time student)	Withdrawn earnings tax-free if used for qualified expenses	Traditional IRA: all withdrawals taxable. Roth IRA: early withdrawals of earnings taxable but if qualified avoid 10% penalty	Taxed at owner's rate
Federal Gift Tax Treatment	Contributions treated as completed gifts; annual exclusion, five-year front-loading	Transfers treated as completed gifts; annual exclusion	Contributions limited to $2,000 per year per beneficiary; annual gift exclusion	Direct payment of tuition not considered a gift	Direct payment of tuition not considered a gift
Ability to Change Beneficiary	Only to another qualified family member	No	Only to another member of the beneficiary's family	N/A	N/A
Income Restrictions	None	None	Phase-outs apply	Phase-outs apply to Roth IRA contributions, and to traditional IRA deductibility where investor or spouse is qualified plan participant	None

Source: Neuberger Berman. For illustrative purposes only. Please consult your tax advisors.

Trust Company Corner

Changing Domicile: Focus on Four Primary Actions

Establishing your legal presence in a new state may be harder than you imagined, but taking a range of steps can help.

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

States like Florida and Texas have long held special appeal for retirees and others interested in escaping high income and estate tax rates in other locales. The Tax Cuts and Jobs Act of 2017 highlighted the greater disparity in state taxes by capping the federal income tax deduction on state and local income and real estate taxes at just $10,000 per return. As a result, the recent tax law has sparked more interest in changing personal domicile to lower-tax states.

Changing domicile doesn't mean just flipping a switch. State tax authorities work hard to keep people who move out of their state on their tax rolls and are particularly alert to mere paperwork-based maneuvers to change domicile. As a result, if you are interested in changing domicile, it will likely take actions of substance.

For state tax purposes when determining domicile, the crux of the issue is whether you moved to a new state with a sincere intention of making it your permanent home. Changing your voter registration, driver's license, vehicle registrations and billing addresses are steps in the right direction of establishing a new domicile (see our Checklist on page 20), but they are secondary to other issues that get to the heart of your intent to establish a new home base.

To mitigate incurring a tax liability from your state of origin, you must be mindful of the following factors, which are often considered when recognizing a domicile change. It is important to note that this is merely a guide on how tax authorities have viewed issues relating to domicile, and it is likely that the relevant state tax authorities could focus on one factor more than another, or on other factors not referenced in this article. Be sure to consult your attorney or accountant when considering changing your domicile.

1. SPEND TIME THERE

You may establish a residence and spend significant time in your new state, but if you spend more than half the year—or 183 days—in a different state (your original or even a third state), and maintain a home there, you can be considered a resident of the latter state for tax purposes, too. It is important to note that, with a few exceptions, partial days in a state count as full days toward your total. In the event you are asked to verify your whereabouts on certain days, it can help to maintain a log of the dates that you are in each state, and be prepared to furnish flight reservations, cell phone bills, gas station receipts, credit card receipts, E-Z Pass statements and other records.

2. MAINTAIN A RESIDENCE

Owning or renting a home in a low-tax state can help establish domicile there, but maintaining a "permanent" home in your previous state of residence generally triggers the 183-day rule referenced above and can be a red flag for the tax authority. It is helpful if the residence you maintain in your former state is smaller in size than your new home. It is also important to show that you have "abandoned" the home in your former state for your new residence. Moving furnishings, artwork, family heirlooms and other cherished possessions, such as family photos or collections, to your new residence is one way to demonstrate abandonment. It can be useful to keep documentation from the move, whether an itemized receipt from a moving company or insurance purchased to cover the items during the move, to demonstrate your intent to make your new state your permanent home. Further, making subsequent large purchases—cars, boats, artwork—in your new state may also lend credence to your domicile claims. When making travel arrangements, leaving from and returning to your new state can help demonstrate that you have made it your permanent home.

3. MOVE YOUR BUSINESS ACTIVITIES

Continuing to work in your former state, whether as an employee or business owner, can call into question your change of domicile. There are no hard-and-fast rules to follow, and the state tax authorities have leeway in determining if there is an intent to change your domicile. For example, if you move to Florida but keep your job in New York and travel there frequently to work in your company's office, even if you are not in New York often enough to trigger the 183-day rule mentioned above, New York State may consider you a resident for tax purposes. If you own a business, selling it may be the simplest solution, but it may not be realistic and is not required. Demonstrating a more passive interest by ceding some control, extricating yourself from day-to-day operations and lowering your salary can be helpful.

CHECKLIST: ESTABLISHING DOMICILE[1]

- ✓ File a Declaration of Domicile in your new state if you maintain residences in two states, and file it with the tax authority in your former state
- ✓ Apply for a driver's license in your new state and surrender the license issued by your former state
- ✓ Title and register vehicles in your new state
- ✓ Register to vote (and vote) in your new state, and have your name stricken from the voter rolls in your former state
- ✓ If seeking to establish domicile in a state with a homestead exemption and you have a home there, apply for the exemption
- ✓ File federal taxes using your new address
- ✓ Change your address of record on all credit cards and receive any paper bills in your new state
- ✓ Move safety deposit boxes to your new state
- ✓ Change accountants and lawyers and update estate planning documents to reflect residency, including executing advance directives, living wills, designations of health care surrogate and powers of attorney in your new state
- ✓ Transfer accounts to institutions in your new state or the local offices of such institutions in your new state
- ✓ Have Social Security checks deposited in bank accounts in your new state
- ✓ Notify insurance carriers of your new domicile
- ✓ Change to doctors who practice in your new state and forward them your medical records

[1] This partial list offers a sampling of actions that you may pursue in establishing a new domicile. It is not exhaustive, and completing all items on the list will not guarantee a successful domicile change. See disclosures at the end of this publication, which are an important part of this article.

