

2018 MIDYEAR OUTLOOK

(Still) Risk On

NUVEEN GLOBAL INVESTMENT COMMITTEE

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Jose Minaya Chief Investment Officer

Investors are facing some pretty big questions: How long will the economy continue to expand? How will rising interest rates affect my portfolio? Will volatility continue to climb? Do geopolitics (or even just political posturing) really matter?

Amid this deluge, Nuveen recently convened its first meeting of our Global Investment Committee (GIC), bringing together senior investment leaders from across our firm. This committee draws from Nuveen's specialized investment affiliates, as well as our experts in asset allocation and responsible investing, and covers a full range of public equity and debt, private capital, real assets, real estate and commodities.

We seek to drive insights and ideas across all of Nuveen's investment teams and provide our clients with more clarity about our firm's best thinking. We will not create a "house view," but believe our clients benefit from a multiaffiliate approach in which investment teams have the ability to shape portfolios based on their own unique processes.

So what does Nuveen think about the preceding questions? In our 2018 Midyear Outlook: (*Still*) *risk on*, we acknowledge that the long-running global economic expansion and equity bull market is getting old. But old doesn't mean over.

In the following pages, we first provide our high-level views on different asset classes, then discuss key themes we expect will shape markets in the coming months before offering our best thinking about asset allocation. In most cases, we believe less-mature areas of the global financial markets continue to offer value — provided investors can take advantage of informed and nimble active management.

Specifically, we believe global equity markets have more room to run — particularly in the U.S. and emerging markets — while the opportunity in fixed income is narrowing and will require deeper research capabilities to identify value. Real assets present more opportunities, particularly in commodities, though the commercial real estate boom is getting long in the tooth and therefore requires more selectivity. For those investors who can access private markets, so-called middle market loans are still providing investors with good covenant protection at attractive yields. Finally, demand for more responsible investment options, especially outside the U.S., continues to grow, as more investors conclude that well-governed companies should have attractive long-term return potential. Read on for more detailed analysis from our world-class investment leaders.

The Nuveen Global Investment Committee will continue to meet regularly and share our findings. We'll also work in close partnership with Nuveen's Solutions team to offer actionable insights that are positioned to help you reach your portfolio goals. Indeed, the outcome you seek, as well your time horizon for achieving it, are primary in deciding whether and how to deploy an investment view.

We'd also love to hear from you: What are your portfolio goals and challenges, and how can Nuveen better help you meet your investment goals? We encourage you to contact your Nuveen relationship manager with any feedback, or please visit us at nuveen.com.

EQUITIES

The bull market can still run



Saira Malik Equities

- The macro backdrop looks good for global equity markets: Stocks typically perform well in higher interest rate environments when economic growth is solid. Additionally, strong earnings growth and improving capital investment should help extend the bull market. Wage growth remains manageable, and shouldn't spark an interest rate spike or inflation scare that could derail the bull market.
- Style preferences are tough to call. Growth and momentum styles continue to outperform, while value trails. Should global economic growth continue to improve, value could be in for a rally. But we also think secular growth stocks should benefit from good profit margins, attractive valuations and faster earnings growth.
- From a geographic perspective, we favor the U.S.
 and emerging markets, as emerging markets remain
 in the earlier stages of the economic recovery.
 However, a continued surge in the dollar could halt
 their stronger performance.
- What are the risks? Geopolitical concerns are always a factor (even if they don't affect valuations) and we are closely watching trade issues. Should protectionism increase and an actual trade war develop, that indeed could damage stocks.
 We're also keeping an eye on rising interest rates and inflation. We don't expect a spike, but these factors have traditionally been associated with the end of bull markets.

BEST IDEAS: We see attractive opportunities in U.S. and emerging markets equities as well as secular growth stocks.