4. FORGE NEW TIES

Many times, people will downsize the family home in their original state, then purchase a primary residence in their new state. If you maintain too many ties to a community in your former state (friends, family, affiliations, etc.), the state tax authority may question whether you have truly "abandoned" the state. Obviously, your family relationships and friendships aren't going to change, so it can make sense to concentrate your efforts on other areas. Cutting ties, where appropriate, from groups in your old state (e.g., canceling club memberships and resigning from community positions) and cementing new relationships that demonstrate that you are involved in your new community could be helpful. Examples can include joining a country club, establishing ties to a religious institution and attending services there, becoming an active member of a neighborhood association, performing charity work or joining and attending a gym. Hosting family gatherings there whenever possible can also help solidify your case.

CONCLUSION

Some states can be aggressive in their pursuit of former residents. To help establish your new domicile, there are a few hard-and-fast "must-do's" and a long list of smaller "should-do's." Remember that it's not just about moving to another state, it's about establishing it as your new home. Because there's an element of judgment involved in determining domicile, it's important to do what you can to create a compelling picture of your new life for the benefit of the state tax authority in your former state.

SPECIAL CONSIDERATIONS FOR NEW YORK PROPERTY OWNERS

If you own property in New York State but are domiciled elsewhere, under certain circumstances your estate may still be subject to New York estate tax. New York estate tax applies to "real" and "tangible" personal property held in the state by nonresidents, as well as to certain gifts made while a New York resident and within three years of your death. While a house and a condominium apartment qualify as real property and are subject to New York estate tax, a cooperative apartment is considered "intangible" property and would not be subject to New York estate tax. If the value of your New York real and tangible personal property (and applicable gift addbacks) exceeds New York's exemption amount (currently, $5.74 million per person), a New York estate tax may be due. There may be ways to mitigate the potential estate tax burden on your heirs of owning New York property if you plan in advance. Speak to a tax or estate planning professional to discuss your situation in depth.

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

Market Focus

TEN FOR 2019

Midyear Update

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In January, the heads of our four investment platforms identified the key themes they anticipated would guide investment decisions in 2019. With the year now half over, we revisit these concepts to see how they've played out thus far, and assess our outlook for the second half of 2019.

MACRO: A SOFT LANDING

1 A Soft Landing for the U.S. and the Wider World

What we said: We anticipate that U.S. GDP growth will slow from 3.5% to around 2.0 – 2.5% in 2019, and some of the tail risks associated with the U.S.-China trade dispute will dissipate. We believe that U.S. wages will continue to rise, squeezing corporate earnings, but the inflationary effect will be partly offset by lower commodity prices. This would all help to dampen the past year's dollar rally and moderate global liquidity conditions, and would support a re-convergence of the rest of the world's growth rates with those of the U.S.

What we've seen: Consensus forecasts for 2019 growth are coming in at around 2.5%. Strong employment data through the opening months of the year have been accompanied by steady wage inflation, and this year's U.S. earnings growth looks unlikely to exceed single digits. After a strong start to the year, crude oil declined by 16% in May. We have also seen slightly higher GDP growth in Europe and Japan than in the U.S. The path to a U.S.-China trade deal has proven rockier than anticipated, with a breakdown in talks remaining a key risk to an economic soft landing. Supported by the global "carry trade," the dollar has been surprisingly resilient; but a more dovish Fed may contribute to depreciation by year-end.

Verdict:
PARTIALLY CORRECT

Grade:
★★★☆☆

Our soft-landing thesis remains intact, but we have been surprised by renewed U.S.-China trade tensions and the stubbornly strong dollar.

2 A Recovery Beyond U.S. Shores

What we said: We expected the U.S. to diverge from the rest of the world in 2018, but were perhaps surprised at how early, how severe and how long-lasting that divergence has been. As the U.S.-China trade dispute cools and China's fiscal stimulus takes hold, however, we believe the signs of recovery we already see in Japan, Europe and the emerging world will grow and enable some re-convergence, confirming our view that these economies are still mid-cycle relative to the late-cycle position of the U.S.

What we've seen: Our positive call on China has proven a good one so far this year. After some poor early data releases, we saw signs that stimulus measures were helping credit activity, as well as improvements in Purchasing Managers' Indices. Elsewhere, our view has yet to be fully realized, in part because any recovery in Japan and Europe depends heavily on the stabilization of China and reduced trade tensions. In Europe, unemployment, GDP, services and consumer confidence have improved, though manufacturing has struggled. The potential for that weakness to affect consumer confidence is a substantial risk, and one to add to global trade tensions and Brexit.

Verdict:
PARTIALLY CORRECT

Grade:
★★☆☆☆

Our China call was a good one, but renewed U.S.-China trade tensions and the weakness of the recovery in Europe so far this year have been disappointing.

3 Central Banks Press On With Balance Sheet Reduction

What we said: The Federal Reserve will proceed more cautiously with interest rates than anticipated, but we do not expect any change to central banks' approaches to balance sheet management, which means liquidity conditions overall will become tighter. At the European Central Bank, we anticipate balance sheet policy will also proceed as expected, with rates on hold until after the summer.

What we've seen: The Federal Reserve's messaging has become more dovish even as the markets have doubled down on that dovishness. If anything, the Fed chairman has gone further than we anticipated by refusing to push back unambiguously against the 2019 rate cuts that have been priced into futures markets. Similarly, the ECB has confirmed that rates will likely be on hold until after the summer and potentially well into 2020. Both the ECB and Fed have hinted at changes to balance sheet policy.

Verdict:
INCORRECT

Grade:
★★☆☆☆

While balance sheet policies remained unchanged as we went to press, the potential for change marked an emphatic dovish turn to central bank messaging.

4 Political and Policy Spotlight Falls on Europe

What we said: Last year saw important elections in the emerging world and the U.S., and a worsening of the trade dispute between the U.S. and China. Trade, China's growth trajectory in general and the potential for noise out of Washington now that the Democratic Party has control of the House of Representatives still pose risks. Nonetheless, the confluence of Brexit, the Italian budget, the populist turn in the east, a weak government in Spain, and the end of the Merkel era in Germany and the Draghi era at the ECB make it likely that Europe will steal the political and policy spotlight in 2019.

What we've seen: The sudden deterioration of the trade negotiations with China in May kept eyes focused on the U.S. Meanwhile, the U.K. and European Union avoided a chaotic hard Brexit and populist parties failed to break through in either the Spanish or European Parliament elections. That said, Brexit tensions have been postponed, not cancelled, while one key populist, Italy's Deputy Prime Minister Matteo Salvini, emerged emboldened from his budget tussle with the European Commission, pushing up Italian bond yields.

Verdict:
PARTIALLY CORRECT

Grade:
★★★☆☆

The major European risks remain live, particularly Brexit and the question of Italy's fiscal stance, but we have been surprised by the worsening trade tensions between the U.S. and China.

FIXED INCOME: THE PAUSE THAT REFRESHES

5 The Fed Pauses for the First Half of 2019

What we said: The Fed is likely on hold for at least the first half of the year. The temptation to combat signs of inflation in the pipeline remains strong. However, if the U.S. experiences a soft landing and moderate risk-asset market returns in 2019, it will be in no small part because the Fed resisted the impulse to overshoot with tightening.

What we've seen: When we articulated this view, it was not a given that the federal funds rate would be the same in June as it was in January. Despite a strong showing from risk assets, it is, as of this writing. If anything, gloomy pricing in government bond markets, disappointing economic data and very subdued inflation have led to a much more dovish stance from the Fed.

Verdict:
CORRECT

Grade:
★★★★☆

The Fed has not hiked rates; if anything, the lack of inflationary pressures has led to an even more dovish stance than we expected.

6 Credit Drivers Begin to Change (Again)

What we said: Last year, we anticipated that continued low default rates would lead to credit spreads being impacted less by fundamentals and more by technical developments, and that was the case until October and November of 2018. At that point we saw the market become more discerning with respect to both sectors and individual issuer creditworthiness, and we expect that to be a key theme throughout 2019 as U.S. growth slows. We see particular opportunity in medium-quality credits in the short and intermediate parts of the curve.

What we've seen: While there have been few obvious signs of fundamental credit deterioration or differentiation in spreads, we are beginning to see issuers address the market in ways that indicate sensitivity to lender fatigue. For example, a number of large BBB-rated companies responded to challenging operating results with aggressive actions for the benefit of bondholders, including dividend cuts and asset sales. In addition, the recent increase in net new high yield bond issuance (including more secured securities) and decline in net new leveraged loans appear to reflect a decision by some companies to avoid the reputational taint of reduced investor protections in the leveraged loan space.

Verdict:
PARTIALLY CORRECT

Grade:
★★★☆☆

Markets have yet to demand a more cautious stance from corporate borrowers through price signals, but we do see finance officers anticipating that pressure.

EQUITIES: ATTRACTIVE VALUATIONS ARE BACK

7 U.S. Equity Returns Will Be Determined Primarily by Multiple Expansion

What we said: If U.S. equities in 2018 were about strong earnings growth balanced by shrinking valuation multiples, we envision 2019 flipping that around. As the cycle continues to mature, the range of possibilities widens, but the base case is for top lines to be under pressure from slowing U.S. growth while margins are squeezed a little by wage inflation, offset by some multiple expansion from what is now a modest base.

What we've seen: By midyear, the forward price-to-earnings multiple of the S&P 500 Index was 16.8, up from just 14.3 at the start of the year. Over that time, the index total return was more than 18%. Earnings growth and dividends account for around three percentage points of that gain, with the rest coming from multiple expansion. It remains to be seen whether the equity market can sustain some of its momentum through the second half of the year, but the consensus for 2019 earnings growth remains stuck in single digits.

Verdict:
CORRECT

Grade:
★★★★★

Year-to-date equity returns have been strong despite only modest earnings growth.

8 The Real Value Will Be ex-U.S., Especially in Emerging Markets

What we said: Late-cycle dynamics with moderate multiples could help the U.S. perform better than expected, but even lower multiples and mid-cycle dynamics in Japan, China and the emerging world arguably make them a better source of value. Given our views on heightened political and policy risk in Europe, we think emerging markets provide the most attractive opportunity if you are not forecasting a major global slowdown for 2019.