TAXABLE FIXED INCOME

The credit cycle and economic expansion aren't quite over



Lisa Black *Taxable Fixed Income*

- Treasury yields have risen, the yield curve has flattened and credit spreads have widened so far in 2018. Volatility in the fixed income markets has increased, notably in emerging markets, which has made investing more complicated. As a result, money market, high yield and short-term bonds have performed well, while emerging market debt, investment grade corporates and U.S. Treasuries have lagged.
- The Federal Reserve (Fed) signaled it may hike the fed funds rate two more times in 2018.
 Those hikes could act as a drag on returns in U.S. and emerging markets.
- U.S. tax reform has improved corporate profits and lowered taxes on individuals (with some exceptions), but pulled growth forward. As a result, the next economic downturn could come sooner than it otherwise would have, and a bona fide trade war, if it emerges, could further speed its arrival.
- We prefer credit sectors rather than governmentrelated bonds. In particular, we are focusing on high yield bonds, which should perform relatively well in a rising rate environment, as well as select emerging market debt due to spread widening.
 We also like preferred securities and bank loans.

BEST IDEAS: We see attractive opportunities in real estate investment trusts (REITs), high conviction BBB bonds and energy service sector bonds.

MUNICIPALS

Outperformance potential in the second half of 2018



John Miller Municipals

- High grade municipal bonds have shown slightly negative performance so far this year, driven primarily by rising interest rates across the yield curve. In contrast, high yield municipals outperformed. Municipal-to-Treasury ratios increased for maturities beyond 10 years, remained stable at 10 years and declined in maturities shorter than 10 years. This means longer-term municipals have cheapened on a relative basis and are looking more attractive, while shorter-term municipals are relatively expensive.
- Municipal new issue supply has fallen sharply this
 year, while fund flows remained generally positive.
 We believe this imbalance is due to heavy dealer
 inventories after record supply in December 2017.
 This looks to be a temporary phenomenon and
 we believe municipal bonds should again outperform
 in the second half of the year.
- The fundamental backdrop for municipals remains strong: State and local governments continue to benefit from the improving economy. Defaults (excluding Puerto Rico) remain low and credit upgrades exceeded downgrades.
- Municipal market headwinds include rising interest rates across the yield curve, slightly higher inflation and a hawkish Federal Reserve. Offsetting tailwinds include improving credit, narrowing spreads, higher retail investor demand and decreased new issue supply. On balance, we think the positives outweigh the negatives.

BEST IDEAS: We see attractive opportunities in BBB bonds as spreads contract and credit improves; AMT bonds, with a dramatic reduction in number of investors subject to AMT; and intermediate- to long-term bonds, which are less sensitive to changes in monetary policy.

PRIVATE MARKETS

Selective opportunities in a highly competitive market



Heather Davis *Private Markets*

- Private markets remain highly competitive in most asset classes as institutional investors search for higher income and capital appreciation than are available in public markets. Heavy capital inflows continue to drive up asset prices, requiring rigorous due diligence to identify opportunities. Committed capital waiting to be invested reached a new record this year of just over \$1 trillion for private equity sectors overall, including \$158 billion for infrastructure.
- Attractive opportunities exist across all asset classes and sectors, except energy, where pricing has been weak. Private placement loans and infrastructure debt remain attractive to insurance companies trading lower liquidity for higher yields and lower default rates, compared with public bonds.
- The surge in capital flows has accelerated the trend toward weaker loan covenants ("cov-lite") and greater risks, particularly among larger, broadly syndicated loans (BSL). However, the middle market representing smaller companies with net income up to \$100 million remains a sweet spot. Middle market senior loans offer yield premiums of 120 basis points or more with stronger capital structures and covenants offering downside protection, compared with the BSL market.
- High valuations and leverage in middle market debt and private equity require expertise in structuring deals with strict covenants to reduce downside risks and increase recovery potential. In the event of a recession, private asset classes tend to hold up well as long-term, buy-and-hold investments. They are often less cyclical with structural protections to help withstand economic downturns.

BEST IDEAS: We see attractive opportunities in private equity and debt investments in noncyclical businesses providing essential products or services, and direct private placement and middle market senior loans offering higher yields.

REAL ASSETS

Strong global fundamentals, but uncertainty over trade and interest rates



Justin Ourso Private Real Assets



Jay Rosenberg *Public Real Assets*

- Strong global demand provides broad support for private real assets — farmland, timberland and agribusiness.
 Competition for farmland and timberland has forced asset managers to rely increasingly on proprietary networks and private transactions to source land. Global trade policy, however, poses uncertainty and potential risks if tariff disputes escalate.
- Among public real assets, global infrastructure has
 positive fundamentals with many sectors benefiting
 from low interest rates in many parts of the world,
 and fiscal stimulus in the U.S. International real estate
 is likely to continue outperforming U.S. real estate
 as several global economies are at earlier stages of
 their recovery cycles.
- Commodities, which have outperformed other asset classes during rate-hike cycles, are well positioned for price appreciation, given tighter supplies and stronger demand.
- In private farmland, a cyclical low in grain and oilseed commodity pricing offers the potential for

improving returns in certain markets. Permanent crops have performed better, led by wine grapes. Overall, non-U.S. farmland offers higher relative returns and diversification, although acquisitions require specialized expertise in Australia, New Zealand and Latin America. Agribusiness opportunities also are competitive, but offer potential for superior returns driven by demand for healthy protein, processed fruit and nuts, and specialty feed.

- U.S. timberland is benefiting from stronger global growth. West Coast log prices jumped 15% in 2017, although the slow housing recovery continues to depress southern U.S. timber prices. Non-U.S. timber markets offer higher returns—for example, Latin America is the low-cost producer of hardwood pulp for China. Sustainable investing has become an important theme due to timberland's capacity to reduce greenhouse gases.
- Risks include the potential for escalating tariffs to disrupt trade, a more rapid increase in interest rates without corresponding inflation, a global economic slowdown and foreign exchange volatility.

BEST IDEAS: We see attractive opportunities across multiple real asset segments:

Farmland: international permanent crops and opportunistic row crop acquisitions

Agribusiness: healthy protein, specialty processing and feed ingredients

Timberland: Latin America and conservation forestry

Public infrastructure: U.S. waste and freight rail companies, Chinese gas distribution utilities and environmental services providers, toll roads, airports, and renewable and midstream energy

International real estate: industrial, European cell phone towers, European and Asian data centers

Commodities: petroleum and industrial metals

COMMERCIAL REAL ESTATE

Late cycle means value is harder to find



Mike Sales Real Estate

- Commercial real estate (CRE) is late in the cycle, meaning compelling risk-adjusted return opportunities are more difficult to find. The cycle could last another year in markets with solid economic growth, namely the U.S. and Asia-Pacific. Nonetheless, the asset class continues to attract capital based on its high income returns relative to traditional fixed income investments.
- Among the best opportunities are needs-based—
 hotels, outlet malls, medical facilities, student and
 senior housing, and e-commerce logistics—
 and retail developments that engage consumers
 with experiences.
- Risks include investors taking too much risk late in the cycle, rich pricing hurting future returns, and interest rates rising faster than expected in certain economies. Headline risk in U.S. retail properties may create opportunities at attractive prices.
- Investors should shift their view of risk and commit to future growth opportunities. Global cities benefiting from technology, sustainable development and rapid growth, particularly in Asia-Pacific, are likely to be resilient through market cycles. Regions benefiting from demographic megatrends, such as urbanization and rising middle classes, are likely to perform better.

BEST IDEAS: In addition to the themes identified above, we favor the following specific sectors: CRE debt in the U.S., UK and Asia-Pacific that can help manage downside risk; U.S. mezzanine/subordinated debt, global industrial and multifamily, and development (build to own).