What we've seen: We remain convinced that the rest of the world offers more attractive value than the U.S.: At midyear, the S&P 500's forward price-to-earnings ratio of 16.8 compared with 14 for the MSCI Europe Index and 13 for the MSCI Emerging Markets Index. Investors have not responded to that opportunity so far, however. Since the start of the year, the S&P 500 was up more than 18%, the MSCI All Country World ex-U.S. Index was up 13%, MSCI Europe was up 17% and MSCI Emerging Markets was up 10% in local currency and close to 11% in dollars. Meanwhile, the onshore A-share China Securities Index 300, whose stocks are not fully represented in the MSCI Emerging Markets Index, was up 28.5% year-to-date.

Verdict:
INCORRECT

Grade:
★★☆☆☆

Emerging markets lagged U.S. equities through the first half of the year, although the picture improves when onshore China A shares are considered.

ALTERNATIVES: INVESTORS WILL RENEW THEIR SEARCH FOR SOMETHING DIFFERENT

9 Greater Appetite for Uncorrelated Strategies

What we said: Should the market volatility and tighter cross-asset class correlations that characterized 2018 persist into 2019, achieving genuine portfolio diversification with traditional assets will become increasingly difficult. While many hedge fund strategies—though not all—gave back early gains late in 2018 as they got caught by crowded trades, we do not see this dampening appetite for uncorrelated and absolute return strategies, given these portfolio management challenges.

What we've seen: According to Morningstar, U.S. alternative funds experienced negative flows in the first quarter of this year, with no strategy group seeing a net inflow. Non-U.S. alternative funds also saw first-quarter outflows after five years of net inflows. This trend reflects the strong performance of risk assets after the volatility of 2018: The HFRI Fund Weighted Composite Index of hedge fund strategies was up over 7% by June 30 and the HFRI Equity Hedge Index was up 9.5%—an improvement on 2018 but not so impressive next to high double-digits from the S&P 500.

As seen in May, however, markets generally do not go up in a straight line. Moving deeper into this economic cycle, we think it makes sense to prepare for more bouts of volatility and high stock/bond correlations, including considering exposure to uncorrelated strategies.

Verdict:
INCORRECT

Grade:
★☆☆☆☆

Many investors are interested in managing risk and seeking different returns, but alternative funds have not yet benefited.

10 Less Appetite for Traditional Private Equity Buyout

What we said: Valuations and leverage in private equity buyout are now such that multiple expansion seems almost impossible. We expect investors to increasingly seek something different in their private asset strategies, such as the economic advantages that come from co-investments, niches such as royalty streams, and private debt managers that can position for the opportunity in stressed leveraged credit markets.

What we've seen: Recent flows data suggest that commitments to traditional buyout funds will be lower this year than last year, while flows into niche and non-traditional strategies and asset classes in private markets are increasing. That does not mean that investors are no longer interested in buyout, but in discussions with clients we hear a readiness to accept lower returns potential for lower risk by moving into other strategies.

Verdict:
CORRECT

Grade:
★★★★☆

The search for less-crowded opportunities in private markets is gathering momentum—we drop a point for arguably overstating the potential move away from traditional buyout.

U.S. and China: The Long Road Ahead

Continued trade tensions and periodic flashpoints will likely become the norm.

INVESTMENT STRATEGY GROUP

The U.S. and China have been sparring over trade for more than a year. As of this writing, the Trump administration has placed tariffs on about $250 billion in Chinese imports and imposed limitations on Chinese tech giant Huawei based on security concerns; China has set levies on $110 billion in U.S. goods and looked to other countries for soy beans and other agricultural products. In May, high-profile negotiations broke down, and President Trump increased tariffs on $200 billion in Chinese goods from 10% to 25% and threatened an additional $300 billion (essentially the balance). However, after Trump and Chinese President Xi Jinping met at the G-20, the two parties announced a "truce" and sought a return to the bargaining table.

Clearly, the conflict has been a key source of angst for investors, with market swings often based on the latest trade-related comments or evidence of impacts on the broader economy. It has also been somewhat damaging to both countries thus far, with U.S. exports to China falling 19% or $10.2 billion year-over-year through May, and Chinese exports to the U.S. easing 8.7% or $15.3 billion.[1]

CONFLICT HAS DAMPENED U.S.-CHINA TRADE
Exports: Year-Over-Year Change (%)

Source: Bloomberg.

THE CONFLICT HAS BEEN A KEY SOURCE OF ANGST FOR INVESTORS, WITH MARKET SWINGS OFTEN BASED ON THE LATEST TRADE-RELATED COMMENTS OR EVIDENCE OF IMPACTS ON THE BROADER ECONOMY.

[1] Source: Bloomberg.