RESPONSIBLE INVESTING

Experiencing and affecting change



Amy O'Brien Responsible Investing

- Global demand for responsible investing thrives, especially among sophisticated asset owners in Australia, Canada, Europe and the UK. In the U.S. there is growing interest among individual investors, who are asking advisors and plan sponsors about responsible investing options. Eight in 10 investors (80%) say they want their investments to deliver competitive returns while promoting positive social and environmental outcomes, according to Nuveen's Third Annual Responsible Investing Survey in 2017.
- We are seeing an expansion of systems to independently assess and validate the environmental social and governance (ESG) performance of strategies, portfolios and asset managers. Investors, both individual and institutional, want third-party analysis. Many consultants have constructed evaluation frameworks. For the individual investor market, Morningstar first launched fund-level sustainability ratings in 2016. Last month, Morningstar followed up with new metrics to assess how well companies transition to a low-carbon economy.
- Investors and managers are advancing the business case for companies to address material ESG practices. As we end proxy voting season, Nuveen has influenced companies by engaging in direct dialogue and exercising thousands of proxy votes. Trust in the public sector is at one of its lowest points in U.S. history, according to Pew Research. Citizens, consumers and investors are turning to the private sector to engage on ESG issues.

From counting up to counting down





Brian NickChief Investment Strategist

Investors took a winding road during the first half of 2018, one that eventually led them to a familiar place. Across the world, countries are growing at an accelerating rate, a few bumps notwithstanding. Global stocks are outperforming global bonds. The U.S. dollar is strong, and U.S. stocks are outpacing other major equity markets by a comfortable margin. We've been here before — but where are we headed next? Higher market volatility earlier this year — triggered by better-than-expected U.S. economic data and accompanying fears that the Fed would accelerate its rate hikes — represents a significant change in market behavior from 2017's mostly sedate environment. Instead of counting up from the last recession, we now appear to be counting down to the next one.

In its inaugural meeting, Nuveen's Global Investment Committee (GIC) discussed the outlook for the second half of 2018 and beyond. We concluded that the U.S. is well positioned to maintain its recent strong performance over the balance of the year. The next several years, however, may prove challenging for the world's largest economy, giving other countries a long-awaited opportunity to "catch up." Our midyear themes, expressed here, capture this expected shift. They also identify two common views shared by the various segments of our global investments organization: (1) the expectation that investment returns will be somewhat lower and (2) the desire to move to a slightly more defensive posture by owning higher-quality assets.

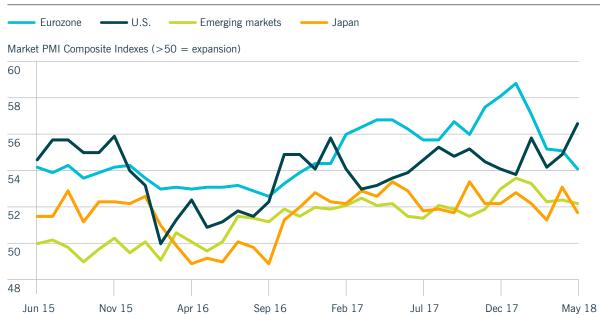
GIC midyear investment themes

Theme 1: 2018—The U.S. vs. the world

Fans of professional basketball — and even casual onlookers — may have noticed that NBA superstar LeBron James recently played in his eighth consecutive NBA finals. His dominance of the league's Eastern Conference as a member of both the Miami Heat and the Cleveland Cavaliers is unmatched in the modern era. Coincidentally, U.S. stocks have maintained a similar reign over global equity markets during this time, matching or surpassing the rest of the world in each calendar year starting in 2010. Over that period, the S&P 500 Index has returned an extraordinary 183%. The rest of the world, as measured by MSCI All-Country World Index ex US, has gained only 83%. That's nothing to sneeze at, but it cannot compare to the U.S. track record.