Looking at the impact on U.S. families, the New York Federal Reserve found that the 10% tariffs introduced in 2018 on $200 billion of U.S. imports from China cost the average household $419 per year, including an added indirect tax burden and a "deadweight" or "efficiency loss" where goods are substituted for those of another country at a higher price than without any tariffs. With the increase to 25% in May, the direct tax cost eased somewhat, but the deadweight cost jumped, bringing the total annual cost to $831 per household per year.[2]

However, the toll goes beyond direct taxation and substitution of goods from other countries. Uncertainty around tariffs (both in relation to China and other U.S. trading partners) has chilled capital investment as companies are reluctant to commit funding amid uncertainty. On average, economists anticipate global growth of 3.3% in 2019 and 2020, down from 3.7% in 2018 due to pressures including trade friction, while China is expected to grow 6.0% and the U.S. 1.8% next year.[3] With potential U.S. tariffs on (and a Chinese response to) another $300 million in Chinese goods, global growth could be reduced by 0.4% for 2020, while China and U.S. growth could ease 80 and 50 basis points, respectively, according to Fitch Ratings Services.[4]

There have been economic offsets to the negative impacts of trade conflict: The Chinese have increased stimulus, including loosening borrowing rates, cutting taxes and hiking spending on infrastructure, while the Federal Reserve is maintaining a dovish stance after its last rate hike spooked investors late in 2018. The nature of the global supply chain has also allowed for workarounds. Unlike the classic tariff era, many products are "made" (manufactured and assembled) in multiple countries; for example, some companies have been moving assembly out of China and into Vietnam or Mexico to avoid a China label and associated tariff cost. On the margin, "transshipment" of goods is allowing some producers to skirt U.S. levies, where Chinese exports make a brief stop in a third port, are minimally processed or altered, and then re-exported from the new country. The U.S. government has been working to curtail this practice.

KEY LONG-TERM ISSUES

Still, reliance on such mechanisms is a far cry from the establishment of meaningful resolution to the dampening influence of trade uncertainty. On balance, we believe that China and the U.S. will reach some kind of accommodation—the incentives are very strong in this direction. But if that happens, it seems likely that longstanding issues will continue to be the source of strain and periodic flashpoints in coming years, including the following:

Intellectual property: Over the past decades, the U.S. and others have accused China of stealing intellectual property from international companies, requiring that they transfer technology to Chinese counterparts as a cost of doing business, and otherwise only loosely enforcing intellectual property protections. Xi's government has taken steps to clamp down on theft and reduced requirements that foreign companies have a domestic partner to do business in China (a key source of intellectual property "leakage"), but the U.S. wants more.

Security/technology: The transition to 5G technology is likely to be game-changing for many industries, enabling autonomous vehicles and accelerating the "internet of things." With its Made in China 2025 initiative, China has made it clear it wants a dominant place in this new world. However, the U.S. has major security concerns regarding the spread of Chinese tech and influence, which is a key reason for current limits on Huawei, the Chinese tech company.

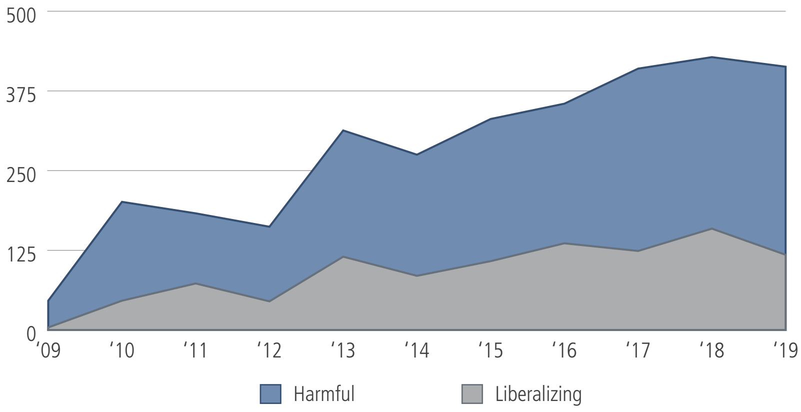
Structural change: The U.S. wants China to curtail subsidies to domestic companies and open up markets. This has been part of the process of modernization in China, but it has come at a snail's pace, and the U.S. is looking for meaningful liberalization. This would entail changes to Chinese laws, and the Xi government has objected that the U.S. is seeking to interfere in its domestic affairs.

To some degree these issues have come to a head due to the views of the Trump administration, so some believe that they could ease if there is a change of leadership in next year's presidential election. But that probably underestimates the broader U.S. consensus that is emerging around tough China policy, as free trade advocates in both parties have taken a back seat to more populist voices. Moreover, the geopolitical rivalry between the U.S. and China appears to be accelerating, reflected in nervousness about China's economic leverage through its "belt and road" development initiative and assertiveness in the South China Sea, as well as potential tensions related to Taiwan and Hong Kong.

Also not to be discounted is the broader context of fission in the global trade landscape. The U.S. isn't just in conflict with China, but has ongoing disputes with many of its trading partners and is welcoming trade-related complaints from many U.S. companies. For the globalization trend, the bloom is definitely off the rose, as Britain and continental Europe grapple with the pressures associated with displaced workers and open borders and as trade negotiations become more fragmented. Overall, protectionist practices have been on the rise throughout the world.

[2] Source: *Liberty Street Economics,* Federal Reserve Board of New York, May 23, 2019.
[3] Source: Bloomberg, as of June 30, 2019.
[4] As of June 17, 2019. Fitch's baseline growth expectations for 2020, assuming no additional tariffs, are as follows: global, 2.7%; China, 6.0%; U.S. 1.8%.

GLOBALIZATION UNDER PRESSURE
Number of New Trade Interventions Each Year



Source: Global Trade Alert, as of June 30, 2019. Adjusted for reporting lag.