This year, we've been reminded of how the U.S. has done it: by producing superior corporate profits, solid economic growth, and (mostly) steady policymaking. If 2017 was the year in which the eurozone, Japan and large parts of the emerging markets (EM) showed signs of gaining ground on the U.S., then 2018 has seen the U.S. reassert its lead. While global Purchasing Managers Indexes (PMIs) — survey-based indicators of private-sector activity - are firmly in expansion territory (above 50), only the U.S. has improved on its late-2017 pace (Figure 1). This is due mostly to the extra fiscal oomph from the Tax Cuts and Jobs Act, as well as the 2018 budget deal, which includes a \$300 billion increase in discretionary spending. With consumers already spending freely and businesses investing more, the U.S. economy didn't require government assistance. Even so, Washington's one-two punch clearly provided a boost, as gross domestic product (GDP) growth is likely to top 3% in the first half of the year.

Figure 1: Global growth is solid, but only the U.S. is accelerating



Source: Bloomberg, Markit, as of 31 May 2018.

2018 Midyear Outlook

The stimulus-propelled U.S. economic growth has affected financial markets in a variety of ways. Most notably, the rise in short-term U.S. Treasury yields, brought about by a Fed anxious to normalize monetary policy, has contributed to a stronger U.S. dollar (Figure 2). Government bond yields in Europe and other foreign developed economies remain historically low — below zero, in some cases — while in the U.S. they have been rising off and on since 2012. And the rate of increase has quickened in the first six months of 2018.

U.S. corporate earnings growth should roughly double that of the rest of the world this year, thanks to reduced tax rates and other changes in the corporate tax code. But lower tax burdens are only part of the story. U.S. companies managed to grow revenues by nearly 10% in the first quarter of 2018. Robust global demand for exports, including energy-related goods, and a better domestic investment environment provide multiple sources of stability in the event that risks emerge. Although earnings are also improving in the rest of the world, relatively sluggish economic activity in Europe and a series of policy-related setbacks in EM countries ranging from Turkey to Brazil have prevented valuations from rising. Clear catalysts seem elusive for eurozone stocks, for example, despite their attractive valuations. Investors may be waiting to see how the European Central Bank handles the transition from winding down its three-year-old asset purchase program to raising interest rates before they fully commit to take risk there.

In our view, dollar strength and U.S. equity market dominance will reverse only if 1) the U.S. economy appears to have materially weakened; or 2) the rest of the world shows signs of closing the gap. We do not expect either of those dynamics to take hold over the balance of 2018. Instead, we forecast little further change to major foreign exchange rates and a gradual rise in global stock prices, with the U.S. likely to end the year on top once again. Fortunately, unlike LeBron, U.S. stocks don't have to face the Golden State Warriors in the finals.

The "vs. the world" in the title of this section also evokes the fraying relations between the U.S. and its largest trading partners. This deterioration bears careful watching. While the world is not engaged in an actual "trade war" per se, U.S. trade protectionism and the retaliation it invites from countries as close as Canada or as far away as China will likely hamper global growth, albeit modestly. The direct impact is not massive given the relatively small amount of imports being taxed thus far, but the ripple effects to business and consumer confidence could be more damaging. The sharp drop in EM currencies like the Mexican peso has come partly in response to the uncertainty about ongoing trade negotiations among formerly friendly partners.

Despite increasingly adversarial economic relationships between the U.S. and other exporting countries, most of the macroeconomic news has been good so far in 2018, particularly in the United States. U.S. stocks should continue to benefit from lower individual and corporate tax burdens, vigorous private-sector hiring and consumer spending, and, yes, more government spending. And U.S. interest rates should keep rising gradually as evidence of strong growth becomes even more convincing, at least for this year.

German-U.S. 2-year spread Dollars per euro (right) 2.0% 1.6 1.0% 1.5 0.0% 1.4 -1.0% 1.3 -2.0% 1.2 -3.0% 1.1 -4.0% 1.0 2005 2007 2009 2011 2013 2015 2017

Figure 2: Burst of U.S. growth is widening interest rate gaps and supporting the U.S. dollar

Source: Bloomberg, as of 13 Jun 2018.

Theme 2:

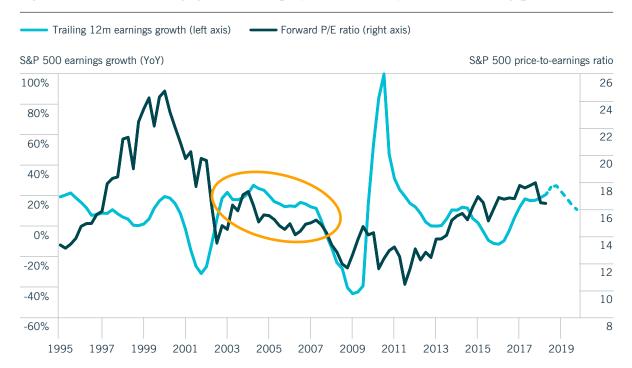
Beyond 2018—How does the U.S. expansion end?

Barring something unforeseen, we believe the course for the global economy and financial markets seems roughly set for the balance of 2018. Looking further ahead, Nuveen's GIC has considered the inevitable question asked whenever things are good: When and how will they turn bad? Investors have been conditioned to expect recessions to result from the bursting of major financial asset "bubbles" — a major reason we spend so much time looking for the next bubble on the horizon. In our view, however, the next recession may well be caused by something far more conventional: an economic overheating doused by higher interest rates from the Fed and the bond markets.

Economies run too hot when existing labor and capital cannot produce enough to meet a growing level of demand. The U.S. has a shortage of workers, with more job openings than unemployed individuals available to fill them. Moreover, the private sector's capital stock is as old as it's been since World War II, limiting productivity gains. When supply cannot meet demand, inflation soon follows. The U.S. economy has been running below its potential for most of the past decade, so overheating is a relatively unfamiliar problem. The solutions, though, are tried and tested: tighter monetary policy from the Fed, and, failing that, a bond market revolt that sends long-term interest rates significantly higher.

How would markets behave if the current expansion met its demise via a gradual denouement and not an implosion? We may already be seeing signs of the beginning of the end. Even as U.S. corporate profits growth peaked above 20% in the first quarter, a return to single-digit gains in 2019 is likely. And as higher U.S. interest rates begin to reduce credit growth and erode operating margins, we should also expect equity market valuations to fall, as they have already begun to do. A simultaneous drop in both profits growth and equity valuations — dual headwinds to returns — took place at the end of the previous cycle in the mid-2000s (Figure 3).

Figure 3: Both U.S. earnings growth and equity valuations may fall in the coming quarters



Source: Bloomberg, as of 13 Jun 2018. Dotted line represents earnings growth forecasts.

We also anticipate further increases in interest rates to levels the Fed considers "neutral." Today, that would mean a fed funds rate just below 3%, although that level may be exceeded should inflation risk become more pronounced. Rising interest rates present a short-term challenge for fixed income markets but will ultimately prove helpful to diversified investors seeking more income from their portfolios.

The GIC also discussed the possibility of the current nine-year run of U.S. growth lasting well into the next decade. Based on the admittedly scant data we have so far, the rise in private capital spending over the past 12 months appears to be contributing to increased worker productivity. In effect, the economy is creating more capacity for growth. This should ease concerns about a shrinking pool of available workers and a resulting sharp rise in wage inflation. A more productive workforce could also allow the U.S. to expand at a faster pace than it has, on average, since 2009, meaning interest rates can rise further without harming growth.