PROSPECTS AND IMPACTS

With so many issues in the U.S.-China relationship, there's risk that the parties will try to be too ambitious and seek to solve all of them at once. In our view, a constructive scenario would be an agreement that deals with doable issues now, and provides a structure for future progress. However, trust remains a key issue, as China is seeking the immediate removal of all sanctions, while the U.S. wants them to remain in place with the ability to apply new levies if China reneges.

If a "no-deal" scenario emerges, the markets will likely be disappointed. Our Asset Allocation Committee has consistently identified the trade conflict as a key danger to its best-case "soft landing" scenario. Tariffs would continue to hurt China, the U.S. and their trading partners. Meanwhile, life could become more difficult for U.S. companies operating in China, whether because of regulatory frictions or the potential for a popular backlash against foreign brands, as has occurred in some of China's previous trade disputes. Longer term, you may see the development of a bifurcation of global trade, with the U.S. and China operating in two different spheres, including, importantly, two different infrastructures for 5G technology.

That said, even if there is a deal (whether just face-saving or with teeth), there will likely continue to be tensions surrounding the issues we've described. They are deep-seated, with geopolitical dimensions, and could create underlying noise and uncertainty for the foreseeable future. In the end, individual companies will adapt, but investors should remain alert to primary and secondary impacts as the world order evolves.

Perspective

Unlocking Inflation

After a decade of disappointment on prices, what can the Federal Reserve do to set the right course?

THANOS BARDAS, PhD — *Global Co-Head of Investment Grade Fixed Income*

In the wake of the financial crisis, central banks were focused on the survival of the economy and financial markets, implementing near-zero (and sometimes subzero) interest rates and multiple rounds of bond buying (quantitative easing or QE). As conditions stabilized, however, the process became more focused on normalizing conditions and getting closer to pre-crisis levels in terms of policy and rates.

In the U.S., the Federal Reserve was eager to avoid overheating conditions due to late-business cycle government stimulus and to restore its policy flexibility. So, even in the absence of higher inflation, it began a tightening campaign that lasted from late 2015 until this past December and included both rate hikes and the partial unwinding of its bond positions (quantitative tightening or QT). In the wake of the fourth-quarter 2018 market swoon, the central bank moved into dovish mode amid trade tensions and slowing economic growth. Looking back, however, it appears that the Fed's decision to normalize rates ahead of inflation put the cart before the horse, suppressing already weak core PCE (the central bank's favored inflation measure) and leaving it below the central bank's target of 2%.

LOOKING BACK, IT APPEARS THAT THE FED'S DECISION TO NORMALIZE RATES AHEAD OF INFLATION PUT THE CART BEFORE THE HORSE.

Chairman Jerome Powell and his colleagues clearly understand that something isn't working, and so they have organized a "Fed Listens" tour to take public comments on policy, followed by a period of private reassessment and potential changes early next year. Although this might seem like inside baseball to some, what the group decides could have major implications for the health of the economy and markets, so it's worth investor attention. Below, I provide some high-level perspective on the key issues and proposals the Fed may consider as it seeks to get back on track.

STATUS QUO INFIRMUS

First, let's take a quick look at the status quo. The central bank currently targets a specific level of inflation in its policies. When inflation is low and the economy is in the doldrums, it may cut interest rates to stimulate growth and bring inflation back to where it needs to be; when inflation is too high, it may do the reverse. The Fed ultimately seeks a neutral interest rate—low enough to stimulate the economy but high enough to avoid triggering excessive inflation—and is willing to go above or below the inflation target temporarily to achieve this.

However, inflation targeting is a difficult exercise. Former longtime Fed Chairman Alan Greenspan never actually attached a number publicly to the Fed target. The nominal objective was stable, relatively low inflation. But as part of efforts to improve transparency, his successor Ben Bernanke established the current numerical target of 2%. From the beginning, the Fed has been unable to hit that target, for example reaching an average of just 1.6% core PCE over the current business cycle, including the last five years.

ELUSIVE TARGET

Inflation has come in too low since the 2% goal was established.

Core PCE (%)

Source: Bloomberg. Data through April 2019.

A major part of the problem is structural. The global population is aging, limiting the growth of the workforce, while productivity growth—although somewhat improved recently—has generally been weak. The combination has tended to limit economic growth and, by extension, price inflation. In fact, inflation was in decline long before the financial crisis, falling from an average core PCE of 3.6% in the second half of the 1980s to 1.7% in the first half of the 2000s—something that made the Fed's task of growth stimulation more difficult during the financial crisis. As a result, the Fed was forced to employ unorthodox policies such as asset purchases.

Another issue today is behavioral and tactical. The existence of a specific target number has made the market ultrasensitive to moves toward 2% due to the anticipation of Fed actions. This has virtually guaranteed that the target will never be reached on a sustained basis.

POSSIBLE CHOICES

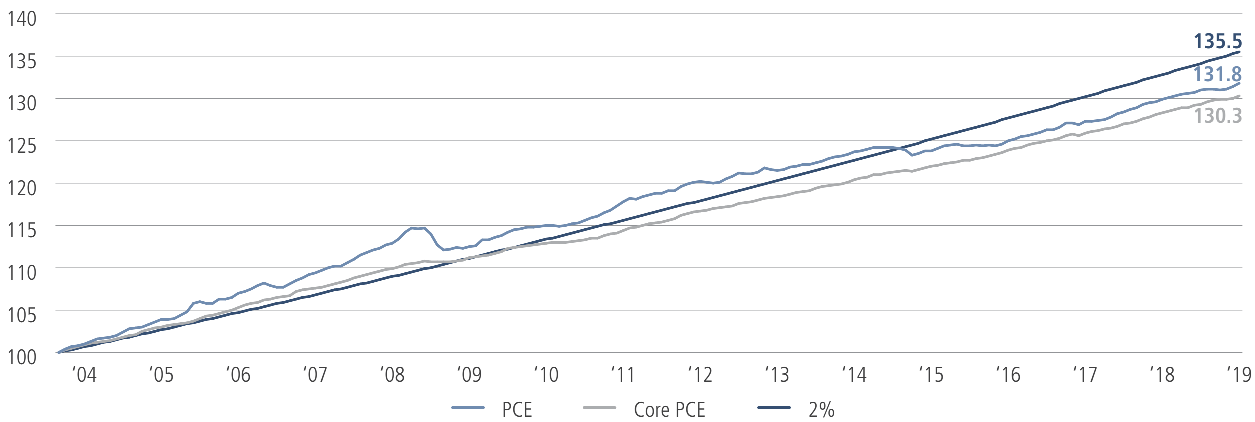
In order to get further away from the danger of actual deflation and to provide more policy flexibility, what options does the Fed have?

Raise the inflation target. In theory, it would be simple to keep the current approach but raise the inflation target, potentially to 3% or 4%. The notion is that this would allow for higher interest rates, and thus leave more room for the Fed to make cuts to bolster the economy in a downturn. However, the central bank is already having enough trouble getting inflation to 2%; and simply moving the target higher won't necessarily achieve success or increase its credibility in the market. Another issue would be acceptance. The Fed's mandate is to maintain price stability and maintain full employment, and some would argue that anything above 2% is higher than a neutral level. A possible variation would be to target a range, for example 1.5% to 3%, in order to help policy flexibility at any given time. However, that could foster too much uncertainty for investors and businesses.

Target an average. A more viable approach, to which some Fed members have already voiced approval, is average-inflation or price targeting. The current system takes what's called a "bygones" view, in that it generally doesn't consider where inflation has been in the past, but only where it should be in the future. In contrast, inflation averaging would take into account whether inflation had been below or above the target, and allow the Fed to employ policy to bring the average back into line with the target. This strategy would solve for the market's sensitivity to a fixed number, as investors would expect inflation to over- or under-shoot as part of the process. For example, if you assume that the economy grows above potential 80% of the time and below potential 20% of the time, the inflation rate might be set at 2.4% during expansions in order to reach the overall average target of 2%.

THE INFLATION GAP

The Fed has a lot of ground to cover.



Source: Bloomberg. Data through April 2019.

Many observers are comfortable with the averaging approach at the moment because inflation has been subpar for years. But what happens if the Fed is successful in bringing the average back up and then inflation exceeds the target for longer? Will the public accept the hardship associated with higher rates to correct for past inflation? Will politicians? That seems like an implausible scenario to me.

Also, where do you start the measurement period for past inflation? Three years? Five years? It's conceivable you could rig the system to overshoot the target for a decade or more, but that might open up the possibility of imbedding excessive inflation in the economy. Finally, what if a shock like a spike in oil prices were responsible for increased inflation? Would the central bank really want to take that into account in setting future policy?

Reflate opportunistically. During the pre-crisis decline of interest rates and inflation, the Fed applied what has been called "opportunistic disinflation"—stepping in early during recoveries with rate hikes in order to limit any rebound of inflation. Moving forward, the Fed might consider the corollary, "opportunistic reflation," which would tolerate price increases due to late-cycle factors like a tight labor market or commodity shocks in order to bring the inflation trend back to more acceptable levels. An opportunistic approach could work in combination with targeting an average.

Target GDP. Another conceivable choice is to target the growth rate or the level of nominal GDP (including inflation as opposed to real GDP, which excludes it). Let's assume that the Fed set target GDP growth at 4%. If it dipped below that amount, the central bank would ease monetary conditions until GDP came back to target; if it went above that level, the Fed would tighten correspondingly. This arrangement would simplify the task of the Fed, as it would only have to deal with one target (GDP) instead of the current two (inflation and employment). Nominal GDP is said to be easier to track than the various inputs the Fed currently has to monitor, and generally would result in similar rate trends as today—reductions in times of economic weakness and increases when times are good.

However, what happens if economic growth is sluggish for a long period, but inflation is also elevated, such as in the 1970s? The public might grow impatient. Also, this approach has a drawback similar to inflation targeting: A period after excessive GDP growth would require targeting lower growth later, with higher rates impeding economic activity and causing hardship. Finally, GDP numbers operate with a substantial lag, with final results often posted months after a given quarter and then reset a few years later. This likely would make GDP an unreliable basis for policy decisions.

MORE THAN A CHANGE IN FORMULA, I BELIEVE THE FED NEEDS TO COMMIT TO FLEXIBILITY—TO CONSTANTLY OBSERVE THE ECONOMY AND MARKETS, AND RECALIBRATE AS NECESSARY.

Mix fiscal and monetary policy. Fiscal policy isn't the purview of the Fed, but it makes sense to talk about the coordination of fiscal and monetary action in light of broader political debates.

An extreme theory known as Modern Monetary Theory (MMT) is providing theoretical cover for massive spending proposals such as Medicare for All and the Green New Deal. The idea is that countries that can print their own money can never default, and should therefore have no trouble using debt to pay for social programs. Congress would spend whatever it needs and then raise taxes to curb potentially inflationary effects of large deficits. Conceivably, the latter task could be outsourced to a politically insulated policy agency.