Theme 3: Lower returns, more defensive postures

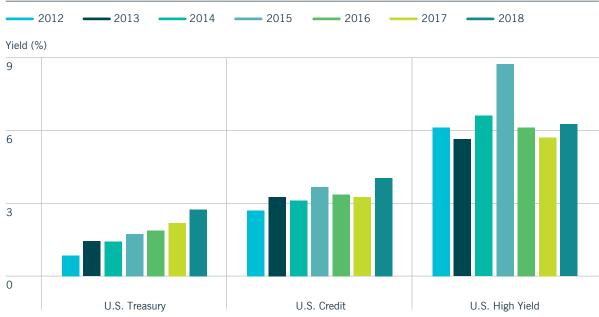
Our base case calls for solid-to-strong U.S. growth over at least the next 18 months, but a chance of a recession early in the next decade as the effects of economic stimulus wear off and the cumulative impact of higher interest rates takes hold. Because our short-term outlook remains constructive and the nature and timing of downside risk are uncertain, we are not yet ready to suggest moving into purely defensive assets. But GIC members representing various asset classes—including equities, fixed income, real estate and real assets—share a common view that index-based returns will be lower and that the incentive to move into higher-quality assets has increased.

These assets have become less expensive relative to their respective markets. Yields on U.S. Treasuries — the highest-rated segment of the U.S. fixed income market—have risen every year since 2012. Meanwhile, those in lower-rated categories like high yield bonds have remained steady as their spreads over Treasuries have narrowed (Figure 4). In equities, while the more defensive areas (consumer staples, utilities and telecommunications) are not yet among our preferred sectors, they are more likely to hold up in a downturn. A less conventional "defensive" measure in equities may lie in owning parts of the U.S. technology sector with strong secular growth patterns, which are not as susceptible to the whims of cyclical forces.

Our outlook is less certain for fixed income assets across the various segments of the U.S. market. For the most part, the steady widening of U.S. investment grade corporate bond spreads since January is not the result of deteriorating private balance sheets, but rather of diminishing demand for those bonds—especially from foreign investors—as risk-free rates have increased and currency hedging costs have risen. Because foreign money holds less sway in the municipal bond market, municipal bonds have avoided a comparable drop in investor demand—one factor among several that have driven their outperformance in the past two quarters.



Figure 4: De-risking bond portfolios no longer requires tolerating historically low yields



Source: Bloomberg, as of 13 Jun 2018.

Conclusion: no time to run and not many places to hide

We maintain a positive economic and market outlook for the remainder of 2018 into 2019. Investors who take risk in diversified portfolios will likely be rewarded for doing so, even though risk-free rates have increased. Across the many asset classes we cover, however, we are already considering ways to reduce positions that have performed well but now appear overvalued or particularly susceptible to a decelerating U.S. economy in the next several years.

While we do not expect such a slowdown to occur as the result of a market crash or bursting asset bubble, we are closely watching for evidence of late-cycle dynamics, including higher inflation and interest rates. In the past, these two factors have conspired to bring growth to a crawl. Fortunately, a variety of investments, including equities, foreign currencies and real assets, can be positioned to perform well in such an environment.

Asset allocation views from the Nuveen Solutions team

Based on Nuveen's asset class outlooks and investment themes, we offer the following asset allocation views and portfolio weights from neutral positions. These allocations are intended for investors with a long-term perspective. Additionally, we suggest possible adjustments for our clients who have differing investment objectives.



Asset class	∢ Negative	Neutral	Positive >
Equity			
U.S. Equity			
U.S. Large Cap Growth			
U.S. Large Cap Value			
U.S. Small Cap			
Non-U.S. Developed Markets			
Emerging Markets Equity			•
Fixed income			
U.S. Short-Term Fixed Income			
U.S. Aggregate Fixed Income		•	
U.S. 2-Year Treasury		•	
U.S. 10-Year Treasury			
U.S. 30-Year Treasury		•	
U.S. Investment Grade Corporates			
Investment Grade Municipal Bonds		•	
TIPS		•	
Leveraged Loans			
U.S. High Yield Corporates		•	
Preferreds		•	
Non-U.S. Developed Markets Fixed Income	•		
Emerging Markets Debt		•	
High Yield Municipal Bonds			
Alternatives			
U.S. Core Real Estate			
Mid-Market Loans		•	



- In general, we believe it is appropriate for investors to retain a broad risk-on stance given where we are in the market cycle.
- We have a preference for equities over bonds given valuations, and believe fixed income credit sectors look more attractive than government bonds.

For growth-oriented investors:

- Overweight U.S. and emerging markets equities, given strong earnings growth in these two regions.
- Overweight non-U.S. developed equities, given favorable relative valuations compared to fixed income in the same markets.
- Within U.S. equities, maintain market weights from a style and capitalization perspective.

For income-oriented investors:

- Although yields have compressed in areas such as high yield and leveraged loans, strong economic conditions suggest that credit risks are low.
- Maintain neutral weights for most equity allocations, given our balanced view between solid earnings and fuller valuations.
- Municipal bonds remain attractive for income-oriented investors relative to U.S. corporate bonds, given still-high levels of demand for municipals and solid fundamentals.

For capital preservation investors:

- Pay close attention to portfolio or policy limits on higher-risk assets such as equities and higher-yielding segments of the fixed income markets.
- While we have a favorable view toward equities and higher-risk credit sectors, these areas also have fuller valuations, meaning they remain more susceptible to downside price risk.

Frank van Etten
Asset Allocation and Solutions

The Nuveen Solutions team delivers the firm's expertise across asset classes to our clients through advice and insights, packaged investment capabilities and custom mandates.

About Nuveen

Nuveen, the investment manager of TIAA, offers a comprehensive range of outcome-focused investment solutions designed to secure the long-term financial goals of institutional and individual investors. Nuveen has \$967 billion in assets under management as of 31 Mar 2018 and operations in 16 countries. Its affiliates offer deep expertise across a comprehensive range of traditional and alternative investments through a wide array of vehicles and customized strategies.

For more information, please visit nuveen.com.

The statements contained herein are based upon the opinions of Nuveen and its affiliates, and the data available at the time of publication of this report, and there is no assurance that any predicted results will actually occur. Information and opinions discussed in this commentary may be superseded and we do not undertake to update such information.

A word on risk

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Past performance is no guarantee of future results. Performance results are not intended to represent any Nuveen investment or predict future investment performance. Prospective clients should review their investment objectives, risk tolerance, tax liability and liquidity needs before choosing a suitable investment style or manager. All investments carry a certain degree of risk and there is no assurance that an investment will provide positive performance over any period of time. Equity investing involves risk. Foreign investments are also subject to political, currency and regulatory risks. Diversification is a technique to help reduce risk. There is no guarantee that diversification will protect against a loss of income.

An investment in any municipal or taxable fixed income portfolio should be made with an understanding of the risks involved in investing in bonds. The value of the portfolio will fluctuate based on the value of the underlying securities. If sold prior to maturity, bonds are subject to gain/ losses based on the level of interest rates, market conditions and credit quality of the issuer. As interest rates rise, bond prices fall. Clients should contact their tax advisor regarding the suitability of tax-exempt investments in their portfolio. Income from municipal bonds may be subject to the alternative minimum tax (AMT) and/or state and local taxes, based on their state of residence. High yield or lower-rated taxable and municipal bonds carry greater credit risk and are subject to greater price volatility.

As an asset class, real assets are less developed, more illiquid, and less transparent compared to traditional asset classes. Investments will be subject to risks generally associated with the ownership of real estate-related assets and foreign investing, including changes in economic conditions, currency values, environmental risks, the cost of and ability to obtain insurance, and risks related to leasing of properties.

Reference to financial stability does not apply to investment products offered.

This material is prepared by Nuveen, LLC, and represents the views of Jose Minaya, Heather Davis, Lisa Black, Saira Malik, John Miller, Brian Nick, Amy O'Brien, Justin Ourso, Mike Sales and Frank van Etten as of June 2018. These views are presented for informational purposes only and are not intended to be a forecast of future events and are no guarantee of any future result. Information was obtained from third-party sources, which we believe to be reliable but are not guaranteed as to their accuracy or completeness. Certain products and services may not be available to all entities or persons.

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