However, MMT is an untested idea with clear potential downsides. Higher and higher deficits would be hard to offset with economically stifling tax increases. And governmental control of capital could dampen the innate benefits of our free-market system, including growing productivity and higher standards of living. Printing money isn't exactly a path to prosperity, as students of Weimar Germany will tell you.

That said, the idea of hitting fiscal and monetary levers at once is actually quite appealing. In the next downturn, it potentially could provide broader impacts than the "top-10% focused" remedies since the 2008 financial crisis. However, fiscal expansion needs to occur at appropriate times, perhaps earlier in a growth cycle than was the case with the 2017 tax cuts, which coincided with an acceleration of Fed tightening. From a practical perspective, it is unlikely that Congress would outsource a core legislative responsibility to (yet another) semi-accountable agency in the executive branch. So, progress will likely need to emerge from recognition of the value of tactical fiscal action—along with a more cooperative environment in Washington, DC.

BENEFITS OF FLEXIBILITY

Although review is healthy, readers should take the Federal Reserve's listening tour with a grain of salt. The Fed gets introspective every five years or so, and remains a slow-moving institution. So, I would expect "evolution, not revolution," as Fed Vice Chairman Richard Clarida has put it.

With that caveat, I do think that some version of inflation-averaging, along with opportunistic reflation, makes sense. It would reduce the market's tendency to anticipate the 2% boundary and, in the end, hopefully provide more room for the Fed to act during a crisis. What period you use to calculate the inflation average is a question, but looking at a full business cycle makes intuitive sense to me.

More than a change in formula, however, I believe the Fed needs to commit to flexibility—to constantly observe the economy and markets, and recalibrate as necessary.

Historically, economic monitoring worked at a snail's pace—it just took a long time to gather and analyze data. As a result, the lag in Fed policy was enormous; by the time the yield curve was flashing inflation risks (by inverting, with short yields higher than long yields), the Fed was often a couple years in the hole in terms of needed rate cuts. Today, the central bank's models are much better, and it conceivably can reassess policy almost in real time. This means that the Fed can keep rates closer to where they should be on an ongoing basis.

As part of this, of course, the Fed needs to look at the right data. Many of its legacy tools were born in the industrial era, but manufacturing prices have been in decline for a couple decades, and today about two-thirds of disinflation is likely happening due to artificial intelligence and the broader "Uber-ization" of the economy. Just looking at high-level indicators like CPI won't tell you what's really going on.

PAYING ATTENTION TO THE MARKET

Finally, the Fed must pay close attention to the market—something it got away from before the investors revolted in the fourth quarter. The yield curve has long been a popular signal for the economy, but has changed a great deal. Over the past decade, macroeconomic volatility has declined with GDP growth trends, which in turn has reduced the volatility of inflation—and lowered the premium investors demand for longer-term bonds. This has contributed to a flattening of the yield curve and increased the likelihood that it could invert. As a result, a short-term inversion doesn't necessarily indicate looming recession, but a more extended inversion could. The Fed needs to take the shape of the curve seriously, along with what it may be saying about market sentiment.

At this stage, we believe the Fed has a good chance of making midcourse adjustments and engineering an economic soft landing, potentially extending the current record-long business cycle for a couple years or more. Along the way, giving the economy more leeway to expand above the target, and "taking a breath" before becoming overly hawkish could help Powell & Co. bring recalcitrant inflation back into line. This in turn could improve chances that the next economic downturn, whenever it occurs, is followed by healthy V-shaped bounce, aided by timely and effective monetary policy.

Highlights 3Q19

FROM THE ASSET ALLOCATION COMMITTEE

U.S. EQUITIES: Given higher valuations and slow earnings growth, we have a neutral 12-month outlook on U.S. equities, with an underweight view of large caps. However, we see potential opportunity in small-cap stocks, especially if Federal Reserve easing combines with improving economic data later in the year.

DEVELOPED NON-U.S. EQUITIES: Although employment, credit growth and consumer confidence are encouraging, global trade tensions have weighed heavily on the European manufacturing sector. The Japanese economy remains sensitive to global dynamics, while a consumption tax increase may dampen growth in the short term.

FIXED INCOME: Despite the Fed's easing bias, we maintain an underweight view in investment grade yields, while after a strong rally municipal valuations are tight in our view versus comparable Treasuries. TIPS (Treasury Inflation-Protected Securities) look attractive to us in relation to inflation potential; high yield and floating-rate loans are providing pockets of opportunity.

EMERGING MARKETS: Dollar weakness from looser Fed policy could support emerging markets, particularly equities, where we maintain an overweight outlook. Stimulus-driven improvement in China's economic growth could also prove supportive, although trade tensions remain a risk.

ALTERNATIVES: With increasing asset class correlations, we have a neutral view on low-volatility hedge funds, but maintain an overweight outlook on directional hedge funds, favoring market (or beta) exposure within hedging assets. In our view, although private equity appears fully valued, it retains appeal as a strategic allocation to generate differentiated returns.

COMMODITIES: Oil producers are adhering to production limits, but how long they last is an open question. Demand for oil could slow if global growth remains subdued or U.S.-China trade tensions worsen.

All views are over the next 12 months. 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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